



SRC ENERGY

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

**OH
PLAN #1**

Anticollision Report

03 October, 2017





Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	14,968.16	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	58.53	1,735.75	1,729.18	264.309	CC
BERG 33-15 (AB_150CC) - OH - OH	600.00	555.81	1,736.71	1,728.73	217.694	ES
BERG 33-15 (AB_150CC) - OH - OH	8,200.00	7,065.40	3,201.85	3,130.11	44.629	SF
BERRY 22-2(PR_75CC) - OH - OH	100.00	29.30	4,472.72	4,466.15	681.267	CC
BERRY 22-2(PR_75CC) - OH - OH	200.00	124.65	4,472.77	4,466.13	674.364	ES
BERRY 22-2(PR_75CC) - OH - OH	11,500.00	7,040.20	7,410.18	7,283.92	58.691	SF
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	0.00	20.18	4,472.72			
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	600.00	618.92	4,473.43	4,465.29	550.214	ES
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	11,500.00	7,411.45	7,418.49	7,290.31	57.878	SF
BLACKGOLD 3(AB_150CC) - OH - OH	7,963.71	7,154.11	1,182.65	1,110.11	16.305	CC
BLACKGOLD 3(AB_150CC) - OH - OH	8,000.00	7,154.30	1,183.20	1,109.95	16.152	ES
BLACKGOLD 3(AB_150CC) - OH - OH	8,300.00	7,155.86	1,229.53	1,150.54	15.567	SF
BURBACH 15-22(SI_150CC) - OH - OH	8,971.93	7,114.01	127.05	-183.40	0.409	Level 1, CC, ES, SF
BURBACH 15-23(SI_150CC) - OH - OH	9,387.90	7,102.79	1,446.77	1,126.30	4.515	CC
BURBACH 15-23(SI_150CC) - OH - OH	9,400.00	7,102.85	1,446.82	1,126.08	4.511	ES
BURBACH 15-23(SI_150CC) - OH - OH	9,500.00	7,103.28	1,451.10	1,128.26	4.495	SF
BURMAN 16-42(PR_75CC) - OH - OH	11,688.55	7,076.23	2,536.89	2,155.46	6.651	CC
BURMAN 16-42(PR_75CC) - OH - OH	11,800.00	7,075.74	2,539.34	2,155.17	6.610	ES
BURMAN 16-42(PR_75CC) - OH - OH	12,000.00	7,074.88	2,555.94	2,167.50	6.580	SF
BURMAN 16-43(PR_75CC) - OH - OH	11,746.34	7,072.98	4,036.73	3,653.81	10.542	CC
BURMAN 16-43(PR_75CC) - OH - OH	11,800.00	7,072.74	4,037.08	3,652.76	10.504	ES
BURMAN 16-43(PR_75CC) - OH - OH	12,500.00	7,069.71	4,106.48	3,706.14	10.258	SF
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	13,270.94	10,490.30	4,570.82	4,269.67	15.178	CC
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	14,969.16	12,348.93	4,607.79	4,199.08	11.274	ES, SF
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	14,969.16	12,345.72	4,748.16	4,342.35	11.700	CC, ES, SF
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	7,502.91	16,511.92	1,009.08	707.24	3.343	CC
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	10,100.00	19,107.02	1,103.36	670.93	2.552	ES, SF
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	7,495.98	16,416.96	834.32	531.27	2.753	CC
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	10,100.00	19,019.88	896.72	462.22	2.064	ES, SF
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,031.18	7,255.95	4,458.69	4,222.98	18.916	CC
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,200.00	7,264.98	4,461.88	4,221.55	18.566	ES
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,969.16	7,307.86	4,556.12	4,298.71	17.700	SF
FRITZLER 11-21(PR_150CC) - OH - OH	14,644.37	7,042.40	5,109.43	4,646.52	11.038	CC
FRITZLER 11-21(PR_150CC) - OH - OH	14,800.00	7,041.73	5,111.80	4,644.77	10.945	ES
FRITZLER 11-21(PR_150CC) - OH - OH	14,969.16	7,041.00	5,119.74	4,648.47	10.864	SF
FRITZLER 1-17(PR_150CC) - OH - OH	14,969.16	7,056.00	3,861.28	3,394.18	8.267	CC, ES, SF
FRITZLER 17-23-18(PR_150CC) - OH - OH	14,969.16	7,318.03	4,263.59	4,040.59	19.120	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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	14,969.16	7,485.51	2,339.37	2,113.85	10.373	CC, ES, SF
FRITZLER 17-42-11(PR_150CC) - OH - MWD	14,969.16	7,469.27	1,806.73	1,543.48	6.863	CC, ES, SF
FRITZLER 34-17(PR_150CC) - OH - OH	14,969.16	7,075.62	4,373.54	4,135.61	18.382	CC, ES, SF
FRITZLER 43-17(PR_150CC) - OH - OH	14,969.16	7,278.98	2,582.41	2,333.48	10.374	CC, ES, SF
FRITZLER 6-6-17 (PR_150CC) - OH - OH	14,969.16	7,130.09	3,481.20	3,240.34	14.453	CC, ES, SF
FRITZLER 6-8-17(PR_150CC) - OH - OH	14,969.16	7,202.46	4,622.93	4,374.49	18.608	CC, ES, SF
FRITZLER 8-8-17(PR_150CC) - OH - OH	14,969.16	7,089.62	4,430.36	4,169.68	16.995	CC, ES, SF
GREELEY SWD #1(XX) - OH - OH	10,321.82	7,064.15	4,294.07	3,950.40	12.495	CC
GREELEY SWD #1(XX) - OH - OH	10,400.00	7,063.82	4,294.78	3,949.11	12.424	ES
GREELEY SWD #1(XX) - OH - OH	11,400.00	7,059.48	4,427.36	4,059.15	12.024	SF
HARVESTER 31-15(SI_150CC) - OH - OH	6,022.78	5,955.88	614.71	561.67	11.589	CC
HARVESTER 31-15(SI_150CC) - OH - OH	6,600.00	6,535.57	617.76	559.63	10.627	ES
HARVESTER 31-15(SI_150CC) - OH - OH	6,700.00	6,638.37	625.99	566.97	10.607	SF
HARVESTER 32-15(SI_150CC) - OH - OH	606.37	586.02	552.39	544.31	68.429	CC, ES
HARVESTER 32-15(SI_150CC) - OH - OH	6,700.00	6,603.86	1,298.90	1,240.54	22.257	SF
HARVESTER STATE 30C-16-M - OH - PLAN #1	200.00	201.00	59.74	53.07	8.950	CC, ES
HARVESTER STATE 30C-16-M - OH - PLAN #1	14,969.16	15,216.01	767.89	317.97	1.707	SF
HARVESTER STATE 30N-16B-M - OH - PLAN #1	300.00	301.00	40.07	33.18	5.815	CC, ES
HARVESTER STATE 30N-16B-M - OH - PLAN #1	14,969.16	14,946.29	542.22	86.70	1.190	Level 2, SF
HARVESTER STATE 31C-16-M - OH - PLAN #1	600.00	600.00	40.08	31.99	4.953	CC
HARVESTER STATE 31C-16-M - OH - PLAN #1	14,969.16	15,009.58	361.32	-75.75	0.827	Level 1, ES, SF
HARVESTER STATE 33C-16-M - OH - PLAN #1	200.00	199.00	339.92	333.25	50.938	CC, ES
HARVESTER STATE 33C-16-M - OH - PLAN #1	14,969.16	15,237.65	3,013.36	2,557.60	6.612	SF
HARVESTER STATE 34C-16-M - OH - PLAN #1	200.00	198.00	460.14	453.46	68.961	CC, ES
HARVESTER STATE 34C-16-M - OH - PLAN #1	14,969.16	15,756.39	4,275.26	3,819.15	9.373	SF
HARVESTER STATE 5C-16-M - OH - PLAN #1	600.00	600.00	80.16	72.06	9.905	CC, ES
HARVESTER STATE 5C-16-M - OH - PLAN #1	14,969.16	14,984.20	790.22	337.51	1.746	SF
HARVESTER STATE 12N-16B-M - OH - PLAN #1	200.00	199.00	300.21	293.54	44.987	CC, ES
HARVESTER STATE 12N-16B-M - OH - PLAN #1	14,969.16	14,963.62	2,593.56	2,137.86	5.691	SF
HARVESTER STATE 13C-16-M - OH - PLAN #1	200.00	198.00	400.03	393.36	59.953	CC, ES
HARVESTER STATE 13C-16-M - OH - PLAN #1	14,969.16	15,408.24	3,644.50	3,188.68	7.995	SF
HARVESTER STATE 33N-16C-M - OH - PLAN #1	200.00	198.00	379.99	373.32	56.950	CC, ES
HARVESTER STATE 33N-16C-M - OH - PLAN #1	14,969.16	15,247.49	3,431.81	2,975.84	7.527	SF
HARVESTER STATE 4C-16-M - OH - PLAN #1	500.00	501.00	20.03	14.29	3.490	CC
HARVESTER STATE 4C-16-M - OH - PLAN #1	14,969.16	15,116.21	373.83	-58.02	0.866	Level 1, ES, SF
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,116.53	7,387.27	243.35	194.51	4.983	CC, ES
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,200.00	7,407.97	261.57	202.86	4.455	SF
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	6,999.94	7,379.13	537.68	484.38	10.088	CC
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,000.00	7,379.16	537.68	484.38	10.087	ES
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	7,100.00	7,422.30	553.43	495.18	9.501	SF
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,840.12	7,326.22	892.37	834.48	15.414	CC, ES
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	7,000.00	7,346.11	925.67	863.86	14.977	SF
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,818.27	7,357.41	1,208.94	1,147.83	19.783	CC, ES
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,900.00	7,372.74	1,216.73	1,154.30	19.489	SF
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	200.00	199.00	320.24	313.57	47.989	CC, ES
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	14,969.16	14,896.72	2,808.13	2,353.19	6.173	SF
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	200.00	199.00	280.16	273.49	41.983	CC, ES
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	14,969.16	14,963.97	2,383.54	1,928.49	5.238	SF
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	200.00	198.00	420.06	413.39	62.955	CC, ES
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	14,969.16	15,311.24	3,853.38	3,397.42	8.451	SF
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	732.73	735.39	55.84	47.00	6.316	CC, ES
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	14,969.16	14,813.16	587.38	151.71	1.348	Level 3, SF
HARVESTERS STATE 32C-16-M - OH - PLAN #1	200.00	199.00	260.13	253.45	38.980	CC, ES

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-16C-M
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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 32C-16-M - OH - PLAN #1	14,969.16	15,073.02	2,175.11	1,680.03	4.393	SF
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	500.00	500.00	140.27	132.65	18.427	CC, ES
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	14,969.16	14,996.50	1,446.98	991.86	3.179	SF
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	300.00	299.00	240.09	233.20	34.854	CC, ES
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	14,969.16	14,860.34	1,974.88	1,519.51	4.337	SF
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	508.33	508.33	159.93	152.28	20.908	CC
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	600.00	598.97	160.00	151.91	19.783	ES
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	14,969.16	14,902.43	1,661.04	1,205.24	3.644	SF
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	200.00	199.00	359.94	353.27	53.938	CC, ES
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	14,969.16	15,118.86	3,225.38	2,769.62	7.077	SF
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	200.00	198.00	440.10	433.43	65.958	CC, ES
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	14,969.16	15,456.98	4,063.11	3,607.02	8.909	SF
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	600.00	600.00	20.04	11.95	2.477	CC
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	14,969.16	14,731.34	216.34	-61.70	0.778	Level 1, ES, SF
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	400.00	400.00	120.22	113.02	16.682	CC, ES
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	14,969.16	14,802.05	1,123.79	669.07	2.471	SF
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	500.00	500.00	100.19	92.58	13.162	CC
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	600.00	600.04	100.22	92.13	12.395	ES
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	14,969.16	14,856.79	1,000.80	545.37	2.197	SF
HOOD 41-20(PR_150CC) - OH - OH	14,969.16	7,048.00	5,187.11	4,718.20	11.062	CC, ES, SF
HOOD 6-2-20(PR_150CC) - OH - OH	14,969.16	7,428.91	5,923.30	5,668.19	23.219	CC, ES, SF
LEFFLER 1 21-2(SI_75CC) - OH - OH	11,992.22	7,013.34	5,157.69	4,983.24	29.566	CC
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,100.00	7,018.33	5,158.81	4,981.47	29.090	ES
LEFFLER 1 21-2(SI_75CC) - OH - OH	14,000.00	7,109.14	5,533.69	5,317.40	25.585	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	10,017.54	7,638.10	4,884.21	4,756.88	38.357	CC
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	10,200.00	7,569.44	4,886.53	4,755.22	37.214	ES
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	12,800.00	7,049.69	5,464.67	5,281.92	29.903	SF
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	9,988.45	7,520.59	4,603.40	4,477.07	36.439	CC
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	10,100.00	7,484.32	4,604.32	4,475.50	35.744	ES
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	12,600.00	6,976.70	5,148.89	4,970.46	28.857	SF
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,333.37	7,050.09	5,334.90	4,908.56	12.513	CC
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,500.00	7,049.37	5,337.50	4,906.75	12.391	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	14,500.00	7,045.03	5,460.97	5,007.82	12.051	SF
LOVELY 1(AB_150CC) - OH - OH	13,110.53	7,101.94	1,460.49	1,038.58	3.462	CC, ES
LOVELY 1(AB_150CC) - OH - OH	13,200.00	7,102.33	1,463.23	1,038.84	3.448	SF
LOVELY 14-9(AB_150CC) - OH - OH	14,608.16	7,105.44	1,447.16	983.07	3.118	CC, ES
LOVELY 14-9(AB_150CC) - OH - OH	14,700.00	7,105.84	1,450.07	983.53	3.108	SF
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,382.11	7,129.89	1,416.50	1,068.91	4.075	CC
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,400.00	7,129.82	1,416.61	1,068.49	4.069	ES
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,500.00	7,129.38	1,421.40	1,070.60	4.052	SF
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,597.74	7,084.62	1,429.64	1,050.42	3.770	CC
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,600.00	7,084.61	1,429.64	1,050.36	3.769	ES
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,700.00	7,084.18	1,433.29	1,051.27	3.752	SF
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,344.38	4,452.00	5,755.62	5,455.44	19.174	CC
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,500.00	4,452.00	5,757.73	5,453.77	18.943	ES
MAURICE LEFFLER 1(AB_150CC) - OH - OH	14,969.16	4,452.00	5,980.56	5,646.49	17.902	SF
MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH	14,969.16	7,396.85	3,073.60	2,812.57	11.775	CC, ES, SF
MCGLOTHLIN 17-11(PR_75CC) - OH - OH	14,969.16	7,079.00	1,035.34	706.25	3.146	CC, ES, SF
MONTERA 10-34 (PR_75CC) - OH - OH	6,933.69	6,862.53	1,237.83	1,177.19	20.413	CC, ES
MONTERA 10-34 (PR_75CC) - OH - OH	7,100.00	6,988.35	1,249.07	1,186.97	20.115	SF
RUTT-ADAMS HEIRS 2-22 - OH - OH	600.00	540.00	4,425.53	4,404.06	206.185	CC
RUTT-ADAMS HEIRS 2-22 - OH - OH	700.00	639.98	4,427.14	4,401.96	175.862	ES
RUTT-ADAMS HEIRS 2-22 - OH - OH	9,900.00	7,070.98	5,608.47	5,281.49	17.152	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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
SENA 15-21(PR_75CC) - OH - OH	7,959.27	7,134.40	103.92	-185.24	0.359	Level 1, CC, ES, SF
SENA 15-24(PR_75CC) - OH - OH	600.00	581.00	1,125.20	1,102.33	49.197	CC
SENA 15-24(PR_75CC) - OH - OH	7,946.09	7,120.46	1,201.53	913.08	4.165	ES
SENA 15-24(PR_75CC) - OH - OH	8,000.00	7,120.23	1,202.74	913.51	4.158	SF
SENA 15-25(PR_75CC) - OH - OH	8,300.52	7,125.92	507.58	212.10	1.718	CC, ES, SF
STATE 1(AB_150CC) - OH - OH	11,788.85	7,073.79	121.44	-262.67	0.316	Level 1, CC, ES, SF
STATE BEATRICE 16-1(AB_150CC) - OH - OH	11,917.93	7,075.23	146.71	-241.03	0.378	Level 1, CC, ES, SF
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,766.24	7,068.89	1,331.25	947.93	3.473	CC
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,800.00	7,068.74	1,331.68	947.58	3.467	ES, SF
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,596.08	7,053.61	3,942.44	3,480.50	8.535	CC
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,700.00	7,053.16	3,943.81	3,479.15	8.488	ES
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,969.16	7,052.00	3,960.05	3,489.08	8.408	SF
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,409.51	7,071.76	2,490.76	2,061.53	5.803	CC
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,500.00	7,071.37	2,492.41	2,060.94	5.777	ES
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,700.00	7,070.50	2,507.64	2,072.09	5.757	SF
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,579.11	7,067.65	1,293.71	1,046.62	5.236	CC
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,600.00	7,068.06	1,293.88	1,046.29	5.226	ES
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,700.00	7,070.03	1,299.35	1,050.18	5.215	SF
STOCKOVER 16-1(PR_75CC) - OH - OH	10,458.15	7,066.56	2,547.26	2,199.83	7.332	CC
STOCKOVER 16-1(PR_75CC) - OH - OH	10,500.00	7,066.38	2,547.60	2,199.14	7.311	ES
STOCKOVER 16-1(PR_75CC) - OH - OH	10,800.00	7,065.08	2,570.10	2,214.94	7.237	SF
ULRICH PC I 17-07D(PR_75CC) - OH - OH	14,969.16	7,186.53	2,469.94	2,322.09	16.705	CC, ES, SF
ULRICH PC I 17-08(PR_75CC) - OH - OH	14,969.16	7,070.00	1,493.29	1,077.07	3.588	CC, ES, SF
ULRICH PC I17-17D(PR_75CC) - OH - OH	14,969.16	7,284.35	1,733.26	1,643.32	19.269	CC, ES, SF

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 Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	38.00	3.28	3.28	168.40	-1,700.22	349.09	1,736.10							
100.00	100.00	58.53	96.53	3.28	3.28	168.40	-1,700.28	349.09	1,735.75	1,729.18	6.57	264.309	CC			
200.00	200.00	156.51	194.51	3.34	3.31	168.40	-1,700.59	349.07	1,736.05	1,729.41	6.65	261.109				
300.00	300.00	259.23	297.23	3.44	3.40	168.41	-1,700.91	348.86	1,736.32	1,729.47	6.85	253.649				
400.00	400.00	360.33	398.33	3.60	3.54	168.41	-1,701.02	348.78	1,736.41	1,729.27	7.14	243.104				
500.00	500.00	460.01	498.01	3.81	3.72	168.41	-1,701.13	348.81	1,736.52	1,728.99	7.53	230.709				
600.00	600.00	555.81	593.81	4.05	3.93	168.41	-1,701.28	348.94	1,736.71	1,728.73	7.98	217.694	ES			
700.00	699.98	652.09	690.08	4.32	4.17	177.56	-1,701.76	349.04	1,738.96	1,730.47	8.49	204.784				
800.00	799.84	754.20	792.20	4.62	4.46	177.57	-1,702.36	348.89	1,744.73	1,735.66	9.08	192.246				
900.00	899.45	857.37	895.36	4.94	4.77	177.60	-1,702.81	348.34	1,753.75	1,744.05	9.71	180.659				
1,000.00	998.70	958.64	996.63	5.28	5.09	177.62	-1,703.09	347.82	1,766.10	1,755.73	10.37	170.292				
1,100.00	1,097.50	1,055.28	1,093.27	5.64	5.41	177.66	-1,703.35	347.14	1,781.66	1,770.60	11.05	161.222				
1,200.00	1,196.18	1,151.88	1,189.86	6.00	5.75	177.70	-1,703.80	346.58	1,798.15	1,786.40	11.75	153.071				
1,300.00	1,294.87	1,250.53	1,288.52	6.38	6.10	177.74	-1,704.28	345.92	1,814.65	1,802.18	12.47	145.492				
1,400.00	1,393.55	1,350.89	1,388.86	6.77	6.47	177.79	-1,704.78	345.11	1,831.15	1,817.92	13.22	138.485				
1,500.00	1,492.23	1,454.06	1,492.04	7.17	6.85	177.84	-1,705.09	344.30	1,847.45	1,833.45	14.00	131.967				
1,600.00	1,590.91	1,555.76	1,593.73	7.58	7.24	177.88	-1,705.14	343.55	1,863.52	1,848.74	14.78	126.054				
1,700.00	1,689.60	1,652.95	1,690.92	8.00	7.61	177.93	-1,705.21	342.50	1,879.55	1,863.99	15.56	120.786				
1,800.00	1,788.28	1,748.21	1,786.17	8.42	7.98	177.98	-1,705.41	341.59	1,895.74	1,879.40	16.34	116.020				
1,900.00	1,886.96	1,845.75	1,883.70	8.84	8.37	178.02	-1,705.76	340.66	1,912.07	1,894.94	17.14	111.582				

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,000.00	1,985.64	1,943.16	1,981.11	9.27	8.75	178.07	-1,706.12	339.69	1,928.41	1,910.47	17.94	107.498		
2,100.00	2,084.33	2,039.73	2,077.67	9.71	9.14	178.12	-1,706.66	338.54	1,944.89	1,926.15	18.74	103.760		
2,200.00	2,183.01	2,138.35	2,176.29	10.15	9.53	178.17	-1,707.19	337.50	1,961.39	1,941.82	19.56	100.255		
2,300.00	2,281.69	2,235.18	2,273.11	10.59	9.92	178.21	-1,707.70	336.83	1,977.94	1,957.56	20.38	97.052		
2,400.00	2,380.38	2,335.41	2,373.34	11.03	10.33	178.25	-1,708.32	336.02	1,994.56	1,973.34	21.22	94.012		
2,500.00	2,479.06	2,440.48	2,478.40	11.47	10.76	178.30	-1,708.67	334.99	2,010.87	1,988.79	22.08	91.081		
2,600.00	2,577.74	2,541.18	2,579.10	11.92	11.17	178.33	-1,708.80	334.25	2,027.03	2,004.11	22.92	88.429		
2,700.00	2,676.42	2,638.85	2,676.77	12.36	11.57	178.36	-1,708.81	333.72	2,043.11	2,019.36	23.76	86.003		
2,800.00	2,775.11	2,733.57	2,771.49	12.81	11.96	178.39	-1,709.01	333.23	2,059.39	2,034.81	24.58	83.788		
2,900.00	2,873.79	2,832.58	2,870.49	13.26	12.37	178.41	-1,709.30	332.70	2,075.74	2,050.32	25.42	81.646		
3,000.00	2,972.47	2,931.52	2,969.43	13.72	12.78	178.44	-1,709.49	332.27	2,092.03	2,065.76	26.27	79.633		
3,100.00	3,071.15	3,026.09	3,064.00	14.17	13.17	178.46	-1,709.81	331.83	2,108.44	2,081.34	27.10	77.806		
3,200.00	3,169.84	3,123.29	3,161.20	14.62	13.58	178.49	-1,710.32	331.33	2,125.02	2,097.08	27.94	76.053		
3,300.00	3,268.52	3,229.57	3,267.48	15.08	14.02	178.51	-1,710.63	331.11	2,141.44	2,112.61	28.83	74.276		
3,400.00	3,367.20	3,338.69	3,376.60	15.53	14.47	178.54	-1,710.51	330.55	2,157.41	2,127.68	29.73	72.555		
3,500.00	3,465.89	3,439.86	3,477.76	15.99	14.90	178.56	-1,710.03	329.90	2,173.01	2,142.41	30.60	71.012		
3,600.00	3,564.57	3,531.68	3,569.58	16.44	15.28	178.59	-1,709.80	329.19	2,188.80	2,157.38	31.42	69.660		
3,700.00	3,663.25	3,622.01	3,659.91	16.90	15.66	178.62	-1,709.86	328.53	2,204.91	2,172.67	32.24	68.400		
3,800.00	3,761.93	3,707.97	3,745.86	17.36	16.02	178.65	-1,710.39	327.84	2,221.53	2,188.50	33.03	67.264		
3,900.00	3,860.62	3,805.41	3,843.29	17.82	16.43	178.68	-1,711.29	327.04	2,238.45	2,204.58	33.88	66.072		
4,000.00	3,959.30	3,913.40	3,951.28	18.28	16.88	178.72	-1,712.05	326.28	2,255.19	2,220.40	34.79	64.827		
4,100.00	4,057.98	4,011.85	4,049.73	18.74	17.30	178.74	-1,712.57	325.57	2,271.74	2,236.09	35.65	63.728		
4,200.00	4,156.67	4,111.09	4,148.96	19.20	17.72	178.78	-1,713.08	324.76	2,288.27	2,251.76	36.51	62.673		
4,300.00	4,255.35	4,219.11	4,256.98	19.66	18.17	178.80	-1,713.43	324.04	2,304.65	2,267.22	37.42	61.584		
4,400.00	4,354.03	4,335.85	4,373.71	20.12	18.66	178.84	-1,712.86	323.08	2,320.17	2,281.79	38.38	60.454		
4,500.00	4,452.71	4,431.02	4,468.87	20.58	19.06	178.86	-1,712.29	322.30	2,335.62	2,296.40	39.22	59.547		
4,600.00	4,551.40	4,540.28	4,578.13	21.04	19.52	178.89	-1,711.59	321.21	2,351.01	2,310.86	40.14	58.568		
4,700.00	4,650.08	4,646.59	4,684.43	21.50	19.97	178.92	-1,710.18	320.14	2,365.70	2,324.66	41.05	57.637		
4,800.00	4,748.76	4,740.56	4,778.38	21.96	20.36	178.92	-1,708.95	320.23	2,380.62	2,338.73	41.89	56.836		
4,900.00	4,847.44	4,830.29	4,868.10	22.42	20.74	178.94	-1,707.98	319.43	2,395.59	2,352.89	42.70	56.098		
5,000.00	4,946.13	4,902.15	4,939.95	22.89	21.05	178.97	-1,707.94	318.47	2,411.48	2,368.05	43.43	55.532		
5,100.00	5,044.81	4,992.96	5,030.77	23.35	21.43	178.99	-1,708.42	317.92	2,428.07	2,383.82	44.25	54.874		
5,200.00	5,143.49	5,130.13	5,167.93	23.81	22.01	178.99	-1,708.00	318.27	2,443.97	2,398.65	45.32	53.922		
5,300.00	5,242.18	5,238.10	5,275.89	24.27	22.46	178.97	-1,706.50	318.95	2,458.90	2,412.66	46.24	53.176		
5,400.00	5,340.86	5,329.38	5,367.15	24.74	22.84	178.95	-1,705.13	319.82	2,473.79	2,426.72	47.07	52.556		
5,500.00	5,439.54	5,409.54	5,447.31	25.20	23.18	178.93	-1,704.38	320.93	2,489.29	2,441.45	47.84	52.037		
5,600.00	5,538.22	5,491.64	5,529.40	25.66	23.52	178.92	-1,704.23	321.84	2,505.48	2,456.87	48.61	51.540		
5,700.00	5,636.91	5,612.06	5,649.81	26.13	24.03	178.90	-1,704.05	322.75	2,521.66	2,472.05	49.60	50.838		
5,800.00	5,735.59	5,703.84	5,741.58	26.59	24.42	178.88	-1,703.56	323.90	2,537.53	2,487.10	50.43	50.315		
5,900.00	5,834.27	5,808.05	5,845.79	27.06	24.85	178.87	-1,703.09	324.51	2,553.37	2,502.04	51.33	49.742		
6,000.00	5,932.95	5,899.69	5,937.43	27.52	25.24	178.87	-1,702.77	324.75	2,569.25	2,517.09	52.16	49.255		
6,100.00	6,031.64	5,992.21	6,029.94	27.98	25.63	178.85	-1,702.50	325.95	2,585.37	2,532.38	53.00	48.783		
6,200.00	6,130.32	6,074.24	6,111.95	28.45	25.98	178.82	-1,702.49	327.67	2,601.91	2,548.14	53.77	48.389		
6,300.00	6,229.00	6,184.07	6,221.77	28.91	26.44	178.79	-1,702.87	329.59	2,618.74	2,564.04	54.71	47.870		
6,400.00	6,327.69	6,288.56	6,326.25	29.38	26.88	178.76	-1,702.71	331.17	2,635.04	2,579.43	55.61	47.384		
6,500.00	6,426.37	6,373.66	6,411.32	29.84	27.24	178.73	-1,702.63	332.89	2,651.48	2,595.08	56.40	47.011		
6,600.00	6,525.05	6,447.04	6,484.69	30.31	27.55	178.71	-1,703.10	334.21	2,668.63	2,611.50	57.12	46.719		
6,700.00	6,623.18	6,527.41	6,565.04	30.77	27.89	-139.59	-1,704.49	335.79	2,687.84	2,629.96	57.88	46.438		
6,800.00	6,718.58	6,659.98	6,697.58	31.22	28.45	-122.02	-1,706.44	336.73	2,708.62	2,649.66	58.96	45.941		
6,900.00	6,808.91	6,760.07	6,777.54	31.66	28.88	-113.28	-1,706.91	336.52	2,730.26	2,670.46	59.81	45.652		
7,000.00	6,891.95	6,822.66	6,860.26	32.07	29.15	-108.03	-1,707.82	336.78	2,754.27	2,693.76	60.51	45.515		
7,100.00	6,965.65	6,896.03	6,933.62	32.51	29.46	-104.27	-1,708.64	337.02	2,780.24	2,718.96	61.29	45.364		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,200.00	7,028.20	6,958.24	6,995.82	33.02	29.72	-101.15	-1,709.32	337.22	2,808.28	2,746.22	62.06	45.251		
7,300.00	7,078.04	7,007.75	7,045.33	33.68	29.93	-98.23	-1,709.87	337.38	2,838.43	2,775.58	62.85	45.159		
7,400.00	7,113.97	7,043.34	7,080.92	34.52	30.08	-95.28	-1,710.27	337.50	2,870.58	2,806.90	63.68	45.080		
7,500.00	7,135.09	7,064.14	7,101.72	35.53	30.17	-92.16	-1,710.50	337.57	2,904.40	2,839.87	64.53	45.011		
7,600.00	7,140.96	7,069.71	7,107.29	36.68	30.20	-89.20	-1,710.56	337.58	2,939.35	2,873.97	65.37	44.963		
7,700.00	7,140.53	7,068.99	7,106.57	37.99	30.19	-89.19	-1,710.55	337.58	2,976.31	2,910.03	66.28	44.906		
7,800.00	7,140.09	7,068.28	7,105.85	39.45	30.19	-89.17	-1,710.54	337.58	3,016.14	2,948.87	67.27	44.834		
7,900.00	7,139.66	7,067.56	7,105.14	41.06	30.19	-89.16	-1,710.53	337.58	3,058.73	2,990.39	68.33	44.761		
8,000.00	7,139.23	7,066.84	7,104.42	42.80	30.18	-89.14	-1,710.53	337.57	3,103.95	3,034.50	69.44	44.697		
8,100.00	7,138.79	7,066.12	7,103.70	44.65	30.18	-89.13	-1,710.52	337.57	3,151.69	3,081.11	70.59	44.651		
8,200.00	7,138.36	7,065.40	7,102.98	46.60	30.18	-89.11	-1,710.51	337.57	3,201.85	3,130.11	71.74	44.629 SF		
8,300.00	7,137.93	7,064.68	7,102.26	48.65	30.18	-89.10	-1,710.50	337.57	3,254.31	3,181.40	72.91	44.636		
8,400.00	7,137.49	7,063.96	7,101.54	50.77	30.17	-89.08	-1,710.49	337.56	3,308.96	3,234.89	74.07	44.675		
8,500.00	7,137.06	7,063.24	7,100.82	52.95	30.17	-89.07	-1,710.49	337.56	3,365.69	3,290.48	75.21	44.748		
8,600.00	7,136.62	7,062.52	7,100.10	55.20	30.17	-89.05	-1,710.48	337.56	3,424.41	3,348.07	76.34	44.856		
8,700.00	7,136.19	7,061.80	7,099.38	57.51	30.16	-89.04	-1,710.47	337.56	3,485.00	3,407.56	77.45	44.998		
8,800.00	7,135.76	7,061.08	7,098.66	59.85	30.16	-89.02	-1,710.46	337.56	3,547.38	3,468.86	78.53	45.174		
8,900.00	7,135.32	7,060.36	7,097.94	62.24	30.16	-89.01	-1,710.45	337.55	3,611.46	3,531.88	79.57	45.384		
9,000.00	7,134.89	7,059.65	7,097.22	64.67	30.15	-88.99	-1,710.45	337.55	3,677.13	3,596.54	80.59	45.627		
9,100.00	7,134.45	7,058.93	7,096.51	67.13	30.15	-88.98	-1,710.44	337.55	3,744.32	3,662.75	81.57	45.900		
9,200.00	7,134.02	7,058.21	7,095.79	69.62	30.15	-88.96	-1,710.43	337.55	3,812.96	3,730.43	82.52	46.204		
9,300.00	7,133.59	7,057.49	7,095.07	72.14	30.15	-88.95	-1,710.42	337.54	3,882.95	3,799.51	83.44	46.535		
9,400.00	7,133.15	7,056.77	7,094.35	74.68	30.14	-88.93	-1,710.41	337.54	3,954.23	3,869.91	84.32	46.894		
9,500.00	7,132.72	7,056.05	7,093.63	77.24	30.14	-88.92	-1,710.41	337.54	4,026.74	3,941.57	85.17	47.278		
9,600.00	7,132.29	7,055.33	7,092.91	79.83	30.14	-88.90	-1,710.40	337.54	4,100.40	4,014.41	85.99	47.686		
9,700.00	7,131.85	7,054.61	7,092.19	82.42	30.13	-88.89	-1,710.39	337.53	4,175.16	4,088.39	86.77	48.116		
9,800.00	7,131.42	7,053.89	7,091.47	85.04	30.13	-88.87	-1,710.38	337.53	4,250.96	4,163.43	87.53	48.568		
9,900.00	7,130.98	7,053.17	7,090.75	87.67	30.13	-88.86	-1,710.37	337.53	4,327.74	4,239.49	88.25	49.040		
10,000.00	7,130.55	7,052.45	7,090.03	90.31	30.12	-88.84	-1,710.37	337.53	4,405.45	4,316.50	88.94	49.531		
10,100.00	7,130.12	7,051.73	7,089.31	92.97	30.12	-88.83	-1,710.36	337.53	4,484.04	4,394.43	89.61	50.040		
10,200.00	7,129.68	7,051.01	7,088.59	95.63	30.12	-88.81	-1,710.35	337.52	4,563.47	4,473.22	90.25	50.565		
10,300.00	7,129.25	7,050.30	7,087.88	98.31	30.11	-88.80	-1,710.34	337.52	4,643.70	4,552.84	90.86	51.106		
10,400.00	7,128.82	7,049.58	7,087.16	101.00	30.11	-88.78	-1,710.34	337.52	4,724.68	4,633.23	91.45	51.663		
10,500.00	7,128.38	7,048.86	7,086.44	103.69	30.11	-88.77	-1,710.33	337.52	4,806.38	4,714.36	92.02	52.233		
10,600.00	7,127.95	7,048.14	7,085.72	106.39	30.11	-88.75	-1,710.32	337.51	4,888.75	4,796.19	92.56	52.816		
10,700.00	7,127.51	7,047.42	7,085.00	109.10	30.10	-88.74	-1,710.31	337.51	4,971.78	4,878.69	93.08	53.411		
10,800.00	7,127.08	7,046.70	7,084.28	111.82	30.10	-88.72	-1,710.30	337.51	5,055.42	4,961.83	93.59	54.019		
10,900.00	7,126.65	7,045.98	7,083.56	114.54	30.10	-88.71	-1,710.30	337.51	5,139.64	5,045.57	94.07	54.637		
11,000.00	7,126.21	7,045.26	7,082.84	117.27	30.09	-88.69	-1,710.29	337.50	5,224.42	5,129.89	94.53	55.266		
11,100.00	7,125.78	7,044.54	7,082.12	120.01	30.09	-88.68	-1,710.28	337.50	5,309.73	5,214.75	94.98	55.904		
11,200.00	7,125.35	7,043.82	7,081.40	122.75	30.09	-88.66	-1,710.27	337.50	5,395.54	5,300.13	95.41	56.552		
11,300.00	7,124.91	7,043.10	7,080.68	125.49	30.08	-88.65	-1,710.26	337.50	5,481.83	5,386.01	95.82	57.208		
11,400.00	7,124.48	7,042.38	7,079.96	128.24	30.08	-88.63	-1,710.26	337.49	5,568.59	5,472.36	96.22	57.873		
11,500.00	7,124.04	7,041.67	7,079.25	131.00	30.08	-88.62	-1,710.25	337.49	5,655.78	5,559.17	96.61	58.545		
11,600.00	7,123.61	7,040.95	7,078.53	133.75	30.07	-88.60	-1,710.24	337.49	5,743.38	5,646.41	96.98	59.225		
11,700.00	7,123.18	7,040.23	7,077.81	136.52	30.07	-88.59	-1,710.23	337.49	5,831.39	5,734.05	97.33	59.911		
11,800.00	7,122.74	7,039.51	7,077.09	139.28	30.07	-88.57	-1,710.22	337.49	5,919.77	5,822.10	97.68	60.604		
11,900.00	7,122.31	7,038.79	7,076.37	142.05	30.07	-88.56	-1,710.22	337.48	6,008.53	5,910.51	98.01	61.304		
12,000.00	7,121.88	7,038.07	7,075.65	144.82	30.06	-88.54	-1,710.21	337.48	6,097.62	5,999.29	98.33	62.009		
12,100.00	7,121.44	7,037.35	7,074.93	147.59	30.06	-88.53	-1,710.20	337.48	6,187.06	6,088.41	98.65	62.720		
12,200.00	7,121.01	7,036.63	7,074.21	150.37	30.06	-88.51	-1,710.19	337.48	6,276.81	6,177.86	98.95	63.436		
12,300.00	7,120.57	7,035.91	7,073.49	153.15	30.05	-88.50	-1,710.18	337.47	6,366.86	6,267.62	99.24	64.157		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
12,400.00	7,120.14	7,035.19	7,072.77	155.93	30.05	-88.48	-1,710.18	337.47	6,457.21	6,357.69	99.52	64.883	
12,500.00	7,119.71	7,034.47	7,072.05	158.72	30.05	-88.47	-1,710.17	337.47	6,547.84	6,448.05	99.80	65.613	
12,600.00	7,119.27	7,033.75	7,071.34	161.50	30.04	-88.45	-1,710.16	337.47	6,638.74	6,538.68	100.06	66.347	
12,700.00	7,118.84	7,033.03	7,070.62	164.29	30.04	-88.44	-1,710.15	337.46	6,729.90	6,629.58	100.32	67.086	
12,800.00	7,118.41	7,032.32	7,069.90	167.08	30.04	-88.42	-1,710.14	337.46	6,821.30	6,720.73	100.57	67.828	
12,900.00	7,117.97	7,031.60	7,069.18	169.88	30.03	-88.41	-1,710.14	337.46	6,912.94	6,812.13	100.81	68.574	
13,000.00	7,117.54	7,030.88	7,068.46	172.67	30.03	-88.39	-1,710.13	337.46	7,004.81	6,903.77	101.05	69.323	
13,100.00	7,117.10	7,030.16	7,067.74	175.47	30.03	-88.38	-1,710.12	337.46	7,096.90	6,995.63	101.28	70.076	
13,200.00	7,116.67	7,029.44	7,067.02	178.27	30.03	-88.36	-1,710.11	337.45	7,189.20	7,087.71	101.50	70.831	
13,300.00	7,116.24	7,028.72	7,066.30	181.07	30.02	-88.35	-1,710.10	337.45	7,281.71	7,179.99	101.71	71.589	
13,400.00	7,115.80	7,028.00	7,065.58	183.87	30.02	-88.33	-1,710.10	337.45	7,374.41	7,272.48	101.93	72.351	
13,500.00	7,115.37	7,027.28	7,064.86	186.67	30.02	-88.32	-1,710.09	337.45	7,467.30	7,365.17	102.13	73.114	
13,600.00	7,114.93	7,026.56	7,064.14	189.47	30.01	-88.30	-1,710.08	337.44	7,560.37	7,458.04	102.33	73.880	
13,700.00	7,114.50	7,025.84	7,063.42	192.28	30.01	-88.29	-1,710.07	337.44	7,653.61	7,551.08	102.53	74.649	
13,800.00	7,114.07	7,025.12	7,062.71	195.09	30.01	-88.27	-1,710.06	337.44	7,747.03	7,644.31	102.72	75.420	
13,900.00	7,113.63	7,024.40	7,061.99	197.89	30.00	-88.26	-1,710.06	337.44	7,840.60	7,737.70	102.91	76.192	
14,000.00	7,113.20	7,023.69	7,061.27	200.70	30.00	-88.24	-1,710.05	337.43	7,934.33	7,831.25	103.09	76.967	
14,100.00	7,112.77	7,022.97	7,060.55	203.51	30.00	-88.23	-1,710.04	337.43	8,028.22	7,924.95	103.27	77.744	
14,200.00	7,112.33	7,022.25	7,059.83	206.32	30.00	-88.21	-1,710.03	337.43	8,122.25	8,018.81	103.44	78.522	
14,300.00	7,111.90	7,021.53	7,059.11	209.13	29.99	-88.20	-1,710.02	337.43	8,216.42	8,112.81	103.61	79.302	
14,400.00	7,111.46	7,020.81	7,058.39	211.95	29.99	-88.18	-1,710.02	337.42	8,310.72	8,206.95	103.78	80.084	
14,500.00	7,111.03	7,020.09	7,057.67	214.76	29.99	-88.17	-1,710.01	337.42	8,405.16	8,301.22	103.94	80.867	
14,600.00	7,110.60	7,019.37	7,056.95	217.58	29.98	-88.15	-1,710.00	337.42	8,499.73	8,395.63	104.10	81.651	
14,700.00	7,110.16	7,018.65	7,056.23	220.39	29.98	-88.14	-1,709.99	337.42	8,594.42	8,490.16	104.25	82.437	
14,800.00	7,109.73	7,017.93	7,055.51	223.21	29.98	-88.12	-1,709.98	337.42	8,689.22	8,584.82	104.41	83.224	
14,900.00	7,109.30	7,017.21	7,054.79	226.03	29.97	-88.11	-1,709.98	337.41	8,784.15	8,679.59	104.56	84.011	
14,969.16	7,109.00	7,016.71	7,054.30	227.97	29.97	-88.10	-1,709.97	337.41	8,849.86	8,745.20	104.66	84.557	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	173.01	-4,439.42	544.69	4,473.26					
100.00	100.00	29.30	99.30	3.28	3.28	173.01	-4,439.43	544.68	4,472.72	4,466.15	6.57	681.267 CC		
200.00	200.00	124.65	194.65	3.34	3.30	173.01	-4,439.50	544.47	4,472.77	4,466.13	6.63	674.364 ES		
300.00	300.00	214.58	284.58	3.44	3.36	173.01	-4,439.75	544.20	4,473.00	4,466.20	6.80	657.814		
400.00	400.00	309.20	379.19	3.60	3.46	173.01	-4,440.16	544.11	4,473.42	4,466.35	7.07	633.081		
500.00	500.00	411.95	481.95	3.81	3.63	173.01	-4,440.59	544.15	4,473.85	4,466.41	7.43	601.809		
600.00	600.00	510.44	580.44	4.05	3.83	173.01	-4,441.02	544.16	4,474.27	4,466.40	7.87	568.244		
700.00	699.98	613.86	683.86	4.32	4.07	-177.83	-4,441.47	543.91	4,476.42	4,468.03	8.39	533.415		
800.00	799.84	717.71	787.70	4.62	4.35	-177.82	-4,441.83	543.41	4,481.94	4,472.97	8.97	499.645		
900.00	899.45	809.92	879.91	4.94	4.62	-177.81	-4,442.26	542.71	4,491.01	4,481.45	9.56	469.684		
1,000.00	998.70	909.75	979.73	5.28	4.93	-177.79	-4,442.79	541.65	4,503.58	4,493.37	10.21	440.951		
1,100.00	1,097.50	989.38	1,059.35	5.64	5.20	-177.77	-4,443.43	540.54	4,519.64	4,508.80	10.83	417.268		
1,200.00	1,196.18	1,076.34	1,146.29	6.00	5.49	-177.76	-4,444.47	539.09	4,536.77	4,525.28	11.49	394.904		
1,300.00	1,294.87	1,170.11	1,240.04	6.38	5.82	-177.75	-4,445.78	537.42	4,554.09	4,541.90	12.19	373.589		
1,400.00	1,393.55	1,276.84	1,346.74	6.77	6.20	-177.73	-4,447.26	535.40	4,571.39	4,558.43	12.96	352.767		
1,500.00	1,492.23	1,383.12	1,452.98	7.17	6.59	-177.71	-4,448.52	533.16	4,588.47	4,574.72	13.74	333.863		
1,600.00	1,590.91	1,481.65	1,551.49	7.58	6.96	-177.69	-4,449.61	531.13	4,605.47	4,590.95	14.51	317.333		
1,700.00	1,689.60	1,572.83	1,642.65	8.00	7.31	-177.67	-4,450.67	529.34	4,622.54	4,607.28	15.26	302.823		
1,800.00	1,788.28	1,689.69	1,759.48	8.42	7.76	-177.65	-4,451.98	527.15	4,639.60	4,623.47	16.13	287.665		
1,900.00	1,886.96	1,777.32	1,847.09	8.84	8.11	-177.64	-4,452.79	525.56	4,656.46	4,639.57	16.88	275.803		
2,000.00	1,985.64	1,868.37	1,938.13	9.27	8.46	-177.62	-4,453.84	524.10	4,673.57	4,655.91	17.66	264.666		
2,100.00	2,084.33	1,959.76	2,029.49	9.71	8.83	-177.61	-4,455.03	522.53	4,690.80	4,672.36	18.44	254.372		
2,200.00	2,183.01	2,048.31	2,118.02	10.15	9.18	-177.60	-4,456.35	520.89	4,708.21	4,689.00	19.22	245.011		
2,300.00	2,281.69	2,141.06	2,210.74	10.59	9.55	-177.58	-4,457.94	519.13	4,725.83	4,705.82	20.01	236.124		
2,400.00	2,380.38	2,270.66	2,340.29	11.03	10.08	-177.56	-4,459.94	516.65	4,743.32	4,722.35	20.97	226.148		
2,500.00	2,479.06	2,450.75	2,520.37	11.47	10.81	-177.54	-4,460.34	513.82	4,759.57	4,737.41	22.15	214.841		
2,600.00	2,577.74	2,577.89	2,647.48	11.92	11.33	-177.53	-4,458.86	511.94	4,774.36	4,751.25	23.11	206.592		
2,700.00	2,676.42	2,677.94	2,747.51	12.36	11.74	-177.52	-4,457.56	510.36	4,789.07	4,765.12	23.95	199.922		
2,800.00	2,775.11	2,771.85	2,841.40	12.81	12.13	-177.51	-4,456.38	508.74	4,803.81	4,779.03	24.78	193.890		
2,900.00	2,873.79	2,868.15	2,937.67	13.26	12.52	-177.50	-4,455.29	507.00	4,818.64	4,793.03	25.61	188.156		
3,000.00	2,972.47	2,961.01	3,030.51	13.72	12.91	-177.49	-4,454.29	505.27	4,833.54	4,807.11	26.43	182.874		
3,100.00	3,071.15	3,061.22	3,130.70	14.17	13.32	-177.47	-4,453.34	503.31	4,848.55	4,821.26	27.29	177.691		
3,200.00	3,169.84	3,169.78	3,239.24	14.62	13.78	-177.46	-4,452.14	501.12	4,863.40	4,835.22	28.18	172.581		
3,300.00	3,268.52	3,259.80	3,329.22	15.08	14.15	-177.45	-4,451.08	499.38	4,878.19	4,849.20	28.99	168.246		
3,400.00	3,367.20	3,343.59	3,413.00	15.53	14.50	-177.44	-4,450.37	497.69	4,893.28	4,863.50	29.78	164.305		
3,500.00	3,465.89	3,430.40	3,499.78	15.99	14.86	-177.42	-4,449.90	495.68	4,908.65	4,878.07	30.58	160.500		
3,600.00	3,564.57	3,521.01	3,590.36	16.44	15.24	-177.40	-4,449.62	493.29	4,924.21	4,892.81	31.40	156.803		
3,700.00	3,663.25	3,612.33	3,681.65	16.90	15.63	-177.38	-4,449.49	490.94	4,939.94	4,907.72	32.23	153.281		
3,800.00	3,761.93	3,710.93	3,780.23	17.36	16.04	-177.37	-4,449.35	488.86	4,955.73	4,922.64	33.09	149.783		
3,900.00	3,860.62	3,799.16	3,868.45	17.82	16.41	-177.35	-4,449.32	487.05	4,971.63	4,937.73	33.90	146.668		
4,000.00	3,959.30	3,903.31	3,972.57	18.28	16.85	-177.34	-4,449.34	485.02	4,987.58	4,952.80	34.78	143.394		
4,100.00	4,057.98	4,004.79	4,074.04	18.74	17.28	-177.33	-4,449.24	483.29	5,003.45	4,967.80	35.66	140.327		
4,200.00	4,156.67	4,105.48	4,174.71	19.20	17.70	-177.32	-4,449.05	481.92	5,019.28	4,982.76	36.53	137.416		
4,300.00	4,255.35	4,222.86	4,292.09	19.66	18.19	-177.33	-4,448.44	481.81	5,034.92	4,997.45	37.47	134.356		
4,400.00	4,354.03	4,370.19	4,439.41	20.12	18.81	-177.36	-4,446.64	482.89	5,050.01	5,011.45	38.56	130.961		
4,500.00	4,452.71	4,478.62	4,547.82	20.58	19.26	-177.38	-4,444.49	483.68	5,064.29	5,024.82	39.47	128.308		
4,600.00	4,551.40	4,553.46	4,622.64	21.04	19.57	-177.39	-4,443.14	484.32	5,078.79	5,038.56	40.22	126.262		
4,700.00	4,650.08	4,620.49	4,689.66	21.50	19.85	-177.40	-4,442.35	484.68	5,093.86	5,052.92	40.94	124.419		
4,800.00	4,748.76	4,683.26	4,752.43	21.96	20.11	-177.41	-4,442.04	484.98	5,109.60	5,067.97	41.64	122.720		
4,900.00	4,847.44	4,773.36	4,842.53	22.42	20.49	-177.43	-4,442.07	485.44	5,125.85	5,083.39	42.46	120.721		
5,000.00	4,946.13	4,871.26	4,940.43	22.89	20.90	-177.44	-4,442.12	485.89	5,142.10	5,098.78	43.32	118.696		
5,100.00	5,044.81	4,969.02	5,038.19	23.35	21.31	-177.45	-4,442.21	486.12	5,158.39	5,114.20	44.18	116.750		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,072.14	5,141.31	23.81	21.74	-177.46	-4,442.26	486.61	5,174.65	5,129.58	45.07	114.811		
5,300.00	5,242.18	5,185.97	5,255.14	24.27	22.22	-177.48	-4,442.07	487.36	5,190.73	5,144.72	46.01	112.816		
5,400.00	5,340.86	5,345.30	5,414.45	24.74	22.89	-177.51	-4,440.56	488.73	5,206.05	5,158.88	47.17	110.372		
5,500.00	5,439.54	5,540.62	5,609.61	25.20	23.72	-177.59	-4,434.89	493.72	5,219.42	5,170.93	48.49	107.642		
5,600.00	5,538.22	5,600.01	5,668.95	25.66	23.97	-177.61	-4,432.97	495.42	5,232.74	5,183.57	49.18	106.404		
5,700.00	5,636.91	5,659.75	5,728.65	26.13	24.22	-177.63	-4,431.54	496.78	5,246.81	5,196.95	49.87	105.220		
5,800.00	5,735.59	5,723.19	5,792.08	26.59	24.49	-177.65	-4,430.54	497.81	5,261.60	5,211.04	50.57	104.053		
5,900.00	5,834.27	5,800.01	5,868.89	27.06	24.82	-177.67	-4,429.86	498.46	5,276.98	5,225.65	51.33	102.804		
6,000.00	5,932.95	5,881.54	5,950.42	27.52	25.16	-177.68	-4,429.49	498.75	5,292.73	5,240.61	52.12	101.557		
6,100.00	6,031.64	6,001.55	6,070.43	27.98	25.67	-177.69	-4,428.89	498.90	5,308.43	5,255.34	53.09	99.989		
6,200.00	6,130.32	6,090.49	6,159.36	28.45	26.05	-177.69	-4,428.33	498.78	5,323.97	5,270.05	53.91	98.751		
6,300.00	6,229.00	6,209.17	6,278.05	28.91	26.55	-177.70	-4,427.51	498.55	5,339.44	5,284.56	54.88	97.290		
6,400.00	6,327.69	6,317.24	6,386.11	29.38	27.01	-177.70	-4,426.42	498.26	5,354.57	5,298.78	55.80	95.963		
6,500.00	6,426.37	6,402.91	6,471.77	29.84	27.37	-177.71	-4,425.61	498.07	5,369.78	5,313.18	56.61	94.862		
6,600.00	6,525.05	6,496.18	6,565.04	30.31	27.77	-177.71	-4,424.91	497.67	5,385.17	5,327.71	57.45	93.735		
6,700.00	6,623.18	6,597.19	6,666.04	30.77	28.20	-136.22	-4,424.20	497.14	5,401.17	5,342.83	58.34	92.588		
6,800.00	6,718.58	6,720.51	6,789.35	31.22	28.72	-118.65	-4,422.87	497.32	5,417.89	5,358.56	59.33	91.319		
6,900.00	6,808.91	6,812.50	6,881.34	31.66	29.11	-110.10	-4,421.70	497.21	5,435.19	5,375.02	60.17	90.330		
7,000.00	6,891.95	6,891.52	6,960.35	32.07	29.45	-104.95	-4,420.71	496.99	5,453.16	5,392.20	60.96	89.454		
7,100.00	6,965.65	6,969.19	7,038.01	32.51	29.78	-101.43	-4,419.67	497.18	5,471.73	5,409.95	61.78	88.566		
7,200.00	7,028.20	7,020.42	7,089.24	33.02	30.00	-98.60	-4,418.90	497.80	5,490.86	5,428.31	62.54	87.793		
7,300.00	7,078.04	7,050.86	7,119.67	33.68	30.13	-96.10	-4,418.54	498.24	5,510.65	5,447.34	63.31	87.043		
7,400.00	7,113.97	7,072.42	7,141.22	34.52	30.22	-93.86	-4,418.33	498.57	5,530.86	5,466.70	64.17	86.198		
7,500.00	7,135.09	7,084.61	7,153.41	35.53	30.27	-91.81	-4,418.24	498.76	5,551.17	5,486.06	65.11	85.255		
7,600.00	7,140.96	7,120.56	7,148.28	36.68	30.42	-90.03	-4,418.26	498.68	5,571.18	5,504.91	66.26	84.075		
7,700.00	7,140.53	7,085.96	7,154.76	37.99	30.27	-90.09	-4,418.23	498.79	5,591.99	5,524.73	67.26	83.134		
7,800.00	7,140.09	7,084.68	7,153.48	39.45	30.27	-90.08	-4,418.24	498.77	5,614.50	5,545.96	68.54	81.921		
7,900.00	7,139.66	7,083.40	7,152.20	41.06	30.26	-90.07	-4,418.25	498.75	5,638.69	5,568.77	69.92	80.642		
8,000.00	7,139.23	7,082.12	7,150.93	42.80	30.26	-90.05	-4,418.26	498.72	5,664.54	5,593.13	71.41	79.326		
8,100.00	7,138.79	7,080.86	7,149.66	44.65	30.25	-90.04	-4,418.27	498.70	5,692.03	5,619.05	72.98	77.999		
8,200.00	7,138.36	7,079.59	7,148.40	46.60	30.25	-90.03	-4,418.28	498.68	5,721.13	5,646.52	74.61	76.680		
8,300.00	7,137.93	7,078.33	7,147.14	48.65	30.24	-90.01	-4,418.29	498.66	5,751.83	5,675.53	76.30	75.386		
8,400.00	7,137.49	7,077.07	7,145.88	50.77	30.24	-90.00	-4,418.30	498.64	5,784.09	5,706.07	78.03	74.128		
8,500.00	7,137.06	7,075.82	7,144.63	52.95	30.23	-89.99	-4,418.31	498.62	5,817.90	5,738.11	79.79	72.916		
8,600.00	7,136.62	7,074.58	7,143.38	55.20	30.23	-89.97	-4,418.32	498.60	5,853.21	5,771.64	81.57	71.756		
8,700.00	7,136.19	7,073.33	7,142.14	57.51	30.22	-89.96	-4,418.33	498.59	5,890.01	5,806.64	83.37	70.651		
8,800.00	7,135.76	7,072.09	7,140.90	59.85	30.22	-89.95	-4,418.34	498.57	5,928.27	5,843.10	85.17	69.604		
8,900.00	7,135.32	7,070.86	7,139.67	62.24	30.21	-89.94	-4,418.35	498.55	5,967.96	5,880.98	86.98	68.616		
9,000.00	7,134.89	7,069.63	7,138.44	64.67	30.21	-89.92	-4,418.36	498.53	6,009.05	5,920.27	88.78	67.687		
9,100.00	7,134.45	7,068.40	7,137.21	67.13	30.20	-89.91	-4,418.37	498.51	6,051.51	5,960.95	90.57	66.816		
9,200.00	7,134.02	7,067.18	7,135.99	69.62	30.19	-89.90	-4,418.38	498.49	6,095.32	6,002.97	92.35	66.003		
9,300.00	7,133.59	7,065.96	7,134.77	72.14	30.19	-89.88	-4,418.39	498.47	6,140.45	6,046.33	94.11	65.245		
9,400.00	7,133.15	7,064.75	7,133.56	74.68	30.18	-89.87	-4,418.40	498.45	6,186.86	6,091.00	95.86	64.541		
9,500.00	7,132.72	7,063.54	7,132.35	77.24	30.18	-89.86	-4,418.41	498.43	6,234.53	6,136.94	97.59	63.888		
9,600.00	7,132.29	7,062.34	7,131.14	79.83	30.17	-89.85	-4,418.42	498.41	6,283.43	6,184.14	99.29	63.285		
9,700.00	7,131.85	7,061.14	7,129.94	82.42	30.17	-89.83	-4,418.43	498.40	6,333.53	6,232.56	100.97	62.729		
9,800.00	7,131.42	7,059.94	7,128.75	85.04	30.16	-89.82	-4,418.45	498.38	6,384.80	6,282.18	102.62	62.219		
9,900.00	7,130.98	7,058.75	7,127.55	87.67	30.16	-89.81	-4,418.46	498.36	6,437.22	6,332.98	104.24	61.752		
10,000.00	7,130.55	7,057.56	7,126.37	90.31	30.15	-89.80	-4,418.47	498.34	6,490.75	6,384.91	105.84	61.326		
10,100.00	7,130.12	7,056.37	7,125.18	92.97	30.15	-89.78	-4,418.48	498.32	6,545.38	6,437.97	107.41	60.939		
10,200.00	7,129.68	7,055.19	7,124.00	95.63	30.14	-89.77	-4,418.49	498.30	6,601.07	6,492.12	108.95	60.589		
10,300.00	7,129.25	7,054.02	7,122.82	98.31	30.14	-89.76	-4,418.50	498.29	6,657.79	6,547.33	110.46	60.274		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERRY 22-2(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,128.82	7,052.84	7,121.65	101.00	30.13	-89.75	-4,418.52	498.27	6,715.52	6,603.58	111.94	59.993	
10,500.00	7,128.38	7,051.67	7,120.48	103.69	30.13	-89.73	-4,418.53	498.25	6,774.24	6,660.85	113.39	59.744	
10,600.00	7,127.95	7,050.51	7,119.32	106.39	30.12	-89.72	-4,418.54	498.23	6,833.91	6,719.11	114.81	59.525	
10,700.00	7,127.51	7,049.35	7,118.16	109.10	30.12	-89.71	-4,418.55	498.22	6,894.52	6,778.33	116.20	59.335	
10,800.00	7,127.08	7,048.19	7,117.00	111.82	30.11	-89.70	-4,418.56	498.20	6,956.04	6,838.48	117.56	59.172	
10,900.00	7,126.65	7,047.04	7,115.85	114.54	30.11	-89.69	-4,418.58	498.18	7,018.44	6,899.56	118.89	59.035	
11,000.00	7,126.21	7,045.89	7,114.70	117.27	30.10	-89.67	-4,418.59	498.16	7,081.71	6,961.52	120.19	58.923	
11,100.00	7,125.78	7,044.74	7,113.55	120.01	30.10	-89.66	-4,418.60	498.15	7,145.81	7,024.36	121.46	58.834	
11,200.00	7,125.35	7,043.60	7,112.41	122.75	30.09	-89.65	-4,418.61	498.13	7,210.74	7,088.03	122.70	58.767	
11,300.00	7,124.91	7,042.46	7,111.27	125.49	30.09	-89.64	-4,418.63	498.11	7,276.45	7,152.54	123.91	58.722	
11,400.00	7,124.48	7,041.33	7,110.14	128.24	30.09	-89.63	-4,418.64	498.10	7,342.94	7,217.84	125.10	58.696	
11,500.00	7,124.04	7,040.20	7,109.01	131.00	30.08	-89.61	-4,418.65	498.08	7,410.18	7,283.92	126.26	58.691 SF	
11,600.00	7,123.61	7,039.07	7,107.88	133.75	30.08	-89.60	-4,418.67	498.06	7,478.16	7,350.77	127.39	58.703	
11,700.00	7,123.18	7,037.95	7,106.76	136.52	30.07	-89.59	-4,418.68	498.05	7,546.84	7,418.35	128.49	58.733	
11,800.00	7,122.74	7,036.83	7,105.64	139.28	30.07	-89.58	-4,418.69	498.03	7,616.22	7,486.65	129.57	58.779	
11,900.00	7,122.31	7,035.71	7,104.53	142.05	30.06	-89.57	-4,418.71	498.02	7,686.28	7,555.65	130.63	58.842	
12,000.00	7,121.88	7,034.60	7,103.41	144.82	30.06	-89.56	-4,418.72	498.00	7,756.99	7,625.34	131.65	58.920	
12,100.00	7,121.44	7,033.49	7,102.31	147.59	30.05	-89.54	-4,418.73	497.98	7,828.34	7,695.68	132.66	59.012	
12,200.00	7,121.01	7,032.39	7,101.20	150.37	30.05	-89.53	-4,418.75	497.97	7,900.31	7,766.67	133.64	59.118	
12,300.00	7,120.57	7,031.29	7,100.10	153.15	30.04	-89.52	-4,418.76	497.95	7,972.88	7,838.29	134.59	59.237	
12,400.00	7,120.14	7,030.19	7,099.00	155.93	30.04	-89.51	-4,418.77	497.94	8,046.05	7,910.52	135.53	59.369	
12,500.00	7,119.71	7,029.10	7,097.91	158.72	30.03	-89.50	-4,418.79	497.92	8,119.78	7,983.34	136.44	59.513	
12,600.00	7,119.27	7,028.01	7,096.82	161.50	30.03	-89.49	-4,418.80	497.90	8,194.07	8,056.75	137.33	59.668	
12,700.00	7,118.84	7,026.92	7,095.73	164.29	30.02	-89.47	-4,418.82	497.89	8,268.91	8,130.71	138.19	59.835	
12,800.00	7,118.41	7,025.84	7,094.65	167.08	30.02	-89.46	-4,418.83	497.87	8,344.27	8,205.23	139.04	60.012	
12,900.00	7,117.97	7,024.76	7,093.57	169.88	30.01	-89.45	-4,418.85	497.86	8,420.14	8,280.27	139.87	60.200	
13,000.00	7,117.54	7,023.68	7,092.49	172.67	30.01	-89.44	-4,418.86	497.84	8,496.51	8,355.84	140.68	60.397	
13,100.00	7,117.10	7,022.61	7,091.42	175.47	30.01	-89.43	-4,418.87	497.83	8,573.37	8,431.91	141.47	60.604	
13,200.00	7,116.67	7,021.54	7,090.35	178.27	30.00	-89.42	-4,418.89	497.81	8,650.70	8,508.47	142.23	60.820	
13,300.00	7,116.24	7,020.47	7,089.29	181.07	30.00	-89.41	-4,418.90	497.80	8,728.49	8,585.51	142.99	61.044	
13,400.00	7,115.80	7,019.41	7,088.22	183.87	29.99	-89.40	-4,418.92	497.78	8,806.73	8,663.01	143.72	61.277	
13,500.00	7,115.37	7,018.35	7,087.16	186.67	29.99	-89.38	-4,418.93	497.77	8,885.41	8,740.97	144.44	61.517	
13,600.00	7,114.93	7,017.29	7,086.11	189.47	29.98	-89.37	-4,418.95	497.75	8,964.51	8,819.37	145.14	61.766	
13,700.00	7,114.50	7,000.01	7,068.83	192.28	29.91	-89.19	-4,419.20	497.52	9,044.05	8,898.31	145.75	62.054	
13,800.00	7,114.07	7,000.01	7,068.83	195.09	29.91	-89.19	-4,419.20	497.52	9,123.96	8,977.55	146.42	62.314	
13,900.00	7,113.63	7,000.01	7,068.83	197.89	29.91	-89.19	-4,419.20	497.52	9,204.27	9,057.20	147.08	62.582	
14,000.00	7,113.20	7,000.01	7,068.83	200.70	29.91	-89.19	-4,419.20	497.52	9,284.96	9,137.24	147.72	62.856	
14,100.00	7,112.77	7,000.01	7,068.83	203.51	29.91	-89.19	-4,419.20	497.52	9,366.02	9,217.68	148.35	63.136	
14,200.00	7,112.33	7,000.01	7,068.83	206.32	29.91	-89.19	-4,419.20	497.52	9,447.45	9,298.49	148.96	63.423	
14,300.00	7,111.90	7,000.01	7,068.83	209.13	29.91	-89.19	-4,419.20	497.52	9,529.22	9,379.66	149.56	63.715	
14,400.00	7,111.46	7,000.01	7,068.83	211.95	29.91	-89.19	-4,419.20	497.52	9,611.35	9,461.20	150.15	64.013	
14,500.00	7,111.03	7,000.01	7,068.83	214.76	29.91	-89.19	-4,419.20	497.52	9,693.81	9,543.09	150.72	64.317	
14,600.00	7,110.60	7,000.01	7,068.83	217.58	29.91	-89.19	-4,419.20	497.52	9,776.59	9,625.31	151.28	64.626	
14,700.00	7,110.16	7,000.01	7,068.83	220.39	29.91	-89.19	-4,419.20	497.52	9,859.70	9,707.87	151.83	64.939	
14,800.00	7,109.73	7,000.01	7,068.83	223.21	29.91	-89.19	-4,419.20	497.52	9,943.11	9,790.75	152.37	65.258	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	20.18	-1.82	3.28	3.28	173.01	-4,439.43	544.69	4,472.72					
100.00	100.00	112.69	90.69	3.28	3.29	173.01	-4,439.56	544.59	4,472.85	4,466.28	6.58	680.208		
200.00	200.00	211.49	189.49	3.34	3.35	173.01	-4,439.81	544.47	4,473.08	4,466.39	6.69	668.695		
300.00	300.00	318.07	296.07	3.44	3.48	173.01	-4,439.99	544.26	4,473.23	4,466.31	6.92	646.417		
400.00	400.00	418.28	396.27	3.60	3.64	173.02	-4,440.13	543.92	4,473.32	4,466.08	7.24	617.655		
500.00	500.00	520.76	498.76	3.81	3.85	173.02	-4,440.21	543.61	4,473.37	4,465.71	7.66	584.372		
600.00	600.00	618.92	596.92	4.05	4.09	173.02	-4,440.32	543.24	4,473.43	4,465.29	8.13	550.214 ES		
700.00	699.98	720.77	698.77	4.32	4.36	-177.82	-4,440.39	542.94	4,475.20	4,466.53	8.68	515.840		
800.00	799.84	817.03	795.03	4.62	4.65	-177.82	-4,440.49	542.74	4,480.51	4,471.25	9.26	484.031		
900.00	899.45	917.91	895.91	4.94	4.96	-177.81	-4,440.61	542.42	4,489.30	4,479.41	9.89	453.774		
1,000.00	998.70	1,015.75	993.75	5.28	5.28	-177.80	-4,440.75	542.14	4,501.58	4,491.03	10.55	426.495		
1,100.00	1,097.50	1,117.26	1,095.25	5.64	5.63	-177.80	-4,440.85	541.85	4,517.07	4,505.82	11.26	401.206		
1,200.00	1,196.18	1,210.66	1,188.66	6.00	5.96	-177.80	-4,440.99	541.51	4,533.34	4,521.39	11.95	379.361		
1,300.00	1,294.87	1,300.35	1,278.34	6.38	6.29	-177.80	-4,441.28	541.12	4,549.77	4,537.12	12.65	359.735		
1,400.00	1,393.55	1,401.42	1,379.41	6.77	6.66	-177.80	-4,441.68	540.63	4,566.27	4,552.86	13.40	340.657		
1,500.00	1,492.23	1,508.71	1,486.70	7.17	7.07	-177.80	-4,441.99	539.98	4,582.65	4,568.45	14.20	322.718		
1,600.00	1,590.91	1,604.62	1,582.60	7.58	7.43	-177.80	-4,442.23	539.33	4,598.97	4,584.01	14.96	307.316		
1,700.00	1,689.60	1,702.72	1,680.70	8.00	7.81	-177.80	-4,442.49	538.71	4,615.32	4,599.57	15.75	293.057		
1,800.00	1,788.28	1,796.20	1,774.18	8.42	8.18	-177.80	-4,442.80	538.08	4,631.73	4,615.21	16.52	280.316		
1,900.00	1,886.96	1,888.58	1,866.55	8.84	8.54	-177.80	-4,443.24	537.32	4,648.27	4,630.97	17.30	268.676		
2,000.00	1,985.64	1,985.25	1,963.22	9.27	8.93	-177.79	-4,443.82	536.34	4,664.89	4,646.79	18.10	257.695		
2,100.00	2,084.33	2,094.05	2,072.01	9.71	9.36	-177.78	-4,444.40	535.02	4,681.44	4,662.48	18.96	246.902		
2,200.00	2,183.01	2,198.47	2,176.42	10.15	9.78	-177.78	-4,444.77	533.68	4,697.80	4,678.00	19.81	237.185		
2,300.00	2,281.69	2,313.88	2,291.82	10.59	10.25	-177.77	-4,444.92	532.14	4,713.93	4,693.23	20.70	227.685		
2,400.00	2,380.38	2,420.23	2,398.16	11.03	10.69	-177.76	-4,444.75	530.81	4,729.80	4,708.23	21.57	219.309		
2,500.00	2,479.06	2,518.69	2,496.62	11.47	11.09	-177.75	-4,444.52	529.77	4,745.60	4,723.20	22.40	211.860		
2,600.00	2,577.74	2,620.88	2,598.80	11.92	11.51	-177.75	-4,444.20	528.89	4,761.36	4,738.11	23.25	204.774		
2,700.00	2,676.42	2,717.72	2,695.64	12.36	11.91	-177.75	-4,443.87	528.05	4,777.09	4,753.01	24.08	198.355		
2,800.00	2,775.11	2,809.01	2,786.93	12.81	12.28	-177.75	-4,443.68	527.29	4,792.95	4,768.06	24.89	192.538		
2,900.00	2,873.79	2,911.22	2,889.13	13.26	12.70	-177.75	-4,443.45	526.54	4,808.81	4,783.05	25.75	186.724		
3,000.00	2,972.47	2,992.23	2,970.14	13.72	13.04	-177.75	-4,443.40	526.08	4,824.84	4,798.32	26.52	181.919		
3,100.00	3,071.15	3,081.32	3,059.23	14.17	13.41	-177.75	-4,443.59	525.66	4,841.16	4,813.83	27.33	177.154		
3,200.00	3,169.84	3,182.68	3,160.59	14.62	13.83	-177.75	-4,443.90	525.13	4,857.56	4,829.37	28.19	172.317		
3,300.00	3,268.52	3,270.84	3,248.75	15.08	14.20	-177.75	-4,444.20	524.63	4,874.00	4,845.00	28.99	168.105		
3,400.00	3,367.20	3,358.09	3,335.99	15.53	14.56	-177.75	-4,444.73	524.10	4,890.68	4,860.89	29.79	164.146		
3,500.00	3,465.89	3,506.53	3,484.43	15.99	15.19	-177.75	-4,445.32	523.25	4,907.26	4,876.39	30.88	158.934		
3,600.00	3,564.57	3,634.63	3,612.52	16.44	15.72	-177.76	-4,444.44	523.05	4,922.73	4,890.87	31.86	154.488		
3,700.00	3,663.25	3,748.22	3,726.11	16.90	16.19	-177.77	-4,443.18	522.80	4,937.79	4,905.00	32.79	150.591		
3,800.00	3,761.93	3,845.87	3,823.75	17.36	16.60	-177.77	-4,441.89	522.62	4,952.63	4,918.99	33.64	147.210		
3,900.00	3,860.62	3,931.54	3,909.41	17.82	16.96	-177.78	-4,440.97	522.33	4,967.71	4,933.27	34.44	144.227		
4,000.00	3,959.30	4,021.03	3,998.90	18.28	17.33	-177.78	-4,440.22	521.95	4,983.00	4,947.74	35.26	141.314		
4,100.00	4,057.98	4,110.60	4,088.47	18.74	17.71	-177.78	-4,439.63	521.45	4,998.46	4,962.38	36.08	138.535		
4,200.00	4,156.67	4,187.83	4,165.70	19.20	18.03	-177.78	-4,439.39	520.97	5,014.24	4,977.39	36.84	136.098		
4,300.00	4,255.35	4,286.84	4,264.71	19.66	18.45	-177.78	-4,439.31	520.40	5,030.25	4,992.55	37.71	133.404		
4,400.00	4,354.03	4,379.98	4,357.84	20.12	18.84	-177.78	-4,439.23	519.90	5,046.28	5,007.73	38.54	130.923		
4,500.00	4,452.71	4,478.94	4,456.80	20.58	19.26	-177.79	-4,439.23	519.44	5,062.38	5,022.97	39.41	128.459		
4,600.00	4,551.40	4,581.16	4,559.01	21.04	19.70	-177.79	-4,439.17	518.98	5,078.44	5,038.15	40.29	126.049		
4,700.00	4,650.08	4,671.90	4,649.75	21.50	20.08	-177.79	-4,439.14	518.52	5,094.51	5,053.39	41.12	123.904		
4,800.00	4,748.76	4,758.88	4,736.74	21.96	20.45	-177.79	-4,439.28	518.14	5,110.79	5,068.87	41.93	121.902		
4,900.00	4,847.44	4,852.19	4,830.05	22.42	20.84	-177.80	-4,439.59	518.14	5,127.27	5,084.51	42.77	119.894		
5,000.00	4,946.13	4,951.24	4,929.09	22.89	21.26	-177.80	-4,439.92	518.17	5,143.77	5,100.14	43.63	117.888		
5,100.00	5,044.81	5,047.30	5,025.15	23.35	21.66	-177.81	-4,440.24	518.20	5,160.27	5,115.79	44.49	115.997		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,142.06	5,119.91	23.81	22.06	-177.82	-4,440.65	518.24	5,176.86	5,131.52	45.33	114.193		
5,300.00	5,242.18	5,242.07	5,219.92	24.27	22.48	-177.82	-4,441.10	518.33	5,193.48	5,147.27	46.21	112.394		
5,400.00	5,340.86	5,345.28	5,323.14	24.74	22.92	-177.83	-4,441.50	518.24	5,210.02	5,162.92	47.10	110.621		
5,500.00	5,439.54	5,441.64	5,419.49	25.20	23.33	-177.83	-4,441.84	518.19	5,226.52	5,178.56	47.95	108.989		
5,600.00	5,538.22	5,592.17	5,570.02	25.66	23.96	-177.85	-4,442.01	518.26	5,242.93	5,193.85	49.08	106.834		
5,700.00	5,636.91	5,699.27	5,677.12	26.13	24.41	-177.86	-4,441.20	518.55	5,258.37	5,208.39	49.98	105.200		
5,800.00	5,735.59	5,772.76	5,750.60	26.59	24.72	-177.86	-4,440.80	518.62	5,274.02	5,223.29	50.73	103.959		
5,900.00	5,834.27	5,855.48	5,833.32	27.06	25.07	-177.87	-4,440.73	518.57	5,290.09	5,238.57	51.52	102.675		
6,000.00	5,932.95	5,951.92	5,929.77	27.52	25.48	-177.87	-4,440.82	518.42	5,306.33	5,253.95	52.38	101.302		
6,100.00	6,031.64	6,049.80	6,027.64	27.98	25.90	-177.87	-4,440.91	518.02	5,322.54	5,269.29	53.25	99.959		
6,200.00	6,130.32	6,145.36	6,123.20	28.45	26.31	-177.88	-4,441.08	517.56	5,338.82	5,284.72	54.10	98.681		
6,300.00	6,229.00	6,261.32	6,239.16	28.91	26.80	-177.88	-4,441.22	516.84	5,355.05	5,299.99	55.06	97.262		
6,400.00	6,327.69	6,381.59	6,359.43	29.38	27.31	-177.87	-4,440.84	515.78	5,370.79	5,314.75	56.03	95.847		
6,500.00	6,426.37	6,480.64	6,458.47	29.84	27.73	-177.87	-4,440.35	514.74	5,386.34	5,329.44	56.91	94.650		
6,600.00	6,525.05	6,594.77	6,572.59	30.31	28.22	-177.86	-4,439.69	513.47	5,401.82	5,343.96	57.86	93.368		
6,700.00	6,623.18	6,691.14	6,668.95	30.77	28.63	-136.36	-4,439.01	512.14	5,417.73	5,359.01	58.72	92.268		
6,800.00	6,718.58	6,782.98	6,760.77	31.22	29.02	-118.67	-4,438.44	510.71	5,434.73	5,375.18	59.56	91.255		
6,900.00	6,808.91	6,891.15	6,868.92	31.66	29.48	-110.12	-4,437.77	508.30	5,452.45	5,391.97	60.48	90.158		
7,000.00	6,891.95	6,990.01	6,967.73	32.07	29.90	-105.05	-4,436.93	505.43	5,470.51	5,409.15	61.36	89.148		
7,100.00	6,965.65	7,077.85	7,055.51	32.51	30.28	-101.58	-4,436.04	502.48	5,488.97	5,426.73	62.24	88.196		
7,200.00	7,028.20	7,146.55	7,124.16	33.02	30.57	-98.89	-4,435.29	499.76	5,507.84	5,444.75	63.09	87.303		
7,300.00	7,078.04	7,199.86	7,177.43	33.68	30.80	-96.63	-4,434.71	497.64	5,527.18	5,463.20	63.98	86.395		
7,400.00	7,113.97	7,239.51	7,217.04	34.52	30.97	-94.60	-4,434.28	496.06	5,546.88	5,481.95	64.93	85.431		
7,500.00	7,135.09	7,264.51	7,242.01	35.53	31.07	-92.72	-4,434.01	495.06	5,566.77	5,500.82	65.95	84.413		
7,600.00	7,140.96	7,274.32	7,251.82	36.68	31.12	-91.11	-4,433.90	494.67	5,586.56	5,519.55	67.01	83.375		
7,700.00	7,140.53	7,277.84	7,255.33	37.99	31.13	-91.15	-4,433.86	494.53	5,607.22	5,539.06	68.17	82.258		
7,800.00	7,140.09	7,281.35	7,258.85	39.45	31.15	-91.18	-4,433.82	494.39	5,629.59	5,560.13	69.46	81.044		
7,900.00	7,139.66	7,284.87	7,262.36	41.06	31.16	-91.22	-4,433.79	494.25	5,653.63	5,582.76	70.88	79.767		
8,000.00	7,139.23	7,288.39	7,265.87	42.80	31.18	-91.26	-4,433.75	494.11	5,679.34	5,606.95	72.39	78.455		
8,100.00	7,138.79	7,291.90	7,269.39	44.65	31.19	-91.29	-4,433.71	493.97	5,706.67	5,632.69	73.98	77.134		
8,200.00	7,138.36	7,295.42	7,272.90	46.60	31.21	-91.33	-4,433.67	493.83	5,735.62	5,659.98	75.64	75.823		
8,300.00	7,137.93	7,298.94	7,276.41	48.65	31.22	-91.37	-4,433.63	493.69	5,766.15	5,688.80	77.36	74.538		
8,400.00	7,137.49	7,302.45	7,279.93	50.77	31.24	-91.40	-4,433.60	493.54	5,798.25	5,719.14	79.11	73.289		
8,500.00	7,137.06	7,305.97	7,283.44	52.95	31.25	-91.44	-4,433.56	493.40	5,831.88	5,750.98	80.90	72.086		
8,600.00	7,136.62	7,309.48	7,286.95	55.20	31.27	-91.48	-4,433.52	493.26	5,867.03	5,784.32	82.71	70.935		
8,700.00	7,136.19	7,313.00	7,290.47	57.51	31.28	-91.51	-4,433.48	493.12	5,903.65	5,819.12	84.53	69.838		
8,800.00	7,135.76	7,316.52	7,293.98	59.85	31.30	-91.55	-4,433.44	492.98	5,941.73	5,855.37	86.36	68.799		
8,900.00	7,135.32	7,320.03	7,297.49	62.24	31.31	-91.59	-4,433.40	492.84	5,981.24	5,893.05	88.19	67.819		
9,000.00	7,134.89	7,323.55	7,301.00	64.67	31.33	-91.62	-4,433.37	492.70	6,022.15	5,932.13	90.02	66.897		
9,100.00	7,134.45	7,327.07	7,304.52	67.13	31.34	-91.66	-4,433.33	492.56	6,064.43	5,972.59	91.84	66.032		
9,200.00	7,134.02	7,330.58	7,308.03	69.62	31.36	-91.70	-4,433.29	492.42	6,108.05	6,014.40	93.65	65.224		
9,300.00	7,133.59	7,334.10	7,311.54	72.14	31.37	-91.73	-4,433.25	492.28	6,152.98	6,057.55	95.44	64.471		
9,400.00	7,133.15	7,337.61	7,315.06	74.68	31.39	-91.77	-4,433.21	492.14	6,199.20	6,101.99	97.21	63.770		
9,500.00	7,132.72	7,341.13	7,318.57	77.24	31.40	-91.81	-4,433.17	492.00	6,246.68	6,147.72	98.96	63.121		
9,600.00	7,132.29	7,344.65	7,322.08	79.83	31.42	-91.85	-4,433.14	491.86	6,295.39	6,194.70	100.69	62.521		
9,700.00	7,131.85	7,348.16	7,325.60	82.42	31.43	-91.88	-4,433.10	491.72	6,345.30	6,242.90	102.40	61.967		
9,800.00	7,131.42	7,351.68	7,329.11	85.04	31.45	-91.92	-4,433.06	491.58	6,396.38	6,292.30	104.08	61.458		
9,900.00	7,130.98	7,355.19	7,332.62	87.67	31.46	-91.96	-4,433.02	491.44	6,448.60	6,342.87	105.73	60.992		
10,000.00	7,130.55	7,358.71	7,336.14	90.31	31.48	-91.99	-4,432.98	491.30	6,501.94	6,394.58	107.35	60.566		
10,100.00	7,130.12	7,362.23	7,339.65	92.97	31.49	-92.03	-4,432.95	491.16	6,556.37	6,447.42	108.95	60.178		
10,200.00	7,129.68	7,365.74	7,343.16	95.63	31.51	-92.07	-4,432.91	491.02	6,611.86	6,501.34	110.52	59.827		
10,300.00	7,129.25	7,369.26	7,346.68	98.31	31.52	-92.10	-4,432.87	490.88	6,668.39	6,556.34	112.05	59.511		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,128.82	7,372.78	7,350.19	101.00	31.54	-92.14	-4,432.83	490.74	6,725.93	6,612.37	113.56	59.228	
10,500.00	7,128.38	7,376.29	7,353.70	103.69	31.55	-92.18	-4,432.79	490.60	6,784.45	6,669.41	115.04	58.977	
10,600.00	7,127.95	7,379.81	7,357.22	106.39	31.57	-92.21	-4,432.75	490.46	6,843.93	6,727.45	116.48	58.755	
10,700.00	7,127.51	7,383.32	7,360.73	109.10	31.58	-92.25	-4,432.72	490.32	6,904.35	6,786.45	117.90	58.561	
10,800.00	7,127.08	7,386.84	7,364.24	111.82	31.60	-92.29	-4,432.68	490.18	6,965.67	6,846.39	119.29	58.395	
10,900.00	7,126.65	7,390.36	7,367.76	114.54	31.61	-92.32	-4,432.64	490.04	7,027.88	6,907.24	120.64	58.254	
11,000.00	7,126.21	7,393.87	7,371.27	117.27	31.63	-92.36	-4,432.60	489.90	7,090.96	6,968.99	121.97	58.137	
11,100.00	7,125.78	7,397.39	7,374.78	120.01	31.64	-92.40	-4,432.56	489.76	7,154.87	7,031.60	123.27	58.043	
11,200.00	7,125.35	7,400.91	7,378.29	122.75	31.66	-92.43	-4,432.52	489.62	7,219.60	7,095.07	124.54	57.971	
11,300.00	7,124.91	7,404.42	7,381.81	125.49	31.67	-92.47	-4,432.49	489.48	7,285.13	7,159.35	125.78	57.921	
11,400.00	7,124.48	7,407.94	7,385.32	128.24	31.69	-92.51	-4,432.45	489.34	7,351.43	7,224.44	126.99	57.890	
11,500.00	7,124.04	7,411.45	7,388.83	131.00	31.70	-92.54	-4,432.41	489.20	7,418.49	7,290.31	128.18	57.878 SF	
11,600.00	7,123.61	7,414.97	7,392.35	133.75	31.72	-92.58	-4,432.37	489.06	7,486.28	7,356.94	129.33	57.884	
11,700.00	7,123.18	7,418.49	7,395.86	136.52	31.73	-92.62	-4,432.33	488.92	7,554.78	7,424.32	130.46	57.907	
11,800.00	7,122.74	7,422.00	7,399.37	139.28	31.75	-92.65	-4,432.29	488.78	7,623.98	7,492.41	131.57	57.947	
11,900.00	7,122.31	7,425.52	7,402.89	142.05	31.76	-92.69	-4,432.26	488.63	7,693.85	7,561.20	132.65	58.002	
12,000.00	7,121.88	7,429.03	7,406.40	144.82	31.78	-92.73	-4,432.22	488.49	7,764.38	7,630.68	133.70	58.072	
12,100.00	7,121.44	7,400.00	7,377.39	147.59	31.65	-92.42	-4,432.53	489.65	7,835.62	7,701.05	134.58	58.225	
12,200.00	7,121.01	7,400.00	7,377.39	150.37	31.65	-92.42	-4,432.53	489.65	7,907.43	7,771.87	135.56	58.330	
12,300.00	7,120.57	7,400.00	7,377.39	153.15	31.65	-92.42	-4,432.53	489.65	7,979.85	7,843.32	136.53	58.448	
12,400.00	7,120.14	7,400.00	7,377.39	155.93	31.65	-92.42	-4,432.53	489.65	8,052.85	7,915.38	137.47	58.578	
12,500.00	7,119.71	7,400.00	7,377.39	158.72	31.65	-92.42	-4,432.53	489.65	8,126.43	7,988.04	138.39	58.721	
12,600.00	7,119.27	7,400.00	7,377.39	161.50	31.65	-92.42	-4,432.53	489.65	8,200.57	8,061.28	139.29	58.874	
12,700.00	7,118.84	7,400.00	7,377.39	164.29	31.65	-92.42	-4,432.53	489.65	8,275.26	8,135.09	140.17	59.039	
12,800.00	7,118.41	7,400.00	7,377.39	167.08	31.65	-92.42	-4,432.53	489.65	8,350.47	8,209.45	141.02	59.214	
12,900.00	7,117.97	7,400.00	7,377.39	169.88	31.65	-92.42	-4,432.53	489.65	8,426.20	8,284.34	141.86	59.399	
13,000.00	7,117.54	7,400.00	7,377.39	172.67	31.65	-92.42	-4,432.53	489.65	8,502.43	8,359.76	142.67	59.593	
13,100.00	7,117.10	7,400.00	7,377.39	175.47	31.65	-92.42	-4,432.53	489.65	8,579.15	8,435.68	143.47	59.797	
13,200.00	7,116.67	7,400.00	7,377.39	178.27	31.65	-92.42	-4,432.53	489.65	8,656.34	8,512.09	144.25	60.010	
13,300.00	7,116.24	7,400.00	7,377.39	181.07	31.65	-92.42	-4,432.53	489.65	8,734.00	8,588.99	145.01	60.231	
13,400.00	7,115.80	7,400.00	7,377.39	183.87	31.65	-92.42	-4,432.53	489.65	8,812.11	8,666.36	145.75	60.460	
13,500.00	7,115.37	7,400.00	7,377.39	186.67	31.65	-92.42	-4,432.53	489.65	8,890.65	8,744.18	146.48	60.697	
13,600.00	7,114.93	7,400.00	7,377.39	189.47	31.65	-92.42	-4,432.53	489.65	8,969.63	8,822.44	147.18	60.942	
13,700.00	7,114.50	7,400.00	7,377.39	192.28	31.65	-92.42	-4,432.53	489.65	9,049.01	8,901.14	147.87	61.194	
13,800.00	7,114.07	7,400.00	7,377.39	195.09	31.65	-92.42	-4,432.53	489.65	9,128.81	8,980.26	148.55	61.453	
13,900.00	7,113.63	7,400.00	7,377.39	197.89	31.65	-92.42	-4,432.53	489.65	9,209.00	9,059.79	149.21	61.718	
14,000.00	7,113.20	7,400.00	7,377.39	200.70	31.65	-92.42	-4,432.53	489.65	9,289.57	9,139.71	149.86	61.990	
14,100.00	7,112.77	7,400.00	7,377.39	203.51	31.65	-92.42	-4,432.53	489.65	9,370.52	9,220.03	150.49	62.269	
14,200.00	7,112.33	7,400.00	7,377.39	206.32	31.65	-92.42	-4,432.53	489.65	9,451.83	9,300.73	151.10	62.553	
14,300.00	7,111.90	7,400.00	7,377.39	209.13	31.65	-92.42	-4,432.53	489.65	9,533.50	9,381.79	151.70	62.843	
14,400.00	7,111.46	7,400.00	7,377.39	211.95	31.65	-92.42	-4,432.53	489.65	9,615.51	9,463.22	152.29	63.138	
14,500.00	7,111.03	7,400.00	7,377.39	214.76	31.65	-92.42	-4,432.53	489.65	9,697.86	9,544.99	152.87	63.439	
14,600.00	7,110.60	7,400.00	7,377.39	217.58	31.65	-92.42	-4,432.53	489.65	9,780.54	9,627.11	153.43	63.745	
14,700.00	7,110.16	7,400.00	7,377.39	220.39	31.65	-92.42	-4,432.53	489.65	9,863.54	9,709.56	153.98	64.056	
14,800.00	7,109.73	7,400.00	7,377.39	223.21	31.65	-92.42	-4,432.53	489.65	9,946.86	9,792.33	154.52	64.372	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	22.79	-0.21	3.28	3.28	-27.28	2,242.68	-1,156.67	2,523.39					
100.00	100.00	120.84	97.84	3.28	3.29	-27.29	2,242.61	-1,156.88	2,523.42	2,516.85	6.58	383.575		
200.00	200.00	219.14	196.14	3.34	3.36	-27.29	2,242.77	-1,156.96	2,523.61	2,516.91	6.70	376.891		
300.00	300.00	328.23	305.23	3.44	3.49	-27.28	2,242.77	-1,156.61	2,523.45	2,516.51	6.93	363.926		
342.73	342.73	365.73	342.73	3.51	3.55	-27.28	2,242.77	-1,156.52	2,523.40	2,516.35	7.05	357.748		
400.00	400.00	420.16	397.16	3.60	3.64	-27.28	2,242.86	-1,156.49	2,523.47	2,516.22	7.24	348.305		
500.00	500.00	528.00	505.00	3.81	3.86	-27.28	2,242.79	-1,156.43	2,523.38	2,515.71	7.67	328.989		
600.00	600.00	634.58	611.57	4.05	4.12	-27.27	2,242.63	-1,156.16	2,523.14	2,514.97	8.17	308.855		
700.00	699.98	740.32	717.31	4.32	4.41	-18.14	2,242.07	-1,155.56	2,520.74	2,512.01	8.73	288.741		
800.00	799.84	838.23	815.22	4.62	4.70	-18.21	2,241.77	-1,155.07	2,515.26	2,505.94	9.32	269.879		
900.00	899.45	945.09	922.08	4.94	5.04	-18.32	2,241.12	-1,154.25	2,506.09	2,496.11	9.98	251.119		
1,000.00	998.70	1,037.34	1,014.32	5.28	5.35	-18.48	2,240.63	-1,153.67	2,493.76	2,483.13	10.63	234.701		
1,100.00	1,097.50	1,132.89	1,109.88	5.64	5.68	-18.64	2,240.34	-1,153.17	2,478.60	2,467.29	11.31	219.145		
1,200.00	1,196.18	1,234.11	1,211.09	6.00	6.04	-18.76	2,239.96	-1,152.65	2,462.69	2,450.66	12.03	204.691		
1,300.00	1,294.87	1,331.40	1,308.38	6.38	6.39	-18.87	2,239.53	-1,152.21	2,446.76	2,434.00	12.76	191.766		
1,400.00	1,393.55	1,427.04	1,404.02	6.77	6.75	-18.98	2,239.36	-1,151.58	2,430.97	2,417.47	13.50	180.098		
1,500.00	1,492.23	1,528.13	1,505.11	7.17	7.13	-19.10	2,239.15	-1,150.98	2,415.21	2,400.94	14.27	169.232		
1,600.00	1,590.91	1,629.99	1,606.97	7.58	7.52	-19.23	2,238.60	-1,150.59	2,399.26	2,384.20	15.06	159.307		
1,700.00	1,689.60	1,723.19	1,700.16	8.00	7.88	-19.36	2,237.91	-1,150.77	2,383.41	2,367.58	15.83	150.580		
1,800.00	1,788.28	1,819.08	1,796.05	8.42	8.25	-19.50	2,237.44	-1,151.03	2,367.82	2,351.21	16.61	142.516		
1,900.00	1,886.96	1,927.75	1,904.71	8.84	8.68	-19.65	2,236.53	-1,151.17	2,351.88	2,334.42	17.46	134.734		
2,000.00	1,985.64	2,017.50	1,994.46	9.27	9.04	-19.79	2,235.76	-1,151.61	2,336.11	2,317.88	18.23	128.116		
2,100.00	2,084.33	2,119.91	2,096.87	9.71	9.45	-19.96	2,234.98	-1,152.10	2,320.44	2,301.38	19.07	121.711		
2,200.00	2,183.01	2,223.73	2,200.68	10.15	9.86	-20.12	2,233.99	-1,152.35	2,304.51	2,284.60	19.91	115.767		
2,300.00	2,281.69	2,317.57	2,294.51	10.59	10.24	-20.27	2,233.11	-1,152.70	2,288.67	2,267.95	20.72	110.478		
2,400.00	2,380.38	2,416.52	2,393.46	11.03	10.65	-20.44	2,232.10	-1,153.34	2,272.90	2,251.35	21.55	105.480		
2,500.00	2,479.06	2,512.32	2,489.25	11.47	11.04	-20.61	2,231.06	-1,154.19	2,257.22	2,234.85	22.37	100.893		
2,600.00	2,577.74	2,608.35	2,585.27	11.92	11.43	-20.78	2,230.09	-1,155.13	2,241.67	2,218.47	23.20	96.621		
2,700.00	2,676.42	2,700.53	2,677.44	12.36	11.81	-20.95	2,229.43	-1,155.94	2,226.35	2,202.33	24.02	92.696		
2,800.00	2,775.11	2,789.66	2,766.57	12.81	12.17	-21.10	2,229.13	-1,156.77	2,211.39	2,186.57	24.83	89.075		
2,900.00	2,873.79	2,890.32	2,867.23	13.26	12.59	-21.29	2,228.96	-1,157.81	2,196.65	2,170.97	25.68	85.547		
3,000.00	2,972.47	2,986.59	2,963.48	13.72	12.99	-21.47	2,228.64	-1,159.01	2,181.90	2,155.38	26.52	82.285		
3,100.00	3,071.15	3,085.16	3,062.04	14.17	13.39	-21.67	2,228.20	-1,160.59	2,167.25	2,139.88	27.37	79.197		
3,200.00	3,169.84	3,178.17	3,155.04	14.62	13.78	-21.86	2,227.86	-1,162.13	2,152.73	2,124.53	28.20	76.346		
3,300.00	3,268.52	3,271.00	3,247.85	15.08	14.17	-22.06	2,227.58	-1,164.09	2,138.52	2,109.49	29.03	73.667		
3,400.00	3,367.20	3,367.15	3,343.97	15.53	14.57	-22.27	2,227.34	-1,166.45	2,124.55	2,094.67	29.88	71.112		
3,500.00	3,465.89	3,469.28	3,446.06	15.99	15.00	-22.51	2,227.09	-1,168.93	2,110.61	2,079.86	30.74	68.650		
3,600.00	3,564.57	3,567.13	3,543.89	16.44	15.40	-22.73	2,226.79	-1,171.13	2,096.55	2,064.95	31.60	66.348		
3,700.00	3,663.25	3,664.05	3,660.78	16.90	15.89	-23.00	2,226.15	-1,173.73	2,082.34	2,049.82	32.52	64.032		
3,800.00	3,761.93	3,794.32	3,771.01	17.36	16.36	-23.28	2,224.39	-1,176.12	2,067.23	2,033.81	33.42	61.858		
3,900.00	3,860.62	3,894.78	3,871.44	17.82	16.78	-23.54	2,222.53	-1,178.13	2,051.86	2,017.58	34.29	59.845		
4,000.00	3,959.30	3,991.71	3,968.32	18.28	17.19	-23.79	2,220.70	-1,180.12	2,036.53	2,001.39	35.14	57.949		
4,100.00	4,057.98	4,091.13	4,067.71	18.74	17.61	-24.06	2,218.78	-1,182.27	2,021.26	1,985.25	36.01	56.132		
4,200.00	4,156.67	4,190.87	4,167.40	19.20	18.03	-24.33	2,216.78	-1,184.41	2,005.97	1,969.09	36.88	54.396		
4,300.00	4,255.35	4,290.88	4,267.37	19.66	18.45	-24.61	2,214.73	-1,186.50	1,990.64	1,952.90	37.75	52.738		
4,400.00	4,354.03	4,388.59	4,365.04	20.12	18.86	-24.89	2,212.71	-1,188.51	1,975.34	1,936.73	38.61	51.163		
4,500.00	4,452.71	4,486.89	4,463.30	20.58	19.28	-25.17	2,210.66	-1,190.60	1,960.10	1,920.63	39.47	49.655		
4,600.00	4,551.40	4,586.17	4,562.52	21.04	19.70	-25.46	2,208.50	-1,192.80	1,944.90	1,904.55	40.34	48.208		
4,700.00	4,650.08	4,683.22	4,659.53	21.50	20.11	-25.75	2,206.40	-1,194.95	1,929.74	1,888.53	41.21	46.830		
4,800.00	4,748.76	4,790.74	4,766.99	21.96	20.56	-26.08	2,203.89	-1,197.28	1,914.48	1,872.38	42.10	45.474		
4,900.00	4,847.44	4,891.85	4,868.05	22.42	20.99	-26.40	2,201.17	-1,199.33	1,898.91	1,855.93	42.98	44.185		
5,000.00	4,946.13	4,987.40	4,963.54	22.89	21.39	-26.71	2,198.64	-1,201.23	1,883.39	1,839.56	43.84	42.963		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,044.81	5,084.24	5,060.34	23.35	21.80	-27.01	2,196.28	-1,203.07	1,868.06	1,823.35	44.70	41.788		
5,200.00	5,143.49	5,178.58	5,154.64	23.81	22.20	-27.31	2,194.19	-1,204.78	1,852.90	1,807.34	45.56	40.668		
5,300.00	5,242.18	5,274.19	5,250.21	24.27	22.61	-27.61	2,192.32	-1,206.51	1,838.00	1,791.58	46.42	39.591		
5,400.00	5,340.86	5,371.05	5,347.05	24.74	23.02	-27.91	2,190.75	-1,208.00	1,823.27	1,775.98	47.29	38.554		
5,500.00	5,439.54	5,468.82	5,444.81	25.20	23.44	-28.20	2,189.56	-1,209.07	1,808.64	1,760.48	48.16	37.555		
5,600.00	5,538.22	5,563.84	5,539.82	25.66	23.84	-28.48	2,188.46	-1,210.18	1,794.14	1,745.12	49.02	36.599		
5,700.00	5,636.91	5,657.68	5,633.64	26.13	24.24	-28.76	2,187.64	-1,211.33	1,779.95	1,730.07	49.88	35.684		
5,800.00	5,735.59	5,768.26	5,744.22	26.59	24.71	-29.07	2,187.17	-1,212.00	1,765.80	1,715.02	50.78	34.772		
5,900.00	5,834.27	5,872.55	5,848.51	27.06	25.15	-29.36	2,186.31	-1,211.77	1,750.85	1,699.18	51.67	33.887		
6,000.00	5,932.95	5,977.97	5,953.92	27.52	25.60	-29.64	2,185.36	-1,211.36	1,735.79	1,683.23	52.55	33.028		
6,100.00	6,031.64	6,116.93	6,092.84	27.98	26.19	-30.01	2,183.14	-1,209.11	1,719.52	1,666.03	53.49	32.144		
6,200.00	6,130.32	6,219.47	6,195.32	28.45	26.62	-30.28	2,180.66	-1,206.70	1,702.16	1,647.80	54.37	31.308		
6,300.00	6,229.00	6,342.49	6,318.19	28.91	27.15	-30.62	2,176.10	-1,202.69	1,683.19	1,627.93	55.26	30.460		
6,400.00	6,327.69	6,424.03	6,399.63	29.38	27.50	-30.88	2,172.54	-1,200.61	1,664.33	1,608.21	56.12	29.659		
6,500.00	6,426.37	6,500.00	6,475.55	29.84	27.82	-31.13	2,170.06	-1,199.67	1,647.06	1,590.10	56.96	28.914		
6,600.00	6,525.05	6,569.06	6,544.59	30.31	28.11	-31.36	2,168.69	-1,199.43	1,631.35	1,573.55	57.79	28.227		
6,700.00	6,623.18	6,655.74	6,631.27	30.77	28.48	10.08	2,167.80	-1,199.51	1,612.01	1,553.37	58.64	27.490		
6,800.00	6,718.58	6,744.44	6,719.96	31.22	28.86	28.91	2,167.13	-1,199.87	1,583.93	1,524.47	59.46	26.637		
6,900.00	6,808.91	6,824.98	6,800.50	31.66	29.20	39.92	2,166.75	-1,200.53	1,548.04	1,487.81	60.23	25.701		
7,000.00	6,891.95	6,894.67	6,870.19	32.07	29.50	48.63	2,166.92	-1,201.44	1,505.99	1,445.05	60.94	24.713		
7,100.00	6,965.65	6,971.17	6,946.67	32.51	29.82	57.14	2,167.43	-1,202.56	1,459.21	1,397.58	61.64	23.675		
7,200.00	7,028.20	7,035.42	7,010.92	33.02	30.09	65.57	2,167.81	-1,203.40	1,409.57	1,347.25	62.32	22.618		
7,300.00	7,078.04	7,085.76	7,061.25	33.68	30.31	73.55	2,168.14	-1,204.04	1,359.80	1,296.75	63.05	21.568		
7,400.00	7,113.97	7,122.91	7,098.40	34.52	30.46	80.58	2,168.40	-1,204.50	1,312.73	1,248.83	63.89	20.546		
7,500.00	7,135.09	7,145.25	7,120.74	35.53	30.56	86.07	2,168.57	-1,204.74	1,271.09	1,206.17	64.91	19.581		
7,600.00	7,140.96	7,152.14	7,127.63	36.68	30.59	89.43	2,168.62	-1,204.82	1,237.31	1,171.18	66.13	18.710		
7,700.00	7,140.53	7,152.69	7,128.18	37.99	30.59	89.46	2,168.63	-1,204.82	1,211.69	1,144.08	67.61	17.923		
7,800.00	7,140.09	7,153.23	7,128.72	39.45	30.59	89.48	2,168.63	-1,204.83	1,193.92	1,124.59	69.34	17.220		
7,900.00	7,139.66	7,153.77	7,129.25	41.06	30.60	89.51	2,168.64	-1,204.83	1,184.36	1,113.11	71.25	16.623		
7,963.71	7,139.38	7,154.11	7,129.59	42.17	30.60	89.53	2,168.64	-1,204.84	1,182.65	1,110.11	72.53	16.305 CC		
8,000.00	7,139.23	7,154.30	7,129.79	42.80	30.60	89.53	2,168.64	-1,204.84	1,183.20	1,109.95	73.25	16.152 ES		
8,100.00	7,138.79	7,154.82	7,130.31	44.65	30.60	89.56	2,168.64	-1,204.84	1,190.47	1,115.21	75.26	15.818		
8,200.00	7,138.36	7,155.35	7,130.83	46.60	30.60	89.59	2,168.65	-1,204.85	1,206.02	1,128.83	77.19	15.623		
8,300.00	7,137.93	7,155.86	7,131.35	48.65	30.60	89.61	2,168.65	-1,204.85	1,229.53	1,150.54	78.99	15.567 SF		
8,400.00	7,137.49	7,156.37	7,131.86	50.77	30.61	89.64	2,168.66	-1,204.86	1,260.55	1,179.96	80.59	15.641		
8,500.00	7,137.06	7,156.88	7,132.36	52.95	30.61	89.66	2,168.66	-1,204.86	1,298.56	1,216.56	82.00	15.836		
8,600.00	7,136.62	7,157.38	7,132.87	55.20	30.61	89.68	2,168.66	-1,204.87	1,342.95	1,259.75	83.20	16.142		
8,700.00	7,136.19	7,157.88	7,133.36	57.51	30.61	89.71	2,168.67	-1,204.87	1,393.11	1,308.92	84.19	16.546		
8,800.00	7,135.76	7,158.37	7,133.85	59.85	30.61	89.73	2,168.67	-1,204.88	1,448.45	1,363.44	85.01	17.038		
8,900.00	7,135.32	7,158.86	7,134.34	62.24	30.62	89.76	2,168.68	-1,204.88	1,508.40	1,422.73	85.67	17.608		
9,000.00	7,134.89	7,159.34	7,134.82	64.67	30.62	89.78	2,168.68	-1,204.89	1,572.42	1,486.24	86.18	18.245		
9,100.00	7,134.45	7,159.82	7,135.30	67.13	30.62	89.80	2,168.68	-1,204.89	1,640.05	1,553.47	86.58	18.942		
9,200.00	7,134.02	7,160.29	7,135.78	69.62	30.62	89.83	2,168.69	-1,204.90	1,710.85	1,623.97	86.89	19.691		
9,300.00	7,133.59	7,160.76	7,136.25	72.14	30.63	89.85	2,168.69	-1,204.90	1,784.45	1,697.34	87.11	20.485		
9,400.00	7,133.15	7,161.22	7,136.71	74.68	30.63	89.87	2,168.69	-1,204.91	1,860.52	1,773.25	87.27	21.320		
9,500.00	7,132.72	7,161.69	7,137.17	77.24	30.63	89.89	2,168.70	-1,204.91	1,938.76	1,851.38	87.37	22.189		
9,600.00	7,132.29	7,162.14	7,137.63	79.83	30.63	89.91	2,168.70	-1,204.91	2,018.92	1,931.48	87.44	23.090		
9,700.00	7,131.85	7,162.60	7,138.08	82.42	30.63	89.94	2,168.71	-1,204.92	2,100.78	2,013.31	87.47	24.018		
9,800.00	7,131.42	7,163.04	7,138.53	85.04	30.63	89.96	2,168.71	-1,204.92	2,184.15	2,096.68	87.47	24.969		
9,900.00	7,130.98	7,163.49	7,138.97	87.67	30.64	89.98	2,168.71	-1,204.93	2,268.87	2,181.41	87.46	25.942		
10,000.00	7,130.55	7,163.93	7,139.41	90.31	30.64	90.00	2,168.72	-1,204.93	2,354.79	2,267.36	87.43	26.934		
10,100.00	7,130.12	7,164.37	7,139.85	92.97	30.64	90.02	2,168.72	-1,204.94	2,441.78	2,354.39	87.38	27.943		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACKGOLD 3(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,129.68	7,164.80	7,140.28	95.63	30.64	90.04	2,168.72	-1,204.94	2,529.73	2,442.39	87.33	28.967		
10,300.00	7,129.25	7,165.23	7,140.71	98.31	30.64	90.06	2,168.73	-1,204.94	2,618.54	2,531.27	87.27	30.004		
10,400.00	7,128.82	7,165.65	7,141.14	101.00	30.65	90.09	2,168.73	-1,204.95	2,708.14	2,620.93	87.21	31.053		
10,500.00	7,128.38	7,166.07	7,141.56	103.69	30.65	90.11	2,168.73	-1,204.95	2,798.44	2,711.29	87.14	32.113		
10,600.00	7,127.95	7,166.49	7,141.98	106.39	30.65	90.13	2,168.74	-1,204.96	2,889.38	2,802.30	87.08	33.182		
10,700.00	7,127.51	7,166.91	7,142.39	109.10	30.65	90.15	2,168.74	-1,204.96	2,980.90	2,893.89	87.01	34.260		
10,800.00	7,127.08	7,167.32	7,142.80	111.82	30.65	90.17	2,168.74	-1,204.96	3,072.94	2,986.00	86.94	35.345		
10,900.00	7,126.65	7,167.72	7,143.21	114.54	30.65	90.19	2,168.75	-1,204.97	3,165.48	3,078.60	86.87	36.438		
11,000.00	7,126.21	7,168.13	7,143.61	117.27	30.66	90.20	2,168.75	-1,204.97	3,258.45	3,171.64	86.81	37.536		
11,100.00	7,125.78	7,168.53	7,144.01	120.01	30.66	90.22	2,168.75	-1,204.97	3,351.82	3,265.08	86.74	38.641		
11,200.00	7,125.35	7,168.92	7,144.41	122.75	30.66	90.24	2,168.76	-1,204.98	3,445.57	3,358.89	86.68	39.750		
11,300.00	7,124.91	7,169.32	7,144.80	125.49	30.66	90.26	2,168.76	-1,204.98	3,539.66	3,453.04	86.62	40.864		
11,400.00	7,124.48	7,169.71	7,145.19	128.24	30.66	90.28	2,168.76	-1,204.99	3,634.07	3,547.50	86.56	41.981		
11,500.00	7,124.04	7,170.10	7,145.58	131.00	30.66	90.30	2,168.77	-1,204.99	3,728.77	3,642.26	86.51	43.103		
11,600.00	7,123.61	7,170.48	7,145.96	133.75	30.67	90.32	2,168.77	-1,204.99	3,823.73	3,737.28	86.46	44.227		
11,700.00	7,123.18	7,170.86	7,146.35	136.52	30.67	90.34	2,168.77	-1,205.00	3,918.95	3,832.54	86.41	45.354		
11,800.00	7,122.74	7,171.24	7,146.72	139.28	30.67	90.36	2,168.78	-1,205.00	4,014.40	3,928.04	86.36	46.484		
11,900.00	7,122.31	7,171.61	7,147.10	142.05	30.67	90.37	2,168.78	-1,205.00	4,110.07	4,023.75	86.32	47.617		
12,000.00	7,121.88	7,171.98	7,147.47	144.82	30.67	90.39	2,168.78	-1,205.01	4,205.94	4,119.66	86.27	48.751		
12,100.00	7,121.44	7,172.35	7,147.84	147.59	30.67	90.41	2,168.79	-1,205.01	4,301.99	4,215.76	86.24	49.887		
12,200.00	7,121.01	7,172.72	7,148.20	150.37	30.68	90.43	2,168.79	-1,205.01	4,398.22	4,312.03	86.20	51.024		
12,300.00	7,120.57	7,173.08	7,148.56	153.15	30.68	90.44	2,168.79	-1,205.02	4,494.62	4,408.46	86.17	52.163		
12,400.00	7,120.14	7,173.44	7,148.92	155.93	30.68	90.46	2,168.79	-1,205.02	4,591.17	4,505.04	86.13	53.303		
12,500.00	7,119.71	7,173.79	7,149.28	158.72	30.68	90.48	2,168.80	-1,205.02	4,687.87	4,601.76	86.11	54.443		
12,600.00	7,119.27	7,174.15	7,149.63	161.50	30.68	90.50	2,168.80	-1,205.03	4,784.70	4,698.62	86.08	55.585		
12,700.00	7,118.84	7,174.50	7,149.98	164.29	30.68	90.51	2,168.80	-1,205.03	4,881.66	4,795.60	86.06	56.726		
12,800.00	7,118.41	7,174.85	7,150.33	167.08	30.68	90.53	2,168.81	-1,205.03	4,978.74	4,892.70	86.03	57.869		
12,900.00	7,117.97	7,175.19	7,150.68	169.88	30.69	90.55	2,168.81	-1,205.04	5,075.93	4,989.91	86.02	59.011		
13,000.00	7,117.54	7,175.54	7,151.02	172.67	30.69	90.56	2,168.81	-1,205.04	5,173.23	5,087.23	86.00	60.154		
13,100.00	7,117.10	7,175.88	7,151.36	175.47	30.69	90.58	2,168.81	-1,205.04	5,270.63	5,184.64	85.99	61.297		
13,200.00	7,116.67	7,176.21	7,151.70	178.27	30.69	90.60	2,168.82	-1,205.04	5,368.12	5,282.15	85.97	62.440		
13,300.00	7,116.24	7,176.55	7,152.03	181.07	30.69	90.61	2,168.82	-1,205.05	5,465.71	5,379.75	85.96	63.582		
13,400.00	7,115.80	7,176.88	7,152.36	183.87	30.69	90.63	2,168.82	-1,205.05	5,563.38	5,477.43	85.95	64.724		
13,500.00	7,115.37	7,177.21	7,152.69	186.67	30.69	90.64	2,168.83	-1,205.05	5,661.14	5,575.19	85.95	65.866		
13,600.00	7,114.93	7,177.54	7,153.02	189.47	30.70	90.66	2,168.83	-1,205.06	5,758.97	5,673.02	85.95	67.007		
13,700.00	7,114.50	7,177.86	7,153.34	192.28	30.70	90.68	2,168.83	-1,205.06	5,856.87	5,770.93	85.94	68.148		
13,800.00	7,114.07	7,178.18	7,153.67	195.09	30.70	90.69	2,168.83	-1,205.06	5,954.84	5,868.90	85.94	69.288		
13,900.00	7,113.63	7,178.50	7,153.99	197.89	30.70	90.71	2,168.84	-1,205.07	6,052.88	5,966.94	85.95	70.427		
14,000.00	7,113.20	7,178.82	7,154.30	200.70	30.70	90.72	2,168.84	-1,205.07	6,150.99	6,065.04	85.95	71.566		
14,100.00	7,112.77	7,179.13	7,154.62	203.51	30.70	90.74	2,168.84	-1,205.07	6,249.15	6,163.20	85.95	72.703		
14,200.00	7,112.33	7,179.45	7,154.93	206.32	30.70	90.75	2,168.84	-1,205.07	6,347.37	6,261.41	85.96	73.840		
14,300.00	7,111.90	7,179.76	7,155.24	209.13	30.71	90.77	2,168.85	-1,205.08	6,445.65	6,359.67	85.97	74.975		
14,400.00	7,111.46	7,180.06	7,155.55	211.95	30.71	90.78	2,168.85	-1,205.08	6,543.97	6,457.99	85.98	76.110		
14,500.00	7,111.03	7,180.37	7,155.85	214.76	30.71	90.80	2,168.85	-1,205.08	6,642.35	6,556.36	85.99	77.243		
14,600.00	7,110.60	7,180.67	7,156.16	217.58	30.71	90.81	2,168.85	-1,205.08	6,740.77	6,654.77	86.01	78.375		
14,700.00	7,110.16	7,180.97	7,156.46	220.39	30.71	90.83	2,168.86	-1,205.09	6,839.25	6,753.22	86.02	79.505		
14,800.00	7,109.73	7,181.27	7,156.76	223.21	30.71	90.84	2,168.86	-1,205.09	6,937.76	6,851.72	86.04	80.635		
14,900.00	7,109.30	7,181.57	7,157.05	226.03	30.71	90.86	2,168.86	-1,205.09	7,036.32	6,950.26	86.06	81.763		
14,969.16	7,109.00	7,181.77	7,157.26	227.97	30.71	90.87	2,168.86	-1,205.09	7,104.50	7,018.43	86.07	82.542		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	21.00	3.28	3.28	-69.16	824.88	-2,167.17	2,318.94					
100.00	100.00	79.00	100.00	3.28	3.56	-69.16	824.88	-2,167.17	2,318.85	2,312.00	6.84	338.875		
200.00	200.00	179.00	200.00	3.34	5.57	-69.16	824.88	-2,167.17	2,318.85	2,309.94	8.91	260.302		
300.00	300.00	279.00	300.00	3.44	8.64	-69.16	824.88	-2,167.17	2,318.85	2,306.76	12.09	191.862		
400.00	400.00	379.00	400.00	3.60	11.94	-69.16	824.88	-2,167.17	2,318.85	2,303.30	15.55	149.142		
500.00	500.00	479.00	500.00	3.81	15.33	-69.16	824.88	-2,167.17	2,318.85	2,299.71	19.14	121.168		
600.00	600.00	579.00	600.00	4.05	18.76	-69.16	824.88	-2,167.17	2,318.85	2,296.04	22.80	101.692		
700.00	699.98	678.98	699.98	4.32	22.20	-60.06	824.88	-2,167.17	2,317.97	2,291.46	26.52	87.409		
800.00	799.84	778.84	799.84	4.62	25.65	-60.22	824.88	-2,167.17	2,315.37	2,285.10	30.27	76.495		
900.00	899.45	878.45	899.45	4.94	29.11	-60.48	824.88	-2,167.17	2,311.04	2,277.00	34.04	67.895		
1,000.00	998.70	977.70	998.70	5.28	32.55	-60.85	824.88	-2,167.17	2,305.04	2,267.22	37.82	60.948		
1,100.00	1,097.50	1,076.50	1,097.50	5.64	35.98	-61.27	824.88	-2,167.17	2,297.50	2,255.90	41.61	55.221		
1,200.00	1,196.18	1,175.18	1,196.18	6.00	39.42	-61.62	824.88	-2,167.17	2,289.69	2,244.28	45.40	50.429		
1,300.00	1,294.87	1,273.87	1,294.87	6.38	42.85	-61.97	824.88	-2,167.17	2,281.96	2,232.75	49.22	46.364		
1,400.00	1,393.55	1,372.55	1,393.55	6.77	46.29	-62.33	824.88	-2,167.17	2,274.33	2,221.29	53.04	42.876		
1,500.00	1,492.23	1,471.23	1,492.23	7.17	49.72	-62.69	824.88	-2,167.17	2,266.78	2,209.90	56.88	39.852		
1,600.00	1,590.91	1,569.91	1,590.91	7.58	53.16	-63.05	824.88	-2,167.17	2,259.33	2,198.60	60.72	37.206		
1,700.00	1,689.60	1,668.60	1,689.60	8.00	56.60	-63.41	824.88	-2,167.17	2,251.96	2,187.39	64.58	34.873		
1,800.00	1,788.28	1,767.28	1,788.28	8.42	60.04	-63.78	824.88	-2,167.17	2,244.69	2,176.26	68.43	32.800		
1,900.00	1,886.96	1,865.96	1,886.96	8.84	63.48	-64.15	824.88	-2,167.17	2,237.52	2,165.22	72.30	30.948		
2,000.00	1,985.64	1,964.64	1,985.64	9.27	66.92	-64.52	824.88	-2,167.17	2,230.43	2,154.27	76.17	29.284		
2,100.00	2,084.33	2,063.33	2,084.33	9.71	70.36	-64.89	824.88	-2,167.17	2,223.44	2,143.41	80.04	27.780		
2,200.00	2,183.01	2,162.01	2,183.01	10.15	73.80	-65.26	824.88	-2,167.17	2,216.55	2,132.64	83.91	26.414		
2,300.00	2,281.69	2,260.69	2,281.69	10.59	77.25	-65.64	824.88	-2,167.17	2,209.76	2,121.96	87.79	25.170		
2,400.00	2,380.38	2,359.38	2,380.38	11.03	80.69	-66.02	824.88	-2,167.17	2,203.06	2,111.38	91.67	24.031		
2,500.00	2,479.06	2,458.06	2,479.06	11.47	84.13	-66.40	824.88	-2,167.17	2,196.46	2,100.90	95.56	22.985		
2,600.00	2,577.74	2,556.74	2,577.74	11.92	87.57	-66.78	824.88	-2,167.17	2,189.96	2,090.52	99.44	22.022		
2,700.00	2,676.42	2,655.42	2,676.42	12.36	91.01	-67.17	824.88	-2,167.17	2,183.56	2,080.23	103.33	21.131		
2,800.00	2,775.11	2,754.11	2,775.11	12.81	94.46	-67.56	824.88	-2,167.17	2,177.26	2,070.04	107.22	20.306		
2,900.00	2,873.79	2,852.79	2,873.79	13.26	97.90	-67.95	824.88	-2,167.17	2,171.07	2,059.95	111.11	19.539		
3,000.00	2,972.47	2,951.47	2,972.47	13.72	101.34	-68.34	824.88	-2,167.17	2,164.98	2,049.97	115.01	18.825		
3,100.00	3,071.15	3,050.15	3,071.15	14.17	104.79	-68.73	824.88	-2,167.17	2,158.99	2,040.09	118.90	18.158		
3,200.00	3,169.84	3,148.84	3,169.84	14.62	108.23	-69.13	824.88	-2,167.17	2,153.11	2,030.31	122.80	17.534		
3,300.00	3,268.52	3,247.52	3,268.52	15.08	111.67	-69.53	824.88	-2,167.17	2,147.33	2,020.63	126.69	16.949		
3,400.00	3,367.20	3,346.20	3,367.20	15.53	115.12	-69.93	824.88	-2,167.17	2,141.66	2,011.07	130.59	16.400		
3,500.00	3,465.89	3,444.89	3,465.89	15.99	118.56	-70.33	824.88	-2,167.17	2,136.10	2,001.60	134.49	15.883		
3,600.00	3,564.57	3,543.57	3,564.57	16.44	122.00	-70.74	824.88	-2,167.17	2,130.64	1,992.25	138.39	15.396		
3,700.00	3,663.25	3,642.25	3,663.25	16.90	125.45	-71.14	824.88	-2,167.17	2,125.29	1,983.00	142.29	14.936		
3,800.00	3,761.93	3,740.93	3,761.93	17.36	128.89	-71.55	824.88	-2,167.17	2,120.06	1,973.87	146.19	14.502		
3,900.00	3,860.62	3,839.62	3,860.62	17.82	132.34	-71.96	824.88	-2,167.17	2,114.93	1,964.84	150.09	14.091		
4,000.00	3,959.30	3,938.30	3,959.30	18.28	135.78	-72.38	824.88	-2,167.17	2,109.92	1,955.92	154.00	13.701		
4,100.00	4,057.98	4,036.98	4,057.98	18.74	139.22	-72.79	824.88	-2,167.17	2,105.02	1,947.12	157.90	13.331		
4,200.00	4,156.67	4,135.67	4,156.67	19.20	142.67	-73.21	824.88	-2,167.17	2,100.23	1,938.43	161.80	12.980		
4,300.00	4,255.35	4,234.35	4,255.35	19.66	146.11	-73.63	824.88	-2,167.17	2,095.56	1,929.85	165.71	12.646		
4,400.00	4,354.03	4,333.03	4,354.03	20.12	149.56	-74.05	824.88	-2,167.17	2,091.00	1,921.39	169.61	12.328		
4,500.00	4,452.71	4,431.71	4,452.71	20.58	153.00	-74.47	824.88	-2,167.17	2,086.56	1,913.04	173.52	12.025		
4,600.00	4,551.40	4,530.40	4,551.40	21.04	156.45	-74.89	824.88	-2,167.17	2,082.23	1,904.80	177.42	11.736		
4,700.00	4,650.08	4,629.08	4,650.08	21.50	159.89	-75.32	824.88	-2,167.17	2,078.02	1,896.69	181.33	11.460		
4,800.00	4,748.76	4,727.76	4,748.76	21.96	163.33	-75.74	824.88	-2,167.17	2,073.92	1,888.69	185.24	11.196		
4,900.00	4,847.44	4,826.44	4,847.44	22.42	166.78	-76.17	824.88	-2,167.17	2,069.95	1,880.81	189.15	10.944		
5,000.00	4,946.13	4,925.13	4,946.13	22.89	170.22	-76.60	824.88	-2,167.17	2,066.09	1,873.04	193.05	10.702		
5,100.00	5,044.81	5,023.81	5,044.81	23.35	173.67	-77.03	824.88	-2,167.17	2,062.36	1,865.40	196.96	10.471		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,122.49	5,143.49	23.81	177.11	-77.47	824.88	-2,167.17	2,058.74	1,857.88	200.87	10.249		
5,300.00	5,242.18	5,221.18	5,242.18	24.27	180.56	-77.90	824.88	-2,167.17	2,055.25	1,850.47	204.78	10.037		
5,400.00	5,340.86	5,319.86	5,340.86	24.74	184.00	-78.34	824.88	-2,167.17	2,051.88	1,843.19	208.69	9.832		
5,500.00	5,439.54	5,418.54	5,439.54	25.20	187.44	-78.78	824.88	-2,167.17	2,048.63	1,836.03	212.59	9.636		
5,600.00	5,538.22	5,517.22	5,538.22	25.66	190.89	-79.21	824.88	-2,167.17	2,045.50	1,828.99	216.50	9.448		
5,700.00	5,636.91	5,615.91	5,636.91	26.13	194.33	-79.65	824.88	-2,167.17	2,042.49	1,822.08	220.41	9.267		
5,800.00	5,735.59	5,714.59	5,735.59	26.59	197.78	-80.10	824.88	-2,167.17	2,039.61	1,815.29	224.32	9.092		
5,900.00	5,834.27	5,813.27	5,834.27	27.06	201.22	-80.54	824.88	-2,167.17	2,036.86	1,808.62	228.23	8.924		
6,000.00	5,932.95	5,911.95	5,932.95	27.52	204.67	-80.98	824.88	-2,167.17	2,034.23	1,802.08	232.14	8.763		
6,100.00	6,031.64	6,010.64	6,031.64	27.98	208.11	-81.43	824.88	-2,167.17	2,031.72	1,795.67	236.05	8.607		
6,200.00	6,130.32	6,109.32	6,130.32	28.45	211.56	-81.87	824.88	-2,167.17	2,029.34	1,789.38	239.96	8.457		
6,300.00	6,229.00	6,208.00	6,229.00	28.91	215.00	-82.32	824.88	-2,167.17	2,027.09	1,783.21	243.88	8.312		
6,400.00	6,327.69	6,306.69	6,327.69	29.38	218.45	-82.77	824.88	-2,167.17	2,024.96	1,777.17	247.79	8.172		
6,500.00	6,426.37	6,405.37	6,426.37	29.84	221.89	-83.22	824.88	-2,167.17	2,022.96	1,771.26	251.70	8.037		
6,600.00	6,525.05	6,504.05	6,525.05	30.31	225.34	-83.67	824.88	-2,167.17	2,021.09	1,765.48	255.61	7.907		
6,700.00	6,623.18	6,602.18	6,623.18	30.77	228.76	-44.01	824.88	-2,167.17	2,011.57	1,752.07	259.50	7.752		
6,800.00	6,718.58	6,702.42	6,718.58	31.22	232.26	-28.18	824.88	-2,167.17	1,986.75	1,723.30	263.44	7.541		
6,900.00	6,808.91	6,787.91	6,808.91	31.66	235.24	-21.46	824.88	-2,167.17	1,947.22	1,680.38	266.85	7.297		
7,000.00	6,891.95	6,870.95	6,891.95	32.07	238.14	-18.34	824.88	-2,167.17	1,893.97	1,623.85	270.12	7.012		
7,100.00	6,965.65	6,944.65	6,965.65	32.51	240.72	-17.11	824.88	-2,167.17	1,828.29	1,555.27	273.03	6.696		
7,200.00	7,028.20	7,007.20	7,028.20	33.02	242.90	-17.31	824.88	-2,167.17	1,751.79	1,476.30	275.49	6.359		
7,300.00	7,078.04	7,057.04	7,078.04	33.68	244.64	-19.15	824.88	-2,167.17	1,666.33	1,388.88	277.45	6.006		
7,400.00	7,113.97	7,107.03	7,113.97	34.52	246.38	-24.07	824.88	-2,167.17	1,574.00	1,294.63	279.37	5.634		
7,500.00	7,135.09	7,114.09	7,135.09	35.53	246.63	-38.82	824.88	-2,167.17	1,477.03	1,197.29	279.74	5.280		
7,600.00	7,140.96	7,119.96	7,140.96	36.68	246.83	-92.68	824.88	-2,167.17	1,377.79	1,097.76	280.04	4.920		
7,700.00	7,140.53	7,119.53	7,140.53	37.99	246.82	-92.49	824.88	-2,167.17	1,278.25	998.15	280.10	4.564		
7,800.00	7,140.09	7,119.09	7,140.09	39.45	246.80	-92.29	824.88	-2,167.17	1,178.79	898.60	280.19	4.207		
7,900.00	7,139.66	7,118.66	7,139.66	41.06	246.79	-92.10	824.88	-2,167.17	1,079.43	799.13	280.30	3.851		
8,000.00	7,139.23	7,118.23	7,139.23	42.80	246.77	-91.90	824.88	-2,167.17	980.19	699.74	280.45	3.495		
8,100.00	7,138.79	7,117.79	7,138.79	44.65	246.76	-91.71	824.88	-2,167.17	881.13	600.49	280.65	3.140		
8,200.00	7,138.36	7,117.36	7,138.36	46.60	246.74	-91.51	824.88	-2,167.17	782.31	501.39	280.92	2.785		
8,300.00	7,137.93	7,116.93	7,137.93	48.65	246.73	-91.31	824.88	-2,167.17	683.83	402.52	281.31	2.431		
8,400.00	7,137.49	7,116.49	7,137.49	50.77	246.71	-91.12	824.88	-2,167.17	585.87	303.97	281.90	2.078		
8,500.00	7,137.06	7,116.06	7,137.06	52.95	246.70	-90.92	824.88	-2,167.17	488.73	205.91	282.82	1.728		
8,600.00	7,136.62	7,115.62	7,136.62	55.20	246.68	-90.73	824.88	-2,167.17	393.03	108.63	284.41	1.382 Level 3		
8,700.00	7,136.19	7,115.19	7,136.19	57.51	246.67	-90.53	824.88	-2,167.17	300.15	12.78	287.37	1.044 Level 2		
8,800.00	7,135.76	7,114.76	7,135.76	59.85	246.65	-90.34	824.88	-2,167.17	213.78	-79.67	293.45	0.729 Level 1		
8,900.00	7,135.32	7,114.32	7,135.32	62.24	246.64	-90.14	824.88	-2,167.17	146.00	-158.90	304.90	0.479 Level 1		
8,971.93	7,135.01	7,114.01	7,135.01	63.99	246.63	-90.00	824.88	-2,167.17	127.05	-183.40	310.45	0.409 Level 1, CC, ES, SF		
9,000.00	7,134.89	7,113.89	7,134.89	64.67	246.62	-89.95	824.88	-2,167.17	130.11	-179.04	309.15	0.421 Level 1		
9,100.00	7,134.45	7,113.45	7,134.45	67.13	246.61	-89.75	824.88	-2,167.17	180.39	-116.31	296.70	0.608 Level 1		
9,200.00	7,134.02	7,113.02	7,134.02	69.62	246.59	-89.55	824.88	-2,167.17	261.06	-27.29	288.35	0.905 Level 1		
9,300.00	7,133.59	7,112.59	7,133.59	72.14	246.58	-89.36	824.88	-2,167.17	351.80	67.32	284.49	1.237 Level 2		
9,400.00	7,133.15	7,112.15	7,133.15	74.68	246.56	-89.16	824.88	-2,167.17	446.52	163.92	282.60	1.580		
9,500.00	7,132.72	7,111.72	7,132.72	77.24	246.55	-88.97	824.88	-2,167.17	543.13	261.55	281.58	1.929		
9,600.00	7,132.29	7,111.29	7,132.29	79.83	246.53	-88.77	824.88	-2,167.17	640.78	359.80	280.98	2.281		
9,700.00	7,131.85	7,110.85	7,131.85	82.42	246.52	-88.58	824.88	-2,167.17	739.06	458.45	280.61	2.634		
9,800.00	7,131.42	7,110.42	7,131.42	85.04	246.50	-88.38	824.88	-2,167.17	837.75	557.38	280.37	2.988		
9,900.00	7,130.98	7,109.98	7,130.98	87.67	246.49	-88.19	824.88	-2,167.17	936.71	656.50	280.21	3.343		
10,000.00	7,130.55	7,109.55	7,130.55	90.31	246.47	-87.99	824.88	-2,167.17	1,035.88	755.78	280.10	3.698		
10,100.00	7,130.12	7,109.12	7,130.12	92.97	246.46	-87.79	824.88	-2,167.17	1,135.19	855.16	280.03	4.054		
10,200.00	7,129.68	7,108.68	7,129.68	95.63	246.44	-87.60	824.88	-2,167.17	1,234.61	954.63	279.97	4.410		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	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	
10,300.00	7,129.25	7,108.25	7,129.25	98.31	246.43	-87.40	824.88	-2,167.17	1,334.12	1,054.18	279.94	4.766	
10,400.00	7,128.82	7,107.82	7,128.82	101.00	246.41	-87.21	824.88	-2,167.17	1,433.69	1,153.77	279.92	5.122	
10,500.00	7,128.38	7,107.38	7,128.38	103.69	246.40	-87.01	824.88	-2,167.17	1,533.32	1,253.41	279.91	5.478	
10,600.00	7,127.95	7,106.95	7,127.95	106.39	246.38	-86.82	824.88	-2,167.17	1,633.00	1,353.09	279.91	5.834	
10,700.00	7,127.51	7,106.51	7,127.51	109.10	246.37	-86.62	824.88	-2,167.17	1,732.71	1,452.80	279.91	6.190	
10,800.00	7,127.08	7,106.08	7,127.08	111.82	246.35	-86.43	824.88	-2,167.17	1,832.46	1,552.54	279.92	6.546	
10,900.00	7,126.65	7,105.65	7,126.65	114.54	246.33	-86.23	824.88	-2,167.17	1,932.23	1,652.30	279.93	6.903	
11,000.00	7,126.21	7,105.21	7,126.21	117.27	246.32	-86.04	824.88	-2,167.17	2,032.02	1,752.08	279.95	7.259	
11,100.00	7,125.78	7,104.78	7,125.78	120.01	246.30	-85.84	824.88	-2,167.17	2,131.83	1,851.87	279.96	7.615	
11,200.00	7,125.35	7,104.35	7,125.35	122.75	246.29	-85.65	824.88	-2,167.17	2,231.66	1,951.68	279.99	7.971	
11,300.00	7,124.91	7,103.91	7,124.91	125.49	246.27	-85.46	824.88	-2,167.17	2,331.51	2,051.50	280.01	8.326	
11,400.00	7,124.48	7,103.48	7,124.48	128.24	246.26	-85.26	824.88	-2,167.17	2,431.36	2,151.33	280.04	8.682	
11,500.00	7,124.04	7,103.04	7,124.04	131.00	246.24	-85.07	824.88	-2,167.17	2,531.23	2,251.17	280.06	9.038	
11,600.00	7,123.61	7,102.61	7,123.61	133.75	246.23	-84.87	824.88	-2,167.17	2,631.11	2,351.02	280.09	9.394	
11,700.00	7,123.18	7,102.18	7,123.18	136.52	246.21	-84.68	824.88	-2,167.17	2,731.00	2,450.87	280.13	9.749	
11,800.00	7,122.74	7,101.74	7,122.74	139.28	246.20	-84.48	824.88	-2,167.17	2,830.89	2,550.73	280.16	10.105	
11,900.00	7,122.31	7,101.31	7,122.31	142.05	246.18	-84.29	824.88	-2,167.17	2,930.79	2,650.60	280.19	10.460	
12,000.00	7,121.88	7,100.88	7,121.88	144.82	246.17	-84.10	824.88	-2,167.17	3,030.70	2,750.47	280.23	10.815	
12,100.00	7,121.44	7,100.44	7,121.44	147.59	246.15	-83.90	824.88	-2,167.17	3,130.62	2,850.35	280.27	11.170	
12,200.00	7,121.01	7,100.01	7,121.01	150.37	246.14	-83.71	824.88	-2,167.17	3,230.53	2,950.23	280.31	11.525	
12,300.00	7,120.57	7,100.43	7,120.57	153.15	246.15	-83.52	824.88	-2,167.17	3,330.46	3,050.08	280.38	11.879	
12,400.00	7,120.14	7,100.86	7,120.14	155.93	246.17	-83.32	824.88	-2,167.17	3,430.39	3,149.94	280.45	12.232	
12,500.00	7,119.71	7,101.29	7,119.71	158.72	246.18	-83.13	824.88	-2,167.17	3,530.32	3,249.80	280.52	12.585	
12,600.00	7,119.27	7,101.73	7,119.27	161.50	246.20	-82.94	824.88	-2,167.17	3,630.26	3,349.66	280.59	12.938	
12,700.00	7,118.84	7,102.16	7,118.84	164.29	246.21	-82.75	824.88	-2,167.17	3,730.19	3,449.53	280.67	13.290	
12,800.00	7,118.41	7,102.60	7,118.41	167.08	246.23	-82.55	824.88	-2,167.17	3,830.14	3,549.39	280.74	13.643	
12,900.00	7,117.97	7,103.03	7,117.97	169.88	246.24	-82.36	824.88	-2,167.17	3,930.08	3,649.26	280.82	13.995	
13,000.00	7,117.54	7,103.46	7,117.54	172.67	246.26	-82.17	824.88	-2,167.17	4,030.03	3,749.13	280.90	14.347	
13,100.00	7,117.10	7,103.90	7,117.10	175.47	246.27	-81.98	824.88	-2,167.17	4,129.98	3,849.00	280.98	14.699	
13,200.00	7,116.67	7,104.33	7,116.67	178.27	246.29	-81.79	824.88	-2,167.17	4,229.93	3,948.88	281.06	15.050	
13,300.00	7,116.24	7,104.76	7,116.24	181.07	246.30	-81.59	824.88	-2,167.17	4,329.89	4,048.75	281.14	15.401	
13,400.00	7,115.80	7,105.20	7,115.80	183.87	246.32	-81.40	824.88	-2,167.17	4,429.85	4,148.63	281.22	15.752	
13,500.00	7,115.37	7,105.63	7,115.37	186.67	246.33	-81.21	824.88	-2,167.17	4,529.81	4,248.50	281.30	16.103	
13,600.00	7,114.93	7,106.07	7,114.93	189.47	246.35	-81.02	824.88	-2,167.17	4,629.77	4,348.38	281.39	16.453	
13,700.00	7,114.50	7,106.50	7,114.50	192.28	246.36	-80.83	824.88	-2,167.17	4,729.73	4,448.26	281.47	16.804	
13,800.00	7,114.07	7,106.93	7,114.07	195.09	246.38	-80.64	824.88	-2,167.17	4,829.69	4,548.14	281.56	17.154	
13,900.00	7,113.63	7,107.37	7,113.63	197.89	246.39	-80.45	824.88	-2,167.17	4,929.66	4,648.01	281.64	17.503	
14,000.00	7,113.20	7,107.80	7,113.20	200.70	246.41	-80.26	824.88	-2,167.17	5,029.62	4,747.89	281.73	17.853	
14,100.00	7,112.77	7,108.23	7,112.77	203.51	246.43	-80.07	824.88	-2,167.17	5,129.59	4,847.77	281.82	18.202	
14,200.00	7,112.33	7,108.67	7,112.33	206.32	246.44	-79.88	824.88	-2,167.17	5,229.56	4,947.65	281.91	18.551	
14,300.00	7,111.90	7,109.10	7,111.90	209.13	246.46	-79.69	824.88	-2,167.17	5,329.53	5,047.53	282.00	18.899	
14,400.00	7,111.46	7,109.54	7,111.46	211.95	246.47	-79.50	824.88	-2,167.17	5,429.50	5,147.41	282.09	19.248	
14,500.00	7,111.03	7,109.97	7,111.03	214.76	246.49	-79.31	824.88	-2,167.17	5,529.47	5,247.29	282.18	19.596	
14,600.00	7,110.60	7,089.60	7,110.60	217.58	245.77	-79.12	824.88	-2,167.17	5,629.45	5,347.90	281.55	19.995	
14,700.00	7,110.16	7,089.16	7,110.16	220.39	245.76	-78.93	824.88	-2,167.17	5,729.42	5,447.81	281.61	20.345	
14,800.00	7,109.73	7,088.73	7,109.73	223.21	245.74	-78.75	824.88	-2,167.17	5,829.40	5,547.72	281.67	20.696	
14,900.00	7,109.30	7,088.30	7,109.30	226.03	245.73	-78.56	824.88	-2,167.17	5,929.37	5,647.63	281.74	21.046	
14,969.16	7,109.00	7,088.00	7,109.00	227.97	245.72	-78.43	824.88	-2,167.17	5,998.52	5,716.73	281.78	21.288	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH)													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	36.00	3.28	3.28	-101.33	-508.44	-2,537.22	2,587.91					
100.00	100.00	64.00	100.00	3.28	3.47	-101.33	-508.44	-2,537.22	2,587.66	2,580.91	6.75	383.372		
200.00	200.00	164.00	200.00	3.34	5.16	-101.33	-508.44	-2,537.22	2,587.66	2,579.17	8.49	304.637		
300.00	300.00	264.00	300.00	3.44	8.16	-101.33	-508.44	-2,537.22	2,587.66	2,576.06	11.60	222.998		
400.00	400.00	364.00	400.00	3.60	11.44	-101.33	-508.44	-2,537.22	2,587.66	2,572.61	15.05	171.991		
500.00	500.00	464.00	500.00	3.81	14.82	-101.33	-508.44	-2,537.22	2,587.66	2,569.03	18.63	138.925		
600.00	600.00	564.00	600.00	4.05	18.24	-101.33	-508.44	-2,537.22	2,587.66	2,565.37	22.29	116.104		
700.00	699.98	663.98	699.98	4.32	21.68	-92.22	-508.44	-2,537.22	2,587.73	2,561.73	26.00	99.525		
800.00	799.84	763.84	799.84	4.62	25.14	-92.33	-508.44	-2,537.22	2,587.93	2,558.19	29.75	86.995		
900.00	899.45	863.45	899.45	4.94	28.59	-92.51	-508.44	-2,537.22	2,588.30	2,554.79	33.52	77.224		
1,000.00	998.70	962.70	998.70	5.28	32.03	-92.77	-508.44	-2,537.22	2,588.87	2,551.57	37.30	69.412		
1,100.00	1,097.50	1,061.50	1,097.50	5.64	35.46	-93.10	-508.44	-2,537.22	2,589.67	2,548.59	41.08	63.034		
1,200.00	1,196.18	1,160.18	1,196.18	6.00	38.90	-93.45	-508.44	-2,537.22	2,590.61	2,545.72	44.88	57.717		
1,300.00	1,294.87	1,258.87	1,294.87	6.38	42.33	-93.80	-508.44	-2,537.22	2,591.64	2,542.94	48.70	53.215		
1,400.00	1,393.55	1,357.55	1,393.55	6.77	45.76	-94.16	-508.44	-2,537.22	2,592.78	2,540.25	52.53	49.358		
1,500.00	1,492.23	1,456.23	1,492.23	7.17	49.20	-94.51	-508.44	-2,537.22	2,594.02	2,537.65	56.37	46.018		
1,600.00	1,590.91	1,554.91	1,590.91	7.58	52.64	-94.86	-508.44	-2,537.22	2,595.36	2,535.14	60.22	43.100		
1,700.00	1,689.60	1,653.60	1,689.60	8.00	56.08	-95.21	-508.44	-2,537.22	2,596.80	2,532.72	64.07	40.529		
1,800.00	1,788.28	1,752.28	1,788.28	8.42	59.52	-95.56	-508.44	-2,537.22	2,598.33	2,530.40	67.93	38.248		
1,900.00	1,886.96	1,850.96	1,886.96	8.84	62.96	-95.91	-508.44	-2,537.22	2,599.97	2,528.17	71.80	36.211		
2,000.00	1,985.64	1,949.64	1,985.64	9.27	66.40	-96.26	-508.44	-2,537.22	2,601.71	2,526.04	75.67	34.382		
2,100.00	2,084.33	2,048.33	2,084.33	9.71	69.84	-96.61	-508.44	-2,537.22	2,603.55	2,524.00	79.55	32.730		
2,200.00	2,183.01	2,147.01	2,183.01	10.15	73.28	-96.96	-508.44	-2,537.22	2,605.48	2,522.06	83.43	31.231		
2,300.00	2,281.69	2,245.69	2,281.69	10.59	76.72	-97.31	-508.44	-2,537.22	2,607.52	2,520.21	87.31	29.866		
2,400.00	2,380.38	2,344.38	2,380.38	11.03	80.16	-97.65	-508.44	-2,537.22	2,609.65	2,518.46	91.19	28.617		
2,500.00	2,479.06	2,443.06	2,479.06	11.47	83.61	-98.00	-508.44	-2,537.22	2,611.88	2,516.81	95.08	27.471		
2,600.00	2,577.74	2,541.74	2,577.74	11.92	87.05	-98.35	-508.44	-2,537.22	2,614.21	2,515.25	98.97	26.415		
2,700.00	2,676.42	2,640.42	2,676.42	12.36	90.49	-98.69	-508.44	-2,537.22	2,616.64	2,513.79	102.86	25.440		
2,800.00	2,775.11	2,739.11	2,775.11	12.81	93.93	-99.04	-508.44	-2,537.22	2,619.17	2,512.42	106.75	24.536		
2,900.00	2,873.79	2,837.79	2,873.79	13.26	97.38	-99.38	-508.44	-2,537.22	2,621.79	2,511.15	110.64	23.696		
3,000.00	2,972.47	2,936.47	2,972.47	13.72	100.82	-99.73	-508.44	-2,537.22	2,624.51	2,509.98	114.54	22.914		
3,100.00	3,071.15	3,035.15	3,071.15	14.17	104.26	-100.07	-508.44	-2,537.22	2,627.33	2,508.90	118.43	22.184		
3,200.00	3,169.84	3,133.84	3,169.84	14.62	107.71	-100.41	-508.44	-2,537.22	2,630.24	2,507.91	122.33	21.502		
3,300.00	3,268.52	3,232.52	3,268.52	15.08	111.15	-100.76	-508.44	-2,537.22	2,633.25	2,507.03	126.23	20.861		
3,400.00	3,367.20	3,331.20	3,367.20	15.53	114.59	-101.10	-508.44	-2,537.22	2,636.36	2,506.23	130.12	20.260		
3,500.00	3,465.89	3,429.89	3,465.89	15.99	118.04	-101.44	-508.44	-2,537.22	2,639.56	2,505.53	134.02	19.695		
3,600.00	3,564.57	3,528.57	3,564.57	16.44	121.48	-101.78	-508.44	-2,537.22	2,642.85	2,504.93	137.92	19.162		
3,700.00	3,663.25	3,627.25	3,663.25	16.90	124.93	-102.11	-508.44	-2,537.22	2,646.25	2,504.42	141.82	18.659		
3,800.00	3,761.93	3,725.93	3,761.93	17.36	128.37	-102.45	-508.44	-2,537.22	2,649.73	2,504.01	145.73	18.183		
3,900.00	3,860.62	3,824.62	3,860.62	17.82	131.81	-102.79	-508.44	-2,537.22	2,653.31	2,503.68	149.63	17.733		
4,000.00	3,959.30	3,923.30	3,959.30	18.28	135.26	-103.13	-508.44	-2,537.22	2,656.98	2,503.45	153.53	17.306		
4,100.00	4,057.98	4,021.98	4,057.98	18.74	138.70	-103.46	-508.44	-2,537.22	2,660.75	2,503.32	157.43	16.901		
4,200.00	4,156.67	4,120.67	4,156.67	19.20	142.15	-103.79	-508.44	-2,537.22	2,664.61	2,503.27	161.34	16.516		
4,300.00	4,255.35	4,219.35	4,255.35	19.66	145.59	-104.13	-508.44	-2,537.22	2,668.56	2,503.32	165.24	16.150		
4,400.00	4,354.03	4,318.03	4,354.03	20.12	149.03	-104.46	-508.44	-2,537.22	2,672.61	2,503.46	169.14	15.801		
4,500.00	4,452.71	4,416.71	4,452.71	20.58	152.48	-104.79	-508.44	-2,537.22	2,676.74	2,503.69	173.05	15.468		
4,600.00	4,551.40	4,515.40	4,551.40	21.04	155.92	-105.12	-508.44	-2,537.22	2,680.97	2,504.02	176.95	15.151		
4,700.00	4,650.08	4,614.08	4,650.08	21.50	159.37	-105.45	-508.44	-2,537.22	2,685.29	2,504.43	180.86	14.848		
4,800.00	4,748.76	4,712.76	4,748.76	21.96	162.81	-105.78	-508.44	-2,537.22	2,689.70	2,504.93	184.76	14.558		
4,900.00	4,847.44	4,811.44	4,847.44	22.42	166.25	-106.11	-508.44	-2,537.22	2,694.19	2,505.53	188.67	14.280		
5,000.00	4,946.13	4,910.13	4,946.13	22.89	169.70	-106.43	-508.44	-2,537.22	2,698.78	2,506.21	192.57	14.014		
5,100.00	5,044.81	5,008.81	5,044.81	23.35	173.14	-106.76	-508.44	-2,537.22	2,703.46	2,506.98	196.48	13.760		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,143.49	5,107.49	5,143.49	23.81	176.59	-107.08	-508.44	-2,537.22	2,708.22	2,507.84	200.38	13.515		
5,300.00	5,242.18	5,206.18	5,242.18	24.27	180.03	-107.40	-508.44	-2,537.22	2,713.08	2,508.79	204.29	13.280		
5,400.00	5,340.86	5,304.86	5,340.86	24.74	183.48	-107.72	-508.44	-2,537.22	2,718.02	2,509.82	208.20	13.055		
5,500.00	5,439.54	5,403.54	5,439.54	25.20	186.92	-108.04	-508.44	-2,537.22	2,723.05	2,510.94	212.10	12.838		
5,600.00	5,538.22	5,502.22	5,538.22	25.66	190.37	-108.36	-508.44	-2,537.22	2,728.16	2,512.15	216.01	12.630		
5,700.00	5,636.91	5,600.91	5,636.91	26.13	193.81	-108.68	-508.44	-2,537.22	2,733.36	2,513.45	219.92	12.429		
5,800.00	5,735.59	5,700.41	5,735.59	26.59	197.28	-109.00	-508.44	-2,537.22	2,738.65	2,514.80	223.85	12.234		
5,900.00	5,834.27	5,801.73	5,834.27	27.06	200.82	-109.31	-508.44	-2,537.22	2,744.02	2,516.17	227.85	12.043		
6,000.00	5,932.95	5,903.05	5,932.95	27.52	204.36	-109.63	-508.44	-2,537.22	2,749.48	2,517.63	231.85	11.859		
6,100.00	6,031.64	6,004.36	6,031.64	27.98	207.89	-109.94	-508.44	-2,537.22	2,755.02	2,519.17	235.85	11.681		
6,200.00	6,130.32	6,105.68	6,130.32	28.45	211.43	-110.25	-508.44	-2,537.22	2,760.64	2,520.80	239.85	11.510		
6,300.00	6,229.00	6,207.00	6,229.00	28.91	214.97	-110.56	-508.44	-2,537.22	2,766.35	2,522.50	243.84	11.345		
6,400.00	6,327.69	6,308.31	6,327.69	29.38	218.50	-110.87	-508.44	-2,537.22	2,772.14	2,524.30	247.84	11.185		
6,500.00	6,426.37	6,409.63	6,426.37	29.84	222.04	-111.18	-508.44	-2,537.22	2,778.01	2,526.17	251.84	11.031		
6,600.00	6,525.05	6,489.05	6,525.05	30.31	224.81	-111.49	-508.44	-2,537.22	2,783.96	2,528.89	255.08	10.914		
6,700.00	6,623.18	6,587.18	6,623.18	30.77	228.24	-71.77	-508.44	-2,537.22	2,783.18	2,524.21	258.96	10.747		
6,800.00	6,718.58	6,682.58	6,718.58	31.22	231.57	-56.58	-508.44	-2,537.22	2,768.91	2,506.15	262.75	10.538		
6,900.00	6,808.91	6,772.91	6,808.91	31.66	234.72	-51.20	-508.44	-2,537.22	2,741.70	2,475.35	266.35	10.294		
7,000.00	6,891.95	6,855.95	6,891.95	32.07	237.62	-50.19	-508.44	-2,537.22	2,702.46	2,432.78	269.68	10.021		
7,100.00	6,965.65	6,929.65	6,965.65	32.51	240.19	-51.93	-508.44	-2,537.22	2,652.43	2,379.73	272.70	9.727		
7,200.00	7,028.20	7,007.80	7,028.20	33.02	242.92	-55.93	-508.44	-2,537.22	2,593.12	2,317.23	275.88	9.399		
7,300.00	7,078.04	7,042.04	7,078.04	33.68	244.11	-62.11	-508.44	-2,537.22	2,526.26	2,248.68	277.58	9.101		
7,400.00	7,113.97	7,077.97	7,113.97	34.52	245.37	-70.41	-508.44	-2,537.22	2,453.78	2,174.38	279.40	8.782		
7,500.00	7,135.09	7,100.91	7,135.09	35.53	246.17	-80.45	-508.44	-2,537.22	2,377.65	2,096.81	280.85	8.466		
7,600.00	7,140.96	7,104.96	7,140.96	36.68	246.31	-90.31	-508.44	-2,537.22	2,299.93	2,018.20	281.72	8.164		
7,700.00	7,140.53	7,104.53	7,140.53	37.99	246.30	-90.29	-508.44	-2,537.22	2,223.08	1,940.51	282.57	7.867		
7,800.00	7,140.09	7,104.09	7,140.09	39.45	246.28	-90.27	-508.44	-2,537.22	2,148.14	1,864.56	283.58	7.575		
7,900.00	7,139.66	7,103.66	7,139.66	41.06	246.27	-90.26	-508.44	-2,537.22	2,075.32	1,790.55	284.77	7.288		
8,000.00	7,139.23	7,103.23	7,139.23	42.80	246.25	-90.24	-508.44	-2,537.22	2,004.84	1,718.69	286.15	7.006		
8,100.00	7,138.79	7,102.79	7,138.79	44.65	246.24	-90.22	-508.44	-2,537.22	1,936.95	1,649.23	287.73	6.732		
8,200.00	7,138.36	7,102.36	7,138.36	46.60	246.22	-90.20	-508.44	-2,537.22	1,871.96	1,582.44	289.51	6.466		
8,300.00	7,137.93	7,101.93	7,137.93	48.65	246.21	-90.19	-508.44	-2,537.22	1,810.15	1,518.64	291.51	6.210		
8,400.00	7,137.49	7,101.49	7,137.49	50.77	246.19	-90.17	-508.44	-2,537.22	1,751.88	1,458.17	293.71	5.965		
8,500.00	7,137.06	7,101.06	7,137.06	52.95	246.17	-90.15	-508.44	-2,537.22	1,697.49	1,401.40	296.10	5.733		
8,600.00	7,136.62	7,100.62	7,136.62	55.20	246.16	-90.14	-508.44	-2,537.22	1,647.40	1,348.73	298.67	5.516		
8,700.00	7,136.19	7,100.19	7,136.19	57.51	246.14	-90.12	-508.44	-2,537.22	1,601.98	1,300.59	301.38	5.315		
8,800.00	7,135.76	7,100.24	7,135.76	59.85	246.15	-90.10	-508.44	-2,537.22	1,561.65	1,257.42	304.23	5.133		
8,900.00	7,135.32	7,100.68	7,135.32	62.24	246.16	-90.08	-508.44	-2,537.22	1,526.82	1,219.67	307.15	4.971		
9,000.00	7,134.89	7,101.11	7,134.89	64.67	246.18	-90.07	-508.44	-2,537.22	1,497.87	1,187.78	310.09	4.830		
9,100.00	7,134.45	7,101.55	7,134.45	67.13	246.19	-90.05	-508.44	-2,537.22	1,475.13	1,162.16	312.98	4.713		
9,200.00	7,134.02	7,101.98	7,134.02	69.62	246.21	-90.03	-508.44	-2,537.22	1,458.92	1,143.16	315.75	4.620		
9,300.00	7,133.59	7,102.41	7,133.59	72.14	246.22	-90.02	-508.44	-2,537.22	1,449.43	1,131.08	318.36	4.553		
9,387.90	7,133.21	7,102.79	7,133.21	74.37	246.24	-90.00	-508.44	-2,537.22	1,446.77	1,126.30	320.46	4.515 CC		
9,400.00	7,133.15	7,102.85	7,133.15	74.68	246.24	-90.00	-508.44	-2,537.22	1,446.82	1,126.08	320.74	4.511 ES		
9,500.00	7,132.72	7,103.28	7,132.72	77.24	246.25	-89.98	-508.44	-2,537.22	1,451.10	1,128.26	322.84	4.495 SF		
9,600.00	7,132.29	7,103.71	7,132.29	79.83	246.27	-89.96	-508.44	-2,537.22	1,462.23	1,137.58	324.65	4.504		
9,700.00	7,131.85	7,104.15	7,131.85	82.42	246.28	-89.95	-508.44	-2,537.22	1,480.05	1,153.91	326.14	4.538		
9,800.00	7,131.42	7,104.58	7,131.42	85.04	246.30	-89.93	-508.44	-2,537.22	1,504.31	1,177.01	327.30	4.596		
9,900.00	7,130.98	7,105.02	7,130.98	87.67	246.31	-89.91	-508.44	-2,537.22	1,534.72	1,206.56	328.16	4.677		
10,000.00	7,130.55	7,105.45	7,130.55	90.31	246.33	-89.89	-508.44	-2,537.22	1,570.92	1,242.19	328.74	4.779		
10,100.00	7,130.12	7,105.88	7,130.12	92.97	246.34	-89.88	-508.44	-2,537.22	1,612.52	1,283.46	329.05	4.900		
10,200.00	7,129.68	7,106.32	7,129.68	95.63	246.36	-89.86	-508.44	-2,537.22	1,659.10	1,329.96	329.15	5.041		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH)													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,129.25	7,106.75	7,129.25	98.31	246.37	-89.84	-508.44	-2,537.22	1,710.28	1,381.23	329.05	5.198		
10,400.00	7,128.82	7,107.18	7,128.82	101.00	246.39	-89.83	-508.44	-2,537.22	1,765.63	1,436.83	328.80	5.370		
10,500.00	7,128.38	7,107.62	7,128.38	103.69	246.40	-89.81	-508.44	-2,537.22	1,824.79	1,496.37	328.42	5.556		
10,600.00	7,127.95	7,108.05	7,127.95	106.39	246.42	-89.79	-508.44	-2,537.22	1,887.40	1,559.46	327.95	5.755		
10,700.00	7,127.51	7,108.49	7,127.51	109.10	246.43	-89.77	-508.44	-2,537.22	1,953.13	1,625.73	327.40	5.966		
10,800.00	7,127.08	7,108.92	7,127.08	111.82	246.45	-89.76	-508.44	-2,537.22	2,021.66	1,694.86	326.80	6.186		
10,900.00	7,126.65	7,109.35	7,126.65	114.54	246.46	-89.74	-508.44	-2,537.22	2,092.73	1,766.57	326.16	6.416		
11,000.00	7,126.21	7,109.79	7,126.21	117.27	246.48	-89.72	-508.44	-2,537.22	2,166.09	1,840.59	325.50	6.655		
11,100.00	7,125.78	7,089.78	7,125.78	120.01	245.78	-89.71	-508.44	-2,537.22	2,241.51	1,917.39	324.12	6.916		
11,200.00	7,125.35	7,089.35	7,125.35	122.75	245.77	-89.69	-508.44	-2,537.22	2,318.79	1,995.37	323.41	7.170		
11,300.00	7,124.91	7,088.91	7,124.91	125.49	245.75	-89.67	-508.44	-2,537.22	2,397.75	2,075.03	322.71	7.430		
11,400.00	7,124.48	7,088.48	7,124.48	128.24	245.74	-89.65	-508.44	-2,537.22	2,478.23	2,156.20	322.02	7.696		
11,500.00	7,124.04	7,088.04	7,124.04	131.00	245.72	-89.64	-508.44	-2,537.22	2,560.08	2,238.73	321.35	7.967		
11,600.00	7,123.61	7,087.61	7,123.61	133.75	245.71	-89.62	-508.44	-2,537.22	2,643.18	2,322.50	320.69	8.242		
11,700.00	7,123.18	7,087.18	7,123.18	136.52	245.69	-89.60	-508.44	-2,537.22	2,727.42	2,407.38	320.05	8.522		
11,800.00	7,122.74	7,086.74	7,122.74	139.28	245.68	-89.59	-508.44	-2,537.22	2,812.69	2,493.27	319.42	8.805		
11,900.00	7,122.31	7,086.31	7,122.31	142.05	245.66	-89.57	-508.44	-2,537.22	2,898.91	2,580.08	318.82	9.093		
12,000.00	7,121.88	7,085.88	7,121.88	144.82	245.64	-89.55	-508.44	-2,537.22	2,985.98	2,667.73	318.24	9.383		
12,100.00	7,121.44	7,085.44	7,121.44	147.59	245.63	-89.53	-508.44	-2,537.22	3,073.84	2,756.15	317.69	9.676		
12,200.00	7,121.01	7,085.01	7,121.01	150.37	245.61	-89.52	-508.44	-2,537.22	3,162.42	2,845.27	317.15	9.971		
12,300.00	7,120.57	7,084.57	7,120.57	153.15	245.60	-89.50	-508.44	-2,537.22	3,251.66	2,935.03	316.63	10.270		
12,400.00	7,120.14	7,084.14	7,120.14	155.93	245.58	-89.48	-508.44	-2,537.22	3,341.51	3,025.38	316.13	10.570		
12,500.00	7,119.71	7,083.71	7,119.71	158.72	245.57	-89.47	-508.44	-2,537.22	3,431.93	3,116.27	315.66	10.872		
12,600.00	7,119.27	7,083.27	7,119.27	161.50	245.55	-89.45	-508.44	-2,537.22	3,522.86	3,207.65	315.20	11.177		
12,700.00	7,118.84	7,082.84	7,118.84	164.29	245.54	-89.43	-508.44	-2,537.22	3,614.27	3,299.50	314.76	11.482		
12,800.00	7,118.41	7,082.41	7,118.41	167.08	245.52	-89.41	-508.44	-2,537.22	3,706.12	3,391.78	314.34	11.790		
12,900.00	7,117.97	7,081.97	7,117.97	169.88	245.51	-89.40	-508.44	-2,537.22	3,798.39	3,484.45	313.94	12.099		
13,000.00	7,117.54	7,081.54	7,117.54	172.67	245.49	-89.38	-508.44	-2,537.22	3,891.03	3,577.48	313.55	12.409		
13,100.00	7,117.10	7,081.10	7,117.10	175.47	245.48	-89.36	-508.44	-2,537.22	3,984.04	3,670.85	313.18	12.721		
13,200.00	7,116.67	7,080.67	7,116.67	178.27	245.46	-89.35	-508.44	-2,537.22	4,077.37	3,764.54	312.83	13.034		
13,300.00	7,116.24	7,080.24	7,116.24	181.07	245.45	-89.33	-508.44	-2,537.22	4,171.01	3,858.53	312.49	13.348		
13,400.00	7,115.80	7,079.80	7,115.80	183.87	245.43	-89.31	-508.44	-2,537.22	4,264.95	3,952.78	312.16	13.663		
13,500.00	7,115.37	7,079.37	7,115.37	186.67	245.42	-89.29	-508.44	-2,537.22	4,359.15	4,047.30	311.85	13.978		
13,600.00	7,114.93	7,078.93	7,114.93	189.47	245.40	-89.28	-508.44	-2,537.22	4,453.60	4,142.05	311.55	14.295		
13,700.00	7,114.50	7,078.50	7,114.50	192.28	245.39	-89.26	-508.44	-2,537.22	4,548.29	4,237.03	311.26	14.612		
13,800.00	7,114.07	7,078.07	7,114.07	195.09	245.37	-89.24	-508.44	-2,537.22	4,643.21	4,332.22	310.99	14.931		
13,900.00	7,113.63	7,077.63	7,113.63	197.89	245.36	-89.22	-508.44	-2,537.22	4,738.33	4,427.61	310.72	15.249		
14,000.00	7,113.20	7,077.20	7,113.20	200.70	245.34	-89.21	-508.44	-2,537.22	4,833.65	4,523.18	310.47	15.569		
14,100.00	7,112.77	7,076.77	7,112.77	203.51	245.33	-89.19	-508.44	-2,537.22	4,929.16	4,618.93	310.22	15.889		
14,200.00	7,112.33	7,076.33	7,112.33	206.32	245.31	-89.17	-508.44	-2,537.22	5,024.84	4,714.85	309.99	16.210		
14,300.00	7,111.90	7,075.90	7,111.90	209.13	245.30	-89.16	-508.44	-2,537.22	5,120.68	4,810.92	309.77	16.531		
14,400.00	7,111.46	7,075.46	7,111.46	211.95	245.28	-89.14	-508.44	-2,537.22	5,216.68	4,907.13	309.55	16.852		
14,500.00	7,111.03	7,075.03	7,111.03	214.76	245.27	-89.12	-508.44	-2,537.22	5,312.83	5,003.49	309.35	17.174		
14,600.00	7,110.60	7,074.60	7,110.60	217.58	245.25	-89.10	-508.44	-2,537.22	5,409.12	5,099.97	309.15	17.497		
14,700.00	7,110.16	7,074.16	7,110.16	220.39	245.24	-89.09	-508.44	-2,537.22	5,505.54	5,196.58	308.96	17.820		
14,800.00	7,109.73	7,073.73	7,109.73	223.21	245.22	-89.07	-508.44	-2,537.22	5,602.09	5,293.31	308.78	18.143		
14,900.00	7,109.30	7,073.30	7,109.30	226.03	245.21	-89.05	-508.44	-2,537.22	5,698.75	5,390.15	308.60	18.466		
14,969.16	7,109.00	7,073.00	7,109.00	227.97	245.20	-89.04	-508.44	-2,537.22	5,765.68	5,457.19	308.49	18.690		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-109.27	-1,677.53	-4,798.74	5,083.72					
100.00	100.00	53.00	100.00	3.28	3.41	-109.27	-1,677.53	-4,798.74	5,083.51	5,076.81	6.69	759.561		
200.00	200.00	153.00	200.00	3.34	4.87	-109.27	-1,677.53	-4,798.74	5,083.51	5,075.30	8.20	619.635		
300.00	300.00	253.00	300.00	3.44	7.81	-109.27	-1,677.53	-4,798.74	5,083.51	5,072.25	11.25	451.711		
400.00	400.00	353.00	400.00	3.60	11.07	-109.27	-1,677.53	-4,798.74	5,083.51	5,068.83	14.68	346.336		
500.00	500.00	453.00	500.00	3.81	14.45	-109.27	-1,677.53	-4,798.74	5,083.51	5,065.25	18.25	278.517		
600.00	600.00	553.00	600.00	4.05	17.86	-109.27	-1,677.53	-4,798.74	5,083.51	5,061.60	21.91	232.020		
700.00	699.98	652.98	699.98	4.32	21.30	-100.13	-1,677.53	-4,798.74	5,083.81	5,058.19	25.62	198.421		
800.00	799.84	752.84	799.84	4.62	24.75	-100.17	-1,677.53	-4,798.74	5,084.74	5,055.37	29.37	173.140		
900.00	899.45	852.45	899.45	4.94	28.21	-100.24	-1,677.53	-4,798.74	5,086.29	5,053.15	33.14	153.498		
1,000.00	998.70	951.70	998.70	5.28	31.65	-100.33	-1,677.53	-4,798.74	5,088.48	5,051.56	36.92	137.838		
1,100.00	1,097.50	1,050.50	1,097.50	5.64	35.08	-100.46	-1,677.53	-4,798.74	5,091.29	5,050.59	40.70	125.085		
1,200.00	1,196.18	1,149.18	1,196.18	6.00	38.51	-100.64	-1,677.53	-4,798.74	5,094.29	5,049.79	44.50	114.469		
1,300.00	1,294.87	1,247.87	1,294.87	6.38	41.95	-100.81	-1,677.53	-4,798.74	5,097.34	5,049.02	48.32	105.491		
1,400.00	1,393.55	1,346.55	1,393.55	6.77	45.38	-100.99	-1,677.53	-4,798.74	5,100.44	5,048.29	52.15	97.806		
1,500.00	1,492.23	1,445.23	1,492.23	7.17	48.82	-101.17	-1,677.53	-4,798.74	5,103.59	5,047.60	55.99	91.155		
1,600.00	1,590.91	1,543.91	1,590.91	7.58	52.26	-101.34	-1,677.53	-4,798.74	5,106.79	5,046.95	59.84	85.347		
1,700.00	1,689.60	1,642.60	1,689.60	8.00	55.69	-101.52	-1,677.53	-4,798.74	5,110.04	5,046.35	63.69	80.232		
1,800.00	1,788.28	1,741.28	1,788.28	8.42	59.13	-101.69	-1,677.53	-4,798.74	5,113.33	5,045.78	67.55	75.695		
1,900.00	1,886.96	1,839.96	1,886.96	8.84	62.57	-101.87	-1,677.53	-4,798.74	5,116.68	5,045.26	71.42	71.644		
2,000.00	1,985.64	1,938.64	1,985.64	9.27	66.01	-102.04	-1,677.53	-4,798.74	5,120.07	5,044.78	75.29	68.006		
2,100.00	2,084.33	2,037.33	2,084.33	9.71	69.46	-102.22	-1,677.53	-4,798.74	5,123.52	5,044.35	79.16	64.720		
2,200.00	2,183.01	2,136.01	2,183.01	10.15	72.90	-102.39	-1,677.53	-4,798.74	5,127.01	5,043.97	83.04	61.740		
2,300.00	2,281.69	2,234.69	2,281.69	10.59	76.34	-102.57	-1,677.53	-4,798.74	5,130.55	5,043.63	86.92	59.024		
2,400.00	2,380.38	2,333.38	2,380.38	11.03	79.78	-102.74	-1,677.53	-4,798.74	5,134.14	5,043.33	90.81	56.539		
2,500.00	2,479.06	2,432.06	2,479.06	11.47	83.22	-102.92	-1,677.53	-4,798.74	5,137.78	5,043.08	94.69	54.257		
2,600.00	2,577.74	2,530.74	2,577.74	11.92	86.66	-103.09	-1,677.53	-4,798.74	5,141.46	5,042.88	98.58	52.154		
2,700.00	2,676.42	2,629.42	2,676.42	12.36	90.11	-103.26	-1,677.53	-4,798.74	5,145.20	5,042.72	102.47	50.211		
2,800.00	2,775.11	2,728.11	2,775.11	12.81	93.55	-103.44	-1,677.53	-4,798.74	5,148.98	5,042.61	106.36	48.409		
2,900.00	2,873.79	2,826.79	2,873.79	13.26	96.99	-103.61	-1,677.53	-4,798.74	5,152.81	5,042.55	110.26	46.735		
3,000.00	2,972.47	2,925.47	2,972.47	13.72	100.44	-103.78	-1,677.53	-4,798.74	5,156.69	5,042.54	114.15	45.175		
3,100.00	3,071.15	3,024.15	3,071.15	14.17	103.88	-103.95	-1,677.53	-4,798.74	5,160.61	5,042.57	118.05	43.717		
3,200.00	3,169.84	3,122.84	3,169.84	14.62	107.32	-104.12	-1,677.53	-4,798.74	5,164.59	5,042.64	121.94	42.353		
3,300.00	3,268.52	3,221.52	3,268.52	15.08	110.77	-104.30	-1,677.53	-4,798.74	5,168.61	5,042.77	125.84	41.073		
3,400.00	3,367.20	3,320.20	3,367.20	15.53	114.21	-104.47	-1,677.53	-4,798.74	5,172.67	5,042.94	129.74	39.870		
3,500.00	3,465.89	3,418.89	3,465.89	15.99	117.65	-104.64	-1,677.53	-4,798.74	5,176.79	5,043.15	133.64	38.738		
3,600.00	3,564.57	3,517.57	3,564.57	16.44	121.10	-104.81	-1,677.53	-4,798.74	5,180.95	5,043.42	137.54	37.669		
3,700.00	3,663.25	3,616.25	3,663.25	16.90	124.54	-104.98	-1,677.53	-4,798.74	5,185.16	5,043.73	141.44	36.660		
3,800.00	3,761.93	3,714.93	3,761.93	17.36	127.99	-105.15	-1,677.53	-4,798.74	5,189.42	5,044.08	145.34	35.706		
3,900.00	3,860.62	3,813.62	3,860.62	17.82	131.43	-105.32	-1,677.53	-4,798.74	5,193.73	5,044.48	149.24	34.801		
4,000.00	3,959.30	3,912.30	3,959.30	18.28	134.87	-105.49	-1,677.53	-4,798.74	5,198.08	5,044.93	153.14	33.943		
4,100.00	4,057.98	4,010.98	4,057.98	18.74	138.32	-105.66	-1,677.53	-4,798.74	5,202.47	5,045.43	157.05	33.127		
4,200.00	4,156.67	4,109.67	4,156.67	19.20	141.76	-105.83	-1,677.53	-4,798.74	5,206.92	5,045.97	160.95	32.351		
4,300.00	4,255.35	4,208.35	4,255.35	19.66	145.21	-106.00	-1,677.53	-4,798.74	5,211.41	5,046.56	164.85	31.612		
4,400.00	4,354.03	4,307.03	4,354.03	20.12	148.65	-106.17	-1,677.53	-4,798.74	5,215.95	5,047.19	168.76	30.908		
4,500.00	4,452.71	4,405.71	4,452.71	20.58	152.09	-106.34	-1,677.53	-4,798.74	5,220.53	5,047.87	172.66	30.236		
4,600.00	4,551.40	4,504.40	4,551.40	21.04	155.54	-106.50	-1,677.53	-4,798.74	5,225.16	5,048.59	176.57	29.593		
4,700.00	4,650.08	4,603.08	4,650.08	21.50	158.98	-106.67	-1,677.53	-4,798.74	5,229.83	5,049.36	180.47	28.979		
4,800.00	4,748.76	4,701.76	4,748.76	21.96	162.43	-106.84	-1,677.53	-4,798.74	5,234.56	5,050.18	184.38	28.391		
4,900.00	4,847.44	4,800.44	4,847.44	22.42	165.87	-107.01	-1,677.53	-4,798.74	5,239.32	5,051.04	188.28	27.827		
5,000.00	4,946.13	4,900.87	4,946.13	22.89	169.38	-107.17	-1,677.53	-4,798.74	5,244.13	5,051.89	192.25	27.278		
5,100.00	5,044.81	5,002.19	5,044.81	23.35	172.91	-107.34	-1,677.53	-4,798.74	5,248.99	5,052.75	196.25	26.747		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,103.51	5,143.49	23.81	176.45	-107.51	-1,677.53	-4,798.74	5,253.90	5,053.65	200.24	26.237		
5,300.00	5,242.18	5,204.82	5,242.18	24.27	179.99	-107.67	-1,677.53	-4,798.74	5,258.84	5,054.60	204.24	25.748		
5,400.00	5,340.86	5,306.14	5,340.86	24.74	183.52	-107.84	-1,677.53	-4,798.74	5,263.84	5,055.60	208.24	25.278		
5,500.00	5,439.54	5,407.46	5,439.54	25.20	187.06	-108.00	-1,677.53	-4,798.74	5,268.88	5,056.64	212.24	24.825		
5,600.00	5,538.22	5,508.78	5,538.22	25.66	190.59	-108.17	-1,677.53	-4,798.74	5,273.96	5,057.72	216.24	24.390		
5,700.00	5,636.91	5,589.91	5,636.91	26.13	193.43	-108.33	-1,677.53	-4,798.74	5,279.09	5,059.55	219.53	24.047		
5,800.00	5,735.59	5,688.59	5,735.59	26.59	196.87	-108.50	-1,677.53	-4,798.74	5,284.26	5,060.82	223.44	23.650		
5,900.00	5,834.27	5,787.27	5,834.27	27.06	200.32	-108.66	-1,677.53	-4,798.74	5,289.48	5,062.13	227.35	23.266		
6,000.00	5,932.95	5,885.95	5,932.95	27.52	203.76	-108.83	-1,677.53	-4,798.74	5,294.74	5,063.48	231.25	22.896		
6,100.00	6,031.64	5,984.64	6,031.64	27.98	207.20	-108.99	-1,677.53	-4,798.74	5,300.04	5,064.88	235.16	22.538		
6,200.00	6,130.32	6,083.32	6,130.32	28.45	210.65	-109.15	-1,677.53	-4,798.74	5,305.39	5,066.32	239.07	22.192		
6,300.00	6,229.00	6,182.00	6,229.00	28.91	214.09	-109.32	-1,677.53	-4,798.74	5,310.78	5,067.81	242.98	21.857		
6,400.00	6,327.69	6,280.69	6,327.69	29.38	217.54	-109.48	-1,677.53	-4,798.74	5,316.22	5,069.34	246.89	21.533		
6,500.00	6,426.37	6,379.37	6,426.37	29.84	220.98	-109.64	-1,677.53	-4,798.74	5,321.70	5,070.91	250.79	21.219		
6,600.00	6,525.05	6,478.05	6,525.05	30.31	224.43	-109.80	-1,677.53	-4,798.74	5,327.23	5,072.52	254.70	20.916		
6,700.00	6,623.18	6,576.18	6,623.18	30.77	227.85	-69.93	-1,677.53	-4,798.74	5,325.85	5,067.26	258.59	20.596		
6,800.00	6,718.58	6,671.58	6,718.58	31.22	231.18	-54.48	-1,677.53	-4,798.74	5,310.68	5,048.30	262.38	20.240		
6,900.00	6,808.91	6,761.91	6,808.91	31.66	234.34	-48.75	-1,677.53	-4,798.74	5,282.16	5,016.19	265.98	19.859		
7,000.00	6,891.95	6,844.95	6,891.95	32.07	237.23	-47.29	-1,677.53	-4,798.74	5,241.12	4,971.81	269.31	19.462		
7,100.00	6,965.65	6,918.65	6,965.65	32.51	239.81	-48.51	-1,677.53	-4,798.74	5,188.67	4,916.37	272.31	19.055		
7,200.00	7,028.20	6,981.20	7,028.20	33.02	241.99	-52.01	-1,677.53	-4,798.74	5,126.23	4,851.31	274.92	18.646		
7,300.00	7,078.04	7,031.04	7,078.04	33.68	243.73	-57.90	-1,677.53	-4,798.74	5,055.41	4,778.30	277.11	18.243		
7,400.00	7,113.97	7,066.97	7,113.97	34.52	244.98	-66.52	-1,677.53	-4,798.74	4,978.06	4,699.21	278.84	17.852		
7,500.00	7,135.09	7,088.09	7,135.09	35.53	245.72	-78.03	-1,677.53	-4,798.74	4,896.12	4,616.02	280.10	17.480		
7,600.00	7,140.96	7,106.04	7,140.96	36.68	246.35	-90.40	-1,677.53	-4,798.74	4,811.63	4,530.35	281.28	17.106		
7,700.00	7,140.53	7,106.47	7,140.53	37.99	246.36	-90.39	-1,677.53	-4,798.74	4,726.95	4,445.04	281.91	16.768		
7,800.00	7,140.09	7,106.91	7,140.09	39.45	246.38	-90.38	-1,677.53	-4,798.74	4,642.88	4,360.26	282.63	16.428		
7,900.00	7,139.66	7,107.34	7,139.66	41.06	246.39	-90.37	-1,677.53	-4,798.74	4,559.46	4,276.02	283.44	16.086		
8,000.00	7,139.23	7,107.77	7,139.23	42.80	246.41	-90.36	-1,677.53	-4,798.74	4,476.71	4,192.36	284.35	15.743		
8,100.00	7,138.79	7,108.21	7,138.79	44.65	246.42	-90.35	-1,677.53	-4,798.74	4,394.69	4,109.32	285.37	15.400		
8,200.00	7,138.36	7,108.64	7,138.36	46.60	246.44	-90.34	-1,677.53	-4,798.74	4,313.42	4,026.93	286.48	15.056		
8,300.00	7,137.93	7,109.08	7,137.93	48.65	246.45	-90.33	-1,677.53	-4,798.74	4,232.95	3,945.24	287.71	14.713		
8,400.00	7,137.49	7,109.51	7,137.49	50.77	246.47	-90.32	-1,677.53	-4,798.74	4,153.33	3,864.29	289.04	14.369		
8,500.00	7,137.06	7,109.94	7,137.06	52.95	246.48	-90.31	-1,677.53	-4,798.74	4,074.61	3,784.12	290.49	14.027		
8,600.00	7,136.62	7,089.62	7,136.62	55.20	245.78	-90.30	-1,677.53	-4,798.74	3,996.85	3,705.52	291.33	13.719		
8,700.00	7,136.19	7,089.19	7,136.19	57.51	245.76	-90.29	-1,677.53	-4,798.74	3,920.09	3,627.11	292.98	13.380		
8,800.00	7,135.76	7,088.76	7,135.76	59.85	245.75	-90.28	-1,677.53	-4,798.74	3,844.40	3,549.66	294.74	13.043		
8,900.00	7,135.32	7,088.32	7,135.32	62.24	245.73	-90.27	-1,677.53	-4,798.74	3,769.84	3,473.21	296.63	12.709		
9,000.00	7,134.89	7,087.89	7,134.89	64.67	245.72	-90.26	-1,677.53	-4,798.74	3,696.48	3,397.85	298.63	12.378		
9,100.00	7,134.45	7,087.45	7,134.45	67.13	245.70	-90.25	-1,677.53	-4,798.74	3,624.40	3,323.65	300.75	12.051		
9,200.00	7,134.02	7,087.02	7,134.02	69.62	245.68	-90.24	-1,677.53	-4,798.74	3,553.67	3,250.67	303.00	11.728		
9,300.00	7,133.59	7,086.59	7,133.59	72.14	245.67	-90.23	-1,677.53	-4,798.74	3,484.38	3,179.01	305.37	11.410		
9,400.00	7,133.15	7,086.15	7,133.15	74.68	245.65	-90.22	-1,677.53	-4,798.74	3,416.60	3,108.75	307.85	11.098		
9,500.00	7,132.72	7,085.72	7,132.72	77.24	245.64	-90.21	-1,677.53	-4,798.74	3,350.45	3,039.98	310.46	10.792		
9,600.00	7,132.29	7,085.29	7,132.29	79.83	245.62	-90.20	-1,677.53	-4,798.74	3,286.00	2,972.81	313.18	10.492		
9,700.00	7,131.85	7,084.85	7,131.85	82.42	245.61	-90.19	-1,677.53	-4,798.74	3,223.36	2,907.34	316.02	10.200		
9,800.00	7,131.42	7,084.42	7,131.42	85.04	245.59	-90.19	-1,677.53	-4,798.74	3,162.65	2,843.68	318.97	9.915		
9,900.00	7,130.98	7,083.98	7,130.98	87.67	245.58	-90.18	-1,677.53	-4,798.74	3,103.98	2,781.95	322.03	9.639		
10,000.00	7,130.55	7,083.55	7,130.55	90.31	245.56	-90.17	-1,677.53	-4,798.74	3,047.45	2,722.27	325.19	9.371		
10,100.00	7,130.12	7,083.12	7,130.12	92.97	245.55	-90.16	-1,677.53	-4,798.74	2,993.20	2,664.76	328.44	9.113		
10,200.00	7,129.68	7,082.68	7,129.68	95.63	245.53	-90.15	-1,677.53	-4,798.74	2,941.35	2,609.58	331.78	8.865		
10,300.00	7,129.25	7,082.25	7,129.25	98.31	245.52	-90.14	-1,677.53	-4,798.74	2,892.03	2,556.84	335.19	8.628		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,128.82	7,081.82	7,128.82	101.00	245.50	-90.13	-1,677.53	-4,798.74	2,845.37	2,506.71	338.67	8.402		
10,500.00	7,128.38	7,081.38	7,128.38	103.69	245.49	-90.12	-1,677.53	-4,798.74	2,801.51	2,459.32	342.19	8.187		
10,600.00	7,127.95	7,080.95	7,127.95	106.39	245.47	-90.11	-1,677.53	-4,798.74	2,760.57	2,414.81	345.75	7.984		
10,700.00	7,127.51	7,080.51	7,127.51	109.10	245.46	-90.10	-1,677.53	-4,798.74	2,722.69	2,373.35	349.34	7.794		
10,800.00	7,127.08	7,080.08	7,127.08	111.82	245.44	-90.09	-1,677.53	-4,798.74	2,688.00	2,335.08	352.92	7.616		
10,900.00	7,126.65	7,079.65	7,126.65	114.54	245.43	-90.08	-1,677.53	-4,798.74	2,656.62	2,300.14	356.48	7.452		
11,000.00	7,126.21	7,079.21	7,126.21	117.27	245.41	-90.07	-1,677.53	-4,798.74	2,628.67	2,268.67	360.00	7.302		
11,100.00	7,125.78	7,078.78	7,125.78	120.01	245.40	-90.06	-1,677.53	-4,798.74	2,604.27	2,240.80	363.46	7.165		
11,200.00	7,125.35	7,078.35	7,125.35	122.75	245.38	-90.05	-1,677.53	-4,798.74	2,583.51	2,216.67	366.84	7.043		
11,300.00	7,124.91	7,077.91	7,124.91	125.49	245.37	-90.04	-1,677.53	-4,798.74	2,566.47	2,196.37	370.11	6.934		
11,400.00	7,124.48	7,077.48	7,124.48	128.24	245.35	-90.03	-1,677.53	-4,798.74	2,553.25	2,180.00	373.25	6.841		
11,500.00	7,124.04	7,077.04	7,124.04	131.00	245.34	-90.02	-1,677.53	-4,798.74	2,543.89	2,167.64	376.25	6.761		
11,600.00	7,123.61	7,076.61	7,123.61	133.75	245.32	-90.01	-1,677.53	-4,798.74	2,538.44	2,159.36	379.08	6.696		
11,688.55	7,123.23	7,076.23	7,123.23	136.20	245.31	-90.00	-1,677.53	-4,798.74	2,536.89	2,155.46	381.43	6.651 CC		
11,700.00	7,123.18	7,076.18	7,123.18	136.52	245.31	-90.00	-1,677.53	-4,798.74	2,536.92	2,155.20	381.72	6.646		
11,800.00	7,122.74	7,075.74	7,122.74	139.28	245.29	-89.99	-1,677.53	-4,798.74	2,539.34	2,155.17	384.17	6.610 ES		
11,900.00	7,122.31	7,075.31	7,122.31	142.05	245.28	-89.98	-1,677.53	-4,798.74	2,545.69	2,159.27	386.41	6.588		
12,000.00	7,121.88	7,074.88	7,121.88	144.82	245.26	-89.97	-1,677.53	-4,798.74	2,555.94	2,167.50	388.44	6.580 SF		
12,100.00	7,121.44	7,074.44	7,121.44	147.59	245.25	-89.96	-1,677.53	-4,798.74	2,570.04	2,179.79	390.25	6.586		
12,200.00	7,121.01	7,074.01	7,121.01	150.37	245.23	-89.95	-1,677.53	-4,798.74	2,587.93	2,196.10	391.83	6.605		
12,300.00	7,120.57	7,073.57	7,120.57	153.15	245.22	-89.94	-1,677.53	-4,798.74	2,609.54	2,216.34	393.20	6.637		
12,400.00	7,120.14	7,073.14	7,120.14	155.93	245.20	-89.93	-1,677.53	-4,798.74	2,634.76	2,240.42	394.35	6.681		
12,500.00	7,119.71	7,072.71	7,119.71	158.72	245.19	-89.92	-1,677.53	-4,798.74	2,663.51	2,268.22	395.29	6.738		
12,600.00	7,119.27	7,072.27	7,119.27	161.50	245.17	-89.91	-1,677.53	-4,798.74	2,695.65	2,299.63	396.02	6.807		
12,700.00	7,118.84	7,071.84	7,118.84	164.29	245.15	-89.90	-1,677.53	-4,798.74	2,731.09	2,334.51	396.57	6.887		
12,800.00	7,118.41	7,071.41	7,118.41	167.08	245.14	-89.89	-1,677.53	-4,798.74	2,769.68	2,372.74	396.94	6.978		
12,900.00	7,117.97	7,070.97	7,117.97	169.88	245.12	-89.88	-1,677.53	-4,798.74	2,811.30	2,414.15	397.15	7.079		
13,000.00	7,117.54	7,070.54	7,117.54	172.67	245.11	-89.87	-1,677.53	-4,798.74	2,855.82	2,458.62	397.20	7.190		
13,100.00	7,117.10	7,070.10	7,117.10	175.47	245.09	-89.86	-1,677.53	-4,798.74	2,903.10	2,505.98	397.12	7.310		
13,200.00	7,116.67	7,069.67	7,116.67	178.27	245.08	-89.85	-1,677.53	-4,798.74	2,953.01	2,556.10	396.90	7.440		
13,300.00	7,116.24	7,069.24	7,116.24	181.07	245.06	-89.84	-1,677.53	-4,798.74	3,005.42	2,608.84	396.58	7.578		
13,400.00	7,115.80	7,068.80	7,115.80	183.87	245.05	-89.83	-1,677.53	-4,798.74	3,060.20	2,664.04	396.16	7.725		
13,500.00	7,115.37	7,068.37	7,115.37	186.67	245.03	-89.82	-1,677.53	-4,798.74	3,117.23	2,721.58	395.65	7.879		
13,600.00	7,114.93	7,067.93	7,114.93	189.47	245.02	-89.81	-1,677.53	-4,798.74	3,176.38	2,781.32	395.06	8.040		
13,700.00	7,114.50	7,067.50	7,114.50	192.28	245.00	-89.80	-1,677.53	-4,798.74	3,237.54	2,843.13	394.41	8.209		
13,800.00	7,114.07	7,067.07	7,114.07	195.09	244.99	-89.79	-1,677.53	-4,798.74	3,300.60	2,906.90	393.70	8.383		
13,900.00	7,113.63	7,066.63	7,113.63	197.89	244.97	-89.78	-1,677.53	-4,798.74	3,365.45	2,972.50	392.95	8.565		
14,000.00	7,113.20	7,066.20	7,113.20	200.70	244.96	-89.77	-1,677.53	-4,798.74	3,431.99	3,039.83	392.15	8.752		
14,100.00	7,112.77	7,065.77	7,112.77	203.51	244.94	-89.76	-1,677.53	-4,798.74	3,500.12	3,108.79	391.33	8.944		
14,200.00	7,112.33	7,065.33	7,112.33	206.32	244.93	-89.75	-1,677.53	-4,798.74	3,569.75	3,179.27	390.48	9.142		
14,300.00	7,111.90	7,064.90	7,111.90	209.13	244.91	-89.74	-1,677.53	-4,798.74	3,640.79	3,251.19	389.61	9.345		
14,400.00	7,111.46	7,064.46	7,111.46	211.95	244.90	-89.73	-1,677.53	-4,798.74	3,713.17	3,324.45	388.72	9.552		
14,500.00	7,111.03	7,064.03	7,111.03	214.76	244.88	-89.72	-1,677.53	-4,798.74	3,786.81	3,398.98	387.83	9.764		
14,600.00	7,110.60	7,063.60	7,110.60	217.58	244.87	-89.71	-1,677.53	-4,798.74	3,861.63	3,474.71	386.93	9.980		
14,700.00	7,110.16	7,063.16	7,110.16	220.39	244.85	-89.70	-1,677.53	-4,798.74	3,937.57	3,551.55	386.02	10.200		
14,800.00	7,109.73	7,062.73	7,109.73	223.21	244.84	-89.70	-1,677.53	-4,798.74	4,014.57	3,629.45	385.12	10.424		
14,900.00	7,109.30	7,062.30	7,109.30	226.03	244.82	-89.69	-1,677.53	-4,798.74	4,092.56	3,708.33	384.22	10.651		
14,969.16	7,109.00	7,062.00	7,109.00	227.97	244.81	-89.68	-1,677.53	-4,798.74	4,147.05	3,763.44	383.61	10.811		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-123.49	-3,178.46	-4,804.60	5,761.01				
100.00	100.00	50.00	100.00	3.28	3.39	-123.49	-3,178.46	-4,804.60	5,760.80	5,754.12	6.68	862.543	
200.00	200.00	150.00	200.00	3.34	4.79	-123.49	-3,178.46	-4,804.60	5,760.80	5,752.67	8.13	708.831	
300.00	300.00	250.00	300.00	3.44	7.71	-123.49	-3,178.46	-4,804.60	5,760.80	5,749.64	11.16	516.248	
400.00	400.00	350.00	400.00	3.60	10.97	-123.49	-3,178.46	-4,804.60	5,760.80	5,746.22	14.58	395.172	
500.00	500.00	450.00	500.00	3.81	14.34	-123.49	-3,178.46	-4,804.60	5,760.80	5,742.65	18.15	317.398	
600.00	600.00	550.00	600.00	4.05	17.76	-123.49	-3,178.46	-4,804.60	5,760.80	5,738.99	21.81	264.174	
700.00	699.98	649.98	699.98	4.32	21.20	-114.34	-3,178.46	-4,804.60	5,761.52	5,736.00	25.52	225.782	
800.00	799.84	749.84	799.84	4.62	24.65	-114.35	-3,178.46	-4,804.60	5,763.68	5,734.41	29.26	196.948	
900.00	899.45	849.45	899.45	4.94	28.10	-114.36	-3,178.46	-4,804.60	5,767.28	5,734.25	33.03	174.587	
1,000.00	998.70	948.70	998.70	5.28	31.54	-114.38	-3,178.46	-4,804.60	5,772.34	5,735.53	36.82	156.792	
1,100.00	1,097.50	1,047.50	1,097.50	5.64	34.98	-114.44	-3,178.46	-4,804.60	5,778.78	5,738.18	40.60	142.326	
1,200.00	1,196.18	1,146.18	1,196.18	6.00	38.41	-114.58	-3,178.46	-4,804.60	5,785.57	5,741.17	44.40	130.297	
1,300.00	1,294.87	1,244.87	1,294.87	6.38	41.84	-114.73	-3,178.46	-4,804.60	5,792.39	5,744.17	48.22	120.128	
1,400.00	1,393.55	1,343.55	1,393.55	6.77	45.28	-114.87	-3,178.46	-4,804.60	5,799.25	5,747.20	52.05	111.424	
1,500.00	1,492.23	1,442.23	1,492.23	7.17	48.71	-115.02	-3,178.46	-4,804.60	5,806.15	5,750.26	55.88	103.895	
1,600.00	1,590.91	1,540.91	1,590.91	7.58	52.15	-115.16	-3,178.46	-4,804.60	5,813.08	5,753.35	59.73	97.320	
1,700.00	1,689.60	1,639.60	1,689.60	8.00	55.59	-115.30	-3,178.46	-4,804.60	5,820.05	5,756.47	63.59	91.531	
1,800.00	1,788.28	1,738.28	1,788.28	8.42	59.03	-115.44	-3,178.46	-4,804.60	5,827.06	5,759.62	67.45	86.396	
1,900.00	1,886.96	1,836.96	1,886.96	8.84	62.47	-115.59	-3,178.46	-4,804.60	5,834.10	5,762.79	71.31	81.812	
2,000.00	1,985.64	1,935.64	1,985.64	9.27	65.91	-115.73	-3,178.46	-4,804.60	5,841.18	5,766.00	75.18	77.695	
2,100.00	2,084.33	2,034.33	2,084.33	9.71	69.35	-115.87	-3,178.46	-4,804.60	5,848.30	5,769.25	79.05	73.979	
2,200.00	2,183.01	2,133.01	2,183.01	10.15	72.79	-116.01	-3,178.46	-4,804.60	5,855.45	5,772.52	82.93	70.606	
2,300.00	2,281.69	2,231.69	2,281.69	10.59	76.23	-116.15	-3,178.46	-4,804.60	5,862.64	5,775.83	86.81	67.534	
2,400.00	2,380.38	2,330.38	2,380.38	11.03	79.68	-116.29	-3,178.46	-4,804.60	5,869.87	5,779.17	90.69	64.722	
2,500.00	2,479.06	2,429.06	2,479.06	11.47	83.12	-116.43	-3,178.46	-4,804.60	5,877.12	5,782.55	94.58	62.141	
2,600.00	2,577.74	2,527.74	2,577.74	11.92	86.56	-116.57	-3,178.46	-4,804.60	5,884.42	5,785.96	98.46	59.762	
2,700.00	2,676.42	2,626.42	2,676.42	12.36	90.00	-116.71	-3,178.46	-4,804.60	5,891.75	5,789.40	102.35	57.563	
2,800.00	2,775.11	2,725.11	2,775.11	12.81	93.45	-116.85	-3,178.46	-4,804.60	5,899.12	5,792.87	106.24	55.525	
2,900.00	2,873.79	2,823.79	2,873.79	13.26	96.89	-116.99	-3,178.46	-4,804.60	5,906.52	5,796.38	110.13	53.630	
3,000.00	2,972.47	2,922.47	2,972.47	13.72	100.33	-117.12	-3,178.46	-4,804.60	5,913.95	5,799.93	114.03	51.864	
3,100.00	3,071.15	3,021.15	3,071.15	14.17	103.78	-117.26	-3,178.46	-4,804.60	5,921.42	5,803.50	117.92	50.215	
3,200.00	3,169.84	3,119.84	3,169.84	14.62	107.22	-117.40	-3,178.46	-4,804.60	5,928.93	5,807.11	121.82	48.671	
3,300.00	3,268.52	3,218.52	3,268.52	15.08	110.66	-117.54	-3,178.46	-4,804.60	5,936.47	5,810.76	125.71	47.223	
3,400.00	3,367.20	3,317.20	3,367.20	15.53	114.11	-117.67	-3,178.46	-4,804.60	5,944.04	5,814.44	129.61	45.862	
3,500.00	3,465.89	3,415.89	3,465.89	15.99	117.55	-117.81	-3,178.46	-4,804.60	5,951.65	5,818.15	133.51	44.580	
3,600.00	3,564.57	3,514.57	3,564.57	16.44	120.99	-117.95	-3,178.46	-4,804.60	5,959.30	5,821.89	137.40	43.371	
3,700.00	3,663.25	3,613.25	3,663.25	16.90	124.44	-118.08	-3,178.46	-4,804.60	5,966.97	5,825.67	141.30	42.228	
3,800.00	3,761.93	3,711.93	3,761.93	17.36	127.88	-118.22	-3,178.46	-4,804.60	5,974.68	5,829.48	145.20	41.147	
3,900.00	3,860.62	3,810.62	3,860.62	17.82	131.32	-118.35	-3,178.46	-4,804.60	5,982.43	5,833.33	149.10	40.123	
4,000.00	3,959.30	3,909.30	3,959.30	18.28	134.77	-118.49	-3,178.46	-4,804.60	5,990.21	5,837.20	153.00	39.151	
4,100.00	4,057.98	4,007.98	4,057.98	18.74	138.21	-118.62	-3,178.46	-4,804.60	5,998.02	5,841.12	156.90	38.227	
4,200.00	4,156.67	4,106.67	4,156.67	19.20	141.66	-118.76	-3,178.46	-4,804.60	6,005.87	5,845.06	160.81	37.349	
4,300.00	4,255.35	4,205.35	4,255.35	19.66	145.10	-118.89	-3,178.46	-4,804.60	6,013.74	5,849.04	164.71	36.512	
4,400.00	4,354.03	4,304.03	4,354.03	20.12	148.54	-119.02	-3,178.46	-4,804.60	6,021.66	5,853.05	168.61	35.714	
4,500.00	4,452.71	4,402.71	4,452.71	20.58	151.99	-119.16	-3,178.46	-4,804.60	6,029.60	5,857.09	172.51	34.952	
4,600.00	4,551.40	4,501.40	4,551.40	21.04	155.43	-119.29	-3,178.46	-4,804.60	6,037.58	5,861.16	176.41	34.224	
4,700.00	4,650.08	4,600.08	4,650.08	21.50	158.88	-119.42	-3,178.46	-4,804.60	6,045.59	5,865.27	180.32	33.527	
4,800.00	4,748.76	4,701.24	4,748.76	21.96	162.41	-119.55	-3,178.46	-4,804.60	6,053.63	5,869.33	184.31	32.845	
4,900.00	4,847.44	4,802.56	4,847.44	22.42	165.94	-119.69	-3,178.46	-4,804.60	6,061.71	5,873.41	188.30	32.191	
5,000.00	4,946.13	4,903.87	4,946.13	22.89	169.48	-119.82	-3,178.46	-4,804.60	6,069.82	5,877.52	192.30	31.565	
5,100.00	5,044.81	5,005.19	5,044.81	23.35	173.02	-119.95	-3,178.46	-4,804.60	6,077.96	5,881.66	196.29	30.963	

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,106.51	5,143.49	23.81	176.55	-120.08	-3,178.46	-4,804.60	6,086.13	5,885.84	200.29	30.387		
5,300.00	5,242.18	5,207.82	5,242.18	24.27	180.09	-120.21	-3,178.46	-4,804.60	6,094.33	5,890.05	204.29	29.832		
5,400.00	5,340.86	5,309.14	5,340.86	24.74	183.63	-120.34	-3,178.46	-4,804.60	6,102.57	5,894.29	208.28	29.299		
5,500.00	5,439.54	5,389.54	5,439.54	25.20	186.43	-120.47	-3,178.46	-4,804.60	6,110.84	5,899.29	211.55	28.886		
5,600.00	5,538.22	5,488.22	5,538.22	25.66	189.88	-120.60	-3,178.46	-4,804.60	6,119.14	5,903.68	215.45	28.401		
5,700.00	5,636.91	5,586.91	5,636.91	26.13	193.32	-120.73	-3,178.46	-4,804.60	6,127.47	5,908.11	219.36	27.933		
5,800.00	5,735.59	5,685.59	5,735.59	26.59	196.77	-120.85	-3,178.46	-4,804.60	6,135.83	5,912.57	223.26	27.482		
5,900.00	5,834.27	5,784.27	5,834.27	27.06	200.21	-120.98	-3,178.46	-4,804.60	6,144.23	5,917.06	227.17	27.047		
6,000.00	5,932.95	5,882.95	5,932.95	27.52	203.66	-121.11	-3,178.46	-4,804.60	6,152.65	5,921.58	231.08	26.626		
6,100.00	6,031.64	5,981.64	6,031.64	27.98	207.10	-121.24	-3,178.46	-4,804.60	6,161.11	5,926.13	234.98	26.220		
6,200.00	6,130.32	6,080.32	6,130.32	28.45	210.54	-121.37	-3,178.46	-4,804.60	6,169.59	5,930.71	238.89	25.826		
6,300.00	6,229.00	6,179.00	6,229.00	28.91	213.99	-121.49	-3,178.46	-4,804.60	6,178.11	5,935.32	242.79	25.446		
6,400.00	6,327.69	6,277.69	6,327.69	29.38	217.43	-121.62	-3,178.46	-4,804.60	6,186.66	5,939.96	246.70	25.078		
6,500.00	6,426.37	6,376.37	6,426.37	29.84	220.88	-121.75	-3,178.46	-4,804.60	6,195.24	5,944.63	250.60	24.721		
6,600.00	6,525.05	6,475.05	6,525.05	30.31	224.32	-121.87	-3,178.46	-4,804.60	6,203.85	5,949.34	254.51	24.376		
6,700.00	6,623.73	6,573.73	6,623.73	30.77	227.75	-81.76	-3,178.46	-4,804.60	6,206.44	5,948.04	258.40	24.019		
6,800.00	6,718.58	6,668.58	6,718.58	31.22	231.08	-66.20	-3,178.46	-4,804.60	6,196.94	5,934.75	262.19	23.635		
6,900.00	6,808.91	6,758.91	6,808.91	31.66	234.23	-60.43	-3,178.46	-4,804.60	6,175.73	5,909.92	265.80	23.234		
7,000.00	6,891.95	6,841.95	6,891.95	32.07	237.13	-58.95	-3,178.46	-4,804.60	6,143.46	5,874.30	269.16	22.825		
7,100.00	6,965.65	6,915.65	6,965.65	32.51	239.70	-60.04	-3,178.46	-4,804.60	6,101.11	5,828.91	272.20	22.414		
7,200.00	7,028.20	6,978.20	7,028.20	33.02	241.89	-63.10	-3,178.46	-4,804.60	6,049.89	5,774.99	274.89	22.008		
7,300.00	7,078.04	7,028.04	7,078.04	33.68	243.63	-67.92	-3,178.46	-4,804.60	5,991.22	5,714.01	277.20	21.613		
7,400.00	7,113.97	7,063.97	7,113.97	34.52	244.88	-74.38	-3,178.46	-4,804.60	5,926.68	5,647.58	279.10	21.235		
7,500.00	7,135.09	7,085.09	7,135.09	35.53	245.62	-82.27	-3,178.46	-4,804.60	5,857.95	5,577.39	280.56	20.880		
7,600.00	7,140.96	7,109.04	7,140.96	36.68	246.45	-90.26	-3,178.46	-4,804.60	5,786.79	5,504.60	282.19	20.507		
7,700.00	7,140.53	7,109.47	7,140.53	37.99	246.47	-90.25	-3,178.46	-4,804.60	5,715.57	5,432.47	283.10	20.189		
7,800.00	7,140.09	7,109.91	7,140.09	39.45	246.48	-90.24	-3,178.46	-4,804.60	5,645.22	5,361.08	284.13	19.868		
7,900.00	7,139.66	7,089.66	7,139.66	41.06	245.78	-90.24	-3,178.46	-4,804.60	5,575.77	5,291.21	284.56	19.594		
8,000.00	7,139.23	7,089.23	7,139.23	42.80	245.76	-90.23	-3,178.46	-4,804.60	5,507.26	5,221.46	285.81	19.269		
8,100.00	7,138.79	7,088.79	7,138.79	44.65	245.75	-90.22	-3,178.46	-4,804.60	5,439.73	5,152.57	287.17	18.943		
8,200.00	7,138.36	7,088.36	7,138.36	46.60	245.73	-90.22	-3,178.46	-4,804.60	5,373.22	5,084.57	288.64	18.616		
8,300.00	7,137.93	7,087.93	7,137.93	48.65	245.72	-90.21	-3,178.46	-4,804.60	5,307.75	5,017.52	290.23	18.288		
8,400.00	7,137.49	7,087.49	7,137.49	50.77	245.70	-90.21	-3,178.46	-4,804.60	5,243.37	4,951.45	291.92	17.961		
8,500.00	7,137.06	7,087.06	7,137.06	52.95	245.69	-90.20	-3,178.46	-4,804.60	5,180.12	4,886.40	293.73	17.636		
8,600.00	7,136.62	7,086.62	7,136.62	55.20	245.67	-90.19	-3,178.46	-4,804.60	5,118.05	4,822.42	295.63	17.312		
8,700.00	7,136.19	7,086.19	7,136.19	57.51	245.66	-90.19	-3,178.46	-4,804.60	5,057.19	4,759.56	297.63	16.991		
8,800.00	7,135.76	7,085.76	7,135.76	59.85	245.64	-90.18	-3,178.46	-4,804.60	4,997.59	4,697.86	299.73	16.674		
8,900.00	7,135.32	7,085.32	7,135.32	62.24	245.63	-90.18	-3,178.46	-4,804.60	4,939.30	4,637.37	301.92	16.360		
9,000.00	7,134.89	7,084.89	7,134.89	64.67	245.61	-90.17	-3,178.46	-4,804.60	4,882.36	4,578.15	304.20	16.050		
9,100.00	7,134.45	7,084.45	7,134.45	67.13	245.60	-90.16	-3,178.46	-4,804.60	4,826.81	4,520.25	306.56	15.745		
9,200.00	7,134.02	7,084.02	7,134.02	69.62	245.58	-90.16	-3,178.46	-4,804.60	4,772.72	4,463.71	309.01	15.445		
9,300.00	7,133.59	7,083.59	7,133.59	72.14	245.56	-90.15	-3,178.46	-4,804.60	4,720.13	4,408.60	311.53	15.152		
9,400.00	7,133.15	7,083.15	7,133.15	74.68	245.55	-90.14	-3,178.46	-4,804.60	4,669.09	4,354.96	314.12	14.864		
9,500.00	7,132.72	7,082.72	7,132.72	77.24	245.53	-90.14	-3,178.46	-4,804.60	4,619.64	4,302.86	316.78	14.583		
9,600.00	7,132.29	7,082.29	7,132.29	79.83	245.52	-90.13	-3,178.46	-4,804.60	4,571.85	4,252.34	319.51	14.309		
9,700.00	7,131.85	7,081.85	7,131.85	82.42	245.50	-90.13	-3,178.46	-4,804.60	4,525.77	4,203.47	322.30	14.042		
9,800.00	7,131.42	7,081.42	7,131.42	85.04	245.49	-90.12	-3,178.46	-4,804.60	4,481.44	4,156.30	325.14	13.783		
9,900.00	7,130.98	7,080.98	7,130.98	87.67	245.47	-90.11	-3,178.46	-4,804.60	4,438.93	4,110.89	328.03	13.532		
10,000.00	7,130.55	7,080.55	7,130.55	90.31	245.46	-90.11	-3,178.46	-4,804.60	4,398.27	4,067.30	330.97	13.289		
10,100.00	7,130.12	7,080.12	7,130.12	92.97	245.44	-90.10	-3,178.46	-4,804.60	4,359.53	4,025.59	333.95	13.055		
10,200.00	7,129.68	7,079.68	7,129.68	95.63	245.43	-90.10	-3,178.46	-4,804.60	4,322.76	3,985.80	336.96	12.829		
10,300.00	7,129.25	7,079.25	7,129.25	98.31	245.41	-90.09	-3,178.46	-4,804.60	4,288.01	3,948.01	340.00	12.612		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-43(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,128.82	7,078.82	7,128.82	101.00	245.40	-90.08	-3,178.46	-4,804.60	4,255.32	3,912.26	343.06	12.404	
10,500.00	7,128.38	7,078.38	7,128.38	103.69	245.38	-90.08	-3,178.46	-4,804.60	4,224.75	3,878.61	346.14	12.205	
10,600.00	7,127.95	7,077.95	7,127.95	106.39	245.37	-90.07	-3,178.46	-4,804.60	4,196.33	3,847.11	349.22	12.016	
10,700.00	7,127.51	7,077.51	7,127.51	109.10	245.35	-90.06	-3,178.46	-4,804.60	4,170.13	3,817.82	352.31	11.837	
10,800.00	7,127.08	7,077.08	7,127.08	111.82	245.34	-90.06	-3,178.46	-4,804.60	4,146.17	3,790.78	355.39	11.667	
10,900.00	7,126.65	7,076.65	7,126.65	114.54	245.32	-90.05	-3,178.46	-4,804.60	4,124.49	3,766.04	358.46	11.506	
11,000.00	7,126.21	7,076.21	7,126.21	117.27	245.31	-90.05	-3,178.46	-4,804.60	4,105.14	3,743.64	361.50	11.356	
11,100.00	7,125.78	7,075.78	7,125.78	120.01	245.29	-90.04	-3,178.46	-4,804.60	4,088.14	3,723.62	364.52	11.215	
11,200.00	7,125.35	7,075.35	7,125.35	122.75	245.28	-90.03	-3,178.46	-4,804.60	4,073.53	3,706.02	367.51	11.084	
11,300.00	7,124.91	7,074.91	7,124.91	125.49	245.26	-90.03	-3,178.46	-4,804.60	4,061.33	3,690.87	370.46	10.963	
11,400.00	7,124.48	7,074.48	7,124.48	128.24	245.25	-90.02	-3,178.46	-4,804.60	4,051.56	3,678.20	373.35	10.852	
11,500.00	7,124.04	7,074.04	7,124.04	131.00	245.23	-90.02	-3,178.46	-4,804.60	4,044.23	3,668.04	376.19	10.750	
11,600.00	7,123.61	7,073.61	7,123.61	133.75	245.22	-90.01	-3,178.46	-4,804.60	4,039.38	3,660.41	378.97	10.659	
11,700.00	7,123.18	7,073.18	7,123.18	136.52	245.20	-90.00	-3,178.46	-4,804.60	4,036.99	3,655.31	381.68	10.577	
11,746.34	7,122.98	7,072.98	7,122.98	137.80	245.19	-90.00	-3,178.46	-4,804.60	4,036.73	3,653.81	382.91	10.542 CC	
11,800.00	7,122.74	7,072.74	7,122.74	139.28	245.19	-90.00	-3,178.46	-4,804.60	4,037.08	3,652.76	384.32	10.504 ES	
11,900.00	7,122.31	7,072.31	7,122.31	142.05	245.17	-89.99	-3,178.46	-4,804.60	4,039.65	3,652.77	386.88	10.442	
12,000.00	7,121.88	7,071.88	7,121.88	144.82	245.16	-89.98	-3,178.46	-4,804.60	4,044.69	3,655.33	389.35	10.388	
12,100.00	7,121.44	7,071.44	7,121.44	147.59	245.14	-89.98	-3,178.46	-4,804.60	4,052.19	3,660.45	391.74	10.344	
12,200.00	7,121.01	7,071.01	7,121.01	150.37	245.13	-89.97	-3,178.46	-4,804.60	4,062.14	3,668.10	394.03	10.309	
12,300.00	7,120.57	7,070.57	7,120.57	153.15	245.11	-89.97	-3,178.46	-4,804.60	4,074.52	3,678.28	396.23	10.283	
12,400.00	7,120.14	7,070.14	7,120.14	155.93	245.10	-89.96	-3,178.46	-4,804.60	4,089.30	3,690.97	398.33	10.266	
12,500.00	7,119.71	7,069.71	7,119.71	158.72	245.08	-89.95	-3,178.46	-4,804.60	4,106.48	3,706.14	400.34	10.258 SF	
12,600.00	7,119.27	7,069.27	7,119.27	161.50	245.07	-89.95	-3,178.46	-4,804.60	4,126.00	3,723.76	402.24	10.258	
12,700.00	7,118.84	7,068.84	7,118.84	164.29	245.05	-89.94	-3,178.46	-4,804.60	4,147.84	3,743.80	404.04	10.266	
12,800.00	7,118.41	7,068.41	7,118.41	167.08	245.03	-89.94	-3,178.46	-4,804.60	4,171.97	3,766.23	405.74	10.282	
12,900.00	7,117.97	7,067.97	7,117.97	169.88	245.02	-89.93	-3,178.46	-4,804.60	4,198.34	3,791.01	407.33	10.307	
13,000.00	7,117.54	7,067.54	7,117.54	172.67	245.00	-89.92	-3,178.46	-4,804.60	4,226.91	3,818.08	408.83	10.339	
13,100.00	7,117.10	7,067.10	7,117.10	175.47	244.99	-89.92	-3,178.46	-4,804.60	4,257.64	3,847.42	410.23	10.379	
13,200.00	7,116.67	7,066.67	7,116.67	178.27	244.97	-89.91	-3,178.46	-4,804.60	4,290.48	3,878.96	411.52	10.426	
13,300.00	7,116.24	7,066.24	7,116.24	181.07	244.96	-89.90	-3,178.46	-4,804.60	4,325.39	3,912.66	412.73	10.480	
13,400.00	7,115.80	7,065.80	7,115.80	183.87	244.94	-89.90	-3,178.46	-4,804.60	4,362.30	3,948.47	413.84	10.541	
13,500.00	7,115.37	7,065.37	7,115.37	186.67	244.93	-89.89	-3,178.46	-4,804.60	4,401.18	3,986.33	414.85	10.609	
13,600.00	7,114.93	7,064.93	7,114.93	189.47	244.91	-89.89	-3,178.46	-4,804.60	4,441.97	4,026.19	415.79	10.683	
13,700.00	7,114.50	7,064.50	7,114.50	192.28	244.90	-89.88	-3,178.46	-4,804.60	4,484.63	4,067.99	416.63	10.764	
13,800.00	7,114.07	7,064.07	7,114.07	195.09	244.88	-89.87	-3,178.46	-4,804.60	4,529.08	4,111.69	417.39	10.851	
13,900.00	7,113.63	7,063.63	7,113.63	197.89	244.87	-89.87	-3,178.46	-4,804.60	4,575.29	4,157.21	418.08	10.944	
14,000.00	7,113.20	7,063.20	7,113.20	200.70	244.85	-89.86	-3,178.46	-4,804.60	4,623.21	4,204.52	418.69	11.042	
14,100.00	7,112.77	7,062.77	7,112.77	203.51	244.84	-89.86	-3,178.46	-4,804.60	4,672.77	4,253.54	419.23	11.146	
14,200.00	7,112.33	7,062.33	7,112.33	206.32	244.82	-89.85	-3,178.46	-4,804.60	4,723.93	4,304.23	419.70	11.255	
14,300.00	7,111.90	7,061.90	7,111.90	209.13	244.81	-89.84	-3,178.46	-4,804.60	4,776.63	4,356.52	420.11	11.370	
14,400.00	7,111.46	7,061.46	7,111.46	211.95	244.79	-89.84	-3,178.46	-4,804.60	4,830.83	4,410.38	420.45	11.490	
14,500.00	7,111.03	7,061.03	7,111.03	214.76	244.78	-89.83	-3,178.46	-4,804.60	4,886.48	4,465.73	420.74	11.614	
14,600.00	7,110.60	7,060.60	7,110.60	217.58	244.76	-89.82	-3,178.46	-4,804.60	4,943.52	4,522.54	420.98	11.743	
14,700.00	7,110.16	7,060.16	7,110.16	220.39	244.75	-89.82	-3,178.46	-4,804.60	5,001.91	4,580.75	421.16	11.876	
14,800.00	7,109.73	7,059.73	7,109.73	223.21	244.73	-89.81	-3,178.46	-4,804.60	5,061.60	4,640.30	421.30	12.014	
14,900.00	7,109.30	7,059.30	7,109.30	226.03	244.72	-89.81	-3,178.46	-4,804.60	5,122.55	4,701.16	421.39	12.156	
14,969.16	7,109.00	7,059.00	7,109.00	227.97	244.71	-89.80	-3,178.46	-4,804.60	5,165.42	4,743.99	421.43	12.257	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-143.07	-4,349.58	-3,269.24	5,441.64					
100.00	100.00	924.40	961.87	3.28	5.25	-143.27	-4,298.86	-3,207.35	5,432.32	5,423.77	8.54	635.802		
200.00	200.00	1,023.05	1,059.20	3.34	5.67	-143.32	-4,288.64	-3,194.88	5,416.45	5,407.52	8.94	606.015		
300.00	300.00	1,128.30	1,156.54	3.44	6.14	-143.36	-4,278.43	-3,182.42	5,400.59	5,391.17	9.42	573.025		
400.00	400.00	1,229.64	1,253.87	3.60	6.61	-143.40	-4,268.21	-3,169.96	5,384.73	5,374.77	9.96	540.675		
500.00	500.00	1,330.98	1,351.20	3.81	7.09	-143.44	-4,258.00	-3,157.49	5,368.88	5,358.33	10.55	508.993		
600.00	600.00	1,432.33	1,448.53	4.05	7.58	-143.48	-4,247.78	-3,145.03	5,353.03	5,341.84	11.18	478.664		
700.00	699.98	1,516.46	1,545.99	4.32	8.00	-134.60	-4,237.56	-3,132.55	5,338.38	5,326.60	11.78	453.033		
800.00	799.84	1,615.41	1,643.60	4.62	8.49	-134.86	-4,227.31	-3,120.05	5,326.18	5,313.70	12.48	426.870		
900.00	899.45	1,714.40	1,741.27	4.94	8.99	-135.11	-4,217.06	-3,107.54	5,316.44	5,303.23	13.20	402.690		
1,000.00	998.70	1,813.32	1,838.86	5.28	9.50	-135.35	-4,206.82	-3,095.04	5,309.18	5,295.23	13.95	380.463		
1,100.00	1,097.50	1,912.06	1,936.27	5.64	10.00	-135.56	-4,196.60	-3,082.57	5,304.30	5,289.57	14.73	360.097		
1,200.00	1,196.18	2,010.74	2,033.63	6.00	10.51	-135.72	-4,186.38	-3,070.10	5,299.99	5,284.46	15.53	341.324		
1,300.00	1,294.87	2,109.43	2,130.99	6.38	11.03	-135.89	-4,176.16	-3,057.63	5,295.73	5,279.38	16.34	324.066		
1,400.00	1,393.55	2,208.11	2,228.35	6.77	11.55	-136.06	-4,165.95	-3,045.17	5,291.51	5,274.34	17.17	308.202		
1,500.00	1,492.23	2,306.80	2,325.71	7.17	12.06	-136.22	-4,155.73	-3,032.70	5,287.34	5,269.33	18.01	293.609		
1,600.00	1,590.91	2,405.49	2,423.07	7.58	12.59	-136.39	-4,145.51	-3,020.23	5,283.21	5,264.36	18.86	280.171		
1,700.00	1,689.60	2,504.17	2,520.43	8.00	13.11	-136.56	-4,135.29	-3,007.76	5,279.14	5,259.42	19.71	267.777		
1,800.00	1,788.28	2,602.86	2,617.79	8.42	13.63	-136.73	-4,125.08	-2,995.30	5,275.10	5,254.52	20.58	256.326		
1,900.00	1,886.96	2,701.54	2,715.15	8.84	14.16	-136.89	-4,114.86	-2,982.83	5,271.12	5,249.67	21.45	245.727		
2,000.00	1,985.64	2,800.23	2,812.51	9.27	14.68	-137.06	-4,104.64	-2,970.36	5,267.18	5,244.85	22.33	235.897		
2,100.00	2,084.33	2,901.08	2,909.87	9.71	15.22	-137.23	-4,094.42	-2,957.89	5,263.29	5,240.07	23.22	226.668		
2,200.00	2,183.01	3,002.40	3,007.23	10.15	15.77	-137.40	-4,084.21	-2,945.42	5,259.44	5,235.32	24.12	218.063		
2,300.00	2,281.69	3,096.29	3,104.60	10.59	16.27	-137.57	-4,073.99	-2,932.96	5,255.64	5,230.65	24.99	210.330		
2,400.00	2,380.38	3,194.97	3,201.96	11.03	16.80	-137.74	-4,063.77	-2,920.49	5,251.89	5,226.01	25.88	202.919		
2,500.00	2,479.06	3,293.66	3,299.32	11.47	17.33	-137.91	-4,053.55	-2,908.02	5,248.19	5,221.41	26.78	195.980		
2,600.00	2,577.74	3,392.35	3,396.68	11.92	17.87	-138.08	-4,043.33	-2,895.55	5,244.53	5,216.85	27.68	189.474		
2,700.00	2,676.42	3,491.03	3,494.04	12.36	18.40	-138.25	-4,033.12	-2,883.09	5,240.92	5,212.34	28.58	183.361		
2,800.00	2,775.11	3,589.72	3,591.40	12.81	18.93	-138.42	-4,022.90	-2,870.62	5,237.36	5,207.87	29.49	177.610		
2,900.00	2,873.79	3,688.40	3,688.76	13.26	19.46	-138.59	-4,012.68	-2,858.15	5,233.84	5,203.44	30.40	172.191		
3,000.00	2,972.47	3,787.09	3,786.12	13.72	20.00	-138.76	-4,002.46	-2,845.68	5,230.37	5,199.07	31.31	167.076		
3,100.00	3,071.15	3,885.78	3,883.48	14.17	20.53	-138.93	-3,992.25	-2,833.21	5,226.95	5,194.73	32.22	162.241		
3,200.00	3,169.84	3,984.46	3,980.84	14.62	21.07	-139.10	-3,982.03	-2,820.75	5,223.58	5,190.45	33.13	157.666		
3,300.00	3,268.52	4,083.15	4,078.20	15.08	21.60	-139.27	-3,971.81	-2,808.28	5,220.25	5,186.21	34.05	153.330		
3,400.00	3,367.20	4,181.83	4,175.56	15.53	22.14	-139.44	-3,961.59	-2,795.81	5,216.98	5,182.01	34.96	149.215		
3,500.00	3,465.89	4,280.52	4,272.92	15.99	22.67	-139.62	-3,951.38	-2,783.34	5,213.75	5,177.87	35.88	145.306		
3,600.00	3,564.57	4,379.21	4,370.28	16.44	23.21	-139.79	-3,941.16	-2,770.88	5,210.57	5,173.77	36.80	141.588		
3,700.00	3,663.25	4,477.89	4,467.64	16.90	23.75	-139.96	-3,930.94	-2,758.41	5,207.44	5,169.71	37.72	138.048		
3,800.00	3,761.93	4,576.58	4,565.00	17.36	24.28	-140.13	-3,920.72	-2,745.94	5,204.35	5,165.71	38.64	134.674		
3,900.00	3,860.62	4,675.26	4,662.37	17.82	24.82	-140.31	-3,910.51	-2,733.47	5,201.32	5,161.75	39.57	131.454		
4,000.00	3,959.30	4,773.95	4,759.73	18.28	25.36	-140.48	-3,900.29	-2,721.00	5,198.33	5,157.84	40.49	128.378		
4,100.00	4,057.98	4,872.64	4,857.09	18.74	25.90	-140.65	-3,890.07	-2,708.54	5,195.39	5,153.97	41.42	125.437		
4,200.00	4,156.67	4,971.32	4,954.45	19.20	26.43	-140.82	-3,879.85	-2,696.07	5,192.50	5,150.15	42.35	122.624		
4,300.00	4,255.35	5,070.01	5,051.81	19.66	26.97	-141.00	-3,869.64	-2,683.60	5,189.66	5,146.38	43.27	119.929		
4,400.00	4,354.03	5,168.69	5,149.17	20.12	27.51	-141.17	-3,859.42	-2,671.13	5,186.86	5,142.66	44.20	117.345		
4,500.00	4,452.71	5,267.38	5,246.53	20.58	28.05	-141.35	-3,849.20	-2,658.67	5,184.12	5,138.99	45.13	114.867		
4,600.00	4,551.40	5,366.07	5,343.89	21.04	28.59	-141.52	-3,838.98	-2,646.20	5,181.43	5,135.36	46.06	112.487		
4,700.00	4,650.08	5,464.75	5,441.25	21.50	29.13	-141.69	-3,828.76	-2,633.73	5,178.78	5,131.79	46.99	110.201		
4,800.00	4,748.76	5,563.44	5,538.61	21.96	29.66	-141.87	-3,818.55	-2,621.26	5,176.18	5,128.26	47.93	108.003		
4,900.00	4,847.44	5,662.12	5,635.97	22.42	30.20	-142.04	-3,808.33	-2,608.79	5,173.64	5,124.78	48.86	105.887		
5,000.00	4,946.13	5,760.81	5,733.33	22.89	30.74	-142.22	-3,798.11	-2,596.33	5,171.14	5,121.34	49.79	103.851		
5,100.00	5,044.81	5,859.50	5,830.69	23.35	31.28	-142.39	-3,787.89	-2,583.86	5,168.69	5,117.96	50.73	101.888		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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-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		
5,200.00	5,143.49	5,958.18	5,928.05	23.81	31.82	-142.57	-3,777.68	-2,571.39	5,166.29	5,114.62	51.66	99.996		
5,300.00	5,242.18	6,056.87	6,025.41	24.27	32.36	-142.74	-3,767.46	-2,558.92	5,163.94	5,111.34	52.60	98.171		
5,400.00	5,340.86	6,155.55	6,122.77	24.74	32.90	-142.92	-3,757.24	-2,546.46	5,161.64	5,108.10	53.54	96.409		
5,500.00	5,439.54	6,254.24	6,220.13	25.20	33.44	-143.09	-3,747.02	-2,533.99	5,159.39	5,104.91	54.48	94.708		
5,600.00	5,538.22	6,279.03	6,244.62	25.66	33.57	-143.13	-3,744.46	-2,531.13	5,157.85	5,102.77	55.08	93.648		
5,629.80	5,567.63	6,284.98	6,250.52	25.80	33.60	-143.14	-3,743.85	-2,530.58	5,157.69	5,102.44	55.25	93.357		
5,700.00	5,636.91	6,300.00	6,265.41	26.13	33.68	-143.16	-3,742.30	-2,529.43	5,157.86	5,102.21	55.65	92.688		
5,800.00	5,735.59	6,325.01	6,290.27	26.59	33.79	-143.19	-3,739.74	-2,528.31	5,159.44	5,103.23	56.22	91.779		
5,900.00	5,834.27	6,339.42	6,304.60	27.06	33.85	-143.20	-3,738.27	-2,528.11	5,162.54	5,105.82	56.72	91.017		
6,000.00	5,932.95	6,350.00	6,315.12	27.52	33.90	-143.20	-3,737.20	-2,528.17	5,167.24	5,110.04	57.19	90.348		
6,100.00	6,031.64	6,379.93	6,344.88	27.98	34.01	-143.21	-3,734.19	-2,529.30	5,173.39	5,115.66	57.73	89.619		
6,200.00	6,130.32	6,400.00	6,364.79	28.45	34.08	-143.20	-3,732.19	-2,530.84	5,181.11	5,122.91	58.21	89.014		
6,300.00	6,229.00	6,425.01	6,389.52	28.91	34.16	-143.19	-3,729.74	-2,533.64	5,190.38	5,131.69	58.68	88.446		
6,400.00	6,327.69	6,440.25	6,404.52	29.38	34.20	-143.18	-3,728.25	-2,535.82	5,201.15	5,142.04	59.10	88.000		
6,500.00	6,426.37	6,450.00	6,414.10	29.84	34.23	-143.17	-3,727.31	-2,537.41	5,213.49	5,154.01	59.48	87.646		
6,600.00	6,525.05	6,479.70	6,443.10	30.31	34.30	-143.13	-3,724.49	-2,543.15	5,227.25	5,167.32	59.93	87.226		
6,700.00	6,623.18	6,500.00	6,462.76	30.77	34.34	-102.09	-3,722.59	-2,547.85	5,238.69	5,178.36	60.33	86.838		
6,800.00	6,718.58	6,525.01	6,486.76	31.22	34.39	-85.35	-3,720.29	-2,554.50	5,243.69	5,182.95	60.74	86.324		
6,900.00	6,808.91	6,538.82	6,499.89	31.66	34.42	-78.13	-3,719.05	-2,558.58	5,242.10	5,180.99	61.12	85.769		
7,000.00	6,891.95	6,550.00	6,510.46	32.07	34.44	-74.83	-3,718.05	-2,562.09	5,234.06	5,172.55	61.51	85.098		
7,100.00	6,965.65	6,576.90	6,535.62	32.51	34.47	-73.70	-3,715.69	-2,571.29	5,219.64	5,157.63	62.02	84.166		
7,200.00	7,028.20	6,600.00	6,556.91	33.02	34.51	-73.97	-3,713.72	-2,580.04	5,199.32	5,136.71	62.61	83.044		
7,300.00	7,078.04	6,611.55	6,567.43	33.68	34.52	-75.23	-3,712.75	-2,584.71	5,173.53	5,110.23	63.29	81.740		
7,400.00	7,113.97	6,625.01	6,579.58	34.52	34.53	-77.39	-3,711.64	-2,590.38	5,142.92	5,078.77	64.15	80.166		
7,500.00	7,135.09	6,640.42	6,593.35	35.53	34.55	-80.31	-3,710.39	-2,597.20	5,108.25	5,043.05	65.20	78.344		
7,600.00	7,140.96	6,650.00	6,601.82	36.68	34.55	-83.48	-3,709.63	-2,601.60	5,070.41	5,004.01	66.39	76.370		
7,700.00	7,140.53	6,650.00	6,601.82	37.99	34.55	-83.48	-3,709.63	-2,601.60	5,032.49	4,964.78	67.71	74.329		
7,800.00	7,140.09	6,674.31	6,623.02	39.45	34.57	-83.74	-3,707.73	-2,613.35	4,996.04	4,926.77	69.27	72.119		
7,900.00	7,139.66	6,700.00	6,644.92	41.06	34.58	-84.00	-3,705.80	-2,626.63	4,961.37	4,890.37	71.00	69.882		
8,000.00	7,139.23	6,700.00	6,644.92	42.80	34.58	-84.00	-3,705.80	-2,626.63	4,928.20	4,855.44	72.76	67.729		
8,100.00	7,138.79	6,714.19	6,656.78	44.65	34.58	-84.15	-3,704.77	-2,634.34	4,896.77	4,822.07	74.71	65.546		
8,200.00	7,138.36	6,725.01	6,665.72	46.60	34.59	-84.25	-3,704.00	-2,640.41	4,867.04	4,790.29	76.75	63.411		
8,300.00	7,137.93	6,750.00	6,685.94	48.65	34.59	-84.50	-3,702.27	-2,654.98	4,839.00	4,760.05	78.95	61.294		
8,400.00	7,137.49	6,750.00	6,685.94	50.77	34.59	-84.50	-3,702.27	-2,654.98	4,812.73	4,731.57	81.15	59.304		
8,500.00	7,137.06	6,782.53	6,711.39	52.95	34.59	-84.81	-3,700.13	-2,675.12	4,788.04	4,704.50	83.54	57.314		
8,600.00	7,136.62	6,800.00	6,724.63	55.20	34.59	-84.97	-3,699.04	-2,686.46	4,765.13	4,679.18	85.95	55.441		
8,700.00	7,136.19	6,825.01	6,743.03	57.51	34.59	-85.20	-3,697.55	-2,703.34	4,743.91	4,655.47	88.44	53.638		
8,800.00	7,135.76	6,850.00	6,760.75	59.85	34.59	-85.41	-3,696.14	-2,720.90	4,724.39	4,633.40	90.99	51.922		
8,900.00	7,135.32	6,875.03	6,777.79	62.24	34.58	-85.62	-3,694.82	-2,739.18	4,706.53	4,612.94	93.59	50.289		
9,000.00	7,134.89	6,900.00	6,794.07	64.67	34.58	-85.82	-3,693.59	-2,758.07	4,690.32	4,594.10	96.22	48.744		
9,100.00	7,134.45	6,933.12	6,814.51	67.13	34.57	-86.07	-3,692.10	-2,784.09	4,675.71	4,576.79	98.92	47.266		
9,200.00	7,134.02	6,965.60	6,833.22	69.62	34.58	-86.30	-3,690.80	-2,810.61	4,662.67	4,561.00	101.66	45.864		
9,300.00	7,133.59	7,000.00	6,851.54	72.14	34.58	-86.53	-3,689.59	-2,839.69	4,651.13	4,546.70	104.43	44.537		
9,400.00	7,133.15	7,037.89	6,869.88	74.68	34.61	-86.76	-3,688.48	-2,872.81	4,641.06	4,533.80	107.26	43.269		
9,500.00	7,132.72	7,077.71	6,887.01	77.24	34.65	-86.97	-3,687.55	-2,908.74	4,632.39	4,522.25	110.14	42.060		
9,600.00	7,132.29	7,125.01	6,904.41	79.83	34.74	-87.19	-3,686.78	-2,952.71	4,625.06	4,511.97	113.09	40.897		
9,700.00	7,131.85	7,164.26	6,916.35	82.42	34.86	-87.34	-3,686.41	-2,990.09	4,618.99	4,502.95	116.04	39.805		
9,800.00	7,131.42	7,210.51	6,927.45	85.04	35.05	-87.47	-3,686.30	-3,034.98	4,614.15	4,495.08	119.07	38.750		
9,900.00	7,130.98	7,250.00	6,934.34	87.67	35.27	-87.56	-3,686.49	-3,073.86	4,610.49	4,488.41	122.08	37.765		
10,000.00	7,130.55	7,307.01	6,940.03	90.31	35.70	-87.63	-3,687.20	-3,130.56	4,607.93	4,482.62	125.31	36.773		
10,100.00	7,130.12	7,367.62	6,940.91	92.97	36.27	-87.65	-3,688.50	-3,191.13	4,606.46	4,477.83	128.63	35.810		
10,200.00	7,129.68	7,467.61	6,940.50	95.63	37.51	-87.65	-3,690.82	-3,291.10	4,605.33	4,472.71	132.62	34.726		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Reference (ft) 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	
10,300.00	7,129.25	7,567.61	6,940.08	98.31	39.04	-87.65	-87.65	-3,693.15 -3,391.06	4,604.19	4,467.35	136.84	33.646		
10,400.00	7,128.82	7,667.60	6,939.66	101.00	40.81	-87.65	-87.65	-3,695.47 -3,491.03	4,603.06	4,461.76	141.29	32.578		
10,500.00	7,128.38	7,767.59	6,939.25	103.69	42.78	-87.65	-87.65	-3,697.80 -3,591.00	4,601.92	4,455.98	145.94	31.534		
10,600.00	7,127.95	7,867.59	6,938.83	106.39	44.91	-87.65	-87.65	-3,700.12 -3,690.96	4,600.79	4,450.03	150.75	30.519		
10,700.00	7,127.51	7,967.58	6,938.41	109.10	47.18	-87.65	-87.65	-3,702.45 -3,790.93	4,599.65	4,443.93	155.72	29.539		
10,800.00	7,127.08	8,067.57	6,937.99	111.82	49.57	-87.65	-87.65	-3,704.77 -3,890.89	4,598.51	4,437.71	160.81	28.597		
10,900.00	7,126.65	8,167.57	6,937.58	114.54	52.06	-87.65	-87.65	-3,707.10 -3,990.86	4,597.38	4,431.37	166.01	27.694		
11,000.00	7,126.21	8,267.56	6,937.16	117.27	54.64	-87.65	-87.65	-3,709.42 -4,090.82	4,596.24	4,424.94	171.31	26.830		
11,100.00	7,125.78	8,367.55	6,936.74	120.01	57.30	-87.64	-87.64	-3,711.75 -4,190.79	4,595.11	4,418.42	176.69	26.007		
11,200.00	7,125.35	8,467.55	6,936.33	122.75	60.02	-87.64	-87.64	-3,714.07 -4,290.76	4,593.97	4,411.83	182.14	25.222		
11,300.00	7,124.91	8,567.54	6,935.91	125.49	62.80	-87.64	-87.64	-3,716.40 -4,390.72	4,592.84	4,405.18	187.66	24.474		
11,400.00	7,124.48	8,667.53	6,935.49	128.24	65.63	-87.64	-87.64	-3,718.72 -4,490.69	4,591.70	4,398.47	193.24	23.762		
11,500.00	7,124.04	8,767.53	6,935.07	131.00	68.50	-87.64	-87.64	-3,721.05 -4,590.65	4,590.57	4,391.71	198.86	23.084		
11,600.00	7,123.61	8,867.52	6,934.66	133.75	71.41	-87.64	-87.64	-3,723.37 -4,690.62	4,589.43	4,384.90	204.53	22.439		
11,700.00	7,123.18	8,967.52	6,934.24	136.52	74.36	-87.64	-87.64	-3,725.70 -4,790.58	4,588.30	4,378.06	210.23	21.825		
11,800.00	7,122.74	9,067.51	6,933.82	139.28	77.34	-87.64	-87.64	-3,728.02 -4,890.55	4,587.16	4,371.19	215.97	21.239		
11,900.00	7,122.31	9,167.50	6,933.41	142.05	80.34	-87.64	-87.64	-3,730.35 -4,990.52	4,586.03	4,364.28	221.75	20.682		
12,000.00	7,121.88	9,267.50	6,932.99	144.82	83.37	-87.64	-87.64	-3,732.67 -5,090.48	4,584.89	4,357.35	227.54	20.150		
12,100.00	7,121.44	9,367.49	6,932.57	147.59	86.42	-87.64	-87.64	-3,735.00 -5,190.45	4,583.76	4,350.39	233.37	19.642		
12,200.00	7,121.01	9,467.48	6,932.16	150.37	89.49	-87.64	-87.64	-3,737.32 -5,290.41	4,582.62	4,343.41	239.21	19.157		
12,300.00	7,120.57	9,567.48	6,931.74	153.15	92.58	-87.64	-87.64	-3,739.65 -5,390.38	4,581.49	4,336.41	245.08	18.694		
12,400.00	7,120.14	9,667.47	6,931.32	155.93	95.68	-87.64	-87.64	-3,741.97 -5,490.34	4,580.35	4,329.39	250.96	18.251		
12,500.00	7,119.71	9,767.46	6,930.90	158.72	98.80	-87.64	-87.64	-3,744.30 -5,590.31	4,579.22	4,322.35	256.86	17.827		
12,600.00	7,119.27	9,867.46	6,930.49	161.50	101.93	-87.64	-87.64	-3,746.62 -5,690.27	4,578.08	4,315.30	262.78	17.422		
12,700.00	7,118.84	9,967.45	6,930.07	164.29	105.07	-87.64	-87.64	-3,748.95 -5,790.24	4,576.94	4,308.24	268.71	17.033		
12,800.00	7,118.41	10,067.44	6,929.65	167.08	108.22	-87.64	-87.64	-3,751.27 -5,890.21	4,575.81	4,301.16	274.65	16.660		
12,900.00	7,117.97	10,167.44	6,929.24	169.88	111.39	-87.64	-87.64	-3,753.60 -5,990.17	4,574.67	4,294.07	280.61	16.303		
13,000.00	7,117.54	10,267.43	6,928.82	172.67	114.56	-87.64	-87.64	-3,755.92 -6,090.14	4,573.54	4,286.97	286.57	15.959		
13,100.00	7,117.10	10,367.42	6,928.40	175.47	117.74	-87.64	-87.64	-3,758.25 -6,190.10	4,572.40	4,279.85	292.55	15.630		
13,200.00	7,116.67	10,467.42	6,927.98	178.27	120.93	-87.64	-87.64	-3,760.57 -6,290.07	4,571.27	4,272.73	298.53	15.312		
13,270.94	7,116.36	10,490.30	6,927.89	180.25	121.66	-87.64	-87.64	-3,761.21 -6,312.94	4,570.82	4,269.67	301.15	15.178 CC		
13,300.00	7,116.24	10,500.00	6,927.85	181.07	121.97	-87.64	-87.64	-3,761.56 -6,322.63	4,570.86	4,268.63	302.23	15.124		
13,400.00	7,115.80	10,535.09	6,927.70	183.87	123.09	-87.64	-87.64	-3,763.23 -6,357.68	4,571.99	4,266.04	305.95	14.944		
13,500.00	7,115.37	10,635.07	6,927.28	186.67	126.27	-87.64	-87.64	-3,768.45 -6,457.53	4,573.75	4,261.81	311.94	14.662		
13,600.00	7,114.93	10,725.53	6,926.91	189.47	129.16	-87.64	-87.64	-3,773.17 -6,547.86	4,575.52	4,257.92	317.60	14.407		
13,700.00	7,114.50	10,757.79	6,926.77	192.28	130.18	-87.64	-87.64	-3,775.12 -6,580.06	4,578.19	4,257.04	321.15	14.256		
13,800.00	7,114.07	10,800.00	6,926.60	195.09	131.53	-87.64	-87.64	-3,778.50 -6,622.14	4,582.47	4,257.46	325.00	14.100		
13,900.00	7,113.63	10,816.57	6,926.53	197.89	132.05	-87.64	-87.64	-3,780.09 -6,638.63	4,588.16	4,260.34	327.82	13.996		
14,000.00	7,113.20	10,825.02	6,926.49	200.70	132.32	-87.64	-87.64	-3,780.95 -6,647.04	4,595.60	4,265.40	330.20	13.918		
14,100.00	7,112.77	10,875.13	6,926.28	203.51	133.90	-87.64	-87.64	-3,786.82 -6,696.80	4,604.25	4,270.09	334.16	13.778		
14,200.00	7,112.33	10,900.00	6,926.18	206.32	134.68	-87.65	-87.65	-3,790.22 -6,721.44	4,614.59	4,277.56	337.03	13.692		
14,300.00	7,111.90	10,925.02	6,926.07	209.13	135.46	-87.65	-87.65	-3,793.96 -6,746.18	4,626.45	4,286.64	339.81	13.615		
14,400.00	7,111.46	11,780.11	6,922.50	211.95	162.77	-87.67	-87.67	-3,859.67 -7,596.15	4,627.55	4,253.42	374.13	12.369		
14,500.00	7,111.03	11,880.05	6,922.09	214.76	166.03	-87.67	-87.67	-3,859.66 -7,696.09	4,624.08	4,243.88	380.20	12.162		
14,600.00	7,110.60	11,979.99	6,921.67	217.58	169.29	-87.66	-87.66	-3,859.64 -7,796.03	4,620.61	4,234.34	386.27	11.962		
14,700.00	7,110.16	12,079.93	6,921.25	220.39	172.56	-87.66	-87.66	-3,859.63 -7,895.97	4,617.14	4,224.79	392.34	11.768		
14,800.00	7,109.73	12,179.87	6,920.84	223.21	175.83	-87.66	-87.66	-3,859.62 -7,995.91	4,613.66	4,215.24	398.42	11.580		
14,900.00	7,109.30	12,279.81	6,920.42	226.03	179.10	-87.66	-87.66	-3,859.60 -8,095.85	4,610.19	4,205.69	404.51	11.397		
14,969.16	7,109.00	12,348.93	6,920.13	227.97	181.36	-87.66	-87.66	-3,859.59 -8,164.97	4,607.79	4,199.08	408.72	11.274 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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-MWVD													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	-143.20	-4,369.62	-3,269.24	5,457.67					
100.00	100.00	57.00	100.00	3.28	0.07	-143.20	-4,369.62	-3,269.24	5,457.24	5,453.89	3.36	1,626.583		
200.00	200.00	902.19	941.71	3.34	3.85	-143.43	-4,339.92	-3,220.04	5,454.70	5,447.46	7.24	753.398		
300.00	300.00	1,001.10	1,039.56	3.44	4.35	-143.48	-4,332.42	-3,207.61	5,441.10	5,433.32	7.79	698.811		
400.00	400.00	1,100.02	1,137.40	3.60	4.86	-143.54	-4,324.92	-3,195.18	5,427.51	5,419.13	8.38	647.293		
500.00	500.00	1,198.94	1,235.25	3.81	5.37	-143.60	-4,317.42	-3,182.75	5,413.93	5,404.90	9.03	599.563		
600.00	600.00	1,302.15	1,333.10	4.05	5.91	-143.66	-4,309.92	-3,170.32	5,400.35	5,390.62	9.73	554.799		
700.00	699.98	1,396.85	1,431.02	4.32	6.40	-134.76	-4,302.41	-3,157.89	5,388.00	5,377.57	10.43	516.602		
800.00	799.84	1,495.91	1,529.01	4.62	6.92	-135.00	-4,294.90	-3,145.44	5,378.10	5,366.92	11.17	481.334		
900.00	899.45	1,594.93	1,626.95	4.94	7.44	-135.23	-4,287.39	-3,133.00	5,370.67	5,358.73	11.94	449.690		
1,000.00	998.70	1,693.77	1,724.72	5.28	7.95	-135.45	-4,279.90	-3,120.58	5,365.76	5,353.02	12.74	421.331		
1,100.00	1,097.50	1,792.35	1,822.23	5.64	8.47	-135.66	-4,272.42	-3,108.19	5,363.23	5,349.68	13.55	395.904		
1,200.00	1,196.18	1,890.85	1,919.67	6.00	8.99	-135.84	-4,264.96	-3,095.82	5,361.28	5,346.91	14.38	372.931		
1,300.00	1,294.87	1,989.35	2,017.10	6.38	9.51	-136.02	-4,257.49	-3,083.44	5,359.39	5,344.17	15.22	352.151		
1,400.00	1,393.55	2,087.85	2,114.54	6.77	10.03	-136.20	-4,250.02	-3,071.06	5,357.56	5,341.48	16.07	333.319		
1,500.00	1,492.23	2,186.35	2,211.97	7.17	10.55	-136.38	-4,242.55	-3,058.69	5,355.78	5,338.84	16.94	316.211		
1,600.00	1,590.91	2,284.86	2,309.41	7.58	11.07	-136.56	-4,235.08	-3,046.31	5,354.05	5,336.24	17.81	300.629		
1,700.00	1,689.60	2,383.36	2,406.85	8.00	11.59	-136.74	-4,227.61	-3,033.93	5,352.38	5,333.69	18.69	286.398		
1,800.00	1,788.28	2,481.86	2,504.28	8.42	12.11	-136.92	-4,220.14	-3,021.56	5,350.77	5,331.19	19.57	273.364		
1,900.00	1,886.96	2,580.36	2,601.72	8.84	12.63	-137.10	-4,212.67	-3,009.18	5,349.21	5,328.74	20.46	261.394		
2,000.00	1,985.64	2,678.86	2,699.15	9.27	13.15	-137.28	-4,205.20	-2,996.80	5,347.70	5,326.34	21.36	250.372		
2,100.00	2,084.33	2,777.37	2,796.59	9.71	13.67	-137.46	-4,197.73	-2,984.43	5,346.25	5,323.99	22.26	240.195		
2,200.00	2,183.01	2,875.87	2,894.02	10.15	14.19	-137.65	-4,190.26	-2,972.05	5,344.86	5,321.70	23.16	230.776		
2,300.00	2,281.69	2,974.37	2,991.46	10.59	14.71	-137.83	-4,182.79	-2,959.67	5,343.52	5,319.45	24.07	222.036		
2,400.00	2,380.38	3,072.87	3,088.89	11.03	15.23	-138.01	-4,175.33	-2,947.30	5,342.24	5,317.26	24.97	213.908		
2,500.00	2,479.06	3,171.38	3,186.33	11.47	15.75	-138.19	-4,167.86	-2,934.92	5,341.01	5,315.12	25.89	206.333		
2,600.00	2,577.74	3,269.88	3,283.77	11.92	16.27	-138.37	-4,160.39	-2,922.54	5,339.83	5,313.04	26.80	199.257		
2,700.00	2,676.42	3,368.38	3,381.20	12.36	16.79	-138.55	-4,152.92	-2,910.17	5,338.72	5,311.00	27.71	192.635		
2,800.00	2,775.11	3,466.88	3,478.64	12.81	17.32	-138.74	-4,145.45	-2,897.79	5,337.65	5,309.02	28.63	186.426		
2,900.00	2,873.79	3,565.38	3,576.07	13.26	17.84	-138.92	-4,137.98	-2,885.41	5,336.65	5,307.10	29.55	180.594		
3,000.00	2,972.47	3,663.89	3,673.51	13.72	18.36	-139.10	-4,130.51	-2,873.04	5,335.70	5,305.23	30.47	175.106		
3,100.00	3,071.15	3,762.39	3,770.94	14.17	18.88	-139.28	-4,123.04	-2,860.66	5,334.80	5,303.41	31.39	169.933		
3,200.00	3,169.84	3,860.89	3,868.38	14.62	19.40	-139.46	-4,115.57	-2,848.28	5,333.96	5,301.64	32.32	165.050		
3,300.00	3,268.52	3,959.39	3,965.82	15.08	19.92	-139.65	-4,108.10	-2,835.91	5,333.18	5,299.93	33.24	160.433		
3,400.00	3,367.20	4,057.89	4,063.25	15.53	20.44	-139.83	-4,100.63	-2,823.53	5,332.45	5,298.28	34.17	156.063		
3,500.00	3,465.89	4,156.40	4,160.69	15.99	20.97	-140.01	-4,093.16	-2,811.15	5,331.78	5,296.68	35.10	151.919		
3,600.00	3,564.57	4,254.90	4,258.12	16.44	21.49	-140.19	-4,085.70	-2,798.78	5,331.16	5,295.13	36.02	147.986		
3,700.00	3,663.25	4,353.40	4,355.56	16.90	22.01	-140.38	-4,078.23	-2,786.40	5,330.60	5,293.64	36.95	144.248		
3,800.00	3,761.93	4,451.90	4,452.99	17.36	22.53	-140.56	-4,070.76	-2,774.02	5,330.09	5,292.21	37.88	140.692		
3,900.00	3,860.62	4,550.41	4,550.43	17.82	23.05	-140.74	-4,063.29	-2,761.65	5,329.64	5,290.82	38.82	137.303		
4,000.00	3,959.30	4,648.91	4,647.86	18.28	23.58	-140.92	-4,055.82	-2,749.27	5,329.25	5,289.50	39.75	134.072		
4,100.00	4,057.98	4,747.41	4,745.30	18.74	24.10	-141.11	-4,048.35	-2,736.89	5,328.91	5,288.23	40.68	130.988		
4,200.00	4,156.67	4,845.91	4,842.74	19.20	24.62	-141.29	-4,040.88	-2,724.52	5,328.62	5,287.01	41.62	128.040		
4,300.00	4,255.35	4,944.41	4,940.17	19.66	25.14	-141.47	-4,033.41	-2,712.14	5,328.40	5,285.85	42.55	125.221		
4,400.00	4,354.03	5,042.92	5,037.61	20.12	25.66	-141.65	-4,025.94	-2,699.76	5,328.23	5,284.74	43.49	122.523		
4,500.00	4,452.71	5,141.42	5,135.04	20.58	26.19	-141.84	-4,018.47	-2,687.39	5,328.11	5,283.69	44.42	119.937		
4,600.00	4,551.40	5,239.92	5,232.48	21.04	26.71	-142.02	-4,011.00	-2,675.01	5,328.05	5,282.69	45.36	117.457		
4,656.88	4,607.53	5,295.95	5,287.90	21.30	27.00	-142.12	-4,006.76	-2,667.97	5,328.04	5,282.15	45.90	116.091		
4,700.00	4,650.08	5,338.42	5,329.91	21.50	27.23	-142.20	-4,003.54	-2,662.63	5,328.05	5,281.75	46.30	115.077		
4,800.00	4,748.76	5,436.92	5,427.35	21.96	27.75	-142.39	-3,996.07	-2,650.25	5,328.10	5,280.86	47.24	112.791		
4,900.00	4,847.44	5,535.43	5,524.79	22.42	28.27	-142.57	-3,988.60	-2,637.88	5,328.21	5,280.03	48.18	110.594		
5,000.00	4,946.13	5,633.93	5,622.22	22.89	28.80	-142.75	-3,981.13	-2,625.50	5,328.37	5,279.25	49.12	108.480		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,044.81	5,732.43	5,719.66	23.35	29.32	-142.93	-3,973.66	-2,613.12	5,328.59	5,278.53	50.06	106.446		
5,200.00	5,143.49	5,830.93	5,817.09	23.81	29.84	-143.12	-3,966.19	-2,600.75	5,328.87	5,277.86	51.00	104.486		
5,300.00	5,242.18	5,929.44	5,914.53	24.27	30.36	-143.30	-3,958.72	-2,588.37	5,329.20	5,277.25	51.94	102.597		
5,400.00	5,340.86	6,027.94	6,011.96	24.74	30.88	-143.48	-3,951.25	-2,575.99	5,329.58	5,276.70	52.89	100.776		
5,500.00	5,439.54	6,126.44	6,109.40	25.20	31.41	-143.66	-3,943.78	-2,563.62	5,330.03	5,276.20	53.83	99.018		
5,600.00	5,538.22	6,225.08	6,206.83	25.66	31.93	-143.85	-3,936.31	-2,551.24	5,330.52	5,275.75	54.77	97.320		
5,700.00	5,636.91	6,326.58	6,304.27	26.13	32.47	-144.03	-3,928.84	-2,538.86	5,331.08	5,275.35	55.73	95.655		
5,800.00	5,735.59	6,374.99	6,355.26	26.59	32.72	-144.12	-3,924.93	-2,532.39	5,331.89	5,275.45	56.44	94.469		
5,900.00	5,834.27	6,400.00	6,380.05	27.06	32.85	-144.17	-3,923.05	-2,529.73	5,333.94	5,276.92	57.03	93.535		
6,000.00	5,932.95	6,425.01	6,404.94	27.52	32.97	-144.20	-3,921.17	-2,528.06	5,337.52	5,279.93	57.59	92.676		
6,100.00	6,031.64	6,450.00	6,429.85	27.98	33.08	-144.22	-3,919.32	-2,527.36	5,342.61	5,284.47	58.14	91.890		
6,200.00	6,130.32	6,450.00	6,429.85	28.45	33.08	-144.22	-3,919.32	-2,527.36	5,349.27	5,290.71	58.56	91.343		
6,300.00	6,229.00	6,500.00	6,479.68	28.91	33.26	-144.24	-3,915.68	-2,528.92	5,357.33	5,298.15	59.18	90.525		
6,400.00	6,327.69	6,500.00	6,479.68	29.38	33.26	-144.24	-3,915.68	-2,528.92	5,366.76	5,307.19	59.57	90.092		
6,500.00	6,426.37	6,525.01	6,504.52	29.84	33.34	-144.24	-3,913.90	-2,531.16	5,377.75	5,317.70	60.04	89.562		
6,600.00	6,525.05	6,550.00	6,529.24	30.31	33.41	-144.22	-3,912.16	-2,534.38	5,390.22	5,329.72	60.50	89.092		
6,700.00	6,623.18	6,550.00	6,529.24	30.77	33.41	-103.28	-3,912.16	-2,534.38	5,400.49	5,339.64	60.85	88.755		
6,800.00	6,718.58	6,600.00	6,578.23	31.22	33.53	-86.66	-3,908.76	-2,543.73	5,404.43	5,343.03	61.40	88.022		
6,900.00	6,808.91	6,600.00	6,578.23	31.66	33.53	-79.49	-3,908.76	-2,543.73	5,401.99	5,340.24	61.75	87.483		
7,000.00	6,891.95	6,625.01	6,602.42	32.07	33.58	-76.30	-3,907.12	-2,549.85	5,393.41	5,331.19	62.22	86.677		
7,100.00	6,965.65	6,650.00	6,626.34	32.51	33.63	-75.22	-3,905.52	-2,556.90	5,378.87	5,316.11	62.75	85.716		
7,200.00	7,028.20	6,650.00	6,626.34	33.02	33.63	-75.37	-3,905.52	-2,556.90	5,358.70	5,295.42	63.28	84.688		
7,300.00	7,078.04	6,676.67	6,651.54	33.68	33.67	-76.72	-3,903.86	-2,565.47	5,333.34	5,269.29	64.04	83.280		
7,400.00	7,113.97	6,700.00	6,673.28	34.52	33.70	-78.92	-3,902.45	-2,573.82	5,303.56	5,238.60	64.96	81.642		
7,500.00	7,135.09	6,700.00	6,673.28	35.53	33.70	-81.63	-3,902.45	-2,573.82	5,269.99	5,204.02	65.97	79.890		
7,600.00	7,140.96	6,714.04	6,686.20	36.68	33.72	-84.73	-3,901.62	-2,579.22	5,233.55	5,166.37	67.18	77.903		
7,700.00	7,140.53	6,725.01	6,696.23	37.99	33.73	-84.84	-3,900.99	-2,583.65	5,197.10	5,128.56	68.54	75.824		
7,800.00	7,140.09	6,733.76	6,704.16	39.45	33.74	-84.94	-3,900.48	-2,587.30	5,162.25	5,092.19	70.06	73.688		
7,900.00	7,139.66	6,750.00	6,718.75	41.06	33.75	-85.11	-3,899.57	-2,594.37	5,129.04	5,057.29	71.74	71.491		
8,000.00	7,139.23	6,750.00	6,718.75	42.80	33.75	-85.11	-3,899.57	-2,594.37	5,097.47	5,023.96	73.51	69.339		
8,100.00	7,138.79	6,769.33	6,735.89	44.65	33.77	-85.31	-3,898.52	-2,603.26	5,067.55	4,992.08	75.47	67.145		
8,200.00	7,138.36	6,783.15	6,747.96	46.60	33.78	-85.45	-3,897.78	-2,609.93	5,039.33	4,961.81	77.52	65.005		
8,300.00	7,137.93	6,800.00	6,762.49	48.65	33.79	-85.62	-3,896.91	-2,618.43	5,012.80	4,933.12	79.68	62.911		
8,400.00	7,137.49	6,814.42	6,774.73	50.77	33.80	-85.77	-3,896.18	-2,626.00	4,987.98	4,906.06	81.92	60.890		
8,500.00	7,137.06	6,825.01	6,783.63	52.95	33.81	-85.87	-3,895.65	-2,631.74	4,964.89	4,880.66	84.22	58.949		
8,600.00	7,136.62	6,850.00	6,804.21	55.20	33.82	-86.11	-3,894.46	-2,645.85	4,943.47	4,856.84	86.63	57.062		
8,700.00	7,136.19	6,872.72	6,822.44	57.51	33.83	-86.33	-3,893.43	-2,659.38	4,923.76	4,834.67	89.09	55.264		
8,800.00	7,135.76	6,900.00	6,843.66	59.85	33.84	-86.58	-3,892.26	-2,676.47	4,905.75	4,814.14	91.62	53.547		
8,900.00	7,135.32	6,925.01	6,862.47	62.24	33.84	-86.80	-3,891.26	-2,692.92	4,889.40	4,795.22	94.18	51.918		
9,000.00	7,134.89	6,950.00	6,880.60	64.67	33.85	-87.02	-3,890.32	-2,710.09	4,874.67	4,777.90	96.77	50.373		
9,100.00	7,134.45	6,980.34	6,901.70	67.13	33.87	-87.27	-3,889.27	-2,731.87	4,861.54	4,762.13	99.42	48.900		
9,200.00	7,134.02	7,014.26	6,924.02	69.62	33.89	-87.53	-3,888.21	-2,757.37	4,849.95	4,747.86	102.10	47.503		
9,300.00	7,133.59	7,050.00	6,946.05	72.14	33.92	-87.79	-3,887.24	-2,785.50	4,839.84	4,735.02	104.81	46.175		
9,400.00	7,133.15	7,100.00	6,974.16	74.68	33.98	-88.13	-3,886.12	-2,826.82	4,831.14	4,723.52	107.62	44.891		
9,500.00	7,132.72	7,136.84	6,992.75	77.24	34.05	-88.35	-3,885.49	-2,858.61	4,823.73	4,713.32	110.41	43.689		
9,600.00	7,132.29	7,185.11	7,014.28	79.83	34.19	-88.61	-3,884.90	-2,901.79	4,817.55	4,704.26	113.30	42.521		
9,700.00	7,131.85	7,236.99	7,033.72	82.42	34.38	-88.84	-3,884.58	-2,949.88	4,812.50	4,696.25	116.25	41.397		
9,800.00	7,131.42	7,292.12	7,050.02	85.04	34.68	-89.04	-3,884.59	-3,002.53	4,808.48	4,689.18	119.30	40.306		
9,900.00	7,130.98	7,350.00	7,062.19	87.67	35.08	-89.19	-3,885.01	-3,059.09	4,805.40	4,682.97	122.43	39.249		
10,000.00	7,130.55	7,409.66	7,069.32	90.31	35.59	-89.27	-3,885.85	-3,118.29	4,803.19	4,677.53	125.66	38.224		
10,100.00	7,130.12	7,476.86	7,070.91	92.97	36.28	-89.30	-3,887.29	-3,185.43	4,801.81	4,672.77	129.04	37.211		
10,200.00	7,129.68	7,576.85	7,070.31	95.63	37.56	-89.29	-3,889.64	-3,285.40	4,800.71	4,667.69	133.02	36.091		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,129.25	7,676.84	7,069.70	98.31	39.09	-89.29	-3,892.00	-3,385.36	4,799.60	4,662.37	137.23	34.975		
10,400.00	7,128.82	7,776.84	7,069.10	101.00	40.84	-89.29	-3,894.36	-3,485.33	4,798.50	4,656.83	141.67	33.871		
10,500.00	7,128.38	7,876.83	7,068.50	103.69	42.79	-89.29	-3,896.71	-3,585.29	4,797.40	4,651.10	146.30	32.791		
10,600.00	7,127.95	7,976.83	7,067.90	106.39	44.90	-89.29	-3,899.07	-3,685.25	4,796.30	4,645.19	151.11	31.741		
10,700.00	7,127.51	8,076.82	7,067.30	109.10	47.15	-89.28	-3,901.42	-3,785.22	4,795.20	4,639.13	156.06	30.726		
10,800.00	7,127.08	8,176.81	7,066.69	111.82	49.52	-89.28	-3,903.78	-3,885.18	4,794.09	4,632.95	161.15	29.750		
10,900.00	7,126.65	8,276.81	7,066.09	114.54	52.00	-89.28	-3,906.14	-3,985.15	4,792.99	4,626.65	166.34	28.814		
11,000.00	7,126.21	8,376.80	7,065.49	117.27	54.57	-89.28	-3,908.49	-4,085.11	4,791.89	4,620.25	171.64	27.919		
11,100.00	7,125.78	8,476.79	7,064.89	120.01	57.21	-89.27	-3,910.85	-4,185.08	4,790.79	4,613.78	177.01	27.065		
11,200.00	7,125.35	8,576.79	7,064.28	122.75	59.93	-89.27	-3,913.21	-4,285.04	4,789.69	4,607.22	182.46	26.250		
11,300.00	7,124.91	8,676.78	7,063.68	125.49	62.70	-89.27	-3,915.56	-4,385.00	4,788.59	4,600.61	187.98	25.474		
11,400.00	7,124.48	8,776.78	7,063.08	128.24	65.52	-89.27	-3,917.92	-4,484.97	4,787.48	4,593.93	193.55	24.735		
11,500.00	7,124.04	8,876.77	7,062.48	131.00	68.39	-89.27	-3,920.28	-4,584.93	4,786.38	4,587.21	199.17	24.031		
11,600.00	7,123.61	8,976.76	7,061.88	133.75	71.29	-89.26	-3,922.63	-4,684.90	4,785.28	4,580.44	204.84	23.361		
11,700.00	7,123.18	9,076.76	7,061.27	136.52	74.24	-89.26	-3,924.99	-4,784.86	4,784.18	4,573.64	210.54	22.723		
11,800.00	7,122.74	9,176.75	7,060.67	139.28	77.21	-89.26	-3,927.35	-4,884.82	4,783.08	4,566.80	216.28	22.115		
11,900.00	7,122.31	9,276.75	7,060.07	142.05	80.21	-89.26	-3,929.70	-4,984.79	4,781.97	4,559.92	222.05	21.536		
12,000.00	7,121.88	9,376.74	7,059.47	144.82	83.24	-89.25	-3,932.06	-5,084.75	4,780.87	4,553.02	227.85	20.983		
12,100.00	7,121.44	9,476.73	7,058.87	147.59	86.28	-89.25	-3,934.42	-5,184.72	4,779.77	4,546.10	233.67	20.455		
12,200.00	7,121.01	9,576.73	7,058.26	150.37	89.35	-89.25	-3,936.77	-5,284.68	4,778.67	4,539.15	239.52	19.951		
12,300.00	7,120.57	9,676.72	7,057.66	153.15	92.44	-89.25	-3,939.13	-5,384.65	4,777.57	4,532.18	245.38	19.470		
12,400.00	7,120.14	9,776.71	7,057.06	155.93	95.54	-89.25	-3,941.48	-5,484.61	4,776.46	4,525.20	251.27	19.009		
12,500.00	7,119.71	9,876.71	7,056.46	158.72	98.65	-89.24	-3,943.84	-5,584.57	4,775.36	4,518.19	257.17	18.569		
12,600.00	7,119.27	9,976.70	7,055.86	161.50	101.78	-89.24	-3,946.20	-5,684.54	4,774.26	4,511.17	263.09	18.147		
12,700.00	7,118.84	10,076.70	7,055.25	164.29	104.92	-89.24	-3,948.55	-5,784.50	4,773.16	4,504.14	269.02	17.743		
12,800.00	7,118.41	10,176.69	7,054.65	167.08	108.08	-89.24	-3,950.91	-5,884.47	4,772.06	4,497.09	274.96	17.355		
12,900.00	7,117.97	10,276.68	7,054.05	169.88	111.24	-89.24	-3,953.27	-5,984.43	4,770.96	4,490.04	280.92	16.983		
13,000.00	7,117.54	10,376.68	7,053.45	172.67	114.41	-89.23	-3,955.62	-6,084.40	4,769.85	4,482.97	286.89	16.626		
13,100.00	7,117.10	10,476.67	7,052.84	175.47	117.59	-89.23	-3,957.98	-6,184.36	4,768.75	4,475.89	292.86	16.283		
13,200.00	7,116.67	10,576.66	7,052.24	178.27	120.78	-89.23	-3,960.34	-6,284.32	4,767.65	4,468.80	298.85	15.953		
13,300.00	7,116.24	10,676.66	7,051.64	181.07	123.98	-89.23	-3,962.69	-6,384.29	4,766.55	4,461.70	304.85	15.636		
13,400.00	7,115.80	10,776.65	7,051.04	183.87	127.18	-89.22	-3,965.05	-6,484.25	4,765.45	4,454.59	310.85	15.330		
13,500.00	7,115.37	10,876.65	7,050.44	186.67	130.39	-89.22	-3,967.41	-6,584.22	4,764.34	4,447.48	316.86	15.036		
13,600.00	7,114.93	10,976.64	7,049.83	189.47	133.60	-89.22	-3,969.76	-6,684.18	4,763.24	4,440.36	322.88	14.752		
13,700.00	7,114.50	11,076.63	7,049.23	192.28	136.82	-89.22	-3,972.12	-6,784.14	4,762.14	4,433.23	328.91	14.479		
13,800.00	7,114.07	11,176.63	7,048.63	195.09	140.04	-89.22	-3,974.48	-6,884.11	4,761.04	4,426.10	334.94	14.215		
13,900.00	7,113.63	11,276.62	7,048.03	197.89	143.27	-89.21	-3,976.83	-6,984.07	4,759.94	4,418.96	340.98	13.960		
14,000.00	7,113.20	11,376.61	7,047.43	200.70	146.51	-89.21	-3,979.19	-7,084.04	4,758.84	4,411.82	347.02	13.713		
14,100.00	7,112.77	11,476.61	7,046.82	203.51	149.75	-89.21	-3,981.55	-7,184.00	4,757.73	4,404.67	353.07	13.475		
14,200.00	7,112.33	11,576.60	7,046.22	206.32	152.99	-89.21	-3,983.90	-7,283.97	4,756.63	4,397.51	359.12	13.245		
14,300.00	7,111.90	11,676.60	7,045.62	209.13	156.23	-89.20	-3,986.26	-7,383.93	4,755.53	4,390.35	365.18	13.022		
14,400.00	7,111.46	11,776.59	7,045.02	211.95	159.48	-89.20	-3,988.61	-7,483.89	4,754.43	4,383.19	371.24	12.807		
14,500.00	7,111.03	11,876.58	7,044.42	214.76	162.73	-89.20	-3,990.97	-7,583.86	4,753.33	4,376.02	377.31	12.598		
14,600.00	7,110.60	11,976.58	7,043.81	217.58	165.99	-89.20	-3,993.33	-7,683.82	4,752.23	4,368.85	383.38	12.396		
14,700.00	7,110.16	12,076.57	7,043.21	220.39	169.24	-89.20	-3,995.68	-7,783.79	4,751.12	4,361.67	389.45	12.200		
14,800.00	7,109.73	12,176.56	7,042.61	223.21	172.50	-89.19	-3,998.04	-7,883.75	4,750.02	4,354.50	395.53	12.009		
14,900.00	7,109.30	12,276.56	7,042.01	226.03	175.77	-89.19	-4,000.40	-7,983.71	4,748.92	4,347.31	401.61	11.825		
14,969.16	7,109.00	12,345.72	7,041.59	227.97	178.02	-89.19	-4,002.03	-8,052.85	4,748.16	4,342.35	405.81	11.700	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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	15,789.03	7,243.40	3.28	247.77	0.61	2,003.52	21.30	7,515.41					
100.00	100.00	15,789.28	7,243.40	3.28	247.78	0.60	2,003.52	21.05	7,419.08	7,302.96	116.11	63.896		
200.00	200.00	15,789.52	7,243.40	3.34	247.78	0.59	2,003.52	20.81	7,322.84	7,206.34	116.50	62.857		
300.00	300.00	15,789.77	7,243.40	3.44	247.79	0.59	2,003.52	20.56	7,226.71	7,109.80	116.91	61.816		
400.00	400.00	15,790.01	7,243.40	3.60	247.80	0.58	2,003.52	20.32	7,130.68	7,013.35	117.34	60.771		
500.00	500.00	15,809.81	7,243.40	3.81	248.36	0.57	2,003.52	20.07	7,034.77	6,916.74	118.03	59.604		
600.00	600.00	15,809.56	7,243.40	4.05	248.35	0.57	2,003.52	19.83	6,938.97	6,820.47	118.50	58.558		
700.00	699.98	15,809.04	7,243.40	4.32	248.33	10.96	2,003.52	19.30	6,842.81	6,723.84	118.96	57.522		
800.00	799.84	15,807.95	7,243.41	4.62	248.30	12.53	2,003.52	18.22	6,745.85	6,626.48	119.37	56.510		
900.00	899.45	15,806.31	7,243.41	4.94	248.26	14.60	2,003.53	16.57	6,648.19	6,528.46	119.73	55.528		
1,000.00	998.70	15,804.11	7,243.42	5.28	248.20	17.43	2,003.53	14.37	6,549.92	6,429.90	120.01	54.577		
1,100.00	1,097.50	15,801.38	7,243.42	5.64	248.12	19.87	2,003.53	11.65	6,451.15	6,330.91	120.24	53.654		
1,200.00	1,196.18	15,801.52	7,243.43	6.00	248.12	19.71	2,003.54	8.81	6,352.31	6,231.82	120.48	52.724		
1,300.00	1,194.87	15,804.36	7,243.44	6.38	248.20	19.55	2,003.54	5.96	6,253.50	6,132.72	120.78	51.776		
1,400.00	1,393.55	15,807.21	7,243.44	6.77	248.28	19.38	2,003.55	3.12	6,154.73	6,033.63	121.09	50.827		
1,500.00	1,492.23	15,810.05	7,243.45	7.17	248.36	19.21	2,003.55	0.28	6,055.99	5,934.57	121.42	49.876		
1,600.00	1,590.91	15,812.89	7,243.46	7.58	248.44	19.05	2,003.56	-2.56	5,957.30	5,835.53	121.77	48.923		
1,700.00	1,689.60	15,815.73	7,243.46	8.00	248.52	18.88	2,003.56	-5.41	5,858.66	5,736.52	122.14	47.968		
1,800.00	1,788.28	15,818.58	7,243.47	8.42	248.60	18.72	2,003.57	-8.25	5,760.05	5,637.53	122.52	47.011		
1,900.00	1,886.96	15,821.42	7,243.48	8.84	248.69	18.55	2,003.57	-11.09	5,661.50	5,538.56	122.93	46.053		
2,000.00	1,985.64	15,824.26	7,243.49	9.27	248.77	18.39	2,003.58	-13.93	5,562.99	5,439.63	123.37	45.094		
2,100.00	2,084.33	15,827.10	7,243.49	9.71	248.85	18.22	2,003.58	-16.77	5,464.54	5,340.72	123.82	44.132		
2,200.00	2,183.01	15,829.95	7,243.50	10.15	248.93	18.05	2,003.59	-19.62	5,366.14	5,241.84	124.30	43.170		
2,300.00	2,281.69	15,832.79	7,243.51	10.59	249.01	17.89	2,003.60	-22.46	5,267.81	5,142.99	124.81	42.206		
2,400.00	2,380.38	15,835.63	7,243.51	11.03	249.09	17.72	2,003.60	-25.30	5,169.53	5,044.18	125.35	41.240		
2,500.00	2,479.06	15,838.47	7,243.52	11.47	249.17	17.55	2,003.61	-28.14	5,071.32	4,945.40	125.92	40.274		
2,600.00	2,577.74	15,841.31	7,243.53	11.92	249.25	17.39	2,003.61	-30.99	4,973.18	4,846.66	126.52	39.306		
2,700.00	2,676.42	15,844.16	7,243.53	12.36	249.33	17.22	2,003.62	-33.83	4,875.12	4,747.95	127.16	38.338		
2,800.00	2,775.11	15,847.00	7,243.54	12.81	249.41	17.05	2,003.62	-36.67	4,777.13	4,649.29	127.84	37.369		
2,900.00	2,873.79	15,849.84	7,243.55	13.26	249.49	16.88	2,003.63	-39.51	4,679.22	4,550.67	128.55	36.400		
3,000.00	2,972.47	15,852.68	7,243.56	13.72	249.57	16.72	2,003.63	-42.36	4,581.41	4,452.10	129.31	35.430		
3,100.00	3,071.15	15,855.53	7,243.56	14.17	249.65	16.55	2,003.64	-45.20	4,483.69	4,353.58	130.11	34.461		
3,200.00	3,169.84	15,858.37	7,243.57	14.62	249.73	16.38	2,003.64	-48.04	4,386.07	4,255.11	130.96	33.492		
3,300.00	3,268.52	15,861.21	7,243.58	15.08	249.81	16.21	2,003.65	-50.88	4,288.56	4,156.70	131.86	32.523		
3,400.00	3,367.20	15,864.05	7,243.58	15.53	249.89	16.04	2,003.65	-53.73	4,191.16	4,058.34	132.82	31.556		
3,500.00	3,465.89	15,866.90	7,243.59	15.99	249.97	15.88	2,003.66	-56.57	4,093.89	3,960.06	133.83	30.590		
3,600.00	3,564.57	15,869.74	7,243.60	16.44	250.05	15.71	2,003.66	-59.41	3,996.75	3,861.84	134.90	29.627		
3,700.00	3,663.25	15,872.58	7,243.60	16.90	250.13	15.54	2,003.67	-62.25	3,899.75	3,763.70	136.04	28.665		
3,800.00	3,761.93	15,875.42	7,243.61	17.36	250.21	15.37	2,003.67	-65.09	3,802.90	3,665.65	137.26	27.707		
3,900.00	3,860.62	15,878.27	7,243.62	17.82	250.29	15.20	2,003.68	-67.94	3,706.23	3,567.68	138.54	26.752		
4,000.00	3,959.30	15,881.11	7,243.62	18.28	250.37	15.03	2,003.68	-70.78	3,609.72	3,469.82	139.91	25.801		
4,100.00	4,057.98	15,883.95	7,243.63	18.74	250.45	14.86	2,003.69	-73.62	3,513.42	3,372.06	141.36	24.855		
4,200.00	4,156.67	15,886.79	7,243.64	19.20	250.53	14.70	2,003.69	-76.46	3,417.32	3,274.42	142.90	23.914		
4,300.00	4,255.35	15,889.63	7,243.65	19.66	250.61	14.53	2,003.70	-79.31	3,321.45	3,176.91	144.54	22.979		
4,400.00	4,354.03	15,907.59	7,243.65	20.12	251.12	14.36	2,003.70	-82.15	3,225.83	3,079.31	146.52	22.017		
4,500.00	4,452.71	15,904.75	7,243.66	20.58	251.04	14.19	2,003.71	-84.99	3,130.48	2,982.18	148.30	21.110		
4,600.00	4,551.40	15,901.90	7,243.67	21.04	250.96	14.02	2,003.71	-87.83	3,035.43	2,885.23	150.20	20.210		
4,700.00	4,650.08	15,901.00	7,243.67	21.50	250.94	13.85	2,003.72	-90.68	2,940.70	2,788.44	152.26	19.314		
4,800.00	4,748.76	15,903.85	7,243.68	21.96	251.02	13.68	2,003.72	-93.52	2,846.33	2,691.80	154.53	18.420		
4,900.00	4,847.44	15,906.69	7,243.69	22.42	251.10	13.51	2,003.73	-96.36	2,752.35	2,595.40	156.95	17.536		
5,000.00	4,946.13	15,909.53	7,243.69	22.89	251.18	13.34	2,003.73	-99.20	2,658.82	2,499.27	159.55	16.665		
5,100.00	5,044.81	15,912.37	7,243.70	23.35	251.26	13.17	2,003.74	-102.04	2,565.76	2,403.43	162.33	15.806		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	15,915.22	7,243.71	23.81	251.34	13.00	2,003.74	-104.89	2,473.25	2,307.93	165.32	14.961		
5,300.00	5,242.18	15,918.06	7,243.71	24.27	251.42	12.83	2,003.75	-107.73	2,381.33	2,212.80	168.53	14.130		
5,400.00	5,340.86	15,920.90	7,243.72	24.74	251.50	12.66	2,003.75	-110.57	2,290.09	2,118.11	171.98	13.316		
5,500.00	5,439.54	15,923.74	7,243.73	25.20	251.58	12.49	2,003.76	-113.41	2,199.61	2,023.91	175.70	12.519		
5,600.00	5,538.22	15,926.59	7,243.74	25.66	251.66	12.32	2,003.76	-116.26	2,109.99	1,930.27	179.71	11.741		
5,700.00	5,636.91	15,929.43	7,243.74	26.13	251.74	12.15	2,003.77	-119.10	2,021.33	1,837.29	184.04	10.983		
5,800.00	5,735.59	15,932.27	7,243.75	26.59	251.82	11.98	2,003.77	-121.94	1,933.78	1,745.07	188.71	10.248		
5,900.00	5,834.27	15,935.11	7,243.76	27.06	251.90	11.81	2,003.78	-124.78	1,847.48	1,653.74	193.75	9.536		
6,000.00	5,932.95	15,937.95	7,243.76	27.52	251.98	11.64	2,003.78	-127.63	1,762.63	1,563.45	199.18	8.849		
6,100.00	6,031.64	15,940.80	7,243.77	27.98	252.06	11.47	2,003.79	-130.47	1,679.45	1,474.41	205.04	8.191		
6,200.00	6,130.32	15,943.64	7,243.78	28.45	252.14	11.30	2,003.79	-133.31	1,598.19	1,386.85	211.34	7.562		
6,300.00	6,229.00	15,946.48	7,243.78	28.91	252.22	11.13	2,003.80	-136.15	1,519.16	1,301.07	218.09	6.966		
6,400.00	6,327.69	15,949.32	7,243.79	29.38	252.30	10.96	2,003.80	-138.99	1,442.72	1,217.45	225.28	6.404		
6,500.00	6,426.37	15,952.17	7,243.80	29.84	252.38	10.79	2,003.81	-141.84	1,369.33	1,136.45	232.88	5.880		
6,600.00	6,525.05	15,955.01	7,243.81	30.31	252.46	10.62	2,003.81	-144.68	1,299.48	1,058.66	240.82	5.396		
6,700.00	6,623.18	15,965.61	7,243.83	30.77	252.76	57.76	2,003.83	-155.29	1,234.39	985.25	249.14	4.955		
6,800.00	6,718.58	16,008.45	7,243.89	31.22	253.98	78.97	2,003.88	-181.29	1,176.22	918.10	258.12	4.557		
6,900.00	6,808.91	16,032.38	7,243.99	31.66	254.65	89.21	2,003.95	-222.05	1,126.55	860.49	266.07	4.234		
7,000.00	6,891.95	16,086.90	7,244.13	32.07	256.20	94.44	2,004.05	-276.57	1,086.25	812.36	273.89	3.966		
7,100.00	6,965.65	16,153.83	7,244.29	32.51	258.09	96.89	2,004.17	-343.50	1,055.41	774.49	280.92	3.757		
7,200.00	7,028.20	16,231.52	7,244.48	33.02	260.29	97.67	2,004.31	-421.19	1,033.44	746.37	287.07	3.600		
7,300.00	7,078.04	16,318.07	7,244.69	33.68	262.74	97.51	2,004.47	-507.74	1,019.24	726.78	292.46	3.485		
7,400.00	7,113.97	16,411.34	7,244.92	34.52	265.38	96.93	2,004.63	-601.01	1,011.52	714.24	297.28	3.403		
7,500.00	7,135.09	16,509.03	7,245.16	35.53	268.15	96.31	2,004.81	-698.70	1,009.08	707.37	301.71	3.345		
7,502.91	7,135.48	16,511.92	7,245.17	35.57	268.23	96.29	2,004.81	-701.59	1,009.08	707.24	301.84	3.343 CC		
7,600.00	7,140.96	16,608.74	7,245.40	36.68	270.97	95.92	2,004.99	-798.41	1,011.07	705.23	305.85	3.306		
7,700.00	7,140.53	16,708.67	7,245.65	37.99	273.80	95.94	2,005.17	-898.34	1,014.76	704.80	309.96	3.274		
7,800.00	7,140.09	16,808.60	7,245.89	39.45	276.64	95.96	2,005.35	-998.27	1,018.45	704.21	314.24	3.241		
7,900.00	7,139.66	16,908.53	7,246.13	41.06	279.47	95.97	2,005.53	-1,098.20	1,022.15	703.48	318.67	3.208		
8,000.00	7,139.23	17,008.46	7,246.38	42.80	282.30	95.99	2,005.71	-1,198.13	1,025.84	702.61	323.23	3.174		
8,100.00	7,138.79	17,108.39	7,246.62	44.65	285.14	96.01	2,005.88	-1,298.06	1,029.53	701.63	327.90	3.140		
8,200.00	7,138.36	17,208.33	7,246.87	46.60	287.97	96.02	2,006.06	-1,397.99	1,033.22	700.55	332.67	3.106		
8,300.00	7,137.93	17,308.26	7,247.11	48.65	290.81	96.04	2,006.24	-1,497.92	1,036.91	699.38	337.53	3.072		
8,400.00	7,137.49	17,408.19	7,247.36	50.77	293.64	96.06	2,006.42	-1,597.85	1,040.60	698.14	342.46	3.039		
8,500.00	7,137.06	17,508.12	7,247.60	52.95	296.48	96.07	2,006.60	-1,697.78	1,044.29	696.82	347.47	3.005		
8,600.00	7,136.62	17,608.05	7,247.84	55.20	299.31	96.09	2,006.78	-1,797.72	1,047.98	695.45	352.53	2.973		
8,700.00	7,136.19	17,707.98	7,248.09	57.51	302.15	96.10	2,006.96	-1,897.65	1,051.67	694.03	357.65	2.941		
8,800.00	7,135.76	17,807.91	7,248.33	59.85	304.99	96.12	2,007.14	-1,997.58	1,055.36	692.56	362.81	2.909		
8,900.00	7,135.32	17,907.85	7,248.58	62.24	307.82	96.13	2,007.32	-2,097.51	1,059.05	691.05	368.01	2.878		
9,000.00	7,134.89	18,007.78	7,248.82	64.67	310.66	96.15	2,007.50	-2,197.44	1,062.75	689.50	373.25	2.847		
9,100.00	7,134.45	18,107.71	7,249.07	67.13	313.50	96.16	2,007.68	-2,297.37	1,066.44	687.92	378.52	2.817		
9,200.00	7,134.02	18,207.64	7,249.31	69.62	316.34	96.18	2,007.86	-2,397.30	1,070.13	686.31	383.82	2.788		
9,300.00	7,133.59	18,307.57	7,249.55	72.14	319.18	96.19	2,008.04	-2,497.23	1,073.82	684.68	389.14	2.759		
9,400.00	7,133.15	18,407.50	7,249.80	74.68	322.02	96.21	2,008.22	-2,597.16	1,077.51	683.02	394.49	2.731		
9,500.00	7,132.72	18,507.43	7,250.04	77.24	324.86	96.22	2,008.40	-2,697.09	1,081.20	681.34	399.86	2.704		
9,600.00	7,132.29	18,607.37	7,250.29	79.83	327.70	96.24	2,008.58	-2,797.03	1,084.90	679.64	405.25	2.677		
9,700.00	7,131.85	18,707.30	7,250.53	82.42	330.54	96.25	2,008.75	-2,896.96	1,088.59	677.93	410.66	2.651		
9,800.00	7,131.42	18,807.23	7,250.77	85.04	333.38	96.27	2,008.93	-2,996.89	1,092.28	676.20	416.08	2.625		
9,900.00	7,130.98	18,907.16	7,251.02	87.67	336.22	96.28	2,009.11	-3,096.82	1,095.97	674.46	421.52	2.600		
10,000.00	7,130.55	19,007.09	7,251.26	90.31	339.06	96.30	2,009.29	-3,196.75	1,099.66	672.70	426.96	2.576		
10,100.00	7,130.12	19,107.02	7,251.51	92.97	341.90	96.31	2,009.47	-3,296.68	1,103.36	670.93	432.42	2.552 ES, SF		
10,200.00	7,129.68	19,118.26	7,251.53	95.63	342.22	96.31	2,009.49	-3,307.92	1,110.60	676.24	434.36	2.557		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,129.25	19,118.26	7,251.53	98.31	342.22	96.31	2,009.49	-3,307.92	1,126.64	693.91	432.73	2.604		
10,400.00	7,128.82	19,118.26	7,251.53	101.00	342.22	96.31	2,009.49	-3,307.92	1,151.19	723.10	428.09	2.689		
10,500.00	7,128.38	19,118.26	7,251.53	103.69	342.22	96.31	2,009.49	-3,307.92	1,183.69	762.78	420.91	2.812		
10,600.00	7,127.95	19,118.26	7,251.53	106.39	342.22	96.31	2,009.49	-3,307.92	1,223.53	811.79	411.74	2.972		
10,700.00	7,127.51	19,118.26	7,251.53	109.10	342.22	96.31	2,009.49	-3,307.92	1,270.01	868.88	401.13	3.166		
10,800.00	7,127.08	19,118.26	7,251.53	111.82	342.22	96.31	2,009.49	-3,307.92	1,322.44	932.83	389.60	3.394		
10,900.00	7,126.65	19,118.26	7,251.53	114.54	342.22	96.31	2,009.49	-3,307.92	1,380.12	1,002.54	377.59	3.655		
11,000.00	7,126.21	19,118.26	7,251.53	117.27	342.22	96.31	2,009.49	-3,307.92	1,442.44	1,077.02	365.43	3.947		
11,100.00	7,125.78	19,118.26	7,251.53	120.01	342.22	96.31	2,009.49	-3,307.92	1,508.82	1,155.43	353.39	4.270		
11,200.00	7,125.35	19,118.26	7,251.53	122.75	342.22	96.31	2,009.49	-3,307.92	1,578.75	1,237.10	341.65	4.621		
11,300.00	7,124.91	19,118.26	7,251.53	125.49	342.22	96.31	2,009.49	-3,307.92	1,651.77	1,321.43	330.34	5.000		
11,400.00	7,124.48	19,118.26	7,251.53	128.24	342.22	96.31	2,009.49	-3,307.92	1,727.50	1,407.96	319.54	5.406		
11,500.00	7,124.04	19,118.26	7,251.53	131.00	342.22	96.31	2,009.49	-3,307.92	1,805.59	1,496.30	309.29	5.838		
11,600.00	7,123.61	19,118.26	7,251.53	133.75	342.22	96.31	2,009.49	-3,307.92	1,885.75	1,586.15	299.60	6.294		
11,700.00	7,123.18	19,118.26	7,251.53	136.52	342.22	96.31	2,009.49	-3,307.92	1,967.73	1,677.26	290.46	6.774		
11,800.00	7,122.74	19,118.26	7,251.53	139.28	342.22	96.31	2,009.49	-3,307.92	2,051.31	1,769.43	281.88	7.277		
11,900.00	7,122.31	19,118.26	7,251.53	142.05	342.22	96.31	2,009.49	-3,307.92	2,136.30	1,862.48	273.82	7.802		
12,000.00	7,121.88	19,118.26	7,251.53	144.82	342.22	96.31	2,009.49	-3,307.92	2,222.54	1,956.28	266.25	8.347		
12,100.00	7,121.44	19,118.26	7,251.53	147.59	342.22	96.31	2,009.49	-3,307.92	2,309.88	2,050.73	259.16	8.913		
12,200.00	7,121.01	19,118.26	7,251.53	150.37	342.22	96.31	2,009.49	-3,307.92	2,398.22	2,145.72	252.50	9.498		
12,300.00	7,120.57	19,118.26	7,251.53	153.15	342.22	96.31	2,009.49	-3,307.92	2,487.44	2,241.19	246.26	10.101		
12,400.00	7,120.14	19,118.26	7,251.53	155.93	342.22	96.31	2,009.49	-3,307.92	2,577.45	2,337.06	240.39	10.722		
12,500.00	7,119.71	19,118.26	7,251.53	158.72	342.22	96.31	2,009.49	-3,307.92	2,668.18	2,433.29	234.88	11.360		
12,600.00	7,119.27	19,118.26	7,251.53	161.50	342.22	96.31	2,009.49	-3,307.92	2,759.54	2,529.84	229.71	12.013		
12,700.00	7,118.84	19,118.26	7,251.53	164.29	342.22	96.31	2,009.49	-3,307.92	2,851.49	2,626.65	224.83	12.683		
12,800.00	7,118.41	19,118.26	7,251.53	167.08	342.22	96.31	2,009.49	-3,307.92	2,943.96	2,723.71	220.24	13.367		
12,900.00	7,117.97	19,118.26	7,251.53	169.88	342.22	96.31	2,009.49	-3,307.92	3,036.90	2,820.98	215.92	14.065		
13,000.00	7,117.54	19,118.26	7,251.53	172.67	342.22	96.31	2,009.49	-3,307.92	3,130.29	2,918.45	211.84	14.777		
13,100.00	7,117.10	19,118.26	7,251.53	175.47	342.22	96.31	2,009.49	-3,307.92	3,224.06	3,016.08	207.98	15.502		
13,200.00	7,116.67	19,118.26	7,251.53	178.27	342.22	96.31	2,009.49	-3,307.92	3,318.21	3,113.87	204.34	16.239		
13,300.00	7,116.24	19,118.26	7,251.53	181.07	342.22	96.31	2,009.49	-3,307.92	3,412.68	3,211.79	200.89	16.988		
13,400.00	7,115.80	19,118.26	7,251.53	183.87	342.22	96.31	2,009.49	-3,307.92	3,507.46	3,309.84	197.63	17.748		
13,500.00	7,115.37	19,118.26	7,251.53	186.67	342.22	96.31	2,009.49	-3,307.92	3,602.53	3,408.00	194.53	18.519		
13,600.00	7,114.93	19,118.26	7,251.53	189.47	342.22	96.31	2,009.49	-3,307.92	3,697.85	3,506.26	191.59	19.300		
13,700.00	7,114.50	19,118.26	7,251.53	192.28	342.22	96.31	2,009.49	-3,307.92	3,793.42	3,604.61	188.80	20.092		
13,800.00	7,114.07	19,118.26	7,251.53	195.09	342.22	96.31	2,009.49	-3,307.92	3,889.20	3,703.05	186.15	20.892		
13,900.00	7,113.63	19,118.26	7,251.53	197.89	342.22	96.31	2,009.49	-3,307.92	3,985.20	3,801.57	183.63	21.702		
14,000.00	7,113.20	19,118.26	7,251.53	200.70	342.22	96.31	2,009.49	-3,307.92	4,081.39	3,900.16	181.23	22.520		
14,100.00	7,112.77	19,118.26	7,251.53	203.51	342.22	96.31	2,009.49	-3,307.92	4,177.75	3,998.81	178.94	23.347		
14,200.00	7,112.33	19,118.26	7,251.53	206.32	342.22	96.31	2,009.49	-3,307.92	4,274.28	4,097.52	176.76	24.181		
14,300.00	7,111.90	19,118.26	7,251.53	209.13	342.22	96.31	2,009.49	-3,307.92	4,370.97	4,196.29	174.68	25.023		
14,400.00	7,111.46	19,118.26	7,251.53	211.95	342.22	96.31	2,009.49	-3,307.92	4,467.81	4,295.12	172.69	25.872		
14,500.00	7,111.03	19,118.26	7,251.53	214.76	342.22	96.31	2,009.49	-3,307.92	4,564.78	4,393.99	170.79	26.727		
14,600.00	7,110.60	19,118.26	7,251.53	217.58	342.22	96.31	2,009.49	-3,307.92	4,661.88	4,492.90	168.98	27.589		
14,700.00	7,110.16	19,118.26	7,251.53	220.39	342.22	96.31	2,009.49	-3,307.92	4,759.10	4,591.86	167.24	28.457		
14,800.00	7,109.73	19,118.26	7,251.53	223.21	342.22	96.31	2,009.49	-3,307.92	4,856.43	4,690.86	165.57	29.331		
14,900.00	7,109.30	19,118.26	7,251.53	226.03	342.22	96.31	2,009.49	-3,307.92	4,953.87	4,789.89	163.98	30.210		
14,969.16	7,109.00	19,118.26	7,251.53	227.97	342.22	96.31	2,009.49	-3,307.92	5,021.32	4,858.40	162.92	30.821		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	15,713.05	7,135.44	3.28	247.94	-0.05	1,843.28	-1.45	7,369.68					
100.00	100.00	15,713.29	7,135.44	3.28	247.94	-0.05	1,843.28	-1.70	7,272.90	7,158.66	114.25	63.660		
200.00	200.00	15,713.54	7,135.44	3.34	247.95	-0.06	1,843.28	-1.94	7,176.21	7,061.62	114.60	62.622		
300.00	300.00	15,713.78	7,135.44	3.44	247.96	-0.07	1,843.27	-2.19	7,079.62	6,964.65	114.97	61.580		
400.00	400.00	15,714.02	7,135.45	3.60	247.97	-0.08	1,843.27	-2.43	6,983.11	6,867.76	115.36	60.536		
500.00	500.00	15,714.27	7,135.45	3.81	247.97	-0.08	1,843.27	-2.68	6,886.71	6,770.94	115.77	59.487		
600.00	600.00	15,714.51	7,135.45	4.05	247.98	-0.09	1,843.27	-2.92	6,790.41	6,674.21	116.20	58.436		
700.00	699.98	15,715.02	7,135.45	4.32	247.99	10.31	1,843.26	-3.42	6,693.77	6,577.13	116.63	57.391		
800.00	799.84	15,716.04	7,135.45	4.62	248.02	11.92	1,843.25	-4.45	6,596.38	6,479.35	117.03	56.366		
900.00	899.45	15,717.58	7,135.45	4.94	248.07	14.10	1,843.23	-5.99	6,498.34	6,380.96	117.37	55.364		
1,000.00	998.70	15,719.64	7,135.46	5.28	248.12	17.19	1,843.21	-8.05	6,399.73	6,282.06	117.67	54.389		
1,100.00	1,097.50	15,722.18	7,135.46	5.64	248.20	19.97	1,843.19	-10.59	6,300.68	6,182.77	117.91	53.439		
1,200.00	1,196.18	15,724.83	7,135.47	6.00	248.27	19.79	1,843.16	-13.23	6,201.56	6,083.42	118.13	52.496		
1,300.00	1,294.87	15,727.48	7,135.48	6.38	248.35	19.61	1,843.13	-15.88	6,102.47	5,984.09	118.38	51.551		
1,400.00	1,393.55	15,730.13	7,135.48	6.77	248.42	19.43	1,843.11	-18.53	6,003.40	5,884.77	118.63	50.604		
1,500.00	1,492.23	15,732.78	7,135.49	7.17	248.50	19.25	1,843.08	-21.18	5,904.37	5,785.46	118.91	49.656		
1,600.00	1,590.91	15,735.43	7,135.50	7.58	248.57	19.07	1,843.05	-23.83	5,805.37	5,686.17	119.19	48.705		
1,700.00	1,689.60	15,738.08	7,135.50	8.00	248.65	18.89	1,843.02	-26.48	5,706.40	5,586.90	119.50	47.752		
1,800.00	1,788.28	15,740.73	7,135.51	8.42	248.72	18.71	1,843.00	-29.13	5,607.47	5,487.64	119.82	46.798		
1,900.00	1,886.96	15,743.38	7,135.52	8.84	248.79	18.52	1,842.97	-31.78	5,508.57	5,388.41	120.17	45.841		
2,000.00	1,985.64	15,746.03	7,135.52	9.27	248.87	18.34	1,842.94	-34.43	5,409.72	5,289.19	120.53	44.883		
2,100.00	2,084.33	15,748.68	7,135.53	9.71	248.94	18.16	1,842.92	-37.08	5,310.90	5,189.99	120.91	43.923		
2,200.00	2,183.01	15,751.33	7,135.54	10.15	249.02	17.98	1,842.89	-39.73	5,212.13	5,090.81	121.32	42.962		
2,300.00	2,281.69	15,753.98	7,135.54	10.59	249.09	17.80	1,842.86	-42.38	5,113.41	4,991.65	121.75	41.998		
2,400.00	2,380.38	15,756.63	7,135.55	11.03	249.17	17.62	1,842.83	-45.03	5,014.73	4,892.52	122.21	41.033		
2,500.00	2,479.06	15,759.28	7,135.56	11.47	249.24	17.43	1,842.81	-47.68	4,916.11	4,793.41	122.70	40.067		
2,600.00	2,577.74	15,761.93	7,135.56	11.92	249.32	17.25	1,842.78	-50.33	4,817.54	4,694.33	123.21	39.099		
2,700.00	2,676.42	15,764.58	7,135.57	12.36	249.39	17.07	1,842.75	-52.98	4,719.03	4,595.27	123.76	38.130		
2,800.00	2,775.11	15,767.23	7,135.58	12.81	249.47	16.88	1,842.73	-55.63	4,620.59	4,496.24	124.34	37.160		
2,900.00	2,873.79	15,769.88	7,135.58	13.26	249.54	16.70	1,842.70	-58.28	4,522.21	4,397.25	124.96	36.188		
3,000.00	2,972.47	15,772.53	7,135.59	13.72	249.62	16.52	1,842.67	-60.93	4,423.90	4,298.28	125.62	35.216		
3,100.00	3,071.15	15,775.18	7,135.59	14.17	249.69	16.33	1,842.64	-63.58	4,325.67	4,199.35	126.32	34.243		
3,200.00	3,169.84	15,777.83	7,135.60	14.62	249.77	16.15	1,842.62	-66.23	4,227.52	4,100.45	127.07	33.270		
3,300.00	3,268.52	15,780.48	7,135.61	15.08	249.84	15.97	1,842.59	-68.88	4,129.45	4,001.59	127.86	32.297		
3,400.00	3,367.20	15,783.13	7,135.61	15.53	249.92	15.78	1,842.56	-71.53	4,031.48	3,902.78	128.70	31.324		
3,500.00	3,465.89	15,785.78	7,135.62	15.99	249.99	15.60	1,842.53	-74.18	3,933.61	3,804.01	129.60	30.352		
3,600.00	3,564.57	15,788.43	7,135.63	16.44	250.07	15.41	1,842.51	-76.83	3,835.85	3,705.29	130.56	29.380		
3,700.00	3,663.25	15,808.99	7,135.63	16.90	250.65	15.23	1,842.48	-79.48	3,738.20	3,606.38	131.82	28.358		
3,800.00	3,761.93	15,806.34	7,135.64	17.36	250.57	15.04	1,842.45	-82.13	3,640.68	3,507.84	132.84	27.406		
3,900.00	3,860.62	15,803.69	7,135.65	17.82	250.50	14.86	1,842.43	-84.78	3,543.30	3,409.37	133.93	26.456		
4,000.00	3,959.30	15,801.04	7,135.65	18.28	250.42	14.68	1,842.40	-87.43	3,446.06	3,310.97	135.10	25.508		
4,100.00	4,057.98	15,801.68	7,135.66	18.74	250.44	14.49	1,842.37	-90.08	3,348.99	3,212.60	136.39	24.554		
4,200.00	4,156.67	15,804.32	7,135.67	19.20	250.52	14.31	1,842.34	-92.73	3,252.09	3,114.28	137.81	23.599		
4,300.00	4,255.35	15,806.97	7,135.67	19.66	250.59	14.12	1,842.32	-95.38	3,155.38	3,016.06	139.32	22.649		
4,400.00	4,354.03	15,809.62	7,135.68	20.12	250.67	13.93	1,842.29	-98.03	3,058.88	2,917.94	140.94	21.704		
4,500.00	4,452.71	15,812.27	7,135.69	20.58	250.74	13.75	1,842.26	-100.68	2,962.61	2,819.94	142.67	20.765		
4,600.00	4,551.40	15,814.92	7,135.69	21.04	250.82	13.56	1,842.24	-103.33	2,866.59	2,722.06	144.54	19.833		
4,700.00	4,650.08	15,817.57	7,135.70	21.50	250.89	13.38	1,842.21	-105.98	2,770.86	2,624.32	146.54	18.909		
4,800.00	4,748.76	15,820.22	7,135.70	21.96	250.97	13.19	1,842.18	-108.62	2,675.43	2,526.74	148.69	17.994		
4,900.00	4,847.44	15,822.87	7,135.71	22.42	251.04	13.01	1,842.15	-111.27	2,580.34	2,429.34	151.00	17.088		
5,000.00	4,946.13	15,825.52	7,135.72	22.89	251.12	12.82	1,842.13	-113.92	2,485.64	2,332.14	153.50	16.193		
5,100.00	5,044.81	15,828.17	7,135.72	23.35	251.19	12.63	1,842.10	-116.57	2,391.37	2,235.17	156.20	15.310		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	5,143.49	15,830.82	7,135.73	23.81	251.27	12.45	1,842.07	-119.22	2,297.58	2,138.46	159.12	14.439	CC	
5,300.00	5,242.18	15,833.47	7,135.74	24.27	251.34	12.26	1,842.05	-121.87	2,204.33	2,042.04	162.29	13.583		
5,400.00	5,340.86	15,836.12	7,135.74	24.74	251.42	12.07	1,842.02	-124.52	2,111.69	1,945.97	165.72	12.742		
5,500.00	5,439.54	15,838.77	7,135.75	25.20	251.49	11.89	1,841.99	-127.17	2,019.76	1,850.29	169.46	11.918		
5,600.00	5,538.22	15,841.42	7,135.76	25.66	251.56	11.70	1,841.96	-129.82	1,928.62	1,755.08	173.54	11.114		
5,700.00	5,636.91	15,844.07	7,135.76	26.13	251.64	11.52	1,841.94	-132.47	1,838.40	1,660.42	177.98	10.329		
5,800.00	5,735.59	15,846.72	7,135.77	26.59	251.71	11.33	1,841.91	-135.12	1,749.24	1,566.40	182.84	9.567		
5,900.00	5,834.27	15,849.37	7,135.78	27.06	251.79	11.14	1,841.88	-137.77	1,661.31	1,473.16	188.15	8.830		
6,000.00	5,932.95	15,852.02	7,135.78	27.52	251.86	10.96	1,841.86	-140.42	1,574.82	1,380.86	193.96	8.119		
6,100.00	6,031.64	15,854.67	7,135.79	27.98	251.94	10.77	1,841.83	-143.07	1,490.02	1,289.71	200.31	7.438		
6,200.00	6,130.32	15,857.32	7,135.80	28.45	252.01	10.58	1,841.80	-145.72	1,407.21	1,199.96	207.24	6.790		
6,300.00	6,229.00	15,859.97	7,135.80	28.91	252.09	10.39	1,841.77	-148.37	1,326.76	1,111.98	214.78	6.177		
6,400.00	6,327.69	15,862.62	7,135.81	29.38	252.16	10.21	1,841.75	-151.02	1,249.13	1,026.20	222.93	5.603		
6,500.00	6,426.37	15,865.27	7,135.81	29.84	252.24	10.02	1,841.72	-153.67	1,174.89	943.23	231.66	5.072		
6,600.00	6,525.05	15,867.92	7,135.82	30.31	252.31	9.83	1,841.69	-156.32	1,104.71	863.84	240.87	4.586		
6,700.00	6,623.18	15,878.34	7,135.85	30.77	252.61	56.83	1,841.59	-166.74	1,039.94	789.43	250.52	4.151		
6,800.00	6,718.58	15,904.17	7,135.91	31.22	253.34	77.64	1,841.32	-192.56	982.87	722.57	260.30	3.776		
6,900.00	6,808.91	15,944.77	7,136.01	31.66	254.49	87.27	1,840.91	-233.16	935.20	665.58	269.62	3.469		
7,000.00	6,891.95	16,000.92	7,136.14	32.07	256.07	91.75	1,840.35	-287.53	897.76	619.77	277.99	3.229		
7,100.00	6,965.65	16,065.95	7,136.30	32.51	257.91	93.34	1,839.66	-354.34	870.39	585.46	284.93	3.055		
7,200.00	7,028.20	16,143.55	7,136.49	33.02	260.10	93.25	1,838.87	-431.93	852.06	561.47	290.59	2.932		
7,300.00	7,078.04	16,230.03	7,136.71	33.68	262.55	92.29	1,837.98	-518.41	841.13	545.90	295.23	2.849		
7,400.00	7,113.97	16,323.26	7,136.93	34.52	265.19	91.10	1,837.03	-611.63	835.76	536.47	299.29	2.792		
7,495.98	7,134.54	16,416.96	7,137.16	35.49	267.84	90.18	1,836.07	-705.33	834.32	531.27	303.04	2.753		
7,500.00	7,135.09	16,420.94	7,137.17	35.53	267.95	90.15	1,836.03	-709.31	834.32	531.12	303.20	2.752		
7,600.00	7,140.96	16,520.68	7,137.42	36.68	270.77	89.75	1,835.00	-809.04	835.73	528.54	307.19	2.721		
7,700.00	7,140.53	16,620.64	7,137.66	37.99	273.60	89.80	1,833.98	-909.00	838.16	526.83	311.34	2.692		
7,800.00	7,140.09	16,720.61	7,137.90	39.45	276.43	89.84	1,832.96	-1,008.96	840.60	524.95	315.65	2.663		
7,900.00	7,139.66	16,820.58	7,138.15	41.06	279.26	89.89	1,831.93	-1,108.93	843.03	522.93	320.10	2.634		
8,000.00	7,139.23	16,920.55	7,138.39	42.80	282.09	89.94	1,830.91	-1,208.89	845.47	520.78	324.69	2.604		
8,100.00	7,138.79	17,020.52	7,138.64	44.65	284.92	89.98	1,829.88	-1,308.85	847.90	518.52	329.39	2.574		
8,200.00	7,138.36	17,120.49	7,138.88	46.60	287.76	90.03	1,828.86	-1,408.81	850.34	516.16	334.18	2.545		
8,300.00	7,137.93	17,220.45	7,139.13	48.65	290.59	90.07	1,827.83	-1,508.78	852.78	513.71	339.07	2.515		
8,400.00	7,137.49	17,320.42	7,139.37	50.77	293.42	90.12	1,826.81	-1,608.74	855.21	511.18	344.03	2.486		
8,500.00	7,137.06	17,420.39	7,139.61	52.95	296.26	90.16	1,825.78	-1,708.70	857.65	508.59	349.06	2.457		
8,600.00	7,136.62	17,520.36	7,139.86	55.20	299.09	90.21	1,824.76	-1,808.66	860.09	505.93	354.16	2.429		
8,700.00	7,136.19	17,620.33	7,140.10	57.51	301.92	90.25	1,823.74	-1,908.63	862.53	503.23	359.30	2.401		
8,800.00	7,135.76	17,720.29	7,140.35	59.85	304.76	90.30	1,822.71	-2,008.59	864.97	500.48	364.49	2.373		
8,900.00	7,135.32	17,820.26	7,140.59	62.24	307.59	90.34	1,821.69	-2,108.55	867.41	497.69	369.72	2.346		
9,000.00	7,134.89	17,920.23	7,140.84	64.67	310.43	90.39	1,820.66	-2,208.51	869.85	494.86	374.99	2.320		
9,100.00	7,134.45	18,020.20	7,141.08	67.13	313.26	90.43	1,819.64	-2,308.48	872.29	492.00	380.29	2.294		
9,200.00	7,134.02	18,120.17	7,141.32	69.62	316.10	90.47	1,818.61	-2,408.44	874.73	489.11	385.62	2.268		
9,300.00	7,133.59	18,220.13	7,141.57	72.14	318.94	90.52	1,817.59	-2,508.40	877.17	486.20	390.98	2.244		
9,400.00	7,133.15	18,320.10	7,141.81	74.68	321.77	90.56	1,816.56	-2,608.36	879.61	483.26	396.36	2.219		
9,500.00	7,132.72	18,420.07	7,142.06	77.24	324.61	90.60	1,815.54	-2,708.33	882.06	480.30	401.76	2.196		
9,600.00	7,132.29	18,520.04	7,142.30	79.83	327.45	90.64	1,814.52	-2,808.29	884.50	477.32	407.18	2.172		
9,700.00	7,131.85	18,620.01	7,142.55	82.42	330.29	90.68	1,813.49	-2,908.25	886.94	474.33	412.61	2.150		
9,800.00	7,131.42	18,719.97	7,142.79	85.04	333.12	90.73	1,812.47	-3,008.21	889.39	471.32	418.07	2.127		
9,900.00	7,130.98	18,819.94	7,143.03	87.67	335.96	90.77	1,811.44	-3,108.18	891.83	468.30	423.54	2.106		
10,000.00	7,130.55	18,919.91	7,143.28	90.31	338.80	90.81	1,810.42	-3,208.14	894.28	465.26	429.02	2.084		
10,100.00	7,130.12	19,019.88	7,143.52	92.97	341.64	90.85	1,809.39	-3,308.10	896.72	462.22	434.51	2.064 ES, SF		
10,200.00	7,129.68	19,018.34	7,143.52	95.63	341.60	90.85	1,809.41	-3,306.56	904.88	469.83	435.05	2.080		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,129.25	19,018.34	7,143.52	98.31	341.60	90.85	1,809.41	-3,306.56	923.85	493.13	430.72	2.145		
10,400.00	7,128.82	19,018.34	7,143.52	101.00	341.60	90.85	1,809.41	-3,306.56	953.00	530.80	422.20	2.257		
10,500.00	7,128.38	19,018.34	7,143.52	103.69	341.60	90.85	1,809.41	-3,306.56	991.41	580.94	410.47	2.415		
10,600.00	7,127.95	19,018.34	7,143.52	106.39	341.60	90.85	1,809.41	-3,306.56	1,038.07	641.48	396.59	2.617		
10,700.00	7,127.51	19,018.34	7,143.52	109.10	341.60	90.85	1,809.41	-3,306.56	1,091.92	710.40	381.51	2.862		
10,800.00	7,127.08	19,018.34	7,143.52	111.82	341.60	90.85	1,809.41	-3,306.56	1,151.94	785.95	365.99	3.147		
10,900.00	7,126.65	19,018.34	7,143.52	114.54	341.60	90.85	1,809.41	-3,306.56	1,217.24	866.65	350.59	3.472		
11,000.00	7,126.21	19,018.34	7,143.52	117.27	341.60	90.85	1,809.41	-3,306.56	1,287.00	951.31	335.68	3.834		
11,100.00	7,125.78	19,018.34	7,143.52	120.01	341.60	90.85	1,809.41	-3,306.56	1,360.54	1,039.04	321.50	4.232		
11,200.00	7,125.35	19,018.34	7,143.52	122.75	341.60	90.85	1,809.41	-3,306.56	1,437.27	1,129.12	308.16	4.664		
11,300.00	7,124.91	19,018.34	7,143.52	125.49	341.60	90.85	1,809.41	-3,306.56	1,516.72	1,221.02	295.70	5.129		
11,400.00	7,124.48	19,018.34	7,143.52	128.24	341.60	90.85	1,809.41	-3,306.56	1,598.48	1,314.34	284.14	5.626		
11,500.00	7,124.04	19,018.34	7,143.52	131.00	341.60	90.85	1,809.41	-3,306.56	1,682.21	1,408.77	273.44	6.152		
11,600.00	7,123.61	19,018.34	7,143.52	133.75	341.60	90.85	1,809.41	-3,306.56	1,767.63	1,504.08	263.55	6.707		
11,700.00	7,123.18	19,018.34	7,143.52	136.52	341.60	90.85	1,809.41	-3,306.56	1,854.51	1,600.09	254.42	7.289		
11,800.00	7,122.74	19,018.34	7,143.52	139.28	341.60	90.85	1,809.41	-3,306.56	1,942.66	1,696.67	245.99	7.897		
11,900.00	7,122.31	19,018.34	7,143.52	142.05	341.60	90.85	1,809.41	-3,306.56	2,031.90	1,793.69	238.21	8.530		
12,000.00	7,121.88	19,018.34	7,143.52	144.82	341.60	90.85	1,809.41	-3,306.56	2,122.10	1,891.09	231.01	9.186		
12,100.00	7,121.44	19,018.34	7,143.52	147.59	341.60	90.85	1,809.41	-3,306.56	2,213.14	1,988.80	224.34	9.865		
12,200.00	7,121.01	19,018.34	7,143.52	150.37	341.60	90.85	1,809.41	-3,306.56	2,304.93	2,086.76	218.17	10.565		
12,300.00	7,120.57	19,018.34	7,143.52	153.15	341.60	90.85	1,809.41	-3,306.56	2,397.37	2,184.94	212.44	11.285		
12,400.00	7,120.14	19,018.34	7,143.52	155.93	341.60	90.85	1,809.41	-3,306.56	2,490.40	2,283.29	207.11	12.025		
12,500.00	7,119.71	19,018.34	7,143.52	158.72	341.60	90.85	1,809.41	-3,306.56	2,583.95	2,381.80	202.15	12.782		
12,600.00	7,119.27	19,018.34	7,143.52	161.50	341.60	90.85	1,809.41	-3,306.56	2,677.96	2,480.43	197.53	13.557		
12,700.00	7,118.84	19,018.34	7,143.52	164.29	341.60	90.85	1,809.41	-3,306.56	2,772.39	2,579.18	193.22	14.349		
12,800.00	7,118.41	19,018.34	7,143.52	167.08	341.60	90.85	1,809.41	-3,306.56	2,867.20	2,678.02	189.18	15.156		
12,900.00	7,117.97	19,018.34	7,143.52	169.88	341.60	90.85	1,809.41	-3,306.56	2,962.36	2,776.95	185.41	15.978		
13,000.00	7,117.54	19,018.34	7,143.52	172.67	341.60	90.85	1,809.41	-3,306.56	3,057.82	2,875.95	181.87	16.813		
13,100.00	7,117.10	19,018.34	7,143.52	175.47	341.60	90.85	1,809.41	-3,306.56	3,153.56	2,975.02	178.54	17.663		
13,200.00	7,116.67	19,018.34	7,143.52	178.27	341.60	90.85	1,809.41	-3,306.56	3,249.56	3,074.14	175.42	18.524		
13,300.00	7,116.24	19,018.34	7,143.52	181.07	341.60	90.85	1,809.41	-3,306.56	3,345.79	3,173.31	172.48	19.398		
13,400.00	7,115.80	19,018.34	7,143.52	183.87	341.60	90.85	1,809.41	-3,306.56	3,442.24	3,272.53	169.71	20.283		
13,500.00	7,115.37	19,018.34	7,143.52	186.67	341.60	90.85	1,809.41	-3,306.56	3,538.89	3,371.79	167.10	21.178		
13,600.00	7,114.93	19,018.34	7,143.52	189.47	341.60	90.85	1,809.41	-3,306.56	3,635.71	3,471.08	164.63	22.084		
13,700.00	7,114.50	19,018.34	7,143.52	192.28	341.60	90.85	1,809.41	-3,306.56	3,732.71	3,570.41	162.30	22.999		
13,800.00	7,114.07	19,018.34	7,143.52	195.09	341.60	90.85	1,809.41	-3,306.56	3,829.86	3,669.77	160.09	23.923		
13,900.00	7,113.63	19,018.34	7,143.52	197.89	341.60	90.85	1,809.41	-3,306.56	3,927.15	3,769.15	158.00	24.856		
14,000.00	7,113.20	19,018.34	7,143.52	200.70	341.60	90.85	1,809.41	-3,306.56	4,024.57	3,868.56	156.01	25.796		
14,100.00	7,112.77	19,018.34	7,143.52	203.51	341.60	90.85	1,809.41	-3,306.56	4,122.12	3,967.99	154.13	26.745		
14,200.00	7,112.33	19,018.34	7,143.52	206.32	341.60	90.85	1,809.41	-3,306.56	4,219.78	4,067.44	152.34	27.700		
14,300.00	7,111.90	19,018.34	7,143.52	209.13	341.60	90.85	1,809.41	-3,306.56	4,317.55	4,166.91	150.64	28.661		
14,400.00	7,111.46	19,018.34	7,143.52	211.95	341.60	90.85	1,809.41	-3,306.56	4,415.42	4,266.40	149.02	29.629		
14,500.00	7,111.03	19,018.34	7,143.52	214.76	341.60	90.85	1,809.41	-3,306.56	4,513.39	4,365.91	147.48	30.603		
14,600.00	7,110.60	19,018.34	7,143.52	217.58	341.60	90.85	1,809.41	-3,306.56	4,611.44	4,465.43	146.01	31.583		
14,700.00	7,110.16	19,018.34	7,143.52	220.39	341.60	90.85	1,809.41	-3,306.56	4,709.57	4,564.96	144.61	32.567		
14,800.00	7,109.73	19,018.34	7,143.52	223.21	341.60	90.85	1,809.41	-3,306.56	4,807.78	4,664.51	143.27	33.556		
14,900.00	7,109.30	19,018.34	7,143.52	226.03	341.60	90.85	1,809.41	-3,306.56	4,906.06	4,764.06	142.00	34.550		
14,969.16	7,109.00	19,018.34	7,143.52	227.97	341.60	90.85	1,809.41	-3,306.56	4,974.08	4,832.93	141.15	35.240		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1,507.18	1,555.44	3.28	8.10	-119.15	-4,194.78	-7,519.70	8,749.94					
100.00	100.00	1,584.00	1,631.02	3.28	8.51	-119.12	-4,184.40	-7,510.71	8,732.93	8,721.85	11.08	788.248		
200.00	200.00	1,584.00	1,631.02	3.34	8.51	-119.12	-4,184.40	-7,510.71	8,715.96	8,704.86	11.10	785.377		
300.00	300.00	300.00	1,708.38	3.44	3.41	-119.09	-4,173.55	-7,502.23	8,699.74	8,692.70	7.04	1,235.429		
400.00	400.00	1,734.49	1,779.17	3.60	9.29	-119.05	-4,163.48	-7,494.54	8,683.59	8,671.62	11.97	725.274		
500.00	500.00	1,799.99	1,843.74	3.81	9.63	-119.03	-4,154.86	-7,487.67	8,667.97	8,655.53	12.44	696.855		
600.00	600.00	1,891.23	1,933.72	4.05	10.10	-118.99	-4,143.45	-7,477.80	8,652.43	8,639.37	13.06	662.557		
700.00	699.98	1,946.98	1,988.72	4.32	10.39	-110.10	-4,136.29	-7,472.12	8,637.85	8,624.29	13.55	637.305		
800.00	799.84	800.00	2,267.50	4.62	4.71	-110.36	-4,100.44	-7,439.98	8,623.28	8,614.00	9.28	929.692		
900.00	899.45	2,491.01	2,523.97	4.94	13.34	-110.70	-4,066.03	-7,405.14	8,607.96	8,591.38	16.58	519.093		
1,000.00	998.70	2,547.50	2,579.40	5.28	13.66	-111.00	-4,058.57	-7,397.25	8,593.51	8,576.36	17.16	500.868		
1,100.00	1,097.50	2,881.77	2,906.60	5.64	15.61	-111.38	-4,010.74	-7,348.68	8,579.37	8,560.34	19.03	450.851		
1,200.00	1,196.18	2,928.16	2,951.89	6.00	15.89	-111.41	-4,003.64	-7,341.61	8,564.21	8,544.61	19.60	436.862		
1,300.00	1,294.87	1,300.00	3,043.99	6.38	6.62	-111.47	-3,990.06	-7,327.59	8,549.81	8,537.12	12.68	674.105		
1,400.00	1,393.55	3,138.35	3,157.42	6.77	17.15	-111.56	-3,973.94	-7,309.19	8,534.83	8,513.50	21.33	400.137		
1,500.00	1,492.23	3,170.26	3,188.65	7.17	17.34	-111.58	-3,969.68	-7,304.16	8,520.23	8,498.36	21.87	389.501		
1,600.00	1,590.91	3,233.05	3,250.19	7.58	17.71	-111.63	-3,961.53	-7,294.74	8,506.40	8,483.84	22.57	376.924		
1,700.00	1,689.60	3,346.99	3,361.77	8.00	18.38	-111.72	-3,946.50	-7,277.28	8,492.27	8,468.77	23.50	361.394		
1,800.00	1,788.28	3,391.00	3,404.90	8.42	18.64	-111.75	-3,940.75	-7,270.67	8,478.58	8,454.46	24.12	351.489		
1,900.00	1,886.96	3,391.00	3,404.90	8.84	18.64	-111.75	-3,940.75	-7,270.67	8,465.86	8,441.31	24.55	344.808		
2,000.00	1,985.64	3,449.12	3,461.97	9.27	18.97	-111.80	-3,933.19	-7,262.66	8,453.54	8,428.29	25.25	334.813		
2,100.00	2,084.33	3,486.00	3,498.27	9.71	19.18	-111.82	-3,928.39	-7,258.25	8,442.35	8,416.49	25.85	326.549		
2,200.00	2,183.01	2,200.00	3,596.21	10.15	12.09	-111.89	-3,915.11	-7,246.67	8,431.43	8,411.03	20.40	413.320		
2,300.00	2,281.69	3,620.24	3,630.37	10.59	19.92	-111.91	-3,910.27	-7,242.81	8,420.82	8,393.47	27.35	307.915		
2,400.00	2,380.38	4,062.78	4,064.41	11.03	22.46	-112.11	-3,839.35	-7,194.46	8,410.92	8,381.08	29.84	281.914		
2,500.00	2,479.06	4,104.16	4,104.91	11.47	22.71	-112.14	-3,833.25	-7,188.60	8,397.10	8,366.62	30.48	275.508		
2,600.00	2,577.74	2,600.00	4,239.90	11.92	13.88	-112.25	-3,814.89	-7,168.13	8,383.45	8,359.52	23.93	350.318		
2,700.00	2,676.42	4,294.62	4,291.48	12.36	23.83	-112.29	-3,807.82	-7,159.99	8,369.49	8,337.25	32.25	259.535		
2,800.00	2,775.11	4,343.00	4,338.99	12.81	24.11	-112.33	-3,801.62	-7,153.29	8,356.69	8,323.76	32.93	253.791		
2,900.00	2,873.79	4,343.00	4,338.99	13.26	24.11	-112.33	-3,801.62	-7,153.29	8,344.49	8,311.10	33.39	249.888		
3,000.00	2,972.47	4,439.00	4,433.35	13.72	24.66	-112.40	-3,789.09	-7,140.85	8,332.67	8,298.39	34.29	243.035		
3,100.00	3,071.15	4,503.74	4,496.99	14.17	25.03	-112.44	-3,780.40	-7,132.77	8,321.16	8,286.12	35.04	237.463		
3,200.00	3,169.84	4,555.61	4,548.06	14.62	25.32	-112.48	-3,773.64	-7,126.63	8,310.32	8,274.58	35.74	232.521		
3,300.00	3,268.52	4,629.00	4,620.39	15.08	25.72	-112.53	-3,764.84	-7,117.91	8,299.98	8,263.44	36.53	227.194		
3,400.00	3,367.20	4,629.00	4,620.39	15.53	25.72	-112.53	-3,764.84	-7,117.91	8,290.32	8,253.32	37.00	224.071		
3,500.00	3,465.89	4,681.99	4,672.71	15.99	26.00	-112.57	-3,759.00	-7,111.92	8,281.27	8,243.57	37.70	219.682		
3,600.00	3,564.57	4,724.00	4,714.28	16.44	26.23	-112.61	-3,754.60	-7,107.72	8,273.24	8,234.89	38.35	215.752		
3,700.00	3,663.25	4,815.30	4,804.69	16.90	26.69	-112.68	-3,745.60	-7,098.67	8,265.74	8,226.53	39.21	210.803		
3,800.00	3,761.93	4,854.03	4,843.05	17.36	26.89	-112.71	-3,741.99	-7,094.74	8,258.40	8,218.56	39.84	207.276		
3,900.00	3,860.62	4,915.00	4,903.51	17.82	27.19	-112.76	-3,736.54	-7,089.17	8,251.94	8,211.37	40.57	203.393		
4,000.00	3,959.30	4,915.00	4,903.51	18.28	27.19	-112.76	-3,736.54	-7,089.17	8,246.07	8,205.04	41.03	200.982		
4,100.00	4,057.98	4,977.94	4,966.01	18.74	27.49	-112.82	-3,731.13	-7,084.05	8,240.92	8,199.15	41.76	197.327		
4,200.00	4,156.67	5,026.38	5,014.14	19.20	27.72	-112.86	-3,727.07	-7,080.45	8,236.41	8,193.98	42.43	194.111		
4,300.00	4,255.35	5,104.00	5,091.34	19.66	28.09	-112.92	-3,720.73	-7,075.30	8,232.65	8,189.42	43.23	190.435		
4,400.00	4,354.03	5,104.00	5,091.34	20.12	28.09	-112.92	-3,720.73	-7,075.30	8,229.34	8,185.66	43.68	188.405		
4,500.00	4,452.71	5,104.00	5,091.34	20.58	28.09	-112.92	-3,720.73	-7,075.30	8,227.25	8,183.13	44.12	186.467		
4,600.00	4,551.40	5,192.91	5,179.87	21.04	28.48	-112.99	-3,714.29	-7,070.35	8,225.09	8,180.13	44.96	182.933		
4,700.00	4,650.08	5,229.93	5,216.78	21.50	28.64	-113.02	-3,712.03	-7,068.59	8,224.13	8,178.57	45.57	180.482		
4,730.79	4,680.47	5,241.33	5,228.15	21.64	28.69	-113.03	-3,711.38	-7,068.09	8,223.99	8,178.24	45.75	179.745		
4,800.00	4,748.76	5,294.00	5,280.71	21.96	28.92	-113.08	-3,708.69	-7,065.97	8,224.07	8,177.77	46.29	177.646		
4,810.53	4,759.16	5,294.00	5,280.71	22.01	28.92	-113.08	-3,708.69	-7,065.97	8,224.06	8,177.72	46.34	177.471		
4,900.00	4,847.44	5,294.00	5,280.71	22.42	28.92	-113.08	-3,708.69	-7,065.97	8,224.55	8,177.82	46.73	176.019		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,000.00	4,946.13	5,367.73	5,354.32	22.89	29.21	-113.15	-3,705.46	-7,063.40	8,225.68	8,178.19	47.49	173.225		
5,100.00	5,044.81	5,425.84	5,412.36	23.35	29.44	-113.20	-3,703.20	-7,061.58	8,227.35	8,179.18	48.17	170.783		
5,200.00	5,143.49	5,483.90	5,470.37	23.81	29.67	-113.26	-3,701.19	-7,059.96	8,229.54	8,180.68	48.86	168.425		
5,300.00	5,242.18	5,579.00	5,565.40	24.27	30.05	-113.35	-3,698.44	-7,057.69	8,232.39	8,182.67	49.72	165.581		
5,400.00	5,340.86	5,579.00	5,565.40	24.74	30.05	-113.35	-3,698.44	-7,057.69	8,235.51	8,185.37	50.13	164.268		
5,500.00	5,439.54	5,659.60	5,645.96	25.20	30.35	-113.42	-3,696.56	-7,056.18	8,239.18	8,188.27	50.92	161.813		
5,600.00	5,538.22	5,718.80	5,705.14	25.66	30.57	-113.48	-3,695.41	-7,055.32	8,243.41	8,191.81	51.60	159.752		
5,700.00	5,636.91	5,777.96	5,764.29	26.13	30.79	-113.54	-3,694.46	-7,054.68	8,248.13	8,195.85	52.28	157.759		
5,800.00	5,735.59	5,864.00	5,850.32	26.59	31.11	-113.62	-3,693.41	-7,054.13	8,253.43	8,200.34	53.09	155.462		
5,900.00	5,834.27	5,904.00	5,890.33	27.06	31.25	-113.66	-3,693.03	-7,054.02	8,259.05	8,205.38	53.67	153.872		
6,000.00	5,932.95	5,977.50	5,963.82	27.52	31.50	-113.74	-3,692.34	-7,054.00	8,265.10	8,210.69	54.41	151.896		
6,100.00	6,031.64	6,051.00	6,037.31	27.98	31.76	-113.81	-3,691.70	-7,054.23	8,271.47	8,216.32	55.15	149.982		
6,200.00	6,130.32	6,124.50	6,110.81	28.45	32.02	-113.88	-3,691.09	-7,054.71	8,278.17	8,222.28	55.89	148.125		
6,300.00	6,229.00	6,224.43	6,210.73	28.91	32.37	-113.97	-3,690.25	-7,055.60	8,285.09	8,228.34	56.74	146.006		
6,400.00	6,327.69	6,339.31	6,325.61	29.38	32.77	-114.08	-3,689.11	-7,056.52	8,291.87	8,234.20	57.67	143.775		
6,500.00	6,426.37	6,454.26	6,440.54	29.84	33.18	-114.19	-3,687.76	-7,057.31	8,298.48	8,239.88	58.60	141.613		
6,600.00	6,525.05	6,538.44	6,524.71	30.31	33.48	-114.26	-3,686.69	-7,057.98	8,305.14	8,245.75	59.39	139.837		
6,700.00	6,623.18	6,626.24	6,612.50	30.77	33.79	-74.23	-3,685.52	-7,058.83	8,305.29	8,245.09	60.20	137.961		
6,800.00	6,718.58	6,711.82	6,698.06	31.22	34.10	-58.64	-3,684.33	-7,059.82	8,292.27	8,231.28	60.99	135.954		
6,900.00	6,808.91	6,773.88	6,760.12	31.66	34.32	-52.73	-3,683.48	-7,060.69	8,266.56	8,204.89	61.66	134.060		
7,000.00	6,891.95	6,828.45	6,814.67	32.07	34.51	-51.04	-3,682.84	-7,061.64	8,228.95	8,166.66	62.29	132.102		
7,100.00	6,965.65	6,877.29	6,863.50	32.51	34.68	-51.93	-3,682.35	-7,062.62	8,180.39	8,117.49	62.90	130.052		
7,200.00	7,028.20	6,919.23	6,905.43	33.02	34.82	-54.94	-3,681.99	-7,063.58	8,122.06	8,058.57	63.50	127.911		
7,300.00	7,078.04	6,953.24	6,939.42	33.68	34.94	-60.07	-3,681.74	-7,064.43	8,055.38	7,991.29	64.09	125.681		
7,400.00	7,113.97	6,978.43	6,964.61	34.52	35.03	-67.55	-3,681.58	-7,065.11	7,981.97	7,917.28	64.70	123.375		
7,500.00	7,135.09	7,010.00	6,996.17	35.53	35.14	-77.70	-3,681.41	-7,066.00	7,903.64	7,838.26	65.38	120.883		
7,600.00	7,140.96	7,010.00	6,996.17	36.68	35.14	-88.50	-3,681.41	-7,066.00	7,822.22	7,756.26	65.97	118.578		
7,700.00	7,140.53	7,010.00	6,996.17	37.99	35.14	-88.50	-3,681.41	-7,066.00	7,740.30	7,673.69	66.62	116.192		
7,800.00	7,140.09	7,010.00	6,996.17	39.45	35.14	-88.50	-3,681.41	-7,066.00	7,658.81	7,591.46	67.35	113.714		
7,900.00	7,139.66	7,010.00	6,996.17	41.06	35.14	-88.50	-3,681.41	-7,066.00	7,577.77	7,509.60	68.17	111.156		
8,000.00	7,139.23	7,010.00	6,996.17	42.80	35.14	-88.50	-3,681.41	-7,066.00	7,497.18	7,428.10	69.08	108.530		
8,100.00	7,138.79	7,010.00	6,996.17	44.65	35.14	-88.50	-3,681.41	-7,066.00	7,417.06	7,346.99	70.07	105.851		
8,200.00	7,138.36	7,010.00	6,996.17	46.60	35.14	-88.50	-3,681.41	-7,066.00	7,337.44	7,266.29	71.15	103.129		
8,300.00	7,137.93	7,012.71	6,998.87	48.65	35.15	-88.53	-3,681.39	-7,066.08	7,258.31	7,185.99	72.32	100.360		
8,400.00	7,137.49	7,016.11	7,002.27	50.77	35.16	-88.58	-3,681.38	-7,066.18	7,179.71	7,106.12	73.58	97.571		
8,500.00	7,137.06	7,019.54	7,005.70	52.95	35.18	-88.62	-3,681.36	-7,066.28	7,101.64	7,026.71	74.93	94.779		
8,600.00	7,136.62	7,023.00	7,009.15	55.20	35.19	-88.67	-3,681.34	-7,066.38	7,024.13	6,947.77	76.35	91.994		
8,700.00	7,136.19	7,026.47	7,012.63	57.51	35.20	-88.71	-3,681.31	-7,066.49	6,947.19	6,869.33	77.86	89.226		
8,800.00	7,135.76	7,029.98	7,016.13	59.85	35.21	-88.75	-3,681.29	-7,066.59	6,870.84	6,791.40	79.45	86.484		
8,900.00	7,135.32	7,033.50	7,019.66	62.24	35.23	-88.80	-3,681.27	-7,066.70	6,795.11	6,714.00	81.11	83.776		
9,000.00	7,134.89	7,037.06	7,023.21	64.67	35.24	-88.85	-3,681.24	-7,066.80	6,720.01	6,637.16	82.85	81.108		
9,100.00	7,134.45	7,040.64	7,026.79	67.13	35.25	-88.89	-3,681.21	-7,066.91	6,645.56	6,560.89	84.67	78.488		
9,200.00	7,134.02	7,044.24	7,030.39	69.62	35.26	-88.94	-3,681.18	-7,067.02	6,571.80	6,485.23	86.56	75.919		
9,300.00	7,133.59	7,047.87	7,034.02	72.14	35.28	-88.98	-3,681.15	-7,067.13	6,498.73	6,410.20	88.53	73.406		
9,400.00	7,133.15	7,051.53	7,037.68	74.68	35.29	-89.03	-3,681.12	-7,067.24	6,426.38	6,335.81	90.57	70.952		
9,500.00	7,132.72	7,055.21	7,041.36	77.24	35.30	-89.08	-3,681.09	-7,067.35	6,354.79	6,262.10	92.69	68.561		
9,600.00	7,132.29	7,058.93	7,045.07	79.83	35.31	-89.13	-3,681.05	-7,067.47	6,283.96	6,189.09	94.87	66.234		
9,700.00	7,131.85	7,062.66	7,048.80	82.42	35.33	-89.17	-3,681.02	-7,067.58	6,213.94	6,116.81	97.13	63.974		
9,800.00	7,131.42	7,066.43	7,052.57	85.04	35.34	-89.22	-3,680.98	-7,067.70	6,144.75	6,045.29	99.46	61.780		
9,900.00	7,130.98	7,070.22	7,056.36	87.67	35.35	-89.27	-3,680.94	-7,067.82	6,076.41	5,974.55	101.86	59.654		
10,000.00	7,130.55	7,074.05	7,060.18	90.31	35.37	-89.32	-3,680.90	-7,067.93	6,008.96	5,904.63	104.33	57.596		
10,100.00	7,130.12	7,077.90	7,064.03	92.97	35.38	-89.37	-3,680.86	-7,068.05	5,942.42	5,835.56	106.87	55.606		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,129.68	7,081.78	7,067.91	95.63	35.39	-89.42	-3,680.81	-7,068.18	5,876.83	5,767.36	109.47	53.684		
10,300.00	7,129.25	7,085.69	7,071.81	98.31	35.41	-89.47	-3,680.77	-7,068.30	5,812.22	5,700.08	112.14	51.828		
10,400.00	7,128.82	7,089.62	7,075.75	101.00	35.42	-89.52	-3,680.72	-7,068.42	5,748.62	5,633.74	114.88	50.040		
10,500.00	7,128.38	7,093.59	7,079.71	103.69	35.44	-89.57	-3,680.67	-7,068.55	5,686.07	5,568.38	117.69	48.316		
10,600.00	7,127.95	7,097.59	7,083.71	106.39	35.45	-89.62	-3,680.62	-7,068.67	5,624.60	5,504.04	120.55	46.657		
10,700.00	7,127.51	7,101.62	7,087.74	109.10	35.46	-89.67	-3,680.57	-7,068.80	5,564.24	5,440.75	123.48	45.061		
10,800.00	7,127.08	7,105.68	7,091.79	111.82	35.48	-89.73	-3,680.51	-7,068.93	5,505.03	5,378.56	126.48	43.527		
10,900.00	7,126.65	7,109.77	7,095.88	114.54	35.49	-89.78	-3,680.45	-7,069.06	5,447.02	5,317.49	129.53	42.053		
11,000.00	7,126.21	7,113.89	7,100.00	117.27	35.51	-89.83	-3,680.39	-7,069.20	5,390.23	5,257.60	132.64	40.639		
11,100.00	7,125.78	7,118.05	7,104.15	120.01	35.52	-89.89	-3,680.33	-7,069.33	5,334.72	5,198.91	135.80	39.282		
11,200.00	7,125.35	7,122.23	7,108.34	122.75	35.54	-89.94	-3,680.27	-7,069.47	5,280.51	5,141.48	139.03	37.982		
11,300.00	7,124.91	7,126.45	7,112.56	125.49	35.55	-89.99	-3,680.20	-7,069.60	5,227.65	5,085.35	142.30	36.737		
11,400.00	7,124.48	7,130.71	7,116.81	128.24	35.57	-90.05	-3,680.14	-7,069.74	5,176.18	5,030.55	145.62	35.545		
11,500.00	7,124.04	7,134.99	7,121.09	131.00	35.58	-90.10	-3,680.07	-7,069.88	5,126.14	4,977.14	148.99	34.405		
11,600.00	7,123.61	7,139.31	7,125.41	133.75	35.60	-90.16	-3,679.99	-7,070.02	5,077.58	4,925.17	152.41	33.315		
11,700.00	7,123.18	7,143.67	7,129.76	136.52	35.61	-90.21	-3,679.92	-7,070.17	5,030.53	4,874.66	155.86	32.275		
11,800.00	7,122.74	7,148.05	7,134.14	139.28	35.63	-90.27	-3,679.84	-7,070.31	4,985.04	4,825.69	159.36	31.283		
11,900.00	7,122.31	7,152.48	7,138.56	142.05	35.64	-90.33	-3,679.76	-7,070.46	4,941.16	4,778.28	162.88	30.336		
12,000.00	7,121.88	7,156.94	7,143.02	144.82	35.66	-90.38	-3,679.68	-7,070.61	4,898.92	4,732.48	166.43	29.435		
12,100.00	7,121.44	7,161.43	7,147.51	147.59	35.68	-90.44	-3,679.60	-7,070.76	4,858.37	4,688.36	170.01	28.577		
12,200.00	7,121.01	7,165.97	7,152.04	150.37	35.69	-90.50	-3,679.51	-7,070.91	4,819.55	4,645.94	173.61	27.761		
12,300.00	7,120.57	7,170.53	7,156.61	153.15	35.71	-90.56	-3,679.42	-7,071.07	4,782.50	4,605.28	177.22	26.986		
12,400.00	7,120.14	7,175.14	7,161.21	155.93	35.72	-90.62	-3,679.33	-7,071.22	4,747.27	4,566.43	180.84	26.251		
12,500.00	7,119.71	7,179.78	7,165.85	158.72	35.74	-90.68	-3,679.24	-7,071.38	4,713.90	4,529.44	184.46	25.555		
12,600.00	7,119.27	7,184.47	7,170.53	161.50	35.76	-90.74	-3,679.14	-7,071.54	4,682.42	4,494.34	188.08	24.896		
12,700.00	7,118.84	7,189.19	7,175.24	164.29	35.77	-90.80	-3,679.04	-7,071.70	4,652.87	4,461.18	191.69	24.273		
12,800.00	7,118.41	7,193.95	7,180.00	167.08	35.79	-90.86	-3,678.93	-7,071.87	4,625.30	4,430.01	195.29	23.685		
12,900.00	7,117.97	7,198.74	7,184.79	169.88	35.81	-90.92	-3,678.83	-7,072.03	4,599.73	4,400.87	198.86	23.130		
13,000.00	7,117.54	7,203.58	7,189.63	172.67	35.82	-90.98	-3,678.72	-7,072.20	4,576.20	4,373.79	202.41	22.609		
13,100.00	7,117.10	7,208.46	7,194.50	175.47	35.84	-91.05	-3,678.61	-7,072.37	4,554.74	4,348.82	205.92	22.119		
13,200.00	7,116.67	7,213.39	7,199.42	178.27	35.86	-91.11	-3,678.49	-7,072.55	4,535.38	4,326.00	209.38	21.661		
13,300.00	7,116.24	7,218.35	7,204.38	181.07	35.88	-91.17	-3,678.37	-7,072.72	4,518.15	4,305.35	212.80	21.232		
13,400.00	7,115.80	7,223.35	7,209.38	183.87	35.89	-91.24	-3,678.25	-7,072.90	4,503.08	4,286.91	216.17	20.832		
13,500.00	7,115.37	7,228.40	7,214.42	186.67	35.91	-91.30	-3,678.12	-7,073.08	4,490.17	4,270.70	219.47	20.459		
13,600.00	7,114.93	7,233.49	7,219.51	189.47	35.93	-91.37	-3,678.00	-7,073.26	4,479.46	4,256.76	222.70	20.114		
13,700.00	7,114.50	7,238.63	7,224.64	192.28	35.95	-91.43	-3,677.86	-7,073.44	4,470.96	4,245.10	225.86	19.795		
13,800.00	7,114.07	7,243.81	7,229.81	195.09	35.97	-91.50	-3,677.73	-7,073.63	4,464.67	4,235.74	228.93	19.502		
13,900.00	7,113.63	7,249.03	7,235.03	197.89	35.98	-91.57	-3,677.59	-7,073.81	4,460.62	4,228.69	231.93	19.233		
14,000.00	7,113.20	7,254.30	7,240.30	200.70	36.00	-91.64	-3,677.44	-7,074.01	4,458.80	4,223.98	234.82	18.988		
14,031.18	7,113.06	7,255.95	7,241.95	201.58	36.01	-91.66	-3,677.40	-7,074.07	4,458.69	4,222.98	235.71	18.916 CC		
14,100.00	7,112.77	7,259.62	7,245.61	203.51	36.02	-91.70	-3,677.30	-7,074.20	4,459.22	4,221.60	237.63	18.766		
14,200.00	7,112.33	7,264.98	7,250.96	206.32	36.04	-91.77	-3,677.14	-7,074.39	4,461.88	4,221.55	240.33	18.566 ES		
14,300.00	7,111.90	7,270.39	7,256.37	209.13	36.06	-91.84	-3,676.99	-7,074.59	4,466.78	4,223.85	242.93	18.387		
14,400.00	7,111.46	7,275.85	7,261.82	211.95	36.08	-91.91	-3,676.83	-7,074.79	4,473.90	4,228.48	245.41	18.230		
14,500.00	7,111.03	7,281.35	7,267.32	214.76	36.10	-91.98	-3,676.67	-7,075.00	4,483.23	4,235.44	247.79	18.093		
14,600.00	7,110.60	7,286.91	7,272.87	217.58	36.12	-92.05	-3,676.50	-7,075.20	4,494.77	4,244.71	250.06	17.975		
14,700.00	7,110.16	7,292.51	7,278.47	220.39	36.14	-92.13	-3,676.32	-7,075.41	4,508.49	4,256.29	252.21	17.876		
14,800.00	7,109.73	7,298.17	7,284.12	223.21	36.16	-92.20	-3,676.15	-7,075.62	4,524.38	4,270.14	254.24	17.796		
14,900.00	7,109.30	7,303.88	7,289.82	226.03	36.18	-92.27	-3,675.97	-7,075.84	4,542.41	4,286.26	256.15	17.733		
14,969.16	7,109.00	7,307.86	7,293.79	227.97	36.19	-92.32	-3,675.84	-7,075.99	4,556.12	4,298.71	257.41	17.700 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-119.58	-4,350.80	-7,663.74	8,812.89					
100.00	100.00	32.00	100.00	3.28	3.33	-119.58	-4,350.80	-7,663.74	8,812.63	8,806.02	6.61	1,332.836		
200.00	200.00	132.00	200.00	3.34	4.35	-119.58	-4,350.80	-7,663.74	8,812.63	8,804.94	7.69	1,145.906		
300.00	300.00	232.00	300.00	3.44	7.15	-119.58	-4,350.80	-7,663.74	8,812.63	8,802.03	10.60	831.756		
400.00	400.00	332.00	400.00	3.60	10.38	-119.58	-4,350.80	-7,663.74	8,812.63	8,798.65	13.98	630.374		
500.00	500.00	432.00	500.00	3.81	13.73	-119.58	-4,350.80	-7,663.74	8,812.63	8,795.09	17.54	502.457		
600.00	600.00	532.00	600.00	4.05	17.14	-119.58	-4,350.80	-7,663.74	8,812.63	8,791.44	21.19	415.894		
700.00	699.98	631.98	699.98	4.32	20.58	-110.43	-4,350.80	-7,663.74	8,813.24	8,788.34	24.90	353.982		
800.00	799.84	731.84	799.84	4.62	24.03	-110.43	-4,350.80	-7,663.74	8,815.07	8,786.43	28.64	307.768		
900.00	899.45	831.45	899.45	4.94	27.48	-110.43	-4,350.80	-7,663.74	8,818.12	8,785.71	32.41	272.087		
1,000.00	998.70	930.70	998.70	5.28	30.92	-110.42	-4,350.80	-7,663.74	8,822.40	8,786.21	36.19	243.785		
1,100.00	1,097.50	1,029.50	1,097.50	5.64	34.35	-110.45	-4,350.80	-7,663.74	8,827.85	8,787.87	39.98	220.831		
1,200.00	1,196.18	1,128.18	1,196.18	6.00	37.78	-110.54	-4,350.80	-7,663.74	8,833.58	8,789.80	43.78	201.791		
1,300.00	1,294.87	1,226.87	1,294.87	6.38	41.22	-110.64	-4,350.80	-7,663.74	8,839.33	8,791.74	47.59	185.734		
1,400.00	1,393.55	1,325.55	1,393.55	6.77	44.65	-110.74	-4,350.80	-7,663.74	8,845.12	8,793.70	51.42	172.019		
1,500.00	1,492.23	1,424.23	1,492.23	7.17	48.09	-110.84	-4,350.80	-7,663.74	8,850.92	8,795.67	55.26	160.175		
1,600.00	1,590.91	1,522.91	1,590.91	7.58	51.52	-110.93	-4,350.80	-7,663.74	8,856.76	8,797.65	59.10	149.849		
1,700.00	1,689.60	1,621.60	1,689.60	8.00	54.96	-111.03	-4,350.80	-7,663.74	8,862.62	8,799.66	62.96	140.768		
1,800.00	1,788.28	1,720.28	1,788.28	8.42	58.40	-111.13	-4,350.80	-7,663.74	8,868.50	8,801.68	66.82	132.724		
1,900.00	1,886.96	1,818.96	1,886.96	8.84	61.84	-111.22	-4,350.80	-7,663.74	8,874.41	8,803.73	70.68	125.549		
2,000.00	1,985.64	1,917.64	1,985.64	9.27	65.28	-111.32	-4,350.80	-7,663.74	8,880.35	8,805.80	74.56	119.111		
2,100.00	2,084.33	2,016.33	2,084.33	9.71	68.72	-111.41	-4,350.80	-7,663.74	8,886.31	8,807.88	78.43	113.304		
2,200.00	2,183.01	2,115.01	2,183.01	10.15	72.16	-111.51	-4,350.80	-7,663.74	8,892.30	8,809.99	82.31	108.039		
2,300.00	2,281.69	2,213.69	2,281.69	10.59	75.61	-111.61	-4,350.80	-7,663.74	8,898.31	8,812.13	86.19	103.244		
2,400.00	2,380.38	2,312.38	2,380.38	11.03	79.05	-111.70	-4,350.80	-7,663.74	8,904.35	8,814.28	90.07	98.860		
2,500.00	2,479.06	2,411.06	2,479.06	11.47	82.49	-111.80	-4,350.80	-7,663.74	8,910.41	8,816.46	93.96	94.837		
2,600.00	2,577.74	2,509.74	2,577.74	11.92	85.93	-111.89	-4,350.80	-7,663.74	8,916.50	8,818.66	97.84	91.131		
2,700.00	2,676.42	2,608.42	2,676.42	12.36	89.37	-111.99	-4,350.80	-7,663.74	8,922.62	8,820.88	101.73	87.707		
2,800.00	2,775.11	2,707.11	2,775.11	12.81	92.82	-112.08	-4,350.80	-7,663.74	8,928.75	8,823.13	105.62	84.535		
2,900.00	2,873.79	2,805.79	2,873.79	13.26	96.26	-112.18	-4,350.80	-7,663.74	8,934.92	8,825.40	109.51	81.587		
3,000.00	2,972.47	2,904.47	2,972.47	13.72	99.70	-112.27	-4,350.80	-7,663.74	8,941.11	8,827.70	113.41	78.840		
3,100.00	3,071.15	3,003.15	3,071.15	14.17	103.15	-112.37	-4,350.80	-7,663.74	8,947.32	8,830.02	117.30	76.275		
3,200.00	3,169.84	3,101.84	3,169.84	14.62	106.59	-112.46	-4,350.80	-7,663.74	8,953.56	8,832.36	121.20	73.875		
3,300.00	3,268.52	3,200.52	3,268.52	15.08	110.03	-112.56	-4,350.80	-7,663.74	8,959.82	8,834.73	125.10	71.624		
3,400.00	3,367.20	3,300.80	3,367.20	15.53	113.53	-112.65	-4,350.80	-7,663.74	8,966.11	8,837.06	129.05	69.479		
3,500.00	3,465.89	3,402.11	3,465.89	15.99	117.07	-112.75	-4,350.80	-7,663.74	8,972.43	8,839.39	133.04	67.442		
3,600.00	3,564.57	3,503.43	3,564.57	16.44	120.60	-112.84	-4,350.80	-7,663.74	8,978.76	8,841.73	137.03	65.524		
3,700.00	3,663.25	3,604.75	3,663.25	16.90	124.14	-112.93	-4,350.80	-7,663.74	8,985.13	8,844.11	141.02	63.715		
3,800.00	3,761.93	3,706.07	3,761.93	17.36	127.68	-113.03	-4,350.80	-7,663.74	8,991.51	8,846.50	145.01	62.005		
3,900.00	3,860.62	3,807.38	3,860.62	17.82	131.21	-113.12	-4,350.80	-7,663.74	8,997.93	8,848.92	149.01	60.386		
4,000.00	3,959.30	3,908.70	3,959.30	18.28	134.75	-113.21	-4,350.80	-7,663.74	9,004.36	8,851.36	153.00	58.852		
4,100.00	4,057.98	3,989.98	4,057.98	18.74	137.58	-113.31	-4,350.80	-7,663.74	9,010.82	8,854.53	156.29	57.653		
4,200.00	4,156.67	4,088.67	4,156.67	19.20	141.03	-113.40	-4,350.80	-7,663.74	9,017.31	8,857.11	160.20	56.289		
4,300.00	4,255.35	4,187.35	4,255.35	19.66	144.47	-113.49	-4,350.80	-7,663.74	9,023.82	8,859.72	164.10	54.990		
4,400.00	4,354.03	4,286.03	4,354.03	20.12	147.92	-113.59	-4,350.80	-7,663.74	9,030.35	8,862.35	168.00	53.751		
4,500.00	4,452.71	4,384.71	4,452.71	20.58	151.36	-113.68	-4,350.80	-7,663.74	9,036.91	8,865.00	171.91	52.569		
4,600.00	4,551.40	4,483.40	4,551.40	21.04	154.80	-113.77	-4,350.80	-7,663.74	9,043.49	8,867.68	175.81	51.439		
4,700.00	4,650.08	4,582.08	4,650.08	21.50	158.25	-113.87	-4,350.80	-7,663.74	9,050.10	8,870.38	179.71	50.358		
4,800.00	4,748.76	4,680.76	4,748.76	21.96	161.69	-113.96	-4,350.80	-7,663.74	9,056.73	8,873.11	183.62	49.323		
4,900.00	4,847.44	4,779.44	4,847.44	22.42	165.14	-114.05	-4,350.80	-7,663.74	9,063.38	8,875.86	187.52	48.332		
5,000.00	4,946.13	4,878.13	4,946.13	22.89	168.58	-114.14	-4,350.80	-7,663.74	9,070.06	8,878.63	191.43	47.381		
5,100.00	5,044.81	4,976.81	5,044.81	23.35	172.03	-114.24	-4,350.80	-7,663.74	9,076.76	8,881.43	195.33	46.468		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,075.49	5,143.49	23.81	175.47	-114.33	-4,350.80	-7,663.74	9,083.49	8,884.25	199.24	45.591		
5,300.00	5,242.18	5,174.18	5,242.18	24.27	178.92	-114.42	-4,350.80	-7,663.74	9,090.24	8,887.09	203.15	44.748		
5,400.00	5,340.86	5,272.86	5,340.86	24.74	182.36	-114.51	-4,350.80	-7,663.74	9,097.01	8,889.96	207.05	43.936		
5,500.00	5,439.54	5,371.54	5,439.54	25.20	185.80	-114.60	-4,350.80	-7,663.74	9,103.81	8,892.85	210.96	43.155		
5,600.00	5,538.22	5,470.22	5,538.22	25.66	189.25	-114.69	-4,350.80	-7,663.74	9,110.63	8,895.77	214.86	42.402		
5,700.00	5,636.91	5,568.91	5,636.91	26.13	192.69	-114.79	-4,350.80	-7,663.74	9,117.48	8,898.71	218.77	41.676		
5,800.00	5,735.59	5,667.59	5,735.59	26.59	196.14	-114.88	-4,350.80	-7,663.74	9,124.35	8,901.67	222.68	40.976		
5,900.00	5,834.27	5,766.27	5,834.27	27.06	199.58	-114.97	-4,350.80	-7,663.74	9,131.24	8,904.65	226.58	40.300		
6,000.00	5,932.95	5,864.95	5,932.95	27.52	203.03	-115.06	-4,350.80	-7,663.74	9,138.15	8,907.66	230.49	39.647		
6,100.00	6,031.64	5,963.64	6,031.64	27.98	206.47	-115.15	-4,350.80	-7,663.74	9,145.09	8,910.69	234.40	39.016		
6,200.00	6,130.32	6,062.32	6,130.32	28.45	209.92	-115.24	-4,350.80	-7,663.74	9,152.05	8,913.75	238.30	38.405		
6,300.00	6,229.00	6,161.00	6,229.00	28.91	213.36	-115.33	-4,350.80	-7,663.74	9,159.04	8,916.83	242.21	37.814		
6,400.00	6,327.69	6,259.69	6,327.69	29.38	216.81	-115.42	-4,350.80	-7,663.74	9,166.05	8,919.93	246.12	37.243		
6,500.00	6,426.37	6,358.37	6,426.37	29.84	220.25	-115.51	-4,350.80	-7,663.74	9,173.08	8,923.05	250.02	36.689		
6,600.00	6,525.05	6,457.05	6,525.05	30.31	223.69	-115.60	-4,350.80	-7,663.74	9,180.13	8,926.20	253.93	36.152		
6,700.00	6,623.73	6,555.73	6,623.73	30.77	227.12	-75.56	-4,350.80	-7,663.74	9,180.66	8,922.84	257.82	35.608		
6,800.00	6,718.58	6,650.58	6,718.58	31.22	230.45	-59.99	-4,350.80	-7,663.74	9,168.09	8,906.48	261.61	35.044		
6,900.00	6,808.91	6,740.91	6,808.91	31.66	233.60	-54.16	-4,350.80	-7,663.74	9,142.81	8,877.59	265.22	34.473		
7,000.00	6,891.95	6,823.95	6,891.95	32.07	236.50	-52.61	-4,350.80	-7,663.74	9,105.51	8,836.95	268.56	33.905		
7,100.00	6,965.65	6,902.35	6,965.65	32.51	239.24	-53.68	-4,350.80	-7,663.74	9,057.20	8,785.46	271.74	33.330		
7,200.00	7,028.20	6,960.20	7,028.20	33.02	241.26	-56.89	-4,350.80	-7,663.74	8,999.16	8,724.93	274.23	32.816		
7,300.00	7,078.04	7,010.04	7,078.04	33.68	243.00	-62.25	-4,350.80	-7,663.74	8,932.89	8,656.42	276.46	32.311		
7,400.00	7,113.97	7,045.97	7,113.97	34.52	244.25	-69.87	-4,350.80	-7,663.74	8,860.07	8,581.81	278.26	31.841		
7,500.00	7,135.09	7,067.09	7,135.09	35.53	244.99	-79.79	-4,350.80	-7,663.74	8,782.53	8,502.95	279.58	31.414		
7,600.00	7,140.96	7,072.96	7,140.96	36.68	245.19	-90.34	-4,350.80	-7,663.74	8,702.21	8,421.80	280.41	31.034		
7,700.00	7,140.53	7,072.53	7,140.53	37.99	245.18	-90.34	-4,350.80	-7,663.74	8,621.46	8,340.38	281.08	30.673		
7,800.00	7,140.09	7,072.09	7,140.09	39.45	245.16	-90.33	-4,350.80	-7,663.74	8,541.12	8,259.28	281.84	30.305		
7,900.00	7,139.66	7,071.66	7,139.66	41.06	245.15	-90.33	-4,350.80	-7,663.74	8,461.20	8,178.52	282.68	29.932		
8,000.00	7,139.23	7,071.23	7,139.23	42.80	245.13	-90.32	-4,350.80	-7,663.74	8,381.71	8,098.10	283.61	29.554		
8,100.00	7,138.79	7,070.79	7,138.79	44.65	245.12	-90.32	-4,350.80	-7,663.74	8,302.66	8,018.04	284.62	29.171		
8,200.00	7,138.36	7,070.36	7,138.36	46.60	245.10	-90.31	-4,350.80	-7,663.74	8,224.07	7,938.35	285.72	28.784		
8,300.00	7,137.93	7,069.93	7,137.93	48.65	245.09	-90.31	-4,350.80	-7,663.74	8,145.95	7,859.06	286.89	28.394		
8,400.00	7,137.49	7,069.49	7,137.49	50.77	245.07	-90.30	-4,350.80	-7,663.74	8,068.31	7,780.16	288.15	28.000		
8,500.00	7,137.06	7,069.06	7,137.06	52.95	245.06	-90.30	-4,350.80	-7,663.74	7,991.17	7,701.68	289.49	27.605		
8,600.00	7,136.62	7,068.62	7,136.62	55.20	245.04	-90.29	-4,350.80	-7,663.74	7,914.54	7,623.64	290.90	27.207		
8,700.00	7,136.19	7,068.19	7,136.19	57.51	245.03	-90.29	-4,350.80	-7,663.74	7,838.44	7,546.05	292.39	26.808		
8,800.00	7,135.76	7,067.76	7,135.76	59.85	245.01	-90.28	-4,350.80	-7,663.74	7,762.88	7,468.93	293.95	26.409		
8,900.00	7,135.32	7,067.32	7,135.32	62.24	245.00	-90.28	-4,350.80	-7,663.74	7,687.87	7,392.29	295.58	26.009		
9,000.00	7,134.89	7,066.89	7,134.89	64.67	244.98	-90.27	-4,350.80	-7,663.74	7,613.44	7,316.16	297.29	25.610		
9,100.00	7,134.45	7,066.45	7,134.45	67.13	244.97	-90.27	-4,350.80	-7,663.74	7,539.61	7,240.54	299.06	25.211		
9,200.00	7,134.02	7,066.02	7,134.02	69.62	244.95	-90.26	-4,350.80	-7,663.74	7,466.38	7,165.48	300.90	24.813		
9,300.00	7,133.59	7,065.59	7,133.59	72.14	244.94	-90.26	-4,350.80	-7,663.74	7,393.78	7,090.97	302.81	24.417		
9,400.00	7,133.15	7,065.15	7,133.15	74.68	244.92	-90.26	-4,350.80	-7,663.74	7,321.83	7,017.04	304.79	24.023		
9,500.00	7,132.72	7,064.72	7,132.72	77.24	244.91	-90.25	-4,350.80	-7,663.74	7,250.54	6,943.71	306.83	23.631		
9,600.00	7,132.29	7,064.29	7,132.29	79.83	244.89	-90.25	-4,350.80	-7,663.74	7,179.93	6,871.00	308.93	23.241		
9,700.00	7,131.85	7,063.85	7,131.85	82.42	244.88	-90.24	-4,350.80	-7,663.74	7,110.03	6,798.94	311.10	22.855		
9,800.00	7,131.42	7,063.42	7,131.42	85.04	244.86	-90.24	-4,350.80	-7,663.74	7,040.86	6,727.54	313.32	22.471		
9,900.00	7,130.98	7,062.98	7,130.98	87.67	244.85	-90.23	-4,350.80	-7,663.74	6,972.43	6,656.82	315.61	22.092		
10,000.00	7,130.55	7,062.55	7,130.55	90.31	244.83	-90.23	-4,350.80	-7,663.74	6,904.78	6,586.82	317.96	21.716		
10,100.00	7,130.12	7,062.12	7,130.12	92.97	244.82	-90.22	-4,350.80	-7,663.74	6,837.92	6,517.55	320.37	21.344		
10,200.00	7,129.68	7,061.68	7,129.68	95.63	244.80	-90.22	-4,350.80	-7,663.74	6,771.87	6,449.04	322.84	20.976		
10,300.00	7,129.25	7,061.25	7,129.25	98.31	244.79	-90.21	-4,350.80	-7,663.74	6,706.67	6,381.31	325.36	20.613		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	7,060.82	7,128.82	101.00	244.77	-90.21	-4,350.80	-7,663.74	6,642.33	6,314.39	327.94	20.255		
10,500.00	7,128.38	7,060.38	7,128.38	103.69	244.75	-90.20	-4,350.80	-7,663.74	6,578.88	6,248.30	330.58	19.901		
10,600.00	7,127.95	7,059.95	7,127.95	106.39	244.74	-90.20	-4,350.80	-7,663.74	6,516.35	6,183.08	333.27	19.553		
10,700.00	7,127.51	7,059.51	7,127.51	109.10	244.72	-90.19	-4,350.80	-7,663.74	6,454.77	6,118.75	336.02	19.210		
10,800.00	7,127.08	7,059.08	7,127.08	111.82	244.71	-90.19	-4,350.80	-7,663.74	6,394.15	6,055.33	338.82	18.872		
10,900.00	7,126.65	7,058.65	7,126.65	114.54	244.69	-90.18	-4,350.80	-7,663.74	6,334.53	5,992.86	341.67	18.540		
11,000.00	7,126.21	7,058.21	7,126.21	117.27	244.68	-90.18	-4,350.80	-7,663.74	6,275.94	5,931.36	344.57	18.214		
11,100.00	7,125.78	7,057.78	7,125.78	120.01	244.66	-90.17	-4,350.80	-7,663.74	6,218.40	5,870.88	347.53	17.893		
11,200.00	7,125.35	7,057.35	7,125.35	122.75	244.65	-90.17	-4,350.80	-7,663.74	6,161.96	5,811.43	350.53	17.579		
11,300.00	7,124.91	7,056.91	7,124.91	125.49	244.63	-90.16	-4,350.80	-7,663.74	6,106.62	5,753.04	353.58	17.271		
11,400.00	7,124.48	7,056.48	7,124.48	128.24	244.62	-90.16	-4,350.80	-7,663.74	6,052.44	5,695.76	356.67	16.969		
11,500.00	7,124.04	7,056.04	7,124.04	131.00	244.60	-90.15	-4,350.80	-7,663.74	5,999.43	5,639.62	359.81	16.674		
11,600.00	7,123.61	7,055.61	7,123.61	133.75	244.59	-90.15	-4,350.80	-7,663.74	5,947.63	5,584.64	362.99	16.385		
11,700.00	7,123.18	7,055.18	7,123.18	136.52	244.57	-90.14	-4,350.80	-7,663.74	5,897.07	5,530.86	366.21	16.103		
11,800.00	7,122.74	7,054.74	7,122.74	139.28	244.56	-90.14	-4,350.80	-7,663.74	5,847.78	5,478.32	369.46	15.828		
11,900.00	7,122.31	7,054.31	7,122.31	142.05	244.54	-90.13	-4,350.80	-7,663.74	5,799.80	5,427.05	372.75	15.559		
12,000.00	7,121.88	7,053.88	7,121.88	144.82	244.53	-90.13	-4,350.80	-7,663.74	5,753.16	5,377.08	376.08	15.298		
12,100.00	7,121.44	7,053.44	7,121.44	147.59	244.51	-90.12	-4,350.80	-7,663.74	5,707.88	5,328.45	379.43	15.043		
12,200.00	7,121.01	7,053.01	7,121.01	150.37	244.50	-90.12	-4,350.80	-7,663.74	5,664.02	5,281.20	382.81	14.796		
12,300.00	7,120.57	7,052.57	7,120.57	153.15	244.48	-90.11	-4,350.80	-7,663.74	5,621.58	5,235.37	386.21	14.556		
12,400.00	7,120.14	7,052.14	7,120.14	155.93	244.47	-90.11	-4,350.80	-7,663.74	5,580.62	5,190.98	389.64	14.323		
12,500.00	7,119.71	7,051.71	7,119.71	158.72	244.45	-90.10	-4,350.80	-7,663.74	5,541.16	5,148.08	393.08	14.097		
12,600.00	7,119.27	7,051.27	7,119.27	161.50	244.44	-90.10	-4,350.80	-7,663.74	5,503.24	5,106.70	396.54	13.878		
12,700.00	7,118.84	7,050.84	7,118.84	164.29	244.42	-90.09	-4,350.80	-7,663.74	5,466.88	5,066.88	400.00	13.667		
12,800.00	7,118.41	7,050.41	7,118.41	167.08	244.41	-90.09	-4,350.80	-7,663.74	5,432.12	5,028.64	403.47	13.463		
12,900.00	7,117.97	7,049.97	7,117.97	169.88	244.39	-90.08	-4,350.80	-7,663.74	5,398.98	4,992.04	406.94	13.267		
13,000.00	7,117.54	7,049.54	7,117.54	172.67	244.38	-90.08	-4,350.80	-7,663.74	5,367.51	4,957.10	410.41	13.078		
13,100.00	7,117.10	7,049.10	7,117.10	175.47	244.36	-90.08	-4,350.80	-7,663.74	5,337.72	4,923.85	413.87	12.897		
13,200.00	7,116.67	7,048.67	7,116.67	178.27	244.35	-90.07	-4,350.80	-7,663.74	5,309.65	4,892.33	417.32	12.723		
13,300.00	7,116.24	7,048.24	7,116.24	181.07	244.33	-90.07	-4,350.80	-7,663.74	5,283.33	4,862.57	420.76	12.557		
13,400.00	7,115.80	7,047.80	7,115.80	183.87	244.32	-90.06	-4,350.80	-7,663.74	5,258.77	4,834.60	424.17	12.398		
13,500.00	7,115.37	7,047.37	7,115.37	186.67	244.30	-90.06	-4,350.80	-7,663.74	5,236.01	4,808.46	427.55	12.246		
13,600.00	7,114.93	7,046.93	7,114.93	189.47	244.29	-90.05	-4,350.80	-7,663.74	5,215.07	4,784.16	430.91	12.103		
13,700.00	7,114.50	7,046.50	7,114.50	192.28	244.27	-90.05	-4,350.80	-7,663.74	5,195.97	4,761.74	434.22	11.966		
13,800.00	7,114.07	7,046.07	7,114.07	195.09	244.26	-90.04	-4,350.80	-7,663.74	5,178.72	4,741.22	437.50	11.837		
13,900.00	7,113.63	7,045.63	7,113.63	197.89	244.24	-90.04	-4,350.80	-7,663.74	5,163.36	4,722.63	440.73	11.715		
14,000.00	7,113.20	7,045.20	7,113.20	200.70	244.22	-90.03	-4,350.80	-7,663.74	5,149.90	4,705.98	443.91	11.601		
14,100.00	7,112.77	7,044.77	7,112.77	203.51	244.21	-90.03	-4,350.80	-7,663.74	5,138.34	4,691.30	447.04	11.494		
14,200.00	7,112.33	7,044.33	7,112.33	206.32	244.19	-90.02	-4,350.80	-7,663.74	5,128.71	4,678.61	450.11	11.394		
14,300.00	7,111.90	7,043.90	7,111.90	209.13	244.18	-90.02	-4,350.80	-7,663.74	5,121.02	4,667.91	453.11	11.302		
14,400.00	7,111.46	7,043.46	7,111.46	211.95	244.16	-90.01	-4,350.80	-7,663.74	5,115.27	4,659.22	456.04	11.217		
14,500.00	7,111.03	7,043.03	7,111.03	214.76	244.15	-90.01	-4,350.80	-7,663.74	5,111.47	4,652.56	458.91	11.138		
14,600.00	7,110.60	7,042.60	7,110.60	217.58	244.13	-90.00	-4,350.80	-7,663.74	5,109.62	4,647.93	461.69	11.067		
14,644.37	7,110.40	7,042.40	7,110.40	218.83	244.13	-90.00	-4,350.80	-7,663.74	5,109.43	4,646.52	462.90	11.038 CC		
14,700.00	7,110.16	7,042.16	7,110.16	220.39	244.12	-90.00	-4,350.80	-7,663.74	5,109.73	4,645.33	464.40	11.003		
14,800.00	7,109.73	7,041.73	7,109.73	223.21	244.10	-89.99	-4,350.80	-7,663.74	5,111.80	4,644.77	467.03	10.945 ES		
14,900.00	7,109.30	7,041.30	7,109.30	226.03	244.09	-89.99	-4,350.80	-7,663.74	5,115.82	4,646.25	469.57	10.895		
14,969.16	7,109.00	7,041.00	7,109.00	227.97	244.08	-89.98	-4,350.80	-7,663.74	5,119.74	4,648.47	471.27	10.864 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-108.70	-3,033.40	-8,964.06	9,463.55					
100.00	100.00	47.00	100.00	3.28	3.38	-108.70	-3,033.40	-8,964.06	9,463.40	9,456.73	6.67	1,419.702		
200.00	200.00	147.00	200.00	3.34	4.71	-108.70	-3,033.40	-8,964.06	9,463.40	9,455.35	8.05	1,175.374		
300.00	300.00	247.00	300.00	3.44	7.62	-108.70	-3,033.40	-8,964.06	9,463.40	9,452.33	11.06	855.309		
400.00	400.00	347.00	400.00	3.60	10.87	-108.70	-3,033.40	-8,964.06	9,463.40	9,448.92	14.48	653.637		
500.00	500.00	447.00	500.00	3.81	14.24	-108.70	-3,033.40	-8,964.06	9,463.40	9,445.35	18.05	524.342		
600.00	600.00	547.00	600.00	4.05	17.66	-108.70	-3,033.40	-8,964.06	9,463.40	9,441.69	21.70	436.023		
700.00	699.98	646.98	699.98	4.32	21.10	-99.55	-3,033.40	-8,964.06	9,463.69	9,438.27	25.41	372.375		
800.00	799.84	746.84	799.84	4.62	24.55	-99.56	-3,033.40	-8,964.06	9,464.56	9,435.40	29.16	324.572		
900.00	899.45	846.45	899.45	4.94	28.00	-99.59	-3,033.40	-8,964.06	9,466.01	9,433.09	32.93	287.478		
1,000.00	998.70	945.70	998.70	5.28	31.44	-99.62	-3,033.40	-8,964.06	9,468.06	9,431.35	36.71	257.930		
1,100.00	1,097.50	1,044.50	1,097.50	5.64	34.87	-99.68	-3,033.40	-8,964.06	9,470.68	9,430.18	40.49	233.880		
1,200.00	1,196.18	1,143.18	1,196.18	6.00	38.30	-99.77	-3,033.40	-8,964.06	9,473.45	9,429.15	44.29	213.873		
1,300.00	1,294.87	1,241.87	1,294.87	6.38	41.74	-99.87	-3,033.40	-8,964.06	9,476.24	9,428.13	48.11	196.967		
1,400.00	1,393.55	1,340.55	1,393.55	6.77	45.17	-99.96	-3,033.40	-8,964.06	9,479.06	9,427.12	51.94	182.502		
1,500.00	1,492.23	1,439.23	1,492.23	7.17	48.61	-100.06	-3,033.40	-8,964.06	9,481.91	9,426.13	55.78	169.992		
1,600.00	1,590.91	1,537.91	1,590.91	7.58	52.05	-100.15	-3,033.40	-8,964.06	9,484.79	9,425.16	59.63	159.071		
1,700.00	1,689.60	1,636.60	1,689.60	8.00	55.49	-100.25	-3,033.40	-8,964.06	9,487.69	9,424.21	63.48	149.457		
1,800.00	1,788.28	1,735.28	1,788.28	8.42	58.92	-100.34	-3,033.40	-8,964.06	9,490.62	9,423.27	67.34	140.931		
1,900.00	1,886.96	1,833.96	1,886.96	8.84	62.36	-100.44	-3,033.40	-8,964.06	9,493.57	9,422.36	71.21	133.320		
2,000.00	1,985.64	1,932.64	1,985.64	9.27	65.81	-100.53	-3,033.40	-8,964.06	9,496.55	9,421.47	75.08	126.486		
2,100.00	2,084.33	2,031.33	2,084.33	9.71	69.25	-100.63	-3,033.40	-8,964.06	9,499.56	9,420.61	78.95	120.317		
2,200.00	2,183.01	2,130.01	2,183.01	10.15	72.69	-100.72	-3,033.40	-8,964.06	9,502.60	9,419.76	82.83	114.720		
2,300.00	2,281.69	2,228.69	2,281.69	10.59	76.13	-100.82	-3,033.40	-8,964.06	9,505.66	9,418.95	86.71	109.621		
2,400.00	2,380.38	2,327.38	2,380.38	11.03	79.57	-100.91	-3,033.40	-8,964.06	9,508.75	9,418.15	90.60	104.955		
2,500.00	2,479.06	2,426.06	2,479.06	11.47	83.01	-101.01	-3,033.40	-8,964.06	9,511.86	9,417.38	94.48	100.671		
2,600.00	2,577.74	2,524.74	2,577.74	11.92	86.46	-101.10	-3,033.40	-8,964.06	9,515.00	9,416.63	98.37	96.724		
2,700.00	2,676.42	2,623.42	2,676.42	12.36	89.90	-101.19	-3,033.40	-8,964.06	9,518.17	9,415.91	102.26	93.076		
2,800.00	2,775.11	2,722.11	2,775.11	12.81	93.34	-101.29	-3,033.40	-8,964.06	9,521.37	9,415.21	106.15	89.694		
2,900.00	2,873.79	2,820.79	2,873.79	13.26	96.78	-101.38	-3,033.40	-8,964.06	9,524.59	9,414.54	110.05	86.550		
3,000.00	2,972.47	2,919.47	2,972.47	13.72	100.23	-101.48	-3,033.40	-8,964.06	9,527.83	9,413.89	113.94	83.620		
3,100.00	3,071.15	3,018.15	3,071.15	14.17	103.67	-101.57	-3,033.40	-8,964.06	9,531.11	9,413.27	117.84	80.883		
3,200.00	3,169.84	3,116.84	3,169.84	14.62	107.11	-101.66	-3,033.40	-8,964.06	9,534.41	9,412.67	121.73	78.321		
3,300.00	3,268.52	3,215.52	3,268.52	15.08	110.56	-101.76	-3,033.40	-8,964.06	9,537.73	9,412.10	125.63	75.918		
3,400.00	3,367.20	3,314.20	3,367.20	15.53	114.00	-101.85	-3,033.40	-8,964.06	9,541.08	9,411.55	129.53	73.659		
3,500.00	3,465.89	3,412.89	3,465.89	15.99	117.44	-101.95	-3,033.40	-8,964.06	9,544.46	9,411.03	133.43	71.531		
3,600.00	3,564.57	3,511.57	3,564.57	16.44	120.89	-102.04	-3,033.40	-8,964.06	9,547.87	9,410.54	137.33	69.525		
3,700.00	3,663.25	3,610.25	3,663.25	16.90	124.33	-102.13	-3,033.40	-8,964.06	9,551.30	9,410.07	141.23	67.629		
3,800.00	3,761.93	3,708.93	3,761.93	17.36	127.78	-102.23	-3,033.40	-8,964.06	9,554.75	9,409.62	145.13	65.834		
3,900.00	3,860.62	3,807.62	3,860.62	17.82	131.22	-102.32	-3,033.40	-8,964.06	9,558.24	9,409.20	149.04	64.134		
4,000.00	3,959.30	3,906.30	3,959.30	18.28	134.66	-102.41	-3,033.40	-8,964.06	9,561.75	9,408.81	152.94	62.520		
4,100.00	4,057.98	4,004.98	4,057.98	18.74	138.11	-102.51	-3,033.40	-8,964.06	9,565.28	9,408.44	156.84	60.987		
4,200.00	4,156.67	4,103.67	4,156.67	19.20	141.55	-102.60	-3,033.40	-8,964.06	9,568.84	9,408.10	160.74	59.528		
4,300.00	4,255.35	4,202.35	4,255.35	19.66	145.00	-102.69	-3,033.40	-8,964.06	9,572.43	9,407.78	164.65	58.138		
4,400.00	4,354.03	4,301.03	4,354.03	20.12	148.44	-102.79	-3,033.40	-8,964.06	9,576.04	9,407.49	168.55	56.813		
4,500.00	4,452.71	4,400.29	4,452.71	20.58	151.90	-102.88	-3,033.40	-8,964.06	9,579.68	9,407.21	172.48	55.541		
4,600.00	4,551.40	4,501.60	4,551.40	21.04	155.44	-102.97	-3,033.40	-8,964.06	9,583.35	9,406.87	176.48	54.304		
4,700.00	4,650.08	4,602.92	4,650.08	21.50	158.98	-103.07	-3,033.40	-8,964.06	9,587.04	9,406.57	180.47	53.122		
4,800.00	4,748.76	4,704.24	4,748.76	21.96	162.51	-103.16	-3,033.40	-8,964.06	9,590.76	9,406.29	184.47	51.991		
4,900.00	4,847.44	4,805.56	4,847.44	22.42	166.05	-103.25	-3,033.40	-8,964.06	9,594.50	9,406.03	188.47	50.908		
5,000.00	4,946.13	4,906.87	4,946.13	22.89	169.59	-103.35	-3,033.40	-8,964.06	9,598.27	9,405.80	192.47	49.870		
5,100.00	5,044.81	5,008.19	5,044.81	23.35	173.12	-103.44	-3,033.40	-8,964.06	9,602.06	9,405.60	196.46	48.874		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,109.51	5,143.49	23.81	176.66	-103.53	-3,033.40	-8,964.06	9,605.88	9,405.42	200.46	47.918		
5,300.00	5,242.18	5,189.18	5,242.18	24.27	179.44	-103.62	-3,033.40	-8,964.06	9,609.73	9,406.02	203.71	47.174		
5,400.00	5,340.86	5,287.86	5,340.86	24.74	182.88	-103.72	-3,033.40	-8,964.06	9,613.60	9,405.99	207.61	46.305		
5,500.00	5,439.54	5,386.54	5,439.54	25.20	186.33	-103.81	-3,033.40	-8,964.06	9,617.50	9,405.98	211.52	45.468		
5,600.00	5,538.22	5,485.22	5,538.22	25.66	189.77	-103.90	-3,033.40	-8,964.06	9,621.42	9,405.99	215.43	44.662		
5,700.00	5,636.91	5,583.91	5,636.91	26.13	193.22	-103.99	-3,033.40	-8,964.06	9,625.37	9,406.03	219.34	43.884		
5,800.00	5,735.59	5,682.59	5,735.59	26.59	196.66	-104.09	-3,033.40	-8,964.06	9,629.34	9,406.10	223.24	43.134		
5,900.00	5,834.27	5,781.27	5,834.27	27.06	200.11	-104.18	-3,033.40	-8,964.06	9,633.34	9,406.19	227.15	42.409		
6,000.00	5,932.95	5,879.95	5,932.95	27.52	203.55	-104.27	-3,033.40	-8,964.06	9,637.37	9,406.31	231.06	41.709		
6,100.00	6,031.64	5,978.64	6,031.64	27.98	207.00	-104.36	-3,033.40	-8,964.06	9,641.42	9,406.45	234.97	41.033		
6,200.00	6,130.32	6,077.32	6,130.32	28.45	210.44	-104.45	-3,033.40	-8,964.06	9,645.49	9,406.62	238.88	40.378		
6,300.00	6,229.00	6,176.00	6,229.00	28.91	213.88	-104.55	-3,033.40	-8,964.06	9,649.59	9,406.81	242.79	39.745		
6,400.00	6,327.69	6,274.69	6,327.69	29.38	217.33	-104.64	-3,033.40	-8,964.06	9,653.72	9,407.03	246.69	39.132		
6,500.00	6,426.37	6,373.37	6,426.37	29.84	220.77	-104.73	-3,033.40	-8,964.06	9,657.87	9,407.27	250.60	38.538		
6,600.00	6,525.05	6,472.05	6,525.05	30.31	224.22	-104.82	-3,033.40	-8,964.06	9,662.05	9,407.54	254.51	37.963		
6,700.00	6,623.18	6,570.18	6,623.18	30.77	227.64	-104.90	-3,033.40	-8,964.06	9,659.03	9,400.62	258.40	37.380		
6,800.00	6,718.58	6,665.58	6,718.58	31.22	230.97	-104.99	-3,033.40	-8,964.06	9,641.61	9,379.42	262.19	36.773		
6,900.00	6,808.91	6,755.91	6,808.91	31.66	234.13	-105.08	-3,033.40	-8,964.06	9,610.27	9,344.48	265.78	36.159		
7,000.00	6,891.95	6,838.95	6,891.95	32.07	237.03	-105.17	-3,033.40	-8,964.06	9,565.81	9,296.71	269.10	35.547		
7,100.00	6,965.65	6,912.65	6,965.65	32.51	239.60	-105.26	-3,033.40	-8,964.06	9,509.37	9,237.30	272.07	34.951		
7,200.00	7,028.20	6,975.20	7,028.20	33.02	241.78	-105.35	-3,033.40	-8,964.06	9,442.38	9,167.73	274.65	34.380		
7,300.00	7,078.04	7,025.04	7,078.04	33.68	243.52	-105.44	-3,033.40	-8,964.06	9,366.52	9,089.75	276.77	33.842		
7,400.00	7,113.97	7,060.97	7,113.97	34.52	244.78	-105.53	-3,033.40	-8,964.06	9,283.68	9,005.27	278.41	33.346		
7,500.00	7,135.09	7,082.09	7,135.09	35.53	245.51	-105.62	-3,033.40	-8,964.06	9,195.90	8,916.37	279.53	32.898		
7,600.00	7,140.96	7,087.96	7,140.96	36.68	245.72	-105.71	-3,033.40	-8,964.06	9,105.34	8,825.22	280.12	32.506		
7,700.00	7,140.53	7,087.53	7,140.53	37.99	245.70	-105.80	-3,033.40	-8,964.06	9,014.30	8,733.78	280.51	32.135		
7,800.00	7,140.09	7,087.09	7,140.09	39.45	245.69	-105.89	-3,033.40	-8,964.06	8,923.45	8,642.49	280.96	31.761		
7,900.00	7,139.66	7,086.66	7,139.66	41.06	245.67	-105.98	-3,033.40	-8,964.06	8,832.79	8,551.34	281.45	31.383		
8,000.00	7,139.23	7,086.23	7,139.23	42.80	245.66	-106.07	-3,033.40	-8,964.06	8,742.35	8,460.35	281.99	31.002		
8,100.00	7,138.79	7,085.79	7,138.79	44.65	245.64	-106.16	-3,033.40	-8,964.06	8,652.11	8,369.52	282.59	30.617		
8,200.00	7,138.36	7,085.36	7,138.36	46.60	245.63	-106.25	-3,033.40	-8,964.06	8,562.09	8,278.85	283.24	30.229		
8,300.00	7,137.93	7,084.93	7,137.93	48.65	245.61	-106.34	-3,033.40	-8,964.06	8,472.29	8,188.35	283.94	29.838		
8,400.00	7,137.49	7,084.49	7,137.49	50.77	245.60	-106.43	-3,033.40	-8,964.06	8,382.72	8,098.02	284.70	29.444		
8,500.00	7,137.06	7,084.06	7,137.06	52.95	245.58	-106.52	-3,033.40	-8,964.06	8,293.40	8,007.88	285.51	29.047		
8,600.00	7,136.62	7,083.62	7,136.62	55.20	245.57	-106.61	-3,033.40	-8,964.06	8,204.31	7,917.94	286.38	28.649		
8,700.00	7,136.19	7,083.19	7,136.19	57.51	245.55	-106.70	-3,033.40	-8,964.06	8,115.49	7,828.19	287.30	28.248		
8,800.00	7,135.76	7,082.76	7,135.76	59.85	245.54	-106.79	-3,033.40	-8,964.06	8,026.92	7,738.65	288.27	27.845		
8,900.00	7,135.32	7,082.32	7,135.32	62.24	245.52	-106.88	-3,033.40	-8,964.06	7,938.63	7,649.33	289.31	27.440		
9,000.00	7,134.89	7,081.89	7,134.89	64.67	245.51	-106.97	-3,033.40	-8,964.06	7,850.62	7,560.23	290.39	27.034		
9,100.00	7,134.45	7,081.45	7,134.45	67.13	245.49	-107.06	-3,033.40	-8,964.06	7,762.90	7,471.36	291.54	26.627		
9,200.00	7,134.02	7,081.02	7,134.02	69.62	245.48	-107.15	-3,033.40	-8,964.06	7,675.48	7,382.74	292.74	26.220		
9,300.00	7,133.59	7,080.59	7,133.59	72.14	245.46	-107.24	-3,033.40	-8,964.06	7,588.37	7,294.37	294.00	25.811		
9,400.00	7,133.15	7,080.15	7,133.15	74.68	245.45	-107.33	-3,033.40	-8,964.06	7,501.58	7,206.27	295.31	25.402		
9,500.00	7,132.72	7,079.72	7,132.72	77.24	245.43	-107.42	-3,033.40	-8,964.06	7,415.12	7,118.44	296.68	24.993		
9,600.00	7,132.29	7,079.29	7,132.29	79.83	245.41	-107.51	-3,033.40	-8,964.06	7,329.01	7,030.89	298.11	24.585		
9,700.00	7,131.85	7,078.85	7,131.85	82.42	245.40	-107.60	-3,033.40	-8,964.06	7,243.25	6,943.65	299.60	24.176		
9,800.00	7,131.42	7,078.42	7,131.42	85.04	245.38	-107.69	-3,033.40	-8,964.06	7,157.87	6,856.72	301.15	23.768		
9,900.00	7,130.98	7,077.98	7,130.98	87.67	245.37	-107.78	-3,033.40	-8,964.06	7,072.87	6,770.11	302.76	23.361		
10,000.00	7,130.55	7,077.55	7,130.55	90.31	245.35	-107.87	-3,033.40	-8,964.06	6,988.26	6,683.84	304.43	22.956		
10,100.00	7,130.12	7,077.12	7,130.12	92.97	245.34	-107.96	-3,033.40	-8,964.06	6,904.07	6,597.91	306.15	22.551		
10,200.00	7,129.68	7,076.68	7,129.68	95.63	245.32	-108.05	-3,033.40	-8,964.06	6,820.30	6,512.36	307.94	22.148		
10,300.00	7,129.25	7,076.25	7,129.25	98.31	245.31	-108.14	-3,033.40	-8,964.06	6,736.98	6,427.18	309.79	21.747		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +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)				
10,400.00	7,128.82	7,075.82	7,128.82	101.00	245.29	-90.36	-3,033.40	-8,964.06	6,654.11	6,342.41	311.71	21.347		
10,500.00	7,128.38	7,075.38	7,128.38	103.69	245.28	-90.36	-3,033.40	-8,964.06	6,571.73	6,258.04	313.68	20.950		
10,600.00	7,127.95	7,074.95	7,127.95	106.39	245.26	-90.35	-3,033.40	-8,964.06	6,489.83	6,174.11	315.72	20.555		
10,700.00	7,127.51	7,074.51	7,127.51	109.10	245.25	-90.34	-3,033.40	-8,964.06	6,408.45	6,090.62	317.83	20.163		
10,800.00	7,127.08	7,074.08	7,127.08	111.82	245.23	-90.34	-3,033.40	-8,964.06	6,327.61	6,007.61	320.00	19.774		
10,900.00	7,126.65	7,073.65	7,126.65	114.54	245.22	-90.33	-3,033.40	-8,964.06	6,247.32	5,925.08	322.24	19.387		
11,000.00	7,126.21	7,073.21	7,126.21	117.27	245.20	-90.32	-3,033.40	-8,964.06	6,167.60	5,843.06	324.54	19.004		
11,100.00	7,125.78	7,072.78	7,125.78	120.01	245.19	-90.32	-3,033.40	-8,964.06	6,088.49	5,761.57	326.91	18.624		
11,200.00	7,125.35	7,072.35	7,125.35	122.75	245.17	-90.31	-3,033.40	-8,964.06	6,010.00	5,680.64	329.36	18.248		
11,300.00	7,124.91	7,071.91	7,124.91	125.49	245.16	-90.30	-3,033.40	-8,964.06	5,932.15	5,600.28	331.87	17.875		
11,400.00	7,124.48	7,071.48	7,124.48	128.24	245.14	-90.30	-3,033.40	-8,964.06	5,854.98	5,520.52	334.45	17.506		
11,500.00	7,124.04	7,071.04	7,124.04	131.00	245.13	-90.29	-3,033.40	-8,964.06	5,778.50	5,441.40	337.11	17.142		
11,600.00	7,123.61	7,070.61	7,123.61	133.75	245.11	-90.29	-3,033.40	-8,964.06	5,702.76	5,362.93	339.83	16.781		
11,700.00	7,123.18	7,070.18	7,123.18	136.52	245.10	-90.28	-3,033.40	-8,964.06	5,627.77	5,285.14	342.63	16.425		
11,800.00	7,122.74	7,069.74	7,122.74	139.28	245.08	-90.27	-3,033.40	-8,964.06	5,553.57	5,208.07	345.51	16.074		
11,900.00	7,122.31	7,069.31	7,122.31	142.05	245.07	-90.27	-3,033.40	-8,964.06	5,480.19	5,131.74	348.45	15.727		
12,000.00	7,121.88	7,068.88	7,121.88	144.82	245.05	-90.26	-3,033.40	-8,964.06	5,407.66	5,056.19	351.48	15.386		
12,100.00	7,121.44	7,068.44	7,121.44	147.59	245.04	-90.25	-3,033.40	-8,964.06	5,336.03	4,981.45	354.57	15.049		
12,200.00	7,121.01	7,068.01	7,121.01	150.37	245.02	-90.25	-3,033.40	-8,964.06	5,265.31	4,907.57	357.75	14.718		
12,300.00	7,120.57	7,067.57	7,120.57	153.15	245.01	-90.24	-3,033.40	-8,964.06	5,195.56	4,834.57	361.00	14.392		
12,400.00	7,120.14	7,067.14	7,120.14	155.93	244.99	-90.23	-3,033.40	-8,964.06	5,126.81	4,762.49	364.32	14.072		
12,500.00	7,119.71	7,066.71	7,119.71	158.72	244.98	-90.23	-3,033.40	-8,964.06	5,059.11	4,691.39	367.72	13.758		
12,600.00	7,119.27	7,066.27	7,119.27	161.50	244.96	-90.22	-3,033.40	-8,964.06	4,992.49	4,621.29	371.19	13.450		
12,700.00	7,118.84	7,065.84	7,118.84	164.29	244.95	-90.21	-3,033.40	-8,964.06	4,926.99	4,552.25	374.74	13.148		
12,800.00	7,118.41	7,065.41	7,118.41	167.08	244.93	-90.21	-3,033.40	-8,964.06	4,862.68	4,484.31	378.36	12.852		
12,900.00	7,117.97	7,064.97	7,117.97	169.88	244.92	-90.20	-3,033.40	-8,964.06	4,799.58	4,417.53	382.05	12.563		
13,000.00	7,117.54	7,064.54	7,117.54	172.67	244.90	-90.19	-3,033.40	-8,964.06	4,737.75	4,351.94	385.81	12.280		
13,100.00	7,117.10	7,064.10	7,117.10	175.47	244.88	-90.19	-3,033.40	-8,964.06	4,677.25	4,287.61	389.64	12.004		
13,200.00	7,116.67	7,063.67	7,116.67	178.27	244.87	-90.18	-3,033.40	-8,964.06	4,618.12	4,224.58	393.53	11.735		
13,300.00	7,116.24	7,063.24	7,116.24	181.07	244.85	-90.17	-3,033.40	-8,964.06	4,560.41	4,162.92	397.49	11.473		
13,400.00	7,115.80	7,062.80	7,115.80	183.87	244.84	-90.17	-3,033.40	-8,964.06	4,504.18	4,102.69	401.50	11.219		
13,500.00	7,115.37	7,062.37	7,115.37	186.67	244.82	-90.16	-3,033.40	-8,964.06	4,449.50	4,043.94	405.56	10.971		
13,600.00	7,114.93	7,061.93	7,114.93	189.47	244.81	-90.15	-3,033.40	-8,964.06	4,396.40	3,986.73	409.67	10.731		
13,700.00	7,114.50	7,061.50	7,114.50	192.28	244.79	-90.15	-3,033.40	-8,964.06	4,344.96	3,931.13	413.83	10.499		
13,800.00	7,114.07	7,061.07	7,114.07	195.09	244.78	-90.14	-3,033.40	-8,964.06	4,295.24	3,877.21	418.02	10.275		
13,900.00	7,113.63	7,060.63	7,113.63	197.89	244.76	-90.13	-3,033.40	-8,964.06	4,247.28	3,825.03	422.25	10.059		
14,000.00	7,113.20	7,060.20	7,113.20	200.70	244.75	-90.13	-3,033.40	-8,964.06	4,201.16	3,774.66	426.50	9.850		
14,100.00	7,112.77	7,059.77	7,112.77	203.51	244.73	-90.12	-3,033.40	-8,964.06	4,156.93	3,726.17	430.77	9.650		
14,200.00	7,112.33	7,059.33	7,112.33	206.32	244.72	-90.11	-3,033.40	-8,964.06	4,114.66	3,679.62	435.04	9.458		
14,300.00	7,111.90	7,058.90	7,111.90	209.13	244.70	-90.11	-3,033.40	-8,964.06	4,074.40	3,635.09	439.31	9.275		
14,400.00	7,111.46	7,058.46	7,111.46	211.95	244.69	-90.10	-3,033.40	-8,964.06	4,036.22	3,592.65	443.57	9.099		
14,500.00	7,111.03	7,058.03	7,111.03	214.76	244.67	-90.09	-3,033.40	-8,964.06	4,000.18	3,552.37	447.81	8.933		
14,600.00	7,110.60	7,057.60	7,110.60	217.58	244.66	-90.09	-3,033.40	-8,964.06	3,966.33	3,514.31	452.02	8.775		
14,700.00	7,110.16	7,057.16	7,110.16	220.39	244.64	-90.08	-3,033.40	-8,964.06	3,934.73	3,478.54	456.19	8.625		
14,800.00	7,109.73	7,056.73	7,109.73	223.21	244.63	-90.07	-3,033.40	-8,964.06	3,905.44	3,445.14	460.30	8.485		
14,900.00	7,109.30	7,056.30	7,109.30	226.03	244.61	-90.07	-3,033.40	-8,964.06	3,878.50	3,414.16	464.34	8.353		
14,969.16	7,109.00	7,056.00	7,109.00	227.97	244.60	-90.06	-3,033.40	-8,964.06	3,861.28	3,394.18	467.10	8.267	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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	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: 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	-108.44	-3,000.24	-8,996.32	9,483.48					
100.00	100.00	28.45	64.45	3.28	3.28	-108.44	-3,000.30	-8,996.35	9,483.54	9,476.97	6.57	1,444.498		
200.00	200.00	72.90	108.90	3.34	3.28	-108.45	-3,000.64	-8,996.55	9,484.20	9,477.58	6.62	1,432.537		
300.00	300.00	121.00	156.99	3.44	3.29	-108.45	-3,001.33	-8,996.97	9,485.46	9,478.72	6.73	1,408.565		
400.00	400.00	162.69	198.67	3.60	3.31	-108.45	-3,002.05	-8,997.55	9,487.29	9,480.38	6.91	1,372.661		
500.00	500.00	208.00	243.97	3.81	3.34	-108.45	-3,002.78	-8,998.45	9,489.70	9,482.56	7.15	1,327.962		
600.00	600.00	208.00	243.97	4.05	3.34	-108.45	-3,002.78	-8,998.45	9,492.93	9,485.54	7.39	1,284.707		
700.00	699.98	256.28	292.21	4.32	3.39	-99.22	-3,003.38	-9,000.03	9,496.97	9,489.27	7.71	1,232.320		
800.00	799.84	300.00	335.88	4.62	3.44	-99.13	-3,003.68	-9,002.25	9,502.59	9,494.53	8.06	1,179.579		
900.00	899.45	300.00	335.88	4.94	3.44	-98.99	-3,003.68	-9,002.25	9,509.39	9,501.01	8.38	1,135.244		
1,000.00	998.70	300.00	335.88	5.28	3.44	-98.83	-3,003.68	-9,002.25	9,517.78	9,509.07	8.72	1,091.995		
1,100.00	1,097.50	354.96	390.70	5.64	3.52	-98.75	-3,003.59	-9,006.09	9,527.09	9,517.95	9.15	1,041.522		
1,200.00	1,196.18	391.00	426.60	6.00	3.59	-98.77	-3,003.20	-9,009.25	9,537.50	9,527.93	9.57	996.131		
1,300.00	1,294.87	391.00	426.60	6.38	3.59	-98.77	-3,003.20	-9,009.25	9,548.68	9,538.73	9.96	959.048		
1,400.00	1,393.55	431.72	467.10	6.77	3.67	-98.80	-3,002.43	-9,013.43	9,560.57	9,550.15	10.42	917.392		
1,500.00	1,492.23	481.00	516.00	7.17	3.78	-98.83	-3,000.99	-9,019.34	9,573.37	9,562.45	10.92	876.731		
1,600.00	1,590.91	481.00	516.00	7.58	3.78	-98.83	-3,000.99	-9,019.34	9,586.71	9,575.38	11.32	846.563		
1,700.00	1,689.60	511.81	546.51	8.00	3.86	-98.84	-2,999.85	-9,023.47	9,600.90	9,589.09	11.80	813.378		
1,800.00	1,788.28	539.66	574.05	8.42	3.93	-98.86	-2,998.72	-9,027.48	9,615.82	9,603.54	12.28	782.820		
1,900.00	1,886.96	572.00	605.97	8.84	4.02	-98.87	-2,997.28	-9,032.43	9,631.48	9,618.70	12.78	753.598		
2,000.00	1,985.64	572.00	605.97	9.27	4.02	-98.87	-2,997.28	-9,032.43	9,647.96	9,634.76	13.20	730.966		
2,100.00	2,084.33	572.00	605.97	9.71	4.02	-98.87	-2,997.28	-9,032.43	9,665.44	9,651.82	13.62	709.723		
2,200.00	2,183.01	635.66	668.62	10.15	4.23	-98.89	-2,994.23	-9,043.29	9,683.01	9,668.79	14.22	680.976		
2,300.00	2,281.69	693.00	724.80	10.59	4.44	-98.91	-2,991.29	-9,054.40	9,702.01	9,687.20	14.82	654.843		
2,400.00	2,380.38	693.00	724.80	11.03	4.44	-98.91	-2,991.29	-9,054.40	9,721.26	9,706.03	15.24	638.019		
2,500.00	2,479.06	693.00	724.80	11.47	4.44	-98.91	-2,991.29	-9,054.40	9,741.50	9,725.85	15.66	622.183		
2,600.00	2,577.74	728.26	759.24	11.92	4.58	-98.92	-2,989.53	-9,061.78	9,762.47	9,746.28	16.19	602.816		
2,700.00	2,676.42	761.00	791.15	12.36	4.72	-98.93	-2,988.06	-9,068.93	9,784.21	9,767.48	16.73	584.931		
2,800.00	2,775.11	787.93	817.36	12.81	4.84	-98.93	-2,986.81	-9,075.02	9,806.61	9,789.36	17.25	568.526		
2,900.00	2,873.79	828.11	856.35	13.26	5.03	-98.94	-2,984.55	-9,084.43	9,829.61	9,811.79	17.82	551.674		
3,000.00	2,972.47	855.00	882.38	13.72	5.16	-98.95	-2,982.78	-9,090.95	9,853.19	9,834.85	18.33	537.462		
3,100.00	3,071.15	855.00	882.38	14.17	5.16	-98.95	-2,982.78	-9,090.95	9,877.63	9,858.89	18.74	526.951		
3,200.00	3,169.84	909.83	935.25	14.62	5.46	-98.95	-2,978.89	-9,104.93	9,902.40	9,883.02	19.38	510.845		
3,300.00	3,268.52	949.00	972.84	15.08	5.67	-98.95	-2,976.03	-9,115.55	9,928.15	9,908.18	19.97	497.174		
3,400.00	3,367.20	969.00	991.98	15.53	5.79	-98.95	-2,974.50	-9,121.13	9,954.48	9,934.01	20.47	486.343		
3,500.00	3,465.89	1,030.83	1,051.01	15.99	6.17	-98.94	-2,969.11	-9,138.75	9,981.28	9,960.11	21.17	471.474		
8,500.00	7,137.06	7,251.00	6,871.80	52.95	57.50	-85.82	-2,427.35	-11,005.90	9,909.65	9,829.29	80.36	123.315		
8,600.00	7,136.62	7,251.72	6,872.52	55.20	57.50	-85.83	-2,427.36	-11,005.91	9,814.65	9,733.72	80.93	121.273		
8,700.00	7,136.19	7,252.45	6,873.25	57.51	57.50	-85.85	-2,427.38	-11,005.93	9,719.75	9,638.22	81.53	119.213		
8,800.00	7,135.76	7,253.18	6,873.98	59.85	57.50	-85.86	-2,427.40	-11,005.94	9,624.96	9,542.79	82.17	117.137		
8,900.00	7,135.32	7,253.92	6,874.72	62.24	57.51	-85.88	-2,427.41	-11,005.96	9,530.27	9,447.43	82.84	115.047		
9,000.00	7,134.89	7,254.67	6,875.46	64.67	57.51	-85.89	-2,427.43	-11,005.97	9,435.69	9,352.15	83.54	112.946		
9,100.00	7,134.45	7,255.42	6,876.22	67.13	57.51	-85.90	-2,427.44	-11,005.99	9,341.22	9,256.94	84.28	110.835		
9,200.00	7,134.02	7,256.18	6,876.98	69.62	57.51	-85.92	-2,427.46	-11,006.01	9,246.87	9,161.81	85.05	108.717		
9,300.00	7,133.59	7,256.95	6,877.75	72.14	57.51	-85.93	-2,427.48	-11,006.02	9,152.64	9,066.77	85.87	106.593		
9,400.00	7,133.15	7,257.73	6,878.52	74.68	57.52	-85.95	-2,427.49	-11,006.04	9,058.53	8,971.82	86.71	104.466		
9,500.00	7,132.72	7,258.51	6,879.31	77.24	57.52	-85.96	-2,427.51	-11,006.06	8,964.55	8,876.95	87.60	102.338		
9,600.00	7,132.29	7,259.30	6,880.10	79.83	57.52	-85.98	-2,427.53	-11,006.07	8,870.70	8,782.18	88.52	100.211		
9,700.00	7,131.85	7,260.10	6,880.90	82.42	57.52	-85.99	-2,427.54	-11,006.09	8,776.99	8,687.51	89.48	98.088		
9,800.00	7,131.42	7,260.91	6,881.71	85.04	57.52	-86.01	-2,427.56	-11,006.11	8,683.41	8,592.93	90.48	95.969		
9,900.00	7,130.98	7,261.73	6,882.53	87.67	57.52	-86.02	-2,427.58	-11,006.13	8,589.99	8,498.46	91.52	93.858		
10,000.00	7,130.55	7,262.56	6,883.35	90.31	57.53	-86.04	-2,427.60	-11,006.14	8,496.71	8,404.10	92.60	91.755		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,100.00	7,130.12	7,263.39	6,884.19	92.97	57.53	-86.05	-2,427.62	-11,006.16	8,403.58	8,309.86	93.72	89.663		
10,200.00	7,129.68	7,264.23	6,885.03	95.63	57.53	-86.07	-2,427.64	-11,006.18	8,310.62	8,215.73	94.89	87.583		
10,300.00	7,129.25	7,265.08	6,885.88	98.31	57.53	-86.08	-2,427.65	-11,006.20	8,217.82	8,121.72	96.09	85.518		
10,400.00	7,128.82	7,265.95	6,886.74	101.00	57.53	-86.10	-2,427.67	-11,006.22	8,125.19	8,027.84	97.34	83.469		
10,500.00	7,128.38	7,266.82	6,887.61	103.69	57.54	-86.12	-2,427.69	-11,006.24	8,032.73	7,934.09	98.64	81.436		
10,600.00	7,127.95	7,267.69	6,888.49	106.39	57.54	-86.13	-2,427.71	-11,006.26	7,940.46	7,840.49	99.98	79.423		
10,700.00	7,127.51	7,268.58	6,889.37	109.10	57.54	-86.15	-2,427.73	-11,006.28	7,848.38	7,747.02	101.36	77.429		
10,800.00	7,127.08	7,269.48	6,890.27	111.82	57.54	-86.16	-2,427.75	-11,006.30	7,756.50	7,653.70	102.79	75.456		
10,900.00	7,126.65	7,270.39	6,891.18	114.54	57.55	-86.18	-2,427.77	-11,006.32	7,664.81	7,560.54	104.27	73.506		
11,000.00	7,126.21	7,271.31	6,892.10	117.27	57.55	-86.20	-2,427.80	-11,006.34	7,573.34	7,467.54	105.80	71.580		
11,100.00	7,125.78	7,272.23	6,893.02	120.01	57.55	-86.22	-2,427.82	-11,006.36	7,482.09	7,374.71	107.38	69.678		
11,200.00	7,125.35	7,273.17	6,893.96	122.75	57.55	-86.23	-2,427.84	-11,006.39	7,391.06	7,282.05	109.01	67.801		
11,300.00	7,124.91	7,274.12	6,894.91	125.49	57.55	-86.25	-2,427.86	-11,006.41	7,300.27	7,189.57	110.69	65.951		
11,400.00	7,124.48	7,275.08	6,895.87	128.24	57.56	-86.27	-2,427.88	-11,006.43	7,209.72	7,097.29	112.43	64.128		
11,500.00	7,124.04	7,276.05	6,896.84	131.00	57.56	-86.29	-2,427.91	-11,006.45	7,119.42	7,005.20	114.22	62.333		
11,600.00	7,123.61	7,277.03	6,897.82	133.75	57.56	-86.31	-2,427.93	-11,006.48	7,029.38	6,913.32	116.06	60.566		
11,700.00	7,123.18	7,278.02	6,898.81	136.52	57.56	-86.32	-2,427.95	-11,006.50	6,939.62	6,821.66	117.96	58.828		
11,800.00	7,122.74	7,279.02	6,899.81	139.28	57.57	-86.34	-2,427.98	-11,006.52	6,850.14	6,730.22	119.93	57.120		
11,900.00	7,122.31	7,280.04	6,900.82	142.05	57.57	-86.36	-2,428.00	-11,006.55	6,760.96	6,639.01	121.95	55.442		
12,000.00	7,121.88	7,281.06	6,901.85	144.82	57.57	-86.38	-2,428.03	-11,006.57	6,672.08	6,548.05	124.03	53.794		
12,100.00	7,121.44	7,282.10	6,902.89	147.59	57.57	-86.40	-2,428.05	-11,006.60	6,583.52	6,457.34	126.18	52.177		
12,200.00	7,121.01	7,283.15	6,903.94	150.37	57.58	-86.42	-2,428.08	-11,006.62	6,495.29	6,366.90	128.39	50.592		
12,300.00	7,120.57	7,284.21	6,905.00	153.15	57.58	-86.44	-2,428.10	-11,006.65	6,407.41	6,276.74	130.66	49.037		
12,400.00	7,120.14	7,285.29	6,906.07	155.93	57.58	-86.46	-2,428.13	-11,006.68	6,319.89	6,186.88	133.01	47.514		
12,500.00	7,119.71	7,286.38	6,907.16	158.72	57.58	-86.48	-2,428.16	-11,006.70	6,232.74	6,097.31	135.43	46.023		
12,600.00	7,119.27	7,287.48	6,908.26	161.50	57.59	-86.50	-2,428.18	-11,006.73	6,145.98	6,008.07	137.92	44.563		
12,700.00	7,118.84	7,288.59	6,909.37	164.29	57.59	-86.52	-2,428.21	-11,006.76	6,059.64	5,919.16	140.48	43.136		
12,800.00	7,118.41	7,289.72	6,910.50	167.08	57.59	-86.54	-2,428.24	-11,006.79	5,973.71	5,830.60	143.12	41.740		
12,900.00	7,117.97	7,290.86	6,911.64	169.88	57.59	-86.56	-2,428.27	-11,006.82	5,888.23	5,742.40	145.83	40.377		
13,000.00	7,117.54	7,292.02	6,912.79	172.67	57.60	-86.58	-2,428.30	-11,006.85	5,803.22	5,654.59	148.63	39.045		
13,100.00	7,117.10	7,293.18	6,913.96	175.47	57.60	-86.61	-2,428.33	-11,006.88	5,718.69	5,567.18	151.51	37.745		
13,200.00	7,116.67	7,294.37	6,915.15	178.27	57.60	-86.63	-2,428.36	-11,006.91	5,634.66	5,480.19	154.47	36.477		
13,300.00	7,116.24	7,295.57	6,916.34	181.07	57.61	-86.65	-2,428.39	-11,006.94	5,551.17	5,393.65	157.52	35.241		
13,400.00	7,115.80	7,296.78	6,917.56	183.87	57.61	-86.67	-2,428.42	-11,006.97	5,468.22	5,307.57	160.66	34.036		
13,500.00	7,115.37	7,298.01	6,918.78	186.67	57.61	-86.70	-2,428.45	-11,007.00	5,385.86	5,221.97	163.89	32.863		
13,600.00	7,114.93	7,299.25	6,920.03	189.47	57.62	-86.72	-2,428.48	-11,007.03	5,304.10	5,136.89	167.21	31.721		
13,700.00	7,114.50	7,300.51	6,921.29	192.28	57.62	-86.74	-2,428.52	-11,007.07	5,222.98	5,052.35	170.63	30.610		
13,800.00	7,114.07	7,301.79	6,922.56	195.09	57.62	-86.77	-2,428.55	-11,007.10	5,142.52	4,968.38	174.14	29.530		
13,900.00	7,113.63	7,303.08	6,923.85	197.89	57.62	-86.79	-2,428.58	-11,007.13	5,062.76	4,885.00	177.76	28.481		
14,000.00	7,113.20	7,304.39	6,925.16	200.70	57.63	-86.81	-2,428.62	-11,007.17	4,983.73	4,802.25	181.47	27.463		
14,100.00	7,112.77	7,305.72	6,926.49	203.51	57.63	-86.84	-2,428.66	-11,007.21	4,905.46	4,720.17	185.29	26.474		
14,200.00	7,112.33	7,307.06	6,927.83	206.32	57.63	-86.86	-2,428.69	-11,007.24	4,827.99	4,638.78	189.21	25.516		
14,300.00	7,111.90	7,308.43	6,929.19	209.13	57.64	-86.89	-2,428.73	-11,007.28	4,751.37	4,558.12	193.24	24.588		
14,400.00	7,111.46	7,309.81	6,930.57	211.95	57.64	-86.91	-2,428.77	-11,007.32	4,675.62	4,478.24	197.38	23.689		
14,500.00	7,111.03	7,311.21	6,931.97	214.76	57.64	-86.94	-2,428.80	-11,007.36	4,600.80	4,399.18	201.62	22.819		
14,600.00	7,110.60	7,312.62	6,933.39	217.58	57.65	-86.97	-2,428.84	-11,007.39	4,526.96	4,320.98	205.98	21.978		
14,700.00	7,110.16	7,314.06	6,934.82	220.39	57.65	-86.99	-2,428.88	-11,007.43	4,454.13	4,243.69	210.44	21.166		
14,800.00	7,109.73	7,315.52	6,936.28	223.21	57.65	-87.02	-2,428.92	-11,007.48	4,382.38	4,167.37	215.01	20.382		
14,900.00	7,109.30	7,316.99	6,937.76	226.03	57.66	-87.05	-2,428.96	-11,007.52	4,311.75	4,092.06	219.69	19.626		
14,969.16	7,109.00	7,318.03	6,938.79	227.97	57.66	-87.07	-2,428.99	-11,007.55	4,263.59	4,040.59	222.99	19.120 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-32-12(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 120-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	36.00	3.28	3.28	-108.45	-2,991.15	-8,963.77	9,449.73					
100.00	100.00	0.00	36.00	3.28	3.28	-108.45	-2,991.15	-8,963.77	9,449.88	9,443.31	6.56	1,439.457		
200.00	200.00	56.44	92.44	3.34	3.28	-108.46	-2,991.50	-8,963.99	9,450.59	9,443.97	6.62	1,427.657		
300.00	300.00	577.00	612.23	3.44	3.96	-108.37	-2,976.94	-8,962.86	9,449.47	9,442.06	7.42	1,274.290		
400.00	400.00	607.48	642.48	3.60	4.04	-108.35	-2,973.22	-8,963.18	9,446.55	9,438.90	7.65	1,234.945		
500.00	500.00	667.00	701.45	3.81	4.21	-108.30	-2,965.29	-8,964.59	9,444.43	9,436.42	8.02	1,178.021		
600.00	600.00	703.41	737.46	4.05	4.32	-108.27	-2,960.03	-8,965.79	9,442.78	9,434.41	8.37	1,128.420		
700.00	699.98	908.24	939.26	4.32	5.07	-98.96	-2,925.72	-8,972.80	9,441.05	9,431.66	9.39	1,005.663		
800.00	799.84	1,016.07	1,044.78	4.62	5.54	-98.90	-2,903.93	-8,977.00	9,439.25	9,429.10	10.15	929.689		
900.00	899.45	1,132.71	1,157.98	4.94	6.11	-98.82	-2,876.43	-8,982.73	9,437.94	9,426.90	11.04	854.602		
1,000.00	998.70	1,204.21	1,226.83	5.28	6.51	-98.76	-2,857.62	-8,986.92	9,437.22	9,425.45	11.77	801.706		
1,059.13	1,057.20	1,255.01	1,275.47	5.49	6.80	-98.72	-2,843.38	-8,990.29	9,437.15	9,424.87	12.27	768.900		
1,100.00	1,097.50	1,297.79	1,316.22	5.64	7.06	-98.68	-2,830.72	-8,993.35	9,437.23	9,424.55	12.68	744.296		
1,200.00	1,196.18	1,392.08	1,405.31	6.00	7.68	-98.59	-2,800.75	-9,000.78	9,437.38	9,423.72	13.66	690.770		
1,300.00	1,294.87	1,443.63	1,453.61	6.38	8.04	-98.52	-2,783.30	-9,005.28	9,437.79	9,423.39	14.40	655.348		
1,400.00	1,393.55	1,480.25	1,487.80	6.77	8.30	-98.48	-2,770.66	-9,008.82	9,438.86	9,423.80	15.06	626.887		
1,500.00	1,492.23	1,521.68	1,526.35	7.17	8.60	-98.43	-2,756.14	-9,013.19	9,440.60	9,424.84	15.76	598.995		
1,600.00	1,590.91	1,595.69	1,594.95	7.58	9.16	-98.33	-2,729.62	-9,021.46	9,442.78	9,426.04	16.73	564.272		
1,700.00	1,689.60	1,653.28	1,648.07	8.00	9.62	-98.24	-2,708.44	-9,028.26	9,445.33	9,427.72	17.61	536.426		
1,800.00	1,788.28	1,701.00	1,691.87	8.42	10.01	-98.17	-2,690.46	-9,034.24	9,448.38	9,429.96	18.41	513.127		
1,900.00	1,886.96	1,761.65	1,747.22	8.84	10.52	-98.08	-2,667.04	-9,042.31	9,451.92	9,432.57	19.35	488.379		
2,000.00	1,985.64	1,910.89	1,882.18	9.27	11.84	-97.83	-2,606.83	-9,063.15	9,455.71	9,434.60	21.11	447.886		
2,100.00	2,084.33	1,989.00	1,952.35	9.71	12.57	-97.69	-2,574.29	-9,074.03	9,459.12	9,436.86	22.27	424.809		
2,200.00	2,183.01	2,046.73	2,004.09	10.15	13.11	-97.59	-2,550.05	-9,082.29	9,462.92	9,439.67	23.25	407.066		
2,300.00	2,281.69	2,140.26	2,087.85	10.59	14.00	-97.42	-2,510.80	-9,096.15	9,467.22	9,442.64	24.58	385.173		
2,400.00	2,380.38	2,236.42	2,173.82	11.03	14.94	-97.25	-2,470.08	-9,110.20	9,471.34	9,445.38	25.95	364.938		
2,500.00	2,479.06	2,299.12	2,229.79	11.47	15.55	-97.13	-2,443.44	-9,119.57	9,475.81	9,448.80	27.01	350.855		
2,600.00	2,577.74	2,369.00	2,292.24	11.92	16.24	-97.01	-2,413.95	-9,130.27	9,480.77	9,452.63	28.14	336.936		
2,700.00	2,676.42	2,400.78	2,320.66	12.36	16.55	-96.95	-2,400.64	-9,135.26	9,486.22	9,457.33	28.89	328.351		
2,800.00	2,775.11	2,464.00	2,377.22	12.81	17.18	-96.84	-2,374.35	-9,145.57	9,492.37	9,462.42	29.96	316.858		
2,900.00	2,873.79	2,513.90	2,421.89	13.26	17.67	-96.75	-2,353.72	-9,153.89	9,498.98	9,468.08	30.89	307.480		
3,000.00	2,972.47	2,594.79	2,494.36	13.72	18.48	-96.61	-2,320.40	-9,167.32	9,505.78	9,473.65	32.14	295.769		
3,100.00	3,071.15	2,853.53	2,725.81	14.17	21.08	-96.14	-2,212.72	-9,209.41	9,512.71	9,477.50	35.21	270.194		
3,200.00	3,169.84	2,913.29	2,778.66	14.62	21.70	-96.03	-2,186.47	-9,218.91	9,518.36	9,482.09	36.28	262.381		
3,300.00	3,268.52	2,978.51	2,836.43	15.08	22.38	-95.91	-2,158.12	-9,229.43	9,524.46	9,487.06	37.40	254.698		
3,400.00	3,367.20	3,199.79	3,034.53	15.53	24.63	-95.52	-2,065.41	-9,263.00	9,530.10	9,489.99	40.11	237.621		
3,500.00	3,465.89	3,255.27	3,083.90	15.99	25.20	-95.41	-2,041.51	-9,271.31	9,535.42	9,494.30	41.12	231.889		
3,600.00	3,564.57	3,316.00	3,138.23	16.44	25.82	-95.31	-2,016.01	-9,280.61	9,541.34	9,499.15	42.19	226.160		
3,700.00	3,663.25	3,435.40	3,245.54	16.90	27.02	-95.10	-1,966.82	-9,298.52	9,547.27	9,503.43	43.84	217.777		
3,800.00	3,761.93	3,503.00	3,306.45	17.36	27.70	-94.99	-1,939.33	-9,308.72	9,553.45	9,508.49	44.96	212.483		
3,900.00	3,860.62	3,556.51	3,354.66	17.82	28.24	-94.90	-1,917.63	-9,316.98	9,560.04	9,514.09	45.94	208.097		
4,000.00	3,959.30	3,684.30	3,469.57	18.28	29.52	-94.68	-1,865.36	-9,336.81	9,566.81	9,519.13	47.68	200.652		
4,100.00	4,057.98	3,770.20	3,546.99	18.74	30.38	-94.53	-1,830.51	-9,349.86	9,573.40	9,524.42	48.98	195.441		
4,200.00	4,156.67	4,200.00	3,652.79	19.20	34.70	-94.34	-1,782.89	-9,367.55	9,579.94	9,526.21	53.73	178.302		
4,300.00	4,255.35	3,946.01	3,704.94	19.66	32.17	-94.23	-1,758.11	-9,376.62	9,586.67	9,535.01	51.66	185.561		
4,400.00	4,354.03	3,995.24	3,748.49	20.12	32.70	-94.14	-1,736.62	-9,384.68	9,593.97	9,541.35	52.62	182.309		
4,500.00	4,452.71	4,045.03	3,792.19	20.58	33.24	-94.04	-1,714.32	-9,393.18	9,601.82	9,548.21	53.61	179.118		
4,600.00	4,551.40	4,104.10	3,843.58	21.04	33.90	-93.92	-1,687.17	-9,403.68	9,610.20	9,555.49	54.70	175.680		
4,700.00	4,650.08	4,165.00	3,896.12	21.50	34.60	-93.79	-1,658.45	-9,414.81	9,618.96	9,563.13	55.83	172.288		
4,800.00	4,748.76	4,212.39	3,936.79	21.96	35.15	-93.69	-1,635.80	-9,423.72	9,628.25	9,571.43	56.81	169.475		
4,900.00	4,847.44	4,260.00	3,977.55	22.42	35.71	-93.59	-1,613.01	-9,432.96	9,638.16	9,580.36	57.79	166.769		
5,000.00	4,946.13	4,593.39	4,271.84	22.89	39.31	-92.96	-1,468.06	-9,491.52	9,647.41	9,585.54	61.87	155.928		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,044.81	4,682.61	4,352.92	23.35	40.18	-92.83	-1,433.48	-9,505.34	9,655.51	9,592.32	63.19	152.811	
5,200.00	5,143.49	4,779.70	4,441.86	23.81	41.11	-92.69	-1,397.37	-9,519.91	9,663.50	9,598.95	64.55	149.705	
5,300.00	5,242.18	5,294.45	4,925.99	24.27	45.34	-92.15	-1,235.18	-9,582.13	9,670.86	9,601.59	69.27	139.615	
5,400.00	5,340.86	5,517.79	5,141.54	24.74	46.84	-92.01	-1,179.38	-9,598.88	9,673.68	9,602.46	71.22	135.824	
5,500.00	5,439.54	5,634.24	5,255.39	25.20	47.51	-91.98	-1,155.97	-9,605.92	9,676.30	9,603.95	72.35	133.735	
5,600.00	5,538.22	5,929.25	5,547.00	25.66	48.89	-92.00	-1,113.41	-9,616.59	9,677.31	9,603.12	74.18	130.449	
5,700.00	5,636.91	5,990.55	5,608.04	26.13	49.12	-92.03	-1,107.97	-9,617.76	9,678.01	9,603.13	74.88	129.241	
5,800.00	5,735.59	6,077.87	5,695.13	26.59	49.41	-92.08	-1,101.84	-9,619.33	9,678.99	9,603.34	75.65	127.948	
5,900.00	5,834.27	6,186.42	5,803.50	27.06	49.75	-92.14	-1,095.68	-9,620.93	9,679.92	9,603.47	76.46	126.608	
6,000.00	5,932.95	6,297.07	5,914.02	27.52	50.08	-92.22	-1,090.66	-9,622.34	9,680.92	9,603.66	77.25	125.315	
6,100.00	6,031.64	6,409.17	6,026.03	27.98	50.40	-92.30	-1,086.32	-9,623.23	9,681.56	9,603.52	78.04	124.057	
6,200.00	6,130.32	6,482.91	6,099.74	28.45	50.60	-92.36	-1,083.96	-9,623.84	9,682.41	9,603.69	78.71	123.006	
6,300.00	6,229.00	6,552.32	6,169.12	28.91	50.78	-92.41	-1,082.11	-9,624.55	9,683.56	9,604.19	79.37	122.002	
6,400.00	6,327.69	6,632.00	6,248.77	29.38	50.99	-92.48	-1,080.43	-9,625.54	9,685.05	9,604.99	80.06	120.978	
6,500.00	6,426.37	6,711.69	6,328.44	29.84	51.20	-92.54	-1,079.14	-9,626.62	9,686.75	9,606.02	80.73	119.993	
6,600.00	6,525.05	6,805.28	6,422.02	30.31	51.43	-92.62	-1,078.02	-9,627.84	9,688.54	9,607.10	81.43	118.973	
6,700.00	6,623.18	6,898.30	6,515.02	30.77	51.66	-92.67	-1,077.24	-9,629.05	9,682.73	9,600.60	82.13	117.889	
6,800.00	6,718.58	6,988.86	6,605.58	31.22	51.88	-92.76	-1,076.67	-9,630.23	9,661.71	9,578.90	82.81	116.669	
6,900.00	6,808.91	7,078.55	6,695.26	31.66	52.10	-92.81	-1,076.24	-9,631.40	9,625.98	9,542.52	83.47	115.327	
7,000.00	6,891.95	7,162.35	6,779.05	32.07	52.31	-92.84	-1,075.84	-9,632.50	9,576.41	9,492.33	84.07	113.904	
7,100.00	6,965.65	7,236.97	6,853.66	32.51	52.49	-92.86	-1,075.48	-9,633.48	9,514.21	9,429.59	84.62	112.430	
7,200.00	7,028.20	7,300.56	6,917.24	33.02	52.65	-92.87	-1,075.18	-9,634.31	9,440.93	9,355.83	85.11	110.932	
7,300.00	7,078.04	7,351.56	6,968.24	33.68	52.78	-92.88	-1,074.93	-9,634.98	9,358.38	9,272.86	85.51	109.438	
7,400.00	7,113.97	7,388.72	7,005.40	34.52	52.87	-92.89	-1,074.75	-9,635.47	9,268.57	9,182.73	85.84	107.971	
7,500.00	7,135.09	7,418.83	7,035.50	35.53	52.95	-92.90	-1,074.61	-9,635.85	9,173.71	9,087.60	86.12	106.528	
7,600.00	7,140.96	7,428.33	7,045.01	36.68	52.97	-92.91	-1,074.57	-9,635.97	9,076.14	8,989.84	86.30	105.169	
7,700.00	7,140.53	7,429.33	7,046.01	37.99	52.97	-92.91	-1,074.56	-9,635.98	8,978.08	8,891.62	86.46	103.844	
7,800.00	7,140.09	7,430.32	7,047.00	39.45	52.98	-92.91	-1,074.56	-9,635.99	8,880.06	8,793.43	86.63	102.508	
7,900.00	7,139.66	7,431.30	7,047.98	41.06	52.98	-92.91	-1,074.55	-9,636.00	8,782.08	8,695.27	86.81	101.160	
8,000.00	7,139.23	7,432.28	7,048.95	42.80	52.98	-92.91	-1,074.55	-9,636.01	8,684.15	8,597.14	87.01	99.801	
8,100.00	7,138.79	7,433.24	7,049.92	44.65	52.98	-92.91	-1,074.54	-9,636.03	8,586.27	8,499.04	87.23	98.431	
8,200.00	7,138.36	7,434.20	7,050.88	46.60	52.99	-92.91	-1,074.54	-9,636.04	8,488.43	8,400.97	87.46	97.050	
8,300.00	7,137.93	7,435.15	7,051.83	48.65	52.99	-92.91	-1,074.53	-9,636.05	8,390.65	8,302.94	87.72	95.657	
8,400.00	7,137.49	7,436.10	7,052.77	50.77	52.99	-92.91	-1,074.53	-9,636.06	8,292.92	8,204.94	87.98	94.254	
8,500.00	7,137.06	7,437.04	7,053.71	52.95	52.99	-92.91	-1,074.53	-9,636.07	8,195.25	8,106.98	88.27	92.841	
8,600.00	7,136.62	7,437.97	7,054.64	55.20	53.00	-92.91	-1,074.52	-9,636.08	8,097.63	8,009.05	88.58	91.417	
8,700.00	7,136.19	7,438.89	7,055.56	57.51	53.00	-92.91	-1,074.52	-9,636.09	8,000.07	7,911.17	88.91	89.983	
8,800.00	7,135.76	7,439.81	7,056.48	59.85	53.00	-92.91	-1,074.51	-9,636.10	7,902.57	7,813.32	89.25	88.540	
8,900.00	7,135.32	7,440.72	7,057.39	62.24	53.00	-92.91	-1,074.51	-9,636.11	7,805.14	7,715.51	89.63	87.087	
9,000.00	7,134.89	7,441.62	7,058.29	64.67	53.01	-92.91	-1,074.50	-9,636.12	7,707.77	7,617.75	90.02	85.625	
9,100.00	7,134.45	7,442.51	7,059.19	67.13	53.01	-92.91	-1,074.50	-9,636.13	7,610.47	7,520.03	90.43	84.154	
9,200.00	7,134.02	7,443.40	7,060.08	69.62	53.01	-92.91	-1,074.50	-9,636.14	7,513.24	7,422.36	90.88	82.675	
9,300.00	7,133.59	7,444.29	7,060.96	72.14	53.01	-92.91	-1,074.49	-9,636.15	7,416.08	7,324.74	91.34	81.189	
9,400.00	7,133.15	7,445.16	7,061.84	74.68	53.01	-92.91	-1,074.49	-9,636.16	7,319.00	7,227.17	91.84	79.696	
9,500.00	7,132.72	7,446.03	7,062.71	77.24	53.02	-92.91	-1,074.48	-9,636.17	7,222.00	7,129.64	92.36	78.196	
9,600.00	7,132.29	7,446.90	7,063.57	79.83	53.02	-92.91	-1,074.48	-9,636.18	7,125.08	7,032.18	92.91	76.691	
9,700.00	7,131.85	7,447.75	7,064.43	82.42	53.02	-92.91	-1,074.48	-9,636.19	7,028.25	6,934.77	93.49	75.180	
9,800.00	7,131.42	7,448.60	7,065.28	85.04	53.02	-92.91	-1,074.47	-9,636.20	6,931.51	6,837.42	94.09	73.665	
9,900.00	7,130.98	7,449.45	7,066.12	87.67	53.03	-92.91	-1,074.47	-9,636.21	6,834.86	6,740.13	94.74	72.146	
10,000.00	7,130.55	7,450.29	7,066.96	90.31	53.03	-92.91	-1,074.46	-9,636.22	6,738.31	6,642.90	95.41	70.624	
10,100.00	7,130.12	7,451.12	7,067.79	92.97	53.03	-92.91	-1,074.46	-9,636.23	6,641.86	6,545.74	96.12	69.100	
10,200.00	7,129.68	7,451.95	7,068.62	95.63	53.03	-92.91	-1,074.46	-9,636.24	6,545.52	6,448.66	96.86	67.574	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-32-12(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 120-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,129.25	7,452.77	7,069.44	98.31	53.03	-88.93	-1,074.45	-9,636.25	6,449.29	6,351.65	97.65	66.048		
10,400.00	7,128.82	7,453.58	7,070.25	101.00	53.04	-88.96	-1,074.45	-9,636.26	6,353.18	6,254.71	98.47	64.522		
10,500.00	7,128.38	7,454.39	7,071.06	103.69	53.04	-88.99	-1,074.45	-9,636.27	6,257.19	6,157.86	99.33	62.997		
10,600.00	7,127.95	7,455.19	7,071.87	106.39	53.04	-89.01	-1,074.44	-9,636.28	6,161.32	6,061.10	100.23	61.474		
10,700.00	7,127.51	7,455.99	7,072.67	109.10	53.04	-89.04	-1,074.44	-9,636.29	6,065.59	5,964.42	101.17	59.954		
10,800.00	7,127.08	7,456.78	7,073.46	111.82	53.04	-89.06	-1,074.43	-9,636.30	5,970.00	5,867.84	102.16	58.438		
10,900.00	7,126.65	7,457.57	7,074.24	114.54	53.05	-89.09	-1,074.43	-9,636.30	5,874.55	5,771.36	103.19	56.927		
11,000.00	7,126.21	7,458.35	7,075.03	117.27	53.05	-89.11	-1,074.43	-9,636.31	5,779.26	5,674.98	104.28	55.422		
11,100.00	7,125.78	7,459.13	7,075.80	120.01	53.05	-89.14	-1,074.42	-9,636.32	5,684.13	5,578.72	105.41	53.923		
11,200.00	7,125.35	7,459.90	7,076.57	122.75	53.05	-89.16	-1,074.42	-9,636.33	5,589.17	5,482.58	106.60	52.432		
11,300.00	7,124.91	7,460.66	7,077.34	125.49	53.05	-89.19	-1,074.42	-9,636.34	5,494.39	5,386.55	107.84	50.950		
11,400.00	7,124.48	7,461.42	7,078.10	128.24	53.06	-89.21	-1,074.41	-9,636.35	5,399.80	5,290.66	109.14	49.477		
11,500.00	7,124.04	7,462.18	7,078.85	131.00	53.06	-89.24	-1,074.41	-9,636.36	5,305.41	5,194.91	110.49	48.015		
11,600.00	7,123.61	7,462.93	7,079.60	133.75	53.06	-89.26	-1,074.41	-9,636.36	5,211.22	5,099.31	111.91	46.565		
11,700.00	7,123.18	7,463.67	7,080.35	136.52	53.06	-89.29	-1,074.40	-9,636.37	5,117.26	5,003.86	113.40	45.127		
11,800.00	7,122.74	7,464.41	7,081.08	139.28	53.06	-89.31	-1,074.40	-9,636.38	5,023.53	4,908.58	114.95	43.702		
11,900.00	7,122.31	7,465.15	7,081.82	142.05	53.07	-89.33	-1,074.40	-9,636.39	4,930.04	4,813.47	116.57	42.292		
12,000.00	7,121.88	7,465.88	7,082.55	144.82	53.07	-89.36	-1,074.39	-9,636.40	4,836.82	4,718.55	118.27	40.898		
12,100.00	7,121.44	7,466.60	7,083.27	147.59	53.07	-89.38	-1,074.39	-9,636.40	4,743.87	4,623.83	120.04	39.519		
12,200.00	7,121.01	7,467.32	7,083.99	150.37	53.07	-89.40	-1,074.39	-9,636.41	4,651.21	4,529.32	121.89	38.158		
12,300.00	7,120.57	7,468.04	7,084.71	153.15	53.07	-89.43	-1,074.38	-9,636.42	4,558.86	4,435.03	123.83	36.816		
12,400.00	7,120.14	7,468.75	7,085.42	155.93	53.07	-89.45	-1,074.38	-9,636.43	4,466.85	4,340.99	125.86	35.492		
12,500.00	7,119.71	7,469.45	7,086.12	158.72	53.08	-89.47	-1,074.38	-9,636.43	4,375.18	4,247.21	127.98	34.188		
12,600.00	7,119.27	7,470.15	7,086.83	161.50	53.08	-89.50	-1,074.37	-9,636.44	4,283.89	4,153.70	130.19	32.904		
12,700.00	7,118.84	7,470.85	7,087.52	164.29	53.08	-89.52	-1,074.37	-9,636.45	4,192.99	4,060.48	132.51	31.643		
12,800.00	7,118.41	7,471.54	7,088.21	167.08	53.08	-89.54	-1,074.37	-9,636.46	4,102.52	3,967.58	134.94	30.404		
12,900.00	7,117.97	7,472.23	7,088.90	169.88	53.08	-89.56	-1,074.36	-9,636.46	4,012.50	3,875.02	137.47	29.187		
13,000.00	7,117.54	7,472.91	7,089.58	172.67	53.08	-89.59	-1,074.36	-9,636.47	3,922.96	3,782.83	140.13	27.995		
13,100.00	7,117.10	7,473.59	7,090.26	175.47	53.09	-89.61	-1,074.36	-9,636.48	3,833.94	3,691.03	142.91	26.828		
13,200.00	7,116.67	7,474.27	7,090.94	178.27	53.09	-89.63	-1,074.35	-9,636.49	3,745.47	3,599.65	145.82	25.686		
13,300.00	7,116.24	7,474.93	7,091.61	181.07	53.09	-89.65	-1,074.35	-9,636.49	3,657.60	3,508.74	148.86	24.570		
13,400.00	7,115.80	7,475.60	7,092.27	183.87	53.09	-89.67	-1,074.35	-9,636.50	3,570.37	3,418.31	152.05	23.481		
13,500.00	7,115.37	7,476.26	7,092.93	186.67	53.09	-89.69	-1,074.34	-9,636.51	3,483.82	3,328.43	155.39	22.420		
13,600.00	7,114.93	7,476.92	7,093.59	189.47	53.10	-89.72	-1,074.34	-9,636.51	3,398.01	3,239.13	158.88	21.387		
13,700.00	7,114.50	7,477.57	7,094.24	192.28	53.10	-89.74	-1,074.34	-9,636.52	3,312.99	3,150.45	162.54	20.383		
13,800.00	7,114.07	7,478.22	7,094.89	195.09	53.10	-89.76	-1,074.34	-9,636.53	3,228.84	3,062.47	166.37	19.408		
13,900.00	7,113.63	7,478.86	7,095.54	197.89	53.10	-89.78	-1,074.33	-9,636.53	3,145.61	2,975.24	170.37	18.463		
14,000.00	7,113.20	7,479.50	7,096.18	200.70	53.10	-89.80	-1,074.33	-9,636.54	3,063.39	2,888.82	174.56	17.549		
14,100.00	7,112.77	7,480.14	7,096.81	203.51	53.10	-89.82	-1,074.33	-9,636.55	2,982.25	2,803.31	178.94	16.666		
14,200.00	7,112.33	7,480.77	7,097.44	206.32	53.10	-89.84	-1,074.32	-9,636.55	2,902.29	2,718.77	183.52	15.814		
14,300.00	7,111.90	7,481.40	7,098.07	209.13	53.11	-89.86	-1,074.32	-9,636.56	2,823.61	2,635.31	188.30	14.995		
14,400.00	7,111.46	7,482.03	7,098.70	211.95	53.11	-89.88	-1,074.32	-9,636.57	2,746.31	2,553.02	193.29	14.209		
14,500.00	7,111.03	7,482.65	7,099.32	214.76	53.11	-89.90	-1,074.32	-9,636.57	2,670.52	2,472.04	198.48	13.455		
14,600.00	7,110.60	7,483.27	7,099.94	217.58	53.11	-89.92	-1,074.31	-9,636.58	2,596.37	2,392.50	203.88	12.735		
14,700.00	7,110.16	7,483.88	7,100.55	220.39	53.11	-89.94	-1,074.31	-9,636.59	2,524.01	2,314.53	209.48	12.049		
14,800.00	7,109.73	7,484.49	7,101.16	223.21	53.11	-89.96	-1,074.31	-9,636.59	2,453.59	2,238.30	215.28	11.397		
14,900.00	7,109.30	7,485.09	7,101.76	226.03	53.12	-89.98	-1,074.30	-9,636.60	2,385.28	2,164.01	221.27	10.780		
14,969.16	7,109.00	7,485.51	7,102.18	227.97	53.12	-89.99	-1,074.30	-9,636.60	2,339.37	2,113.85	225.52	10.373	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2,245.75	2,176.32	3.28	15.74	-105.48	-2,422.35	-8,746.68	9,333.20					
100.00	100.00	2,302.00	2,227.88	3.28	16.24	-105.36	-2,400.83	-8,740.09	9,310.27	9,291.88	18.38	506.418		
200.00	200.00	2,341.13	2,263.80	3.34	16.59	-105.28	-2,385.97	-8,735.66	9,287.84	9,269.11	18.73	496.011		
300.00	300.00	2,336.46	2,442.69	3.44	18.34	-104.86	-2,311.10	-8,712.33	9,264.82	9,244.44	20.39	454.408		
400.00	400.00	2,585.00	2,486.87	3.60	18.78	-104.75	-2,291.79	-8,706.74	9,242.01	9,221.09	20.92	441.762		
500.00	500.00	2,655.51	2,551.00	3.81	19.43	-104.59	-2,263.53	-8,698.95	9,219.65	9,197.96	21.69	425.092		
600.00	600.00	600.00	2,731.66	4.05	3.75	-104.12	-2,182.79	-8,676.00	9,196.82	9,189.28	7.54	1,219.471		
700.00	699.98	2,935.43	2,804.70	4.32	22.05	-95.26	-2,149.89	-8,666.22	9,173.76	9,149.23	24.53	374.005		
800.00	799.84	2,998.61	2,862.23	4.62	22.64	-95.59	-2,124.90	-8,658.59	9,151.50	9,126.17	25.33	361.265		
900.00	899.45	3,078.82	2,935.82	4.94	23.37	-95.90	-2,094.58	-8,648.61	9,129.87	9,103.59	26.29	347.315		
1,000.00	998.70	3,177.94	3,026.70	5.28	24.26	-96.19	-2,056.97	-8,636.38	9,108.70	9,081.28	27.41	332.295		
1,100.00	1,097.50	3,248.00	3,090.85	5.64	24.90	-96.38	-2,030.16	-8,627.75	9,087.89	9,059.56	28.33	320.835		
1,200.00	1,196.18	3,309.67	3,147.56	6.00	25.45	-96.32	-2,007.15	-8,620.17	9,067.53	9,038.35	29.18	310.758		
1,300.00	1,294.87	3,346.00	3,181.19	6.38	25.77	-96.28	-1,994.13	-8,615.76	9,047.79	9,017.94	29.85	303.132		
1,400.00	1,393.55	3,391.97	3,223.91	6.77	26.16	-96.23	-1,978.03	-8,610.35	9,028.65	8,998.06	30.59	295.128		
1,500.00	1,492.23	3,440.00	3,268.68	7.17	26.57	-96.19	-1,961.48	-8,605.00	9,010.20	8,978.84	31.36	287.278		
1,600.00	1,590.91	1,600.00	3,359.02	7.58	11.41	-96.10	-1,929.03	-8,594.14	8,991.98	8,973.85	18.13	496.024		
1,700.00	1,689.60	3,824.00	3,628.20	8.00	29.76	-95.86	-1,835.03	-8,558.24	8,973.03	8,938.03	35.00	256.404		
1,800.00	1,788.28	3,946.14	3,741.71	8.42	30.81	-95.74	-1,793.03	-8,541.82	8,952.48	8,916.14	36.34	246.332		
1,900.00	1,886.96	3,993.84	3,785.79	8.84	31.23	-95.69	-1,775.84	-8,535.78	8,932.26	8,895.10	37.16	240.395		
2,000.00	1,985.64	4,063.39	3,849.93	9.27	31.85	-95.62	-1,750.27	-8,527.47	8,912.52	8,874.37	38.15	233.603		
2,100.00	2,084.33	4,141.38	3,921.76	9.71	32.55	-95.52	-1,721.27	-8,518.38	8,892.99	8,853.77	39.22	226.718		
2,200.00	2,183.01	4,643.57	4,378.88	10.15	37.25	-94.87	-1,524.31	-8,454.00	8,873.30	8,829.52	43.78	202.678		
2,300.00	2,281.69	4,679.00	4,410.34	10.59	37.61	-94.81	-1,508.80	-8,448.99	8,849.79	8,805.22	44.58	198.532		
2,400.00	2,380.38	4,740.06	4,464.77	11.03	38.23	-94.72	-1,482.45	-8,440.58	8,826.75	8,781.16	45.59	193.600		
2,500.00	2,479.06	4,774.00	4,495.17	11.47	38.57	-94.67	-1,468.03	-8,436.11	8,804.48	8,758.10	46.38	189.846		
2,600.00	2,577.74	4,811.33	4,528.79	11.92	38.92	-94.61	-1,452.50	-8,431.36	8,782.90	8,735.72	47.18	186.156		
2,700.00	2,676.42	4,869.00	4,581.16	12.36	39.48	-94.53	-1,429.43	-8,424.30	8,762.11	8,713.96	48.16	181.954		
2,800.00	2,775.11	4,895.04	4,604.96	12.81	39.72	-94.50	-1,419.33	-8,421.17	8,741.85	8,692.99	48.86	178.927		
2,900.00	2,873.79	4,981.99	4,684.80	13.26	40.51	-94.39	-1,386.55	-8,410.61	8,722.02	8,671.97	50.05	174.277		
3,000.00	2,972.47	5,080.86	4,775.36	13.72	41.42	-94.26	-1,348.76	-8,398.54	8,702.03	8,650.70	51.33	169.519		
3,100.00	3,071.15	5,122.07	4,813.18	14.17	41.79	-94.21	-1,333.14	-8,393.68	8,682.55	8,630.39	52.16	166.454		
3,200.00	3,169.84	5,152.00	4,840.75	14.62	42.06	-94.17	-1,322.00	-8,390.25	8,663.75	8,610.85	52.90	163.775		
3,300.00	3,268.52	5,203.37	4,888.28	15.08	42.51	-94.11	-1,303.36	-8,384.58	8,645.57	8,591.77	53.79	160.716		
3,400.00	3,367.20	5,247.00	4,928.86	15.53	42.89	-94.06	-1,288.02	-8,379.98	8,628.07	8,573.45	54.63	157.941		
3,500.00	3,465.89	5,283.26	4,962.75	15.99	43.19	-94.03	-1,275.63	-8,376.29	8,611.25	8,555.86	55.39	155.461		
3,600.00	3,564.57	5,342.00	5,017.93	16.44	43.68	-93.97	-1,256.34	-8,370.61	8,595.17	8,538.85	56.32	152.613		
3,700.00	3,663.25	5,342.00	5,017.93	16.90	43.68	-93.97	-1,256.34	-8,370.61	8,579.72	8,522.91	56.81	151.018		
3,800.00	3,761.93	5,383.42	5,057.12	17.36	43.99	-93.94	-1,243.47	-8,366.88	8,565.06	8,507.47	57.59	148.732		
3,900.00	3,860.62	5,437.00	5,108.25	17.82	44.40	-93.90	-1,228.03	-8,362.54	8,551.40	8,492.96	58.44	146.318		
4,000.00	3,959.30	5,437.00	5,108.25	18.28	44.40	-93.90	-1,228.03	-8,362.54	8,538.30	8,479.37	58.93	144.895		
4,100.00	4,057.98	5,472.18	5,142.04	18.74	44.64	-93.88	-1,218.60	-8,359.95	8,526.13	8,466.50	59.63	142.987		
4,200.00	4,156.67	5,531.00	5,198.87	19.20	45.04	-93.85	-1,203.94	-8,356.00	8,514.84	8,454.36	60.48	140.793		
4,300.00	4,255.35	5,551.69	5,218.94	19.66	45.17	-93.84	-1,199.10	-8,354.68	8,504.08	8,443.01	61.07	139.247		
4,400.00	4,354.03	5,626.00	5,291.24	20.12	45.63	-93.82	-1,182.66	-8,349.80	8,493.78	8,431.81	61.98	137.046		
4,500.00	4,452.71	5,675.57	5,339.69	20.58	45.91	-93.81	-1,172.72	-8,346.52	8,483.95	8,421.24	62.71	135.290		
4,600.00	4,551.40	5,720.00	5,383.30	21.04	46.17	-93.81	-1,164.69	-8,343.69	8,474.76	8,411.35	63.41	133.648		
4,700.00	4,650.08	5,814.00	5,475.81	21.50	46.66	-93.82	-1,149.25	-8,337.50	8,465.74	8,401.40	64.33	131.590		
4,800.00	4,748.76	5,852.62	5,513.91	21.96	46.85	-93.83	-1,143.46	-8,334.98	8,457.22	8,392.25	64.97	130.172		
4,900.00	4,847.44	5,909.00	5,569.71	22.42	47.12	-93.85	-1,136.03	-8,331.88	8,449.73	8,384.05	65.68	128.647		
5,000.00	4,946.13	5,909.00	5,569.71	22.89	47.12	-93.85	-1,136.03	-8,331.88	8,442.75	8,376.62	66.13	127.662		
5,100.00	5,044.81	5,978.69	5,638.85	23.35	47.42	-93.88	-1,127.90	-8,328.55	8,436.54	8,369.67	66.88	126.152		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	6,036.73	5,696.49	23.81	47.67	-93.90	-1,121.64	-8,325.88	8,430.74	8,363.18	67.56	124.788		
5,300.00	5,242.18	6,097.00	5,756.41	24.27	47.92	-93.93	-1,115.73	-8,323.36	8,425.50	8,357.25	68.25	123.457		
5,400.00	5,340.86	6,134.49	5,793.72	24.74	48.06	-93.95	-1,112.31	-8,321.96	8,420.84	8,352.01	68.83	122.342		
5,500.00	5,439.54	6,192.00	5,850.98	25.20	48.28	-93.99	-1,107.30	-8,320.17	8,416.87	8,347.38	69.49	121.122		
5,600.00	5,538.22	6,240.85	5,899.63	25.66	48.47	-94.02	-1,103.10	-8,318.92	8,413.45	8,343.33	70.12	119.995		
5,700.00	5,636.91	6,309.15	5,967.65	26.13	48.73	-94.05	-1,097.05	-8,317.42	8,410.43	8,339.61	70.82	118.764		
5,800.00	5,735.59	6,381.00	6,039.25	26.59	49.00	-94.10	-1,091.20	-8,316.02	8,407.80	8,336.27	71.53	117.546		
5,900.00	5,834.27	6,447.60	6,105.66	27.06	49.23	-94.14	-1,086.37	-8,314.83	8,405.54	8,333.33	72.20	116.413		
6,000.00	5,932.95	6,520.30	6,178.20	27.52	49.48	-94.19	-1,081.64	-8,313.64	8,403.61	8,330.72	72.90	115.280		
6,100.00	6,031.64	6,570.00	6,227.81	27.98	49.65	-94.23	-1,078.74	-8,312.89	8,402.06	8,328.56	73.50	114.319		
6,200.00	6,130.32	6,633.41	6,291.13	28.45	49.85	-94.28	-1,075.44	-8,312.16	8,401.00	8,326.86	74.14	113.317		
6,300.00	6,229.00	6,689.66	6,347.32	28.91	50.02	-94.32	-1,072.88	-8,311.84	8,400.58	8,325.83	74.75	112.389		
6,357.35	6,285.60	6,731.20	6,388.82	29.18	50.15	-94.36	-1,071.21	-8,311.67	8,400.52	8,325.40	75.12	111.821		
6,400.00	6,327.69	6,763.23	6,420.83	29.38	50.24	-94.38	-1,070.06	-8,311.57	8,400.55	8,325.15	75.41	111.400		
6,500.00	6,426.37	6,862.86	6,520.42	29.84	50.53	-94.48	-1,067.11	-8,311.14	8,400.69	8,324.54	76.15	110.314		
6,600.00	6,525.05	6,958.68	6,616.21	30.31	50.80	-94.57	-1,064.75	-8,310.62	8,400.87	8,323.99	76.87	109.280		
6,700.00	6,623.18	7,054.17	6,711.67	30.77	51.06	-94.68	-1,062.59	-8,310.10	8,393.48	8,315.89	77.59	108.173		
6,800.00	6,718.58	7,142.85	6,800.33	31.22	51.31	-94.87	-1,060.83	-8,309.61	8,371.03	8,292.76	78.27	106.956		
6,900.00	6,808.91	7,227.04	6,884.51	31.66	51.54	-94.96	-1,059.44	-8,309.14	8,334.08	8,255.18	78.90	105.632		
7,000.00	6,891.95	7,303.90	6,961.36	32.07	51.75	-94.97	-1,058.39	-8,308.71	8,283.56	8,204.09	79.47	104.237		
7,100.00	6,965.65	7,371.97	7,029.43	32.51	51.93	-94.98	-1,057.60	-8,308.35	8,220.71	8,140.73	79.98	102.789		
7,200.00	7,028.20	7,432.91	7,090.36	33.02	52.10	-94.99	-1,057.01	-8,308.03	8,147.06	8,066.64	80.43	101.299		
7,300.00	7,078.04	7,498.27	7,155.71	33.68	52.27	-95.00	-1,056.40	-8,307.60	8,064.35	7,983.50	80.86	99.738		
7,400.00	7,113.97	7,544.72	7,202.16	34.52	52.40	-95.01	-1,055.96	-8,307.22	7,974.62	7,893.42	81.19	98.219		
7,500.00	7,135.09	7,571.30	7,228.74	35.53	52.47	-95.02	-1,055.70	-8,306.98	7,880.12	7,798.68	81.44	96.762		
7,600.00	7,140.96	7,577.68	7,235.12	36.68	52.49	-95.03	-1,055.63	-8,306.91	7,783.22	7,701.62	81.60	95.384		
7,700.00	7,140.53	7,575.79	7,233.23	37.99	52.48	-93.99	-1,055.65	-8,306.93	7,685.96	7,604.22	81.73	94.036		
7,800.00	7,140.09	7,573.91	7,231.35	39.45	52.48	-93.93	-1,055.67	-8,306.95	7,588.77	7,506.88	81.89	92.671		
7,900.00	7,139.66	7,572.05	7,229.49	41.06	52.47	-93.87	-1,055.69	-8,306.97	7,491.66	7,409.59	82.06	91.291		
8,000.00	7,139.23	7,570.20	7,227.64	42.80	52.47	-93.81	-1,055.71	-8,306.99	7,394.62	7,312.36	82.26	89.896		
8,100.00	7,138.79	7,568.37	7,225.81	44.65	52.46	-93.75	-1,055.73	-8,307.00	7,297.66	7,215.19	82.47	88.485		
8,200.00	7,138.36	7,566.55	7,223.99	46.60	52.46	-93.70	-1,055.74	-8,307.02	7,200.78	7,118.07	82.71	87.058		
8,300.00	7,137.93	7,564.74	7,222.19	48.65	52.45	-93.64	-1,055.76	-8,307.04	7,103.99	7,021.02	82.97	85.617		
8,400.00	7,137.49	7,562.95	7,220.39	50.77	52.45	-93.58	-1,055.78	-8,307.06	7,007.29	6,924.03	83.26	84.161		
8,500.00	7,137.06	7,561.17	7,218.62	52.95	52.44	-93.52	-1,055.80	-8,307.07	6,910.69	6,827.11	83.57	82.690		
8,600.00	7,136.62	7,559.41	7,216.85	55.20	52.44	-93.47	-1,055.81	-8,307.09	6,814.18	6,730.27	83.91	81.205		
8,700.00	7,136.19	7,557.66	7,215.10	57.51	52.43	-93.41	-1,055.83	-8,307.10	6,717.77	6,633.49	84.28	79.707		
8,800.00	7,135.76	7,555.92	7,213.36	59.85	52.43	-93.36	-1,055.85	-8,307.12	6,621.47	6,536.79	84.68	78.196		
8,900.00	7,135.32	7,554.20	7,211.64	62.24	52.42	-93.30	-1,055.86	-8,307.14	6,525.28	6,440.18	85.11	76.672		
9,000.00	7,134.89	7,552.48	7,209.93	64.67	52.42	-93.25	-1,055.88	-8,307.15	6,429.21	6,343.64	85.57	75.137		
9,100.00	7,134.45	7,550.78	7,208.23	67.13	52.41	-93.19	-1,055.90	-8,307.17	6,333.26	6,247.20	86.06	73.591		
9,200.00	7,134.02	7,549.10	7,206.54	69.62	52.41	-93.14	-1,055.91	-8,307.18	6,237.43	6,150.84	86.59	72.035		
9,300.00	7,133.59	7,547.42	7,204.87	72.14	52.40	-93.09	-1,055.93	-8,307.20	6,141.74	6,054.58	87.15	70.470		
9,400.00	7,133.15	7,545.76	7,203.21	74.68	52.40	-93.03	-1,055.95	-8,307.21	6,046.18	5,958.43	87.76	68.897		
9,500.00	7,132.72	7,544.11	7,201.56	77.24	52.40	-92.98	-1,055.96	-8,307.23	5,950.78	5,862.38	88.40	67.316		
9,600.00	7,132.29	7,542.47	7,199.92	79.83	52.39	-92.93	-1,055.98	-8,307.24	5,855.52	5,766.44	89.08	65.730		
9,700.00	7,131.85	7,540.85	7,198.29	82.42	52.39	-92.88	-1,055.99	-8,307.26	5,760.43	5,670.61	89.81	64.139		
9,800.00	7,131.42	7,539.24	7,196.68	85.04	52.38	-92.83	-1,056.01	-8,307.27	5,665.50	5,574.92	90.58	62.545		
9,900.00	7,130.98	7,537.63	7,195.08	87.67	52.38	-92.77	-1,056.02	-8,307.28	5,570.75	5,479.35	91.40	60.948		
10,000.00	7,130.55	7,536.04	7,193.49	90.31	52.37	-92.72	-1,056.04	-8,307.30	5,476.19	5,383.92	92.27	59.350		
10,100.00	7,130.12	7,534.46	7,191.91	92.97	52.37	-92.67	-1,056.05	-8,307.31	5,381.82	5,288.63	93.19	57.753		
10,200.00	7,129.68	7,532.90	7,190.34	95.63	52.36	-92.62	-1,056.07	-8,307.32	5,287.66	5,193.50	94.16	56.157		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
10,300.00	7,129.25	7,531.34	7,188.79	98.31	52.36	-92.57	-1,056.08	-8,307.34	5,193.72	5,098.53	95.18	54.565	
10,400.00	7,128.82	7,529.79	7,187.24	101.00	52.36	-92.52	-1,056.10	-8,307.35	5,100.01	5,003.74	96.27	52.977	
10,500.00	7,128.38	7,528.26	7,185.71	103.69	52.35	-92.48	-1,056.11	-8,307.36	5,006.54	4,909.13	97.41	51.396	
10,600.00	7,127.95	7,526.74	7,184.18	106.39	52.35	-92.43	-1,056.13	-8,307.38	4,913.33	4,814.71	98.62	49.822	
10,700.00	7,127.51	7,525.22	7,182.67	109.10	52.34	-92.38	-1,056.14	-8,307.39	4,820.38	4,720.49	99.89	48.257	
10,800.00	7,127.08	7,523.72	7,181.17	111.82	52.34	-92.33	-1,056.16	-8,307.40	4,727.73	4,626.50	101.23	46.703	
10,900.00	7,126.65	7,522.23	7,179.68	114.54	52.34	-92.28	-1,056.17	-8,307.41	4,635.38	4,532.74	102.64	45.160	
11,000.00	7,126.21	7,520.75	7,178.19	117.27	52.33	-92.24	-1,056.19	-8,307.43	4,543.36	4,439.23	104.13	43.632	
11,100.00	7,125.78	7,519.28	7,176.72	120.01	52.33	-92.19	-1,056.20	-8,307.44	4,451.68	4,345.98	105.69	42.118	
11,200.00	7,125.35	7,517.82	7,175.26	122.75	52.32	-92.14	-1,056.21	-8,307.45	4,360.36	4,253.02	107.34	40.621	
11,300.00	7,124.91	7,516.36	7,173.81	125.49	52.32	-92.10	-1,056.23	-8,307.46	4,269.43	4,160.36	109.08	39.142	
11,400.00	7,124.48	7,514.92	7,172.37	128.24	52.32	-92.05	-1,056.24	-8,307.47	4,178.92	4,068.02	110.90	37.682	
11,500.00	7,124.04	7,513.49	7,170.94	131.00	52.31	-92.01	-1,056.26	-8,307.48	4,088.85	3,976.03	112.82	36.243	
11,600.00	7,123.61	7,512.07	7,169.52	133.75	52.31	-91.96	-1,056.27	-8,307.50	3,999.25	3,884.42	114.83	34.826	
11,700.00	7,123.18	7,510.66	7,168.11	136.52	52.30	-91.91	-1,056.28	-8,307.51	3,910.16	3,793.20	116.96	33.433	
11,800.00	7,122.74	7,509.26	7,166.70	139.28	52.30	-91.87	-1,056.30	-8,307.52	3,821.60	3,702.41	119.19	32.064	
11,900.00	7,122.31	7,507.87	7,165.31	142.05	52.30	-91.83	-1,056.31	-8,307.53	3,733.62	3,612.09	121.53	30.721	
12,000.00	7,121.88	7,506.48	7,163.93	144.82	52.29	-91.78	-1,056.32	-8,307.54	3,646.26	3,522.26	124.00	29.406	
12,100.00	7,121.44	7,505.11	7,162.56	147.59	52.29	-91.74	-1,056.33	-8,307.55	3,559.56	3,432.97	126.59	28.119	
12,200.00	7,121.01	7,503.74	7,161.19	150.37	52.29	-91.69	-1,056.35	-8,307.56	3,473.58	3,344.27	129.32	26.861	
12,300.00	7,120.57	7,502.39	7,159.84	153.15	52.28	-91.65	-1,056.36	-8,307.57	3,388.37	3,256.19	132.18	25.635	
12,400.00	7,120.14	7,501.04	7,158.49	155.93	52.28	-91.61	-1,056.37	-8,307.58	3,303.99	3,168.80	135.19	24.440	
12,500.00	7,119.71	7,499.70	7,157.15	158.72	52.28	-91.57	-1,056.39	-8,307.59	3,220.50	3,082.15	138.35	23.278	
12,600.00	7,119.27	7,498.37	7,155.82	161.50	52.27	-91.52	-1,056.40	-8,307.60	3,137.98	2,996.30	141.67	22.149	
12,700.00	7,118.84	7,497.05	7,154.50	164.29	52.27	-91.48	-1,056.41	-8,307.61	3,056.50	2,911.33	145.16	21.056	
12,800.00	7,118.41	7,495.74	7,153.19	167.08	52.26	-91.44	-1,056.42	-8,307.62	2,976.14	2,827.32	148.83	19.997	
12,900.00	7,117.97	7,494.44	7,151.89	169.88	52.26	-91.40	-1,056.44	-8,307.63	2,897.02	2,744.35	152.67	18.976	
13,000.00	7,117.54	7,493.14	7,150.59	172.67	52.26	-91.36	-1,056.45	-8,307.64	2,819.21	2,662.51	156.70	17.991	
13,100.00	7,117.10	7,491.86	7,149.31	175.47	52.25	-91.31	-1,056.46	-8,307.65	2,742.85	2,581.93	160.92	17.045	
13,200.00	7,116.67	7,490.58	7,148.03	178.27	52.25	-91.27	-1,056.47	-8,307.66	2,668.05	2,502.71	165.34	16.137	
13,300.00	7,116.24	7,489.31	7,146.76	181.07	52.25	-91.23	-1,056.48	-8,307.67	2,594.94	2,424.99	169.96	15.268	
13,400.00	7,115.80	7,488.05	7,145.50	183.87	52.24	-91.19	-1,056.50	-8,307.68	2,523.68	2,348.91	174.77	14.440	
13,500.00	7,115.37	7,486.80	7,144.25	186.67	52.24	-91.15	-1,056.51	-8,307.68	2,454.43	2,274.63	179.80	13.651	
13,600.00	7,114.93	7,485.55	7,143.00	189.47	52.24	-91.11	-1,056.52	-8,307.69	2,387.36	2,202.34	185.02	12.904	
13,700.00	7,114.50	7,484.31	7,141.76	192.28	52.23	-91.07	-1,056.53	-8,307.70	2,322.65	2,132.22	190.43	12.197	
13,800.00	7,114.07	7,483.08	7,140.53	195.09	52.23	-91.04	-1,056.54	-8,307.71	2,260.52	2,064.50	196.02	11.532	
13,900.00	7,113.63	7,481.86	7,139.31	197.89	52.23	-91.00	-1,056.55	-8,307.72	2,201.18	1,999.40	201.77	10.909	
14,000.00	7,113.20	7,480.65	7,138.10	200.70	52.22	-90.96	-1,056.57	-8,307.73	2,144.86	1,937.18	207.68	10.328	
14,100.00	7,112.77	7,479.44	7,136.89	203.51	52.22	-90.92	-1,056.58	-8,307.74	2,091.80	1,878.11	213.69	9.789	
14,200.00	7,112.33	7,478.24	7,135.69	206.32	52.22	-90.88	-1,056.59	-8,307.74	2,042.27	1,822.48	219.79	9.292	
14,300.00	7,111.90	7,477.05	7,134.50	209.13	52.21	-90.84	-1,056.60	-8,307.75	1,996.52	1,770.60	225.92	8.837	
14,400.00	7,111.46	7,475.87	7,133.32	211.95	52.21	-90.80	-1,056.61	-8,307.76	1,954.82	1,722.78	232.04	8.425	
14,500.00	7,111.03	7,474.69	7,132.14	214.76	52.21	-90.77	-1,056.62	-8,307.77	1,917.43	1,679.35	238.08	8.054	
14,600.00	7,110.60	7,473.52	7,130.97	217.58	52.20	-90.73	-1,056.63	-8,307.78	1,884.61	1,640.63	243.98	7.724	
14,700.00	7,110.16	7,472.36	7,129.81	220.39	52.20	-90.69	-1,056.64	-8,307.78	1,856.60	1,606.94	249.66	7.437	
14,800.00	7,109.73	7,471.21	7,128.66	223.21	52.20	-90.66	-1,056.65	-8,307.79	1,833.62	1,578.58	255.04	7.190	
14,900.00	7,109.30	7,470.06	7,127.51	226.03	52.20	-90.62	-1,056.66	-8,307.80	1,815.87	1,555.82	260.05	6.983	
14,969.16	7,109.00	7,469.27	7,126.72	227.97	52.19	-90.59	-1,056.67	-8,307.81	1,806.73	1,543.48	263.24	6.863 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	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: 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	-108.75	-3,057.07	-9,004.96	9,509.80					
100.00	100.00	37.30	73.30	3.28	3.28	-108.75	-3,056.99	-9,005.04	9,509.82	9,503.26	6.57	1,448.425		
200.00	200.00	95.57	131.57	3.34	3.29	-108.75	-3,056.54	-9,005.50	9,510.32	9,503.70	6.62	1,435.957		
300.00	300.00	168.00	203.98	3.44	3.30	-108.74	-3,055.43	-9,006.64	9,511.28	9,504.54	6.74	1,410.577		
400.00	400.00	168.00	203.98	3.60	3.30	-108.74	-3,055.43	-9,006.64	9,512.81	9,505.91	6.90	1,378.170		
500.00	500.00	213.26	249.21	3.81	3.33	-108.73	-3,054.55	-9,007.87	9,514.98	9,507.85	7.13	1,333.894		
600.00	600.00	259.00	294.90	4.05	3.37	-108.72	-3,053.68	-9,009.77	9,518.09	9,510.68	7.41	1,283.972		
700.00	699.98	259.00	294.90	4.32	3.37	-99.49	-3,053.68	-9,009.77	9,522.11	9,514.42	7.69	1,238.653		
800.00	799.84	293.04	328.89	4.62	3.40	-99.39	-3,053.14	-9,011.56	9,527.53	9,519.51	8.02	1,187.644		
900.00	899.45	350.00	385.74	4.94	3.48	-99.28	-3,052.67	-9,015.16	9,534.45	9,526.03	8.41	1,133.090		
1,000.00	998.70	350.00	385.74	5.28	3.48	-99.12	-3,052.67	-9,015.16	9,542.36	9,533.60	8.75	1,090.087		
1,100.00	1,097.50	408.55	444.13	5.64	3.58	-99.05	-3,052.50	-9,019.34	9,551.54	9,542.34	9.20	1,038.194		
1,200.00	1,196.18	484.32	519.69	6.00	3.73	-99.11	-3,052.35	-9,025.01	9,561.20	9,551.49	9.71	984.509		
1,300.00	1,294.87	532.00	567.24	6.38	3.84	-99.15	-3,052.19	-9,028.64	9,571.11	9,560.91	10.20	938.779		
1,400.00	1,393.55	585.00	620.06	6.77	3.98	-99.19	-3,052.15	-9,032.91	9,581.52	9,570.81	10.71	894.554		
1,500.00	1,492.23	644.00	678.83	7.17	4.14	-99.24	-3,052.47	-9,038.18	9,592.71	9,581.45	11.26	851.925		
1,600.00	1,590.91	666.89	701.61	7.58	4.21	-99.26	-3,052.69	-9,040.33	9,604.39	9,592.67	11.73	819.013		
1,700.00	1,689.60	745.98	780.33	8.00	4.45	-99.33	-3,053.61	-9,047.92	9,616.56	9,604.20	12.36	777.894		
1,800.00	1,788.28	859.98	893.81	8.42	4.84	-99.42	-3,055.03	-9,058.67	9,628.64	9,615.51	13.13	733.317		
1,900.00	1,886.96	1,900.00	1,087.76	8.84	9.11	-99.58	-3,055.62	-9,076.95	9,640.53	9,622.96	17.57	548.555		
2,000.00	1,985.64	1,096.00	1,128.81	9.27	5.72	-99.61	-3,055.61	-9,080.58	9,651.82	9,637.04	14.79	652.740		
2,100.00	2,084.33	1,152.20	1,184.78	9.71	5.94	-99.65	-3,055.46	-9,085.70	9,663.43	9,648.01	15.42	626.726		
2,200.00	2,183.01	1,190.00	1,222.36	10.15	6.09	-99.68	-3,055.24	-9,089.74	9,675.99	9,660.00	15.99	605.242		
2,300.00	2,281.69	1,190.00	1,222.36	10.59	6.09	-99.68	-3,055.24	-9,089.74	9,689.29	9,672.88	16.41	590.350		
2,400.00	2,380.38	1,239.70	1,271.71	11.03	6.30	-99.71	-3,054.90	-9,095.62	9,703.22	9,686.19	17.03	569.685		
2,500.00	2,479.06	1,285.00	1,316.63	11.47	6.50	-99.74	-3,054.61	-9,101.46	9,717.90	9,700.26	17.64	550.956		
2,600.00	2,577.74	1,285.00	1,316.63	11.92	6.50	-99.74	-3,054.61	-9,101.46	9,733.27	9,715.20	18.06	538.829		
2,700.00	2,676.42	1,336.36	1,367.50	12.36	6.73	-99.78	-3,054.58	-9,108.52	9,749.22	9,730.53	18.70	521.439		
2,800.00	2,775.11	1,379.00	1,409.70	12.81	6.92	-99.81	-3,055.01	-9,114.67	9,765.93	9,746.63	19.30	506.104		
2,900.00	2,873.79	1,405.05	1,435.45	13.26	7.05	-99.83	-3,055.33	-9,118.57	9,783.26	9,763.43	19.83	493.397		
3,000.00	2,972.47	1,443.81	1,473.73	13.72	7.23	-99.85	-3,055.62	-9,124.67	9,801.21	9,780.80	20.41	480.121		
3,100.00	3,071.15	1,475.00	1,504.49	14.17	7.38	-99.87	-3,055.66	-9,129.81	9,819.77	9,798.80	20.97	468.331		
3,200.00	3,169.84	1,518.61	1,547.45	14.62	7.59	-99.90	-3,055.72	-9,137.30	9,838.93	9,817.35	21.58	455.999		
3,300.00	3,268.52	1,570.00	1,598.02	15.08	7.85	-99.93	-3,056.02	-9,146.46	9,858.74	9,836.52	22.22	443.667		
3,400.00	3,367.20	1,597.36	1,624.91	15.53	7.99	-99.95	-3,056.24	-9,151.49	9,879.09	9,856.33	22.76	434.073		
3,500.00	3,465.89	1,643.97	1,670.69	15.99	8.23	-99.97	-3,056.56	-9,160.28	9,899.99	9,876.60	23.38	423.368		
3,600.00	3,564.57	1,665.00	1,691.32	16.44	8.34	-99.99	-3,056.68	-9,164.33	9,921.46	9,897.57	23.89	415.280		
3,700.00	3,663.25	1,712.64	1,737.99	16.90	8.60	-100.01	-3,056.91	-9,173.85	9,943.48	9,918.96	24.52	405.486		
3,800.00	3,761.93	1,759.00	1,783.31	17.36	8.85	-100.04	-3,057.07	-9,183.63	9,966.25	9,941.10	25.15	396.304		
3,900.00	3,860.62	1,759.00	1,783.31	17.82	8.85	-100.04	-3,057.07	-9,183.63	9,989.62	9,964.07	25.55	390.963		
8,000.00	7,139.23	7,013.00	6,897.73	42.80	40.68	-86.93	-3,095.35	-10,249.80	9,930.07	9,861.36	68.71	144.512		
8,100.00	7,138.79	7,013.93	6,898.66	44.65	40.68	-86.95	-3,095.37	-10,249.81	9,837.64	9,768.39	69.25	142.066		
8,200.00	7,138.36	7,014.86	6,899.59	46.60	40.68	-86.96	-3,095.39	-10,249.83	9,745.35	9,675.53	69.82	139.574		
8,300.00	7,137.93	7,015.79	6,900.52	48.65	40.69	-86.98	-3,095.41	-10,249.84	9,653.21	9,582.77	70.44	137.042		
8,400.00	7,137.49	7,016.72	6,901.45	50.77	40.69	-86.99	-3,095.44	-10,249.86	9,561.24	9,490.14	71.10	134.473		
8,500.00	7,137.06	7,017.65	6,902.37	52.95	40.69	-87.00	-3,095.46	-10,249.88	9,469.42	9,397.62	71.81	131.873		
8,600.00	7,136.62	7,018.57	6,903.30	55.20	40.70	-87.02	-3,095.48	-10,249.89	9,377.78	9,305.22	72.56	129.247		
8,700.00	7,136.19	7,019.50	6,904.22	57.51	40.70	-87.03	-3,095.50	-10,249.91	9,286.30	9,212.95	73.35	126.598		
8,800.00	7,135.76	7,020.42	6,905.15	59.85	40.70	-87.05	-3,095.52	-10,249.92	9,195.01	9,120.81	74.19	123.934		
8,900.00	7,135.32	7,021.34	6,906.07	62.24	40.70	-87.06	-3,095.54	-10,249.94	9,103.89	9,028.81	75.08	121.257		
9,000.00	7,134.89	7,022.27	6,906.99	64.67	40.71	-87.08	-3,095.56	-10,249.95	9,012.97	8,936.96	76.01	118.574		
9,100.00	7,134.45	7,023.19	6,907.91	67.13	40.71	-87.09	-3,095.58	-10,249.97	8,922.24	8,845.25	76.99	115.889		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
9,200.00	7,134.02	7,024.11	6,908.83	69.62	40.71	-87.10	-3,095.61	-10,249.98	8,831.70	8,753.69	78.02	113.205		
9,300.00	7,133.59	7,025.03	6,909.75	72.14	40.72	-87.12	-3,095.63	-10,250.00	8,741.38	8,662.29	79.09	110.528		
9,400.00	7,133.15	7,025.95	6,910.67	74.68	40.72	-87.13	-3,095.65	-10,250.01	8,651.27	8,571.06	80.21	107.862		
9,500.00	7,132.72	7,026.86	6,911.59	77.24	40.72	-87.14	-3,095.67	-10,250.03	8,561.37	8,480.00	81.37	105.210		
9,600.00	7,132.29	7,027.78	6,912.50	79.83	40.73	-87.16	-3,095.69	-10,250.04	8,471.71	8,389.12	82.59	102.576		
9,700.00	7,131.85	7,028.69	6,913.42	82.42	40.73	-87.17	-3,095.72	-10,250.06	8,382.27	8,298.42	83.85	99.963		
9,800.00	7,131.42	7,029.61	6,914.33	85.04	40.73	-87.19	-3,095.74	-10,250.07	8,293.08	8,207.91	85.17	97.375		
9,900.00	7,130.98	7,030.52	6,915.25	87.67	40.74	-87.20	-3,095.76	-10,250.09	8,204.14	8,117.61	86.53	94.814		
10,000.00	7,130.55	7,031.44	6,916.16	90.31	40.74	-87.21	-3,095.78	-10,250.10	8,115.45	8,027.51	87.94	92.283		
10,100.00	7,130.12	7,032.35	6,917.07	92.97	40.74	-87.23	-3,095.81	-10,250.12	8,027.03	7,937.63	89.40	89.785		
10,200.00	7,129.68	7,033.26	6,917.98	95.63	40.74	-87.24	-3,095.83	-10,250.13	7,938.89	7,847.97	90.92	87.321		
10,300.00	7,129.25	7,034.17	6,918.89	98.31	40.75	-87.26	-3,095.85	-10,250.15	7,851.03	7,758.55	92.48	84.894		
10,400.00	7,128.82	7,035.08	6,919.80	101.00	40.75	-87.27	-3,095.87	-10,250.16	7,763.46	7,669.36	94.10	82.505		
10,500.00	7,128.38	7,035.98	6,920.71	103.69	40.75	-87.28	-3,095.90	-10,250.18	7,676.19	7,580.43	95.77	80.156		
10,600.00	7,127.95	7,036.89	6,921.61	106.39	40.76	-87.30	-3,095.92	-10,250.19	7,589.24	7,491.76	97.49	77.847		
10,700.00	7,127.51	7,037.80	6,922.52	109.10	40.76	-87.31	-3,095.94	-10,250.21	7,502.62	7,403.35	99.27	75.581		
10,800.00	7,127.08	7,038.70	6,923.42	111.82	40.76	-87.32	-3,095.97	-10,250.22	7,416.33	7,315.23	101.10	73.358		
10,900.00	7,126.65	7,039.61	6,924.33	114.54	40.77	-87.34	-3,095.99	-10,250.24	7,330.39	7,227.41	102.99	71.179		
11,000.00	7,126.21	7,040.51	6,925.23	117.27	40.77	-87.35	-3,096.01	-10,250.25	7,244.81	7,139.88	104.93	69.044		
11,100.00	7,125.78	7,041.41	6,926.13	120.01	40.77	-87.37	-3,096.03	-10,250.27	7,159.61	7,052.67	106.93	66.955		
11,200.00	7,125.35	7,042.31	6,927.03	122.75	40.77	-87.38	-3,096.06	-10,250.28	7,074.79	6,965.80	108.99	64.911		
11,300.00	7,124.91	7,043.21	6,927.93	125.49	40.78	-87.39	-3,096.08	-10,250.30	6,990.37	6,879.26	111.11	62.912		
11,400.00	7,124.48	7,044.11	6,928.83	128.24	40.78	-87.41	-3,096.11	-10,250.31	6,906.37	6,793.08	113.29	60.960		
11,500.00	7,124.04	7,045.01	6,929.73	131.00	40.78	-87.42	-3,096.13	-10,250.32	6,822.80	6,707.26	115.54	59.054		
11,600.00	7,123.61	7,045.91	6,930.63	133.75	40.79	-87.43	-3,096.15	-10,250.34	6,739.68	6,621.84	117.84	57.193		
11,700.00	7,123.18	7,046.81	6,931.52	136.52	40.79	-87.45	-3,096.18	-10,250.35	6,657.02	6,536.81	120.21	55.378		
11,800.00	7,122.74	7,047.70	6,932.42	139.28	40.79	-87.46	-3,096.20	-10,250.37	6,574.84	6,452.20	122.64	53.609		
11,900.00	7,122.31	7,048.60	6,933.31	142.05	40.80	-87.48	-3,096.22	-10,250.38	6,493.16	6,368.02	125.14	51.886		
12,000.00	7,121.88	7,049.49	6,934.21	144.82	40.80	-87.49	-3,096.25	-10,250.40	6,412.01	6,284.29	127.71	50.207		
12,100.00	7,121.44	7,050.38	6,935.10	147.59	40.80	-87.50	-3,096.27	-10,250.41	6,331.39	6,201.04	130.35	48.573		
12,200.00	7,121.01	7,051.28	6,935.99	150.37	40.80	-87.52	-3,096.30	-10,250.43	6,251.33	6,118.27	133.05	46.984		
12,300.00	7,120.57	7,052.17	6,936.88	153.15	40.81	-87.53	-3,096.32	-10,250.44	6,171.85	6,036.02	135.83	45.438		
12,400.00	7,120.14	7,053.06	6,937.77	155.93	40.81	-87.54	-3,096.34	-10,250.45	6,092.98	5,954.30	138.68	43.936		
12,500.00	7,119.71	7,053.95	6,938.66	158.72	40.81	-87.56	-3,096.37	-10,250.47	6,014.73	5,873.13	141.60	42.477		
12,600.00	7,119.27	7,054.84	6,939.55	161.50	40.82	-87.57	-3,096.39	-10,250.48	5,937.14	5,792.54	144.60	41.060		
12,700.00	7,118.84	7,055.72	6,940.43	164.29	40.82	-87.58	-3,096.42	-10,250.50	5,860.22	5,712.56	147.67	39.685		
12,800.00	7,118.41	7,056.61	6,941.32	167.08	40.82	-87.60	-3,096.44	-10,250.51	5,784.02	5,633.20	150.81	38.352		
12,900.00	7,117.97	7,057.50	6,942.21	169.88	40.82	-87.61	-3,096.47	-10,250.53	5,708.54	5,554.50	154.04	37.059		
13,000.00	7,117.54	7,058.38	6,943.09	172.67	40.83	-87.62	-3,096.49	-10,250.54	5,633.83	5,476.49	157.34	35.806		
13,100.00	7,117.10	7,059.26	6,943.97	175.47	40.83	-87.64	-3,096.52	-10,250.55	5,559.92	5,399.20	160.72	34.593		
13,200.00	7,116.67	7,060.15	6,944.86	178.27	40.83	-87.65	-3,096.54	-10,250.57	5,486.83	5,322.65	164.19	33.419		
13,300.00	7,116.24	7,061.03	6,945.74	181.07	40.84	-87.66	-3,096.57	-10,250.58	5,414.60	5,246.88	167.73	32.282		
13,400.00	7,115.80	7,061.91	6,946.62	183.87	40.84	-87.68	-3,096.59	-10,250.60	5,343.27	5,171.92	171.35	31.184		
13,500.00	7,115.37	7,062.79	6,947.50	186.67	40.84	-87.69	-3,096.62	-10,250.61	5,272.87	5,097.82	175.05	30.122		
13,600.00	7,114.93	7,063.67	6,948.38	189.47	40.84	-87.70	-3,096.64	-10,250.63	5,203.44	5,024.61	178.83	29.097		
13,700.00	7,114.50	7,064.55	6,949.26	192.28	40.85	-87.72	-3,096.67	-10,250.64	5,135.01	4,952.32	182.69	28.107		
13,800.00	7,114.07	7,065.43	6,950.13	195.09	40.85	-87.73	-3,096.69	-10,250.65	5,067.64	4,881.00	186.64	27.153		
13,900.00	7,113.63	7,066.30	6,951.01	197.89	40.85	-87.74	-3,096.72	-10,250.67	5,001.36	4,810.70	190.66	26.232		
14,000.00	7,113.20	7,067.18	6,951.89	200.70	40.86	-87.76	-3,096.74	-10,250.68	4,936.21	4,741.46	194.75	25.346		
14,100.00	7,112.77	7,068.06	6,952.76	203.51	40.86	-87.77	-3,096.77	-10,250.70	4,872.24	4,673.32	198.92	24.493		
14,200.00	7,112.33	7,068.93	6,953.63	206.32	40.86	-87.78	-3,096.79	-10,250.71	4,809.51	4,606.33	203.17	23.672		
14,300.00	7,111.90	7,069.80	6,954.51	209.13	40.87	-87.80	-3,096.82	-10,250.72	4,748.04	4,540.56	207.49	22.883		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	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: 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	
14,400.00	7,111.46	7,070.67	6,955.38	211.95	40.87	-87.81	-3,096.84	-10,250.74	4,687.91	4,476.04	211.87	22.126	
14,500.00	7,111.03	7,071.55	6,956.25	214.76	40.87	-87.82	-3,096.87	-10,250.75	4,629.16	4,412.83	216.32	21.399	
14,600.00	7,110.60	7,072.42	6,957.12	217.58	40.87	-87.84	-3,096.90	-10,250.77	4,571.84	4,351.00	220.83	20.703	
14,700.00	7,110.16	7,073.29	6,957.99	220.39	40.88	-87.85	-3,096.92	-10,250.78	4,516.00	4,290.60	225.40	20.035	
14,800.00	7,109.73	7,074.16	6,958.86	223.21	40.88	-87.86	-3,096.95	-10,250.79	4,461.71	4,231.69	230.02	19.397	
14,900.00	7,109.30	7,075.02	6,959.72	226.03	40.88	-87.88	-3,096.97	-10,250.81	4,409.02	4,174.33	234.68	18.787	
14,969.16	7,109.00	7,075.62	6,960.32	227.97	40.88	-87.89	-3,096.99	-10,250.82	4,373.54	4,135.61	237.93	18.382	CC, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-108.47	-2,989.33	-8,949.02	9,435.17					
100.00	100.00	37.29	73.29	3.28	3.28	-108.47	-2,989.25	-8,949.11	9,435.19	9,428.62	6.57	1,437.075		
200.00	200.00	95.56	131.55	3.34	3.29	-108.47	-2,988.82	-8,949.56	9,435.69	9,429.07	6.62	1,424.801		
300.00	300.00	468.78	504.62	3.44	3.73	-108.41	-2,979.17	-8,948.48	9,433.59	9,426.42	7.18	1,314.701		
400.00	400.00	739.66	775.30	3.60	4.42	-108.37	-2,970.50	-8,942.86	9,430.77	9,422.74	8.03	1,174.457		
500.00	500.00	796.38	831.94	3.81	4.59	-108.36	-2,968.10	-8,941.36	9,426.97	9,418.57	8.40	1,122.179		
600.00	600.00	850.00	885.47	4.05	4.76	-108.35	-2,965.12	-8,940.56	9,423.75	9,414.94	8.81	1,070.024		
700.00	699.98	891.07	926.45	4.32	4.90	-99.24	-2,962.38	-8,940.33	9,421.35	9,412.14	9.21	1,022.851		
800.00	799.84	945.00	980.22	4.62	5.08	-99.25	-2,958.22	-8,940.51	9,420.05	9,410.36	9.69	972.362		
900.00	899.45	1,026.52	1,061.33	4.94	5.37	-99.26	-2,950.19	-8,941.65	9,419.66	9,409.37	10.30	914.887		
1,000.00	998.70	1,177.26	1,210.74	5.28	5.96	-99.25	-2,930.48	-8,944.88	9,419.46	9,408.24	11.22	839.698		
1,100.00	1,097.50	1,851.45	1,868.34	5.64	9.35	-99.03	-2,784.77	-8,955.31	9,416.13	9,401.20	14.92	630.943		
1,200.00	1,196.18	2,028.06	2,037.90	6.00	10.44	-98.91	-2,735.34	-8,955.16	9,409.62	9,393.27	16.35	575.498		
1,300.00	1,294.87	2,081.00	2,088.61	6.38	10.77	-98.87	-2,720.16	-8,955.35	9,403.42	9,386.36	17.06	551.171		
1,400.00	1,393.55	2,115.15	2,121.30	6.77	10.99	-98.85	-2,710.27	-8,955.72	9,397.79	9,380.12	17.67	531.743		
1,500.00	1,492.23	2,175.00	2,178.46	7.17	11.38	-98.80	-2,692.57	-8,956.83	9,392.76	9,374.30	18.46	508.820		
1,600.00	1,590.91	2,393.61	2,386.53	7.58	12.87	-98.61	-2,625.61	-8,960.20	9,387.09	9,366.77	20.32	461.895		
1,700.00	1,689.60	2,501.99	2,489.57	8.00	13.63	-98.52	-2,592.02	-8,961.36	9,380.97	9,359.50	21.48	436.809		
1,800.00	1,788.28	2,614.22	2,596.54	8.42	14.41	-98.43	-2,558.09	-8,962.01	9,374.63	9,351.97	22.66	413.642		
1,900.00	1,886.96	2,777.81	2,751.56	8.84	15.59	-98.28	-2,505.87	-8,963.16	9,367.89	9,343.65	24.24	386.456		
2,000.00	1,985.64	2,838.00	2,808.42	9.27	16.04	-98.22	-2,486.12	-8,963.65	9,361.05	9,335.94	25.11	372.785		
2,100.00	2,084.33	2,895.77	2,863.28	9.71	16.45	-98.17	-2,468.04	-8,964.09	9,354.66	9,328.71	25.95	360.448		
2,200.00	2,183.01	2,951.15	2,916.32	10.15	16.84	-98.13	-2,452.13	-8,964.38	9,348.81	9,322.03	26.78	349.119		
2,300.00	2,281.69	2,300.00	3,032.04	10.59	12.33	-98.04	-2,417.29	-8,965.31	9,343.22	9,320.42	22.80	409.755		
2,400.00	2,380.38	3,199.60	3,154.42	11.03	18.56	-97.95	-2,381.19	-8,965.40	9,337.09	9,307.74	29.35	318.165		
2,500.00	2,479.06	3,338.06	3,287.40	11.47	19.52	-97.86	-2,342.62	-8,964.73	9,330.55	9,299.83	30.72	303.722		
2,600.00	2,577.74	3,384.06	3,331.51	11.92	19.84	-97.82	-2,329.56	-8,964.69	9,324.30	9,292.81	31.49	296.123		
2,700.00	2,676.42	3,458.88	3,403.21	12.36	20.36	-97.77	-2,308.20	-8,965.07	9,318.55	9,286.10	32.45	287.153		
2,800.00	2,775.11	3,552.87	3,493.41	12.81	21.02	-97.70	-2,281.76	-8,965.44	9,312.86	9,279.31	33.55	277.597		
2,900.00	2,873.79	3,634.35	3,571.43	13.26	21.60	-97.64	-2,258.30	-8,966.06	9,307.34	9,272.77	34.57	269.256		
3,000.00	2,972.47	3,729.11	3,662.02	13.72	22.28	-97.57	-2,230.52	-8,967.12	9,302.01	9,266.32	35.69	260.625		
3,100.00	3,071.15	3,848.81	3,775.71	14.17	23.17	-97.46	-2,193.11	-8,968.96	9,296.51	9,259.50	37.02	251.131		
3,200.00	3,169.84	3,962.61	3,883.51	14.62	24.03	-97.35	-2,156.70	-8,970.80	9,290.91	9,252.58	38.32	242.452		
3,300.00	3,268.52	4,035.97	3,953.05	15.08	24.58	-97.28	-2,133.36	-8,971.94	9,285.33	9,246.01	39.33	236.113		
3,400.00	3,367.20	4,093.46	4,007.65	15.53	25.01	-97.23	-2,115.41	-8,972.94	9,280.14	9,239.93	40.21	230.779		
3,500.00	3,465.89	4,140.37	4,052.32	15.99	25.36	-97.19	-2,101.10	-8,973.93	9,275.50	9,234.48	41.02	226.130		
3,600.00	3,564.57	4,579.66	4,468.60	16.44	28.70	-96.77	-1,961.08	-8,977.72	9,269.22	9,224.51	44.71	207.329		
3,700.00	3,663.25	4,639.00	4,524.56	16.90	29.16	-96.71	-1,941.32	-8,977.61	9,261.59	9,215.96	45.63	202.954		
3,800.00	3,761.93	4,668.65	4,552.61	17.36	29.39	-96.69	-1,931.71	-8,977.66	9,254.51	9,208.18	46.33	199.755		
3,900.00	3,860.62	4,713.77	4,595.48	17.82	29.73	-96.64	-1,917.63	-8,977.79	9,248.06	9,200.92	47.14	196.201		
4,000.00	3,959.30	4,761.54	4,641.07	18.28	30.08	-96.61	-1,903.39	-8,978.02	9,242.19	9,194.23	47.95	192.735		
4,100.00	4,057.98	4,830.00	4,706.59	18.74	30.57	-96.55	-1,883.55	-8,978.63	9,236.90	9,187.99	48.91	188.863		
4,200.00	4,156.67	4,869.03	4,744.09	19.20	30.84	-96.53	-1,872.73	-8,979.04	9,232.06	9,182.42	49.64	185.971		
4,300.00	4,255.35	4,925.00	4,798.17	19.66	31.23	-96.49	-1,858.34	-8,979.47	9,227.68	9,177.20	50.49	182.769		
4,400.00	4,354.03	4,991.44	4,862.66	20.12	31.65	-96.46	-1,842.36	-8,979.96	9,223.73	9,172.35	51.38	179.528		
4,500.00	4,452.71	5,053.00	4,922.56	20.58	32.04	-96.44	-1,828.15	-8,980.53	9,220.19	9,167.96	52.23	176.535		
4,600.00	4,551.40	5,114.00	4,982.06	21.04	32.42	-96.42	-1,814.73	-8,981.15	9,217.07	9,164.00	53.07	173.678		
4,700.00	4,650.08	5,177.39	5,044.10	21.50	32.80	-96.40	-1,801.78	-8,981.79	9,214.36	9,160.46	53.90	170.944		
4,800.00	4,748.76	5,238.65	5,104.32	21.96	33.14	-96.40	-1,790.51	-8,982.32	9,212.06	9,157.35	54.71	168.384		
4,900.00	4,847.44	5,304.00	5,168.80	22.42	33.49	-96.40	-1,779.90	-8,982.79	9,210.20	9,154.67	55.52	165.887		
5,000.00	4,946.13	5,362.97	5,227.13	22.89	33.79	-96.40	-1,771.28	-8,983.21	9,208.74	9,152.46	56.28	163.631		
5,100.00	5,044.81	5,422.71	5,286.32	23.35	34.08	-96.41	-1,763.21	-8,983.67	9,207.68	9,150.65	57.03	161.462		

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



Anticollision Report



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Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 4N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,493.00	5,356.18	23.81	34.41	-96.44	-1,755.45	-8,984.14	9,207.13	9,149.32	57.81	159.264		
5,272.52	5,215.05	5,519.26	5,382.32	24.15	34.52	-96.45	-1,752.99	-8,984.31	9,206.99	9,148.73	58.25	158.054		
5,300.00	5,242.18	5,536.31	5,399.30	24.27	34.59	-96.46	-1,751.45	-8,984.42	9,207.00	9,148.55	58.45	157.520		
5,400.00	5,340.86	5,630.90	5,493.56	24.74	34.98	-96.50	-1,743.64	-8,985.10	9,207.29	9,147.99	59.30	155.261		
5,500.00	5,439.54	5,500.00	5,647.84	25.20	34.49	-96.60	-1,733.51	-8,984.54	9,206.93	9,147.65	59.28	155.316		
5,578.73	5,517.23	5,826.64	5,688.93	25.57	35.73	-96.63	-1,731.64	-8,984.13	9,206.73	9,145.85	60.87	151.245		
5,600.00	5,538.22	5,836.14	5,698.42	25.66	35.76	-96.64	-1,731.22	-8,984.08	9,206.74	9,145.74	61.00	150.920		
5,700.00	5,636.91	5,872.00	5,734.24	26.13	35.89	-96.66	-1,729.71	-8,983.94	9,207.18	9,145.60	61.59	149.501		
5,800.00	5,735.59	5,927.94	5,790.15	26.59	36.08	-96.71	-1,727.73	-8,983.96	9,208.20	9,145.96	62.23	147.964		
5,900.00	5,834.27	5,980.69	5,842.88	27.06	36.26	-96.75	-1,726.35	-8,984.19	9,209.80	9,146.93	62.86	146.503		
6,000.00	5,932.95	6,061.00	5,923.17	27.52	36.53	-96.82	-1,724.55	-8,984.72	9,211.74	9,148.16	63.59	144.866		
6,100.00	6,031.64	6,169.64	6,031.78	27.98	36.89	-96.91	-1,722.33	-8,985.43	9,213.76	9,149.35	64.41	143.046		
6,200.00	6,130.32	6,263.07	6,125.19	28.45	37.19	-97.00	-1,720.55	-8,985.93	9,215.73	9,150.55	65.18	141.384		
6,300.00	6,229.00	6,341.82	6,203.92	28.91	37.46	-97.06	-1,718.94	-8,986.53	9,217.90	9,152.00	65.90	139.871		
6,400.00	6,327.69	6,420.96	6,283.04	29.38	37.72	-97.13	-1,717.22	-8,987.35	9,220.31	9,153.69	66.63	138.388		
6,500.00	6,426.37	6,500.42	6,362.48	29.84	37.99	-97.20	-1,715.55	-8,988.33	9,222.95	9,155.60	67.35	136.935		
6,600.00	6,525.05	6,595.72	6,457.74	30.31	38.31	-97.28	-1,713.65	-8,989.64	9,225.78	9,157.64	68.14	135.399		
6,700.00	6,623.18	6,704.00	6,566.00	30.77	38.68	-97.37	-1,711.56	-8,991.03	9,221.01	9,152.04	68.97	133.696		
6,800.00	6,718.58	6,777.45	6,639.43	31.22	38.93	-97.46	-1,710.18	-8,992.03	9,201.30	9,131.64	69.66	132.085		
6,900.00	6,808.91	6,852.00	6,713.96	31.66	39.18	-97.50	-1,708.83	-8,993.19	9,167.27	9,096.93	70.34	130.335		
7,000.00	6,891.95	6,938.30	6,800.23	32.07	39.48	-97.55	-1,707.10	-8,994.66	9,119.64	9,048.61	71.03	128.384		
7,100.00	6,965.65	7,018.93	6,880.82	32.51	39.76	-97.60	-1,705.15	-8,996.08	9,059.49	8,987.81	71.68	126.384		
7,200.00	7,028.20	7,093.17	6,955.02	33.02	40.02	-97.65	-1,703.28	-8,997.35	8,988.30	8,916.02	72.28	124.352		
7,300.00	7,078.04	7,152.54	7,014.38	33.68	40.23	-97.70	-1,701.84	-8,998.28	8,907.86	8,835.06	72.79	122.369		
7,400.00	7,113.97	7,195.67	7,057.48	34.52	40.38	-97.75	-1,700.82	-8,999.19	8,820.18	8,746.96	73.22	120.460		
7,500.00	7,135.09	7,205.90	7,067.72	35.53	40.42	-97.80	-1,700.61	-8,999.08	8,727.50	8,654.01	73.50	118.747		
7,600.00	7,140.96	7,211.88	7,073.69	36.68	40.44	-97.86	-1,700.48	-8,999.17	8,632.05	8,558.31	73.74	117.061		
7,700.00	7,140.53	7,212.72	7,074.53	37.99	40.44	-97.88	-1,700.46	-8,999.18	8,536.08	8,462.12	73.97	115.402		
7,800.00	7,140.09	7,213.56	7,075.37	39.45	40.44	-97.90	-1,700.44	-8,999.20	8,440.22	8,365.99	74.22	113.714		
7,900.00	7,139.66	7,214.39	7,076.20	41.06	40.45	-97.92	-1,700.42	-8,999.21	8,344.44	8,269.94	74.50	111.999		
8,000.00	7,139.23	7,215.24	7,077.05	42.80	40.45	-97.94	-1,700.41	-8,999.22	8,248.77	8,173.96	74.81	110.258		
8,100.00	7,138.79	7,216.08	7,077.89	44.65	40.45	-97.96	-1,700.39	-8,999.23	8,153.21	8,078.05	75.15	108.490		
8,200.00	7,138.36	7,216.92	7,078.73	46.60	40.46	-97.98	-1,700.37	-8,999.25	8,057.75	7,982.23	75.52	106.697		
8,300.00	7,137.93	7,217.77	7,079.58	48.65	40.46	-98.00	-1,700.35	-8,999.26	7,962.40	7,886.48	75.92	104.880		
8,400.00	7,137.49	7,218.62	7,080.43	50.77	40.46	-98.02	-1,700.33	-8,999.27	7,867.16	7,790.81	76.35	103.040		
8,500.00	7,137.06	7,219.47	7,081.28	52.95	40.46	-98.04	-1,700.31	-8,999.29	7,772.05	7,695.24	76.81	101.179		
8,600.00	7,136.62	7,220.32	7,082.13	55.20	40.47	-98.06	-1,700.30	-8,999.30	7,677.06	7,599.75	77.31	99.298		
8,700.00	7,136.19	7,221.18	7,082.98	57.51	40.47	-98.08	-1,700.28	-8,999.31	7,582.20	7,504.35	77.85	97.399		
8,800.00	7,135.76	7,222.03	7,083.84	59.85	40.47	-98.10	-1,700.26	-8,999.33	7,487.47	7,409.06	78.42	95.483		
8,900.00	7,135.32	7,222.89	7,084.70	62.24	40.48	-98.12	-1,700.24	-8,999.34	7,392.88	7,313.86	79.02	93.552		
9,000.00	7,134.89	7,223.75	7,085.56	64.67	40.48	-98.14	-1,700.22	-8,999.35	7,298.44	7,218.77	79.67	91.608		
9,100.00	7,134.45	7,224.61	7,086.42	67.13	40.48	-98.16	-1,700.21	-8,999.37	7,204.15	7,123.79	80.36	89.653		
9,200.00	7,134.02	7,225.48	7,087.29	69.62	40.49	-98.18	-1,700.19	-8,999.38	7,110.01	7,028.92	81.08	87.689		
9,300.00	7,133.59	7,226.35	7,088.15	72.14	40.49	-98.20	-1,700.17	-8,999.39	7,016.03	6,934.18	81.85	85.717		
9,400.00	7,133.15	7,227.21	7,089.02	74.68	40.49	-98.22	-1,700.15	-8,999.41	6,922.22	6,839.56	82.66	83.741		
9,500.00	7,132.72	7,228.08	7,089.89	77.24	40.49	-98.24	-1,700.13	-8,999.42	6,828.59	6,745.07	83.52	81.762		
9,600.00	7,132.29	7,228.96	7,090.76	79.83	40.50	-98.26	-1,700.11	-8,999.43	6,735.14	6,650.72	84.42	79.783		
9,700.00	7,131.85	7,229.83	7,091.64	82.42	40.50	-98.28	-1,700.10	-8,999.45	6,641.88	6,556.52	85.37	77.805		
9,800.00	7,131.42	7,230.71	7,092.51	85.04	40.50	-98.30	-1,700.08	-8,999.46	6,548.82	6,462.46	86.36	75.830		
9,900.00	7,130.98	7,231.59	7,093.39	87.67	40.51	-98.32	-1,700.06	-8,999.47	6,455.97	6,368.56	87.41	73.862		
10,000.00	7,130.55	7,232.47	7,094.27	90.31	40.51	-98.34	-1,700.04	-8,999.49	6,363.34	6,274.83	88.50	71.901		
10,100.00	7,130.12	7,233.35	7,095.15	92.97	40.51	-98.36	-1,700.02	-8,999.50	6,270.93	6,181.28	89.65	69.949		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,200.00	7,129.68	7,234.24	7,096.04	95.63	40.52	-89.79	-1,700.01	-8,999.52	6,178.75	6,087.90	90.85	68.010		
10,300.00	7,129.25	7,235.12	7,096.93	98.31	40.52	-89.81	-1,699.99	-8,999.53	6,086.82	5,994.72	92.11	66.084		
10,400.00	7,128.82	7,236.01	7,097.81	101.00	40.52	-89.83	-1,699.97	-8,999.54	5,995.16	5,901.74	93.42	64.174		
10,500.00	7,128.38	7,236.90	7,098.71	103.69	40.53	-89.85	-1,699.95	-8,999.56	5,903.76	5,808.97	94.79	62.282		
10,600.00	7,127.95	7,237.80	7,099.60	106.39	40.53	-89.87	-1,699.93	-8,999.57	5,812.64	5,716.42	96.22	60.408		
10,700.00	7,127.51	7,238.69	7,100.49	109.10	40.53	-89.89	-1,699.91	-8,999.59	5,721.83	5,624.11	97.72	58.555		
10,800.00	7,127.08	7,239.59	7,101.39	111.82	40.53	-89.91	-1,699.90	-8,999.60	5,631.32	5,532.04	99.27	56.725		
10,900.00	7,126.65	7,240.49	7,102.29	114.54	40.54	-89.94	-1,699.88	-8,999.61	5,541.14	5,440.24	100.90	54.918		
11,000.00	7,126.21	7,241.39	7,103.19	117.27	40.54	-89.96	-1,699.86	-8,999.63	5,451.30	5,348.71	102.59	53.137		
11,100.00	7,125.78	7,242.29	7,104.09	120.01	40.54	-89.98	-1,699.84	-8,999.64	5,361.82	5,257.47	104.35	51.383		
11,200.00	7,125.35	7,243.20	7,105.00	122.75	40.55	-90.00	-1,699.82	-8,999.66	5,272.72	5,166.53	106.19	49.656		
11,300.00	7,124.91	7,244.11	7,105.91	125.49	40.55	-90.02	-1,699.80	-8,999.67	5,184.01	5,075.92	108.09	47.958		
11,400.00	7,124.48	7,245.02	7,106.82	128.24	40.55	-90.04	-1,699.79	-8,999.68	5,095.73	4,985.65	110.08	46.291		
11,500.00	7,124.04	7,245.93	7,107.73	131.00	40.56	-90.06	-1,699.77	-8,999.70	5,007.88	4,895.73	112.15	44.654		
11,600.00	7,123.61	7,246.84	7,108.64	133.75	40.56	-90.09	-1,699.75	-8,999.71	4,920.50	4,806.20	114.30	43.050		
11,700.00	7,123.18	7,247.76	7,109.56	136.52	40.56	-90.11	-1,699.73	-8,999.73	4,833.61	4,717.08	116.53	41.478		
11,800.00	7,122.74	7,248.68	7,110.48	139.28	40.57	-90.13	-1,699.71	-8,999.74	4,747.23	4,628.37	118.86	39.941		
11,900.00	7,122.31	7,249.60	7,111.40	142.05	40.57	-90.15	-1,699.69	-8,999.76	4,661.40	4,540.13	121.27	38.438		
12,000.00	7,121.88	7,250.52	7,112.32	144.82	40.57	-90.17	-1,699.68	-8,999.77	4,576.14	4,452.36	123.78	36.969		
12,100.00	7,121.44	7,251.45	7,113.25	147.59	40.58	-90.20	-1,699.66	-8,999.79	4,491.49	4,365.10	126.39	35.537		
12,200.00	7,121.01	7,252.38	7,114.17	150.37	40.58	-90.22	-1,699.64	-8,999.80	4,407.49	4,278.39	129.10	34.140		
12,300.00	7,120.57	7,253.31	7,115.10	153.15	40.58	-90.24	-1,699.62	-8,999.82	4,324.16	4,192.25	131.91	32.781		
12,400.00	7,120.14	7,254.24	7,116.04	155.93	40.59	-90.26	-1,699.60	-8,999.83	4,241.55	4,106.72	134.83	31.458		
12,500.00	7,119.71	7,255.17	7,116.97	158.72	40.59	-90.28	-1,699.58	-8,999.85	4,159.71	4,021.85	137.87	30.172		
12,600.00	7,119.27	7,256.11	7,117.91	161.50	40.59	-90.31	-1,699.57	-8,999.86	4,078.68	3,937.67	141.01	28.924		
12,700.00	7,118.84	7,257.05	7,118.85	164.29	40.60	-90.33	-1,699.55	-8,999.88	3,998.51	3,854.23	144.28	27.714		
12,800.00	7,118.41	7,257.99	7,119.79	167.08	40.60	-90.35	-1,699.53	-8,999.89	3,919.24	3,771.58	147.66	26.542		
12,900.00	7,117.97	7,258.93	7,120.73	169.88	40.60	-90.37	-1,699.51	-8,999.91	3,840.95	3,689.78	151.17	25.409		
13,000.00	7,117.54	7,259.88	7,121.67	172.67	40.61	-90.40	-1,699.49	-8,999.92	3,763.68	3,608.88	154.80	24.313		
13,100.00	7,117.10	7,260.83	7,122.62	175.47	40.61	-90.42	-1,699.47	-8,999.94	3,687.51	3,528.94	158.56	23.256		
13,200.00	7,116.67	7,261.78	7,123.57	178.27	40.61	-90.44	-1,699.46	-8,999.95	3,612.49	3,450.04	162.46	22.237		
13,300.00	7,116.24	7,262.73	7,124.52	181.07	40.62	-90.46	-1,699.44	-8,999.97	3,538.72	3,372.24	166.48	21.256		
13,400.00	7,115.80	7,263.69	7,125.48	183.87	40.62	-90.49	-1,699.42	-8,999.98	3,466.26	3,295.62	170.64	20.313		
13,500.00	7,115.37	7,264.64	7,126.44	186.67	40.62	-90.51	-1,699.40	-9,000.00	3,395.19	3,220.26	174.93	19.409		
13,600.00	7,114.93	7,265.60	7,127.40	189.47	40.63	-90.53	-1,699.38	-9,000.01	3,325.62	3,146.27	179.35	18.543		
13,700.00	7,114.50	7,266.56	7,128.36	192.28	40.63	-90.55	-1,699.36	-9,000.03	3,257.63	3,073.73	183.90	17.714		
13,800.00	7,114.07	7,267.53	7,129.32	195.09	40.63	-90.58	-1,699.35	-9,000.04	3,191.32	3,002.75	188.57	16.923		
13,900.00	7,113.63	7,268.49	7,130.29	197.89	40.64	-90.60	-1,699.33	-9,000.06	3,126.81	2,933.44	193.37	16.170		
14,000.00	7,113.20	7,269.46	7,131.26	200.70	40.64	-90.62	-1,699.31	-9,000.07	3,064.20	2,865.92	198.28	15.454		
14,100.00	7,112.77	7,270.44	7,132.23	203.51	40.64	-90.65	-1,699.29	-9,000.09	3,003.62	2,800.32	203.30	14.774		
14,200.00	7,112.33	7,271.41	7,133.20	206.32	40.65	-90.67	-1,699.27	-9,000.10	2,945.18	2,736.77	208.41	14.132		
14,300.00	7,111.90	7,272.39	7,134.18	209.13	40.65	-90.69	-1,699.25	-9,000.12	2,889.03	2,675.43	213.60	13.525		
14,400.00	7,111.46	7,273.36	7,135.15	211.95	40.65	-90.72	-1,699.24	-9,000.14	2,835.29	2,616.43	218.86	12.955		
14,500.00	7,111.03	7,274.34	7,136.14	214.76	40.66	-90.74	-1,699.22	-9,000.15	2,784.11	2,559.95	224.16	12.420		
14,600.00	7,110.60	7,275.33	7,137.12	217.58	40.66	-90.76	-1,699.20	-9,000.17	2,735.62	2,506.13	229.49	11.921		
14,700.00	7,110.16	7,276.31	7,138.10	220.39	40.66	-90.79	-1,699.18	-9,000.18	2,689.98	2,455.17	234.81	11.456		
14,800.00	7,109.73	7,277.30	7,139.09	223.21	40.67	-90.81	-1,699.16	-9,000.20	2,647.33	2,407.22	240.11	11.025		
14,900.00	7,109.30	7,278.29	7,140.08	226.03	40.67	-90.83	-1,699.14	-9,000.22	2,607.82	2,362.47	245.35	10.629		
14,969.16	7,109.00	7,278.98	7,140.77	227.97	40.67	-90.85	-1,699.13	-9,000.23	2,582.41	2,333.48	248.93	10.374	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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-108.45	-2,995.15	-8,979.90	9,466.30					
100.00	100.00	190.04	226.01	3.28	3.34	-108.43	-2,992.09	-8,979.53	9,465.75	9,459.13	6.62	1,429.487		
200.00	200.00	311.91	347.84	3.34	3.48	-108.41	-2,989.22	-8,978.57	9,464.25	9,457.43	6.81	1,389.223		
300.00	300.00	420.61	456.48	3.44	3.66	-108.40	-2,985.87	-8,977.89	9,462.68	9,455.58	7.11	1,331.527		
400.00	400.00	501.82	537.64	3.60	3.83	-108.38	-2,982.83	-8,977.51	9,461.07	9,453.63	7.44	1,272.067		
500.00	500.00	542.00	577.78	3.81	3.93	-108.37	-2,981.09	-8,977.52	9,459.85	9,452.11	7.73	1,223.068		
600.00	600.00	594.45	630.18	4.05	4.06	-108.36	-2,978.73	-8,977.87	9,459.17	9,451.06	8.11	1,166.749		
626.17	626.17	604.27	639.99	4.11	4.09	-99.20	-2,978.29	-8,977.99	9,459.13	9,450.92	8.20	1,153.372		
700.00	699.98	648.00	683.67	4.32	4.21	-99.19	-2,976.35	-8,978.74	9,459.49	9,450.97	8.52	1,109.913		
800.00	799.84	670.04	705.68	4.62	4.27	-99.16	-2,975.41	-8,979.24	9,460.96	9,452.08	8.88	1,065.285		
900.00	899.45	725.78	761.36	4.94	4.43	-99.13	-2,973.26	-8,980.74	9,463.65	9,454.29	9.36	1,011.087		
1,000.00	998.70	790.00	825.51	5.28	4.62	-99.08	-2,970.92	-8,982.54	9,467.15	9,457.26	9.89	957.090		
1,100.00	1,097.50	843.87	879.31	5.64	4.79	-99.06	-2,968.74	-8,984.36	9,471.63	9,461.21	10.42	909.255		
1,200.00	1,196.18	884.00	919.35	6.00	4.93	-99.09	-2,966.76	-8,986.12	9,476.85	9,465.93	10.92	868.018		
1,300.00	1,294.87	884.00	919.35	6.38	4.93	-99.09	-2,966.76	-8,986.12	9,482.92	9,471.62	11.30	839.210		
1,400.00	1,393.55	940.27	975.45	6.77	5.12	-99.12	-2,963.78	-8,989.28	9,489.43	9,477.55	11.88	798.612		
1,500.00	1,492.23	979.00	1,014.03	7.17	5.25	-99.14	-2,961.73	-8,991.99	9,496.89	9,484.48	12.42	764.839		
1,600.00	1,590.91	1,009.78	1,044.67	7.58	5.36	-99.15	-2,960.00	-8,994.41	9,505.02	9,492.09	12.93	734.913		
1,700.00	1,689.60	1,074.00	1,108.50	8.00	5.60	-99.18	-2,955.69	-8,999.97	9,513.70	9,500.12	13.58	700.527		
1,800.00	1,788.28	1,150.79	1,184.67	8.42	5.90	-99.20	-2,949.23	-9,007.32	9,522.70	9,508.41	14.30	666.156		
1,900.00	1,886.96	1,199.50	1,232.87	8.84	6.10	-99.21	-2,944.36	-9,012.33	9,531.96	9,517.05	14.91	639.212		
2,000.00	1,985.64	1,263.00	1,295.53	9.27	6.37	-99.22	-2,937.24	-9,019.72	9,541.93	9,526.33	15.60	611.653		
2,100.00	2,084.33	1,263.00	1,295.53	9.71	6.37	-99.22	-2,937.24	-9,019.72	9,552.39	9,536.37	16.02	596.153		
2,200.00	2,183.01	1,309.18	1,340.95	10.15	6.58	-99.22	-2,931.47	-9,025.78	9,563.57	9,546.91	16.65	574.257		
2,300.00	2,281.69	1,358.00	1,388.78	10.59	6.80	-99.21	-2,924.75	-9,032.86	9,575.46	9,558.16	17.30	553.478		
2,400.00	2,380.38	1,416.95	1,446.42	11.03	7.09	-99.20	-2,916.29	-9,041.82	9,587.86	9,569.85	18.01	532.471		
2,500.00	2,479.06	1,520.96	1,548.24	11.47	7.60	-99.19	-2,901.83	-9,057.45	9,600.31	9,581.37	18.94	506.929		
2,600.00	2,577.74	1,581.81	1,607.90	11.92	7.91	-99.19	-2,893.97	-9,066.44	9,612.87	9,593.21	19.67	488.787		
2,700.00	2,676.42	1,642.00	1,666.84	12.36	8.21	-99.18	-2,886.13	-9,075.77	9,625.99	9,605.59	20.40	471.949		
2,800.00	2,775.11	1,712.93	1,736.31	12.81	8.58	-99.18	-2,877.13	-9,086.94	9,639.47	9,618.28	21.18	455.018		
2,900.00	2,873.79	1,868.11	1,888.40	13.26	9.41	-99.17	-2,857.33	-9,110.51	9,652.28	9,629.86	22.42	430.504		
3,000.00	2,972.47	1,926.00	1,945.04	13.72	9.72	-99.16	-2,849.62	-9,119.64	9,665.55	9,642.40	23.16	417.377		
3,100.00	3,071.15	2,051.79	2,068.33	14.17	10.41	-99.15	-2,833.82	-9,138.97	9,678.74	9,654.48	24.26	398.969		
3,200.00	3,169.84	2,117.00	2,132.24	14.62	10.77	-99.15	-2,825.75	-9,149.10	9,692.11	9,667.07	25.04	387.087		
3,300.00	3,268.52	2,366.10	2,375.83	15.08	12.19	-99.11	-2,789.76	-9,186.57	9,703.85	9,676.99	26.86	361.245		
3,400.00	3,367.20	2,401.00	2,410.05	15.53	12.38	-99.11	-2,785.14	-9,191.67	9,716.10	9,688.61	27.49	353.429		
3,500.00	3,465.89	2,475.69	2,483.29	15.99	12.81	-99.11	-2,775.66	-9,202.81	9,728.82	9,700.49	28.34	343.335		
3,600.00	3,564.57	2,534.03	2,540.42	16.44	13.14	-99.10	-2,767.94	-9,211.77	9,741.81	9,712.71	29.10	334.823		
3,700.00	3,663.25	2,590.00	2,595.13	16.90	13.47	-99.09	-2,760.29	-9,220.74	9,755.28	9,725.44	29.84	326.884		
3,800.00	3,761.93	2,704.24	2,706.76	17.36	14.14	-99.08	-2,744.51	-9,239.23	9,768.86	9,737.93	30.93	315.804		
3,900.00	3,860.62	2,779.00	2,779.81	17.82	14.58	-99.07	-2,734.27	-9,251.36	9,782.51	9,750.71	31.80	307.671		
4,000.00	3,959.30	2,874.00	2,872.84	18.28	15.14	-99.06	-2,722.10	-9,266.29	9,795.98	9,763.22	32.77	298.952		
4,100.00	4,057.98	2,926.01	2,923.86	18.74	15.44	-99.06	-2,716.10	-9,274.38	9,809.84	9,776.35	33.49	292.958		
4,200.00	4,156.67	2,969.00	2,966.02	19.20	15.68	-99.06	-2,711.47	-9,281.44	9,824.48	9,790.32	34.15	287.674		
4,300.00	4,255.35	3,182.31	3,175.14	19.66	16.92	-99.07	-2,687.96	-9,316.21	9,839.39	9,803.61	35.79	274.945		
4,400.00	4,354.03	3,228.64	3,220.73	20.12	17.18	-99.07	-2,683.61	-9,323.20	9,853.34	9,816.88	36.46	270.215		
4,500.00	4,452.71	3,433.34	3,422.42	20.58	18.30	-99.11	-2,665.91	-9,353.39	9,867.37	9,829.37	38.00	259.692		
4,600.00	4,551.40	3,729.00	3,714.36	21.04	19.88	-99.16	-2,638.76	-9,391.25	9,878.57	9,838.56	40.01	246.933		
4,700.00	4,650.08	3,775.29	3,760.00	21.50	20.14	-99.17	-2,633.74	-9,397.18	9,889.96	9,849.26	40.70	243.016		
4,800.00	4,748.76	3,824.00	3,807.87	21.96	20.41	-99.17	-2,627.92	-9,404.01	9,902.00	9,860.60	41.40	239.176		
4,900.00	4,847.44	3,851.64	3,834.99	22.42	20.58	-99.17	-2,624.45	-9,408.13	9,914.63	9,872.64	41.99	236.116		
5,000.00	4,946.13	3,892.96	3,875.47	22.89	20.82	-99.16	-2,619.17	-9,414.52	9,927.86	9,885.20	42.66	232.729		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,044.81	3,948.28	3,929.59	23.35	21.15	-99.16	-2,612.00	-9,423.45	9,941.63	9,898.22	43.41	229.020		
5,200.00	5,143.49	4,147.46	4,124.80	23.81	22.33	-99.15	-2,587.61	-9,454.54	9,955.23	9,910.23	45.00	221.206		
5,300.00	5,242.18	4,235.51	4,211.16	24.27	22.85	-99.15	-2,576.80	-9,467.89	9,968.32	9,922.37	45.94	216.962		
5,400.00	5,340.86	4,407.41	4,379.18	24.74	23.89	-99.12	-2,552.04	-9,494.42	9,980.99	9,933.58	47.41	210.509		
5,500.00	5,439.54	4,485.00	4,454.69	25.20	24.38	-99.10	-2,539.12	-9,506.72	9,993.39	9,945.06	48.33	206.781		
7,000.00	6,891.95	6,755.00	6,707.65	32.07	34.79	-35.63	-2,399.26	-9,655.32	9,966.93	9,901.29	65.65	151.824		
7,100.00	6,965.65	6,793.08	6,745.72	32.51	34.94	-35.74	-2,398.88	-9,656.33	9,909.05	9,842.85	66.19	149.698		
7,200.00	7,028.20	6,840.51	6,793.13	33.02	35.12	-38.01	-2,398.43	-9,657.65	9,840.28	9,773.53	66.75	147.415		
7,300.00	7,078.04	6,878.97	6,831.57	33.68	35.27	-42.82	-2,398.09	-9,658.79	9,762.26	9,695.01	67.25	145.155		
7,400.00	7,113.97	6,907.49	6,860.07	34.52	35.38	-51.37	-2,397.85	-9,659.66	9,676.86	9,609.17	67.70	142.944		
7,500.00	7,135.09	6,925.30	6,877.88	35.53	35.45	-65.94	-2,397.71	-9,660.22	9,586.15	9,518.07	68.08	140.808		
7,600.00	7,140.96	6,931.96	6,884.54	36.68	35.48	-85.97	-2,397.66	-9,660.43	9,492.32	9,423.92	68.40	138.772		
7,700.00	7,140.53	6,944.00	6,896.57	37.99	35.52	-86.19	-2,397.57	-9,660.82	9,397.86	9,329.10	68.75	136.686		
7,800.00	7,140.09	6,944.00	6,896.57	39.45	35.52	-86.19	-2,397.57	-9,660.82	9,303.49	9,234.40	69.09	134.651		
7,900.00	7,139.66	6,944.00	6,896.57	41.06	35.52	-86.19	-2,397.57	-9,660.82	9,209.25	9,139.78	69.47	132.572		
8,000.00	7,139.23	6,944.00	6,896.57	42.80	35.52	-86.19	-2,397.57	-9,660.82	9,115.13	9,045.25	69.87	130.453		
8,100.00	7,138.79	6,944.00	6,896.57	44.65	35.52	-86.19	-2,397.57	-9,660.82	9,021.13	8,950.82	70.32	128.294		
8,200.00	7,138.36	6,944.00	6,896.57	46.60	35.52	-86.19	-2,397.57	-9,660.82	8,927.27	8,856.47	70.80	126.098		
8,300.00	7,137.93	6,944.00	6,896.57	48.65	35.52	-86.19	-2,397.57	-9,660.82	8,833.54	8,762.23	71.31	123.869		
8,400.00	7,137.49	6,944.00	6,896.57	50.77	35.52	-86.19	-2,397.57	-9,660.82	8,739.95	8,668.08	71.87	121.609		
8,500.00	7,137.06	6,944.00	6,896.57	52.95	35.52	-86.19	-2,397.57	-9,660.82	8,646.50	8,574.04	72.46	119.321		
8,600.00	7,136.62	6,944.00	6,896.57	55.20	35.52	-86.19	-2,397.57	-9,660.82	8,553.20	8,480.10	73.10	117.008		
8,700.00	7,136.19	6,944.00	6,896.57	57.51	35.52	-86.19	-2,397.57	-9,660.82	8,460.06	8,386.28	73.78	114.673		
8,800.00	7,135.76	6,944.00	6,896.57	59.85	35.52	-86.19	-2,397.57	-9,660.82	8,367.07	8,292.58	74.49	112.321		
8,900.00	7,135.32	6,944.00	6,896.57	62.24	35.52	-86.19	-2,397.57	-9,660.82	8,274.25	8,198.99	75.25	109.954		
9,000.00	7,134.89	6,944.00	6,896.57	64.67	35.52	-86.19	-2,397.57	-9,660.82	8,181.59	8,105.54	76.05	107.575		
9,100.00	7,134.45	6,944.00	6,896.57	67.13	35.52	-86.19	-2,397.57	-9,660.82	8,089.11	8,012.21	76.90	105.188		
9,200.00	7,134.02	6,944.00	6,896.57	69.62	35.52	-86.19	-2,397.57	-9,660.82	7,996.81	7,919.02	77.79	102.798		
9,300.00	7,133.59	6,944.00	6,896.57	72.14	35.52	-86.19	-2,397.57	-9,660.82	7,904.70	7,825.97	78.73	100.406		
9,400.00	7,133.15	6,966.04	6,918.60	74.68	35.61	-86.60	-2,397.39	-9,661.55	7,812.74	7,732.94	79.80	97.906		
9,500.00	7,132.72	6,968.01	6,920.56	77.24	35.62	-86.64	-2,397.38	-9,661.62	7,721.01	7,640.18	80.83	95.517		
9,600.00	7,132.29	6,969.99	6,922.55	79.83	35.63	-86.67	-2,397.36	-9,661.69	7,629.49	7,547.57	81.92	93.136		
9,700.00	7,131.85	6,972.01	6,924.56	82.42	35.64	-86.71	-2,397.34	-9,661.76	7,538.19	7,455.14	83.05	90.767		
9,800.00	7,131.42	6,974.04	6,926.59	85.04	35.65	-86.75	-2,397.32	-9,661.83	7,447.11	7,362.87	84.23	88.413		
9,900.00	7,130.98	6,976.11	6,928.65	87.67	35.65	-86.79	-2,397.31	-9,661.90	7,356.25	7,270.79	85.46	86.077		
10,000.00	7,130.55	6,978.20	6,930.74	90.31	35.66	-86.82	-2,397.29	-9,661.97	7,265.64	7,178.90	86.74	83.761		
10,100.00	7,130.12	6,980.31	6,932.86	92.97	35.67	-86.86	-2,397.27	-9,662.05	7,175.28	7,087.21	88.08	81.467		
10,200.00	7,129.68	6,982.45	6,935.00	95.63	35.68	-86.90	-2,397.25	-9,662.13	7,085.18	6,995.72	89.46	79.198		
10,300.00	7,129.25	6,984.62	6,937.17	98.31	35.69	-86.94	-2,397.23	-9,662.20	6,995.34	6,904.44	90.90	76.956		
10,400.00	7,128.82	6,986.82	6,939.36	101.00	35.70	-86.98	-2,397.21	-9,662.28	6,905.78	6,813.39	92.39	74.743		
10,500.00	7,128.38	6,989.05	6,941.59	103.69	35.71	-87.03	-2,397.19	-9,662.37	6,816.51	6,722.57	93.94	72.560		
10,600.00	7,127.95	6,991.30	6,943.84	106.39	35.72	-87.07	-2,397.17	-9,662.45	6,727.54	6,632.00	95.55	70.409		
10,700.00	7,127.51	6,993.59	6,946.12	109.10	35.73	-87.11	-2,397.14	-9,662.53	6,638.89	6,541.68	97.21	68.292		
10,800.00	7,127.08	6,995.90	6,948.44	111.82	35.73	-87.15	-2,397.12	-9,662.62	6,550.56	6,451.62	98.94	66.210		
10,900.00	7,126.65	6,998.25	6,950.78	114.54	35.74	-87.20	-2,397.10	-9,662.70	6,462.57	6,361.85	100.72	64.165		
11,000.00	7,126.21	7,000.63	6,953.16	117.27	35.75	-87.24	-2,397.07	-9,662.79	6,374.93	6,272.37	102.56	62.156		
11,100.00	7,125.78	7,003.04	6,955.57	120.01	35.76	-87.28	-2,397.05	-9,662.88	6,287.66	6,183.19	104.47	60.185		
11,200.00	7,125.35	7,005.48	6,958.01	122.75	35.77	-87.33	-2,397.03	-9,662.96	6,200.78	6,094.33	106.44	58.254		
11,300.00	7,124.91	7,007.96	6,960.48	125.49	35.78	-87.38	-2,397.00	-9,663.07	6,114.29	6,005.80	108.48	56.362		
11,400.00	7,124.48	7,010.47	6,962.99	128.24	35.79	-87.42	-2,396.98	-9,663.17	6,028.22	5,917.63	110.59	54.510		
11,500.00	7,124.04	7,013.01	6,965.53	131.00	35.80	-87.47	-2,396.95	-9,663.27	5,942.58	5,829.82	112.77	52.699		
11,600.00	7,123.61	7,015.59	6,968.11	133.75	35.81	-87.52	-2,396.92	-9,663.37	5,857.40	5,742.39	115.01	50.929		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
11,700.00	7,123.18	7,018.21	6,970.72	136.52	35.82	-87.56	-2,396.89	-9,663.47	5,772.69	5,655.36	117.33	49.200		
11,800.00	7,122.74	7,020.86	6,973.38	139.28	35.84	-87.61	-2,396.87	-9,663.57	5,688.48	5,568.75	119.72	47.513		
11,900.00	7,122.31	7,023.55	6,976.06	142.05	35.85	-87.66	-2,396.84	-9,663.68	5,604.78	5,482.59	122.19	45.868		
12,000.00	7,121.88	7,026.28	6,978.79	144.82	35.86	-87.71	-2,396.81	-9,663.79	5,521.63	5,396.88	124.74	44.264		
12,100.00	7,121.44	7,029.05	6,981.56	147.59	35.87	-87.77	-2,396.78	-9,663.90	5,439.04	5,311.67	127.37	42.703		
12,200.00	7,121.01	7,031.86	6,984.37	150.37	35.88	-87.82	-2,396.74	-9,664.01	5,357.04	5,226.96	130.08	41.183		
12,300.00	7,120.57	7,034.72	6,987.22	153.15	35.89	-87.87	-2,396.71	-9,664.13	5,275.66	5,142.79	132.87	39.705		
12,400.00	7,120.14	7,037.61	6,990.11	155.93	35.90	-87.92	-2,396.68	-9,664.25	5,194.93	5,059.18	135.75	38.268		
12,500.00	7,119.71	7,040.55	6,993.04	158.72	35.92	-87.98	-2,396.65	-9,664.37	5,114.88	4,976.16	138.72	36.873		
12,600.00	7,119.27	7,043.53	6,996.02	161.50	35.93	-88.03	-2,396.61	-9,664.49	5,035.53	4,893.76	141.77	35.519		
12,700.00	7,118.84	7,046.55	6,999.04	164.29	35.94	-88.09	-2,396.57	-9,664.62	4,956.94	4,812.02	144.92	34.205		
12,800.00	7,118.41	7,049.63	7,002.11	167.08	35.95	-88.15	-2,396.54	-9,664.75	4,879.12	4,730.97	148.15	32.933		
12,900.00	7,117.97	7,052.75	7,005.23	169.88	35.96	-88.20	-2,396.50	-9,664.88	4,802.13	4,650.64	151.49	31.700		
13,000.00	7,117.54	7,055.91	7,008.40	172.67	35.98	-88.26	-2,396.46	-9,665.02	4,725.99	4,571.08	154.91	30.507		
13,100.00	7,117.10	7,059.13	7,011.61	175.47	35.99	-88.32	-2,396.42	-9,665.15	4,650.76	4,492.32	158.44	29.354		
13,200.00	7,116.67	7,062.40	7,014.87	178.27	36.00	-88.38	-2,396.38	-9,665.30	4,576.47	4,414.41	162.06	28.240		
13,300.00	7,116.24	7,065.72	7,018.19	181.07	36.02	-88.44	-2,396.34	-9,665.44	4,503.17	4,337.39	165.78	27.164		
13,400.00	7,115.80	7,069.09	7,021.56	183.87	36.03	-88.51	-2,396.30	-9,665.59	4,430.92	4,261.32	169.60	26.126		
13,500.00	7,115.37	7,072.52	7,024.98	186.67	36.04	-88.57	-2,396.25	-9,665.74	4,359.75	4,186.24	173.51	25.126		
13,600.00	7,114.93	7,076.00	7,028.46	189.47	36.06	-88.63	-2,396.21	-9,665.89	4,289.74	4,112.21	177.53	24.164		
13,700.00	7,114.50	7,079.54	7,032.00	192.28	36.07	-88.70	-2,396.16	-9,666.05	4,220.93	4,039.29	181.64	23.237		
13,800.00	7,114.07	7,083.14	7,035.59	195.09	36.09	-88.77	-2,396.11	-9,666.21	4,153.38	3,967.53	185.85	22.348		
13,900.00	7,113.63	7,086.80	7,039.25	197.89	36.10	-88.83	-2,396.06	-9,666.38	4,087.17	3,897.01	190.16	21.493		
14,000.00	7,113.20	7,090.52	7,042.96	200.70	36.12	-88.90	-2,396.01	-9,666.55	4,022.34	3,827.78	194.56	20.674		
14,100.00	7,112.77	7,094.30	7,046.74	203.51	36.13	-88.97	-2,395.96	-9,666.73	3,958.97	3,759.93	199.04	19.890		
14,200.00	7,112.33	7,098.15	7,050.58	206.32	36.15	-89.05	-2,395.91	-9,666.91	3,897.14	3,693.53	203.61	19.140		
14,300.00	7,111.90	7,102.06	7,054.49	209.13	36.16	-89.12	-2,395.85	-9,667.09	3,836.91	3,628.65	208.26	18.423		
14,400.00	7,111.46	7,106.04	7,058.47	211.95	36.18	-89.19	-2,395.80	-9,667.28	3,778.37	3,565.38	212.99	17.740		
14,500.00	7,111.03	7,110.09	7,062.51	214.76	36.20	-89.27	-2,395.74	-9,667.47	3,721.59	3,503.81	217.78	17.089		
14,600.00	7,110.60	7,114.22	7,066.63	217.58	36.21	-89.34	-2,395.68	-9,667.67	3,666.65	3,444.02	222.63	16.470		
14,700.00	7,110.16	7,118.41	7,070.82	220.39	36.23	-89.42	-2,395.61	-9,667.87	3,613.63	3,386.11	227.52	15.882		
14,800.00	7,109.73	7,122.68	7,075.09	223.21	36.25	-89.50	-2,395.55	-9,668.08	3,562.64	3,330.18	232.46	15.326		
14,900.00	7,109.30	7,127.03	7,079.43	226.03	36.27	-89.58	-2,395.48	-9,668.29	3,513.74	3,276.32	237.42	14.800		
14,969.16	7,109.00	7,130.09	7,082.48	227.97	36.28	-89.64	-2,395.44	-9,668.45	3,481.20	3,240.34	240.86	14.453	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	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-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	-108.76	-3,053.43	-8,988.27	9,492.82					
100.00	100.00	43.46	79.46	3.28	3.28	-108.76	-3,053.32	-8,988.36	9,492.83	9,486.26	6.57	1,445.826		
200.00	200.00	114.58	150.57	3.34	3.29	-108.76	-3,052.67	-8,988.87	9,493.20	9,486.57	6.63	1,431.783		
300.00	300.00	171.00	206.98	3.44	3.33	-108.75	-3,051.73	-8,989.55	9,493.88	9,487.11	6.77	1,402.416		
400.00	400.00	210.27	246.24	3.60	3.36	-108.75	-3,051.03	-8,990.27	9,495.13	9,488.17	6.96	1,363.930		
500.00	500.00	263.00	298.94	3.81	3.41	-108.74	-3,050.35	-8,991.74	9,497.18	9,489.96	7.22	1,315.048		
600.00	600.00	263.00	298.94	4.05	3.41	-108.74	-3,050.35	-8,991.74	9,499.83	9,492.36	7.47	1,272.477		
700.00	699.98	263.00	298.94	4.32	3.41	-99.51	-3,050.35	-8,991.74	9,503.81	9,496.07	7.74	1,227.692		
800.00	799.84	305.01	340.92	4.62	3.47	-99.41	-3,050.24	-8,993.48	9,508.91	9,500.82	8.09	1,174.770		
900.00	899.45	354.00	389.82	4.94	3.55	-99.31	-3,050.91	-8,996.35	9,515.88	9,507.39	8.49	1,121.124		
1,000.00	998.70	354.00	389.82	5.28	3.55	-99.15	-3,050.91	-8,996.35	9,523.76	9,514.94	8.83	1,078.835		
1,100.00	1,097.50	354.00	389.82	5.64	3.55	-99.03	-3,050.91	-8,996.35	9,533.21	9,524.02	9.18	1,037.945		
1,200.00	1,196.18	354.00	389.82	6.00	3.55	-99.03	-3,050.91	-8,996.35	9,543.81	9,534.25	9.56	998.699		
1,300.00	1,294.87	407.56	443.20	6.38	3.65	-99.09	-3,052.76	-9,000.26	9,554.82	9,544.79	10.03	952.733		
1,400.00	1,393.55	445.00	480.46	6.77	3.73	-99.13	-3,054.82	-9,003.32	9,566.86	9,556.37	10.49	911.852		
1,500.00	1,492.23	515.19	550.24	7.17	3.89	-99.21	-3,059.81	-9,008.99	9,579.49	9,568.45	11.04	867.623		
1,600.00	1,590.91	593.87	628.41	7.58	4.10	-99.32	-3,066.60	-9,014.81	9,592.12	9,580.48	11.64	824.225		
1,700.00	1,689.60	678.33	712.23	8.00	4.36	-99.43	-3,074.89	-9,020.97	9,605.07	9,592.80	12.28	782.255		
1,800.00	1,788.28	779.69	812.78	8.42	4.70	-99.57	-3,085.61	-9,027.97	9,617.99	9,604.99	13.00	739.744		
1,900.00	1,886.96	1,383.00	1,413.90	8.84	7.01	-100.27	-3,120.08	-9,061.93	9,626.70	9,611.10	15.61	616.844		
2,000.00	1,985.64	1,383.00	1,413.90	9.27	7.01	-100.27	-3,120.08	-9,061.93	9,635.11	9,619.08	16.03	600.986		
2,100.00	2,084.33	1,383.00	1,413.90	9.71	7.01	-100.27	-3,120.08	-9,061.93	9,644.55	9,628.09	16.46	585.960		
2,200.00	2,183.01	1,383.00	1,413.90	10.15	7.01	-100.27	-3,120.08	-9,061.93	9,655.02	9,638.13	16.89	571.725		
2,300.00	2,281.69	1,383.00	1,413.90	10.59	7.01	-100.27	-3,120.08	-9,061.93	9,666.51	9,649.19	17.32	558.244		
2,400.00	2,380.38	1,417.14	1,447.94	11.03	7.15	-100.31	-3,120.86	-9,064.50	9,678.35	9,660.47	17.88	541.341		
2,500.00	2,479.06	1,445.00	1,475.62	11.47	7.27	-100.33	-3,121.80	-9,067.45	9,691.69	9,673.28	18.42	526.238		
2,600.00	2,577.74	1,445.00	1,475.62	11.92	7.27	-100.33	-3,121.80	-9,067.45	9,705.60	9,686.76	18.84	515.043		
2,700.00	2,676.42	1,445.00	1,475.62	12.36	7.27	-100.33	-3,121.80	-9,067.45	9,720.52	9,701.25	19.27	504.429		
2,800.00	2,775.11	1,494.59	1,524.81	12.81	7.49	-100.38	-3,123.91	-9,073.37	9,736.24	9,716.34	19.90	489.263		
2,900.00	2,873.79	1,569.00	1,598.58	13.26	7.83	-100.45	-3,127.90	-9,082.27	9,752.39	9,731.76	20.63	472.621		
3,000.00	2,972.47	1,569.00	1,598.58	13.72	7.83	-100.45	-3,127.90	-9,082.27	9,769.08	9,748.02	21.06	463.921		
3,100.00	3,071.15	1,614.60	1,643.72	14.17	8.05	-100.50	-3,131.11	-9,087.85	9,786.36	9,764.69	21.68	451.469		
3,200.00	3,169.84	1,665.00	1,693.49	14.62	8.29	-100.56	-3,135.74	-9,094.31	9,804.56	9,782.24	22.32	439.327		
3,300.00	3,268.52	1,665.00	1,693.49	15.08	8.29	-100.56	-3,135.74	-9,094.31	9,823.27	9,800.53	22.73	432.080		
3,400.00	3,367.20	1,665.00	1,693.49	15.53	8.29	-100.56	-3,135.74	-9,094.31	9,842.95	9,819.80	23.15	425.187		
3,500.00	3,465.89	1,702.25	1,730.16	15.99	8.48	-100.61	-3,139.80	-9,099.42	9,863.24	9,839.51	23.73	415.604		
3,600.00	3,564.57	3,600.00	1,771.50	16.44	18.97	-100.66	-3,144.95	-9,105.79	9,884.62	9,851.99	32.63	302.933		
3,700.00	3,663.25	1,894.18	1,918.60	16.90	9.48	-100.86	-3,163.24	-9,127.28	9,905.72	9,880.27	25.45	389.226		
3,800.00	3,761.93	3,800.00	2,026.90	17.36	20.12	-101.01	-3,177.68	-9,142.55	9,926.79	9,892.21	34.57	287.129		
3,900.00	3,860.62	2,085.64	2,106.64	17.82	10.51	-101.12	-3,188.07	-9,153.36	9,947.36	9,920.17	27.19	365.879		
4,000.00	3,959.30	2,136.00	2,156.05	18.28	10.79	-101.18	-3,194.43	-9,160.73	9,968.81	9,940.97	27.84	358.081		
4,100.00	4,057.98	2,136.00	2,156.05	18.74	10.79	-101.18	-3,194.43	-9,160.73	9,990.72	9,962.48	28.24	353.737		
7,600.00	7,140.96	7,201.06	7,159.80	36.68	36.33	-90.76	-3,643.54	-9,619.64	9,966.67	9,900.01	66.66	149.511		
7,700.00	7,140.53	7,201.07	7,159.81	37.99	36.33	-90.76	-3,643.54	-9,619.64	9,876.72	9,809.63	67.09	147.211		
7,800.00	7,140.09	7,201.09	7,159.83	39.45	36.33	-90.76	-3,643.54	-9,619.65	9,786.97	9,719.39	67.57	144.832		
7,900.00	7,139.66	7,201.11	7,159.84	41.06	36.33	-90.76	-3,643.54	-9,619.65	9,697.41	9,629.30	68.11	142.379		
8,000.00	7,139.23	7,201.12	7,159.86	42.80	36.33	-90.76	-3,643.54	-9,619.65	9,608.07	9,539.37	68.70	139.857		
8,100.00	7,138.79	7,201.14	7,159.88	44.65	36.33	-90.76	-3,643.54	-9,619.65	9,518.93	9,449.59	69.34	137.275		
8,200.00	7,138.36	7,201.15	7,159.89	46.60	36.33	-90.76	-3,643.54	-9,619.65	9,430.02	9,359.98	70.04	134.639		
8,300.00	7,137.93	7,201.17	7,159.91	48.65	36.33	-90.76	-3,643.54	-9,619.65	9,341.32	9,270.53	70.79	131.957		
8,400.00	7,137.49	7,201.19	7,159.93	50.77	36.33	-90.77	-3,643.54	-9,619.65	9,252.86	9,181.27	71.60	129.236		
8,500.00	7,137.06	7,201.20	7,159.94	52.95	36.33	-90.77	-3,643.54	-9,619.65	9,164.64	9,092.18	72.46	126.482		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,600.00	7,136.62	7,201.22	7,159.96	55.20	36.33	-90.77	-3,643.54	-9,619.65	9,076.66	9,003.28	73.37	123.705		
8,700.00	7,136.19	7,201.24	7,159.98	57.51	36.33	-90.77	-3,643.54	-9,619.65	8,988.93	8,914.58	74.34	120.910		
8,800.00	7,135.76	7,201.25	7,159.99	59.85	36.33	-90.77	-3,643.54	-9,619.65	8,901.46	8,826.09	75.37	118.106		
8,900.00	7,135.32	7,201.27	7,160.01	62.24	36.33	-90.77	-3,643.54	-9,619.65	8,814.25	8,737.81	76.45	115.297		
9,000.00	7,134.89	7,201.29	7,160.03	64.67	36.33	-90.77	-3,643.54	-9,619.65	8,727.32	8,649.74	77.58	112.492		
9,100.00	7,134.45	7,201.30	7,160.04	67.13	36.33	-90.77	-3,643.54	-9,619.65	8,640.68	8,561.91	78.77	109.695		
9,200.00	7,134.02	7,201.32	7,160.06	69.62	36.33	-90.77	-3,643.54	-9,619.65	8,554.32	8,474.31	80.01	106.913		
9,300.00	7,133.59	7,201.34	7,160.08	72.14	36.33	-90.77	-3,643.54	-9,619.65	8,468.27	8,386.96	81.31	104.150		
9,400.00	7,133.15	7,201.36	7,160.09	74.68	36.33	-90.77	-3,643.54	-9,619.65	8,382.52	8,299.86	82.66	101.411		
9,500.00	7,132.72	7,201.37	7,160.11	77.24	36.33	-90.77	-3,643.54	-9,619.65	8,297.10	8,213.03	84.06	98.700		
9,600.00	7,132.29	7,201.39	7,160.13	79.83	36.33	-90.77	-3,643.54	-9,619.65	8,212.00	8,126.48	85.52	96.022		
9,700.00	7,131.85	7,201.41	7,160.15	82.42	36.33	-90.77	-3,643.54	-9,619.65	8,127.24	8,040.21	87.04	93.379		
9,800.00	7,131.42	7,201.43	7,160.16	85.04	36.33	-90.77	-3,643.54	-9,619.65	8,042.83	7,954.23	88.60	90.775		
9,900.00	7,130.98	7,201.44	7,160.18	87.67	36.34	-90.77	-3,643.54	-9,619.65	7,958.79	7,868.56	90.22	88.212		
10,000.00	7,130.55	7,201.46	7,160.20	90.31	36.34	-90.77	-3,643.54	-9,619.65	7,875.11	7,783.21	91.90	85.692		
10,100.00	7,130.12	7,201.48	7,160.22	92.97	36.34	-90.77	-3,643.54	-9,619.65	7,791.82	7,698.19	93.63	83.219		
10,200.00	7,129.68	7,201.50	7,160.24	95.63	36.34	-90.77	-3,643.54	-9,619.65	7,708.93	7,613.52	95.42	80.792		
10,300.00	7,129.25	7,201.51	7,160.25	98.31	36.34	-90.77	-3,643.54	-9,619.65	7,626.45	7,529.19	97.26	78.414		
10,400.00	7,128.82	7,201.53	7,160.27	101.00	36.34	-90.77	-3,643.54	-9,619.65	7,544.39	7,445.24	99.16	76.086		
10,500.00	7,128.38	7,201.55	7,160.29	103.69	36.34	-90.77	-3,643.54	-9,619.65	7,462.77	7,361.67	101.11	73.809		
10,600.00	7,127.95	7,201.57	7,160.31	106.39	36.34	-90.77	-3,643.53	-9,619.65	7,381.61	7,278.49	103.12	71.583		
10,700.00	7,127.51	7,201.59	7,160.33	109.10	36.34	-90.77	-3,643.53	-9,619.65	7,300.91	7,195.72	105.19	69.409		
10,800.00	7,127.08	7,201.61	7,160.34	111.82	36.34	-90.77	-3,643.53	-9,619.65	7,220.69	7,113.38	107.31	67.288		
10,900.00	7,126.65	7,201.62	7,160.36	114.54	36.34	-90.77	-3,643.53	-9,619.65	7,140.97	7,031.48	109.49	65.218		
11,000.00	7,126.21	7,201.64	7,160.38	117.27	36.34	-90.77	-3,643.53	-9,619.65	7,061.77	6,950.04	111.74	63.201		
11,100.00	7,125.78	7,201.66	7,160.40	120.01	36.34	-90.77	-3,643.53	-9,619.65	6,983.10	6,869.07	114.04	61.236		
11,200.00	7,125.35	7,201.68	7,160.42	122.75	36.34	-90.77	-3,643.53	-9,619.65	6,904.99	6,788.59	116.40	59.323		
11,300.00	7,124.91	7,201.70	7,160.44	125.49	36.34	-90.77	-3,643.53	-9,619.65	6,827.44	6,708.63	118.82	57.462		
11,400.00	7,124.48	7,201.72	7,160.46	128.24	36.34	-90.77	-3,643.53	-9,619.65	6,750.49	6,629.19	121.30	55.651		
11,500.00	7,124.04	7,201.74	7,160.48	131.00	36.34	-90.77	-3,643.53	-9,619.65	6,674.15	6,550.30	123.84	53.892		
11,600.00	7,123.61	7,201.76	7,160.50	133.75	36.34	-90.77	-3,643.53	-9,619.65	6,598.43	6,471.99	126.45	52.183		
11,700.00	7,123.18	7,201.78	7,160.51	136.52	36.34	-90.77	-3,643.53	-9,619.65	6,523.38	6,394.26	129.12	50.523		
11,800.00	7,122.74	7,201.79	7,160.53	139.28	36.34	-90.77	-3,643.53	-9,619.65	6,449.00	6,317.15	131.85	48.912		
11,900.00	7,122.31	7,201.81	7,160.55	142.05	36.34	-90.77	-3,643.53	-9,619.65	6,375.32	6,240.68	134.64	47.350		
12,000.00	7,121.88	7,201.83	7,160.57	144.82	36.34	-90.77	-3,643.53	-9,619.65	6,302.37	6,164.86	137.50	45.835		
12,100.00	7,121.44	7,201.85	7,160.59	147.59	36.34	-90.77	-3,643.53	-9,619.65	6,230.16	6,089.74	140.43	44.366		
12,200.00	7,121.01	7,201.87	7,160.61	150.37	36.34	-90.77	-3,643.53	-9,619.65	6,158.74	6,015.32	143.42	42.943		
12,300.00	7,120.57	7,201.89	7,160.63	153.15	36.34	-90.77	-3,643.53	-9,619.65	6,088.12	5,941.65	146.47	41.566		
12,400.00	7,120.14	7,201.91	7,160.65	155.93	36.34	-90.77	-3,643.53	-9,619.65	6,018.33	5,868.74	149.59	40.233		
12,500.00	7,119.71	7,201.93	7,160.67	158.72	36.34	-90.78	-3,643.53	-9,619.65	5,949.41	5,796.63	152.77	38.943		
12,600.00	7,119.27	7,201.95	7,160.69	161.50	36.34	-90.78	-3,643.53	-9,619.65	5,881.37	5,725.35	156.02	37.696		
12,700.00	7,118.84	7,201.97	7,160.71	164.29	36.34	-90.78	-3,643.53	-9,619.65	5,814.27	5,654.93	159.34	36.490		
12,800.00	7,118.41	7,201.99	7,160.73	167.08	36.34	-90.78	-3,643.53	-9,619.65	5,748.11	5,585.40	162.72	35.326		
12,900.00	7,117.97	7,202.01	7,160.75	169.88	36.34	-90.78	-3,643.53	-9,619.65	5,682.95	5,516.79	166.16	34.202		
13,000.00	7,117.54	7,202.03	7,160.77	172.67	36.34	-90.78	-3,643.53	-9,619.65	5,618.81	5,449.14	169.67	33.117		
13,100.00	7,117.10	7,202.06	7,160.79	175.47	36.34	-90.78	-3,643.53	-9,619.65	5,555.73	5,382.50	173.24	32.070		
13,200.00	7,116.67	7,202.08	7,160.81	178.27	36.34	-90.78	-3,643.53	-9,619.65	5,493.75	5,316.88	176.87	31.061		
13,300.00	7,116.24	7,202.10	7,160.84	181.07	36.34	-90.78	-3,643.53	-9,619.65	5,432.90	5,252.34	180.56	30.089		
13,400.00	7,115.80	7,202.12	7,160.86	183.87	36.34	-90.78	-3,643.53	-9,619.65	5,373.22	5,188.91	184.31	29.153		
13,500.00	7,115.37	7,202.14	7,160.88	186.67	36.34	-90.78	-3,643.53	-9,619.65	5,314.76	5,126.64	188.12	28.252		
13,600.00	7,114.93	7,202.16	7,160.90	189.47	36.34	-90.78	-3,643.53	-9,619.65	5,257.54	5,065.57	191.98	27.386		
13,700.00	7,114.50	7,202.18	7,160.92	192.28	36.34	-90.78	-3,643.53	-9,619.65	5,201.62	5,005.73	195.89	26.553		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-8-17(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 82-MWVD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
13,800.00	7,114.07	7,202.20	7,160.94	195.09	36.34	-90.78	-3,643.53	-9,619.65	5,147.04	4,947.18	199.86	25.754	
13,900.00	7,113.63	7,202.22	7,160.96	197.89	36.34	-90.78	-3,643.53	-9,619.65	5,093.83	4,889.97	203.86	24.986	
14,000.00	7,113.20	7,202.25	7,160.98	200.70	36.34	-90.78	-3,643.53	-9,619.65	5,042.05	4,834.13	207.92	24.250	
14,100.00	7,112.77	7,202.27	7,161.01	203.51	36.34	-90.78	-3,643.53	-9,619.65	4,991.73	4,779.72	212.01	23.545	
14,200.00	7,112.33	7,202.29	7,161.03	206.32	36.34	-90.78	-3,643.53	-9,619.65	4,942.92	4,726.79	216.13	22.870	
14,300.00	7,111.90	7,202.31	7,161.05	209.13	36.34	-90.78	-3,643.52	-9,619.65	4,895.67	4,675.38	220.29	22.224	
14,400.00	7,111.46	7,202.33	7,161.07	211.95	36.34	-90.78	-3,643.52	-9,619.65	4,850.03	4,625.56	224.47	21.607	
14,500.00	7,111.03	7,202.36	7,161.09	214.76	36.34	-90.78	-3,643.52	-9,619.65	4,806.02	4,577.36	228.67	21.017	
14,600.00	7,110.60	7,202.38	7,161.12	217.58	36.34	-90.78	-3,643.52	-9,619.65	4,763.72	4,530.83	232.88	20.456	
14,700.00	7,110.16	7,202.40	7,161.14	220.39	36.34	-90.78	-3,643.52	-9,619.65	4,723.15	4,486.04	237.10	19.920	
14,800.00	7,109.73	7,202.42	7,161.16	223.21	36.34	-90.78	-3,643.52	-9,619.65	4,684.36	4,443.04	241.32	19.411	
14,900.00	7,109.30	7,202.44	7,161.18	226.03	36.34	-90.78	-3,643.52	-9,619.65	4,647.40	4,401.87	245.54	18.928	
14,969.16	7,109.00	7,202.46	7,161.20	227.97	36.34	-90.78	-3,643.52	-9,619.65	4,622.93	4,374.49	248.44	18.608 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	888.05	915.83	3.28	5.33	-109.44	-3,124.96	-8,851.92	9,431.90					
100.00	100.00	981.83	1,007.28	3.28	5.81	-109.56	-3,139.61	-8,837.23	9,422.15	9,413.09	9.06	1,039.825		
200.00	200.00	1,037.12	1,061.08	3.34	6.10	-109.63	-3,148.89	-8,828.51	9,412.73	9,403.35	9.39	1,002.951		
300.00	300.00	1,098.00	1,120.48	3.44	6.43	-109.71	-3,158.72	-8,819.44	9,403.89	9,394.09	9.80	959.439		
400.00	400.00	1,098.00	1,120.48	3.60	6.43	-109.71	-3,158.72	-8,819.44	9,395.70	9,385.75	9.95	944.600		
500.00	500.00	1,158.12	1,179.34	3.81	6.75	-109.77	-3,167.84	-8,811.26	9,388.02	9,377.58	10.45	898.483		
600.00	600.00	1,193.00	1,213.58	4.05	6.93	-109.81	-3,172.84	-8,806.94	9,381.13	9,370.27	10.86	863.677		
700.00	699.98	1,262.89	1,282.17	4.32	7.31	-100.87	-3,183.29	-8,798.50	9,375.07	9,363.58	11.49	815.713		
800.00	799.84	1,335.39	1,353.16	4.62	7.70	-101.07	-3,195.07	-8,789.65	9,370.01	9,357.84	12.17	769.704		
900.00	899.45	1,409.85	1,426.20	4.94	8.11	-101.28	-3,206.60	-8,780.94	9,365.92	9,353.03	12.89	726.760		
1,000.00	998.70	1,717.75	1,729.32	5.28	9.76	-101.89	-3,245.87	-8,744.09	9,361.12	9,346.28	14.83	631.033		
1,100.00	1,097.50	1,757.00	1,767.95	5.64	9.97	-102.02	-3,250.84	-8,739.19	9,356.84	9,341.44	15.40	607.678		
1,200.00	1,196.18	1,795.90	1,806.24	6.00	10.19	-102.10	-3,255.92	-8,734.53	9,353.39	9,337.41	15.98	585.363		
1,300.00	1,294.87	2,199.48	2,202.32	6.38	12.49	-102.91	-3,310.44	-8,680.30	9,349.95	9,331.35	18.59	502.867		
1,400.00	1,393.55	2,272.16	2,273.59	6.77	12.91	-103.05	-3,319.56	-8,669.34	9,343.91	9,324.52	19.39	481.774		
1,500.00	1,492.23	2,321.00	2,321.65	7.17	13.19	-103.15	-3,324.89	-8,662.41	9,338.28	9,318.21	20.07	465.312		
1,600.00	1,590.91	2,362.76	2,362.79	7.58	13.42	-103.22	-3,329.30	-8,656.78	9,333.27	9,312.56	20.71	450.733		
1,700.00	1,689.60	2,416.00	2,415.25	8.00	13.72	-103.32	-3,335.33	-8,650.00	9,329.07	9,307.65	21.41	435.682		
1,800.00	1,788.28	1,800.00	2,484.36	8.42	10.23	-103.46	-3,344.36	-8,640.74	9,325.23	9,306.77	18.46	505.293		
1,900.00	1,886.96	2,589.63	2,585.85	8.84	14.71	-103.67	-3,357.85	-8,626.87	9,321.35	9,298.11	23.24	401.080		
2,000.00	1,985.64	2,739.93	2,733.24	9.27	15.61	-103.98	-3,378.38	-8,605.92	9,317.35	9,292.81	24.54	379.665		
2,100.00	2,084.33	2,830.89	2,822.00	9.71	16.17	-104.18	-3,392.79	-8,592.20	9,313.26	9,287.73	25.53	364.819		
2,200.00	2,183.01	2,890.00	2,879.83	10.15	16.53	-104.30	-3,401.45	-8,583.58	9,309.37	9,283.04	26.33	353.596		
2,300.00	2,281.69	2,941.46	2,930.33	10.59	16.83	-104.41	-3,408.41	-8,576.54	9,306.01	9,278.94	27.07	343.805		
2,400.00	2,380.38	2,984.00	2,972.18	11.03	17.08	-104.49	-3,413.86	-8,571.20	9,303.37	9,275.61	27.76	335.141		
2,500.00	2,479.06	3,043.22	3,030.42	11.47	17.42	-104.61	-3,421.75	-8,563.93	9,301.30	9,272.75	28.55	325.800		
2,600.00	2,577.74	3,102.79	3,088.88	11.92	17.76	-104.73	-3,430.45	-8,556.49	9,299.64	9,270.30	29.34	316.979		
2,700.00	2,676.42	3,169.00	3,154.18	12.36	18.14	-104.86	-3,438.59	-8,549.22	9,298.53	9,268.37	30.16	308.309		
2,800.00	2,775.11	3,203.12	3,187.94	12.81	18.31	-104.92	-3,442.19	-8,545.92	9,297.94	9,267.15	30.79	301.988		
2,846.89	2,821.38	3,224.94	3,209.56	13.02	18.42	-104.96	-3,444.44	-8,543.90	9,297.87	9,266.76	31.11	298.831		
2,900.00	2,873.79	3,262.00	3,246.28	13.26	18.62	-105.02	-3,448.18	-8,540.65	9,297.97	9,266.43	31.55	294.746		
3,000.00	2,972.47	3,304.20	3,288.10	13.72	18.83	-105.09	-3,452.55	-8,537.07	9,298.54	9,266.32	32.22	288.612		
3,100.00	3,071.15	3,362.70	3,346.01	14.17	19.13	-105.20	-3,459.19	-8,532.07	9,299.61	9,266.64	32.98	282.017		
3,200.00	3,169.84	3,200.00	3,495.43	14.62	18.30	-105.46	-3,475.55	-8,519.54	9,300.84	9,268.23	32.61	285.225		
3,300.00	3,268.52	3,594.62	3,575.71	15.08	20.33	-105.61	-3,484.32	-8,512.28	9,301.56	9,266.47	35.09	265.074		
3,400.00	3,367.20	4,049.26	4,023.11	15.53	22.91	-106.50	-3,544.59	-8,460.76	9,302.74	9,264.64	38.10	244.168		
3,500.00	3,465.89	4,112.00	4,084.51	15.99	23.30	-106.64	-3,553.92	-8,451.79	9,300.57	9,261.62	38.95	238.784		
3,600.00	3,564.57	4,150.32	4,122.13	16.44	23.52	-106.71	-3,559.13	-8,446.74	9,298.93	9,259.29	39.64	234.602		
3,700.00	3,663.25	4,207.00	4,177.91	16.90	23.85	-106.83	-3,566.33	-8,439.72	9,297.82	9,257.39	40.43	229.985		
3,800.00	3,761.93	4,252.54	4,222.72	17.36	24.12	-106.92	-3,572.29	-8,434.23	9,297.26	9,256.10	41.16	225.887		
3,841.11	3,802.50	4,271.25	4,241.10	17.55	24.23	-106.95	-3,574.98	-8,431.94	9,297.21	9,255.75	41.46	224.249		
3,900.00	3,860.62	4,301.00	4,270.26	17.82	24.40	-107.02	-3,579.55	-8,428.24	9,297.32	9,255.41	41.91	221.858		
4,000.00	3,959.30	4,345.66	4,314.05	18.28	24.67	-107.11	-3,586.50	-8,422.86	9,297.98	9,255.34	42.63	218.085		
4,100.00	4,057.98	4,396.00	4,363.53	18.74	24.96	-107.21	-3,593.88	-8,417.28	9,299.23	9,255.83	43.40	214.290		
4,200.00	4,156.67	4,461.77	4,428.30	19.20	25.34	-107.34	-3,603.06	-8,410.50	9,300.96	9,256.73	44.23	210.278		
4,300.00	4,255.35	4,517.78	4,483.53	19.66	25.65	-107.45	-3,610.60	-8,405.05	9,303.12	9,258.11	45.01	206.709		
4,400.00	4,354.03	4,564.62	4,529.81	20.12	25.90	-107.54	-3,616.56	-8,400.93	9,305.84	9,260.12	45.72	203.531		
4,500.00	4,452.71	4,585.00	4,549.97	20.58	26.01	-107.58	-3,619.05	-8,399.27	9,309.24	9,262.95	46.29	201.110		
4,600.00	4,551.40	4,648.93	4,613.32	21.04	26.33	-107.69	-3,626.32	-8,394.77	9,313.15	9,266.08	47.07	197.838		
4,700.00	4,650.08	4,680.00	4,644.17	21.50	26.49	-107.74	-3,629.53	-8,392.98	9,317.79	9,270.10	47.69	195.399		
4,800.00	4,748.76	4,731.31	4,695.18	21.96	26.73	-107.82	-3,634.54	-8,390.52	9,323.05	9,274.66	48.38	192.685		
4,900.00	4,847.44	4,941.29	4,904.36	22.42	27.66	-108.13	-3,650.60	-8,381.98	9,327.91	9,278.09	49.82	187.224		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 8-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,946.13	4,997.85	4,960.77	22.89	27.90	-108.21	-3,654.02	-8,379.94	9,332.62	9,282.10	50.52	184.717		
5,100.00	5,044.81	5,059.00	5,021.81	23.35	28.16	-108.29	-3,657.40	-8,378.24	9,337.83	9,286.59	51.24	182.232		
5,200.00	5,143.49	5,213.27	5,176.02	23.81	28.71	-108.45	-3,659.83	-8,376.49	9,342.59	9,290.32	52.28	178.719		
5,300.00	5,242.18	5,277.42	5,240.17	24.27	28.93	-108.51	-3,659.78	-8,376.38	9,347.61	9,294.66	52.95	176.545		
5,400.00	5,340.86	5,343.00	5,305.75	24.74	29.14	-108.58	-3,659.94	-8,376.48	9,353.05	9,299.42	53.62	174.425		
5,500.00	5,439.54	5,424.71	5,387.46	25.20	29.41	-108.65	-3,660.32	-8,376.75	9,358.78	9,304.42	54.36	172.173		
5,600.00	5,538.22	5,513.95	5,476.69	25.66	29.70	-108.74	-3,660.82	-8,377.09	9,364.64	9,309.52	55.12	169.899		
5,700.00	5,636.91	5,603.16	5,565.90	26.13	30.00	-108.83	-3,661.41	-8,377.50	9,370.63	9,314.75	55.88	167.689		
5,800.00	5,735.59	5,715.20	5,677.94	26.59	30.37	-108.93	-3,662.09	-8,378.03	9,376.64	9,319.92	56.72	165.314		
5,900.00	5,834.27	5,833.48	5,796.22	27.06	30.75	-109.04	-3,662.45	-8,378.53	9,382.48	9,324.90	57.58	162.946		
6,000.00	5,932.95	5,951.88	5,914.62	27.52	31.14	-109.15	-3,662.42	-8,378.94	9,388.14	9,329.70	58.44	160.640		
6,100.00	6,031.64	6,038.98	6,001.72	27.98	31.45	-109.24	-3,662.81	-8,379.06	9,393.85	9,334.64	59.22	158.635		
6,200.00	6,130.32	6,134.93	6,097.66	28.45	31.78	-109.33	-3,663.54	-8,379.03	9,399.59	9,339.58	60.02	156.617		
6,300.00	6,229.00	6,254.68	6,217.41	28.91	32.22	-109.45	-3,664.92	-8,378.67	9,405.33	9,344.41	60.93	154.368		
6,400.00	6,327.69	6,402.83	6,365.54	29.38	32.78	-109.60	-3,666.75	-8,377.42	9,410.66	9,348.69	61.97	151.853		
6,500.00	6,426.37	6,507.72	6,470.41	29.84	33.18	-109.71	-3,668.12	-8,376.02	9,415.63	9,352.78	62.85	149.818		
6,600.00	6,525.05	6,576.67	6,539.34	30.31	33.46	-109.78	-3,669.30	-8,375.12	9,420.84	9,357.26	63.58	148.170		
6,700.00	6,623.18	6,645.07	6,607.72	30.77	33.73	-69.80	-3,670.76	-8,374.31	9,419.45	9,355.14	64.32	146.458		
6,800.00	6,718.58	6,711.40	6,674.02	31.22	33.99	-54.18	-3,672.44	-8,373.60	9,404.51	9,339.47	65.03	144.608		
6,900.00	6,808.91	6,788.36	6,750.96	31.66	34.29	-48.26	-3,674.67	-8,372.88	9,376.37	9,310.58	65.79	142.525		
7,000.00	6,891.95	6,887.05	6,849.60	32.07	34.68	-46.63	-3,677.22	-8,372.03	9,335.49	9,268.87	66.62	140.124		
7,100.00	6,965.65	6,974.71	6,937.24	32.51	35.03	-47.65	-3,679.07	-8,371.35	9,282.87	9,215.46	67.41	137.715		
7,200.00	7,028.20	7,052.88	7,015.40	33.02	35.34	-50.96	-3,680.40	-8,370.78	9,219.90	9,151.75	68.15	135.281		
7,300.00	7,078.04	7,125.37	7,087.88	33.68	35.63	-56.80	-3,681.56	-8,370.11	9,148.18	9,079.29	68.89	132.793		
7,400.00	7,113.97	7,176.60	7,139.10	34.52	35.84	-65.56	-3,682.37	-8,369.50	9,069.57	9,000.01	69.56	130.386		
7,500.00	7,135.09	7,205.61	7,168.10	35.53	35.95	-77.59	-3,682.83	-8,369.12	8,986.10	8,915.94	70.16	128.081		
7,600.00	7,140.96	7,212.16	7,174.65	36.68	35.98	-90.87	-3,682.93	-8,369.02	8,899.87	8,829.19	70.69	125.903		
7,700.00	7,140.53	7,209.56	7,172.06	37.99	35.97	-90.84	-3,682.89	-8,369.06	8,813.20	8,741.98	71.22	123.743		
7,800.00	7,140.09	7,207.00	7,169.49	39.45	35.96	-90.80	-3,682.85	-8,369.10	8,726.82	8,655.00	71.82	121.505		
7,900.00	7,139.66	7,204.46	7,166.95	41.06	35.95	-90.77	-3,682.81	-8,369.13	8,640.73	8,568.24	72.49	119.198		
8,000.00	7,139.23	7,201.95	7,164.44	42.80	35.94	-90.74	-3,682.77	-8,369.17	8,554.94	8,481.72	73.23	116.830		
8,100.00	7,138.79	7,199.47	7,161.96	44.65	35.93	-90.71	-3,682.73	-8,369.20	8,469.46	8,395.43	74.03	114.409		
8,200.00	7,138.36	7,197.01	7,159.51	46.60	35.92	-90.68	-3,682.69	-8,369.24	8,384.31	8,309.41	74.90	111.942		
8,300.00	7,137.93	7,194.59	7,157.08	48.65	35.91	-90.64	-3,682.66	-8,369.27	8,299.48	8,223.64	75.84	109.438		
8,400.00	7,137.49	7,192.19	7,154.68	50.77	35.90	-90.61	-3,682.62	-8,369.30	8,214.99	8,138.15	76.84	106.907		
8,500.00	7,137.06	7,189.82	7,152.31	52.95	35.89	-90.58	-3,682.58	-8,369.33	8,130.86	8,052.95	77.92	104.355		
8,600.00	7,136.62	7,187.47	7,149.97	55.20	35.88	-90.55	-3,682.54	-8,369.36	8,047.09	7,968.03	79.05	101.791		
8,700.00	7,136.19	7,185.15	7,147.65	57.51	35.87	-90.52	-3,682.51	-8,369.39	7,963.69	7,883.43	80.26	99.223		
8,800.00	7,135.76	7,182.86	7,145.36	59.85	35.86	-90.49	-3,682.47	-8,369.42	7,880.68	7,799.15	81.53	96.657		
8,900.00	7,135.32	7,180.59	7,143.09	62.24	35.85	-90.46	-3,682.43	-8,369.45	7,798.07	7,715.20	82.87	94.101		
9,000.00	7,134.89	7,178.35	7,140.85	64.67	35.84	-90.43	-3,682.40	-8,369.48	7,715.86	7,631.59	84.27	91.560		
9,100.00	7,134.45	7,176.13	7,138.63	67.13	35.83	-90.40	-3,682.36	-8,369.51	7,634.09	7,548.35	85.74	89.041		
9,200.00	7,134.02	7,173.93	7,136.43	69.62	35.83	-90.38	-3,682.33	-8,369.54	7,552.75	7,465.48	87.27	86.547		
9,300.00	7,133.59	7,171.76	7,134.26	72.14	35.82	-90.35	-3,682.29	-8,369.57	7,471.86	7,383.00	88.86	84.084		
9,400.00	7,133.15	7,169.61	7,132.11	74.68	35.81	-90.32	-3,682.26	-8,369.59	7,391.44	7,300.92	90.52	81.656		
9,500.00	7,132.72	7,167.48	7,129.98	77.24	35.80	-90.29	-3,682.23	-8,369.62	7,311.50	7,219.26	92.24	79.267		
9,600.00	7,132.29	7,165.38	7,127.88	79.83	35.79	-90.27	-3,682.19	-8,369.65	7,232.06	7,138.04	94.02	76.919		
9,700.00	7,131.85	7,163.30	7,125.80	82.42	35.78	-90.24	-3,682.16	-8,369.67	7,153.14	7,057.27	95.87	74.615		
9,800.00	7,131.42	7,161.24	7,123.74	85.04	35.77	-90.21	-3,682.13	-8,369.70	7,074.75	6,976.97	97.78	72.357		
9,900.00	7,130.98	7,159.20	7,121.70	87.67	35.77	-90.18	-3,682.09	-8,369.72	6,996.91	6,897.16	99.75	70.147		
10,000.00	7,130.55	7,157.18	7,119.68	90.31	35.76	-90.16	-3,682.06	-8,369.75	6,919.64	6,817.86	101.78	67.987		
10,100.00	7,130.12	7,155.18	7,117.68	92.97	35.75	-90.13	-3,682.03	-8,369.77	6,842.95	6,739.08	103.87	65.878		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,200.00	7,129.68	7,153.20	7,115.70	95.63	35.74	-90.11	-3,682.00	-8,369.79	6,766.88	6,660.85	106.03	63.820		
10,300.00	7,129.25	7,151.24	7,113.75	98.31	35.73	-90.08	-3,681.97	-8,369.82	6,691.43	6,583.19	108.25	61.815		
10,400.00	7,128.82	7,149.31	7,111.81	101.00	35.73	-90.06	-3,681.94	-8,369.84	6,616.64	6,506.11	110.53	59.863		
10,500.00	7,128.38	7,147.39	7,109.89	103.69	35.72	-90.03	-3,681.91	-8,369.86	6,542.52	6,429.64	112.87	57.963		
10,600.00	7,127.95	7,145.49	7,107.99	106.39	35.71	-90.01	-3,681.88	-8,369.88	6,469.09	6,353.81	115.28	56.117		
10,700.00	7,127.51	7,143.61	7,106.11	109.10	35.70	-89.98	-3,681.85	-8,369.90	6,396.39	6,278.64	117.75	54.323		
10,800.00	7,127.08	7,141.75	7,104.25	111.82	35.70	-89.96	-3,681.82	-8,369.93	6,324.43	6,204.15	120.28	52.583		
10,900.00	7,126.65	7,139.90	7,102.41	114.54	35.69	-89.93	-3,681.79	-8,369.95	6,253.24	6,130.37	122.87	50.894		
11,000.00	7,126.21	7,138.08	7,100.58	117.27	35.68	-89.91	-3,681.76	-8,369.97	6,182.84	6,057.32	125.52	49.258		
11,100.00	7,125.78	7,136.27	7,098.78	120.01	35.68	-89.89	-3,681.73	-8,369.99	6,113.28	5,985.04	128.24	47.672		
11,200.00	7,125.35	7,134.48	7,096.99	122.75	35.67	-89.86	-3,681.70	-8,370.01	6,044.56	5,913.55	131.01	46.137		
11,300.00	7,124.91	7,132.71	7,095.21	125.49	35.66	-89.84	-3,681.67	-8,370.03	5,976.73	5,842.88	133.85	44.653		
11,400.00	7,124.48	7,130.95	7,093.46	128.24	35.65	-89.82	-3,681.65	-8,370.05	5,909.81	5,773.06	136.75	43.217		
11,500.00	7,124.04	7,129.21	7,091.72	131.00	35.65	-89.80	-3,681.62	-8,370.07	5,843.84	5,704.13	139.71	41.829		
11,600.00	7,123.61	7,127.49	7,090.00	133.75	35.64	-89.77	-3,681.59	-8,370.08	5,778.84	5,636.12	142.72	40.489		
11,700.00	7,123.18	7,125.78	7,088.29	136.52	35.63	-89.75	-3,681.56	-8,370.10	5,714.85	5,569.05	145.80	39.196		
11,800.00	7,122.74	7,124.09	7,086.60	139.28	35.63	-89.73	-3,681.54	-8,370.12	5,651.91	5,502.98	148.94	37.948		
11,900.00	7,122.31	7,122.42	7,084.93	142.05	35.62	-89.71	-3,681.51	-8,370.14	5,590.05	5,437.92	152.13	36.746		
12,000.00	7,121.88	7,120.76	7,083.27	144.82	35.61	-89.69	-3,681.48	-8,370.16	5,529.30	5,373.93	155.38	35.587		
12,100.00	7,121.44	7,119.12	7,081.63	147.59	35.61	-89.67	-3,681.46	-8,370.17	5,469.71	5,311.03	158.68	34.471		
12,200.00	7,121.01	7,117.49	7,080.00	150.37	35.60	-89.64	-3,681.43	-8,370.19	5,411.31	5,249.28	162.03	33.397		
12,300.00	7,120.57	7,115.88	7,078.39	153.15	35.59	-89.62	-3,681.41	-8,370.21	5,354.14	5,188.70	165.43	32.364		
12,400.00	7,120.14	7,114.28	7,076.79	155.93	35.59	-89.60	-3,681.38	-8,370.22	5,298.24	5,129.35	168.89	31.372		
12,500.00	7,119.71	7,112.70	7,075.21	158.72	35.58	-89.58	-3,681.36	-8,370.24	5,243.65	5,071.26	172.38	30.419		
12,600.00	7,119.27	7,111.13	7,073.64	161.50	35.57	-89.56	-3,681.33	-8,370.26	5,190.41	5,014.48	175.92	29.504		
12,700.00	7,118.84	7,109.57	7,072.08	164.29	35.57	-89.54	-3,681.31	-8,370.27	5,138.57	4,959.06	179.50	28.626		
12,800.00	7,118.41	7,108.03	7,070.54	167.08	35.56	-89.52	-3,681.28	-8,370.29	5,088.16	4,905.04	183.12	27.786		
12,900.00	7,117.97	7,106.50	7,069.01	169.88	35.56	-89.50	-3,681.26	-8,370.30	5,039.23	4,852.46	186.77	26.981		
13,000.00	7,117.54	7,104.99	7,067.50	172.67	35.55	-89.48	-3,681.23	-8,370.32	4,991.83	4,801.38	190.45	26.210		
13,100.00	7,117.10	7,103.49	7,066.00	175.47	35.54	-89.46	-3,681.21	-8,370.33	4,945.99	4,751.84	194.16	25.474		
13,200.00	7,116.67	7,102.00	7,064.51	178.27	35.54	-89.44	-3,681.19	-8,370.35	4,901.77	4,703.89	197.88	24.771		
13,300.00	7,116.24	7,100.53	7,063.04	181.07	35.53	-89.42	-3,681.16	-8,370.36	4,859.20	4,657.58	201.62	24.101		
13,400.00	7,115.80	7,099.07	7,061.58	183.87	35.53	-89.40	-3,681.14	-8,370.37	4,818.33	4,612.96	205.37	23.462		
13,500.00	7,115.37	7,097.62	7,060.13	186.67	35.52	-89.39	-3,681.12	-8,370.39	4,779.20	4,570.08	209.13	22.853		
13,600.00	7,114.93	7,096.18	7,058.70	189.47	35.52	-89.37	-3,681.09	-8,370.40	4,741.86	4,528.98	212.88	22.275		
13,700.00	7,114.50	7,094.76	7,057.27	192.28	35.51	-89.35	-3,681.07	-8,370.42	4,706.35	4,489.72	216.63	21.726		
13,800.00	7,114.07	7,093.35	7,055.86	195.09	35.50	-89.33	-3,681.05	-8,370.43	4,672.71	4,452.35	220.36	21.205		
13,900.00	7,113.63	7,091.95	7,054.46	197.89	35.50	-89.31	-3,681.03	-8,370.44	4,640.97	4,416.90	224.07	20.712		
14,000.00	7,113.20	7,090.56	7,053.08	200.70	35.49	-89.29	-3,681.00	-8,370.46	4,611.19	4,383.44	227.75	20.246		
14,100.00	7,112.77	7,089.19	7,051.70	203.51	35.49	-89.28	-3,680.98	-8,370.47	4,583.40	4,352.00	231.40	19.807		
14,200.00	7,112.33	7,087.82	7,050.34	206.32	35.48	-89.26	-3,680.96	-8,370.48	4,557.63	4,322.62	235.01	19.393		
14,300.00	7,111.90	7,086.47	7,048.99	209.13	35.48	-89.24	-3,680.94	-8,370.49	4,533.92	4,295.35	238.57	19.004		
14,400.00	7,111.46	7,085.13	7,047.65	211.95	35.47	-89.22	-3,680.92	-8,370.51	4,512.30	4,270.23	242.08	18.640		
14,500.00	7,111.03	7,083.80	7,046.32	214.76	35.47	-89.21	-3,680.90	-8,370.52	4,492.81	4,247.29	245.52	18.299		
14,600.00	7,110.60	7,082.48	7,045.00	217.58	35.46	-89.19	-3,680.88	-8,370.53	4,475.46	4,226.57	248.89	17.981		
14,700.00	7,110.16	7,081.17	7,043.69	220.39	35.46	-89.17	-3,680.85	-8,370.54	4,460.29	4,208.10	252.19	17.686		
14,800.00	7,109.73	7,079.88	7,042.39	223.21	35.45	-89.16	-3,680.83	-8,370.55	4,447.32	4,191.92	255.40	17.413		
14,900.00	7,109.30	7,090.54	7,053.05	226.03	35.49	-89.29	-3,680.92	-8,370.54	4,436.50	4,177.92	258.58	17.157		
14,969.16	7,109.00	7,089.62	7,052.13	227.97	35.49	-89.28	-3,680.91	-8,370.54	4,430.36	4,169.68	260.68	16.995 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-135.12	-3,386.36	-3,372.04	4,779.36				
100.00	100.00	35.00	100.00	3.28	3.34	-135.12	-3,386.36	-3,372.04	4,778.92	4,772.30	6.62	721.768	
200.00	200.00	135.00	200.00	3.34	4.42	-135.12	-3,386.36	-3,372.04	4,778.92	4,771.16	7.76	615.832	
300.00	300.00	235.00	300.00	3.44	7.24	-135.12	-3,386.36	-3,372.04	4,778.92	4,768.23	10.69	447.111	
400.00	400.00	335.00	400.00	3.60	10.48	-135.12	-3,386.36	-3,372.04	4,778.92	4,764.84	14.08	339.426	
500.00	500.00	435.00	500.00	3.81	13.83	-135.12	-3,386.36	-3,372.04	4,778.92	4,761.28	17.64	270.901	
600.00	600.00	535.00	600.00	4.05	17.25	-135.12	-3,386.36	-3,372.04	4,778.92	4,757.63	21.29	224.442	
700.00	699.98	634.98	699.98	4.32	20.68	-125.97	-3,386.36	-3,372.04	4,779.94	4,754.94	25.00	191.189	
800.00	799.84	734.84	799.84	4.62	24.13	-125.97	-3,386.36	-3,372.04	4,783.02	4,754.27	28.75	166.383	
900.00	899.45	834.45	899.45	4.94	27.58	-125.97	-3,386.36	-3,372.04	4,788.15	4,755.64	32.52	147.256	
1,000.00	998.70	933.70	998.70	5.28	31.02	-125.97	-3,386.36	-3,372.04	4,795.35	4,759.05	36.30	132.112	
1,100.00	1,097.50	1,032.50	1,097.50	5.64	34.46	-126.03	-3,386.36	-3,372.04	4,804.49	4,764.41	40.09	119.857	
1,200.00	1,196.18	1,131.18	1,196.18	6.00	37.89	-126.18	-3,386.36	-3,372.04	4,814.11	4,770.22	43.88	109.699	
1,300.00	1,294.87	1,229.87	1,294.87	6.38	41.32	-126.34	-3,386.36	-3,372.04	4,823.76	4,776.06	47.70	101.130	
1,400.00	1,393.55	1,328.55	1,393.55	6.77	44.75	-126.49	-3,386.36	-3,372.04	4,833.44	4,781.92	51.53	93.808	
1,500.00	1,492.23	1,427.23	1,492.23	7.17	48.19	-126.64	-3,386.36	-3,372.04	4,843.16	4,787.80	55.36	87.482	
1,600.00	1,590.91	1,525.91	1,590.91	7.58	51.63	-126.79	-3,386.36	-3,372.04	4,852.92	4,793.71	59.21	81.966	
1,700.00	1,689.60	1,624.60	1,689.60	8.00	55.07	-126.94	-3,386.36	-3,372.04	4,862.71	4,799.65	63.06	77.114	
1,800.00	1,788.28	1,723.28	1,788.28	8.42	58.51	-127.10	-3,386.36	-3,372.04	4,872.53	4,805.61	66.92	72.815	
1,900.00	1,886.96	1,821.96	1,886.96	8.84	61.95	-127.25	-3,386.36	-3,372.04	4,882.38	4,811.60	70.78	68.979	
2,000.00	1,985.64	1,920.64	1,985.64	9.27	65.39	-127.40	-3,386.36	-3,372.04	4,892.27	4,817.63	74.65	65.538	
2,100.00	2,084.33	2,019.33	2,084.33	9.71	68.83	-127.54	-3,386.36	-3,372.04	4,902.20	4,823.68	78.52	62.433	
2,200.00	2,183.01	2,118.01	2,183.01	10.15	72.27	-127.69	-3,386.36	-3,372.04	4,912.16	4,829.76	82.39	59.618	
2,300.00	2,281.69	2,216.69	2,281.69	10.59	75.71	-127.84	-3,386.36	-3,372.04	4,922.15	4,835.87	86.27	57.054	
2,400.00	2,380.38	2,315.38	2,380.38	11.03	79.15	-127.99	-3,386.36	-3,372.04	4,932.17	4,842.02	90.15	54.709	
2,500.00	2,479.06	2,414.06	2,479.06	11.47	82.59	-128.13	-3,386.36	-3,372.04	4,942.22	4,848.19	94.03	52.557	
2,600.00	2,577.74	2,512.74	2,577.74	11.92	86.04	-128.28	-3,386.36	-3,372.04	4,952.31	4,854.39	97.92	50.575	
2,700.00	2,676.42	2,611.42	2,676.42	12.36	89.48	-128.43	-3,386.36	-3,372.04	4,962.43	4,860.63	101.81	48.744	
2,800.00	2,775.11	2,710.11	2,775.11	12.81	92.92	-128.57	-3,386.36	-3,372.04	4,972.58	4,866.89	105.69	47.047	
2,900.00	2,873.79	2,808.79	2,873.79	13.26	96.37	-128.71	-3,386.36	-3,372.04	4,982.77	4,873.18	109.58	45.470	
3,000.00	2,972.47	2,907.47	2,972.47	13.72	99.81	-128.86	-3,386.36	-3,372.04	4,992.98	4,879.51	113.47	44.001	
3,100.00	3,071.15	3,006.15	3,071.15	14.17	103.25	-129.00	-3,386.36	-3,372.04	5,003.23	4,885.86	117.36	42.630	
3,200.00	3,169.84	3,104.84	3,169.84	14.62	106.70	-129.14	-3,386.36	-3,372.04	5,013.51	4,892.25	121.26	41.346	
3,300.00	3,268.52	3,203.52	3,268.52	15.08	110.14	-129.29	-3,386.36	-3,372.04	5,023.82	4,898.67	125.15	40.142	
3,400.00	3,367.20	3,302.20	3,367.20	15.53	113.58	-129.43	-3,386.36	-3,372.04	5,034.16	4,905.11	129.05	39.011	
3,500.00	3,465.89	3,400.89	3,465.89	15.99	117.03	-129.57	-3,386.36	-3,372.04	5,044.53	4,911.59	132.94	37.946	
3,600.00	3,564.57	3,500.43	3,564.57	16.44	120.50	-129.71	-3,386.36	-3,372.04	5,054.93	4,918.06	136.87	36.933	
3,700.00	3,663.25	3,601.75	3,663.25	16.90	124.04	-129.85	-3,386.36	-3,372.04	5,065.36	4,924.51	140.85	35.962	
3,800.00	3,761.93	3,703.07	3,761.93	17.36	127.57	-129.99	-3,386.36	-3,372.04	5,075.82	4,930.98	144.84	35.043	
3,900.00	3,860.62	3,804.38	3,860.62	17.82	131.11	-130.13	-3,386.36	-3,372.04	5,086.32	4,937.48	148.83	34.175	
4,000.00	3,959.30	3,905.70	3,959.30	18.28	134.64	-130.26	-3,386.36	-3,372.04	5,096.84	4,944.01	152.82	33.351	
4,100.00	4,057.98	4,007.02	4,057.98	18.74	138.18	-130.40	-3,386.36	-3,372.04	5,107.39	4,950.57	156.81	32.570	
4,200.00	4,156.67	4,108.34	4,156.67	19.20	141.71	-130.54	-3,386.36	-3,372.04	5,117.97	4,957.16	160.80	31.827	
4,300.00	4,255.35	4,209.65	4,255.35	19.66	145.25	-130.67	-3,386.36	-3,372.04	5,128.58	4,963.78	164.80	31.121	
4,400.00	4,354.03	4,289.03	4,354.03	20.12	148.02	-130.81	-3,386.36	-3,372.04	5,139.22	4,971.19	168.02	30.587	
4,500.00	4,452.71	4,387.71	4,452.71	20.58	151.47	-130.95	-3,386.36	-3,372.04	5,149.88	4,977.96	171.92	29.955	
4,600.00	4,551.40	4,486.40	4,551.40	21.04	154.91	-131.08	-3,386.36	-3,372.04	5,160.58	4,984.76	175.82	29.351	
4,700.00	4,650.08	4,585.08	4,650.08	21.50	158.35	-131.21	-3,386.36	-3,372.04	5,171.30	4,991.58	179.72	28.774	
4,800.00	4,748.76	4,683.76	4,748.76	21.96	161.80	-131.35	-3,386.36	-3,372.04	5,182.06	4,998.43	183.62	28.221	
4,900.00	4,847.44	4,782.44	4,847.44	22.42	165.24	-131.48	-3,386.36	-3,372.04	5,192.84	5,005.31	187.52	27.692	
5,000.00	4,946.13	4,881.13	4,946.13	22.89	168.69	-131.61	-3,386.36	-3,372.04	5,203.65	5,012.22	191.43	27.184	
5,100.00	5,044.81	4,979.81	5,044.81	23.35	172.13	-131.75	-3,386.36	-3,372.04	5,214.48	5,019.16	195.33	26.696	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,078.49	5,143.49	23.81	175.58	-131.88	-3,386.36	-3,372.04	5,225.35	5,026.12	199.23	26.228		
5,300.00	5,242.18	5,177.18	5,242.18	24.27	179.02	-132.01	-3,386.36	-3,372.04	5,236.24	5,033.11	203.13	25.778		
5,400.00	5,340.86	5,275.86	5,340.86	24.74	182.46	-132.14	-3,386.36	-3,372.04	5,247.16	5,040.13	207.03	25.345		
5,500.00	5,439.54	5,374.54	5,439.54	25.20	185.91	-132.27	-3,386.36	-3,372.04	5,258.11	5,047.17	210.94	24.928		
5,600.00	5,538.22	5,473.22	5,538.22	25.66	189.35	-132.40	-3,386.36	-3,372.04	5,269.08	5,054.24	214.84	24.526		
5,700.00	5,636.91	5,571.91	5,636.91	26.13	192.80	-132.53	-3,386.36	-3,372.04	5,280.08	5,061.34	218.74	24.139		
5,800.00	5,735.59	5,670.59	5,735.59	26.59	196.24	-132.65	-3,386.36	-3,372.04	5,291.11	5,068.46	222.64	23.765		
5,900.00	5,834.27	5,769.27	5,834.27	27.06	199.69	-132.78	-3,386.36	-3,372.04	5,302.16	5,075.61	226.55	23.404		
6,000.00	5,932.95	5,867.95	5,932.95	27.52	203.13	-132.91	-3,386.36	-3,372.04	5,313.24	5,082.79	230.45	23.056		
6,100.00	6,031.64	5,966.64	6,031.64	27.98	206.58	-133.04	-3,386.36	-3,372.04	5,324.34	5,089.99	234.35	22.720		
6,200.00	6,130.32	6,065.32	6,130.32	28.45	210.02	-133.16	-3,386.36	-3,372.04	5,335.48	5,097.22	238.25	22.394		
6,300.00	6,229.00	6,164.00	6,229.00	28.91	213.47	-133.29	-3,386.36	-3,372.04	5,346.63	5,104.48	242.16	22.079		
6,400.00	6,327.69	6,262.69	6,327.69	29.38	216.91	-133.41	-3,386.36	-3,372.04	5,357.81	5,111.75	246.06	21.774		
6,500.00	6,426.37	6,361.37	6,426.37	29.84	220.35	-133.54	-3,386.36	-3,372.04	5,369.02	5,119.06	249.96	21.479		
6,600.00	6,525.05	6,460.05	6,525.05	30.31	223.80	-133.66	-3,386.36	-3,372.04	5,380.26	5,126.39	253.87	21.193		
6,700.00	6,623.73	6,558.73	6,623.73	30.77	227.22	-93.28	-3,386.36	-3,372.04	5,386.60	5,128.84	257.75	20.898		
6,800.00	6,718.58	6,653.58	6,718.58	31.22	230.55	-77.46	-3,386.36	-3,372.04	5,383.08	5,121.53	261.55	20.582		
6,900.00	6,808.91	6,743.91	6,808.91	31.66	233.71	-71.43	-3,386.36	-3,372.04	5,369.98	5,104.81	265.16	20.252		
7,000.00	6,891.95	6,826.95	6,891.95	32.07	236.61	-69.59	-3,386.36	-3,372.04	5,347.86	5,079.32	268.54	19.915		
7,100.00	6,965.65	6,900.65	6,965.65	32.51	239.18	-70.13	-3,386.36	-3,372.04	5,317.54	5,045.92	271.62	19.577		
7,200.00	7,028.20	6,963.20	7,028.20	33.02	241.36	-72.29	-3,386.36	-3,372.04	5,280.07	5,005.70	274.37	19.244		
7,300.00	7,078.04	7,013.04	7,078.04	33.68	243.10	-75.70	-3,386.36	-3,372.04	5,236.64	4,959.86	276.78	18.920		
7,400.00	7,113.97	7,048.97	7,113.97	34.52	244.36	-80.08	-3,386.36	-3,372.04	5,188.57	4,909.76	278.82	18.609		
7,500.00	7,135.09	7,070.09	7,135.09	35.53	245.09	-85.17	-3,386.36	-3,372.04	5,137.24	4,856.78	280.46	18.317		
7,600.00	7,140.96	7,075.96	7,140.96	36.68	245.30	-90.16	-3,386.36	-3,372.04	5,084.02	4,802.33	281.68	18.049		
7,700.00	7,140.53	7,075.53	7,140.53	37.99	245.28	-90.15	-3,386.36	-3,372.04	5,031.19	4,748.37	282.82	17.789		
7,800.00	7,140.09	7,075.09	7,140.09	39.45	245.27	-90.15	-3,386.36	-3,372.04	4,979.81	4,695.70	284.11	17.528		
7,900.00	7,139.66	7,074.66	7,139.66	41.06	245.25	-90.14	-3,386.36	-3,372.04	4,929.92	4,644.38	285.54	17.265		
8,000.00	7,139.23	7,074.23	7,139.23	42.80	245.24	-90.13	-3,386.36	-3,372.04	4,881.58	4,594.46	287.11	17.002		
8,100.00	7,138.79	7,073.79	7,138.79	44.65	245.22	-90.13	-3,386.36	-3,372.04	4,834.82	4,546.00	288.82	16.740		
8,200.00	7,138.36	7,073.36	7,138.36	46.60	245.21	-90.12	-3,386.36	-3,372.04	4,789.69	4,499.04	290.64	16.480		
8,300.00	7,137.93	7,072.93	7,137.93	48.65	245.19	-90.12	-3,386.36	-3,372.04	4,746.23	4,453.65	292.58	16.222		
8,400.00	7,137.49	7,072.49	7,137.49	50.77	245.18	-90.11	-3,386.36	-3,372.04	4,704.51	4,409.88	294.63	15.968		
8,500.00	7,137.06	7,072.06	7,137.06	52.95	245.16	-90.11	-3,386.36	-3,372.04	4,664.55	4,367.78	296.77	15.718		
8,600.00	7,136.62	7,071.62	7,136.62	55.20	245.15	-90.10	-3,386.36	-3,372.04	4,626.41	4,327.40	299.00	15.473		
8,700.00	7,136.19	7,071.19	7,136.19	57.51	245.13	-90.09	-3,386.36	-3,372.04	4,590.13	4,288.81	301.32	15.234		
8,800.00	7,135.76	7,070.76	7,135.76	59.85	245.12	-90.09	-3,386.36	-3,372.04	4,555.76	4,252.06	303.70	15.001		
8,900.00	7,135.32	7,070.32	7,135.32	62.24	245.10	-90.08	-3,386.36	-3,372.04	4,523.34	4,217.19	306.15	14.775		
9,000.00	7,134.89	7,069.89	7,134.89	64.67	245.09	-90.08	-3,386.36	-3,372.04	4,492.91	4,184.25	308.66	14.556		
9,100.00	7,134.45	7,069.45	7,134.45	67.13	245.07	-90.07	-3,386.36	-3,372.04	4,464.51	4,153.30	311.21	14.346		
9,200.00	7,134.02	7,069.02	7,134.02	69.62	245.06	-90.06	-3,386.36	-3,372.04	4,438.19	4,124.38	313.81	14.143		
9,300.00	7,133.59	7,068.59	7,133.59	72.14	245.04	-90.06	-3,386.36	-3,372.04	4,413.97	4,097.53	316.44	13.949		
9,400.00	7,133.15	7,068.15	7,133.15	74.68	245.03	-90.05	-3,386.36	-3,372.04	4,391.90	4,072.80	319.10	13.763		
9,500.00	7,132.72	7,067.72	7,132.72	77.24	245.01	-90.05	-3,386.36	-3,372.04	4,372.00	4,050.22	321.78	13.587		
9,600.00	7,132.29	7,067.29	7,132.29	79.83	245.00	-90.04	-3,386.36	-3,372.04	4,354.32	4,029.84	324.47	13.420		
9,700.00	7,131.85	7,066.85	7,131.85	82.42	244.98	-90.04	-3,386.36	-3,372.04	4,338.86	4,011.69	327.17	13.262		
9,800.00	7,131.42	7,066.42	7,131.42	85.04	244.97	-90.03	-3,386.36	-3,372.04	4,325.66	3,995.79	329.87	13.113		
9,900.00	7,130.98	7,065.98	7,130.98	87.67	244.95	-90.02	-3,386.36	-3,372.04	4,314.74	3,982.18	332.56	12.974		
10,000.00	7,130.55	7,065.55	7,130.55	90.31	244.94	-90.02	-3,386.36	-3,372.04	4,306.11	3,970.88	335.23	12.845		
10,100.00	7,130.12	7,065.12	7,130.12	92.97	244.92	-90.01	-3,386.36	-3,372.04	4,299.80	3,961.91	337.89	12.726		
10,200.00	7,129.68	7,064.68	7,129.68	95.63	244.91	-90.01	-3,386.36	-3,372.04	4,295.80	3,955.28	340.52	12.616		
10,300.00	7,129.25	7,064.25	7,129.25	98.31	244.89	-90.00	-3,386.36	-3,372.04	4,294.13	3,951.02	343.11	12.515		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,321.82	7,129.15	7,064.15	7,129.15	98.90	244.89	-90.00	-3,386.36	-3,372.04	4,294.07	3,950.40	343.67	12.495 CC		
10,400.00	7,128.82	7,063.82	7,128.82	101.00	244.87	-90.00	-3,386.36	-3,372.04	4,294.78	3,949.11	345.67	12.424 ES		
10,500.00	7,128.38	7,063.38	7,128.38	103.69	244.86	-89.99	-3,386.36	-3,372.04	4,297.77	3,949.58	348.19	12.343		
10,600.00	7,127.95	7,062.95	7,127.95	106.39	244.84	-89.98	-3,386.36	-3,372.04	4,303.07	3,952.42	350.65	12.272		
10,700.00	7,127.51	7,062.51	7,127.51	109.10	244.83	-89.98	-3,386.36	-3,372.04	4,310.69	3,957.62	353.07	12.209		
10,800.00	7,127.08	7,062.08	7,127.08	111.82	244.81	-89.97	-3,386.36	-3,372.04	4,320.61	3,965.19	355.43	12.156		
10,900.00	7,126.65	7,061.65	7,126.65	114.54	244.80	-89.97	-3,386.36	-3,372.04	4,332.82	3,975.10	357.73	12.112		
11,000.00	7,126.21	7,061.21	7,126.21	117.27	244.78	-89.96	-3,386.36	-3,372.04	4,347.30	3,987.34	359.96	12.077		
11,100.00	7,125.78	7,060.78	7,125.78	120.01	244.77	-89.95	-3,386.36	-3,372.04	4,364.01	4,001.88	362.13	12.051		
11,200.00	7,125.35	7,060.35	7,125.35	122.75	244.75	-89.95	-3,386.36	-3,372.04	4,382.95	4,018.72	364.23	12.034		
11,300.00	7,124.91	7,059.91	7,124.91	125.49	244.74	-89.94	-3,386.36	-3,372.04	4,404.07	4,037.82	366.26	12.025		
11,400.00	7,124.48	7,059.48	7,124.48	128.24	244.72	-89.94	-3,386.36	-3,372.04	4,427.36	4,059.15	368.21	12.024 SF		
11,500.00	7,124.04	7,059.04	7,124.04	131.00	244.71	-89.93	-3,386.36	-3,372.04	4,452.77	4,082.67	370.10	12.031		
11,600.00	7,123.61	7,058.61	7,123.61	133.75	244.69	-89.93	-3,386.36	-3,372.04	4,480.26	4,108.36	371.90	12.047		
11,700.00	7,123.18	7,058.18	7,123.18	136.52	244.68	-89.92	-3,386.36	-3,372.04	4,509.81	4,136.17	373.64	12.070		
11,800.00	7,122.74	7,057.74	7,122.74	139.28	244.66	-89.91	-3,386.36	-3,372.04	4,541.37	4,166.07	375.30	12.101		
11,900.00	7,122.31	7,057.31	7,122.31	142.05	244.65	-89.91	-3,386.36	-3,372.04	4,574.90	4,198.01	376.88	12.139		
12,000.00	7,121.88	7,056.88	7,121.88	144.82	244.63	-89.90	-3,386.36	-3,372.04	4,610.35	4,231.96	378.39	12.184		
12,100.00	7,121.44	7,056.44	7,121.44	147.59	244.62	-89.90	-3,386.36	-3,372.04	4,647.68	4,267.85	379.83	12.236		
12,200.00	7,121.01	7,056.01	7,121.01	150.37	244.60	-89.89	-3,386.36	-3,372.04	4,686.85	4,305.66	381.19	12.295		
12,300.00	7,120.57	7,055.57	7,120.57	153.15	244.59	-89.89	-3,386.36	-3,372.04	4,727.81	4,345.32	382.49	12.361		
12,400.00	7,120.14	7,055.14	7,120.14	155.93	244.57	-89.88	-3,386.36	-3,372.04	4,770.51	4,386.80	383.71	12.433		
12,500.00	7,119.71	7,054.71	7,119.71	158.72	244.56	-89.87	-3,386.36	-3,372.04	4,814.92	4,430.05	384.87	12.511		
12,600.00	7,119.27	7,054.27	7,119.27	161.50	244.54	-89.87	-3,386.36	-3,372.04	4,860.97	4,475.01	385.96	12.594		
12,700.00	7,118.84	7,053.84	7,118.84	164.29	244.53	-89.86	-3,386.36	-3,372.04	4,908.63	4,521.65	386.99	12.684		
12,800.00	7,118.41	7,053.41	7,118.41	167.08	244.51	-89.86	-3,386.36	-3,372.04	4,957.85	4,569.90	387.95	12.779		
12,900.00	7,117.97	7,052.97	7,117.97	169.88	244.50	-89.85	-3,386.36	-3,372.04	5,008.59	4,619.73	388.86	12.880		
13,000.00	7,117.54	7,052.54	7,117.54	172.67	244.48	-89.84	-3,386.36	-3,372.04	5,060.79	4,671.08	389.71	12.986		
13,100.00	7,117.10	7,052.10	7,117.10	175.47	244.47	-89.84	-3,386.36	-3,372.04	5,114.41	4,723.91	390.50	13.097		
13,200.00	7,116.67	7,051.67	7,116.67	178.27	244.45	-89.83	-3,386.36	-3,372.04	5,169.41	4,778.17	391.24	13.213		
13,300.00	7,116.24	7,051.24	7,116.24	181.07	244.44	-89.83	-3,386.36	-3,372.04	5,225.75	4,833.82	391.93	13.333		
13,400.00	7,115.80	7,050.80	7,115.80	183.87	244.42	-89.82	-3,386.36	-3,372.04	5,283.38	4,890.80	392.57	13.458		
13,500.00	7,115.37	7,050.37	7,115.37	186.67	244.41	-89.82	-3,386.36	-3,372.04	5,342.26	4,949.09	393.17	13.588		
13,600.00	7,114.93	7,049.93	7,114.93	189.47	244.39	-89.81	-3,386.36	-3,372.04	5,402.34	5,008.62	393.72	13.721		
13,700.00	7,114.50	7,049.50	7,114.50	192.28	244.38	-89.80	-3,386.36	-3,372.04	5,463.60	5,069.37	394.23	13.859		
13,800.00	7,114.07	7,049.07	7,114.07	195.09	244.36	-89.80	-3,386.36	-3,372.04	5,525.99	5,131.29	394.70	14.001		
13,900.00	7,113.63	7,048.63	7,113.63	197.89	244.34	-89.79	-3,386.36	-3,372.04	5,589.47	5,194.35	395.13	14.146		
14,000.00	7,113.20	7,048.20	7,113.20	200.70	244.33	-89.79	-3,386.36	-3,372.04	5,654.01	5,258.49	395.52	14.295		
14,100.00	7,112.77	7,047.77	7,112.77	203.51	244.31	-89.78	-3,386.36	-3,372.04	5,719.57	5,323.69	395.88	14.448		
14,200.00	7,112.33	7,047.33	7,112.33	206.32	244.30	-89.78	-3,386.36	-3,372.04	5,786.11	5,389.90	396.21	14.604		
14,300.00	7,111.90	7,046.90	7,111.90	209.13	244.28	-89.77	-3,386.36	-3,372.04	5,853.60	5,457.10	396.50	14.763		
14,400.00	7,111.46	7,046.46	7,111.46	211.95	244.27	-89.76	-3,386.36	-3,372.04	5,922.02	5,525.25	396.77	14.925		
14,500.00	7,111.03	7,046.03	7,111.03	214.76	244.25	-89.76	-3,386.36	-3,372.04	5,991.32	5,594.31	397.01	15.091		
14,600.00	7,110.60	7,045.60	7,110.60	217.58	244.24	-89.75	-3,386.36	-3,372.04	6,061.48	5,664.25	397.23	15.259		
14,700.00	7,110.16	7,045.16	7,110.16	220.39	244.22	-89.75	-3,386.36	-3,372.04	6,132.47	5,735.05	397.42	15.431		
14,800.00	7,109.73	7,044.73	7,109.73	223.21	244.21	-89.74	-3,386.36	-3,372.04	6,204.26	5,806.67	397.59	15.605		
14,900.00	7,109.30	7,044.30	7,109.30	226.03	244.19	-89.74	-3,386.36	-3,372.04	6,276.82	5,879.08	397.73	15.781		
14,969.16	7,109.00	7,044.00	7,109.00	227.97	244.18	-89.73	-3,386.36	-3,372.04	6,327.44	5,929.61	397.82	15.905		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	29.69	857.57	488.95	987.22					
100.00	100.00	86.77	97.77	3.28	3.29	29.69	857.65	489.01	987.26	980.69	6.57	150.268		
200.00	200.00	186.78	197.78	3.34	3.33	29.70	857.81	489.21	987.51	980.84	6.67	148.072		
300.00	300.00	289.35	300.35	3.44	3.44	29.71	857.82	489.41	987.62	980.73	6.88	143.524		
321.74	321.74	311.73	322.73	3.48	3.47	29.71	857.80	489.42	987.60	980.66	6.94	142.281		
400.00	400.00	383.00	394.00	3.60	3.58	29.73	857.83	489.85	987.85	980.67	7.18	137.591		
500.00	500.00	485.60	496.59	3.81	3.77	29.78	857.92	490.86	988.42	980.84	7.58	130.416		
600.00	600.00	581.28	592.27	4.05	3.99	29.82	857.93	491.79	988.92	980.88	8.04	123.026		
700.00	699.98	684.42	695.40	4.32	4.26	39.13	857.89	493.33	988.28	979.70	8.58	115.213		
800.00	799.84	786.10	797.06	4.62	4.55	39.44	857.55	494.63	984.57	975.41	9.17	107.404		
900.00	899.45	882.49	893.45	4.94	4.85	39.90	857.32	495.80	978.27	968.49	9.78	99.995		
1,000.00	998.70	984.53	995.48	5.28	5.18	40.58	857.07	497.29	969.47	959.02	10.45	92.743		
1,100.00	1,097.50	1,078.76	1,089.70	5.64	5.50	41.30	856.96	498.37	958.26	947.13	11.13	86.110		
1,200.00	1,196.18	1,177.95	1,188.89	6.00	5.84	42.01	857.08	499.80	946.97	935.13	11.84	79.967		
1,300.00	1,294.87	1,283.05	1,293.97	6.38	6.22	42.80	856.72	501.28	935.43	922.83	12.60	74.250		
1,400.00	1,393.55	1,382.86	1,393.77	6.77	6.59	43.56	856.11	502.17	923.54	910.19	13.35	69.158		
1,500.00	1,492.23	1,481.53	1,492.44	7.17	6.96	44.31	855.56	502.93	911.79	897.67	14.12	64.568		
1,600.00	1,590.91	1,579.38	1,590.28	7.58	7.33	45.11	854.78	504.06	900.24	885.34	14.90	60.420		
1,700.00	1,689.60	1,677.12	1,688.02	8.00	7.71	45.91	854.19	505.07	888.95	873.26	15.69	56.662		
1,800.00	1,788.28	1,776.84	1,787.73	8.42	8.10	46.72	853.81	505.83	877.84	861.35	16.49	53.221		
1,900.00	1,886.96	1,881.95	1,892.83	8.84	8.51	47.60	853.08	506.36	866.52	849.20	17.33	50.015		
2,000.00	1,985.64	1,979.24	1,990.12	9.27	8.90	48.41	852.38	506.16	854.93	836.79	18.14	47.138		
2,100.00	2,084.33	2,078.84	2,089.72	9.71	9.29	49.23	851.98	505.81	843.67	824.70	18.96	44.492		
2,200.00	2,183.01	2,174.20	2,185.08	10.15	9.67	50.05	851.54	505.58	832.60	812.82	19.78	42.092		
2,300.00	2,281.69	2,270.08	2,280.96	10.59	10.06	50.86	851.63	505.39	822.17	801.56	20.61	39.900		
2,400.00	2,380.38	2,367.60	2,378.48	11.03	10.45	51.74	851.68	505.60	812.15	790.71	21.44	37.877		
2,500.00	2,479.06	2,469.66	2,480.54	11.47	10.87	52.67	851.80	505.63	802.26	779.97	22.30	35.983		
2,600.00	2,577.74	2,567.63	2,578.50	11.92	11.26	53.56	851.88	505.19	792.22	769.08	23.14	34.235		
2,700.00	2,676.42	2,665.28	2,676.16	12.36	11.66	54.45	852.30	504.79	782.64	758.65	23.99	32.627		
2,800.00	2,775.11	2,766.21	2,777.09	12.81	12.07	55.39	852.74	504.27	773.20	748.35	24.85	31.118		
2,900.00	2,873.79	2,869.28	2,880.15	13.26	12.50	56.37	852.91	503.36	763.51	737.80	25.71	29.691		
3,000.00	2,972.47	2,968.29	2,979.16	13.72	12.90	57.34	852.68	502.29	753.64	727.06	26.57	28.361		
3,100.00	3,071.15	3,070.55	3,081.40	14.17	13.32	58.33	852.80	500.78	743.91	716.47	27.44	27.108		
3,200.00	3,169.84	3,167.86	3,178.70	14.62	13.73	59.29	852.83	498.91	734.02	705.72	28.30	25.936		
3,300.00	3,268.52	3,266.50	3,277.33	15.08	14.14	60.30	852.89	497.43	724.67	695.51	29.17	24.847		
3,400.00	3,367.20	3,366.74	3,377.55	15.53	14.55	61.39	852.45	496.07	715.36	685.33	30.03	23.818		
3,500.00	3,465.89	3,464.91	3,475.71	15.99	14.96	62.48	852.03	494.57	706.20	675.30	30.90	22.854		
3,600.00	3,564.57	3,559.80	3,570.59	16.44	15.36	63.56	851.72	493.39	697.59	665.83	31.76	21.964		
3,700.00	3,663.25	3,653.01	3,663.80	16.90	15.75	64.67	851.65	492.89	689.96	657.34	32.62	21.153		
3,800.00	3,761.93	3,749.80	3,760.58	17.36	16.15	65.82	852.12	492.81	683.31	649.82	33.48	20.407		
3,900.00	3,860.62	3,850.84	3,861.62	17.82	16.58	67.04	852.59	492.55	676.81	642.44	34.36	19.695		
4,000.00	3,959.30	3,950.90	3,961.68	18.28	16.99	68.26	852.97	491.96	670.28	635.04	35.24	19.019		
4,100.00	4,057.98	4,049.27	4,060.05	18.74	17.41	69.48	853.41	491.30	664.03	627.91	36.12	18.385		
4,200.00	4,156.67	4,148.50	4,159.28	19.20	17.82	70.75	853.63	490.83	658.16	621.16	37.00	17.790		
4,300.00	4,255.35	4,247.32	4,258.10	19.66	18.24	72.04	853.81	490.20	652.45	614.58	37.87	17.227		
4,400.00	4,354.03	4,345.20	4,355.98	20.12	18.65	73.34	854.07	489.72	647.25	608.50	38.75	16.704		
4,500.00	4,452.71	4,443.30	4,454.08	20.58	19.06	74.66	854.35	489.26	642.44	602.81	39.62	16.213		
4,600.00	4,551.40	4,539.87	4,550.64	21.04	19.47	75.97	854.72	489.03	638.22	597.72	40.50	15.760		
4,700.00	4,650.08	4,637.54	4,648.31	21.50	19.88	77.31	855.26	489.10	634.72	593.34	41.37	15.342		
4,800.00	4,748.76	4,735.65	4,746.42	21.96	20.29	78.68	855.78	489.12	631.52	589.27	42.25	14.948		
4,900.00	4,847.44	4,830.17	4,840.94	22.42	20.69	79.99	856.52	489.57	629.21	586.10	43.11	14.595		
5,000.00	4,946.13	4,927.54	4,938.29	22.89	21.10	81.33	857.78	490.46	627.84	583.86	43.99	14.274		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,044.81	5,030.55	5,041.29	23.35	21.54	82.73	859.22	490.95	626.45	581.56	44.88	13.957		
5,200.00	5,143.49	5,132.47	5,143.21	23.81	21.97	84.16	859.98	491.10	624.92	579.15	45.77	13.652		
5,300.00	5,242.18	5,235.07	5,245.81	24.27	22.40	85.66	860.17	490.71	623.15	576.48	46.67	13.353		
5,400.00	5,340.86	5,335.82	5,346.55	24.74	22.83	87.11	860.45	489.86	621.34	573.79	47.55	13.066		
5,500.00	5,439.54	5,437.38	5,448.11	25.20	23.26	88.63	860.19	488.79	619.64	571.20	48.44	12.791		
5,600.00	5,538.22	5,537.63	5,548.35	25.66	23.68	90.14	859.85	487.13	617.75	568.43	49.33	12.524		
5,700.00	5,636.91	5,633.93	5,644.63	26.13	24.09	91.59	859.57	485.86	616.62	566.43	50.20	12.284		
5,800.00	5,735.59	5,734.89	5,745.58	26.59	24.52	93.12	859.30	484.50	615.91	564.83	51.08	12.057		
5,900.00	5,834.27	5,835.84	5,846.52	27.06	24.95	94.63	859.19	482.54	615.06	563.09	51.97	11.835		
6,000.00	5,932.95	5,933.26	5,943.92	27.52	25.36	96.08	859.24	480.75	614.72	561.88	52.84	11.633		
6,022.78	5,955.44	5,955.88	5,966.54	27.63	25.45	96.41	859.27	480.34	614.71	561.67	53.04	11.589 CC		
6,100.00	6,031.64	6,033.33	6,043.97	27.98	25.78	97.55	859.42	478.88	614.79	561.07	53.72	11.444		
6,200.00	6,130.32	6,133.45	6,144.07	28.45	26.21	99.03	859.61	476.68	614.92	560.32	54.60	11.261		
6,300.00	6,229.00	6,231.83	6,242.43	28.91	26.63	100.51	859.39	474.57	615.54	560.06	55.48	11.095		
6,400.00	6,327.69	6,333.74	6,344.30	29.38	27.06	102.02	859.45	472.12	616.30	559.93	56.37	10.934		
6,500.00	6,426.37	6,434.96	6,445.48	29.84	27.49	103.52	859.44	469.09	616.90	559.65	57.25	10.775		
6,600.00	6,525.05	6,535.57	6,546.04	30.31	27.92	104.97	859.88	465.97	617.76	559.63	58.13	10.627 ES		
6,700.00	6,623.18	6,638.37	6,648.77	30.77	28.35	106.56	860.67	462.09	625.99	566.97	59.01	10.607 SF		
6,800.00	6,718.58	6,734.46	6,744.77	31.22	28.76	108.12	861.26	458.16	629.45	569.60	59.86	10.850		
6,900.00	6,808.91	6,825.88	6,836.12	31.66	29.15	109.63	861.56	454.64	627.31	567.96	60.65	11.343		
7,000.00	6,891.95	6,917.06	6,927.21	32.07	29.54	111.13	862.04	450.67	625.70	566.30	61.40	12.048		
7,100.00	6,965.65	6,997.37	7,007.43	32.51	29.89	-117.19	862.70	446.72	623.38	564.33	62.04	12.949		
7,200.00	7,028.20	7,064.46	7,074.43	33.02	30.17	-117.24	863.24	443.24	621.77	562.19	62.58	14.027		
7,300.00	7,078.04	7,124.01	7,133.89	33.68	30.43	-118.53	863.59	440.05	620.22	560.21	63.01	15.255		
7,400.00	7,113.97	7,177.19	7,186.96	34.52	30.66	-119.64	864.03	436.69	618.42	558.07	63.35	16.598		
7,500.00	7,135.09	7,213.93	7,223.60	35.53	30.82	-120.98	864.43	434.02	616.49	556.03	63.56	18.039		
7,600.00	7,140.96	7,221.60	7,231.25	36.68	30.85	-115.58	864.49	433.50	615.59	555.07	63.61	19.564		
7,700.00	7,140.53	7,227.69	7,237.33	37.99	30.87	-117.17	864.55	433.06	614.41	554.06	63.64	21.109		
7,800.00	7,140.09	7,233.71	7,243.33	39.45	30.90	-118.69	864.60	432.63	613.36	553.06	63.67	22.652		
7,900.00	7,139.66	7,239.67	7,249.27	41.06	30.93	-120.16	864.65	432.21	612.34	552.06	63.71	24.195		
8,000.00	7,139.23	7,276.23	7,253.36	42.80	31.08	-121.14	864.69	431.91	611.34	551.06	63.88	25.683		
8,100.00	7,138.79	7,269.76	7,259.81	44.65	31.05	-122.66	864.74	431.46	610.34	550.06	63.87	27.242		
8,200.00	7,138.36	7,263.29	7,266.27	46.60	31.03	-124.12	864.78	431.01	609.34	549.06	63.86	28.801		
8,300.00	7,137.93	7,263.18	7,272.72	48.65	31.03	-125.54	864.82	430.57	608.34	548.06	63.87	30.348		
8,400.00	7,137.49	7,269.64	7,279.17	50.77	31.05	-126.91	864.86	430.12	607.34	547.06	63.92	31.880		
8,500.00	7,137.06	7,276.11	7,285.63	52.95	31.08	-128.23	864.90	429.67	606.34	546.06	63.97	33.409		
8,600.00	7,136.62	7,282.58	7,292.08	55.20	31.11	-129.50	864.95	429.22	605.34	545.06	64.02	34.936		
8,700.00	7,136.19	7,289.05	7,298.53	57.51	31.14	-130.74	864.99	428.77	604.34	544.06	64.08	36.459		
8,800.00	7,135.76	7,295.52	7,304.99	59.85	31.17	-131.93	865.03	428.32	603.34	543.06	64.13	37.979		
8,900.00	7,135.32	7,301.99	7,311.44	62.24	31.20	-133.07	865.07	427.88	602.34	542.06	64.19	39.497		
9,000.00	7,134.89	7,308.46	7,317.89	64.67	31.22	-134.18	865.11	427.43	601.34	541.06	64.25	41.011		
9,100.00	7,134.45	7,314.93	7,324.35	67.13	31.25	-135.25	865.15	426.98	600.34	540.06	64.31	42.521		
9,200.00	7,134.02	7,321.40	7,330.80	69.62	31.28	-136.27	865.20	426.53	599.34	539.06	64.37	44.029		
9,300.00	7,133.59	7,327.87	7,337.25	72.14	31.31	-137.27	865.24	426.08	598.34	538.06	64.43	45.532		
9,400.00	7,133.15	7,334.33	7,343.71	74.68	31.34	-138.22	865.28	425.64	597.34	537.06	64.49	47.032		
9,500.00	7,132.72	7,340.80	7,350.16	77.24	31.36	-139.15	865.32	425.19	596.34	536.06	64.56	48.529		
9,600.00	7,132.29	7,347.27	7,356.61	79.83	31.39	-140.04	865.36	424.74	595.34	535.06	64.62	50.021		
9,700.00	7,131.85	7,353.74	7,363.07	82.42	31.42	-140.90	865.40	424.29	594.34	534.06	64.69	51.510		
9,800.00	7,131.42	7,360.21	7,369.52	85.04	31.45	-141.73	865.45	423.84	593.34	533.06	64.76	52.995		
9,900.00	7,130.98	7,366.68	7,375.97	87.67	31.48	-142.53	865.49	423.39	592.34	532.06	64.83	54.476		
10,000.00	7,130.55	7,373.15	7,382.43	90.31	31.51	-143.30	865.53	422.95	591.34	531.06	64.90	55.952		
10,100.00	7,130.12	7,379.62	7,388.88	92.97	31.53	-144.05	865.57	422.50	590.34	530.06	64.97	57.425		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 31-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,129.68	7,386.09	7,395.33	95.63	31.56	-144.77	865.61	422.05	3,830.41	3,765.37	65.04	58.893		
10,300.00	7,129.25	7,392.56	7,401.79	98.31	31.59	-145.46	865.65	421.60	3,930.09	3,864.98	65.11	60.357		
10,400.00	7,128.82	7,399.02	7,408.24	101.00	31.62	-146.14	865.70	421.15	4,029.78	3,964.59	65.19	61.817		
10,500.00	7,128.38	7,405.49	7,414.69	103.69	31.65	-146.79	865.74	420.70	4,129.48	4,064.21	65.27	63.272		
10,600.00	7,127.95	7,411.96	7,421.15	106.39	31.67	-147.42	865.78	420.26	4,229.18	4,163.84	65.34	64.723		
10,700.00	7,127.51	7,418.43	7,427.60	109.10	31.70	-148.02	865.82	419.81	4,328.88	4,263.46	65.42	66.170		
10,800.00	7,127.08	7,424.90	7,434.05	111.82	31.73	-148.61	865.86	419.36	4,428.59	4,363.09	65.50	67.611		
10,900.00	7,126.65	7,431.37	7,440.51	114.54	31.76	-149.18	865.90	418.91	4,528.30	4,462.72	65.58	69.049		
11,000.00	7,126.21	7,437.84	7,446.96	117.27	31.79	-149.74	865.95	418.46	4,628.02	4,562.35	65.66	70.481		
11,100.00	7,125.78	7,444.31	7,453.41	120.01	31.82	-150.27	865.99	418.02	4,727.73	4,661.99	65.75	71.909		
11,200.00	7,125.35	7,450.78	7,459.87	122.75	31.84	-150.79	866.03	417.57	4,827.46	4,761.63	65.83	73.332		
11,300.00	7,124.91	7,457.25	7,466.32	125.49	31.87	-151.29	866.07	417.12	4,927.18	4,861.26	65.92	74.750		
11,400.00	7,124.48	7,443.00	7,452.11	128.24	31.81	-150.16	865.98	418.11	5,026.95	4,961.06	65.89	76.293		
11,500.00	7,124.04	7,443.00	7,452.11	131.00	31.81	-150.16	865.98	418.11	5,126.71	5,060.77	65.94	77.746		
11,600.00	7,123.61	7,443.00	7,452.11	133.75	31.81	-150.16	865.98	418.11	5,226.48	5,160.48	65.99	79.196		
11,700.00	7,123.18	7,443.00	7,452.11	136.52	31.81	-150.16	865.98	418.11	5,326.25	5,260.20	66.05	80.643		
11,800.00	7,122.74	7,443.00	7,452.11	139.28	31.81	-150.16	865.98	418.11	5,426.04	5,359.93	66.10	82.086		
11,900.00	7,122.31	7,443.00	7,452.11	142.05	31.81	-150.16	865.98	418.11	5,525.83	5,459.67	66.16	83.526		
12,000.00	7,121.88	7,443.00	7,452.11	144.82	31.81	-150.16	865.98	418.11	5,625.63	5,559.42	66.21	84.963		
12,100.00	7,121.44	7,443.00	7,452.11	147.59	31.81	-150.16	865.98	418.11	5,725.44	5,659.17	66.27	86.397		
12,200.00	7,121.01	7,443.00	7,452.11	150.37	31.81	-150.16	865.98	418.11	5,825.25	5,758.92	66.33	87.827		
12,300.00	7,120.57	7,443.00	7,452.11	153.15	31.81	-150.16	865.98	418.11	5,925.07	5,858.68	66.39	89.253		
12,400.00	7,120.14	7,443.00	7,452.11	155.93	31.81	-150.16	865.98	418.11	6,024.89	5,958.45	66.44	90.676		
12,500.00	7,119.71	7,443.00	7,452.11	158.72	31.81	-150.16	865.98	418.11	6,124.73	6,058.22	66.50	92.095		
12,600.00	7,119.27	7,443.00	7,452.11	161.50	31.81	-150.16	865.98	418.11	6,224.56	6,158.00	66.57	93.511		
12,700.00	7,118.84	7,443.00	7,452.11	164.29	31.81	-150.16	865.98	418.11	6,324.40	6,257.78	66.63	94.923		
12,800.00	7,118.41	7,443.00	7,452.11	167.08	31.81	-150.16	865.98	418.11	6,424.25	6,357.56	66.69	96.331		
12,900.00	7,117.97	7,443.00	7,452.11	169.88	31.81	-150.16	865.98	418.11	6,524.10	6,457.35	66.75	97.735		
13,000.00	7,117.54	7,443.00	7,452.11	172.67	31.81	-150.16	865.98	418.11	6,623.96	6,557.14	66.82	99.135		
13,100.00	7,117.10	7,443.00	7,452.11	175.47	31.81	-150.16	865.98	418.11	6,723.82	6,656.94	66.88	100.532		
13,200.00	7,116.67	7,443.00	7,452.11	178.27	31.81	-150.16	865.98	418.11	6,823.68	6,756.74	66.95	101.924		
13,300.00	7,116.24	7,443.00	7,452.11	181.07	31.81	-150.16	865.98	418.11	6,923.55	6,856.54	67.02	103.313		
13,400.00	7,115.80	7,443.00	7,452.11	183.87	31.81	-150.16	865.98	418.11	7,023.42	6,956.34	67.08	104.697		
13,500.00	7,115.37	7,443.00	7,452.11	186.67	31.81	-150.16	865.98	418.11	7,123.30	7,056.15	67.15	106.078		
13,600.00	7,114.93	7,443.00	7,452.11	189.47	31.81	-150.16	865.98	418.11	7,223.18	7,155.96	67.22	107.454		
13,700.00	7,114.50	7,443.00	7,452.11	192.28	31.81	-150.16	865.98	418.11	7,323.06	7,255.77	67.29	108.826		
13,800.00	7,114.07	7,443.00	7,452.11	195.09	31.81	-150.16	865.98	418.11	7,422.95	7,355.58	67.36	110.194		
13,900.00	7,113.63	7,443.00	7,452.11	197.89	31.81	-150.16	865.98	418.11	7,522.84	7,455.40	67.43	111.558		
14,000.00	7,113.20	7,443.00	7,452.11	200.70	31.81	-150.16	865.98	418.11	7,622.73	7,555.22	67.51	112.918		
14,100.00	7,112.77	7,443.00	7,452.11	203.51	31.81	-150.16	865.98	418.11	7,722.62	7,655.04	67.58	114.273		
14,200.00	7,112.33	7,443.00	7,452.11	206.32	31.81	-150.16	865.98	418.11	7,822.52	7,754.86	67.65	115.624		
14,300.00	7,111.90	7,443.00	7,452.11	209.13	31.81	-150.16	865.98	418.11	7,922.42	7,854.69	67.73	116.970		
14,400.00	7,111.46	7,443.00	7,452.11	211.95	31.81	-150.16	865.98	418.11	8,022.32	7,954.51	67.81	118.313		
14,500.00	7,111.03	7,443.00	7,452.11	214.76	31.81	-150.16	865.98	418.11	8,122.22	8,054.34	67.88	119.651		
14,600.00	7,110.60	7,443.00	7,452.11	217.58	31.81	-150.16	865.98	418.11	8,222.13	8,154.17	67.96	120.984		
14,700.00	7,110.16	7,443.00	7,452.11	220.39	31.81	-150.16	865.98	418.11	8,322.04	8,254.00	68.04	122.313		
14,800.00	7,109.73	7,443.00	7,452.11	223.21	31.81	-150.16	865.98	418.11	8,421.95	8,353.83	68.12	123.637		
14,900.00	7,109.30	7,443.00	7,452.11	226.03	31.81	-150.16	865.98	418.11	8,521.87	8,453.67	68.20	124.957		
14,969.16	7,109.00	7,443.00	7,452.11	227.97	31.81	-150.16	865.98	418.11	8,590.97	8,522.71	68.25	125.868		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	110.60	-195.27	519.56	555.44					
100.00	100.00	81.16	102.16	3.28	3.29	110.54	-194.70	519.61	554.89	548.32	6.57	84.459		
200.00	200.00	183.63	204.61	3.34	3.33	110.39	-193.10	519.54	554.28	547.61	6.67	83.103		
300.00	300.00	283.94	304.91	3.44	3.43	110.28	-191.81	519.06	553.39	546.51	6.88	80.447		
400.00	400.00	381.58	402.54	3.60	3.58	110.18	-190.66	518.75	552.68	545.50	7.18	76.951		
500.00	500.00	479.40	500.36	3.81	3.77	110.06	-189.49	518.91	552.43	544.86	7.57	72.961		
600.00	600.00	579.60	600.55	4.05	3.99	109.91	-188.16	519.36	552.39	544.35	8.04	68.703		
606.37	606.37	586.02	606.97	4.06	4.01	119.05	-188.05	519.39	552.39	544.31	8.07	68.429 CC, ES		
700.00	699.98	678.46	699.40	4.32	4.25	119.04	-186.60	519.88	553.20	544.64	8.57	64.572		
800.00	799.84	778.40	799.33	4.62	4.53	119.30	-185.19	520.54	555.89	546.74	9.15	60.766		
900.00	899.45	876.90	897.81	4.94	4.84	119.80	-183.53	521.33	560.36	550.59	9.77	57.372		
1,000.00	998.70	976.22	997.12	5.28	5.16	120.58	-182.06	522.24	566.85	556.42	10.42	54.378		
1,100.00	1,097.50	1,075.89	1,096.77	5.64	5.49	121.65	-180.60	523.06	575.10	563.99	11.11	51.749		
1,200.00	1,196.18	1,175.19	1,196.05	6.00	5.84	122.84	-179.10	523.79	583.88	572.06	11.83	49.373		
1,300.00	1,294.87	1,276.12	1,296.98	6.38	6.20	124.02	-177.67	524.30	592.75	580.18	12.57	47.168		
1,400.00	1,393.55	1,374.21	1,395.05	6.77	6.56	125.13	-176.06	524.67	601.64	588.32	13.32	45.183		
1,500.00	1,492.23	1,474.02	1,494.84	7.17	6.94	126.24	-174.65	525.07	610.88	596.79	14.09	43.368		
1,600.00	1,590.91	1,574.72	1,595.54	7.58	7.32	127.36	-173.44	525.04	620.06	605.19	14.87	41.691		
1,700.00	1,689.60	1,675.00	1,695.82	8.00	7.71	128.45	-172.15	524.75	629.20	613.53	15.67	40.154		
1,800.00	1,788.28	1,771.81	1,792.62	8.42	8.09	129.51	-171.29	524.24	638.56	622.10	16.46	38.794		
1,900.00	1,886.96	1,870.44	1,891.24	8.84	8.47	130.55	-170.47	524.05	648.44	631.17	17.27	37.554		
2,000.00	1,985.64	1,970.49	1,991.29	9.27	8.87	131.57	-169.54	523.74	658.39	640.30	18.09	36.401		
2,100.00	2,084.33	2,068.72	2,089.51	9.71	9.26	132.60	-169.09	523.03	668.45	649.55	18.90	35.359		
2,200.00	2,183.01	2,166.51	2,187.30	10.15	9.65	133.62	-169.09	522.21	678.89	659.17	19.73	34.417		
2,300.00	2,281.69	2,263.81	2,284.60	10.59	10.04	134.61	-169.10	521.55	689.68	669.14	20.55	33.565		
2,400.00	2,380.38	2,362.68	2,383.46	11.03	10.44	135.60	-169.47	520.81	700.84	679.46	21.38	32.779		
2,500.00	2,479.06	2,459.56	2,480.34	11.47	10.83	136.57	-169.99	519.93	712.18	689.97	22.21	32.070		
2,600.00	2,577.74	2,556.02	2,576.79	11.92	11.23	137.51	-170.85	519.28	724.11	701.08	23.03	31.438		
2,700.00	2,676.42	2,652.69	2,673.46	12.36	11.62	138.42	-171.85	518.77	736.44	712.58	23.86	30.863		
2,800.00	2,775.11	2,750.33	2,771.09	12.81	12.02	139.30	-172.83	518.61	749.22	724.52	24.70	30.336		
2,900.00	2,873.79	2,851.16	2,871.91	13.26	12.43	140.19	-173.98	518.20	762.07	736.52	25.55	29.822		
3,000.00	2,972.47	2,951.69	2,972.44	13.72	12.85	141.03	-174.71	517.64	774.71	748.29	26.41	29.332		
3,100.00	3,071.15	3,052.48	3,073.22	14.17	13.26	141.84	-175.24	517.06	787.36	760.08	27.27	28.870		
3,200.00	3,169.84	3,153.11	3,173.85	14.62	13.68	142.62	-175.41	516.27	799.76	771.63	28.13	28.426		
3,300.00	3,268.52	3,251.74	3,272.48	15.08	14.09	143.36	-175.60	515.41	812.25	783.26	28.99	28.021		
3,400.00	3,367.20	3,347.95	3,368.68	15.53	14.49	144.05	-175.78	514.68	824.94	795.12	29.83	27.658		
3,500.00	3,465.89	3,444.07	3,464.81	15.99	14.89	144.70	-176.04	514.49	838.20	807.54	30.67	27.334		
3,600.00	3,564.57	3,542.95	3,563.69	16.44	15.30	145.36	-176.40	514.28	851.63	820.11	31.52	27.016		
3,700.00	3,663.25	3,641.81	3,662.54	16.90	15.72	146.00	-176.85	513.92	865.14	832.76	32.38	26.717		
3,800.00	3,761.93	3,740.64	3,761.37	17.36	16.13	146.64	-177.41	513.42	878.73	845.49	33.24	26.435		
3,900.00	3,860.62	3,839.44	3,860.17	17.82	16.54	147.27	-178.06	512.78	892.40	858.30	34.10	26.169		
4,000.00	3,959.30	3,938.22	3,958.94	18.28	16.96	147.89	-178.81	511.98	906.15	871.19	34.96	25.918		
4,100.00	4,057.98	4,036.97	4,057.68	18.74	17.37	148.50	-179.66	511.05	919.99	884.17	35.82	25.681		
4,200.00	4,156.67	4,135.69	4,156.39	19.20	17.79	149.11	-180.61	509.97	933.91	897.22	36.68	25.458		
4,300.00	4,255.35	4,234.38	4,255.06	19.66	18.21	149.71	-181.65	508.74	947.91	910.36	37.55	25.246		
4,400.00	4,354.03	4,331.14	4,351.82	20.12	18.61	150.27	-182.64	507.77	962.13	923.73	38.40	25.059		
4,500.00	4,452.71	4,430.76	4,451.43	20.58	19.03	150.80	-183.49	507.12	976.52	937.26	39.26	24.871		
4,600.00	4,551.40	4,534.03	4,554.70	21.04	19.47	151.32	-183.84	506.38	990.55	950.39	40.16	24.667		
4,700.00	4,650.08	4,632.44	4,653.11	21.50	19.88	151.81	-184.03	505.58	1,004.49	963.47	41.02	24.488		
4,800.00	4,748.76	4,729.25	4,749.92	21.96	20.29	152.26	-184.18	505.01	1,018.59	976.72	41.87	24.327		
4,900.00	4,847.44	4,826.23	4,846.89	22.42	20.70	152.69	-184.47	504.69	1,033.01	990.29	42.72	24.179		
5,000.00	4,946.13	4,928.61	4,949.27	22.89	21.13	153.12	-184.44	504.50	1,047.33	1,003.71	43.61	24.014		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 32-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,044.81	5,029.22	5,049.89	23.35	21.56	153.53	-184.17	504.13	1,061.38	1,016.89	44.49	23.855		
5,200.00	5,143.49	5,127.05	5,147.71	23.81	21.97	153.92	-183.99	503.68	1,075.52	1,030.17	45.35	23.714		
5,300.00	5,242.18	5,227.25	5,247.91	24.27	22.39	154.31	-183.77	503.20	1,089.67	1,043.44	46.23	23.570		
5,400.00	5,340.86	5,327.11	5,347.76	24.74	22.82	154.71	-183.61	502.36	1,103.70	1,056.59	47.11	23.430		
5,500.00	5,439.54	5,424.32	5,444.97	25.20	23.23	155.11	-183.67	501.32	1,117.84	1,069.88	47.96	23.306		
5,600.00	5,538.22	5,522.10	5,542.75	25.66	23.64	155.49	-183.71	500.44	1,132.12	1,083.29	48.82	23.187		
5,700.00	5,636.91	5,617.89	5,638.53	26.13	24.05	155.84	-183.79	499.85	1,146.61	1,096.94	49.67	23.084		
5,800.00	5,735.59	5,713.13	5,733.77	26.59	24.45	156.18	-184.16	499.32	1,161.45	1,110.94	50.52	22.992		
5,900.00	5,834.27	5,812.04	5,832.68	27.06	24.87	156.54	-184.71	498.75	1,176.47	1,125.08	51.38	22.895		
6,000.00	5,932.95	5,914.22	5,934.86	27.52	25.31	156.88	-184.95	498.34	1,191.34	1,139.06	52.28	22.789		
6,100.00	6,031.64	6,015.11	6,035.75	27.98	25.73	157.21	-184.94	497.83	1,205.99	1,152.83	53.16	22.685		
6,200.00	6,130.32	6,112.00	6,132.64	28.45	26.15	157.53	-185.09	497.10	1,220.70	1,166.68	54.02	22.598		
6,300.00	6,229.00	6,210.40	6,231.04	28.91	26.56	157.85	-185.31	496.41	1,235.52	1,180.63	54.89	22.511		
6,400.00	6,327.69	6,308.71	6,329.34	29.38	26.98	158.15	-185.39	495.99	1,250.40	1,194.65	55.75	22.427		
6,500.00	6,426.37	6,407.28	6,427.90	29.84	27.40	158.43	-185.40	495.73	1,265.33	1,208.71	56.62	22.347		
6,600.00	6,525.05	6,505.84	6,526.46	30.31	27.82	158.71	-185.41	495.49	1,280.30	1,222.81	57.49	22.269		
6,700.00	6,623.18	6,603.86	6,624.48	30.77	28.24	-159.70	-185.41	495.27	1,298.90	1,240.54	58.36	22.257 SF		
6,800.00	6,718.58	6,699.18	6,719.81	31.22	28.64	-141.84	-185.42	495.07	1,324.51	1,265.30	59.20	22.372		
6,900.00	6,808.91	6,789.46	6,810.09	31.66	29.03	-132.86	-185.43	494.91	1,356.94	1,296.93	60.01	22.611		
7,000.00	6,891.95	6,872.47	6,893.09	32.07	29.38	-126.97	-185.43	494.77	1,396.13	1,335.36	60.77	22.973		
7,100.00	6,965.65	6,946.14	6,966.77	32.51	29.69	-122.10	-185.44	494.66	1,442.04	1,380.57	61.47	23.457		
7,200.00	7,028.20	7,008.68	7,029.31	33.02	29.96	-117.25	-185.44	494.58	1,494.47	1,432.35	62.12	24.059		
7,300.00	7,078.04	7,058.54	7,079.16	33.68	30.17	-111.79	-185.44	494.51	1,552.97	1,490.27	62.70	24.768		
7,400.00	7,113.97	7,094.49	7,115.12	34.52	30.33	-105.31	-185.44	494.47	1,616.75	1,553.53	63.22	25.575		
7,500.00	7,135.09	7,115.67	7,136.29	35.53	30.42	-97.63	-185.45	494.45	1,684.63	1,620.97	63.66	26.464		
7,600.00	7,140.96	7,121.62	7,142.25	36.68	30.44	-89.81	-185.45	494.45	1,755.13	1,691.12	64.01	27.420		
7,700.00	7,140.53	7,121.29	7,141.92	37.99	30.44	-89.79	-185.45	494.45	1,827.87	1,763.53	64.34	28.409		
7,800.00	7,140.09	7,120.96	7,141.59	39.45	30.44	-89.78	-185.45	494.45	1,903.08	1,838.39	64.69	29.417		
7,900.00	7,139.66	7,120.63	7,141.26	41.06	30.44	-89.76	-185.45	494.45	1,980.49	1,915.44	65.05	30.445		
8,000.00	7,139.23	7,120.30	7,140.93	42.80	30.44	-89.75	-185.45	494.45	2,059.85	1,994.44	65.41	31.491		
8,100.00	7,138.79	7,119.97	7,140.60	44.65	30.44	-89.73	-185.45	494.45	2,140.94	2,075.17	65.76	32.555		
8,200.00	7,138.36	7,119.65	7,140.27	46.60	30.43	-89.71	-185.45	494.45	2,223.56	2,157.45	66.11	33.635		
8,300.00	7,137.93	7,119.32	7,139.94	48.65	30.43	-89.70	-185.45	494.45	2,307.57	2,241.12	66.44	34.730		
8,400.00	7,137.49	7,118.99	7,139.62	50.77	30.43	-89.68	-185.45	494.45	2,392.80	2,326.03	66.77	35.839		
8,500.00	7,137.06	7,118.66	7,139.29	52.95	30.43	-89.67	-185.45	494.45	2,479.13	2,412.06	67.08	36.960		
8,600.00	7,136.62	7,118.33	7,138.96	55.20	30.43	-89.65	-185.45	494.45	2,566.46	2,499.09	67.37	38.094		
8,700.00	7,136.19	7,118.00	7,138.63	57.51	30.43	-89.64	-185.45	494.45	2,654.69	2,587.03	67.66	39.238		
8,800.00	7,135.76	7,117.67	7,138.30	59.85	30.43	-89.62	-185.45	494.45	2,743.72	2,675.79	67.93	40.392		
8,900.00	7,135.32	7,117.35	7,137.97	62.24	30.42	-89.61	-185.45	494.45	2,833.48	2,765.29	68.19	41.555		
9,000.00	7,134.89	7,117.02	7,137.65	64.67	30.42	-89.59	-185.45	494.45	2,923.91	2,855.47	68.43	42.726		
9,100.00	7,134.45	7,116.69	7,137.32	67.13	30.42	-89.58	-185.45	494.45	3,014.94	2,946.27	68.67	43.905		
9,200.00	7,134.02	7,116.36	7,136.99	69.62	30.42	-89.56	-185.45	494.45	3,106.52	3,037.63	68.89	45.091		
9,300.00	7,133.59	7,116.04	7,136.66	72.14	30.42	-89.55	-185.45	494.45	3,198.61	3,129.50	69.11	46.283		
9,400.00	7,133.15	7,115.71	7,136.34	74.68	30.42	-89.53	-185.45	494.45	3,291.16	3,221.84	69.32	47.480		
9,500.00	7,132.72	7,115.38	7,136.01	77.24	30.42	-89.52	-185.45	494.45	3,384.13	3,314.62	69.51	48.682		
9,600.00	7,132.29	7,115.05	7,135.68	79.83	30.41	-89.50	-185.45	494.45	3,477.49	3,407.79	69.70	49.889		
9,700.00	7,131.85	7,114.73	7,135.36	82.42	30.41	-89.49	-185.45	494.45	3,571.22	3,501.33	69.89	51.100		
9,800.00	7,131.42	7,114.40	7,135.03	85.04	30.41	-89.47	-185.45	494.45	3,665.27	3,595.21	70.06	52.315		
9,900.00	7,130.98	7,114.07	7,134.70	87.67	30.41	-89.45	-185.45	494.45	3,759.63	3,689.40	70.23	53.533		
10,000.00	7,130.55	7,113.75	7,134.38	90.31	30.41	-89.44	-185.45	494.45	3,854.28	3,783.88	70.39	54.754		
10,100.00	7,130.12	7,113.42	7,134.05	92.97	30.41	-89.42	-185.45	494.45	3,949.19	3,878.64	70.55	55.978		
10,200.00	7,129.68	7,113.10	7,133.72	95.63	30.41	-89.41	-185.45	494.45	4,044.34	3,973.64	70.70	57.204		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 32-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,129.25	7,112.77	7,133.40	98.31	30.40	-89.39	-185.45	494.45	4,139.72	4,068.88	70.85	58.432		
10,400.00	7,128.82	7,112.44	7,133.07	101.00	30.40	-89.38	-185.45	494.46	4,235.32	4,164.33	70.99	59.662		
10,500.00	7,128.38	7,112.12	7,132.75	103.69	30.40	-89.36	-185.45	494.46	4,331.11	4,259.99	71.13	60.893		
10,600.00	7,127.95	7,111.79	7,132.42	106.39	30.40	-89.35	-185.45	494.46	4,427.10	4,355.84	71.26	62.126		
10,700.00	7,127.51	7,111.47	7,132.09	109.10	30.40	-89.33	-185.45	494.46	4,523.25	4,451.86	71.39	63.360		
10,800.00	7,127.08	7,111.14	7,131.77	111.82	30.40	-89.32	-185.45	494.46	4,619.57	4,548.05	71.52	64.594		
10,900.00	7,126.65	7,110.82	7,131.44	114.54	30.40	-89.30	-185.45	494.46	4,716.04	4,644.40	71.64	65.830		
11,000.00	7,126.21	7,110.49	7,131.12	117.27	30.39	-89.29	-185.45	494.46	4,812.66	4,740.89	71.76	67.066		
11,100.00	7,125.78	7,110.17	7,130.79	120.01	30.39	-89.27	-185.45	494.46	4,909.41	4,837.53	71.88	68.302		
11,200.00	7,125.35	7,109.84	7,130.47	122.75	30.39	-89.26	-185.45	494.46	5,006.29	4,934.29	71.99	69.538		
11,300.00	7,124.91	7,109.52	7,130.14	125.49	30.39	-89.24	-185.45	494.46	5,103.28	5,031.18	72.11	70.775		
11,400.00	7,124.48	7,109.19	7,129.82	128.24	30.39	-89.23	-185.45	494.46	5,200.40	5,128.18	72.22	72.011		
11,500.00	7,124.04	7,108.87	7,129.50	131.00	30.39	-89.21	-185.45	494.46	5,297.62	5,225.29	72.33	73.247		
11,600.00	7,123.61	7,108.54	7,129.17	133.75	30.39	-89.20	-185.45	494.46	5,394.94	5,322.51	72.43	74.483		
11,700.00	7,123.18	7,108.22	7,128.85	136.52	30.39	-89.18	-185.45	494.46	5,492.36	5,419.82	72.54	75.718		
11,800.00	7,122.74	7,107.90	7,128.52	139.28	30.38	-89.17	-185.45	494.46	5,589.87	5,517.23	72.64	76.953		
11,900.00	7,122.31	7,107.57	7,128.20	142.05	30.38	-89.15	-185.45	494.46	5,687.46	5,614.72	72.74	78.187		
12,000.00	7,121.88	7,107.25	7,127.88	144.82	30.38	-89.14	-185.45	494.46	5,785.14	5,712.30	72.84	79.420		
12,100.00	7,121.44	7,106.92	7,127.55	147.59	30.38	-89.12	-185.45	494.46	5,882.89	5,809.95	72.94	80.653		
12,200.00	7,121.01	7,106.60	7,127.23	150.37	30.38	-89.11	-185.45	494.46	5,980.72	5,907.69	73.04	81.884		
12,300.00	7,120.57	7,106.28	7,126.91	153.15	30.38	-89.09	-185.45	494.46	6,078.63	6,005.49	73.14	83.115		
12,400.00	7,120.14	7,105.95	7,126.58	155.93	30.38	-89.08	-185.45	494.46	6,176.59	6,103.36	73.23	84.344		
12,500.00	7,119.71	7,105.63	7,126.26	158.72	30.37	-89.06	-185.45	494.46	6,274.62	6,201.30	73.33	85.572		
12,600.00	7,119.27	7,105.31	7,125.94	161.50	30.37	-89.05	-185.45	494.46	6,372.72	6,299.30	73.42	86.799		
12,700.00	7,118.84	7,104.99	7,125.61	164.29	30.37	-89.03	-185.45	494.46	6,470.87	6,397.36	73.51	88.024		
12,800.00	7,118.41	7,104.66	7,125.29	167.08	30.37	-89.02	-185.45	494.46	6,569.08	6,495.47	73.60	89.248		
12,900.00	7,117.97	7,104.34	7,124.97	169.88	30.37	-89.00	-185.45	494.46	6,667.34	6,593.64	73.70	90.470		
13,000.00	7,117.54	7,104.02	7,124.65	172.67	30.37	-88.99	-185.45	494.46	6,765.65	6,691.86	73.79	91.691		
13,100.00	7,117.10	7,103.70	7,124.32	175.47	30.37	-88.97	-185.45	494.46	6,864.01	6,790.13	73.88	92.911		
13,200.00	7,116.67	7,103.37	7,124.00	178.27	30.36	-88.96	-185.45	494.46	6,962.41	6,888.45	73.97	94.128		
13,300.00	7,116.24	7,103.05	7,123.68	181.07	30.36	-88.94	-185.45	494.47	7,060.87	6,986.81	74.06	95.344		
13,400.00	7,115.80	7,102.73	7,123.36	183.87	30.36	-88.93	-185.45	494.47	7,159.36	7,085.22	74.15	96.558		
13,500.00	7,115.37	7,102.41	7,123.04	186.67	30.36	-88.91	-185.45	494.47	7,257.90	7,183.66	74.23	97.770		
13,600.00	7,114.93	7,102.09	7,122.72	189.47	30.36	-88.90	-185.45	494.47	7,356.47	7,282.15	74.32	98.980		
13,700.00	7,114.50	7,101.77	7,122.39	192.28	30.36	-88.88	-185.45	494.47	7,455.08	7,380.67	74.41	100.188		
13,800.00	7,114.07	7,101.44	7,122.07	195.09	30.36	-88.87	-185.45	494.47	7,553.73	7,479.24	74.50	101.394		
13,900.00	7,113.63	7,101.12	7,121.75	197.89	30.35	-88.85	-185.45	494.47	7,652.42	7,577.83	74.59	102.598		
14,000.00	7,113.20	7,100.80	7,121.43	200.70	30.35	-88.84	-185.45	494.47	7,751.14	7,676.46	74.67	103.800		
14,100.00	7,112.77	7,100.48	7,121.11	203.51	30.35	-88.82	-185.45	494.47	7,849.89	7,775.13	74.76	105.000		
14,200.00	7,112.33	7,100.16	7,120.79	206.32	30.35	-88.81	-185.45	494.47	7,948.67	7,873.82	74.85	106.197		
14,300.00	7,111.90	7,099.84	7,120.47	209.13	30.35	-88.79	-185.44	494.47	8,047.48	7,972.55	74.94	107.393		
14,400.00	7,111.46	7,099.52	7,120.15	211.95	30.35	-88.78	-185.44	494.47	8,146.32	8,071.30	75.02	108.586		
14,500.00	7,111.03	7,099.20	7,119.83	214.76	30.35	-88.76	-185.44	494.47	8,245.19	8,170.08	75.11	109.776		
14,600.00	7,110.60	7,098.88	7,119.51	217.58	30.35	-88.75	-185.44	494.47	8,344.09	8,268.89	75.20	110.965		
14,700.00	7,110.16	7,098.56	7,119.19	220.39	30.34	-88.73	-185.44	494.47	8,443.01	8,367.73	75.28	112.150		
14,800.00	7,109.73	7,098.24	7,118.87	223.21	30.34	-88.72	-185.44	494.47	8,541.96	8,466.59	75.37	113.334		
14,900.00	7,109.30	7,097.92	7,118.55	226.03	30.34	-88.70	-185.44	494.47	8,640.93	8,565.47	75.46	114.515		
14,969.16	7,109.00	7,097.70	7,118.33	227.97	30.34	-88.69	-185.44	494.47	8,709.39	8,633.87	75.52	115.330		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	0.53	59.74	0.56	59.74					
100.00	100.00	101.00	100.00	3.28	3.28	0.53	59.74	0.56	59.74	53.17	6.57	9.093		
200.00	200.00	201.00	200.00	3.34	3.34	0.53	59.74	0.56	59.74	53.07	6.67	8.950 CC, ES		
300.00	300.00	298.91	297.89	3.44	3.44	0.36	61.44	0.39	61.47	54.57	6.90	8.910		
400.00	400.00	396.61	395.45	3.60	3.60	-0.10	66.45	-0.12	66.60	59.36	7.24	9.199		
500.00	500.00	493.85	492.34	3.81	3.80	-0.73	74.72	-0.95	75.12	67.44	7.68	9.786		
600.00	600.00	590.42	588.21	4.05	4.04	-1.39	86.17	-2.10	87.00	78.81	8.19	10.626		
700.00	699.98	686.37	683.04	4.32	4.31	7.21	100.72	-3.56	100.49	91.74	8.75	11.482		
800.00	799.84	781.90	776.91	4.62	4.61	6.90	118.34	-5.33	113.86	104.50	9.36	12.165		
900.00	899.45	877.03	869.75	4.94	4.93	6.74	138.97	-7.40	127.09	117.09	10.00	12.711		
1,000.00	998.70	971.76	961.46	5.28	5.27	6.70	162.55	-9.77	140.17	129.49	10.67	13.132		
1,100.00	1,097.50	1,067.14	1,052.98	5.64	5.64	6.73	189.25	-12.45	153.20	141.83	11.37	13.477		
1,200.00	1,196.18	1,166.25	1,147.80	6.00	6.06	6.80	217.96	-15.33	166.51	154.41	12.10	13.762		
1,300.00	1,294.87	1,265.36	1,242.62	6.38	6.49	6.85	246.66	-18.21	179.82	166.96	12.86	13.981		
1,400.00	1,393.55	1,364.47	1,337.44	6.77	6.94	6.89	275.37	-21.09	193.13	179.48	13.65	14.151		
1,500.00	1,492.23	1,463.58	1,432.26	7.17	7.40	6.93	304.07	-23.97	206.44	191.98	14.46	14.281		
1,600.00	1,590.91	1,562.69	1,527.08	7.58	7.87	6.96	332.78	-26.86	219.75	204.47	15.28	14.380		
1,700.00	1,689.60	1,661.80	1,621.89	8.00	8.35	6.99	361.48	-29.74	233.06	216.94	16.12	14.456		
1,800.00	1,788.28	1,760.91	1,716.71	8.42	8.83	7.02	390.19	-32.62	246.37	229.40	16.97	14.514		
1,900.00	1,886.96	1,860.02	1,811.53	8.84	9.32	7.04	418.90	-35.50	259.68	241.84	17.84	14.558		
2,000.00	1,985.64	1,959.13	1,906.35	9.27	9.81	7.07	447.60	-38.38	272.99	254.28	18.71	14.590		
2,100.00	2,084.33	2,058.24	2,001.17	9.71	10.31	7.09	476.31	-41.27	286.30	266.71	19.59	14.613		
2,200.00	2,183.01	2,157.35	2,095.98	10.15	10.81	7.10	505.01	-44.15	299.61	279.13	20.48	14.629		
2,300.00	2,281.69	2,256.46	2,190.80	10.59	11.31	7.12	533.72	-47.03	312.92	291.55	21.38	14.640		
2,400.00	2,380.38	2,355.57	2,285.62	11.03	11.82	7.13	562.42	-49.91	326.23	303.96	22.28	14.646		
2,500.00	2,479.06	2,454.68	2,380.44	11.47	12.33	7.15	591.13	-52.79	339.55	316.37	23.18	14.648		
2,600.00	2,577.74	2,553.79	2,475.26	11.92	12.84	7.16	619.83	-55.68	352.86	328.77	24.09	14.648		
2,700.00	2,676.42	2,652.90	2,570.08	12.36	13.35	7.17	648.54	-58.56	366.17	341.17	25.00	14.646		
2,800.00	2,775.11	2,752.01	2,664.89	12.81	13.87	7.18	677.25	-61.44	379.48	353.56	25.92	14.642		
2,900.00	2,873.79	2,851.12	2,759.71	13.26	14.38	7.20	705.95	-64.32	392.79	365.95	26.84	14.636		
3,000.00	2,972.47	2,950.23	2,854.53	13.72	14.90	7.20	734.66	-67.20	406.10	378.34	27.76	14.630		
3,100.00	3,071.15	3,049.34	2,949.35	14.17	15.42	7.21	763.36	-70.08	419.41	390.73	28.68	14.622		
3,200.00	3,169.84	3,148.46	3,044.17	14.62	15.93	7.22	792.07	-72.97	432.72	403.11	29.61	14.614		
3,300.00	3,268.52	3,247.57	3,138.99	15.08	16.45	7.23	820.77	-75.85	446.03	415.49	30.54	14.606		
3,400.00	3,367.20	3,346.68	3,233.80	15.53	16.98	7.24	849.48	-78.73	459.34	427.87	31.47	14.597		
3,500.00	3,465.89	3,445.79	3,328.62	15.99	17.50	7.24	878.18	-81.61	472.65	440.25	32.40	14.588		
3,600.00	3,564.57	3,544.90	3,423.44	16.44	18.02	7.25	906.89	-84.49	485.96	452.63	33.33	14.578		
3,700.00	3,663.25	3,644.01	3,518.26	16.90	18.54	7.26	935.60	-87.38	499.27	465.00	34.27	14.569		
3,800.00	3,761.93	3,743.12	3,613.08	17.36	19.07	7.26	964.30	-90.26	512.58	477.38	35.21	14.560		
3,900.00	3,860.62	3,842.23	3,707.90	17.82	19.59	7.27	993.01	-93.14	525.90	489.75	36.14	14.550		
4,000.00	3,959.30	3,941.34	3,802.71	18.28	20.11	7.27	1,021.71	-96.02	539.21	502.12	37.08	14.541		
4,100.00	4,057.98	4,040.45	3,897.53	18.74	20.64	7.28	1,050.42	-98.90	552.52	514.49	38.02	14.531		
4,200.00	4,156.67	4,139.56	3,992.35	19.20	21.16	7.28	1,079.12	-101.79	565.83	526.86	38.96	14.522		
4,300.00	4,255.35	4,238.67	4,087.17	19.66	21.69	7.29	1,107.83	-104.67	579.14	539.23	39.91	14.513		
4,400.00	4,354.03	4,337.78	4,181.99	20.12	22.22	7.29	1,136.53	-107.55	592.45	551.60	40.85	14.504		
4,500.00	4,452.71	4,436.89	4,276.81	20.58	22.74	7.30	1,165.24	-110.43	605.76	563.97	41.79	14.495		
4,600.00	4,551.40	4,536.00	4,371.62	21.04	23.27	7.30	1,193.94	-113.31	619.07	576.33	42.74	14.486		
4,700.00	4,650.08	4,635.11	4,466.44	21.50	23.80	7.31	1,222.65	-116.20	632.38	588.70	43.68	14.477		
4,800.00	4,748.76	4,734.22	4,561.26	21.96	24.32	7.31	1,251.36	-119.08	645.69	601.07	44.63	14.469		
4,900.00	4,847.44	4,833.33	4,656.08	22.42	24.85	7.31	1,280.06	-121.96	659.00	613.43	45.57	14.461		
5,000.00	4,946.13	4,932.44	4,750.90	22.89	25.38	7.32	1,308.77	-124.84	672.31	625.79	46.52	14.453		
5,100.00	5,044.81	5,031.55	4,845.72	23.35	25.91	7.32	1,337.47	-127.72	685.62	638.16	47.47	14.445		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,130.66	4,940.53	23.81	26.43	7.32	1,366.18	-130.61	698.93	650.52	48.41	14.437		
5,300.00	5,242.18	5,229.77	5,035.35	24.27	26.96	7.33	1,394.88	-133.49	712.25	662.88	49.36	14.429		
5,400.00	5,340.86	5,328.88	5,130.17	24.74	27.49	7.33	1,423.59	-136.37	725.56	675.25	50.31	14.422		
5,500.00	5,439.54	5,440.84	5,237.41	25.20	28.08	7.34	1,455.60	-139.58	738.54	687.15	51.40	14.370		
5,600.00	5,538.22	5,575.19	5,367.42	25.66	28.77	7.37	1,489.25	-142.96	747.80	695.18	52.63	14.209		
5,700.00	5,636.91	5,710.41	5,499.73	26.13	29.42	7.44	1,516.95	-145.74	752.38	698.65	53.73	14.003		
5,800.00	5,735.59	5,845.90	5,633.47	26.59	30.03	7.54	1,538.45	-147.90	752.25	697.56	54.69	13.754		
5,900.00	5,834.27	5,981.07	5,767.77	27.06	30.60	7.67	1,553.61	-149.42	747.41	691.90	55.51	13.466		
6,000.00	5,932.95	6,115.31	5,901.71	27.52	31.13	7.85	1,562.41	-150.31	737.89	681.72	56.17	13.137		
6,100.00	6,031.64	6,245.28	6,031.64	27.98	31.60	8.06	1,564.98	-150.56	723.78	667.07	56.71	12.762		
6,200.00	6,130.32	6,343.96	6,130.32	28.45	31.95	8.25	1,564.98	-150.56	707.76	650.22	57.54	12.300		
6,300.00	6,229.00	6,442.64	6,229.00	28.91	32.30	8.44	1,564.98	-150.56	691.75	633.38	58.38	11.850		
6,400.00	6,327.69	6,541.33	6,327.69	29.38	32.66	8.64	1,564.98	-150.56	675.75	616.54	59.21	11.413		
6,500.00	6,426.37	6,640.01	6,426.37	29.84	33.01	8.85	1,564.98	-150.56	659.75	599.71	60.05	10.988		
6,600.00	6,525.05	6,738.69	6,525.05	30.31	33.37	9.07	1,564.98	-150.56	643.77	582.89	60.88	10.574		
6,700.00	6,623.18	6,836.82	6,623.18	30.77	33.73	9.29	1,564.98	-150.56	628.20	566.46	61.74	10.176		
6,800.00	6,718.58	6,937.54	6,723.48	31.22	34.09	9.52	1,564.92	-158.48	614.00	551.49	62.51	9.822		
6,900.00	6,808.91	7,041.54	6,824.40	31.66	34.45	9.76	1,564.72	-163.13	601.57	538.38	63.19	9.520		
7,000.00	6,891.95	7,149.08	6,923.09	32.07	34.81	10.00	1,564.39	-168.52	591.18	527.43	63.75	9.274		
7,100.00	6,965.65	7,260.26	7,016.12	32.51	35.15	10.25	1,563.92	-174.64	582.99	518.77	64.22	9.079		
7,200.00	7,028.20	7,375.00	7,099.57	33.02	35.47	10.50	1,563.30	-181.66	577.01	512.34	64.67	8.922		
7,300.00	7,078.04	7,492.96	7,169.27	33.68	35.79	10.76	1,562.56	-189.62	573.17	507.90	65.27	8.781		
7,400.00	7,113.97	7,613.54	7,221.17	34.52	36.24	11.04	1,561.71	-198.25	571.32	505.08	66.24	8.625		
7,450.50	7,126.53	7,675.14	7,239.53	35.03	36.61	11.33	1,561.25	-207.02	571.09	504.14	66.95	8.530		
7,500.00	7,135.09	7,735.83	7,251.97	35.53	37.10	11.63	1,560.79	-216.40	571.30	503.53	67.77	8.430		
7,600.00	7,140.96	7,855.16	7,259.94	36.68	38.33	12.98	1,559.86	-226.30	573.04	503.09	69.95	8.192		
7,700.00	7,140.53	7,955.12	7,259.56	37.99	39.59	14.33	1,559.08	-236.26	575.67	503.16	72.51	7.939		
7,800.00	7,140.09	8,055.09	7,259.18	39.45	41.00	15.68	1,558.29	-246.22	578.30	502.91	75.40	7.670		
7,900.00	7,139.66	8,155.05	7,258.80	41.06	42.57	17.03	1,557.51	-256.18	580.94	502.36	78.57	7.394		
8,000.00	7,139.23	8,255.02	7,258.42	42.80	44.26	18.38	1,556.73	-266.14	583.57	501.56	82.01	7.116		
8,100.00	7,138.79	8,354.98	7,258.04	44.65	46.07	19.73	1,555.95	-276.10	586.20	500.52	85.68	6.842		
8,200.00	7,138.36	8,454.94	7,257.66	46.60	47.99	21.08	1,555.17	-286.06	588.84	499.28	89.55	6.575		
8,300.00	7,137.93	8,554.91	7,257.28	48.65	50.00	22.43	1,554.39	-296.02	591.47	497.87	93.60	6.319		
8,400.00	7,137.49	8,654.87	7,256.90	50.77	52.08	23.78	1,553.60	-306.98	594.11	496.30	97.81	6.074		
8,500.00	7,137.06	8,754.84	7,256.52	52.95	54.24	25.13	1,552.82	-317.94	596.74	494.59	102.15	5.842		
8,600.00	7,136.62	8,854.80	7,256.14	55.20	56.46	26.48	1,552.04	-328.90	599.38	492.76	106.61	5.622		
8,700.00	7,136.19	8,954.76	7,255.76	57.51	58.73	27.83	1,551.26	-339.86	602.01	490.83	111.18	5.415		
8,800.00	7,135.76	9,054.73	7,255.38	59.85	61.05	29.18	1,550.48	-350.82	604.65	488.81	115.84	5.220		
8,900.00	7,135.32	9,154.69	7,255.00	62.24	63.42	30.53	1,549.70	-361.79	607.29	486.70	120.59	5.036		
9,000.00	7,134.89	9,254.66	7,254.62	64.67	65.83	31.88	1,548.91	-372.75	609.92	484.52	125.41	4.864		
9,100.00	7,134.45	9,354.62	7,254.25	67.13	68.27	33.23	1,548.13	-383.71	612.56	482.27	130.29	4.702		
9,200.00	7,134.02	9,454.59	7,253.87	69.62	70.74	34.58	1,547.35	-394.67	615.20	479.97	135.23	4.549		
9,300.00	7,133.59	9,554.55	7,253.49	72.14	73.24	35.93	1,546.57	-405.63	617.84	477.61	140.23	4.406		
9,400.00	7,133.15	9,654.51	7,253.11	74.68	75.76	37.28	1,545.79	-416.59	620.48	475.21	145.27	4.271		
9,500.00	7,132.72	9,754.48	7,252.73	77.24	78.31	38.63	1,545.00	-427.55	623.11	472.76	150.35	4.144		
9,600.00	7,132.29	9,854.44	7,252.35	79.83	80.88	39.98	1,544.22	-438.51	625.75	470.28	155.48	4.025		
9,700.00	7,131.85	9,954.41	7,251.97	82.42	83.47	41.33	1,543.44	-449.47	628.39	467.76	160.64	3.912		
9,800.00	7,131.42	10,054.37	7,251.59	85.04	86.07	42.68	1,542.66	-460.43	631.03	465.21	165.83	3.805		
9,900.00	7,130.98	10,154.33	7,251.21	87.67	88.69	43.98	1,541.88	-471.39	633.67	462.63	171.05	3.705		
10,000.00	7,130.55	10,254.30	7,250.83	90.31	91.33	45.28	1,541.10	-482.35	636.31	460.02	176.29	3.609		
10,100.00	7,130.12	10,354.26	7,250.45	92.97	93.98	46.58	1,540.31	-493.31	638.96	457.39	181.56	3.519		
10,200.00	7,129.68	10,454.23	7,250.07	95.63	96.64	47.88	1,539.53	-504.27	641.60	454.74	186.86	3.434		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,129.25	10,554.19	7,249.69	98.31	99.31	100.77	1,538.75	-3,504.23	644.24	452.07	192.17	3.352		
10,400.00	7,128.82	10,654.15	7,249.31	101.00	101.99	100.73	1,537.97	-3,604.19	646.88	449.38	197.50	3.275		
10,500.00	7,128.38	10,754.12	7,248.93	103.69	104.68	100.69	1,537.19	-3,704.15	649.52	446.67	202.85	3.202		
10,600.00	7,127.95	10,854.08	7,248.55	106.39	107.37	100.65	1,536.41	-3,804.11	652.16	443.95	208.22	3.132		
10,700.00	7,127.51	10,954.05	7,248.17	109.10	110.08	100.62	1,535.62	-3,904.07	654.81	441.21	213.60	3.066		
10,800.00	7,127.08	11,054.01	7,247.80	111.82	112.79	100.58	1,534.84	-4,004.03	657.45	438.46	218.99	3.002		
10,900.00	7,126.65	11,153.97	7,247.42	114.54	115.52	100.54	1,534.06	-4,103.99	660.09	435.69	224.40	2.942		
11,000.00	7,126.21	11,253.94	7,247.04	117.27	118.24	100.50	1,533.28	-4,203.95	662.74	432.91	229.82	2.884		
11,100.00	7,125.78	11,353.90	7,246.66	120.01	120.98	100.46	1,532.50	-4,303.91	665.38	430.13	235.25	2.828		
11,200.00	7,125.35	11,453.87	7,246.28	122.75	123.72	100.43	1,531.72	-4,403.87	668.02	427.33	240.70	2.775		
11,300.00	7,124.91	11,553.83	7,245.90	125.49	126.46	100.39	1,530.93	-4,503.83	670.67	424.52	246.15	2.725		
11,400.00	7,124.48	11,653.80	7,245.52	128.24	129.21	100.35	1,530.15	-4,603.79	673.31	421.70	251.61	2.676		
11,500.00	7,124.04	11,753.76	7,245.14	131.00	131.96	100.32	1,529.37	-4,703.75	675.96	418.88	257.08	2.629		
11,600.00	7,123.61	11,853.72	7,244.76	133.75	134.72	100.28	1,528.59	-4,803.71	678.60	416.04	262.56	2.585		
11,700.00	7,123.18	11,953.69	7,244.38	136.52	137.48	100.25	1,527.81	-4,903.67	681.25	413.20	268.05	2.542		
11,800.00	7,122.74	12,053.65	7,244.00	139.28	140.25	100.21	1,527.02	-5,003.63	683.90	410.35	273.54	2.500		
11,900.00	7,122.31	12,153.62	7,243.62	142.05	143.02	100.17	1,526.24	-5,103.60	686.54	407.50	279.05	2.460		
12,000.00	7,121.88	12,253.58	7,243.24	144.82	145.79	100.14	1,525.46	-5,203.56	689.19	404.63	284.55	2.422		
12,100.00	7,121.44	12,353.54	7,242.86	147.59	148.57	100.11	1,524.68	-5,303.52	691.83	401.76	290.07	2.385		
12,200.00	7,121.01	12,453.51	7,242.48	150.37	151.34	100.07	1,523.90	-5,403.48	694.48	398.89	295.59	2.349		
12,300.00	7,120.57	12,553.47	7,242.10	153.15	154.13	100.04	1,523.12	-5,503.44	697.13	396.01	301.12	2.315		
12,400.00	7,120.14	12,653.44	7,241.73	155.93	156.91	100.00	1,522.33	-5,603.40	699.78	393.13	306.65	2.282		
12,500.00	7,119.71	12,753.40	7,241.35	158.72	159.70	99.97	1,521.55	-5,703.36	702.42	390.24	312.19	2.250		
12,600.00	7,119.27	12,853.36	7,240.97	161.50	162.49	99.94	1,520.77	-5,803.32	705.07	387.34	317.73	2.219		
12,700.00	7,118.84	12,953.33	7,240.59	164.29	165.28	99.90	1,519.99	-5,903.28	707.72	384.44	323.27	2.189		
12,800.00	7,118.41	13,053.29	7,240.21	167.08	168.07	99.87	1,519.21	-6,003.24	710.37	381.54	328.83	2.160		
12,900.00	7,117.97	13,153.26	7,239.83	169.88	170.87	99.84	1,518.43	-6,103.20	713.02	378.63	334.38	2.132		
13,000.00	7,117.54	13,253.22	7,239.45	172.67	173.67	99.80	1,517.64	-6,203.16	715.66	375.72	339.94	2.105		
13,100.00	7,117.10	13,353.19	7,239.07	175.47	176.47	99.77	1,516.86	-6,303.12	718.31	372.81	345.50	2.079		
13,200.00	7,116.67	13,453.15	7,238.69	178.27	179.27	99.74	1,516.08	-6,403.08	720.96	369.89	351.07	2.054		
13,300.00	7,116.24	13,553.11	7,238.31	181.07	182.07	99.71	1,515.30	-6,503.04	723.61	366.97	356.64	2.029		
13,400.00	7,115.80	13,653.08	7,237.93	183.87	184.88	99.68	1,514.52	-6,603.00	726.26	364.04	362.22	2.005		
13,500.00	7,115.37	13,753.04	7,237.55	186.67	187.69	99.65	1,513.74	-6,702.96	728.91	361.12	367.79	1.982		
13,600.00	7,114.93	13,853.01	7,237.17	189.47	190.49	99.62	1,512.95	-6,802.92	731.56	358.19	373.38	1.959		
13,700.00	7,114.50	13,952.97	7,236.79	192.28	193.30	99.58	1,512.17	-6,902.88	734.21	355.25	378.96	1.937		
13,800.00	7,114.07	14,052.93	7,236.41	195.09	196.11	99.55	1,511.39	-7,002.84	736.86	352.32	384.55	1.916		
13,900.00	7,113.63	14,152.90	7,236.03	197.89	198.93	99.52	1,510.61	-7,102.80	739.51	349.38	390.14	1.896		
14,000.00	7,113.20	14,252.86	7,235.66	200.70	201.74	99.49	1,509.83	-7,202.76	742.16	346.43	395.73	1.875		
14,100.00	7,112.77	14,352.83	7,235.28	203.51	204.56	99.46	1,509.04	-7,302.72	744.81	343.49	401.32	1.856		
14,200.00	7,112.33	14,452.79	7,234.90	206.32	207.37	99.43	1,508.26	-7,402.68	747.47	340.54	406.92	1.837		
14,300.00	7,111.90	14,552.75	7,234.52	209.13	210.19	99.40	1,507.48	-7,502.64	750.12	337.60	412.52	1.818		
14,400.00	7,111.46	14,652.72	7,234.14	211.95	213.01	99.38	1,506.70	-7,602.60	752.77	334.65	418.12	1.800		
14,500.00	7,111.03	14,752.68	7,233.76	214.76	215.83	99.35	1,505.92	-7,702.56	755.42	331.69	423.73	1.783		
14,600.00	7,110.60	14,852.65	7,233.38	217.58	218.65	99.32	1,505.14	-7,802.52	758.07	328.74	429.33	1.766		
14,700.00	7,110.16	14,952.61	7,233.00	220.39	221.47	99.29	1,504.35	-7,902.48	760.72	325.78	434.94	1.749		
14,800.00	7,109.73	15,052.58	7,232.62	223.21	224.29	99.26	1,503.57	-8,002.44	763.38	322.82	440.55	1.733		
14,900.00	7,109.30	15,152.54	7,232.24	226.03	227.11	99.23	1,502.79	-8,102.40	766.03	319.86	446.17	1.717		
14,969.16	7,109.00	15,216.01	7,232.00	227.97	228.91	99.21	1,502.29	-8,165.88	767.89	317.97	449.91	1.707 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	0.80	40.07	0.56	40.07					
100.00	100.00	101.00	100.00	3.28	3.28	0.80	40.07	0.56	40.07	33.50	6.57	6.100		
200.00	200.00	201.00	200.00	3.34	3.34	0.80	40.07	0.56	40.07	33.40	6.67	6.004		
300.00	300.00	301.00	300.00	3.44	3.45	0.80	40.07	0.56	40.07	33.18	6.89	5.815 CC, ES		
400.00	400.00	399.58	398.56	3.60	3.60	0.46	41.79	0.34	41.81	34.60	7.22	5.795		
500.00	500.00	497.94	496.78	3.81	3.81	-0.38	46.85	-0.31	46.96	39.32	7.64	6.145		
600.00	600.00	595.83	594.31	4.05	4.05	-1.44	55.21	-1.38	55.52	47.37	8.15	6.814		
700.00	699.98	693.25	691.02	4.32	4.32	6.84	66.80	-2.87	65.74	57.03	8.71	7.547		
800.00	799.84	790.34	786.95	4.62	4.61	6.29	81.59	-4.76	75.89	66.57	9.32	8.143		
900.00	899.45	887.54	882.44	4.94	4.94	5.94	99.58	-7.07	85.92	75.95	9.96	8.624		
1,000.00	998.70	987.23	980.14	5.28	5.28	5.83	119.22	-9.59	93.69	83.07	10.62	8.820		
1,100.00	1,097.50	1,087.13	1,078.05	5.64	5.65	5.93	138.89	-12.11	98.21	86.88	11.33	8.669		
1,200.00	1,196.18	1,187.05	1,175.99	6.00	6.03	6.07	158.57	-14.63	101.99	89.92	12.07	8.452		
1,300.00	1,294.87	1,286.98	1,273.93	6.38	6.44	6.20	178.25	-17.15	105.76	92.93	12.83	8.243		
1,400.00	1,393.55	1,386.91	1,371.87	6.77	6.85	6.32	197.93	-19.67	109.54	95.92	13.61	8.046		
1,500.00	1,492.23	1,486.84	1,469.80	7.17	7.27	6.44	217.61	-22.19	113.32	98.90	14.42	7.860		
1,600.00	1,590.91	1,586.77	1,567.74	7.58	7.70	6.54	237.30	-24.72	117.09	101.86	15.23	7.687		
1,700.00	1,689.60	1,686.70	1,665.68	8.00	8.13	6.64	256.98	-27.24	120.87	104.81	16.06	7.525		
1,800.00	1,788.28	1,786.62	1,763.62	8.42	8.58	6.74	276.66	-29.76	124.65	107.75	16.90	7.374		
1,900.00	1,886.96	1,886.55	1,861.56	8.84	9.02	6.83	296.34	-32.28	128.43	110.67	17.75	7.234		
2,000.00	1,985.64	1,986.48	1,959.50	9.27	9.47	6.91	316.02	-34.80	132.20	113.60	18.61	7.104		
2,100.00	2,084.33	2,086.41	2,057.44	9.71	9.92	6.99	335.70	-37.33	135.98	116.51	19.47	6.983		
2,200.00	2,183.01	2,186.34	2,155.38	10.15	10.38	7.06	355.38	-39.85	139.76	119.42	20.34	6.870		
2,300.00	2,281.69	2,286.27	2,253.31	10.59	10.83	7.13	375.06	-42.37	143.54	122.32	21.22	6.765		
2,400.00	2,380.38	2,386.19	2,351.25	11.03	11.29	7.20	394.74	-44.89	147.32	125.22	22.10	6.666		
2,500.00	2,479.06	2,486.12	2,449.19	11.47	11.75	7.26	414.42	-47.41	151.10	128.12	22.98	6.574		
2,600.00	2,577.74	2,586.05	2,547.13	11.92	12.22	7.32	434.10	-49.94	154.88	131.01	23.87	6.488		
2,700.00	2,676.42	2,685.98	2,645.07	12.36	12.68	7.38	453.78	-52.46	158.66	133.90	24.76	6.407		
2,800.00	2,775.11	2,785.91	2,743.01	12.81	13.15	7.44	473.46	-54.98	162.44	136.78	25.66	6.331		
2,900.00	2,873.79	2,885.84	2,840.95	13.26	13.62	7.49	493.14	-57.50	166.22	139.67	26.56	6.259		
3,000.00	2,972.47	2,985.77	2,938.89	13.72	14.08	7.54	512.83	-60.02	170.00	142.55	27.45	6.192		
3,100.00	3,071.15	3,085.69	3,036.82	14.17	14.55	7.59	532.51	-62.55	173.78	145.43	28.36	6.129		
3,200.00	3,169.84	3,185.62	3,134.76	14.62	15.02	7.63	552.19	-65.07	177.56	148.30	29.26	6.068		
3,300.00	3,268.52	3,285.55	3,232.70	15.08	15.50	7.68	571.87	-67.59	181.34	151.18	30.17	6.012		
3,400.00	3,367.20	3,385.48	3,330.64	15.53	15.97	7.72	591.55	-70.11	185.12	154.05	31.07	5.958		
3,500.00	3,465.89	3,485.41	3,428.58	15.99	16.44	7.76	611.23	-72.63	188.90	156.92	31.98	5.907		
3,600.00	3,564.57	3,585.34	3,526.52	16.44	16.91	7.80	630.91	-75.16	192.69	159.80	32.89	5.858		
3,700.00	3,663.25	3,685.26	3,624.46	16.90	17.39	7.84	650.59	-77.68	196.47	162.67	33.80	5.812		
3,800.00	3,761.93	3,785.19	3,722.40	17.36	17.86	7.87	670.27	-80.20	200.25	165.53	34.71	5.769		
3,900.00	3,860.62	3,885.12	3,820.33	17.82	18.34	7.91	689.95	-82.72	204.03	168.40	35.63	5.727		
4,000.00	3,959.30	3,985.05	3,918.27	18.28	18.81	7.94	709.63	-85.24	207.81	171.27	36.54	5.687		
4,100.00	4,057.98	4,084.98	4,016.21	18.74	19.29	7.97	729.31	-87.77	211.59	174.14	37.46	5.649		
4,200.00	4,156.67	4,184.91	4,114.15	19.20	19.77	8.00	748.99	-90.29	215.37	177.00	38.37	5.613		
4,300.00	4,255.35	4,284.83	4,212.09	19.66	20.24	8.03	768.68	-92.81	219.15	179.87	39.29	5.578		
4,400.00	4,354.03	4,384.76	4,310.03	20.12	20.72	8.06	788.36	-95.33	222.94	182.73	40.21	5.545		
4,500.00	4,452.71	4,484.69	4,407.97	20.58	21.20	8.09	808.04	-97.85	226.72	185.59	41.12	5.513		
4,600.00	4,551.40	4,584.62	4,505.90	21.04	21.67	8.12	827.72	-100.38	230.50	188.46	42.04	5.482		
4,700.00	4,650.08	4,684.55	4,603.84	21.50	22.15	8.14	847.40	-102.90	234.28	191.32	42.96	5.453		
4,800.00	4,748.76	4,784.48	4,701.78	21.96	22.63	8.17	867.08	-105.42	238.06	194.18	43.88	5.425		
4,900.00	4,847.44	4,884.41	4,799.72	22.42	23.11	8.19	886.76	-107.94	241.84	197.04	44.80	5.398		
5,000.00	4,946.13	4,984.33	4,897.66	22.89	23.59	8.22	906.44	-110.46	245.63	199.90	45.72	5.372		
5,100.00	5,044.81	5,084.26	4,995.60	23.35	24.06	8.24	926.12	-112.99	249.41	202.76	46.65	5.347		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
5,200.00	5,143.49	5,184.19	5,093.54	23.81	24.54	8.26	945.80	-115.51	253.19	205.62	47.57	5.323	
5,300.00	5,242.18	5,284.12	5,191.48	24.27	25.02	8.29	965.48	-118.03	256.97	208.48	48.49	5.299	
5,400.00	5,340.86	5,384.05	5,289.41	24.74	25.50	8.31	985.16	-120.55	260.75	211.34	49.41	5.277	
5,500.00	5,439.54	5,483.98	5,387.35	25.20	25.98	8.33	1,004.84	-123.07	264.54	214.20	50.34	5.255	
5,600.00	5,538.22	5,583.90	5,485.29	25.66	26.46	8.35	1,024.53	-125.60	268.32	217.06	51.26	5.234	
5,700.00	5,636.91	5,683.83	5,583.23	26.13	26.94	8.37	1,044.21	-128.12	272.10	219.92	52.18	5.214	
5,800.00	5,735.59	5,783.76	5,681.17	26.59	27.42	8.39	1,063.89	-130.64	275.88	222.78	53.11	5.195	
5,900.00	5,834.27	5,883.69	5,779.11	27.06	27.90	8.40	1,083.57	-133.16	279.67	225.63	54.03	5.176	
6,000.00	5,932.95	5,983.62	5,877.05	27.52	28.38	8.42	1,103.25	-135.68	283.45	228.49	54.96	5.158	
6,100.00	6,031.64	6,083.55	5,974.99	27.98	28.86	8.44	1,122.93	-138.21	287.23	231.35	55.88	5.140	
6,200.00	6,130.32	6,183.47	6,072.92	28.45	29.34	8.46	1,142.61	-140.73	291.01	234.20	56.81	5.123	
6,300.00	6,229.00	6,283.40	6,170.86	28.91	29.82	8.47	1,162.29	-143.25	294.79	237.06	57.73	5.106	
6,400.00	6,327.69	6,383.33	6,268.80	29.38	30.30	8.49	1,181.97	-145.77	298.58	239.92	58.66	5.090	
6,500.00	6,426.37	6,483.26	6,366.74	29.84	30.78	8.50	1,201.65	-148.29	302.36	242.77	59.58	5.074	
6,600.00	6,525.05	6,583.19	6,464.68	30.31	31.27	8.52	1,221.33	-150.82	306.14	245.63	60.51	5.059	
6,700.00	6,623.18	6,683.02	6,561.89	30.77	31.75	8.54	1,240.81	-153.34	309.91	248.47	61.44	5.047	
6,800.00	6,721.86	6,782.77	6,656.21	31.22	32.22	8.56	1,259.60	-155.86	313.68	251.30	62.36	5.035	
6,900.00	6,820.54	6,882.46	6,753.34	31.66	32.66	8.58	1,277.24	-158.38	317.45	254.15	63.28	5.023	
7,000.00	6,919.22	6,982.10	6,850.47	32.09	33.09	8.60	1,293.32	-160.89	321.22	256.99	64.20	5.011	
7,100.00	7,017.90	7,081.71	6,947.60	32.51	33.52	8.62	1,307.43	-163.40	324.96	259.82	65.12	5.000	
7,200.00	7,116.58	7,181.30	7,044.73	32.92	33.94	8.64	1,321.24	-165.91	328.69	262.64	66.04	4.988	
7,300.00	7,215.26	7,280.89	7,141.86	33.33	34.36	8.66	1,334.87	-168.42	332.41	265.45	66.96	4.976	
7,400.00	7,313.94	7,380.50	7,238.99	33.74	34.78	8.68	1,348.31	-170.93	336.12	268.26	67.88	4.964	
7,500.00	7,412.62	7,480.13	7,336.12	34.15	35.19	8.70	1,361.55	-173.44	339.83	271.06	68.80	4.952	
7,600.00	7,511.30	7,579.84	7,433.25	34.56	35.60	8.72	1,374.69	-175.95	343.54	273.85	69.72	4.940	
7,700.00	7,610.00	7,679.80	7,529.38	34.97	36.01	8.74	1,387.64	-178.46	347.24	276.64	70.64	4.928	
7,800.00	7,708.68	7,779.77	7,626.51	35.38	36.42	8.76	1,399.99	-180.97	350.93	279.43	71.56	4.916	
7,900.00	7,807.36	7,879.73	7,723.64	35.79	36.83	8.78	1,412.14	-183.48	354.62	282.21	72.48	4.904	
8,000.00	7,906.04	7,979.69	7,820.77	36.20	37.24	8.80	1,424.19	-185.99	358.31	284.99	73.40	4.892	
8,100.00	8,004.72	8,079.66	7,917.90	36.61	37.65	8.82	1,436.14	-188.50	362.00	287.78	74.32	4.880	
8,200.00	8,103.40	8,179.62	8,015.03	37.02	38.06	8.84	1,447.99	-191.01	365.69	290.56	75.24	4.868	
8,300.00	8,202.08	8,279.58	8,112.16	37.43	38.47	8.86	1,459.74	-193.52	369.38	293.34	76.16	4.856	
8,400.00	8,300.76	8,379.55	8,209.29	37.84	38.88	8.88	1,471.49	-196.03	373.07	296.12	77.08	4.844	
8,500.00	8,399.44	8,479.51	8,306.42	38.25	39.29	8.90	1,483.14	-198.54	376.76	298.90	78.00	4.832	
8,600.00	8,498.12	8,579.47	8,403.55	38.66	39.70	8.92	1,494.79	-201.05	380.45	301.68	78.92	4.820	
8,700.00	8,596.80	8,679.43	8,500.68	39.07	40.11	8.94	1,506.34	-203.56	384.14	304.46	79.84	4.808	
8,800.00	8,695.48	8,779.40	8,597.81	39.48	40.52	8.96	1,517.99	-206.07	387.83	307.24	80.76	4.796	
8,900.00	8,794.16	8,879.36	8,694.94	39.89	40.93	8.98	1,529.54	-208.58	391.52	310.02	81.68	4.784	
9,000.00	8,892.84	8,979.32	8,792.07	40.30	41.34	8.99	1,541.09	-211.09	395.21	312.80	82.60	4.772	
9,100.00	8,991.52	9,079.29	8,889.20	40.71	41.75	9.01	1,552.64	-213.60	398.90	315.58	83.52	4.760	
9,200.00	9,090.20	9,179.25	8,986.33	41.12	42.16	9.03	1,564.19	-216.11	402.59	318.36	84.44	4.748	
9,300.00	9,188.88	9,279.21	9,083.46	41.53	42.57	9.05	1,575.74	-218.62	406.28	321.14	85.36	4.736	
9,400.00	9,287.56	9,379.18	9,180.59	41.94	42.98	9.06	1,587.29	-221.13	409.97	323.92	86.28	4.724	
9,500.00	9,386.24	9,479.14	9,277.72	42.35	43.39	9.08	1,598.84	-223.64	413.66	326.70	87.20	4.712	
9,600.00	9,484.92	9,579.10	9,374.85	42.76	43.80	9.10	1,610.39	-226.15	417.35	329.48	88.12	4.700	
9,700.00	9,583.60	9,679.07	9,472.00	43.17	44.21	9.12	1,621.94	-228.66	421.04	332.26	89.04	4.688	
9,800.00	9,682.28	9,779.03	9,569.13	43.58	44.62	9.14	1,633.49	-231.17	424.73	335.04	90.00	4.676	
9,900.00	9,780.96	9,878.99	9,666.26	43.99	45.03	9.15	1,645.04	-233.68	428.42	337.82	91.00	4.664	
10,000.00	9,879.64	9,978.96	9,763.39	44.40	45.44	9.17	1,656.59	-236.19	432.11	340.60	92.00	4.652	
10,100.00	9,978.32	10,078.92	9,860.52	44.81	45.85	9.19	1,668.14	-238.70	435.80	343.38	93.00	4.640	
10,200.00	10,077.00	10,178.88	9,957.65	45.22	46.26	9.21	1,679.69	-241.21	439.49	346.16	94.00	4.628	
10,300.00	10,175.68	10,278.85	10,054.78	45.63	46.67	9.23	1,691.24	-243.72	443.18	348.94	95.00	4.616	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,128.82	10,378.81	7,063.00	101.00	101.69	80.98	1,317.68	-3,601.70	420.44	218.51	201.93	2.082		
10,500.00	7,128.38	10,478.77	7,062.71	103.69	104.39	81.06	1,316.93	-3,701.66	423.09	215.80	207.29	2.041		
10,600.00	7,127.95	10,578.74	7,062.43	106.39	107.09	81.14	1,316.18	-3,801.62	425.75	213.08	212.67	2.002		
10,700.00	7,127.51	10,678.70	7,062.14	109.10	109.81	81.21	1,315.42	-3,901.58	428.40	210.34	218.06	1.965		
10,800.00	7,127.08	10,778.66	7,061.86	111.82	112.53	81.29	1,314.67	-4,001.54	431.05	207.58	223.47	1.929		
10,900.00	7,126.65	10,878.63	7,061.57	114.54	115.26	81.36	1,313.92	-4,101.50	433.71	204.82	228.89	1.895		
11,000.00	7,126.21	10,978.59	7,061.29	117.27	117.99	81.43	1,313.17	-4,201.46	436.36	202.04	234.33	1.862		
11,100.00	7,125.78	11,078.55	7,061.00	120.01	120.73	81.51	1,312.42	-4,301.42	439.02	199.25	239.77	1.831		
11,200.00	7,125.35	11,178.51	7,060.72	122.75	123.48	81.58	1,311.66	-4,401.38	441.68	196.44	245.23	1.801		
11,300.00	7,124.91	11,278.48	7,060.43	125.49	126.23	81.65	1,310.91	-4,501.34	444.33	193.63	250.70	1.772		
11,400.00	7,124.48	11,378.44	7,060.15	128.24	128.98	81.72	1,310.16	-4,601.30	446.99	190.81	256.18	1.745		
11,500.00	7,124.04	11,478.40	7,059.86	131.00	131.74	81.78	1,309.41	-4,701.26	449.65	187.98	261.67	1.718		
11,600.00	7,123.61	11,578.37	7,059.58	133.75	134.50	81.85	1,308.65	-4,801.22	452.31	185.14	267.17	1.693		
11,700.00	7,123.18	11,678.33	7,059.29	136.52	137.27	81.92	1,307.90	-4,901.18	454.97	182.29	272.68	1.669		
11,800.00	7,122.74	11,778.29	7,059.01	139.28	140.04	81.99	1,307.15	-5,001.14	457.63	179.43	278.20	1.645		
11,900.00	7,122.31	11,878.26	7,058.73	142.05	142.82	82.05	1,306.40	-5,101.10	460.29	176.57	283.72	1.622		
12,000.00	7,121.88	11,978.22	7,058.44	144.82	145.59	82.11	1,305.65	-5,201.06	462.96	173.70	289.25	1.601		
12,100.00	7,121.44	12,078.18	7,058.16	147.59	148.37	82.18	1,304.89	-5,301.02	465.62	170.83	294.79	1.579		
12,200.00	7,121.01	12,178.15	7,057.87	150.37	151.16	82.24	1,304.14	-5,400.98	468.28	167.95	300.33	1.559		
12,300.00	7,120.57	12,278.11	7,057.59	153.15	153.94	82.30	1,303.39	-5,500.94	470.94	165.06	305.88	1.540		
12,400.00	7,120.14	12,378.07	7,057.30	155.93	156.73	82.37	1,302.64	-5,600.90	473.61	162.17	311.44	1.521		
12,500.00	7,119.71	12,478.04	7,057.02	158.72	159.52	82.43	1,301.89	-5,700.86	476.27	159.27	317.00	1.502		
12,600.00	7,119.27	12,578.00	7,056.73	161.50	162.32	82.49	1,301.13	-5,800.82	478.94	156.37	322.57	1.485 Level 3		
12,700.00	7,118.84	12,677.96	7,056.45	164.29	165.11	82.55	1,300.38	-5,900.78	481.61	153.47	328.14	1.468 Level 3		
12,800.00	7,118.41	12,777.93	7,056.16	167.08	167.91	82.61	1,299.63	-6,000.74	484.27	150.56	333.71	1.451 Level 3		
12,900.00	7,117.97	12,877.89	7,055.88	169.88	170.71	82.66	1,298.88	-6,100.70	486.94	147.64	339.30	1.435 Level 3		
13,000.00	7,117.54	12,977.85	7,055.59	172.67	173.51	82.72	1,298.12	-6,200.66	489.61	144.72	344.88	1.420 Level 3		
13,100.00	7,117.10	13,077.82	7,055.31	175.47	176.31	82.78	1,297.37	-6,300.62	492.27	141.80	350.47	1.405 Level 3		
13,200.00	7,116.67	13,177.78	7,055.03	178.27	179.12	82.84	1,296.62	-6,400.58	494.94	138.88	356.06	1.390 Level 3		
13,300.00	7,116.24	13,277.74	7,054.74	181.07	181.92	82.89	1,295.87	-6,500.54	497.61	135.95	361.66	1.376 Level 3		
13,400.00	7,115.80	13,377.71	7,054.46	183.87	184.73	82.95	1,295.12	-6,600.50	500.28	133.02	367.26	1.362 Level 3		
13,500.00	7,115.37	13,477.67	7,054.17	186.67	187.54	83.00	1,294.36	-6,700.46	502.95	130.08	372.87	1.349 Level 3		
13,600.00	7,114.93	13,577.63	7,053.89	189.47	190.35	83.06	1,293.61	-6,800.42	505.62	127.15	378.47	1.336 Level 3		
13,700.00	7,114.50	13,677.60	7,053.60	192.28	193.17	83.11	1,292.86	-6,900.38	508.29	124.21	384.09	1.323 Level 3		
13,800.00	7,114.07	13,777.56	7,053.32	195.09	195.98	83.16	1,292.11	-7,000.34	510.96	121.26	389.70	1.311 Level 3		
13,900.00	7,113.63	13,877.52	7,053.03	197.89	198.79	83.21	1,291.36	-7,100.30	513.63	118.32	395.32	1.299 Level 3		
14,000.00	7,113.20	13,977.48	7,052.75	200.70	201.61	83.27	1,290.60	-7,200.26	516.31	115.37	400.94	1.288 Level 3		
14,100.00	7,112.77	14,077.45	7,052.46	203.51	204.43	83.32	1,289.85	-7,300.22	518.98	112.42	406.56	1.277 Level 3		
14,200.00	7,112.33	14,177.41	7,052.18	206.32	207.25	83.37	1,289.10	-7,400.18	521.65	109.47	412.18	1.266 Level 3		
14,300.00	7,111.90	14,277.37	7,051.89	209.13	210.07	83.42	1,288.35	-7,500.14	524.32	106.51	417.81	1.255 Level 3		
14,400.00	7,111.46	14,377.34	7,051.61	211.95	212.89	83.47	1,287.59	-7,600.10	527.00	103.56	423.44	1.245 Level 2		
14,500.00	7,111.03	14,477.30	7,051.32	214.76	215.71	83.52	1,286.84	-7,700.06	529.67	100.60	429.07	1.234 Level 2		
14,600.00	7,110.60	14,577.26	7,051.04	217.58	218.53	83.57	1,286.09	-7,800.02	532.35	97.64	434.71	1.225 Level 2		
14,700.00	7,110.16	14,677.23	7,050.76	220.39	221.35	83.62	1,285.34	-7,899.98	535.02	94.68	440.34	1.215 Level 2		
14,800.00	7,109.73	14,777.19	7,050.47	223.21	224.18	83.66	1,284.59	-7,999.94	537.70	91.71	445.98	1.206 Level 2		
14,900.00	7,109.30	14,877.15	7,050.19	226.03	227.00	83.71	1,283.83	-8,099.90	540.37	88.75	451.62	1.197 Level 2		
14,969.16	7,109.00	14,946.29	7,049.99	227.97	228.96	83.74	1,283.31	-8,169.03	542.22	86.70	455.53	1.190 Level 2, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.60	-40.08	-0.28	40.08					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-40.08	-0.28	40.08	33.51	6.57	6.101		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-40.08	-0.28	40.08	33.41	6.67	6.006		
300.00	300.00	300.00	300.00	3.44	3.44	-179.60	-40.08	-0.28	40.08	33.19	6.89	5.818		
400.00	400.00	400.00	400.00	3.60	3.60	-179.60	-40.08	-0.28	40.08	32.88	7.21	5.562		
500.00	500.00	500.00	500.00	3.81	3.81	-179.60	-40.08	-0.28	40.08	32.47	7.61	5.266		
600.00	600.00	600.00	600.00	4.05	4.05	-179.60	-40.08	-0.28	40.08	31.99	8.09	4.953 CC		
700.00	699.98	701.30	701.28	4.32	4.32	-169.86	-38.43	-0.97	40.18	31.54	8.64	4.649		
800.00	799.84	802.40	802.24	4.62	4.63	-168.13	-33.53	-3.05	40.54	31.29	9.25	4.383		
900.00	899.45	902.36	901.98	4.94	4.94	-166.74	-27.49	-5.60	43.17	33.29	9.89	4.367		
1,000.00	998.70	1,002.17	1,001.57	5.28	5.28	-166.50	-21.46	-8.14	49.21	38.65	10.56	4.659		
1,100.00	1,097.50	1,101.74	1,100.93	5.64	5.63	-167.08	-15.45	-10.68	58.44	47.17	11.27	5.185		
1,200.00	1,196.18	1,201.24	1,200.21	6.00	5.99	-167.65	-9.44	-13.22	68.40	56.40	12.00	5.700		
1,300.00	1,294.87	1,300.74	1,299.50	6.38	6.36	-168.08	-3.43	-15.76	78.36	65.61	12.75	6.146		
1,400.00	1,393.55	1,400.24	1,398.79	6.77	6.74	-168.41	2.58	-18.30	88.33	74.81	13.52	6.534		
1,500.00	1,492.23	1,499.74	1,498.07	7.17	7.13	-168.68	8.59	-20.84	98.30	84.00	14.30	6.873		
1,600.00	1,590.91	1,600.76	1,597.36	7.58	7.53	-168.89	14.61	-23.38	108.27	93.17	15.11	7.168		
1,700.00	1,689.60	1,701.26	1,696.65	8.00	7.93	-169.07	20.62	-25.92	118.25	102.33	15.92	7.428		
1,800.00	1,788.28	1,801.76	1,795.93	8.42	8.33	-169.22	26.63	-28.46	128.22	111.48	16.74	7.660		
1,900.00	1,886.96	1,902.26	1,895.22	8.84	8.74	-169.35	32.64	-30.99	138.19	120.63	17.57	7.866		
2,000.00	1,985.64	2,002.76	1,994.51	9.27	9.16	-169.46	38.65	-33.53	148.17	129.76	18.41	8.050		
2,100.00	2,084.33	2,103.25	2,093.79	9.71	9.57	-169.56	44.66	-36.07	158.15	138.90	19.25	8.216		
2,200.00	2,183.01	2,203.75	2,193.08	10.15	9.99	-169.65	50.67	-38.61	168.12	148.03	20.10	8.365		
2,300.00	2,281.69	2,304.25	2,292.37	10.59	10.41	-169.72	56.68	-41.15	178.10	157.15	20.95	8.501		
2,400.00	2,380.38	2,404.75	2,391.65	11.03	10.84	-169.79	62.69	-43.69	188.08	166.27	21.81	8.624		
2,500.00	2,479.06	2,505.25	2,490.94	11.47	11.26	-169.85	68.70	-46.23	198.05	175.38	22.67	8.737		
2,600.00	2,577.74	2,605.75	2,590.23	11.92	11.69	-169.91	74.71	-48.77	208.03	184.50	23.53	8.840		
2,700.00	2,676.42	2,706.25	2,689.51	12.36	12.11	-169.96	80.72	-51.31	218.01	193.61	24.40	8.935		
2,800.00	2,775.11	2,806.75	2,788.80	12.81	12.54	-170.01	86.73	-53.84	227.99	202.72	25.27	9.022		
2,900.00	2,873.79	2,907.25	2,888.09	13.26	12.97	-170.05	92.75	-56.38	237.96	211.82	26.14	9.103		
3,000.00	2,972.47	3,007.75	2,987.37	13.72	13.40	-170.09	98.76	-58.92	247.94	220.93	27.02	9.178		
3,100.00	3,071.15	3,108.25	3,086.66	14.17	13.83	-170.12	104.77	-61.46	257.92	230.03	27.89	9.247		
3,200.00	3,169.84	3,208.75	3,185.95	14.62	14.27	-170.16	110.78	-64.00	267.90	239.13	28.77	9.312		
3,300.00	3,268.52	3,309.24	3,285.23	15.08	14.70	-170.19	116.79	-66.54	277.88	248.23	29.65	9.372		
3,400.00	3,367.20	3,409.74	3,384.52	15.53	15.13	-170.22	122.80	-69.08	287.85	257.32	30.53	9.429		
3,500.00	3,465.89	3,489.76	3,483.81	15.99	15.48	-170.24	128.81	-71.62	297.83	266.51	31.32	9.508		
3,600.00	3,564.57	3,589.26	3,583.09	16.44	15.91	-170.27	134.82	-74.16	307.81	275.61	32.20	9.559		
3,700.00	3,663.25	3,688.76	3,682.38	16.90	16.34	-170.29	140.83	-76.70	317.79	284.71	33.08	9.606		
3,800.00	3,761.93	3,788.26	3,781.67	17.36	16.77	-170.31	146.84	-79.23	327.77	293.80	33.96	9.650		
3,900.00	3,860.62	3,887.76	3,880.95	17.82	17.20	-170.33	152.85	-81.77	337.75	302.90	34.85	9.693		
4,000.00	3,959.30	3,987.26	3,980.24	18.28	17.64	-170.35	158.86	-84.31	347.73	312.00	35.73	9.732		
4,100.00	4,057.98	4,086.76	4,079.53	18.74	18.07	-170.37	164.87	-86.85	357.70	321.09	36.61	9.770		
4,200.00	4,156.67	4,186.26	4,178.81	19.20	18.50	-170.39	170.89	-89.39	367.68	330.19	37.50	9.805		
4,300.00	4,255.35	4,285.76	4,278.10	19.66	18.94	-170.41	176.90	-91.93	377.66	339.28	38.38	9.839		
4,400.00	4,354.03	4,385.26	4,377.39	20.12	19.37	-170.42	182.91	-94.47	387.64	348.37	39.27	9.871		
4,500.00	4,452.71	4,484.77	4,476.67	20.58	19.80	-170.44	188.92	-97.01	397.62	357.46	40.16	9.902		
4,600.00	4,551.40	4,584.27	4,575.96	21.04	20.24	-170.45	194.93	-99.55	407.60	366.56	41.04	9.931		
4,700.00	4,650.08	4,683.77	4,675.25	21.50	20.67	-170.46	200.94	-102.08	417.58	375.65	41.93	9.959		
4,800.00	4,748.76	4,783.27	4,774.53	21.96	21.11	-170.48	206.95	-104.62	427.56	384.74	42.82	9.985		
4,900.00	4,847.44	4,882.77	4,873.82	22.42	21.54	-170.49	212.96	-107.16	437.54	393.83	43.71	10.010		
5,000.00	4,946.13	4,982.27	4,973.11	22.89	21.98	-170.50	218.97	-109.70	447.51	402.92	44.60	10.034		
5,100.00	5,044.81	5,081.77	5,072.39	23.35	22.42	-170.51	224.98	-112.24	457.49	412.01	45.49	10.058		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,181.27	5,171.68	23.81	22.85	-170.52	230.99	-114.78	467.47	421.09	46.38	10.080	
5,300.00	5,242.18	5,280.77	5,270.97	24.27	23.29	-170.53	237.00	-117.32	477.45	430.18	47.27	10.101	
5,400.00	5,340.86	5,380.27	5,370.25	24.74	23.72	-170.54	243.01	-119.86	487.43	439.27	48.16	10.121	
5,500.00	5,439.54	5,479.77	5,469.54	25.20	24.16	-170.55	249.03	-122.40	497.41	448.36	49.05	10.141	
5,600.00	5,538.22	5,579.27	5,568.83	25.66	24.60	-170.56	255.04	-124.93	507.39	457.45	49.94	10.160	
5,700.00	5,636.91	5,678.78	5,668.11	26.13	25.03	-170.57	261.05	-127.47	517.37	466.53	50.83	10.178	
5,800.00	5,735.59	5,778.28	5,767.40	26.59	25.47	-170.58	267.06	-130.01	527.35	475.62	51.73	10.195	
5,900.00	5,834.27	5,877.78	5,866.69	27.06	25.91	-170.59	273.07	-132.55	537.33	484.71	52.62	10.212	
6,000.00	5,932.95	5,977.28	5,965.97	27.52	26.34	-170.59	279.08	-135.09	547.30	493.79	53.51	10.228	
6,100.00	6,031.64	6,076.78	6,065.26	27.98	26.78	-170.60	285.09	-137.63	557.28	502.88	54.40	10.243	
6,200.00	6,130.32	6,176.28	6,164.55	28.45	27.22	-170.61	291.10	-140.17	567.26	511.97	55.30	10.258	
6,300.00	6,229.00	6,275.78	6,263.83	28.91	27.66	-170.62	297.11	-142.71	577.24	521.05	56.19	10.273	
6,400.00	6,327.69	6,375.28	6,363.12	29.38	28.09	-170.62	303.12	-145.25	587.22	530.14	57.08	10.287	
6,500.00	6,426.37	6,474.78	6,462.41	29.84	28.53	-170.63	309.13	-147.79	597.20	539.22	57.98	10.300	
6,600.00	6,525.05	6,574.28	6,561.69	30.31	28.97	-170.64	315.14	-150.32	607.18	548.31	58.87	10.314	
6,700.00	6,623.18	6,673.79	6,660.96	30.77	29.41	-130.31	321.16	-153.44	616.85	557.09	59.77	10.321	
6,800.00	6,718.58	6,775.09	6,760.87	31.22	29.85	-114.19	327.28	-168.32	625.84	565.16	60.68	10.314	
6,900.00	6,808.91	6,878.39	6,859.00	31.66	30.31	-107.12	333.39	-199.63	633.91	572.30	61.61	10.289	
7,000.00	6,891.95	6,983.72	6,952.51	32.07	30.79	-103.50	339.32	-247.48	640.82	578.25	62.58	10.240	
7,100.00	6,965.65	7,091.02	7,038.35	32.51	31.30	-101.50	344.88	-311.40	646.37	582.75	63.62	10.160	
7,200.00	7,028.20	7,200.13	7,113.39	33.02	31.90	-100.39	349.87	-390.26	650.35	585.54	64.80	10.036	
7,300.00	7,078.04	7,310.79	7,174.66	33.68	32.65	-99.82	354.11	-482.16	652.61	586.37	66.25	9.851	
7,400.00	7,113.97	7,422.65	7,219.51	34.52	33.59	-99.63	357.43	-584.42	653.06	585.02	68.03	9.599	
7,500.00	7,135.09	7,535.28	7,245.94	35.53	34.73	-99.70	359.67	-693.73	651.62	581.42	70.20	9.282	
7,600.00	7,140.96	7,646.40	7,252.95	36.68	36.04	-99.96	360.74	-804.50	648.34	575.66	72.68	8.920	
7,700.00	7,140.53	7,746.32	7,252.58	37.99	37.39	-100.03	361.31	-904.41	644.39	569.06	75.33	8.554	
7,800.00	7,140.09	7,846.24	7,252.21	39.45	38.89	-100.10	361.87	-1,004.33	640.43	562.15	78.28	8.181	
7,900.00	7,139.66	7,946.16	7,251.85	41.06	40.54	-100.17	362.44	-1,104.25	636.48	554.97	81.51	7.808	
8,000.00	7,139.23	8,046.08	7,251.48	42.80	42.32	-100.24	363.01	-1,204.16	632.53	547.54	84.99	7.442	
8,100.00	7,138.79	8,146.00	7,251.12	44.65	44.21	-100.31	363.57	-1,304.08	628.58	539.89	88.69	7.087	
8,200.00	7,138.36	8,245.92	7,250.75	46.60	46.20	-100.38	364.14	-1,404.00	624.63	532.04	92.59	6.747	
8,300.00	7,137.93	8,345.83	7,250.39	48.65	48.27	-100.46	364.71	-1,503.91	620.68	524.04	96.65	6.422	
8,400.00	7,137.49	8,445.75	7,250.02	50.77	50.43	-100.53	365.27	-1,603.83	616.73	515.88	100.85	6.115	
8,500.00	7,137.06	8,545.67	7,249.65	52.95	52.65	-100.61	365.84	-1,703.75	612.79	507.60	105.19	5.825	
8,600.00	7,136.62	8,645.59	7,249.29	55.20	54.93	-100.68	366.41	-1,803.66	608.84	499.20	109.64	5.553	
8,700.00	7,136.19	8,745.51	7,248.92	57.51	57.26	-100.76	366.97	-1,903.58	604.90	490.71	114.19	5.297	
8,800.00	7,135.76	8,845.43	7,248.56	59.85	59.64	-100.84	367.54	-2,003.50	600.96	482.12	118.83	5.057	
8,900.00	7,135.32	8,945.35	7,248.19	62.24	62.06	-100.92	368.10	-2,103.41	597.01	473.47	123.55	4.832	
9,000.00	7,134.89	9,045.27	7,247.82	64.67	64.52	-101.00	368.67	-2,203.33	593.07	464.74	128.33	4.621	
9,100.00	7,134.45	9,145.18	7,247.46	67.13	67.01	-101.08	369.24	-2,303.24	589.13	455.95	133.18	4.424	
9,200.00	7,134.02	9,245.10	7,247.09	69.62	69.52	-101.16	369.80	-2,403.16	585.19	447.12	138.08	4.238	
9,300.00	7,133.59	9,345.02	7,246.73	72.14	72.07	-101.24	370.37	-2,503.08	581.26	438.23	143.02	4.064	
9,400.00	7,133.15	9,444.94	7,246.36	74.68	74.63	-101.33	370.94	-2,602.99	577.32	429.31	148.01	3.900	
9,500.00	7,132.72	9,544.86	7,245.99	77.24	77.22	-101.41	371.50	-2,702.91	573.39	420.35	153.04	3.747	
9,600.00	7,132.29	9,644.78	7,245.63	79.83	79.82	-101.50	372.07	-2,802.83	569.45	411.35	158.10	3.602	
9,700.00	7,131.85	9,744.70	7,245.26	82.42	82.44	-101.59	372.64	-2,902.74	565.52	402.33	163.19	3.465	
9,800.00	7,131.42	9,844.62	7,244.90	85.04	85.08	-101.68	373.20	-3,002.66	561.59	393.28	168.31	3.337	
9,900.00	7,130.98	9,944.54	7,244.53	87.67	87.73	-101.77	373.77	-3,102.58	557.66	384.21	173.46	3.215	
10,000.00	7,130.55	10,044.45	7,244.17	90.31	90.39	-101.86	374.34	-3,202.49	553.73	375.11	178.62	3.100	
10,100.00	7,130.12	10,144.37	7,243.80	92.97	93.07	-101.95	374.90	-3,302.41	549.81	366.00	183.80	2.991	
10,200.00	7,129.68	10,244.29	7,243.43	95.63	95.76	-102.05	375.47	-3,402.33	545.88	356.88	189.00	2.888	
10,300.00	7,129.25	10,344.21	7,243.07	98.31	98.45	-102.14	376.03	-3,502.24	541.96	347.74	194.22	2.790	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,128.82	10,444.13	7,242.70	101.00	101.16	-102.24	376.60	-3,602.16	538.04	338.59	199.45	2.698		
10,500.00	7,128.38	10,544.05	7,242.34	103.69	103.87	-102.34	377.17	-3,702.08	534.12	329.43	204.69	2.609		
10,600.00	7,127.95	10,643.97	7,241.97	106.39	106.59	-102.44	377.73	-3,801.99	530.20	320.26	209.94	2.525		
10,700.00	7,127.51	10,743.89	7,241.60	109.10	109.32	-102.54	378.30	-3,901.91	526.28	311.08	215.20	2.446		
10,800.00	7,127.08	10,843.81	7,241.24	111.82	112.05	-102.64	378.87	-4,001.83	522.36	301.89	220.47	2.369		
10,900.00	7,126.65	10,943.72	7,240.87	114.54	114.79	-102.75	379.43	-4,101.74	518.45	292.71	225.74	2.297		
11,000.00	7,126.21	11,043.64	7,240.51	117.27	117.54	-102.85	380.00	-4,201.66	514.54	283.51	231.03	2.227		
11,100.00	7,125.78	11,143.56	7,240.14	120.01	120.29	-102.96	380.57	-4,301.58	510.63	274.32	236.31	2.161		
11,200.00	7,125.35	11,243.48	7,239.77	122.75	123.05	-103.07	381.13	-4,401.49	506.72	265.12	241.60	2.097		
11,300.00	7,124.91	11,343.40	7,239.41	125.49	125.81	-103.18	381.70	-4,501.41	502.81	255.92	246.89	2.037		
11,400.00	7,124.48	11,443.32	7,239.04	128.24	128.58	-103.30	382.26	-4,601.33	498.91	246.72	252.19	1.978		
11,500.00	7,124.04	11,543.24	7,238.68	131.00	131.35	-103.41	382.83	-4,701.24	495.01	237.52	257.49	1.922		
11,600.00	7,123.61	11,643.16	7,238.31	133.75	134.12	-103.53	383.40	-4,801.16	491.11	228.32	262.78	1.869		
11,700.00	7,123.18	11,743.08	7,237.95	136.52	136.90	-103.65	383.96	-4,901.08	487.21	219.13	268.08	1.817		
11,800.00	7,122.74	11,842.99	7,237.58	139.28	139.68	-103.77	384.53	-5,000.99	483.31	209.93	273.38	1.768		
11,900.00	7,122.31	11,942.91	7,237.21	142.05	142.46	-103.89	385.10	-5,100.91	479.42	200.74	278.67	1.720		
12,000.00	7,121.88	12,042.83	7,236.85	144.82	145.25	-104.01	385.66	-5,200.83	475.52	191.56	283.96	1.675		
12,100.00	7,121.44	12,142.75	7,236.48	147.59	148.04	-104.14	386.23	-5,300.74	471.63	182.38	289.25	1.631		
12,200.00	7,121.01	12,242.67	7,236.12	150.37	150.83	-104.27	386.80	-5,400.66	467.75	173.21	294.54	1.588		
12,300.00	7,120.57	12,342.59	7,235.75	153.15	153.62	-104.40	387.36	-5,500.58	463.86	164.04	299.82	1.547		
12,400.00	7,120.14	12,442.51	7,235.38	155.93	156.42	-104.53	387.93	-5,600.49	459.98	154.88	305.10	1.508		
12,500.00	7,119.71	12,542.43	7,235.02	158.72	159.22	-104.67	388.50	-5,700.41	456.10	145.72	310.37	1.470 Level 3		
12,600.00	7,119.27	12,642.35	7,234.65	161.50	162.02	-104.80	389.06	-5,800.33	452.22	136.58	315.64	1.433 Level 3		
12,700.00	7,118.84	12,742.26	7,234.29	164.29	164.82	-104.94	389.63	-5,900.24	448.35	127.44	320.90	1.397 Level 3		
12,800.00	7,118.41	12,842.18	7,233.92	167.08	167.63	-105.09	390.19	-6,000.16	444.47	118.32	326.16	1.363 Level 3		
12,900.00	7,117.97	12,942.10	7,233.55	169.88	170.44	-105.23	390.76	-6,100.08	440.60	109.20	331.40	1.330 Level 3		
13,000.00	7,117.54	13,042.02	7,233.19	172.67	173.24	-105.38	391.33	-6,199.99	436.74	100.10	336.64	1.297 Level 3		
13,100.00	7,117.10	13,141.94	7,232.82	175.47	176.06	-105.53	391.89	-6,299.91	432.87	91.00	341.87	1.266 Level 3		
13,200.00	7,116.67	13,241.86	7,232.46	178.27	178.87	-105.68	392.46	-6,399.83	429.01	81.92	347.09	1.236 Level 2		
13,300.00	7,116.24	13,341.78	7,232.09	181.07	181.68	-105.84	393.03	-6,499.74	425.16	72.86	352.30	1.207 Level 2		
13,400.00	7,115.80	13,441.70	7,231.72	183.87	184.50	-105.99	393.59	-6,599.66	421.30	63.80	357.50	1.178 Level 2		
13,500.00	7,115.37	13,541.62	7,231.36	186.67	187.31	-106.15	394.16	-6,699.58	417.45	54.77	362.69	1.151 Level 2		
13,600.00	7,114.93	13,641.53	7,230.99	189.47	190.13	-106.32	394.73	-6,799.49	413.60	45.74	367.86	1.124 Level 2		
13,700.00	7,114.50	13,741.45	7,230.63	192.28	192.95	-106.49	395.29	-6,899.41	409.76	36.74	373.02	1.098 Level 2		
13,800.00	7,114.07	13,841.37	7,230.26	195.09	195.77	-106.66	395.86	-6,999.32	405.92	27.75	378.17	1.073 Level 2		
13,900.00	7,113.63	13,941.29	7,229.90	197.89	198.59	-106.83	396.43	-7,099.24	402.08	18.78	383.31	1.049 Level 2		
14,000.00	7,113.20	14,041.21	7,229.53	200.70	201.41	-107.01	396.99	-7,199.16	398.25	9.82	388.43	1.025 Level 2		
14,100.00	7,112.77	14,141.13	7,229.16	203.51	204.24	-107.19	397.56	-7,299.07	394.42	0.89	393.53	1.002 Level 2		
14,200.00	7,112.33	14,241.05	7,228.80	206.32	207.06	-107.37	398.12	-7,398.99	390.59	-8.02	398.61	0.980 Level 1		
14,300.00	7,111.90	14,340.97	7,228.43	209.13	209.89	-107.56	398.69	-7,498.91	386.77	-16.91	403.68	0.958 Level 1		
14,400.00	7,111.46	14,440.89	7,228.07	211.95	212.71	-107.75	399.26	-7,598.82	382.95	-25.78	408.73	0.937 Level 1		
14,500.00	7,111.03	14,540.80	7,227.70	214.76	215.54	-107.95	399.82	-7,698.74	379.14	-34.62	413.76	0.916 Level 1		
14,600.00	7,110.60	14,640.72	7,227.33	217.58	218.37	-108.14	400.39	-7,798.66	375.33	-43.44	418.77	0.896 Level 1		
14,700.00	7,110.16	14,740.64	7,226.97	220.39	221.20	-108.35	400.96	-7,898.57	371.53	-52.23	423.76	0.877 Level 1		
14,800.00	7,109.73	14,840.56	7,226.60	223.21	224.03	-108.56	401.52	-7,998.49	367.73	-60.99	428.72	0.858 Level 1		
14,900.00	7,109.30	14,940.48	7,226.24	226.03	226.86	-108.77	402.09	-8,098.41	363.94	-69.73	433.67	0.839 Level 1		
14,969.16	7,109.00	15,009.58	7,225.98	227.97	228.81	-108.92	402.48	-8,167.51	361.32	-75.75	437.07	0.827 Level 1, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.53	-339.91	-2.78	339.92					
100.00	100.00	101.00	100.00	3.28	3.28	-179.53	-339.91	-2.78	339.92	333.35	6.57	51.741		
200.00	200.00	199.00	200.00	3.34	3.34	-179.53	-339.91	-2.78	339.92	333.25	6.67	50.938 CC, ES		
300.00	300.00	288.50	289.48	3.44	3.43	-179.51	-341.27	-2.89	341.45	334.57	6.88	49.633		
400.00	400.00	377.72	378.60	3.60	3.55	-179.46	-345.40	-3.24	346.08	338.89	7.19	48.150		
500.00	500.00	466.59	467.21	3.81	3.72	-179.38	-352.26	-3.81	353.81	346.22	7.58	46.653		
600.00	600.00	554.96	555.05	4.05	3.92	-179.27	-361.80	-4.60	364.61	356.55	8.05	45.279		
700.00	699.98	642.40	641.64	4.32	4.15	-169.98	-373.88	-5.61	380.15	371.57	8.58	44.306		
800.00	799.84	728.28	726.29	4.62	4.40	-169.87	-388.31	-6.81	402.03	392.88	9.15	43.927		
900.00	899.45	812.11	808.46	4.94	4.68	-169.79	-404.83	-8.18	430.10	420.35	9.75	44.124		
1,000.00	998.70	893.46	887.71	5.28	4.97	-169.73	-423.14	-9.70	464.17	453.81	10.35	44.838		
1,100.00	1,097.50	972.01	963.70	5.64	5.28	-169.74	-442.95	-11.35	503.83	492.86	10.96	45.952		
1,200.00	1,196.18	1,059.21	1,047.60	6.00	5.65	-169.84	-466.59	-13.32	545.95	534.36	11.59	47.111		
1,300.00	1,294.87	1,149.86	1,134.82	6.38	6.04	-169.92	-491.24	-15.37	588.16	575.91	12.25	48.004		
1,400.00	1,393.55	1,240.51	1,222.03	6.77	6.45	-170.00	-515.89	-17.42	630.37	617.43	12.94	48.712		
1,500.00	1,492.23	1,331.16	1,309.24	7.17	6.87	-170.07	-540.55	-19.47	672.57	658.92	13.65	49.271		
1,600.00	1,590.91	1,421.82	1,396.46	7.58	7.31	-170.13	-565.20	-21.52	714.78	700.41	14.38	49.713		
1,700.00	1,689.60	1,512.47	1,483.67	8.00	7.75	-170.18	-589.85	-23.57	756.99	741.87	15.12	50.060		
1,800.00	1,788.28	1,603.12	1,570.88	8.42	8.20	-170.22	-614.50	-25.62	799.20	783.33	15.88	50.333		
1,900.00	1,886.96	1,706.22	1,658.09	8.84	8.71	-170.27	-639.15	-27.67	841.42	824.71	16.70	50.378		
2,000.00	1,985.64	1,784.43	1,745.31	9.27	9.11	-170.31	-663.80	-29.72	883.63	866.20	17.42	50.711		
2,100.00	2,084.33	1,875.08	1,832.52	9.71	9.57	-170.34	-688.45	-31.77	925.84	907.63	18.21	50.837		
2,200.00	2,183.01	1,965.73	1,919.73	10.15	10.04	-170.37	-713.10	-33.82	968.05	949.04	19.01	50.933		
2,300.00	2,281.69	2,056.39	2,006.95	10.59	10.51	-170.40	-737.75	-35.87	1,010.26	990.45	19.81	51.004		
2,400.00	2,380.38	2,147.04	2,094.16	11.03	10.98	-170.43	-762.41	-37.92	1,052.47	1,031.86	20.61	51.054		
2,500.00	2,479.06	2,237.69	2,181.37	11.47	11.46	-170.45	-787.06	-39.97	1,094.69	1,073.26	21.43	51.089		
2,600.00	2,577.74	2,328.35	2,268.58	11.92	11.93	-170.47	-811.71	-42.02	1,136.90	1,114.65	22.24	51.110		
2,700.00	2,676.42	2,419.00	2,355.80	12.36	12.41	-170.50	-836.36	-44.07	1,179.11	1,156.05	23.07	51.120		
2,800.00	2,775.11	2,509.65	2,443.01	12.81	12.89	-170.52	-861.01	-46.12	1,221.32	1,197.43	23.89	51.122		
2,900.00	2,873.79	2,600.30	2,530.22	13.26	13.38	-170.53	-885.66	-48.17	1,263.54	1,238.82	24.72	51.116		
3,000.00	2,972.47	2,709.04	2,617.44	13.72	13.96	-170.55	-910.31	-50.22	1,305.75	1,280.11	25.64	50.933		
3,100.00	3,071.15	2,781.61	2,704.65	14.17	14.34	-170.57	-934.96	-52.27	1,347.96	1,321.58	26.38	51.089		
3,200.00	3,169.84	2,872.26	2,791.86	14.62	14.83	-170.58	-959.61	-54.32	1,390.18	1,362.95	27.22	51.069		
3,300.00	3,268.52	2,962.92	2,879.07	15.08	15.32	-170.60	-984.27	-56.37	1,432.39	1,404.33	28.06	51.047		
3,400.00	3,367.20	3,053.57	2,966.29	15.53	15.81	-170.61	-1,008.92	-58.42	1,474.60	1,445.70	28.90	51.022		
3,500.00	3,465.89	3,144.22	3,053.50	15.99	16.29	-170.62	-1,033.57	-60.47	1,516.81	1,487.07	29.74	50.995		
3,600.00	3,564.57	3,234.88	3,140.71	16.44	16.78	-170.63	-1,058.22	-62.52	1,559.03	1,528.44	30.59	50.967		
3,700.00	3,663.25	3,325.53	3,227.92	16.90	17.27	-170.65	-1,082.87	-64.57	1,601.24	1,569.81	31.44	50.937		
3,800.00	3,761.93	3,416.18	3,315.14	17.36	17.76	-170.66	-1,107.52	-66.62	1,643.45	1,611.17	32.28	50.907		
3,900.00	3,860.62	3,506.83	3,402.35	17.82	18.26	-170.67	-1,132.17	-68.67	1,685.67	1,652.54	33.13	50.876		
4,000.00	3,959.30	3,597.49	3,489.56	18.28	18.75	-170.68	-1,156.82	-70.72	1,727.88	1,693.90	33.98	50.845		
4,100.00	4,057.98	3,688.14	3,576.78	18.74	19.24	-170.69	-1,181.47	-72.77	1,770.10	1,735.26	34.84	50.813		
4,200.00	4,156.67	3,778.79	3,663.99	19.20	19.73	-170.69	-1,206.13	-74.82	1,812.31	1,776.62	35.69	50.781		
4,300.00	4,255.35	3,869.45	3,751.20	19.66	20.23	-170.70	-1,230.78	-76.87	1,854.52	1,817.98	36.54	50.750		
4,400.00	4,354.03	3,960.10	3,838.41	20.12	20.72	-170.71	-1,255.43	-78.92	1,896.74	1,859.34	37.40	50.718		
4,500.00	4,452.71	4,050.75	3,925.63	20.58	21.21	-170.72	-1,280.08	-80.97	1,938.95	1,900.70	38.25	50.687		
4,600.00	4,551.40	4,141.40	4,012.84	21.04	21.71	-170.73	-1,304.73	-83.02	1,981.16	1,942.05	39.11	50.655		
4,700.00	4,650.08	4,232.06	4,100.05	21.50	22.20	-170.73	-1,329.38	-85.07	2,023.38	1,983.41	39.97	50.625		
4,800.00	4,748.76	4,322.71	4,187.27	21.96	22.70	-170.74	-1,354.03	-87.12	2,065.59	2,024.76	40.83	50.594		
4,900.00	4,847.44	4,413.36	4,274.48	22.42	23.19	-170.75	-1,378.68	-89.17	2,107.80	2,066.12	41.69	50.564		
5,000.00	4,946.13	4,504.02	4,361.69	22.89	23.69	-170.75	-1,403.33	-91.22	2,150.02	2,107.47	42.55	50.534		
5,100.00	5,044.81	4,605.33	4,448.90	23.35	24.24	-170.76	-1,427.99	-93.27	2,192.23	2,148.77	43.46	50.444		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	4,685.32	4,536.12	23.81	24.68	-170.76	-1,452.64	-95.32	2,234.45	2,190.18	44.27	50.476		
5,300.00	5,242.18	4,775.97	4,623.33	24.27	25.18	-170.77	-1,477.29	-97.37	2,276.66	2,231.53	45.13	50.447		
5,400.00	5,340.86	4,866.63	4,710.54	24.74	25.67	-170.78	-1,501.94	-99.42	2,318.87	2,272.88	45.99	50.419		
5,500.00	5,439.54	4,957.28	4,797.75	25.20	26.17	-170.78	-1,526.59	-101.47	2,361.09	2,314.23	46.86	50.391		
5,600.00	5,538.22	5,047.93	4,884.97	25.66	26.67	-170.79	-1,551.24	-103.52	2,403.30	2,355.58	47.72	50.364		
5,700.00	5,636.91	5,138.59	4,972.18	26.13	27.16	-170.79	-1,575.89	-105.57	2,445.52	2,396.93	48.58	50.337		
5,800.00	5,735.59	5,229.24	5,059.39	26.59	27.66	-170.79	-1,600.54	-107.62	2,487.73	2,438.28	49.45	50.310		
5,900.00	5,834.27	5,319.89	5,146.61	27.06	28.16	-170.80	-1,625.19	-109.67	2,529.94	2,479.63	50.31	50.284		
6,000.00	5,932.95	5,410.55	5,233.82	27.52	28.66	-170.80	-1,649.85	-111.72	2,572.16	2,520.98	51.18	50.258		
6,100.00	6,031.64	5,501.20	5,321.03	27.98	29.15	-170.81	-1,674.50	-113.77	2,614.37	2,562.33	52.04	50.233		
6,200.00	6,130.32	5,608.15	5,408.24	28.45	29.74	-170.81	-1,699.15	-115.82	2,656.59	2,603.59	52.99	50.132		
6,300.00	6,229.00	5,682.50	5,495.46	28.91	30.15	-170.82	-1,723.80	-117.87	2,698.80	2,645.02	53.78	50.184		
6,400.00	6,327.69	5,773.16	5,582.67	29.38	30.65	-170.82	-1,748.45	-119.92	2,741.01	2,686.37	54.65	50.160		
6,500.00	6,426.37	5,863.81	5,669.88	29.84	31.15	-170.82	-1,773.10	-121.97	2,783.23	2,727.71	55.51	50.136		
6,600.00	6,525.05	5,954.46	5,757.10	30.31	31.64	-170.83	-1,797.75	-124.02	2,825.44	2,769.06	56.38	50.112		
6,700.00	6,623.18	6,044.85	5,844.05	30.77	32.14	-126.76	-1,822.33	-126.06	2,867.24	2,809.99	57.25	50.082		
6,800.00	6,718.58	6,133.23	5,929.08	31.22	32.63	-106.94	-1,846.37	-128.06	2,907.65	2,849.54	58.11	50.038		
6,900.00	6,808.91	6,217.43	6,010.08	31.66	33.09	-96.63	-1,869.26	-129.97	2,946.03	2,887.09	58.94	49.980		
7,000.00	6,891.95	6,304.63	6,085.07	32.07	33.57	-90.19	-1,890.46	-131.73	2,981.97	2,922.17	59.80	49.865		
7,100.00	6,965.65	6,365.14	6,152.19	32.51	33.90	-85.72	-1,909.43	-133.31	3,015.24	2,954.68	60.56	49.790		
7,200.00	7,028.20	6,425.01	6,209.79	33.02	34.23	-82.40	-1,925.71	-134.66	3,045.74	2,984.36	61.38	49.618		
7,300.00	7,078.04	6,473.51	6,256.45	33.68	34.50	-79.80	-1,938.90	-135.76	3,073.42	3,011.17	62.26	49.367		
7,400.00	7,113.97	6,509.45	6,291.02	34.52	34.70	-77.69	-1,948.67	-136.57	3,098.25	3,035.05	63.20	49.024		
7,500.00	7,135.09	6,531.95	6,312.66	35.53	34.82	-75.92	-1,954.79	-137.08	3,120.14	3,055.93	64.21	48.596		
7,600.00	7,140.96	6,540.51	6,320.90	36.68	34.87	-74.56	-1,957.11	-137.27	3,138.93	3,073.67	65.25	48.105		
7,700.00	7,140.53	6,543.29	6,323.58	37.99	34.88	-74.61	-1,957.87	-137.33	3,158.20	3,091.81	66.40	47.566		
7,800.00	7,140.09	6,546.07	6,326.26	39.45	34.90	-74.66	-1,958.63	-137.40	3,180.50	3,112.84	67.66	47.004		
7,900.00	7,139.66	6,548.86	6,328.93	41.06	34.91	-74.71	-1,959.38	-137.46	3,205.77	3,136.74	69.03	46.439		
8,000.00	7,139.23	6,551.65	6,331.60	42.80	34.92	-74.76	-1,960.13	-137.51	3,231.04	3,160.68	70.49	45.872		
8,100.00	7,138.79	6,554.44	6,334.27	44.65	34.93	-74.81	-1,960.88	-137.56	3,256.31	3,184.62	71.99	45.305		
8,200.00	7,138.36	6,557.23	6,336.94	46.60	34.94	-74.86	-1,961.63	-137.61	3,281.58	3,208.56	73.53	44.738		
8,300.00	7,137.93	6,560.02	6,339.61	48.65	34.95	-74.91	-1,962.38	-137.66	3,306.85	3,232.51	75.11	44.171		
8,400.00	7,137.49	6,562.81	6,342.28	50.77	34.96	-74.96	-1,963.13	-137.71	3,332.12	3,256.45	76.73	43.604		
8,500.00	7,137.06	6,565.60	6,344.95	52.95	34.97	-75.01	-1,963.88	-137.76	3,357.39	3,280.39	78.39	43.037		
8,600.00	7,136.62	6,568.39	6,347.62	55.20	34.98	-75.06	-1,964.63	-137.81	3,382.66	3,304.33	79.99	42.470		
8,700.00	7,136.19	6,571.18	6,350.29	57.51	34.99	-75.11	-1,965.38	-137.86	3,407.93	3,328.27	81.63	41.903		
8,800.00	7,135.76	6,573.97	6,352.96	59.85	35.00	-75.16	-1,966.13	-137.91	3,433.20	3,352.21	83.31	41.336		
8,900.00	7,135.32	6,576.76	6,355.63	62.24	35.01	-75.21	-1,966.88	-137.96	3,458.47	3,376.15	85.03	40.769		
9,000.00	7,134.89	6,579.55	6,358.30	64.67	35.02	-75.26	-1,967.63	-138.01	3,483.74	3,400.09	86.79	40.202		
9,100.00	7,134.45	6,582.34	6,360.97	67.13	35.03	-75.31	-1,968.38	-138.06	3,509.01	3,424.03	88.59	39.635		
9,200.00	7,134.02	6,585.13	6,363.64	69.62	35.04	-75.36	-1,969.13	-138.11	3,534.28	3,447.97	90.43	39.068		
9,300.00	7,133.59	6,587.92	6,366.31	72.14	35.05	-75.41	-1,969.88	-138.16	3,559.55	3,471.91	92.31	38.501		
9,400.00	7,133.15	6,590.71	6,368.98	74.68	35.06	-75.46	-1,970.63	-138.21	3,584.82	3,495.85	94.23	37.934		
9,500.00	7,132.72	6,593.50	6,371.65	77.24	35.07	-75.51	-1,971.38	-138.26	3,610.09	3,519.79	96.19	37.367		
9,600.00	7,132.29	6,596.29	6,374.32	79.83	35.08	-75.56	-1,972.13	-138.31	3,635.36	3,543.73	98.19	36.800		
9,700.00	7,131.85	6,599.08	6,376.99	82.42	35.09	-75.61	-1,972.88	-138.36	3,660.63	3,567.67	100.23	36.233		
9,800.00	7,131.42	6,601.87	6,379.66	85.04	35.10	-75.66	-1,973.63	-138.41	3,685.90	3,591.61	102.31	35.666		
9,900.00	7,130.98	6,604.66	6,382.33	87.67	35.11	-75.71	-1,974.38	-138.46	3,711.17	3,615.55	104.43	35.099		
10,000.00	7,130.55	6,607.45	6,385.00	90.31	35.12	-75.76	-1,975.13	-138.51	3,736.44	3,639.49	106.59	34.532		
10,100.00	7,130.12	6,610.24	6,387.67	92.97	35.13	-75.81	-1,975.88	-138.56	3,761.71	3,663.43	108.79	33.965		
10,200.00	7,129.68	6,613.03	6,390.34	95.63	35.14	-75.86	-1,976.63	-138.61	3,786.98	3,687.37	111.03	33.398		
10,300.00	7,129.25	6,615.82	6,393.01	98.31	35.15	-75.91	-1,977.38	-138.66	3,812.25	3,711.31	113.31	32.831		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,128.82	10,670.38	7,233.33	101.00	101.38	-91.91	-2,240.76	-3,581.04	3,144.98	2,943.09	201.89	15.578		
10,500.00	7,128.38	10,770.34	7,232.74	103.69	104.05	-91.91	-2,241.34	-3,680.99	3,142.10	2,934.83	207.27	15.160		
10,600.00	7,127.95	10,870.30	7,232.14	106.39	106.73	-91.91	-2,241.92	-3,780.95	3,139.22	2,926.56	212.66	14.762		
10,700.00	7,127.51	10,970.26	7,231.55	109.10	109.43	-91.91	-2,242.51	-3,880.90	3,136.34	2,918.27	218.07	14.382		
10,800.00	7,127.08	11,070.22	7,230.95	111.82	112.13	-91.91	-2,243.09	-3,980.86	3,133.46	2,909.96	223.50	14.020		
10,900.00	7,126.65	11,170.18	7,230.35	114.54	114.84	-91.91	-2,243.68	-4,080.81	3,130.58	2,901.64	228.93	13.675		
11,000.00	7,126.21	11,270.14	7,229.76	117.27	117.55	-91.91	-2,244.26	-4,180.77	3,127.70	2,893.31	234.39	13.344		
11,100.00	7,125.78	11,370.09	7,229.16	120.01	120.28	-91.90	-2,244.84	-4,280.72	3,124.81	2,884.97	239.85	13.028		
11,200.00	7,125.35	11,470.05	7,228.57	122.75	123.00	-91.90	-2,245.43	-4,380.68	3,121.93	2,876.61	245.32	12.726		
11,300.00	7,124.91	11,570.01	7,227.97	125.49	125.74	-91.90	-2,246.01	-4,480.63	3,119.05	2,868.25	250.81	12.436		
11,400.00	7,124.48	11,669.97	7,227.38	128.24	128.48	-91.90	-2,246.59	-4,580.59	3,116.17	2,859.87	256.30	12.158		
11,500.00	7,124.04	11,769.93	7,226.78	131.00	131.22	-91.90	-2,247.18	-4,680.54	3,113.29	2,851.49	261.80	11.892		
11,600.00	7,123.61	11,869.89	7,226.19	133.75	133.97	-91.90	-2,247.76	-4,780.50	3,110.41	2,843.10	267.31	11.636		
11,700.00	7,123.18	11,969.84	7,225.59	136.52	136.73	-91.90	-2,248.34	-4,880.45	3,107.53	2,834.70	272.83	11.390		
11,800.00	7,122.74	12,069.80	7,224.99	139.28	139.49	-91.90	-2,248.93	-4,980.41	3,104.65	2,826.29	278.36	11.153		
11,900.00	7,122.31	12,169.76	7,224.40	142.05	142.25	-91.89	-2,249.51	-5,080.36	3,101.77	2,817.88	283.89	10.926		
12,000.00	7,121.88	12,269.72	7,223.80	144.82	145.01	-91.89	-2,250.09	-5,180.32	3,098.89	2,809.46	289.43	10.707		
12,100.00	7,121.44	12,369.68	7,223.21	147.59	147.78	-91.89	-2,250.68	-5,280.27	3,096.01	2,801.03	294.98	10.496		
12,200.00	7,121.01	12,469.64	7,222.61	150.37	150.56	-91.89	-2,251.26	-5,380.23	3,093.13	2,792.60	300.53	10.292		
12,300.00	7,120.57	12,569.60	7,222.02	153.15	153.33	-91.89	-2,251.84	-5,480.18	3,090.25	2,784.16	306.09	10.096		
12,400.00	7,120.14	12,669.55	7,221.42	155.93	156.11	-91.89	-2,252.43	-5,580.14	3,087.37	2,775.71	311.65	9.906		
12,500.00	7,119.71	12,769.51	7,220.82	158.72	158.89	-91.89	-2,253.01	-5,680.09	3,084.49	2,767.27	317.22	9.724		
12,600.00	7,119.27	12,869.47	7,220.23	161.50	161.68	-91.89	-2,253.60	-5,780.05	3,081.61	2,758.81	322.79	9.547		
12,700.00	7,118.84	12,969.43	7,219.63	164.29	164.46	-91.88	-2,254.18	-5,880.00	3,078.72	2,750.36	328.37	9.376		
12,800.00	7,118.41	13,069.39	7,219.04	167.08	167.25	-91.88	-2,254.76	-5,979.96	3,075.84	2,741.89	333.95	9.210		
12,900.00	7,117.97	13,169.35	7,218.44	169.88	170.04	-91.88	-2,255.35	-6,079.91	3,072.96	2,733.43	339.54	9.050		
13,000.00	7,117.54	13,269.30	7,217.85	172.67	172.84	-91.88	-2,255.93	-6,179.87	3,070.08	2,724.96	345.12	8.896		
13,100.00	7,117.10	13,369.26	7,217.25	175.47	175.63	-91.88	-2,256.51	-6,279.82	3,067.20	2,716.48	350.72	8.745		
13,200.00	7,116.67	13,469.22	7,216.66	178.27	178.43	-91.88	-2,257.10	-6,379.78	3,064.32	2,708.01	356.31	8.600		
13,300.00	7,116.24	13,569.18	7,216.06	181.07	181.23	-91.88	-2,257.68	-6,479.73	3,061.44	2,699.53	361.91	8.459		
13,400.00	7,115.80	13,669.14	7,215.46	183.87	184.03	-91.88	-2,258.26	-6,579.69	3,058.56	2,691.04	367.52	8.322		
13,500.00	7,115.37	13,769.10	7,214.87	186.67	186.83	-91.87	-2,258.85	-6,679.64	3,055.68	2,682.56	373.12	8.189		
13,600.00	7,114.93	13,869.06	7,214.27	189.47	189.64	-91.87	-2,259.43	-6,779.60	3,052.80	2,674.07	378.73	8.061		
13,700.00	7,114.50	13,969.01	7,213.68	192.28	192.45	-91.87	-2,260.01	-6,879.55	3,049.92	2,665.57	384.34	7.935		
13,800.00	7,114.07	14,068.97	7,213.08	195.09	195.25	-91.87	-2,260.60	-6,979.51	3,047.04	2,657.08	389.96	7.814		
13,900.00	7,113.63	14,168.93	7,212.49	197.89	198.06	-91.87	-2,261.18	-7,079.46	3,044.16	2,648.58	395.57	7.696		
14,000.00	7,113.20	14,268.89	7,211.89	200.70	200.87	-91.87	-2,261.76	-7,179.42	3,041.28	2,640.08	401.19	7.581		
14,100.00	7,112.77	14,368.85	7,211.30	203.51	203.69	-91.87	-2,262.35	-7,279.37	3,038.40	2,631.58	406.82	7.469		
14,200.00	7,112.33	14,468.81	7,210.70	206.32	206.50	-91.86	-2,262.93	-7,379.33	3,035.52	2,623.08	412.44	7.360		
14,300.00	7,111.90	14,568.77	7,210.10	209.13	209.31	-91.86	-2,263.52	-7,479.28	3,032.63	2,614.57	418.07	7.254		
14,400.00	7,111.46	14,668.72	7,209.51	211.95	212.13	-91.86	-2,264.10	-7,579.24	3,029.75	2,606.06	423.69	7.151		
14,500.00	7,111.03	14,768.68	7,208.91	214.76	214.94	-91.86	-2,264.68	-7,679.19	3,026.87	2,597.55	429.32	7.050		
14,600.00	7,110.60	14,868.64	7,208.32	217.58	217.76	-91.86	-2,265.27	-7,779.15	3,023.99	2,589.04	434.96	6.952		
14,700.00	7,110.16	14,968.60	7,207.72	220.39	220.58	-91.86	-2,265.85	-7,879.10	3,021.11	2,580.52	440.59	6.857		
14,800.00	7,109.73	15,068.56	7,207.13	223.21	223.40	-91.86	-2,266.43	-7,979.06	3,018.23	2,572.01	446.23	6.764		
14,900.00	7,109.30	15,168.52	7,206.53	226.03	226.22	-91.86	-2,267.02	-8,079.01	3,015.35	2,563.49	451.86	6.673		
14,969.16	7,109.00	15,237.65	7,206.12	227.97	228.17	-91.85	-2,267.42	-8,148.14	3,013.36	2,557.60	455.76	6.612 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.55	-460.12	-3.62	460.14					
100.00	100.00	102.00	100.00	3.28	3.29	-179.55	-460.12	-3.62	460.14	453.57	6.57	70.037		
200.00	200.00	198.00	200.00	3.34	3.34	-179.55	-460.12	-3.62	460.14	453.46	6.67	68.961	CC, ES	
300.00	300.00	284.42	286.41	3.44	3.42	-179.54	-461.36	-3.67	461.58	454.71	6.87	67.151		
400.00	400.00	370.41	372.31	3.60	3.54	-179.53	-465.18	-3.85	466.02	458.85	7.17	64.965		
500.00	500.00	456.10	457.76	3.81	3.70	-179.50	-471.55	-4.14	473.46	465.90	7.56	62.638		
600.00	600.00	541.33	542.52	4.05	3.89	-179.46	-480.41	-4.55	483.86	475.84	8.01	60.376		
700.00	699.98	625.73	626.16	4.32	4.10	-170.24	-491.66	-5.07	498.90	490.37	8.53	58.504		
800.00	799.84	708.68	708.02	4.62	4.34	-170.19	-505.12	-5.70	520.20	511.11	9.09	57.258		
900.00	899.45	789.75	787.60	4.94	4.60	-170.17	-520.55	-6.41	547.60	537.93	9.67	56.643		
1,000.00	998.70	868.52	864.47	5.28	4.88	-170.15	-537.69	-7.20	580.94	570.68	10.26	56.628		
1,100.00	1,097.50	944.69	938.33	5.64	5.17	-170.19	-556.27	-8.06	619.82	608.96	10.86	57.064		
1,200.00	1,196.18	1,018.88	1,009.77	6.00	5.48	-170.31	-576.24	-8.99	661.77	650.33	11.44	57.827		
1,300.00	1,294.87	1,091.28	1,078.97	6.38	5.79	-170.41	-597.51	-9.97	706.04	694.01	12.02	58.714		
1,400.00	1,393.55	1,161.87	1,145.90	6.77	6.11	-170.48	-619.92	-11.01	752.52	739.92	12.60	59.713		
1,500.00	1,492.23	1,230.62	1,210.54	7.17	6.45	-170.54	-643.32	-12.09	801.15	787.98	13.17	60.819		
1,600.00	1,590.91	1,300.00	1,275.17	7.58	6.79	-170.59	-668.50	-13.25	851.83	838.08	13.75	61.957		
1,700.00	1,689.60	1,362.64	1,332.99	8.00	7.13	-170.63	-692.57	-14.37	904.48	890.19	14.28	63.317		
1,800.00	1,788.28	1,425.91	1,390.84	8.42	7.47	-170.66	-718.17	-15.55	959.02	944.19	14.82	64.694		
1,900.00	1,886.96	1,487.38	1,446.48	8.84	7.82	-170.68	-744.24	-16.76	1,015.36	1,000.01	15.35	66.148		
2,000.00	1,985.64	1,547.06	1,499.96	9.27	8.18	-170.69	-770.70	-17.98	1,073.44	1,057.58	15.86	67.666		
2,100.00	2,084.33	1,600.00	1,546.94	9.71	8.50	-170.70	-795.09	-19.11	1,133.20	1,116.88	16.32	69.450		
2,200.00	2,183.01	1,661.18	1,600.64	10.15	8.88	-170.70	-824.36	-20.46	1,194.50	1,177.65	16.85	70.894		
2,300.00	2,281.69	1,715.68	1,647.96	10.59	9.23	-170.70	-851.39	-21.71	1,257.33	1,240.01	17.32	72.594		
2,400.00	2,380.38	1,768.54	1,693.33	11.03	9.59	-170.70	-878.46	-22.96	1,321.61	1,303.83	17.78	74.338		
2,500.00	2,479.06	1,819.78	1,736.84	11.47	9.93	-170.69	-905.49	-24.21	1,387.26	1,369.04	18.22	76.137		
2,600.00	2,577.74	1,889.40	1,795.51	11.92	10.42	-170.68	-942.95	-25.95	1,453.83	1,434.96	18.87	77.058		
2,700.00	2,676.42	1,964.01	1,858.36	12.36	10.95	-170.68	-983.10	-27.80	1,520.42	1,500.84	19.58	77.664		
2,800.00	2,775.11	2,038.61	1,921.20	12.81	11.48	-170.67	-1,023.26	-29.66	1,587.01	1,566.72	20.30	78.193		
2,900.00	2,873.79	2,113.21	1,984.05	13.26	12.02	-170.66	-1,063.41	-31.52	1,653.60	1,632.58	21.02	78.654		
3,000.00	2,972.47	2,187.81	2,046.90	13.72	12.57	-170.65	-1,103.56	-33.38	1,720.20	1,698.44	21.76	79.055		
3,100.00	3,071.15	2,262.41	2,109.75	14.17	13.12	-170.65	-1,143.71	-35.23	1,786.79	1,764.29	22.50	79.406		
3,200.00	3,169.84	2,337.02	2,172.60	14.62	13.67	-170.64	-1,183.86	-37.09	1,853.38	1,830.13	23.25	79.713		
3,300.00	3,268.52	2,411.62	2,235.44	15.08	14.23	-170.63	-1,224.02	-38.95	1,919.97	1,895.97	24.00	79.983		
3,400.00	3,367.20	2,486.22	2,298.29	15.53	14.79	-170.63	-1,264.17	-40.80	1,986.56	1,961.80	24.76	80.219		
3,500.00	3,465.89	2,560.82	2,361.14	15.99	15.35	-170.62	-1,304.32	-42.66	2,053.16	2,027.63	25.53	80.427		
3,600.00	3,564.57	2,635.43	2,423.99	16.44	15.92	-170.62	-1,344.47	-44.52	2,119.75	2,093.45	26.30	80.609		
3,700.00	3,663.25	2,710.03	2,486.84	16.90	16.48	-170.62	-1,384.62	-46.37	2,186.34	2,159.27	27.07	80.770		
3,800.00	3,761.93	2,784.63	2,549.68	17.36	17.05	-170.61	-1,424.78	-48.23	2,252.93	2,225.09	27.84	80.911		
3,900.00	3,860.62	2,859.23	2,612.53	17.82	17.62	-170.61	-1,464.93	-50.09	2,319.52	2,290.90	28.62	81.035		
4,000.00	3,959.30	2,933.83	2,675.38	18.28	18.19	-170.60	-1,505.08	-51.95	2,386.12	2,356.71	29.41	81.145		
4,100.00	4,057.98	3,008.44	2,738.23	18.74	18.77	-170.60	-1,545.23	-53.80	2,452.71	2,422.52	30.19	81.241		
4,200.00	4,156.67	3,083.04	2,801.07	19.20	19.34	-170.60	-1,585.38	-55.66	2,519.30	2,488.32	30.98	81.325		
4,300.00	4,255.35	3,157.64	2,863.92	19.66	19.92	-170.59	-1,625.53	-57.52	2,585.89	2,554.12	31.77	81.398		
4,400.00	4,354.03	3,232.24	2,926.77	20.12	20.50	-170.59	-1,665.69	-59.37	2,652.48	2,619.92	32.56	81.463		
4,500.00	4,452.71	3,306.84	2,989.62	20.58	21.07	-170.59	-1,705.84	-61.23	2,719.08	2,685.72	33.36	81.519		
4,600.00	4,551.40	3,381.45	3,052.47	21.04	21.65	-170.59	-1,745.99	-63.09	2,785.67	2,751.52	34.15	81.567		
4,700.00	4,650.08	3,456.05	3,115.31	21.50	22.23	-170.58	-1,786.14	-64.94	2,852.26	2,817.31	34.95	81.609		
4,800.00	4,748.76	3,530.65	3,178.16	21.96	22.81	-170.58	-1,826.29	-66.80	2,918.85	2,883.10	35.75	81.645		
4,900.00	4,847.44	3,605.25	3,241.01	22.42	23.40	-170.58	-1,866.45	-68.66	2,985.45	2,948.89	36.55	81.676		
5,000.00	4,946.13	3,679.86	3,303.86	22.89	23.98	-170.58	-1,906.60	-70.52	3,052.04	3,014.68	37.36	81.701		
5,100.00	5,044.81	3,754.46	3,366.71	23.35	24.56	-170.57	-1,946.75	-72.37	3,118.63	3,080.47	38.16	81.722		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	3,829.06	3,429.55	23.81	25.14	-170.57	-1,986.90	-74.23	3,185.22	3,146.25	38.97	81.739		
5,300.00	5,242.18	3,903.66	3,492.40	24.27	25.73	-170.57	-2,027.05	-76.09	3,251.81	3,212.04	39.78	81.753		
5,400.00	5,340.86	3,978.26	3,555.25	24.74	26.31	-170.57	-2,067.21	-77.94	3,318.41	3,277.82	40.59	81.763		
5,500.00	5,439.54	4,052.87	3,618.10	25.20	26.90	-170.57	-2,107.36	-79.80	3,385.00	3,343.60	41.40	81.770		
5,600.00	5,538.22	4,127.47	3,680.95	25.66	27.48	-170.56	-2,147.51	-81.66	3,451.59	3,409.38	42.21	81.774		
5,700.00	5,636.91	4,202.07	3,743.79	26.13	28.07	-170.56	-2,187.66	-83.52	3,518.18	3,475.16	43.02	81.776		
5,800.00	5,735.59	4,276.67	3,806.64	26.59	28.65	-170.56	-2,227.81	-85.37	3,584.77	3,540.94	43.84	81.776		
5,900.00	5,834.27	4,351.28	3,869.49	27.06	29.24	-170.56	-2,267.97	-87.23	3,651.37	3,606.71	44.65	81.774		
6,000.00	5,932.95	4,425.88	3,932.34	27.52	29.83	-170.56	-2,308.12	-89.09	3,717.96	3,672.49	45.47	81.769		
6,100.00	6,031.64	4,500.48	3,995.18	27.98	30.41	-170.56	-2,348.27	-90.94	3,784.55	3,738.26	46.29	81.763		
6,200.00	6,130.32	4,575.08	4,058.03	28.45	31.00	-170.56	-2,388.42	-92.80	3,851.14	3,804.04	47.11	81.755		
6,300.00	6,229.00	4,649.68	4,120.88	28.91	31.59	-170.55	-2,428.57	-94.66	3,917.74	3,869.81	47.93	81.746		
6,400.00	6,327.69	4,724.29	4,183.73	29.38	32.18	-170.55	-2,468.73	-96.51	3,984.33	3,935.58	48.75	81.735		
6,500.00	6,426.37	4,801.11	4,246.58	29.84	32.78	-170.55	-2,508.88	-98.37	4,050.92	4,001.34	49.58	81.700		
6,600.00	6,525.05	4,873.49	4,309.42	30.31	33.35	-170.55	-2,549.03	-100.23	4,117.51	4,067.12	50.39	81.710		
6,700.00	6,623.18	4,948.01	4,372.20	30.77	33.94	-122.71	-2,589.14	-102.08	4,183.60	4,132.39	51.22	81.686		
6,800.00	6,718.58	5,021.13	4,433.81	31.22	34.52	-99.43	-2,628.49	-103.90	4,247.70	4,195.67	52.03	81.646		
6,900.00	6,808.91	5,108.93	4,492.72	31.66	35.21	-86.15	-2,666.13	-105.64	4,308.45	4,255.53	52.92	81.415		
7,000.00	6,891.95	5,156.10	4,547.50	32.07	35.58	-77.30	-2,701.13	-107.26	4,364.73	4,311.17	53.56	81.494		
7,100.00	6,965.65	5,214.61	4,596.79	32.51	36.05	-70.96	-2,732.62	-108.72	4,415.60	4,361.30	54.30	81.324		
7,200.00	7,028.20	5,265.16	4,639.39	33.02	36.44	-66.30	-2,759.83	-109.98	4,460.29	4,405.24	55.05	81.027		
7,300.00	7,078.04	8,039.16	7,144.21	33.68	50.40	-92.23	-3,482.46	-440.87	4,482.42	4,410.68	71.75	62.474		
7,400.00	7,113.97	8,153.59	7,196.14	34.52	50.52	-91.47	-3,483.09	-542.66	4,485.87	4,412.68	73.20	61.284		
7,500.00	7,135.09	8,270.26	7,229.49	35.53	50.59	-91.18	-3,483.77	-654.29	4,486.76	4,411.71	75.05	59.785		
7,600.00	7,140.96	8,388.50	7,241.96	36.68	50.64	-91.30	-3,484.49	-771.70	4,485.04	4,407.77	77.28	58.037		
7,700.00	7,140.53	8,509.82	7,241.64	37.99	50.70	-91.30	-3,485.11	-873.37	4,482.20	4,402.25	79.95	56.065		
7,800.00	7,140.09	8,609.86	7,241.23	39.45	50.76	-91.30	-3,485.73	-973.33	4,479.35	4,396.64	82.71	54.154		
7,900.00	7,139.66	8,709.90	7,240.82	41.06	50.86	-91.30	-3,486.34	-1,073.28	4,476.51	4,390.73	85.77	52.191		
8,000.00	7,139.23	8,809.94	7,240.42	42.80	51.04	-91.30	-3,486.95	-1,173.24	4,473.66	4,384.57	89.09	50.215		
8,100.00	7,138.79	8,909.98	7,240.01	44.65	51.37	-91.30	-3,487.56	-1,273.20	4,470.81	4,378.17	92.64	48.260		
8,200.00	7,138.36	8,989.98	7,239.61	46.60	51.87	-91.31	-3,488.17	-1,373.15	4,467.97	4,371.93	96.03	46.526		
8,300.00	7,137.93	9,089.94	7,239.20	48.65	52.96	-91.31	-3,488.79	-1,473.11	4,465.12	4,365.17	99.95	44.673		
8,400.00	7,137.49	9,189.89	7,238.80	50.77	54.51	-91.31	-3,489.40	-1,573.07	4,462.27	4,358.24	104.04	42.891		
8,500.00	7,137.06	9,289.85	7,238.39	52.95	56.34	-91.31	-3,490.01	-1,673.02	4,459.42	4,351.16	108.27	41.189		
8,600.00	7,136.62	9,389.81	7,237.99	55.20	58.32	-91.31	-3,490.62	-1,772.98	4,456.58	4,343.95	112.63	39.569		
8,700.00	7,136.19	9,489.77	7,237.58	57.51	60.41	-91.31	-3,491.24	-1,872.94	4,453.73	4,336.63	117.10	38.032		
8,800.00	7,135.76	9,589.73	7,237.17	59.85	62.57	-91.31	-3,491.85	-1,972.89	4,450.88	4,329.20	121.68	36.578		
8,900.00	7,135.32	9,689.69	7,236.77	62.24	64.80	-91.31	-3,492.46	-2,072.85	4,448.04	4,321.69	126.35	35.204		
9,000.00	7,134.89	9,789.65	7,236.36	64.67	67.08	-91.32	-3,493.07	-2,172.81	4,445.19	4,314.09	131.10	33.906		
9,100.00	7,134.45	9,889.61	7,235.96	67.13	69.41	-91.32	-3,493.68	-2,272.76	4,442.34	4,306.42	135.93	32.682		
9,200.00	7,134.02	9,989.57	7,235.55	69.62	71.79	-91.32	-3,494.30	-2,372.72	4,439.50	4,298.68	140.82	31.527		
9,300.00	7,133.59	10,089.53	7,235.15	72.14	74.19	-91.32	-3,494.91	-2,472.68	4,436.65	4,290.88	145.77	30.437		
9,400.00	7,133.15	10,189.49	7,234.74	74.68	76.63	-91.32	-3,495.52	-2,572.63	4,433.80	4,283.04	150.77	29.408		
9,500.00	7,132.72	10,289.45	7,234.34	77.24	79.10	-91.32	-3,496.13	-2,672.59	4,430.96	4,275.14	155.82	28.437		
9,600.00	7,132.29	10,389.41	7,233.93	79.83	81.60	-91.32	-3,496.75	-2,772.55	4,428.11	4,267.20	160.91	27.519		
9,700.00	7,131.85	10,489.37	7,233.52	82.42	84.12	-91.32	-3,497.36	-2,872.50	4,425.26	4,259.22	166.05	26.651		
9,800.00	7,131.42	10,589.33	7,233.12	85.04	86.66	-91.33	-3,497.97	-2,972.46	4,422.42	4,251.20	171.22	25.830		
9,900.00	7,130.98	10,689.29	7,232.71	87.67	89.22	-91.33	-3,498.58	-3,072.42	4,419.57	4,243.15	176.42	25.052		
10,000.00	7,130.55	10,789.25	7,232.31	90.31	91.79	-91.33	-3,499.19	-3,172.38	4,416.72	4,235.07	181.65	24.314		
10,100.00	7,130.12	10,889.20	7,231.90	92.97	94.39	-91.33	-3,499.81	-3,272.33	4,413.88	4,226.97	186.91	23.615		
10,200.00	7,129.68	10,989.16	7,231.50	95.63	97.00	-91.33	-3,500.42	-3,372.29	4,411.03	4,218.83	192.20	22.951		
10,300.00	7,129.25	11,089.12	7,231.09	98.31	99.62	-91.33	-3,501.03	-3,472.25	4,408.18	4,210.68	197.50	22.319		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,128.82	11,189.08	7,230.69	101.00	102.25	-91.33	-3,501.64	-3,572.20	4,405.34	4,202.50	202.83	21.719		
10,500.00	7,128.38	11,289.04	7,230.28	103.69	104.90	-91.33	-3,502.26	-3,672.16	4,402.49	4,194.30	208.18	21.147		
10,600.00	7,127.95	11,389.00	7,229.87	106.39	107.56	-91.34	-3,502.87	-3,772.12	4,399.64	4,186.09	213.55	20.602		
10,700.00	7,127.51	11,488.96	7,229.47	109.10	110.23	-91.34	-3,503.48	-3,872.07	4,396.80	4,177.86	218.94	20.082		
10,800.00	7,127.08	11,588.92	7,229.06	111.82	112.91	-91.34	-3,504.09	-3,972.03	4,393.95	4,169.61	224.34	19.586		
10,900.00	7,126.65	11,688.88	7,228.66	114.54	115.59	-91.34	-3,504.70	-4,071.99	4,391.10	4,161.35	229.75	19.112		
11,000.00	7,126.21	11,788.84	7,228.25	117.27	118.29	-91.34	-3,505.32	-4,171.94	4,388.26	4,153.07	235.18	18.659		
11,100.00	7,125.78	11,888.80	7,227.85	120.01	120.99	-91.34	-3,505.93	-4,271.90	4,385.41	4,144.78	240.62	18.225		
11,200.00	7,125.35	11,988.76	7,227.44	122.75	123.70	-91.34	-3,506.54	-4,371.86	4,382.56	4,136.48	246.08	17.810		
11,300.00	7,124.91	12,088.72	7,227.04	125.49	126.41	-91.34	-3,507.15	-4,471.81	4,379.71	4,128.17	251.54	17.411		
11,400.00	7,124.48	12,188.68	7,226.63	128.24	129.13	-91.34	-3,507.77	-4,571.77	4,376.87	4,119.85	257.02	17.029		
11,500.00	7,124.04	12,288.64	7,226.22	131.00	131.86	-91.35	-3,508.38	-4,671.73	4,374.02	4,111.52	262.50	16.663		
11,600.00	7,123.61	12,388.60	7,225.82	133.75	134.60	-91.35	-3,508.99	-4,771.68	4,371.17	4,103.18	268.00	16.311		
11,700.00	7,123.18	12,488.56	7,225.41	136.52	137.33	-91.35	-3,509.60	-4,871.64	4,368.33	4,094.83	273.50	15.972		
11,800.00	7,122.74	12,588.52	7,225.01	139.28	140.08	-91.35	-3,510.21	-4,971.60	4,365.48	4,086.47	279.01	15.646		
11,900.00	7,122.31	12,688.47	7,224.60	142.05	142.82	-91.35	-3,510.83	-5,071.55	4,362.63	4,078.11	284.53	15.333		
12,000.00	7,121.88	12,788.43	7,224.20	144.82	145.58	-91.35	-3,511.44	-5,171.51	4,359.79	4,069.73	290.05	15.031		
12,100.00	7,121.44	12,888.39	7,223.79	147.59	148.33	-91.35	-3,512.05	-5,271.47	4,356.94	4,061.35	295.59	14.740		
12,200.00	7,121.01	12,988.35	7,223.39	150.37	151.09	-91.35	-3,512.66	-5,371.42	4,354.09	4,052.97	301.13	14.459		
12,300.00	7,120.57	13,088.31	7,222.98	153.15	153.85	-91.36	-3,513.27	-5,471.38	4,351.25	4,044.58	306.67	14.189		
12,400.00	7,120.14	13,188.27	7,222.57	155.93	156.62	-91.36	-3,513.89	-5,571.34	4,348.40	4,036.18	312.22	13.927		
12,500.00	7,119.71	13,288.23	7,222.17	158.72	159.39	-91.36	-3,514.50	-5,671.29	4,345.55	4,027.78	317.78	13.675		
12,600.00	7,119.27	13,388.19	7,221.76	161.50	162.16	-91.36	-3,515.11	-5,771.25	4,342.71	4,019.37	323.34	13.431		
12,700.00	7,118.84	13,488.15	7,221.36	164.29	164.94	-91.36	-3,515.72	-5,871.21	4,339.86	4,010.96	328.90	13.195		
12,800.00	7,118.41	13,588.11	7,220.95	167.08	167.72	-91.36	-3,516.34	-5,971.16	4,337.01	4,002.54	334.47	12.967		
12,900.00	7,117.97	13,688.07	7,220.55	169.88	170.50	-91.36	-3,516.95	-6,071.12	4,334.17	3,994.12	340.05	12.746		
13,000.00	7,117.54	13,788.03	7,220.14	172.67	173.28	-91.37	-3,517.56	-6,171.08	4,331.32	3,985.69	345.63	12.532		
13,100.00	7,117.10	13,887.99	7,219.73	175.47	176.07	-91.37	-3,518.17	-6,271.03	4,328.47	3,977.26	351.21	12.324		
13,200.00	7,116.67	13,987.95	7,219.33	178.27	178.85	-91.37	-3,518.78	-6,370.99	4,325.63	3,968.83	356.80	12.123		
13,300.00	7,116.24	14,087.91	7,218.92	181.07	181.64	-91.37	-3,519.40	-6,470.95	4,322.78	3,960.39	362.39	11.929		
13,400.00	7,115.80	14,187.87	7,218.52	183.87	184.44	-91.37	-3,520.01	-6,570.90	4,319.93	3,951.95	367.98	11.740		
13,500.00	7,115.37	14,287.83	7,218.11	186.67	187.23	-91.37	-3,520.62	-6,670.86	4,317.09	3,943.51	373.58	11.556		
13,600.00	7,114.93	14,387.78	7,217.71	189.47	190.03	-91.37	-3,521.23	-6,770.82	4,314.24	3,935.06	379.18	11.378		
13,700.00	7,114.50	14,487.74	7,217.30	192.28	192.83	-91.37	-3,521.85	-6,870.77	4,311.39	3,926.61	384.78	11.205		
13,800.00	7,114.07	14,587.70	7,216.90	195.09	195.63	-91.38	-3,522.46	-6,970.73	4,308.55	3,918.16	390.39	11.037		
13,900.00	7,113.63	14,687.66	7,216.49	197.89	198.43	-91.38	-3,523.07	-7,070.69	4,305.70	3,909.70	396.00	10.873		
14,000.00	7,113.20	14,787.62	7,216.08	200.70	201.23	-91.38	-3,523.68	-7,170.64	4,302.85	3,901.24	401.61	10.714		
14,100.00	7,112.77	14,887.58	7,215.68	203.51	204.03	-91.38	-3,524.29	-7,270.60	4,300.01	3,892.78	407.22	10.559		
14,200.00	7,112.33	14,987.54	7,215.27	206.32	206.84	-91.38	-3,524.91	-7,370.56	4,297.16	3,884.32	412.84	10.409		
14,300.00	7,111.90	15,087.50	7,214.87	209.13	209.65	-91.38	-3,525.52	-7,470.51	4,294.31	3,875.85	418.46	10.262		
14,400.00	7,111.46	15,187.46	7,214.46	211.95	212.46	-91.38	-3,526.13	-7,570.47	4,291.47	3,867.38	424.08	10.119		
14,500.00	7,111.03	15,287.42	7,214.06	214.76	215.27	-91.38	-3,526.74	-7,670.43	4,288.62	3,858.91	429.71	9.980		
14,600.00	7,110.60	15,387.38	7,213.65	217.58	218.08	-91.39	-3,527.36	-7,770.38	4,285.77	3,850.44	435.33	9.845		
14,700.00	7,110.16	15,487.34	7,213.25	220.39	220.89	-91.39	-3,527.97	-7,870.34	4,282.93	3,841.97	440.96	9.713		
14,800.00	7,109.73	15,587.30	7,212.84	223.21	223.70	-91.39	-3,528.58	-7,970.30	4,280.08	3,833.49	446.59	9.584		
14,900.00	7,109.30	15,687.26	7,212.43	226.03	226.52	-91.39	-3,529.19	-8,070.25	4,277.23	3,825.01	452.22	9.458		
14,969.16	7,109.00	15,756.39	7,212.15	227.97	228.47	-91.39	-3,529.62	-8,139.39	4,275.26	3,819.15	456.12	9.373 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.60	-80.16	-0.56	80.16					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-80.16	-0.56	80.16	73.59	6.57	12.202		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-80.16	-0.56	80.16	73.48	6.67	12.010		
300.00	300.00	300.00	300.00	3.44	3.44	-179.60	-80.16	-0.56	80.16	73.27	6.89	11.634		
400.00	400.00	400.00	400.00	3.60	3.60	-179.60	-80.16	-0.56	80.16	72.95	7.21	11.123		
500.00	500.00	500.00	500.00	3.81	3.81	-179.60	-80.16	-0.56	80.16	72.55	7.61	10.530		
600.00	600.00	600.00	600.00	4.05	4.05	-179.60	-80.16	-0.56	80.16	72.06	8.09	9.905 CC, ES		
700.00	699.98	701.23	701.21	4.32	4.32	-169.61	-79.23	-2.03	80.98	72.35	8.64	9.376		
800.00	799.84	801.14	801.08	4.62	4.61	-168.51	-77.66	-4.55	84.63	75.40	9.23	9.170		
900.00	899.45	900.89	900.78	4.94	4.92	-167.95	-76.09	-7.06	91.71	81.85	9.86	9.297		
1,000.00	998.70	1,000.33	1,000.18	5.28	5.26	-167.88	-74.53	-9.56	102.19	91.66	10.54	9.699		
1,100.00	1,097.50	1,100.61	1,099.19	5.64	5.60	-168.17	-72.97	-12.05	115.87	104.62	11.24	10.305		
1,200.00	1,196.18	1,201.66	1,198.10	6.00	5.97	-168.49	-71.42	-14.54	130.27	118.30	11.97	10.881		
1,300.00	1,294.87	1,302.70	1,297.01	6.38	6.34	-168.75	-69.86	-17.03	144.67	131.95	12.72	11.372		
1,400.00	1,393.55	1,403.75	1,395.93	6.77	6.72	-168.96	-68.30	-19.52	159.08	145.59	13.49	11.791		
1,500.00	1,492.23	1,504.79	1,494.84	7.17	7.11	-169.14	-66.75	-22.01	173.49	159.21	14.28	12.153		
1,600.00	1,590.91	1,605.84	1,593.75	7.58	7.51	-169.29	-65.19	-24.50	187.90	172.83	15.07	12.466		
1,700.00	1,689.60	1,706.88	1,692.66	8.00	7.91	-169.42	-63.64	-26.99	202.31	186.43	15.88	12.738		
1,800.00	1,788.28	1,807.93	1,791.57	8.42	8.32	-169.53	-62.08	-29.48	216.72	200.02	16.70	12.977		
1,900.00	1,886.96	1,908.97	1,890.48	8.84	8.73	-169.63	-60.53	-31.97	231.14	213.61	17.53	13.188		
2,000.00	1,985.64	1,989.98	1,983.99	9.27	9.06	-169.71	-58.97	-34.46	245.55	227.27	18.28	13.434		
2,100.00	2,084.33	2,088.94	2,088.31	9.71	9.46	-169.79	-57.41	-36.95	259.96	240.86	19.11	13.605		
2,200.00	2,183.01	2,187.89	2,187.22	10.15	9.87	-169.86	-55.86	-39.44	274.38	254.43	19.94	13.757		
2,300.00	2,281.69	2,286.85	2,286.13	10.59	10.28	-169.92	-54.30	-41.93	288.79	268.01	20.79	13.894		
2,400.00	2,380.38	2,385.80	2,385.04	11.03	10.70	-169.97	-52.75	-44.42	303.21	281.58	21.63	14.018		
2,500.00	2,479.06	2,484.76	2,483.95	11.47	11.11	-170.02	-51.19	-46.91	317.62	295.15	22.48	14.130		
2,600.00	2,577.74	2,583.71	2,582.86	11.92	11.53	-170.07	-49.63	-49.40	332.04	308.71	23.33	14.232		
2,700.00	2,676.42	2,682.67	2,681.78	12.36	11.94	-170.11	-48.08	-51.89	346.46	322.27	24.18	14.325		
2,800.00	2,775.11	2,781.62	2,780.69	12.81	12.36	-170.15	-46.52	-54.38	360.87	335.83	25.04	14.411		
2,900.00	2,873.79	2,880.58	2,879.60	13.26	12.78	-170.19	-44.97	-56.87	375.29	349.39	25.90	14.489		
3,000.00	2,972.47	2,979.53	2,978.51	13.72	13.20	-170.22	-43.41	-59.36	389.70	362.94	26.76	14.561		
3,100.00	3,071.15	3,078.49	3,077.42	14.17	13.63	-170.25	-41.86	-61.85	404.12	376.49	27.63	14.628		
3,200.00	3,169.84	3,177.44	3,176.33	14.62	14.05	-170.28	-40.30	-64.34	418.54	390.04	28.49	14.689		
3,300.00	3,268.52	3,276.40	3,275.25	15.08	14.47	-170.31	-38.74	-66.83	432.95	403.59	29.36	14.746		
3,400.00	3,367.20	3,375.35	3,374.16	15.53	14.90	-170.33	-37.19	-69.32	447.37	417.14	30.23	14.800		
3,500.00	3,465.89	3,474.31	3,473.07	15.99	15.32	-170.36	-35.63	-71.81	461.79	430.69	31.10	14.849		
3,600.00	3,564.57	3,573.26	3,571.98	16.44	15.75	-170.38	-34.08	-74.30	476.20	444.23	31.97	14.896		
3,700.00	3,663.25	3,672.22	3,670.89	16.90	16.17	-170.40	-32.52	-76.79	490.62	457.78	32.84	14.939		
3,800.00	3,761.93	3,771.17	3,769.80	17.36	16.60	-170.42	-30.96	-79.28	505.04	471.32	33.72	14.979		
3,900.00	3,860.62	3,870.13	3,868.71	17.82	17.03	-170.44	-29.41	-81.77	519.46	484.87	34.59	15.018		
4,000.00	3,959.30	3,969.08	3,967.63	18.28	17.45	-170.45	-27.85	-84.26	533.87	498.41	35.46	15.054		
4,100.00	4,057.98	4,068.04	4,066.54	18.74	17.88	-170.47	-26.30	-86.75	548.29	511.95	36.34	15.087		
4,200.00	4,156.67	4,167.00	4,165.45	19.20	18.31	-170.49	-24.74	-89.24	562.71	525.49	37.22	15.119		
4,300.00	4,255.35	4,265.95	4,264.36	19.66	18.74	-170.50	-23.19	-91.73	577.12	539.03	38.10	15.149		
4,400.00	4,354.03	4,364.91	4,363.27	20.12	19.17	-170.52	-21.63	-94.22	591.54	552.57	38.97	15.178		
4,500.00	4,452.71	4,463.86	4,462.18	20.58	19.59	-170.53	-20.07	-96.71	605.96	566.11	39.85	15.205		
4,600.00	4,551.40	4,562.82	4,561.10	21.04	20.02	-170.54	-18.52	-99.20	620.38	579.64	40.73	15.231		
4,700.00	4,650.08	4,661.77	4,660.01	21.50	20.45	-170.55	-16.96	-101.69	634.79	593.18	41.61	15.255		
4,800.00	4,748.76	4,760.73	4,758.92	21.96	20.88	-170.57	-15.41	-104.18	649.21	606.72	42.49	15.278		
4,900.00	4,847.44	4,859.68	4,857.83	22.42	21.31	-170.58	-13.85	-106.67	663.63	620.25	43.37	15.300		
5,000.00	4,946.13	4,958.64	4,956.74	22.89	21.74	-170.59	-12.29	-109.16	678.05	633.79	44.26	15.321		
5,100.00	5,044.81	5,057.59	5,055.65	23.35	22.17	-170.60	-10.74	-111.65	692.46	647.32	45.14	15.341		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,156.55	5,154.57	23.81	22.60	-170.61	-9.18	-114.14	706.88	660.86	46.02	15.360		
5,300.00	5,242.18	5,255.50	5,253.48	24.27	23.04	-170.62	-7.63	-116.63	721.30	674.39	46.90	15.378		
5,400.00	5,340.86	5,354.46	5,352.39	24.74	23.47	-170.63	-6.07	-119.12	735.72	687.93	47.79	15.396		
5,500.00	5,439.54	5,453.41	5,451.30	25.20	23.90	-170.64	-4.52	-121.61	750.13	701.46	48.67	15.413		
5,600.00	5,538.22	5,552.37	5,550.21	25.66	24.33	-170.64	-2.96	-124.10	764.55	715.00	49.55	15.429		
5,700.00	5,636.91	5,651.32	5,649.12	26.13	24.76	-170.65	-1.40	-126.59	778.97	728.53	50.44	15.444		
5,800.00	5,735.59	5,750.28	5,748.04	26.59	25.19	-170.66	0.15	-129.07	793.39	742.06	51.32	15.459		
5,900.00	5,834.27	5,849.23	5,846.95	27.06	25.62	-170.67	1.71	-131.56	807.80	755.60	52.21	15.473		
6,000.00	5,932.95	5,948.19	5,945.86	27.52	26.06	-170.68	3.26	-134.05	822.22	769.13	53.09	15.487		
6,100.00	6,031.64	6,047.14	6,044.77	27.98	26.49	-170.68	4.82	-136.54	836.64	782.66	53.98	15.500		
6,200.00	6,130.32	6,146.10	6,143.68	28.45	26.92	-170.69	6.38	-139.03	851.06	796.19	54.86	15.512		
6,300.00	6,229.00	6,245.05	6,242.59	28.91	27.35	-170.70	7.93	-141.52	865.47	809.72	55.75	15.524		
6,400.00	6,327.69	6,344.01	6,341.50	29.38	27.78	-170.70	9.49	-144.01	879.89	823.26	56.64	15.536		
6,500.00	6,426.37	6,442.96	6,440.42	29.84	28.22	-170.71	11.04	-146.50	894.31	836.79	57.52	15.547		
6,600.00	6,525.05	6,541.92	6,539.33	30.31	28.65	-170.71	12.60	-148.99	908.73	850.32	58.41	15.558		
6,700.00	6,623.18	6,640.51	6,637.87	30.77	29.08	-129.79	14.15	-151.60	922.83	863.53	59.29	15.564		
6,800.00	6,718.58	6,739.74	6,736.25	31.22	29.52	-113.06	15.62	-163.73	936.26	876.06	60.19	15.554		
6,900.00	6,808.91	6,841.35	6,833.77	31.66	29.97	-105.42	16.96	-191.82	948.75	887.63	61.13	15.521		
7,000.00	6,891.95	6,945.50	6,927.80	32.07	30.45	-101.28	18.12	-236.33	959.99	897.89	62.10	15.458		
7,100.00	6,965.65	7,052.26	7,015.34	32.51	30.96	-98.82	19.05	-297.21	969.67	906.51	63.16	15.353		
7,200.00	7,028.20	7,161.59	7,093.17	33.02	31.54	-97.31	19.70	-373.80	977.49	913.12	64.37	15.186		
7,300.00	7,078.04	7,273.29	7,157.97	33.68	32.26	-96.44	20.04	-464.61	983.20	917.38	65.83	14.936		
7,400.00	7,113.97	7,387.00	7,206.63	34.52	33.18	-96.01	20.03	-567.22	986.61	918.99	67.62	14.590		
7,500.00	7,135.09	7,502.22	7,236.54	35.53	34.31	-95.93	19.66	-678.32	987.57	917.77	69.80	14.149		
7,600.00	7,140.96	7,617.72	7,245.99	36.68	35.65	-96.12	18.94	-793.27	986.02	913.71	72.32	13.635		
7,700.00	7,140.53	7,717.68	7,245.67	37.99	36.98	-96.15	18.17	-893.23	983.36	908.40	74.96	13.119		
7,800.00	7,140.09	7,817.64	7,245.36	39.45	38.47	-96.17	17.40	-993.19	980.69	902.78	77.92	12.586		
7,900.00	7,139.66	7,917.61	7,245.05	41.06	40.10	-96.19	16.63	-1,093.15	978.03	896.87	81.17	12.050		
8,000.00	7,139.23	8,017.57	7,244.74	42.80	41.87	-96.22	15.87	-1,193.11	975.37	890.70	84.67	11.520		
8,100.00	7,138.79	8,117.54	7,244.43	44.65	43.75	-96.24	15.10	-1,293.07	972.70	884.30	88.40	11.003		
8,200.00	7,138.36	8,217.50	7,244.11	46.60	45.74	-96.27	14.33	-1,393.03	970.04	877.71	92.33	10.506		
8,300.00	7,137.93	8,317.46	7,243.80	48.65	47.81	-96.29	13.57	-1,492.99	967.37	870.94	96.43	10.032		
8,400.00	7,137.49	8,417.43	7,243.49	50.77	49.96	-96.32	12.80	-1,592.95	964.71	864.03	100.69	9.581		
8,500.00	7,137.06	8,517.39	7,243.18	52.95	52.18	-96.34	12.03	-1,692.91	962.05	856.97	105.07	9.156		
8,600.00	7,136.62	8,617.35	7,242.87	55.20	54.46	-96.37	11.26	-1,792.87	959.38	849.80	109.58	8.755		
8,700.00	7,136.19	8,717.32	7,242.56	57.51	56.79	-96.39	10.50	-1,892.83	956.72	842.53	114.19	8.378		
8,800.00	7,135.76	8,817.28	7,242.24	59.85	59.16	-96.42	9.73	-1,992.79	954.06	835.17	118.89	8.025		
8,900.00	7,135.32	8,917.24	7,241.93	62.24	61.58	-96.44	8.96	-2,092.75	951.40	827.72	123.68	7.693		
9,000.00	7,134.89	9,017.21	7,241.62	64.67	64.03	-96.47	8.19	-2,192.71	948.73	820.20	128.53	7.381		
9,100.00	7,134.45	9,117.17	7,241.31	67.13	66.52	-96.49	7.43	-2,292.67	946.07	812.62	133.45	7.089		
9,200.00	7,134.02	9,217.14	7,241.00	69.62	69.03	-96.52	6.66	-2,392.63	943.41	804.99	138.42	6.815		
9,300.00	7,133.59	9,317.10	7,240.68	72.14	71.57	-96.55	5.89	-2,492.59	940.75	797.30	143.45	6.558		
9,400.00	7,133.15	9,417.06	7,240.37	74.68	74.14	-96.57	5.12	-2,592.55	938.09	789.56	148.52	6.316		
9,500.00	7,132.72	9,517.03	7,240.06	77.24	76.72	-96.60	4.36	-2,692.51	935.42	781.79	153.64	6.089		
9,600.00	7,132.29	9,616.99	7,239.75	79.83	79.32	-96.62	3.59	-2,792.47	932.76	773.97	158.79	5.874		
9,700.00	7,131.85	9,716.95	7,239.44	82.42	81.94	-96.65	2.82	-2,892.43	930.10	766.13	163.97	5.672		
9,800.00	7,131.42	9,816.92	7,239.13	85.04	84.58	-96.68	2.06	-2,992.39	927.44	758.25	169.19	5.482		
9,900.00	7,130.98	9,916.88	7,238.81	87.67	87.23	-96.71	1.29	-3,092.35	924.78	750.35	174.43	5.302		
10,000.00	7,130.55	10,016.84	7,238.50	90.31	89.89	-96.73	0.52	-3,192.31	922.12	742.42	179.70	5.131		
10,100.00	7,130.12	10,116.81	7,238.19	92.97	92.56	-96.76	-0.25	-3,292.27	919.46	734.47	184.99	4.970		
10,200.00	7,129.68	10,216.77	7,237.88	95.63	95.25	-96.79	-1.01	-3,392.23	916.80	726.50	190.30	4.818		
10,300.00	7,129.25	10,316.74	7,237.57	98.31	97.94	-96.81	-1.78	-3,492.19	914.14	718.51	195.63	4.673		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Reference (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	7,128.82	10,416.70	7,237.25	101.00	100.64	-96.84		-2.55	-3,592.15	911.48	710.50	200.98	4.535	
10,500.00	7,128.38	10,516.66	7,236.94	103.69	103.36	-96.87		-3.32	-3,692.11	908.82	702.48	206.35	4.404	
10,600.00	7,127.95	10,616.63	7,236.63	106.39	106.07	-96.90		-4.08	-3,792.07	906.16	694.44	211.73	4.280	
10,700.00	7,127.51	10,716.59	7,236.32	109.10	108.80	-96.93		-4.85	-3,892.03	903.50	686.38	217.12	4.161	
10,800.00	7,127.08	10,816.55	7,236.01	111.82	111.53	-96.95		-5.62	-3,992.00	900.84	678.32	222.52	4.048	
10,900.00	7,126.65	10,916.52	7,235.70	114.54	114.27	-96.98		-6.38	-4,091.96	898.19	670.24	227.94	3.940	
11,000.00	7,126.21	11,016.48	7,235.38	117.27	117.02	-97.01		-7.15	-4,191.92	895.53	662.16	233.37	3.837	
11,100.00	7,125.78	11,116.44	7,235.07	120.01	119.77	-97.04		-7.92	-4,291.88	892.87	654.06	238.81	3.739	
11,200.00	7,125.35	11,216.41	7,234.76	122.75	122.52	-97.07		-8.69	-4,391.84	890.21	645.95	244.26	3.645	
11,300.00	7,124.91	11,316.37	7,234.45	125.49	125.28	-97.10		-9.45	-4,491.80	887.55	637.84	249.71	3.554	
11,400.00	7,124.48	11,416.34	7,234.14	128.24	128.04	-97.13		-10.22	-4,591.76	884.90	629.72	255.18	3.468	
11,500.00	7,124.04	11,516.30	7,233.82	131.00	130.81	-97.16		-10.99	-4,691.72	882.24	621.59	260.65	3.385	
11,600.00	7,123.61	11,616.26	7,233.51	133.75	133.58	-97.19		-11.76	-4,791.68	879.58	613.45	266.13	3.305	
11,700.00	7,123.18	11,716.23	7,233.20	136.52	136.36	-97.22		-12.52	-4,891.64	876.93	605.31	271.61	3.229	
11,800.00	7,122.74	11,816.19	7,232.89	139.28	139.14	-97.25		-13.29	-4,991.60	874.27	597.16	277.11	3.155	
11,900.00	7,122.31	11,916.15	7,232.58	142.05	141.92	-97.28		-14.06	-5,091.56	871.61	589.01	282.60	3.084	
12,000.00	7,121.88	12,016.12	7,232.27	144.82	144.70	-97.31		-14.83	-5,191.52	868.96	580.85	288.10	3.016	
12,100.00	7,121.44	12,116.08	7,231.95	147.59	147.49	-97.34		-15.59	-5,291.48	866.30	572.69	293.61	2.951	
12,200.00	7,121.01	12,216.05	7,231.64	150.37	150.28	-97.37		-16.36	-5,391.44	863.65	564.52	299.12	2.887	
12,300.00	7,120.57	12,316.01	7,231.33	153.15	153.07	-97.40		-17.13	-5,491.40	860.99	556.35	304.64	2.826	
12,400.00	7,120.14	12,415.97	7,231.02	155.93	155.86	-97.43		-17.89	-5,591.36	858.34	548.18	310.16	2.767	
12,500.00	7,119.71	12,515.94	7,230.71	158.72	158.66	-97.46		-18.66	-5,691.32	855.68	540.00	315.68	2.711	
12,600.00	7,119.27	12,615.90	7,230.40	161.50	161.46	-97.49		-19.43	-5,791.28	853.03	531.82	321.21	2.656	
12,700.00	7,118.84	12,715.86	7,230.08	164.29	164.26	-97.53		-20.20	-5,891.24	850.37	523.63	326.74	2.603	
12,800.00	7,118.41	12,815.83	7,229.77	167.08	167.06	-97.56		-20.96	-5,991.20	847.72	515.45	332.27	2.551	
12,900.00	7,117.97	12,915.79	7,229.46	169.88	169.87	-97.59		-21.73	-6,091.16	845.07	507.26	337.81	2.502	
13,000.00	7,117.54	13,015.75	7,229.15	172.67	172.68	-97.62		-22.50	-6,191.12	842.41	499.07	343.35	2.454	
13,100.00	7,117.10	13,115.72	7,228.84	175.47	175.48	-97.66		-23.27	-6,291.08	839.76	490.87	348.89	2.407	
13,200.00	7,116.67	13,215.68	7,228.52	178.27	178.29	-97.69		-24.03	-6,391.04	837.11	482.68	354.43	2.362	
13,300.00	7,116.24	13,315.65	7,228.21	181.07	181.10	-97.72		-24.80	-6,491.00	834.45	474.48	359.97	2.318	
13,400.00	7,115.80	13,415.61	7,227.90	183.87	183.92	-97.75		-25.57	-6,590.96	831.80	466.28	365.52	2.276	
13,500.00	7,115.37	13,515.57	7,227.59	186.67	186.73	-97.79		-26.33	-6,690.92	829.15	458.08	371.07	2.234	
13,600.00	7,114.93	13,615.54	7,227.28	189.47	189.55	-97.82		-27.10	-6,790.88	826.50	449.88	376.62	2.195	
13,700.00	7,114.50	13,715.50	7,226.97	192.28	192.36	-97.86		-27.87	-6,890.84	823.85	441.67	382.17	2.156	
13,800.00	7,114.07	13,815.46	7,226.65	195.09	195.18	-97.89		-28.64	-6,990.80	821.19	433.47	387.73	2.118	
13,900.00	7,113.63	13,915.43	7,226.34	197.89	198.00	-97.92		-29.40	-7,090.76	818.54	425.26	393.28	2.081	
14,000.00	7,113.20	14,015.39	7,226.03	200.70	200.82	-97.96		-30.17	-7,190.72	815.89	417.06	398.84	2.046	
14,100.00	7,112.77	14,115.35	7,225.72	203.51	203.64	-97.99		-30.94	-7,290.68	813.24	408.85	404.39	2.011	
14,200.00	7,112.33	14,215.32	7,225.41	206.32	206.46	-98.03		-31.71	-7,390.64	810.59	400.64	409.95	1.977	
14,300.00	7,111.90	14,315.28	7,225.09	209.13	209.28	-98.06		-32.47	-7,490.60	807.94	392.44	415.51	1.944	
14,400.00	7,111.46	14,415.25	7,224.78	211.95	212.11	-98.10		-33.24	-7,590.56	805.29	384.23	421.07	1.913	
14,500.00	7,111.03	14,515.21	7,224.47	214.76	214.93	-98.13		-34.01	-7,690.52	802.65	376.02	426.63	1.881	
14,600.00	7,110.60	14,615.17	7,224.16	217.58	217.76	-98.17		-34.77	-7,790.48	800.00	367.81	432.19	1.851	
14,700.00	7,110.16	14,715.14	7,223.85	220.39	220.58	-98.21		-35.54	-7,890.44	797.35	359.60	437.75	1.821	
14,800.00	7,109.73	14,815.10	7,223.54	223.21	223.41	-98.24		-36.31	-7,990.40	794.70	351.39	443.31	1.793	
14,900.00	7,109.30	14,915.06	7,223.22	226.03	226.24	-98.28		-37.08	-8,090.36	792.05	343.18	448.87	1.765	
14,969.16	7,109.00	14,984.20	7,223.01	227.97	228.19	-98.31		-37.61	-8,159.50	790.22	337.51	452.71	1.746 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.52	-300.20	-2.50	300.21					
100.00	100.00	101.00	100.00	3.28	3.28	-179.52	-300.20	-2.50	300.21	293.64	6.57	45.697		
200.00	200.00	199.00	200.00	3.34	3.34	-179.52	-300.20	-2.50	300.21	293.54	6.67	44.987	CC, ES	
300.00	300.00	289.62	290.61	3.44	3.43	-179.50	-301.59	-2.65	301.75	294.87	6.88	43.853		
400.00	400.00	379.97	380.85	3.60	3.56	-179.42	-305.82	-3.10	306.43	299.24	7.19	42.609		
500.00	500.00	469.96	470.56	3.81	3.73	-179.29	-312.84	-3.85	314.24	306.65	7.59	41.392		
600.00	600.00	559.42	559.48	4.05	3.93	-179.13	-322.59	-4.89	325.16	317.10	8.06	40.318		
700.00	699.98	647.93	647.11	4.32	4.16	-169.78	-334.95	-6.21	340.85	332.25	8.60	39.646		
800.00	799.84	734.83	732.73	4.62	4.42	-169.62	-349.70	-7.78	362.91	353.73	9.17	39.557		
900.00	899.45	819.63	815.81	4.94	4.71	-169.49	-366.57	-9.58	391.18	381.41	9.77	40.023		
1,000.00	998.70	909.62	903.53	5.28	5.03	-169.41	-386.54	-11.71	424.92	414.53	10.39	40.894		
1,100.00	1,097.50	1,002.54	994.07	5.64	5.39	-169.43	-407.31	-13.93	461.86	450.82	11.04	41.832		
1,200.00	1,196.18	1,104.81	1,084.35	6.00	5.81	-169.54	-428.02	-16.13	499.49	487.75	11.74	42.560		
1,300.00	1,294.87	1,187.83	1,174.62	6.38	6.16	-169.64	-448.73	-18.34	537.11	524.73	12.39	43.365		
1,400.00	1,393.55	1,280.48	1,264.90	6.77	6.57	-169.73	-469.44	-20.55	574.74	561.65	13.09	43.891		
1,500.00	1,492.23	1,373.13	1,355.17	7.17	6.98	-169.81	-490.15	-22.76	612.37	598.55	13.82	44.302		
1,600.00	1,590.91	1,465.78	1,445.45	7.58	7.41	-169.87	-510.87	-24.97	650.00	635.43	14.57	44.622		
1,700.00	1,689.60	1,558.42	1,535.73	8.00	7.83	-169.93	-531.58	-27.18	687.63	672.30	15.32	44.870		
1,800.00	1,788.28	1,651.07	1,626.00	8.42	8.27	-169.99	-552.29	-29.39	725.26	709.16	16.09	45.062		
1,900.00	1,886.96	1,743.72	1,716.28	8.84	8.71	-170.04	-573.00	-31.59	762.89	746.01	16.88	45.208		
2,000.00	1,985.64	1,836.37	1,806.55	9.27	9.15	-170.08	-593.71	-33.80	800.52	782.86	17.66	45.319		
2,100.00	2,084.33	1,929.01	1,896.83	9.71	9.60	-170.12	-614.42	-36.01	838.15	819.69	18.46	45.400		
2,200.00	2,183.01	2,021.66	1,987.11	10.15	10.05	-170.16	-635.13	-38.22	875.79	856.52	19.27	45.460		
2,300.00	2,281.69	2,114.31	2,077.38	10.59	10.51	-170.19	-655.84	-40.43	913.42	893.34	20.07	45.500		
2,400.00	2,380.38	2,206.96	2,167.66	11.03	10.96	-170.22	-676.55	-42.64	951.05	930.16	20.89	45.526		
2,500.00	2,479.06	2,299.60	2,257.93	11.47	11.42	-170.25	-697.27	-44.85	988.68	966.97	21.71	45.541		
2,600.00	2,577.74	2,407.75	2,348.21	11.92	11.96	-170.27	-717.98	-47.05	1,026.32	1,003.71	22.60	45.403		
2,700.00	2,676.42	2,484.90	2,438.48	12.36	12.34	-170.30	-738.69	-49.26	1,063.95	1,040.59	23.36	45.542		
2,800.00	2,775.11	2,577.55	2,528.76	12.81	12.81	-170.32	-759.40	-51.47	1,101.58	1,077.39	24.19	45.533		
2,900.00	2,873.79	2,670.19	2,619.04	13.26	13.27	-170.34	-780.11	-53.68	1,139.22	1,114.19	25.03	45.520		
3,000.00	2,972.47	2,762.84	2,709.31	13.72	13.74	-170.36	-800.82	-55.89	1,176.85	1,150.99	25.86	45.502		
3,100.00	3,071.15	2,855.49	2,799.59	14.17	14.21	-170.38	-821.53	-58.10	1,214.48	1,187.78	26.70	45.481		
3,200.00	3,169.84	2,948.14	2,889.86	14.62	14.67	-170.40	-842.24	-60.31	1,252.12	1,224.57	27.54	45.457		
3,300.00	3,268.52	3,040.78	2,980.14	15.08	15.14	-170.42	-862.95	-62.52	1,289.75	1,261.36	28.39	45.432		
3,400.00	3,367.20	3,133.43	3,070.42	15.53	15.61	-170.43	-883.67	-64.72	1,327.39	1,298.15	29.23	45.405		
3,500.00	3,465.89	3,226.08	3,160.69	15.99	16.08	-170.45	-904.38	-66.93	1,365.02	1,334.94	30.08	45.377		
3,600.00	3,564.57	3,318.73	3,250.97	16.44	16.55	-170.46	-925.09	-69.14	1,402.66	1,371.73	30.93	45.349		
3,700.00	3,663.25	3,411.37	3,341.24	16.90	17.02	-170.47	-945.80	-71.35	1,440.29	1,408.51	31.78	45.320		
3,800.00	3,761.93	3,504.02	3,431.52	17.36	17.50	-170.49	-966.51	-73.56	1,477.92	1,445.29	32.63	45.290		
3,900.00	3,860.62	3,603.33	3,521.80	17.82	18.00	-170.50	-987.22	-75.77	1,515.56	1,482.04	33.52	45.218		
4,000.00	3,959.30	3,689.32	3,612.07	18.28	18.44	-170.51	-1,007.93	-77.98	1,553.19	1,518.85	34.34	45.230		
4,100.00	4,057.98	3,781.96	3,702.35	18.74	18.92	-170.52	-1,028.64	-80.18	1,590.83	1,555.63	35.19	45.200		
4,200.00	4,156.67	3,874.61	3,792.62	19.20	19.39	-170.53	-1,049.35	-82.39	1,628.46	1,592.41	36.05	45.171		
4,300.00	4,255.35	3,967.26	3,882.90	19.66	19.87	-170.54	-1,070.07	-84.60	1,666.10	1,629.19	36.91	45.141		
4,400.00	4,354.03	4,059.91	3,973.17	20.12	20.34	-170.55	-1,090.78	-86.81	1,703.73	1,665.97	37.77	45.112		
4,500.00	4,452.71	4,152.55	4,063.45	20.58	20.82	-170.56	-1,111.49	-89.02	1,741.37	1,702.74	38.63	45.083		
4,600.00	4,551.40	4,245.20	4,153.73	21.04	21.29	-170.57	-1,132.20	-91.23	1,779.00	1,739.52	39.49	45.055		
4,700.00	4,650.08	4,337.85	4,244.00	21.50	21.77	-170.58	-1,152.91	-93.44	1,816.64	1,776.29	40.35	45.027		
4,800.00	4,748.76	4,430.50	4,334.28	21.96	22.24	-170.58	-1,173.62	-95.64	1,854.27	1,813.06	41.21	44.999		
4,900.00	4,847.44	4,523.14	4,424.55	22.42	22.72	-170.59	-1,194.33	-97.85	1,891.91	1,849.84	42.07	44.972		
5,000.00	4,946.13	4,615.79	4,514.83	22.89	23.20	-170.60	-1,215.04	-100.06	1,929.54	1,886.61	42.93	44.945		
5,100.00	5,044.81	4,708.44	4,605.11	23.35	23.67	-170.61	-1,235.75	-102.27	1,967.18	1,923.38	43.79	44.918		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	4,801.09	4,695.38	23.81	24.15	-170.61	-1,256.47	-104.48	2,004.81	1,960.15	44.66	44.892		
5,300.00	5,242.18	4,906.27	4,785.66	24.27	24.69	-170.62	-1,277.18	-106.69	2,042.45	1,996.86	45.58	44.808		
5,400.00	5,340.86	4,986.38	4,875.93	24.74	25.10	-170.63	-1,297.89	-108.90	2,080.08	2,033.69	46.39	44.842		
5,500.00	5,439.54	5,079.03	4,966.21	25.20	25.58	-170.63	-1,318.60	-111.11	2,117.72	2,070.46	47.25	44.817		
5,600.00	5,538.22	5,171.68	5,056.48	25.66	26.06	-170.64	-1,339.31	-113.31	2,155.35	2,107.23	48.12	44.793		
5,700.00	5,636.91	5,264.32	5,146.76	26.13	26.54	-170.64	-1,360.02	-115.52	2,192.99	2,144.00	48.98	44.769		
5,800.00	5,735.59	5,356.97	5,237.04	26.59	27.01	-170.65	-1,380.73	-117.73	2,230.62	2,180.77	49.85	44.745		
5,900.00	5,834.27	5,449.62	5,327.31	27.06	27.49	-170.65	-1,401.44	-119.94	2,268.26	2,217.54	50.72	44.722		
6,000.00	5,932.95	5,542.27	5,417.59	27.52	27.97	-170.66	-1,422.15	-122.15	2,305.89	2,254.31	51.59	44.700		
6,100.00	6,031.64	5,634.91	5,507.86	27.98	28.45	-170.66	-1,442.87	-124.36	2,343.53	2,291.07	52.45	44.678		
6,200.00	6,130.32	5,727.56	5,598.14	28.45	28.93	-170.67	-1,463.58	-126.57	2,381.16	2,327.84	53.32	44.656		
6,300.00	6,229.00	5,820.21	5,688.42	28.91	29.41	-170.67	-1,484.29	-128.77	2,418.80	2,364.61	54.19	44.635		
6,400.00	6,327.69	5,912.86	5,778.69	29.38	29.88	-170.68	-1,505.00	-130.98	2,456.43	2,401.37	55.06	44.614		
6,500.00	6,426.37	6,005.50	5,868.97	29.84	30.36	-170.68	-1,525.71	-133.19	2,494.07	2,438.14	55.93	44.593		
6,600.00	6,525.05	6,101.85	5,959.24	30.31	30.86	-170.69	-1,546.42	-135.40	2,531.70	2,474.89	56.82	44.559		
6,700.00	6,623.18	6,209.48	6,049.25	30.77	31.42	-127.16	-1,567.07	-137.60	2,568.92	2,511.16	57.76	44.475		
6,800.00	6,718.58	6,280.82	6,137.24	31.22	31.79	-107.89	-1,587.26	-139.75	2,604.83	2,546.30	58.53	44.504		
6,900.00	6,808.91	6,366.83	6,221.04	31.66	32.23	-98.11	-1,606.48	-141.81	2,638.95	2,579.58	59.37	44.450		
7,000.00	6,891.95	6,446.43	6,298.60	32.07	32.64	-92.15	-1,624.28	-143.70	2,671.03	2,610.84	60.18	44.380		
7,100.00	6,965.65	6,517.65	6,368.01	32.51	33.01	-88.09	-1,640.20	-145.40	2,701.01	2,640.01	60.99	44.283		
7,200.00	7,028.20	6,578.76	6,427.55	33.02	33.33	-85.10	-1,653.86	-146.86	2,728.96	2,667.13	61.82	44.140		
7,300.00	7,078.04	6,645.86	6,492.90	33.68	33.68	-83.06	-1,668.86	-149.29	2,754.93	2,692.06	62.87	43.821		
7,400.00	7,113.97	6,774.21	6,615.83	34.52	34.32	-82.75	-1,697.19	-171.70	2,778.10	2,713.48	64.63	42.985		
7,500.00	7,135.09	7,500.00	6,798.35	35.53	37.33	-84.21	-1,739.61	-260.47	2,796.84	2,727.42	69.42	40.290		
7,600.00	7,140.96	7,589.64	7,065.96	36.68	37.75	-88.47	-1,804.32	-775.65	2,804.76	2,731.82	72.94	38.454		
7,700.00	7,140.53	7,702.55	7,065.78	37.99	38.85	-88.48	-1,804.98	-883.46	2,801.89	2,726.24	75.66	37.034		
7,800.00	7,140.09	7,802.59	7,065.55	39.45	40.10	-88.48	-1,805.58	-983.42	2,799.03	2,720.46	78.56	35.628		
7,900.00	7,139.66	7,902.63	7,065.32	41.06	41.56	-88.48	-1,806.18	-1,083.37	2,796.16	2,714.40	81.76	34.198		
8,000.00	7,139.23	8,002.67	7,065.09	42.80	43.18	-88.49	-1,806.78	-1,183.33	2,793.29	2,708.07	85.23	32.775		
8,100.00	7,138.79	8,102.71	7,064.86	44.65	44.95	-88.49	-1,807.38	-1,283.29	2,790.43	2,701.51	88.92	31.381		
8,200.00	7,138.36	8,202.75	7,064.62	46.60	46.83	-88.49	-1,807.97	-1,383.24	2,787.56	2,694.74	92.82	30.033		
8,300.00	7,137.93	8,302.80	7,064.39	48.65	48.82	-88.49	-1,808.57	-1,483.20	2,784.70	2,687.80	96.89	28.739		
8,400.00	7,137.49	8,402.84	7,064.16	50.77	50.89	-88.50	-1,809.17	-1,583.16	2,781.83	2,680.70	101.13	27.508		
8,500.00	7,137.06	8,502.88	7,063.93	52.95	53.04	-88.50	-1,809.77	-1,683.11	2,778.96	2,673.46	105.50	26.340		
8,600.00	7,136.62	8,602.92	7,063.70	55.20	55.25	-88.50	-1,810.37	-1,783.07	2,776.10	2,666.10	110.00	25.238		
8,700.00	7,136.19	8,702.96	7,063.47	57.51	57.52	-88.50	-1,810.97	-1,883.03	2,773.23	2,658.63	114.60	24.199		
8,800.00	7,135.76	8,803.00	7,063.24	59.85	59.85	-88.51	-1,811.57	-1,982.98	2,770.37	2,651.07	119.30	23.222		
8,900.00	7,135.32	8,903.04	7,063.01	62.24	62.22	-88.51	-1,812.16	-2,082.94	2,767.50	2,643.42	124.08	22.304		
9,000.00	7,134.89	9,003.08	7,062.78	64.67	64.63	-88.51	-1,812.76	-2,182.90	2,764.63	2,635.69	128.94	21.441		
9,100.00	7,134.45	9,103.12	7,062.55	67.13	67.07	-88.51	-1,813.36	-2,282.86	2,761.77	2,627.90	133.87	20.631		
9,200.00	7,134.02	9,203.17	7,062.32	69.62	69.55	-88.52	-1,813.96	-2,382.81	2,758.90	2,620.05	138.85	19.870		
9,300.00	7,133.59	9,303.21	7,062.09	72.14	72.06	-88.52	-1,814.56	-2,482.77	2,756.03	2,612.15	143.89	19.154		
9,400.00	7,133.15	9,403.25	7,061.86	74.68	74.59	-88.52	-1,815.16	-2,582.73	2,753.17	2,604.19	148.98	18.481		
9,500.00	7,132.72	9,503.29	7,061.63	77.24	77.15	-88.53	-1,815.76	-2,682.68	2,750.30	2,596.20	154.11	17.847		
9,600.00	7,132.29	9,603.33	7,061.40	79.83	79.72	-88.53	-1,816.35	-2,782.64	2,747.44	2,588.16	159.27	17.250		
9,700.00	7,131.85	9,703.37	7,061.17	82.42	82.32	-88.53	-1,816.95	-2,882.60	2,744.57	2,580.09	164.48	16.687		
9,800.00	7,131.42	9,803.41	7,060.94	85.04	84.93	-88.53	-1,817.55	-2,982.55	2,741.70	2,571.99	169.71	16.155		
9,900.00	7,130.98	9,903.45	7,060.71	87.67	87.56	-88.54	-1,818.15	-3,082.51	2,738.84	2,563.86	174.98	15.652		
10,000.00	7,130.55	10,003.49	7,060.48	90.31	90.20	-88.54	-1,818.75	-3,182.47	2,735.97	2,555.70	180.27	15.177		
10,100.00	7,130.12	10,103.54	7,060.25	92.97	92.85	-88.54	-1,819.35	-3,282.42	2,733.11	2,547.51	185.59	14.727		
10,200.00	7,129.68	10,203.58	7,060.02	95.63	95.52	-88.54	-1,819.95	-3,382.38	2,730.24	2,539.31	190.93	14.300		
10,300.00	7,129.25	10,303.62	7,059.79	98.31	98.20	-88.55	-1,820.54	-3,482.34	2,727.37	2,531.08	196.29	13.895		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,128.82	10,403.66	7,059.56	101.00	100.89	-88.55	-1,821.14	-3,582.29	2,724.51	2,522.84	201.67	13.510		
10,500.00	7,128.38	10,503.70	7,059.33	103.69	103.58	-88.55	-1,821.74	-3,682.25	2,721.64	2,514.57	207.07	13.144		
10,600.00	7,127.95	10,603.74	7,059.10	106.39	106.29	-88.56	-1,822.34	-3,782.21	2,718.78	2,506.30	212.48	12.795		
10,700.00	7,127.51	10,703.78	7,058.87	109.10	109.00	-88.56	-1,822.94	-3,882.16	2,715.91	2,498.00	217.91	12.464		
10,800.00	7,127.08	10,803.82	7,058.64	111.82	111.72	-88.56	-1,823.54	-3,982.12	2,713.04	2,489.69	223.35	12.147		
10,900.00	7,126.65	10,903.87	7,058.41	114.54	114.45	-88.56	-1,824.14	-4,082.08	2,710.18	2,481.37	228.80	11.845		
11,000.00	7,126.21	11,003.91	7,058.18	117.27	117.19	-88.57	-1,824.73	-4,182.03	2,707.31	2,473.04	234.27	11.556		
11,100.00	7,125.78	11,103.95	7,057.95	120.01	119.93	-88.57	-1,825.33	-4,281.99	2,704.45	2,464.70	239.75	11.280		
11,200.00	7,125.35	11,203.99	7,057.72	122.75	122.67	-88.57	-1,825.93	-4,381.95	2,701.58	2,456.34	245.24	11.016		
11,300.00	7,124.91	11,304.03	7,057.49	125.49	125.42	-88.57	-1,826.53	-4,481.90	2,698.71	2,447.98	250.73	10.763		
11,400.00	7,124.48	11,404.07	7,057.26	128.24	128.18	-88.58	-1,827.13	-4,581.86	2,695.85	2,439.61	256.24	10.521		
11,500.00	7,124.04	11,504.11	7,057.03	131.00	130.94	-88.58	-1,827.73	-4,681.82	2,692.98	2,431.23	261.76	10.288		
11,600.00	7,123.61	11,604.15	7,056.79	133.75	133.70	-88.58	-1,828.33	-4,781.77	2,690.11	2,422.84	267.28	10.065		
11,700.00	7,123.18	11,704.19	7,056.56	136.52	136.47	-88.59	-1,828.92	-4,881.73	2,687.25	2,414.44	272.81	9.850		
11,800.00	7,122.74	11,804.24	7,056.33	139.28	139.24	-88.59	-1,829.52	-4,981.69	2,684.38	2,406.04	278.35	9.644		
11,900.00	7,122.31	11,904.28	7,056.10	142.05	142.02	-88.59	-1,830.12	-5,081.64	2,681.52	2,397.62	283.89	9.446		
12,000.00	7,121.88	12,004.32	7,055.87	144.82	144.79	-88.59	-1,830.72	-5,181.60	2,678.65	2,389.21	289.44	9.254		
12,100.00	7,121.44	12,104.36	7,055.64	147.59	147.58	-88.60	-1,831.32	-5,281.56	2,675.79	2,380.78	295.00	9.070		
12,200.00	7,121.01	12,204.40	7,055.41	150.37	150.36	-88.60	-1,831.92	-5,381.52	2,672.92	2,372.36	300.56	8.893		
12,300.00	7,120.57	12,304.44	7,055.18	153.15	153.15	-88.60	-1,832.52	-5,481.47	2,670.05	2,363.92	306.13	8.722		
12,400.00	7,120.14	12,404.48	7,054.95	155.93	155.94	-88.61	-1,833.11	-5,581.43	2,667.19	2,355.48	311.70	8.557		
12,500.00	7,119.71	12,504.52	7,054.72	158.72	158.73	-88.61	-1,833.71	-5,681.39	2,664.32	2,347.04	317.28	8.397		
12,600.00	7,119.27	12,604.57	7,054.49	161.50	161.53	-88.61	-1,834.31	-5,781.34	2,661.46	2,338.59	322.86	8.243		
12,700.00	7,118.84	12,704.61	7,054.26	164.29	164.32	-88.61	-1,834.91	-5,881.30	2,658.59	2,330.14	328.45	8.094		
12,800.00	7,118.41	12,804.65	7,054.03	167.08	167.12	-88.62	-1,835.51	-5,981.26	2,655.72	2,321.68	334.04	7.950		
12,900.00	7,117.97	12,904.69	7,053.80	169.88	169.92	-88.62	-1,836.11	-6,081.21	2,652.86	2,313.22	339.63	7.811		
13,000.00	7,117.54	13,004.73	7,053.57	172.67	172.73	-88.62	-1,836.71	-6,181.17	2,649.99	2,304.76	345.23	7.676		
13,100.00	7,117.10	13,104.77	7,053.34	175.47	175.53	-88.63	-1,837.30	-6,281.13	2,647.13	2,296.29	350.83	7.545		
13,200.00	7,116.67	13,204.81	7,053.11	178.27	178.34	-88.63	-1,837.90	-6,381.08	2,644.26	2,287.82	356.44	7.419		
13,300.00	7,116.24	13,304.85	7,052.88	181.07	181.15	-88.63	-1,838.50	-6,481.04	2,641.39	2,279.35	362.04	7.296		
13,400.00	7,115.80	13,404.89	7,052.65	183.87	183.96	-88.64	-1,839.10	-6,581.00	2,638.53	2,270.87	367.66	7.177		
13,500.00	7,115.37	13,504.94	7,052.42	186.67	186.77	-88.64	-1,839.70	-6,680.95	2,635.66	2,262.39	373.27	7.061		
13,600.00	7,114.93	13,604.98	7,052.19	189.47	189.58	-88.64	-1,840.30	-6,780.91	2,632.80	2,253.91	378.89	6.949		
13,700.00	7,114.50	13,705.02	7,051.96	192.28	192.40	-88.64	-1,840.90	-6,880.87	2,629.93	2,245.43	384.51	6.840		
13,800.00	7,114.07	13,805.06	7,051.73	195.09	195.21	-88.65	-1,841.49	-6,980.82	2,627.06	2,236.94	390.13	6.734		
13,900.00	7,113.63	13,905.10	7,051.50	197.89	198.03	-88.65	-1,842.09	-7,080.78	2,624.20	2,228.45	395.75	6.631		
14,000.00	7,113.20	14,005.14	7,051.27	200.70	200.85	-88.65	-1,842.69	-7,180.74	2,621.33	2,219.96	401.38	6.531		
14,100.00	7,112.77	14,105.18	7,051.04	203.51	203.67	-88.66	-1,843.29	-7,280.69	2,618.47	2,211.46	407.01	6.433		
14,200.00	7,112.33	14,205.22	7,050.81	206.32	206.49	-88.66	-1,843.89	-7,380.65	2,615.60	2,202.96	412.64	6.339		
14,300.00	7,111.90	14,305.27	7,050.58	209.13	209.31	-88.66	-1,844.49	-7,480.61	2,612.74	2,194.47	418.27	6.247		
14,400.00	7,111.46	14,405.31	7,050.35	211.95	212.13	-88.66	-1,845.09	-7,580.56	2,609.87	2,185.96	423.90	6.157		
14,500.00	7,111.03	14,505.35	7,050.12	214.76	214.95	-88.67	-1,845.68	-7,680.52	2,607.00	2,177.46	429.54	6.069		
14,600.00	7,110.60	14,605.39	7,049.89	217.58	217.78	-88.67	-1,846.28	-7,780.48	2,604.14	2,168.96	435.18	5.984		
14,700.00	7,110.16	14,705.43	7,049.66	220.39	220.60	-88.67	-1,846.88	-7,880.43	2,601.27	2,160.45	440.82	5.901		
14,800.00	7,109.73	14,805.47	7,049.43	223.21	223.43	-88.68	-1,847.48	-7,980.39	2,598.41	2,151.94	446.46	5.820		
14,900.00	7,109.30	14,905.51	7,049.20	226.03	226.26	-88.68	-1,848.08	-8,080.35	2,595.54	2,143.43	452.11	5.741		
14,969.16	7,109.00	14,963.62	7,049.04	227.97	227.90	-88.68	-1,848.49	-8,149.48	2,593.56	2,137.86	455.70	5.691 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.52	-400.02	-3.34	400.03					
100.00	100.00	102.00	100.00	3.28	3.29	-179.52	-400.02	-3.34	400.03	393.46	6.57	60.889		
200.00	200.00	198.00	200.00	3.34	3.34	-179.52	-400.02	-3.34	400.03	393.36	6.67	59.953 CC, ES		
300.00	300.00	285.98	287.97	3.44	3.42	-179.51	-401.31	-3.42	401.50	394.63	6.88	58.393		
400.00	400.00	373.56	375.45	3.60	3.55	-179.48	-405.26	-3.67	406.02	398.84	7.18	56.553		
500.00	500.00	460.81	462.45	3.81	3.71	-179.43	-411.86	-4.09	413.59	406.02	7.57	54.636		
600.00	600.00	547.58	548.73	4.05	3.90	-179.36	-421.04	-4.67	424.17	416.14	8.03	52.813		
700.00	699.98	633.48	633.83	4.32	4.12	-170.11	-432.69	-5.41	439.45	430.90	8.55	51.386		
800.00	799.84	717.88	717.06	4.62	4.37	-170.04	-446.61	-6.30	461.02	451.90	9.12	50.570		
900.00	899.45	800.31	797.92	4.94	4.64	-170.00	-462.56	-7.31	488.74	479.04	9.70	50.363		
1,000.00	998.70	880.35	875.97	5.28	4.93	-169.97	-480.27	-8.44	522.43	512.12	10.30	50.709		
1,100.00	1,097.50	957.70	950.90	5.64	5.23	-169.99	-499.44	-9.66	561.68	550.77	10.91	51.482		
1,200.00	1,196.18	1,032.99	1,023.31	6.00	5.54	-170.10	-520.03	-10.97	604.04	592.54	11.50	52.539		
1,300.00	1,294.87	1,106.42	1,093.37	6.38	5.86	-170.18	-541.94	-12.36	648.73	636.65	12.08	53.694		
1,400.00	1,393.55	1,177.97	1,161.08	6.77	6.19	-170.23	-565.00	-13.82	695.67	683.01	12.66	54.939		
1,500.00	1,492.23	1,251.84	1,230.39	7.17	6.55	-170.28	-590.50	-15.44	744.71	731.45	13.26	56.164		
1,600.00	1,590.91	1,338.64	1,311.63	7.58	6.99	-170.32	-621.02	-17.38	794.36	780.42	13.95	56.958		
1,700.00	1,689.60	1,425.44	1,392.86	8.00	7.44	-170.36	-651.54	-19.32	844.02	829.37	14.65	57.600		
1,800.00	1,788.28	1,512.24	1,474.10	8.42	7.90	-170.39	-682.05	-21.26	893.67	878.30	15.38	58.118		
1,900.00	1,886.96	1,599.04	1,555.34	8.84	8.37	-170.42	-712.57	-23.20	943.33	927.21	16.11	58.538		
2,000.00	1,985.64	1,685.84	1,636.57	9.27	8.85	-170.45	-743.08	-25.14	992.98	976.12	16.87	58.876		
2,100.00	2,084.33	1,772.64	1,717.81	9.71	9.33	-170.48	-773.60	-27.08	1,042.64	1,025.01	17.63	59.148		
2,200.00	2,183.01	1,859.44	1,799.04	10.15	9.82	-170.50	-804.11	-29.02	1,092.30	1,073.90	18.40	59.367		
2,300.00	2,281.69	1,946.24	1,880.28	10.59	10.32	-170.52	-834.63	-30.96	1,141.95	1,122.77	19.18	59.542		
2,400.00	2,380.38	2,033.04	1,961.51	11.03	10.81	-170.54	-865.14	-32.90	1,191.61	1,171.64	19.97	59.681		
2,500.00	2,479.06	2,119.84	2,042.75	11.47	11.32	-170.55	-895.66	-34.84	1,241.26	1,220.50	20.76	59.791		
2,600.00	2,577.74	2,206.64	2,123.99	11.92	11.82	-170.57	-926.17	-36.78	1,290.92	1,269.36	21.56	59.876		
2,700.00	2,676.42	2,306.56	2,205.22	12.36	12.40	-170.58	-956.69	-38.72	1,340.58	1,318.15	22.43	59.766		
2,800.00	2,775.11	2,380.24	2,286.46	12.81	12.84	-170.60	-987.20	-40.66	1,390.23	1,367.06	23.17	59.989		
2,900.00	2,873.79	2,467.04	2,367.69	13.26	13.35	-170.61	-1,017.72	-42.60	1,439.89	1,415.90	23.99	60.024		
3,000.00	2,972.47	2,553.84	2,448.93	13.72	13.86	-170.62	-1,048.23	-44.54	1,489.55	1,464.74	24.81	60.047		
3,100.00	3,071.15	2,640.63	2,530.16	14.17	14.37	-170.63	-1,078.75	-46.48	1,539.20	1,513.57	25.63	60.060		
3,200.00	3,169.84	2,727.43	2,611.40	14.62	14.89	-170.64	-1,109.26	-48.42	1,588.86	1,562.41	26.45	60.066		
3,300.00	3,268.52	2,814.23	2,692.64	15.08	15.41	-170.65	-1,139.78	-50.36	1,638.52	1,611.24	27.28	60.065		
3,400.00	3,367.20	2,901.03	2,773.87	15.53	15.93	-170.66	-1,170.29	-52.29	1,688.17	1,660.06	28.11	60.058		
3,500.00	3,465.89	2,987.83	2,855.11	15.99	16.45	-170.67	-1,200.81	-54.23	1,737.83	1,708.89	28.94	60.047		
3,600.00	3,564.57	3,074.63	2,936.34	16.44	16.97	-170.68	-1,231.32	-56.17	1,787.49	1,757.71	29.78	60.032		
3,700.00	3,663.25	3,161.43	3,017.58	16.90	17.49	-170.69	-1,261.84	-58.11	1,837.14	1,806.53	30.61	60.014		
3,800.00	3,761.93	3,248.23	3,098.81	17.36	18.01	-170.70	-1,292.35	-60.05	1,886.80	1,855.35	31.45	59.994		
3,900.00	3,860.62	3,335.03	3,180.05	17.82	18.53	-170.70	-1,322.87	-61.99	1,936.46	1,904.17	32.29	59.971		
4,000.00	3,959.30	3,421.83	3,261.28	18.28	19.06	-170.71	-1,353.38	-63.93	1,986.11	1,952.98	33.13	59.946		
4,100.00	4,057.98	3,508.63	3,342.52	18.74	19.58	-170.72	-1,383.90	-65.87	2,035.77	2,001.79	33.97	59.921		
4,200.00	4,156.67	3,604.57	3,423.76	19.20	20.16	-170.72	-1,414.41	-67.81	2,085.43	2,050.56	34.87	59.812		
4,300.00	4,255.35	3,682.23	3,504.99	19.66	20.63	-170.73	-1,444.93	-69.75	2,135.08	2,099.42	35.66	59.865		
4,400.00	4,354.03	3,769.03	3,586.23	20.12	21.16	-170.73	-1,475.44	-71.69	2,184.74	2,148.23	36.51	59.837		
4,500.00	4,452.71	3,855.83	3,667.46	20.58	21.68	-170.74	-1,505.96	-73.63	2,234.40	2,197.04	37.36	59.807		
4,600.00	4,551.40	3,942.63	3,748.70	21.04	22.21	-170.74	-1,536.47	-75.57	2,284.05	2,245.84	38.21	59.778		
4,700.00	4,650.08	4,029.43	3,829.93	21.50	22.74	-170.75	-1,566.99	-77.51	2,333.71	2,294.65	39.06	59.748		
4,800.00	4,748.76	4,116.23	3,911.17	21.96	23.26	-170.75	-1,597.50	-79.45	2,383.37	2,343.46	39.91	59.717		
4,900.00	4,847.44	4,203.03	3,992.41	22.42	23.79	-170.76	-1,628.02	-81.39	2,433.02	2,392.26	40.76	59.687		
5,000.00	4,946.13	4,289.83	4,073.64	22.89	24.32	-170.76	-1,658.53	-83.33	2,482.68	2,441.07	41.62	59.657		
5,100.00	5,044.81	4,376.63	4,154.88	23.35	24.85	-170.76	-1,689.05	-85.27	2,532.34	2,489.87	42.47	59.627		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	4,463.43	4,236.11	23.81	25.38	-170.77	-1,719.57	-87.21	2,582.00	2,538.67	43.32	59.596		
5,300.00	5,242.18	4,550.23	4,317.35	24.27	25.90	-170.77	-1,750.08	-89.14	2,631.65	2,587.47	44.18	59.566		
5,400.00	5,340.86	4,637.03	4,398.58	24.74	26.43	-170.78	-1,780.60	-91.08	2,681.31	2,636.27	45.04	59.536		
5,500.00	5,439.54	4,723.82	4,479.82	25.20	26.96	-170.78	-1,811.11	-93.02	2,730.97	2,685.07	45.89	59.507		
5,600.00	5,538.22	4,810.62	4,561.06	25.66	27.49	-170.78	-1,841.63	-94.96	2,780.62	2,733.87	46.75	59.477		
5,700.00	5,636.91	4,897.42	4,642.29	26.13	28.02	-170.79	-1,872.14	-96.90	2,830.28	2,782.67	47.61	59.448		
5,800.00	5,735.59	4,984.22	4,723.53	26.59	28.55	-170.79	-1,902.66	-98.84	2,879.94	2,831.47	48.47	59.419		
5,900.00	5,834.27	5,071.02	4,804.76	27.06	29.08	-170.79	-1,933.17	-100.78	2,929.59	2,880.27	49.33	59.390		
6,000.00	5,932.95	5,157.82	4,886.00	27.52	29.61	-170.79	-1,963.69	-102.72	2,979.25	2,929.06	50.19	59.362		
6,100.00	6,031.64	5,244.62	4,967.23	27.98	30.14	-170.80	-1,994.20	-104.66	3,028.91	2,977.86	51.05	59.333		
6,200.00	6,130.32	5,331.42	5,048.47	28.45	30.67	-170.80	-2,024.72	-106.60	3,078.56	3,026.65	51.91	59.305		
6,300.00	6,229.00	5,418.22	5,129.70	28.91	31.20	-170.80	-2,055.23	-108.54	3,128.22	3,075.45	52.77	59.278		
6,400.00	6,327.69	5,505.02	5,210.94	29.38	31.74	-170.81	-2,085.75	-110.48	3,177.88	3,124.24	53.63	59.250		
6,500.00	6,426.37	5,608.18	5,292.18	29.84	32.37	-170.81	-2,116.26	-112.42	3,227.54	3,172.95	54.58	59.129		
6,600.00	6,525.05	5,678.62	5,373.41	30.31	32.80	-170.81	-2,146.78	-114.36	3,277.19	3,221.83	55.36	59.196		
6,700.00	6,623.18	5,765.20	5,454.44	30.77	33.33	-125.78	-2,177.21	-116.29	3,326.41	3,270.19	56.23	59.162		
6,800.00	6,718.58	5,849.91	5,533.72	31.22	33.85	-105.04	-2,207.00	-118.19	3,374.06	3,316.98	57.08	59.113		
6,900.00	6,808.91	5,930.67	5,609.31	31.66	34.34	-93.88	-2,235.39	-119.99	3,419.26	3,361.36	57.90	59.050		
7,000.00	6,891.95	6,005.50	5,679.34	32.07	34.80	-86.70	-2,261.69	-121.66	3,461.37	3,402.66	58.71	58.960		
7,100.00	6,965.65	6,072.54	5,742.08	32.51	35.21	-81.61	-2,285.26	-123.16	3,499.90	3,440.40	59.50	58.823		
7,200.00	7,028.20	6,130.16	5,796.00	33.02	35.56	-77.82	-2,305.52	-124.45	3,534.54	3,474.23	60.31	58.606		
7,300.00	7,078.04	6,176.92	5,839.77	33.68	35.85	-74.92	-2,321.96	-125.49	3,565.04	3,503.87	61.17	58.280		
7,400.00	7,113.97	6,211.68	5,872.30	34.52	36.06	-72.66	-2,334.18	-126.27	3,591.20	3,529.10	62.10	57.827		
7,500.00	7,135.09	6,233.59	5,892.80	35.53	36.20	-70.92	-2,341.88	-126.76	3,612.84	3,549.74	63.11	57.251		
7,600.00	7,140.96	6,242.16	5,900.83	36.68	36.25	-69.74	-2,344.89	-126.95	3,629.79	3,565.63	64.16	56.577		
7,700.00	7,140.53	6,245.20	5,903.68	37.99	36.27	-69.78	-2,345.96	-127.02	3,646.33	3,581.02	65.32	55.826		
7,800.00	7,140.09	6,248.25	5,906.53	39.45	36.29	-69.83	-2,347.03	-127.09	3,665.53	3,598.92	66.61	55.030		
7,900.00	7,139.66	6,251.29	5,909.37	41.06	36.30	-69.88	-2,348.10	-127.15	3,687.34	3,619.32	68.02	54.213		
8,000.00	7,139.23	6,254.33	5,912.22	42.80	36.32	-69.93	-2,349.17	-127.22	3,711.71	3,642.20	69.51	53.397		
8,100.00	7,138.79	6,257.38	5,915.07	44.65	36.34	-69.98	-2,350.24	-127.29	3,738.60	3,667.52	71.08	52.599		
8,200.00	7,138.36	6,260.42	5,917.92	46.60	36.36	-70.03	-2,351.31	-127.36	3,767.95	3,695.25	72.69	51.833		
8,300.00	7,137.93	6,263.46	5,920.77	48.65	36.38	-70.08	-2,352.38	-127.43	3,799.70	3,725.35	74.35	51.107		
8,400.00	7,137.49	6,266.49	5,923.62	50.77	36.40	-91.59	-2,353.45	-127.50	3,833.24	3,750.04	103.20	37.144		
8,500.00	7,137.06	6,269.52	5,926.47	52.95	36.42	-91.59	-2,354.52	-127.57	3,866.78	3,774.73	104.46	35.646		
8,600.00	7,136.62	6,272.55	5,929.32	55.20	36.44	-91.59	-2,355.59	-127.64	3,899.32	3,799.42	105.72	34.148		
8,700.00	7,136.19	6,275.58	5,932.17	57.51	36.46	-91.59	-2,356.66	-127.71	3,931.86	3,824.11	106.98	32.650		
8,800.00	7,135.76	6,278.61	5,935.02	59.85	36.48	-91.59	-2,357.73	-127.78	3,964.40	3,848.80	108.24	31.152		
8,900.00	7,135.32	6,281.64	5,937.87	62.24	36.50	-91.59	-2,358.80	-127.85	3,996.94	3,873.49	109.50	29.654		
9,000.00	7,134.89	6,284.67	5,940.72	64.67	36.52	-91.59	-2,359.87	-127.92	4,029.48	3,898.18	110.76	28.156		
9,100.00	7,134.45	6,287.70	5,943.57	67.13	36.54	-91.59	-2,360.94	-127.99	4,062.02	3,922.87	112.02	26.658		
9,200.00	7,134.02	6,290.73	5,946.42	69.62	36.56	-91.59	-2,362.01	-128.06	4,094.56	3,947.56	113.28	25.160		
9,300.00	7,133.59	6,293.76	5,949.27	72.14	36.58	-91.59	-2,363.08	-128.13	4,127.10	3,972.25	114.54	23.662		
9,400.00	7,133.15	6,296.79	5,952.12	74.68	36.60	-91.59	-2,364.15	-128.20	4,159.64	3,996.94	115.80	22.164		
9,500.00	7,132.72	6,299.82	5,954.97	77.24	36.62	-91.59	-2,365.22	-128.27	4,192.18	4,021.63	117.06	20.666		
9,600.00	7,132.29	6,302.85	5,957.82	79.83	36.64	-91.59	-2,366.29	-128.34	4,224.72	4,046.32	118.32	19.168		
9,700.00	7,131.85	6,305.88	5,960.67	82.42	36.66	-91.59	-2,367.36	-128.41	4,257.26	4,071.01	119.58	17.670		
9,800.00	7,131.42	6,308.91	5,963.52	85.04	36.68	-91.59	-2,368.43	-128.48	4,289.80	4,095.70	120.84	16.172		
9,900.00	7,130.98	6,311.94	5,966.37	87.67	36.70	-91.59	-2,369.50	-128.55	4,322.34	4,120.39	122.10	14.674		
10,000.00	7,130.55	6,314.97	5,969.22	90.31	36.72	-91.59	-2,370.57	-128.62	4,354.88	4,145.08	123.36	13.176		
10,100.00	7,130.12	6,317.99	5,972.07	92.97	36.74	-91.59	-2,371.64	-128.69	4,387.42	4,169.77	124.62	11.678		
10,200.00	7,129.68	6,321.02	5,974.92	95.63	36.76	-91.59	-2,372.71	-128.76	4,419.96	4,194.46	125.88	10.180		
10,300.00	7,129.25	6,324.05	5,977.77	98.31	36.78	-91.59	-2,373.78	-128.83	4,452.50	4,219.15	127.14	8.682		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +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)				
10,400.00	7,128.82	10,840.97	7,233.01	101.00	101.98	-91.59	-2,871.84	-3,577.08	3,775.78	3,573.45	202.33	18.661		
10,500.00	7,128.38	10,940.92	7,232.51	103.69	104.63	-91.59	-2,872.43	-3,677.04	3,772.91	3,565.21	207.69	18.166		
10,600.00	7,127.95	11,040.88	7,232.01	106.39	107.29	-91.59	-2,873.02	-3,777.00	3,770.03	3,556.96	213.07	17.694		
10,700.00	7,127.51	11,140.84	7,231.51	109.10	109.96	-91.59	-2,873.61	-3,876.95	3,767.16	3,548.70	218.46	17.244		
10,800.00	7,127.08	11,240.80	7,231.01	111.82	112.64	-91.59	-2,874.20	-3,976.91	3,764.29	3,540.41	223.87	16.814		
10,900.00	7,126.65	11,340.76	7,230.51	114.54	115.33	-91.59	-2,874.78	-4,076.86	3,761.41	3,532.12	229.30	16.404		
11,000.00	7,126.21	11,440.72	7,230.01	117.27	118.03	-91.59	-2,875.37	-4,176.82	3,758.54	3,523.81	234.73	16.012		
11,100.00	7,125.78	11,540.68	7,229.51	120.01	120.73	-91.59	-2,875.96	-4,276.77	3,755.67	3,515.48	240.18	15.637		
11,200.00	7,125.35	11,640.64	7,229.01	122.75	123.44	-91.59	-2,876.55	-4,376.73	3,752.79	3,507.15	245.64	15.277		
11,300.00	7,124.91	11,740.59	7,228.51	125.49	126.16	-91.59	-2,877.13	-4,476.69	3,749.92	3,498.81	251.11	14.933		
11,400.00	7,124.48	11,840.55	7,228.00	128.24	128.88	-91.59	-2,877.72	-4,576.64	3,747.05	3,490.45	256.60	14.603		
11,500.00	7,124.04	11,940.51	7,227.50	131.00	131.61	-91.59	-2,878.31	-4,676.60	3,744.17	3,482.09	262.09	14.286		
11,600.00	7,123.61	12,040.47	7,227.00	133.75	134.35	-91.59	-2,878.90	-4,776.55	3,741.30	3,473.71	267.59	13.982		
11,700.00	7,123.18	12,140.43	7,226.50	136.52	137.09	-91.59	-2,879.49	-4,876.51	3,738.43	3,465.33	273.09	13.689		
11,800.00	7,122.74	12,240.39	7,226.00	139.28	139.83	-91.59	-2,880.07	-4,976.46	3,735.55	3,456.94	278.61	13.408		
11,900.00	7,122.31	12,340.35	7,225.50	142.05	142.58	-91.59	-2,880.66	-5,076.42	3,732.68	3,448.55	284.13	13.137		
12,000.00	7,121.88	12,440.31	7,225.00	144.82	145.34	-91.59	-2,881.25	-5,176.38	3,729.81	3,440.14	289.66	12.876		
12,100.00	7,121.44	12,540.26	7,224.50	147.59	148.10	-91.59	-2,881.84	-5,276.33	3,726.93	3,431.73	295.20	12.625		
12,200.00	7,121.01	12,640.22	7,224.00	150.37	150.86	-91.59	-2,882.43	-5,376.29	3,724.06	3,423.32	300.75	12.383		
12,300.00	7,120.57	12,740.18	7,223.50	153.15	153.62	-91.59	-2,883.01	-5,476.24	3,721.19	3,414.89	306.29	12.149		
12,400.00	7,120.14	12,840.14	7,223.00	155.93	156.39	-91.59	-2,883.60	-5,576.20	3,718.31	3,406.46	311.85	11.923		
12,500.00	7,119.71	12,940.10	7,222.50	158.72	159.16	-91.59	-2,884.19	-5,676.15	3,715.44	3,398.03	317.41	11.706		
12,600.00	7,119.27	13,040.06	7,222.00	161.50	161.94	-91.59	-2,884.78	-5,776.11	3,712.57	3,389.59	322.97	11.495		
12,700.00	7,118.84	13,140.02	7,221.50	164.29	164.71	-91.59	-2,885.37	-5,876.07	3,709.69	3,381.15	328.54	11.291		
12,800.00	7,118.41	13,239.98	7,221.00	167.08	167.49	-91.59	-2,885.95	-5,976.02	3,706.82	3,372.70	334.12	11.094		
12,900.00	7,117.97	13,339.93	7,220.50	169.88	170.28	-91.59	-2,886.54	-6,075.98	3,703.95	3,364.25	339.70	10.904		
13,000.00	7,117.54	13,439.89	7,220.00	172.67	173.06	-91.59	-2,887.13	-6,175.93	3,701.07	3,355.80	345.28	10.719		
13,100.00	7,117.10	13,539.85	7,219.50	175.47	175.85	-91.59	-2,887.72	-6,275.89	3,698.20	3,347.34	350.87	10.540		
13,200.00	7,116.67	13,639.81	7,219.00	178.27	178.64	-91.59	-2,888.31	-6,375.85	3,695.33	3,338.87	356.46	10.367		
13,300.00	7,116.24	13,739.77	7,218.50	181.07	181.43	-91.59	-2,888.89	-6,475.80	3,692.46	3,330.40	362.05	10.199		
13,400.00	7,115.80	13,839.73	7,218.00	183.87	184.22	-91.59	-2,889.48	-6,575.76	3,689.58	3,321.93	367.65	10.036		
13,500.00	7,115.37	13,939.69	7,217.50	186.67	187.02	-91.60	-2,890.07	-6,675.71	3,686.71	3,313.46	373.25	9.877		
13,600.00	7,114.93	14,039.65	7,216.99	189.47	189.82	-91.60	-2,890.66	-6,775.67	3,683.84	3,304.98	378.85	9.724		
13,700.00	7,114.50	14,139.60	7,216.49	192.28	192.62	-91.60	-2,891.25	-6,875.62	3,680.96	3,296.50	384.46	9.574		
13,800.00	7,114.07	14,239.56	7,215.99	195.09	195.42	-91.60	-2,891.83	-6,975.58	3,678.09	3,288.02	390.07	9.429		
13,900.00	7,113.63	14,339.52	7,215.49	197.89	198.22	-91.60	-2,892.42	-7,075.54	3,675.22	3,279.54	395.68	9.288		
14,000.00	7,113.20	14,439.48	7,214.99	200.70	201.03	-91.60	-2,893.01	-7,175.49	3,672.34	3,271.05	401.29	9.151		
14,100.00	7,112.77	14,539.44	7,214.49	203.51	203.83	-91.60	-2,893.60	-7,275.45	3,669.47	3,262.56	406.91	9.018		
14,200.00	7,112.33	14,639.40	7,213.99	206.32	206.64	-91.60	-2,894.18	-7,375.40	3,666.60	3,254.07	412.53	8.888		
14,300.00	7,111.90	14,739.36	7,213.49	209.13	209.45	-91.60	-2,894.77	-7,475.36	3,663.72	3,245.57	418.15	8.762		
14,400.00	7,111.46	14,839.31	7,212.99	211.95	212.26	-91.60	-2,895.36	-7,575.31	3,660.85	3,237.07	423.78	8.639		
14,500.00	7,111.03	14,939.27	7,212.49	214.76	215.07	-91.60	-2,895.95	-7,675.27	3,657.98	3,228.58	429.40	8.519		
14,600.00	7,110.60	15,039.23	7,211.99	217.58	217.88	-91.60	-2,896.54	-7,775.23	3,655.10	3,220.07	435.03	8.402		
14,700.00	7,110.16	15,139.19	7,211.49	220.39	220.69	-91.60	-2,897.12	-7,875.18	3,652.23	3,211.57	440.66	8.288		
14,800.00	7,109.73	15,239.15	7,210.99	223.21	223.51	-91.60	-2,897.71	-7,975.14	3,649.36	3,203.07	446.29	8.177		
14,900.00	7,109.30	15,339.11	7,210.49	226.03	226.33	-91.60	-2,898.30	-8,075.09	3,646.48	3,194.56	451.92	8.069		
14,969.16	7,109.00	15,408.24	7,210.14	227.97	228.27	-91.60	-2,898.71	-8,144.22	3,644.50	3,188.68	455.82	7.995 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.54	-379.98	-3.06	379.99					
100.00	100.00	102.00	100.00	3.28	3.29	-179.54	-379.98	-3.06	379.99	373.43	6.57	57.839		
200.00	200.00	198.00	200.00	3.34	3.34	-179.54	-379.98	-3.06	379.99	373.32	6.67	56.950	CC, ES	
300.00	300.00	286.52	288.50	3.44	3.42	-179.53	-381.29	-3.15	381.47	374.60	6.88	55.474		
400.00	400.00	374.63	376.53	3.60	3.55	-179.49	-385.29	-3.43	386.02	378.84	7.18	53.752		
500.00	500.00	462.42	464.06	3.81	3.71	-179.43	-391.96	-3.89	393.63	386.06	7.57	51.973		
600.00	600.00	549.72	550.85	4.05	3.91	-179.35	-401.25	-4.53	404.28	396.24	8.04	50.298		
700.00	699.98	636.13	636.44	4.32	4.13	-170.09	-413.04	-5.35	419.63	411.07	8.56	49.021		
800.00	799.84	721.01	720.15	4.62	4.38	-170.01	-427.12	-6.32	441.29	432.17	9.13	48.349		
900.00	899.45	803.91	801.45	4.94	4.65	-169.96	-443.25	-7.44	469.12	459.40	9.72	48.276		
1,000.00	998.70	884.39	879.90	5.28	4.94	-169.92	-461.15	-8.67	502.93	492.61	10.32	48.745		
1,100.00	1,097.50	962.14	955.19	5.64	5.24	-169.94	-480.53	-10.01	542.31	531.38	10.93	49.631		
1,200.00	1,196.18	1,037.81	1,027.92	6.00	5.56	-170.04	-501.33	-11.45	584.80	573.29	11.52	50.785		
1,300.00	1,294.87	1,111.59	1,098.28	6.38	5.88	-170.11	-523.45	-12.98	629.64	617.54	12.10	52.030		
1,400.00	1,393.55	1,187.66	1,170.23	6.77	6.23	-170.16	-548.07	-14.69	676.66	663.96	12.70	53.264		
1,500.00	1,492.23	1,275.57	1,253.21	7.17	6.66	-170.21	-577.08	-16.69	724.31	710.93	13.38	54.123		
1,600.00	1,590.91	1,363.49	1,336.18	7.58	7.10	-170.26	-606.09	-18.70	771.95	757.87	14.08	54.813		
1,700.00	1,689.60	1,451.41	1,419.15	8.00	7.55	-170.30	-635.09	-20.71	819.60	804.80	14.80	55.371		
1,800.00	1,788.28	1,539.33	1,502.12	8.42	8.01	-170.33	-664.10	-22.71	867.24	851.71	15.54	55.819		
1,900.00	1,886.96	1,627.25	1,585.09	8.84	8.48	-170.37	-693.11	-24.72	914.89	898.60	16.28	56.181		
2,000.00	1,985.64	1,715.17	1,668.06	9.27	8.95	-170.39	-722.12	-26.73	962.53	945.49	17.04	56.472		
2,100.00	2,084.33	1,803.09	1,751.04	9.71	9.43	-170.42	-751.12	-28.73	1,010.18	992.37	17.81	56.705		
2,200.00	2,183.01	1,908.99	1,834.01	10.15	10.01	-170.44	-780.13	-30.74	1,057.83	1,039.15	18.68	56.632		
2,300.00	2,281.69	1,978.93	1,916.98	10.59	10.40	-170.47	-809.14	-32.75	1,105.47	1,086.09	19.38	57.040		
2,400.00	2,380.38	2,066.84	1,999.95	11.03	10.89	-170.48	-838.14	-34.75	1,153.12	1,132.94	20.17	57.157		
2,500.00	2,479.06	2,154.76	2,082.92	11.47	11.39	-170.50	-867.15	-36.76	1,200.76	1,179.79	20.97	57.249		
2,600.00	2,577.74	2,242.68	2,165.89	11.92	11.89	-170.52	-896.16	-38.76	1,248.41	1,226.63	21.78	57.319		
2,700.00	2,676.42	2,330.60	2,248.87	12.36	12.39	-170.54	-925.17	-40.77	1,296.06	1,273.47	22.59	57.372		
2,800.00	2,775.11	2,418.52	2,331.84	12.81	12.89	-170.55	-954.17	-42.78	1,343.70	1,320.30	23.41	57.411		
2,900.00	2,873.79	2,506.44	2,414.81	13.26	13.39	-170.56	-983.18	-44.78	1,391.35	1,367.13	24.22	57.437		
3,000.00	2,972.47	2,605.64	2,497.78	13.72	13.96	-170.58	-1,012.19	-46.79	1,439.00	1,413.89	25.10	57.325		
3,100.00	3,071.15	2,682.28	2,580.75	14.17	14.40	-170.59	-1,041.20	-48.80	1,486.64	1,460.77	25.87	57.462		
3,200.00	3,169.84	2,770.20	2,663.72	14.62	14.91	-170.60	-1,070.20	-50.80	1,534.29	1,507.59	26.70	57.464		
3,300.00	3,268.52	2,858.11	2,746.69	15.08	15.42	-170.61	-1,099.21	-52.81	1,581.94	1,554.41	27.53	57.460		
3,400.00	3,367.20	2,946.03	2,829.67	15.53	15.93	-170.62	-1,128.22	-54.82	1,629.58	1,601.22	28.36	57.451		
3,500.00	3,465.89	3,033.95	2,912.64	15.99	16.44	-170.63	-1,157.22	-56.82	1,677.23	1,648.03	29.20	57.438		
3,600.00	3,564.57	3,121.87	2,995.61	16.44	16.96	-170.64	-1,186.23	-58.83	1,724.88	1,694.84	30.04	57.422		
3,700.00	3,663.25	3,209.79	3,078.58	16.90	17.47	-170.65	-1,215.24	-60.84	1,772.52	1,741.65	30.88	57.404		
3,800.00	3,761.93	3,297.71	3,161.55	17.36	17.98	-170.65	-1,244.25	-62.84	1,820.17	1,788.45	31.72	57.383		
3,900.00	3,860.62	3,385.63	3,244.52	17.82	18.50	-170.66	-1,273.25	-64.85	1,867.82	1,835.25	32.56	57.360		
4,000.00	3,959.30	3,473.55	3,327.50	18.28	19.01	-170.67	-1,302.26	-66.86	1,915.46	1,882.06	33.41	57.336		
4,100.00	4,057.98	3,561.47	3,410.47	18.74	19.53	-170.67	-1,331.27	-68.86	1,963.11	1,928.86	34.25	57.311		
4,200.00	4,156.67	3,649.38	3,493.44	19.20	20.04	-170.68	-1,360.27	-70.87	2,010.76	1,975.66	35.10	57.285		
4,300.00	4,255.35	3,737.30	3,576.41	19.66	20.56	-170.69	-1,389.28	-72.88	2,058.41	2,022.46	35.95	57.258		
4,400.00	4,354.03	3,825.22	3,659.38	20.12	21.08	-170.69	-1,418.29	-74.88	2,106.05	2,069.25	36.80	57.231		
4,500.00	4,452.71	3,913.14	3,742.35	20.58	21.60	-170.70	-1,447.30	-76.89	2,153.70	2,116.05	37.65	57.203		
4,600.00	4,551.40	4,001.06	3,825.33	21.04	22.11	-170.70	-1,476.30	-78.90	2,201.35	2,162.84	38.50	57.175		
4,700.00	4,650.08	4,088.98	3,908.30	21.50	22.63	-170.71	-1,505.31	-80.90	2,248.99	2,209.64	39.35	57.146		
4,800.00	4,748.76	4,176.90	3,991.27	21.96	23.15	-170.71	-1,534.32	-82.91	2,296.64	2,256.43	40.21	57.118		
4,900.00	4,847.44	4,264.82	4,074.24	22.42	23.67	-170.72	-1,563.33	-84.91	2,344.29	2,303.22	41.06	57.089		
5,000.00	4,946.13	4,352.74	4,157.21	22.89	24.19	-170.72	-1,592.33	-86.92	2,391.93	2,350.02	41.92	57.061		
5,100.00	5,044.81	4,440.65	4,240.18	23.35	24.71	-170.73	-1,621.34	-88.93	2,439.58	2,396.81	42.78	57.033		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	4,528.57	4,323.15	23.81	25.23	-170.73	-1,650.35	-90.93	2,487.23	2,443.60	43.63	57.004		
5,300.00	5,242.18	4,616.49	4,406.13	24.27	25.75	-170.74	-1,679.35	-92.94	2,534.88	2,490.39	44.49	56.976		
5,400.00	5,340.86	4,704.41	4,489.10	24.74	26.27	-170.74	-1,708.36	-94.95	2,582.52	2,537.17	45.35	56.948		
5,500.00	5,439.54	4,807.67	4,572.07	25.20	26.88	-170.74	-1,737.37	-96.95	2,630.17	2,583.88	46.29	56.823		
5,600.00	5,538.22	4,880.25	4,655.04	25.66	27.31	-170.75	-1,766.38	-98.96	2,677.82	2,630.75	47.07	56.893		
5,700.00	5,636.91	4,968.17	4,738.01	26.13	27.83	-170.75	-1,795.38	-100.97	2,725.46	2,677.54	47.93	56.866		
5,800.00	5,735.59	5,056.09	4,820.98	26.59	28.35	-170.75	-1,824.39	-102.97	2,773.11	2,724.32	48.79	56.839		
5,900.00	5,834.27	5,144.01	4,903.96	27.06	28.87	-170.76	-1,853.40	-104.98	2,820.76	2,771.11	49.65	56.813		
6,000.00	5,932.95	5,231.92	4,986.93	27.52	29.39	-170.76	-1,882.41	-106.99	2,868.41	2,817.89	50.51	56.786		
6,100.00	6,031.64	5,319.84	5,069.90	27.98	29.92	-170.76	-1,911.41	-108.99	2,916.05	2,864.68	51.38	56.760		
6,200.00	6,130.32	5,407.76	5,152.87	28.45	30.44	-170.77	-1,940.42	-111.00	2,963.70	2,911.46	52.24	56.734		
6,300.00	6,229.00	5,504.32	5,235.84	28.91	31.01	-170.77	-1,969.43	-113.01	3,011.35	2,958.20	53.15	56.661		
6,400.00	6,327.69	5,583.60	5,318.81	29.38	31.48	-170.77	-1,998.43	-115.01	3,058.99	3,005.03	53.97	56.683		
6,500.00	6,426.37	5,671.52	5,401.79	29.84	32.00	-170.77	-2,027.44	-117.02	3,106.64	3,051.81	54.83	56.658		
6,600.00	6,525.05	5,759.44	5,484.76	30.31	32.53	-170.78	-2,056.45	-119.03	3,154.29	3,098.59	55.70	56.633		
6,700.00	6,623.18	5,847.12	5,567.51	30.77	33.05	-126.02	-2,085.38	-121.03	3,201.50	3,144.94	56.56	56.601		
6,800.00	6,718.58	5,932.91	5,648.47	31.22	33.56	-105.53	-2,113.68	-122.98	3,247.18	3,189.76	57.42	56.554		
6,900.00	6,808.91	6,014.69	5,725.65	31.66	34.04	-94.61	-2,140.67	-124.85	3,290.51	3,232.26	58.25	56.493		
7,000.00	6,891.95	6,109.55	5,797.14	32.07	34.61	-87.63	-2,165.66	-126.58	3,330.91	3,271.76	59.15	56.311		
7,100.00	6,965.65	6,158.31	5,861.18	32.51	34.90	-82.72	-2,188.05	-128.13	3,367.97	3,308.12	59.85	56.275		
7,200.00	7,028.20	6,216.61	5,916.21	33.02	35.24	-79.06	-2,207.29	-129.46	3,401.42	3,340.76	60.66	56.069		
7,300.00	7,078.04	6,263.92	5,960.85	33.68	35.52	-76.24	-2,222.89	-130.54	3,431.08	3,369.55	61.53	55.763		
7,400.00	7,113.97	6,300.93	5,994.02	34.52	35.74	-74.03	-2,234.49	-131.34	3,456.78	3,394.30	62.48	55.330		
7,500.00	7,135.09	6,321.19	6,014.90	35.53	35.87	-72.28	-2,241.79	-131.85	3,478.37	3,414.90	63.47	54.801		
7,600.00	7,140.96	6,329.80	6,023.02	36.68	35.92	-71.06	-2,244.63	-132.04	3,495.68	3,431.16	64.53	54.175		
7,700.00	7,140.53	6,332.81	6,025.87	37.99	35.93	-71.11	-2,245.62	-132.11	3,512.83	3,447.15	65.68	53.481		
7,800.00	7,140.09	6,335.83	6,028.71	39.45	35.95	-71.16	-2,246.62	-132.18	3,532.72	3,465.75	66.98	52.747		
7,900.00	7,139.66	6,338.84	6,031.56	41.06	35.97	-71.21	-2,247.61	-132.25	3,555.32	3,486.94	68.38	51.997		
8,000.00	7,139.23	6,341.85	6,034.40	42.80	35.99	-71.26	-2,248.61	-132.32	3,580.56	3,510.70	69.86	51.251		
8,100.00	7,138.79	6,344.87	6,037.24	44.65	36.01	-71.31	-2,249.60	-132.39	3,608.39	3,536.98	71.42	50.526		
8,200.00	7,138.36	6,347.88	6,040.08	46.60	36.02	-71.36	-2,250.59	-132.46	3,637.81	3,564.36	73.05	49.797		
8,300.00	7,137.93	6,350.89	6,042.91	48.65	36.03	-71.41	-2,251.58	-132.53	3,667.82	3,591.83	74.76	49.064		
8,400.00	7,137.49	6,353.90	6,045.74	50.77	36.04	-71.46	-2,252.57	-132.60	3,698.42	3,619.48	76.51	48.327		
8,500.00	7,137.06	6,356.91	6,048.57	52.95	36.05	-71.51	-2,253.56	-132.67	3,729.61	3,647.21	78.30	47.586		
8,600.00	7,136.62	6,359.92	6,051.40	55.20	36.06	-71.56	-2,254.55	-132.74	3,761.39	3,675.02	80.13	46.840		
8,700.00	7,136.19	6,362.93	6,054.23	57.51	36.07	-71.61	-2,255.54	-132.81	3,793.76	3,702.91	81.99	46.090		
8,800.00	7,135.76	6,365.94	6,057.06	59.85	36.08	-71.66	-2,256.53	-132.88	3,826.72	3,730.88	83.88	45.336		
8,900.00	7,135.32	6,368.95	6,059.89	62.24	36.09	-71.71	-2,257.52	-132.95	3,860.27	3,758.93	85.79	44.578		
9,000.00	7,134.89	6,371.96	6,062.72	64.67	36.10	-71.76	-2,258.51	-133.02	3,894.40	3,787.06	87.72	43.816		
9,100.00	7,134.45	6,374.97	6,065.55	67.13	36.11	-71.81	-2,259.50	-133.09	3,929.11	3,815.27	89.67	43.050		
9,200.00	7,134.02	6,377.98	6,068.38	69.62	36.12	-71.86	-2,260.49	-133.16	3,964.40	3,843.56	91.63	42.280		
9,300.00	7,133.59	6,380.99	6,071.21	72.14	36.13	-71.91	-2,261.48	-133.23	3,999.37	3,871.93	93.60	41.506		
9,400.00	7,133.15	6,383.99	6,074.04	74.68	36.14	-71.96	-2,262.47	-133.30	4,034.92	3,900.47	95.58	40.728		
9,500.00	7,132.72	6,386.99	6,076.87	77.24	36.15	-72.01	-2,263.46	-133.37	4,070.04	3,929.08	97.57	39.946		
9,600.00	7,132.29	6,389.99	6,079.70	79.83	36.16	-72.06	-2,264.45	-133.44	4,105.73	3,957.76	99.57	39.160		
9,700.00	7,131.85	6,392.99	6,082.53	82.42	36.17	-72.11	-2,265.44	-133.51	4,141.99	3,986.51	101.58	38.370		
9,800.00	7,131.42	6,395.99	6,085.36	85.04	36.18	-72.16	-2,266.43	-133.58	4,177.82	4,015.32	103.60	37.576		
9,900.00	7,130.98	6,398.99	6,088.19	87.67	36.19	-72.21	-2,267.42	-133.65	4,213.22	4,044.21	105.63	36.778		
10,000.00	7,130.55	6,401.99	6,091.02	90.31	36.20	-72.26	-2,268.41	-133.72	4,248.19	4,073.17	107.67	35.976		
10,100.00	7,130.12	6,404.99	6,093.85	92.97	36.21	-72.31	-2,269.40	-133.79	4,282.73	4,102.20	109.72	35.170		
10,200.00	7,129.68	6,407.99	6,096.68	95.63	36.22	-72.36	-2,270.39	-133.86	4,316.84	4,131.30	111.78	34.360		
10,300.00	7,129.25	6,410.99	6,099.51	98.31	36.23	-72.41	-2,271.38	-133.93	4,350.51	4,160.47	113.85	33.546		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +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)				
10,400.00	7,128.82	10,680.19	7,130.12	101.00	101.58	-90.03	-2,659.42	-3,576.94	3,561.92	3,359.70	202.21	17.615		
10,500.00	7,128.38	10,780.14	7,129.55	103.69	104.24	-90.03	-2,660.03	-3,676.89	3,559.07	3,351.49	207.58	17.145		
10,600.00	7,127.95	10,880.10	7,128.98	106.39	106.91	-90.02	-2,660.64	-3,776.85	3,556.22	3,343.25	212.97	16.698		
10,700.00	7,127.51	10,980.06	7,128.41	109.10	109.60	-90.02	-2,661.25	-3,876.80	3,553.37	3,335.00	218.37	16.272		
10,800.00	7,127.08	11,080.02	7,127.84	111.82	112.29	-90.02	-2,661.87	-3,976.76	3,550.53	3,326.73	223.79	15.865		
10,900.00	7,126.65	11,179.98	7,127.28	114.54	114.99	-90.02	-2,662.48	-4,076.72	3,547.68	3,318.45	229.23	15.477		
11,000.00	7,126.21	11,279.94	7,126.71	117.27	117.69	-90.02	-2,663.09	-4,176.67	3,544.83	3,310.16	234.67	15.106		
11,100.00	7,125.78	11,379.90	7,126.14	120.01	120.41	-90.01	-2,663.70	-4,276.63	3,541.98	3,301.86	240.13	14.750		
11,200.00	7,125.35	11,479.86	7,125.57	122.75	123.13	-90.01	-2,664.32	-4,376.58	3,539.14	3,293.54	245.60	14.410		
11,300.00	7,124.91	11,579.82	7,125.00	125.49	125.85	-90.01	-2,664.93	-4,476.54	3,536.29	3,285.21	251.08	14.085		
11,400.00	7,124.48	11,679.78	7,124.43	128.24	128.58	-90.01	-2,665.54	-4,576.50	3,533.44	3,276.88	256.56	13.772		
11,500.00	7,124.04	11,779.74	7,123.87	131.00	131.32	-90.00	-2,666.16	-4,676.45	3,530.59	3,268.53	262.06	13.472		
11,600.00	7,123.61	11,879.70	7,123.30	133.75	134.06	-90.00	-2,666.77	-4,776.41	3,527.75	3,260.18	267.57	13.184		
11,700.00	7,123.18	11,979.66	7,122.73	136.52	136.81	-90.00	-2,667.38	-4,876.36	3,524.90	3,251.81	273.08	12.908		
11,800.00	7,122.74	12,079.62	7,122.16	139.28	139.56	-90.00	-2,667.99	-4,976.32	3,522.05	3,243.44	278.61	12.642		
11,900.00	7,122.31	12,179.58	7,121.59	142.05	142.32	-90.00	-2,668.61	-5,076.27	3,519.20	3,235.06	284.14	12.386		
12,000.00	7,121.88	12,279.54	7,121.03	144.82	145.08	-89.99	-2,669.22	-5,176.23	3,516.35	3,226.68	289.67	12.139		
12,100.00	7,121.44	12,379.49	7,120.46	147.59	147.84	-89.99	-2,669.83	-5,276.19	3,513.51	3,218.29	295.22	11.901		
12,200.00	7,121.01	12,479.45	7,119.89	150.37	150.61	-89.99	-2,670.44	-5,376.14	3,510.66	3,209.89	300.77	11.672		
12,300.00	7,120.57	12,579.41	7,119.32	153.15	153.38	-89.99	-2,671.06	-5,476.10	3,507.81	3,201.49	306.32	11.451		
12,400.00	7,120.14	12,679.37	7,118.75	155.93	156.15	-89.98	-2,671.67	-5,576.05	3,504.96	3,193.08	311.88	11.238		
12,500.00	7,119.71	12,779.33	7,118.18	158.72	158.93	-89.98	-2,672.28	-5,676.01	3,502.12	3,184.67	317.45	11.032		
12,600.00	7,119.27	12,879.29	7,117.62	161.50	161.71	-89.98	-2,672.90	-5,775.97	3,499.27	3,176.25	323.02	10.833		
12,700.00	7,118.84	12,979.25	7,117.05	164.29	164.49	-89.98	-2,673.51	-5,875.92	3,496.42	3,167.83	328.59	10.641		
12,800.00	7,118.41	13,079.21	7,116.48	167.08	167.28	-89.98	-2,674.12	-5,975.88	3,493.57	3,159.40	334.17	10.454		
12,900.00	7,117.97	13,179.17	7,115.91	169.88	170.06	-89.97	-2,674.73	-6,075.83	3,490.73	3,150.97	339.76	10.274		
13,000.00	7,117.54	13,279.13	7,115.34	172.67	172.85	-89.97	-2,675.35	-6,175.79	3,487.88	3,142.54	345.34	10.100		
13,100.00	7,117.10	13,379.09	7,114.78	175.47	175.65	-89.97	-2,675.96	-6,275.74	3,485.03	3,134.10	350.93	9.931		
13,200.00	7,116.67	13,479.05	7,114.21	178.27	178.44	-89.97	-2,676.57	-6,375.70	3,482.18	3,125.65	356.53	9.767		
13,300.00	7,116.24	13,579.01	7,113.64	181.07	181.23	-89.96	-2,677.18	-6,475.66	3,479.34	3,117.21	362.13	9.608		
13,400.00	7,115.80	13,678.97	7,113.07	183.87	184.03	-89.96	-2,677.80	-6,575.61	3,476.49	3,108.76	367.73	9.454		
13,500.00	7,115.37	13,778.93	7,112.50	186.67	186.83	-89.96	-2,678.41	-6,675.57	3,473.64	3,100.31	373.33	9.304		
13,600.00	7,114.93	13,878.88	7,111.93	189.47	189.63	-89.96	-2,679.02	-6,775.52	3,470.79	3,091.85	378.94	9.159		
13,700.00	7,114.50	13,978.84	7,111.37	192.28	192.44	-89.96	-2,679.64	-6,875.48	3,467.95	3,083.39	384.55	9.018		
13,800.00	7,114.07	14,078.80	7,110.80	195.09	195.24	-89.95	-2,680.25	-6,975.44	3,465.10	3,074.93	390.17	8.881		
13,900.00	7,113.63	14,178.76	7,110.23	197.89	198.05	-89.95	-2,680.86	-7,075.39	3,462.25	3,066.47	395.78	8.748		
14,000.00	7,113.20	14,278.72	7,109.66	200.70	200.85	-89.95	-2,681.47	-7,175.35	3,459.40	3,058.00	401.40	8.618		
14,100.00	7,112.77	14,378.68	7,109.09	203.51	203.66	-89.95	-2,682.09	-7,275.30	3,456.55	3,049.53	407.02	8.492		
14,200.00	7,112.33	14,478.64	7,108.52	206.32	206.47	-89.94	-2,682.70	-7,375.26	3,453.71	3,041.06	412.64	8.370		
14,300.00	7,111.90	14,578.60	7,107.96	209.13	209.28	-89.94	-2,683.31	-7,475.22	3,450.86	3,032.59	418.27	8.250		
14,400.00	7,111.46	14,678.56	7,107.39	211.95	212.10	-89.94	-2,683.92	-7,575.17	3,448.01	3,024.12	423.90	8.134		
14,500.00	7,111.03	14,778.52	7,106.82	214.76	214.91	-89.94	-2,684.54	-7,675.13	3,445.16	3,015.64	429.53	8.021		
14,600.00	7,110.60	14,878.48	7,106.25	217.58	217.73	-89.93	-2,685.15	-7,775.08	3,442.32	3,007.16	435.16	7.911		
14,700.00	7,110.16	14,978.44	7,105.68	220.39	220.54	-89.93	-2,685.76	-7,875.04	3,439.47	2,998.68	440.79	7.803		
14,800.00	7,109.73	15,078.40	7,105.12	223.21	223.36	-89.93	-2,686.38	-7,974.99	3,436.62	2,990.20	446.43	7.698		
14,900.00	7,109.30	15,178.36	7,104.55	226.03	226.18	-89.93	-2,686.99	-8,074.95	3,433.77	2,981.71	452.06	7.596		
14,969.16	7,109.00	15,247.49	7,104.15	227.97	228.13	-89.93	-2,687.41	-8,144.08	3,431.81	2,975.84	455.96	7.527 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	0.80	20.03	0.28	20.03					
100.00	100.00	101.00	100.00	3.28	0.18	0.80	20.03	0.28	20.03	16.57	3.46	5.783		
200.00	200.00	201.00	200.00	3.34	0.62	0.80	20.03	0.28	20.03	16.08	3.96	5.065		
300.00	300.00	301.00	300.00	3.44	1.06	0.80	20.03	0.28	20.03	15.53	4.50	4.450		
400.00	400.00	401.00	400.00	3.60	1.50	0.80	20.03	0.28	20.03	14.94	5.10	3.929		
500.00	500.00	501.00	500.00	3.81	1.93	0.80	20.03	0.28	20.03	14.29	5.74	3.490 CC		
600.00	600.00	600.27	599.24	4.05	2.37	0.11	21.77	0.04	21.78	15.36	6.43	3.389		
700.00	699.98	699.40	698.24	4.32	2.81	8.27	26.91	-0.66	25.25	18.09	7.16	3.526		
800.00	799.84	798.41	796.87	4.62	3.25	7.70	35.42	-1.82	28.69	20.77	7.92	3.624		
900.00	899.45	897.31	895.04	4.94	3.69	7.40	47.29	-3.43	32.11	23.42	8.70	3.692		
1,000.00	998.70	996.09	992.62	5.28	4.13	7.30	62.49	-5.50	35.50	26.01	9.49	3.741		
1,100.00	1,097.50	1,104.41	1,090.45	5.64	4.62	7.42	80.48	-7.95	38.39	28.06	10.32	3.719		
1,200.00	1,196.18	1,204.44	1,188.69	6.00	5.07	7.62	98.79	-10.44	40.76	29.63	11.13	3.663		
1,300.00	1,294.87	1,304.46	1,286.94	6.38	5.52	7.81	117.10	-12.93	43.13	31.18	11.95	3.609		
1,400.00	1,393.55	1,404.49	1,385.19	6.77	5.98	7.97	135.40	-15.42	45.50	32.72	12.79	3.558		
1,500.00	1,492.23	1,495.48	1,483.44	7.17	6.41	8.12	153.71	-17.91	47.88	34.28	13.60	3.522		
1,600.00	1,590.91	1,604.55	1,581.69	7.58	6.92	8.26	172.02	-20.40	50.25	35.76	14.49	3.467		
1,700.00	1,689.60	1,704.58	1,679.94	8.00	7.38	8.38	190.33	-22.89	52.62	37.27	15.36	3.426		
1,800.00	1,788.28	1,804.60	1,778.19	8.42	7.85	8.49	208.63	-25.38	55.00	38.77	16.23	3.388		
1,900.00	1,886.96	1,904.63	1,876.44	8.84	8.32	8.60	226.94	-27.87	57.37	40.26	17.11	3.353		
2,000.00	1,985.64	1,995.34	1,974.69	9.27	8.75	8.69	245.25	-30.36	59.75	41.80	17.95	3.328		
2,100.00	2,084.33	2,104.69	2,072.94	9.71	9.27	8.78	263.55	-32.85	62.12	43.24	18.88	3.290		
2,200.00	2,183.01	2,204.72	2,171.19	10.15	9.74	8.86	281.86	-35.34	64.50	44.73	19.77	3.262		
2,300.00	2,281.69	2,304.75	2,269.44	10.59	10.21	8.93	300.17	-37.83	66.87	46.21	20.67	3.236		
2,400.00	2,380.38	2,404.77	2,367.69	11.03	10.69	9.00	318.48	-40.32	69.25	47.68	21.56	3.211		
2,500.00	2,479.06	2,504.80	2,465.94	11.47	11.16	9.07	336.78	-42.81	71.62	49.16	22.46	3.188		
2,600.00	2,577.74	2,595.17	2,564.19	11.92	11.59	9.13	355.09	-45.30	74.00	50.68	23.32	3.173		
2,700.00	2,676.42	2,704.86	2,662.44	12.36	12.11	9.19	373.40	-47.79	76.37	52.10	24.27	3.147		
2,800.00	2,775.11	2,804.89	2,760.69	12.81	12.58	9.24	391.70	-50.28	78.75	53.57	25.18	3.128		
2,900.00	2,873.79	2,904.92	2,858.94	13.26	13.06	9.29	410.01	-52.77	81.12	55.04	26.09	3.110		
3,000.00	2,972.47	3,004.94	2,957.19	13.72	13.53	9.34	428.32	-55.27	83.50	56.51	26.99	3.093		
3,100.00	3,071.15	3,104.97	3,055.44	14.17	14.01	9.39	446.62	-57.76	85.88	57.97	27.90	3.077		
3,200.00	3,169.84	3,205.00	3,153.69	14.62	14.49	9.43	464.93	-60.25	88.25	59.43	28.82	3.063		
3,300.00	3,268.52	3,305.03	3,251.94	15.08	14.96	9.47	483.24	-62.74	90.63	60.90	29.73	3.048		
3,400.00	3,367.20	3,405.06	3,350.19	15.53	15.44	9.51	501.55	-65.23	93.00	62.36	30.64	3.035		
3,500.00	3,465.89	3,505.08	3,448.44	15.99	15.91	9.54	519.85	-67.72	95.38	63.82	31.56	3.022		
3,600.00	3,564.57	3,605.11	3,546.69	16.44	16.39	9.58	538.16	-70.21	97.75	65.28	32.47	3.010		
3,700.00	3,663.25	3,694.86	3,644.94	16.90	16.82	9.61	556.47	-72.70	100.13	66.79	33.34	3.003		
3,800.00	3,761.93	3,805.17	3,743.19	17.36	17.34	9.64	574.77	-75.19	102.51	68.20	34.31	2.988		
3,900.00	3,860.62	3,894.80	3,841.44	17.82	17.77	9.67	593.08	-77.68	104.88	69.71	35.18	2.982		
4,000.00	3,959.30	3,994.77	3,939.69	18.28	18.24	9.70	611.39	-80.17	107.26	71.16	36.09	2.972		
4,100.00	4,057.98	4,094.75	4,037.94	18.74	18.72	9.73	629.70	-82.66	109.63	72.62	37.01	2.962		
4,200.00	4,156.67	4,205.28	4,136.19	19.20	19.25	9.76	648.00	-85.15	112.01	74.03	37.98	2.949		
4,300.00	4,255.35	4,305.31	4,234.44	19.66	19.72	9.78	666.31	-87.64	114.39	75.49	38.90	2.940		
4,400.00	4,354.03	4,394.66	4,332.68	20.12	20.15	9.81	684.62	-90.13	116.76	76.99	39.77	2.936		
4,500.00	4,452.71	4,505.37	4,430.93	20.58	20.68	9.83	702.92	-92.62	119.14	78.40	40.74	2.924		
4,600.00	4,551.40	4,605.40	4,529.18	21.04	21.16	9.85	721.23	-95.11	121.51	79.85	41.66	2.917		
4,700.00	4,650.08	4,705.42	4,627.43	21.50	21.63	9.87	739.54	-97.60	123.89	81.31	42.58	2.909		
4,800.00	4,748.76	4,805.45	4,725.68	21.96	22.11	9.89	757.84	-100.09	126.27	82.76	43.51	2.902		
4,900.00	4,847.44	4,905.48	4,823.93	22.42	22.59	9.91	776.15	-102.58	128.64	84.21	44.43	2.896		
5,000.00	4,946.13	5,005.51	4,922.18	22.89	23.06	9.93	794.46	-105.08	131.02	85.67	45.35	2.889		
5,100.00	5,044.81	5,105.54	5,020.43	23.35	23.54	9.95	812.77	-107.57	133.39	87.12	46.27	2.883		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,194.44	5,118.68	23.81	23.96	9.97	831.07	-110.06	135.77	88.63	47.14	2.880		
5,300.00	5,242.18	5,305.59	5,216.93	24.27	24.49	9.99	849.38	-112.55	138.15	90.03	48.12	2.871		
5,400.00	5,340.86	5,405.62	5,315.18	24.74	24.97	10.00	867.69	-115.04	140.52	91.48	49.04	2.865		
5,500.00	5,439.54	5,505.65	5,413.43	25.20	25.45	10.02	885.99	-117.53	142.90	92.93	49.97	2.860		
5,600.00	5,538.22	5,594.32	5,511.68	25.66	25.87	10.04	904.30	-120.02	145.28	94.44	50.84	2.858		
5,700.00	5,636.91	5,705.71	5,609.93	26.13	26.40	10.05	922.61	-122.51	147.65	95.84	51.81	2.850		
5,800.00	5,735.59	5,805.73	5,708.18	26.59	26.88	10.07	940.92	-125.00	150.03	97.29	52.74	2.845		
5,900.00	5,834.27	5,894.24	5,806.43	27.06	27.30	10.08	959.22	-127.49	152.40	98.80	53.61	2.843		
6,000.00	5,932.95	6,005.79	5,904.68	27.52	27.84	10.09	977.53	-129.98	154.78	100.19	54.59	2.835		
6,100.00	6,031.64	6,094.18	6,002.93	27.98	28.26	10.11	995.84	-132.47	157.16	101.70	55.46	2.834		
6,200.00	6,130.32	6,194.15	6,101.18	28.45	28.73	10.12	1,014.14	-134.96	159.53	103.15	56.38	2.830		
6,300.00	6,229.00	6,305.88	6,199.43	28.91	29.27	10.13	1,032.45	-137.45	161.91	104.55	57.36	2.823		
6,400.00	6,327.69	6,394.10	6,297.68	29.38	29.69	10.15	1,050.76	-139.94	164.29	106.05	58.23	2.821		
6,500.00	6,426.37	6,505.93	6,395.93	29.84	30.22	10.16	1,069.06	-142.43	166.66	107.45	59.21	2.815		
6,600.00	6,525.05	6,594.04	6,494.18	30.31	30.64	10.17	1,087.37	-144.92	169.04	108.96	60.08	2.813		
6,700.00	6,623.18	6,693.59	6,592.02	30.77	31.12	10.18	1,105.60	-147.40	171.41	110.46	61.04	2.818		
6,800.00	6,721.58	6,793.06	6,689.71	31.22	31.59	10.19	1,123.78	-150.00	173.80	112.95	62.09	2.864		
6,900.00	6,808.91	6,897.98	6,791.25	31.66	32.09	10.20	1,142.46	-152.59	176.19	115.44	63.12	2.963		
7,000.00	6,891.95	7,007.64	6,892.82	32.07	32.59	10.21	1,160.85	-155.18	178.58	117.93	64.15	3.115		
7,100.00	6,965.65	7,122.34	6,990.85	32.51	33.08	10.22	1,178.26	-157.77	180.97	119.92	65.18	3.323		
7,200.00	7,028.20	7,242.14	7,080.90	33.02	33.59	10.23	1,193.85	-160.36	183.36	121.91	66.21	3.579		
7,300.00	7,078.04	7,366.75	7,157.83	33.68	34.19	10.24	1,206.69	-162.95	185.75	123.90	67.24	3.860		
7,400.00	7,113.97	7,495.45	7,216.30	34.52	35.05	10.25	1,215.80	-165.54	187.14	125.89	68.27	4.112		
7,500.00	7,135.09	7,627.08	7,251.61	35.53	36.25	10.26	1,220.40	-168.13	188.53	127.88	69.30	4.255		
7,600.00	7,140.96	7,755.14	7,260.94	36.68	37.68	10.27	1,220.13	-170.72	189.92	129.87	70.33	4.215		
7,700.00	7,140.53	7,855.12	7,260.52	37.99	38.97	10.28	1,218.47	-173.31	191.31	131.86	71.36	4.072		
7,800.00	7,140.09	7,955.10	7,260.10	39.45	40.42	10.29	1,216.81	-175.90	192.70	133.85	72.39	3.922		
7,900.00	7,139.66	8,055.09	7,259.68	41.06	42.01	10.30	1,215.15	-178.49	194.09	135.84	73.42	3.768		
8,000.00	7,139.23	8,155.07	7,259.26	42.80	43.73	10.31	1,213.49	-181.08	195.48	137.83	74.45	3.615		
8,100.00	7,138.79	8,255.05	7,258.84	44.65	45.56	10.32	1,211.83	-183.67	196.87	139.82	75.48	3.465		
8,200.00	7,138.36	8,355.04	7,258.42	46.60	47.50	10.33	1,210.18	-186.26	198.26	141.81	76.51	3.321		
8,300.00	7,137.93	8,455.02	7,258.00	48.65	49.52	10.34	1,208.52	-188.85	199.65	143.80	77.54	3.183		
8,400.00	7,137.49	8,555.01	7,257.58	50.77	51.63	10.35	1,206.86	-191.44	201.04	145.79	78.57	3.052		
8,500.00	7,137.06	8,654.99	7,257.16	52.95	53.80	10.36	1,205.20	-194.03	202.43	147.78	79.60	2.929		
8,600.00	7,136.62	8,754.97	7,256.74	55.20	56.03	10.37	1,203.54	-196.62	203.82	149.77	80.63	2.813		
8,700.00	7,136.19	8,854.96	7,256.32	57.51	58.32	10.38	1,201.88	-199.21	205.21	151.76	81.66	2.705		
8,800.00	7,135.76	8,954.94	7,255.90	59.85	60.66	10.39	1,200.23	-201.80	206.60	153.75	82.69	2.603		
8,900.00	7,135.32	9,054.92	7,255.48	62.24	63.04	10.40	1,198.57	-204.39	207.99	155.74	83.72	2.508		
9,000.00	7,134.89	9,154.91	7,255.06	64.67	65.46	10.41	1,196.91	-206.98	209.38	157.73	84.75	2.420		
9,100.00	7,134.45	9,254.89	7,254.64	67.13	67.91	10.42	1,195.25	-209.57	210.77	159.72	85.78	2.337		
9,200.00	7,134.02	9,354.88	7,254.22	69.62	70.39	10.43	1,193.59	-212.16	212.16	161.71	86.81	2.259		
9,300.00	7,133.59	9,454.86	7,253.80	72.14	72.90	10.44	1,191.93	-214.75	213.55	163.70	87.84	2.186		
9,400.00	7,133.15	9,554.84	7,253.38	74.68	75.43	10.45	1,190.27	-217.34	214.94	165.69	88.87	2.118		
9,500.00	7,132.72	9,654.83	7,252.96	77.24	77.99	10.46	1,188.62	-219.93	216.33	167.68	89.90	2.054		
9,600.00	7,132.29	9,754.81	7,252.53	79.83	80.57	10.47	1,186.96	-222.52	217.72	169.67	90.93	1.994		
9,700.00	7,131.85	9,854.79	7,252.11	82.42	83.16	10.48	1,185.30	-225.11	219.11	171.66	91.96	1.937		
9,800.00	7,131.42	9,954.78	7,251.69	85.04	85.77	10.49	1,183.64	-227.70	220.50	173.65	92.99	1.884		
9,900.00	7,130.98	10,054.76	7,251.27	87.67	88.40	10.50	1,181.98	-230.29	221.89	175.64	94.02	1.834		
10,000.00	7,130.55	10,154.75	7,250.85	90.31	91.04	10.51	1,180.32	-232.88	223.28	177.63	95.05	1.787		
10,100.00	7,130.12	10,254.73	7,250.43	92.97	93.69	10.52	1,178.67	-235.47	224.67	179.62	96.08	1.742		
10,200.00	7,129.68	10,354.71	7,250.01	95.63	96.36	10.53	1,177.01	-238.06	226.06	181.61	97.11	1.700		
10,300.00	7,129.25	10,454.70	7,249.59	98.31	99.03	10.54	1,175.35	-240.65	227.45	183.60	98.14	1.659		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,128.82	10,554.68	7,249.17	101.00	101.72	113.92	1,173.69	-3,603.77	296.80	113.76	183.05	1.621	
10,500.00	7,128.38	10,654.66	7,248.75	103.69	104.41	113.78	1,172.03	-3,703.74	298.46	110.20	188.25	1.585	
10,600.00	7,127.95	10,754.65	7,248.33	106.39	107.11	113.65	1,170.37	-3,803.71	300.11	106.63	193.48	1.551	
10,700.00	7,127.51	10,854.63	7,247.91	109.10	109.82	113.51	1,168.72	-3,903.68	301.77	103.04	198.73	1.518	
10,800.00	7,127.08	10,954.62	7,247.49	111.82	112.54	113.38	1,167.06	-4,003.64	303.43	99.44	203.99	1.487	Level 3
10,900.00	7,126.65	11,054.60	7,247.07	114.54	115.26	113.25	1,165.40	-4,103.61	305.09	95.82	209.27	1.458	Level 3
11,000.00	7,126.21	11,154.58	7,246.65	117.27	117.99	113.12	1,163.74	-4,203.58	306.75	92.18	214.57	1.430	Level 3
11,100.00	7,125.78	11,254.57	7,246.23	120.01	120.73	112.99	1,162.08	-4,303.55	308.41	88.54	219.88	1.403	Level 3
11,200.00	7,125.35	11,354.55	7,245.81	122.75	123.47	112.86	1,160.42	-4,403.52	310.08	84.88	225.20	1.377	Level 3
11,300.00	7,124.91	11,454.53	7,245.39	125.49	126.21	112.73	1,158.77	-4,503.49	311.74	81.21	230.54	1.352	Level 3
11,400.00	7,124.48	11,554.52	7,244.97	128.24	128.97	112.61	1,157.11	-4,603.46	313.41	77.53	235.88	1.329	Level 3
11,500.00	7,124.04	11,654.50	7,244.55	131.00	131.72	112.49	1,155.45	-4,703.43	315.08	73.84	241.25	1.306	Level 3
11,600.00	7,123.61	11,754.49	7,244.13	133.75	134.48	112.36	1,153.79	-4,803.40	316.75	70.14	246.62	1.284	Level 3
11,700.00	7,123.18	11,854.47	7,243.71	136.52	137.24	112.24	1,152.13	-4,903.37	318.43	66.42	252.00	1.264	Level 3
11,800.00	7,122.74	11,954.45	7,243.29	139.28	140.01	112.12	1,150.47	-5,003.34	320.10	62.70	257.40	1.244	Level 2
11,900.00	7,122.31	12,054.44	7,242.87	142.05	142.78	112.00	1,148.82	-5,103.31	321.78	58.98	262.80	1.224	Level 2
12,000.00	7,121.88	12,154.42	7,242.45	144.82	145.55	111.89	1,147.16	-5,203.27	323.45	55.24	268.21	1.206	Level 2
12,100.00	7,121.44	12,254.40	7,242.03	147.59	148.33	111.77	1,145.50	-5,303.24	325.13	51.50	273.64	1.188	Level 2
12,200.00	7,121.01	12,354.39	7,241.61	150.37	151.11	111.65	1,143.84	-5,403.21	326.81	47.74	279.07	1.171	Level 2
12,300.00	7,120.57	12,454.37	7,241.19	153.15	153.89	111.54	1,142.18	-5,503.18	328.49	43.98	284.51	1.155	Level 2
12,400.00	7,120.14	12,554.36	7,240.77	155.93	156.68	111.43	1,140.52	-5,603.15	330.17	40.22	289.95	1.139	Level 2
12,500.00	7,119.71	12,654.34	7,240.35	158.72	159.47	111.32	1,138.87	-5,703.12	331.86	36.45	295.41	1.123	Level 2
12,600.00	7,119.27	12,754.32	7,239.93	161.50	162.26	111.21	1,137.21	-5,803.09	333.54	32.67	300.87	1.109	Level 2
12,700.00	7,118.84	12,854.31	7,239.51	164.29	165.05	111.10	1,135.55	-5,903.06	335.23	28.88	306.34	1.094	Level 2
12,800.00	7,118.41	12,954.29	7,239.09	167.08	167.84	110.99	1,133.89	-6,003.03	336.91	25.09	311.82	1.080	Level 2
12,900.00	7,117.97	13,054.27	7,238.67	169.88	170.64	110.88	1,132.23	-6,103.00	338.60	21.29	317.31	1.067	Level 2
13,000.00	7,117.54	13,154.26	7,238.25	172.67	173.44	110.78	1,130.57	-6,202.97	340.29	17.49	322.80	1.054	Level 2
13,100.00	7,117.10	13,254.24	7,237.83	175.47	176.24	110.67	1,128.92	-6,302.93	341.98	13.69	328.29	1.042	Level 2
13,200.00	7,116.67	13,354.23	7,237.41	178.27	179.04	110.57	1,127.26	-6,402.90	343.67	9.87	333.80	1.030	Level 2
13,300.00	7,116.24	13,454.21	7,236.99	181.07	181.84	110.46	1,125.60	-6,502.87	345.36	6.06	339.31	1.018	Level 2
13,400.00	7,115.80	13,554.19	7,236.57	183.87	184.65	110.36	1,123.94	-6,602.84	347.06	2.24	344.82	1.006	Level 2
13,500.00	7,115.37	13,654.18	7,236.15	186.67	187.45	110.26	1,122.28	-6,702.81	348.75	-1.59	350.34	0.995	Level 1
13,600.00	7,114.93	13,754.16	7,235.73	189.47	190.26	110.16	1,120.62	-6,802.78	350.45	-5.42	355.87	0.985	Level 1
13,700.00	7,114.50	13,854.14	7,235.30	192.28	193.07	110.06	1,118.97	-6,902.75	352.15	-9.25	361.40	0.974	Level 1
13,800.00	7,114.07	13,954.13	7,234.88	195.09	195.88	109.96	1,117.31	-7,002.72	353.84	-13.09	366.93	0.964	Level 1
13,900.00	7,113.63	14,054.11	7,234.46	197.89	198.69	109.87	1,115.65	-7,102.69	355.54	-16.93	372.47	0.955	Level 1
14,000.00	7,113.20	14,154.10	7,234.04	200.70	201.50	109.77	1,113.99	-7,202.66	357.24	-20.78	378.02	0.945	Level 1
14,100.00	7,112.77	14,254.08	7,233.62	203.51	204.32	109.67	1,112.33	-7,302.63	358.94	-24.63	383.57	0.936	Level 1
14,200.00	7,112.33	14,354.06	7,233.20	206.32	207.13	109.58	1,110.67	-7,402.60	360.65	-28.48	389.12	0.927	Level 1
14,300.00	7,111.90	14,454.05	7,232.78	209.13	209.95	109.49	1,109.02	-7,502.56	362.35	-32.33	394.68	0.918	Level 1
14,400.00	7,111.46	14,554.03	7,232.36	211.95	212.77	109.39	1,107.36	-7,602.53	364.05	-36.19	400.24	0.910	Level 1
14,500.00	7,111.03	14,654.01	7,231.94	214.76	215.59	109.30	1,105.70	-7,702.50	365.76	-40.05	405.81	0.901	Level 1
14,600.00	7,110.60	14,754.00	7,231.52	217.58	218.41	109.21	1,104.04	-7,802.47	367.46	-43.92	411.38	0.893	Level 1
14,700.00	7,110.16	14,853.98	7,231.10	220.39	221.23	109.12	1,102.38	-7,902.44	369.17	-47.79	416.96	0.885	Level 1
14,800.00	7,109.73	14,953.97	7,230.68	223.21	224.05	109.03	1,100.72	-8,002.41	370.88	-51.66	422.53	0.878	Level 1
14,900.00	7,109.30	15,053.95	7,230.26	226.03	226.87	108.94	1,099.07	-8,102.38	372.59	-55.53	428.12	0.870	Level 1
14,969.16	7,109.00	15,116.21	7,230.00	227.97	228.63	108.89	1,098.03	-8,164.63	373.83	-58.02	431.85	0.866	Level 1, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	10.39	1,330.44	243.91	1,352.61					
100.00	100.00	107.10	108.10	3.28	3.29	10.39	1,330.10	243.97	1,352.31	1,345.74	6.57	205.729		
200.00	200.00	212.27	213.27	3.34	3.34	10.40	1,329.20	244.06	1,351.48	1,344.81	6.67	202.498		
300.00	300.00	314.95	315.93	3.44	3.45	10.41	1,328.08	243.97	1,350.40	1,343.50	6.89	195.903		
400.00	400.00	408.49	409.47	3.60	3.60	10.41	1,327.16	243.80	1,349.41	1,342.21	7.20	187.473		
500.00	500.00	504.53	505.51	3.81	3.79	10.40	1,326.72	243.40	1,348.87	1,341.28	7.59	177.714		
600.00	600.00	611.10	612.08	4.05	4.04	10.38	1,326.11	243.03	1,348.25	1,340.17	8.08	166.809		
700.00	699.98	708.01	708.99	4.32	4.30	19.55	1,325.48	242.40	1,345.85	1,337.24	8.61	156.236		
800.00	799.84	807.55	808.52	4.62	4.59	19.62	1,325.06	241.33	1,340.31	1,331.11	9.20	145.620		
900.00	899.45	910.65	911.61	4.94	4.91	19.77	1,324.36	240.16	1,331.22	1,321.37	9.85	135.143		
1,000.00	998.70	999.62	1,000.57	5.28	5.21	19.96	1,323.99	238.92	1,319.11	1,308.62	10.48	125.820		
1,100.00	1,097.50	1,080.85	1,081.76	5.64	5.48	20.11	1,324.89	236.60	1,305.14	1,294.02	11.12	117.412		
1,200.00	1,196.18	1,164.45	1,165.24	6.00	5.77	20.13	1,327.15	232.68	1,291.68	1,279.91	11.77	109.741		
1,300.00	1,294.87	1,243.75	1,244.28	6.38	6.05	20.06	1,330.70	227.46	1,279.62	1,267.19	12.43	102.930		
1,400.00	1,393.55	1,334.87	1,334.87	6.77	6.39	19.88	1,336.21	219.35	1,268.67	1,255.51	13.16	96.407		
1,500.00	1,492.23	1,419.88	1,419.12	7.17	6.72	19.62	1,342.43	209.86	1,258.58	1,244.69	13.89	90.626		
1,600.00	1,590.91	1,511.47	1,509.68	7.58	7.09	19.27	1,350.20	198.59	1,249.49	1,234.82	14.66	85.216		
1,700.00	1,689.60	1,609.65	1,606.67	8.00	7.51	18.88	1,358.92	186.17	1,240.77	1,225.29	15.49	80.124		
1,800.00	1,788.28	1,723.61	1,719.30	8.42	8.01	18.41	1,368.46	171.66	1,231.64	1,215.24	16.39	75.124		
1,900.00	1,886.96	1,823.38	1,818.01	8.84	8.45	18.01	1,376.09	159.26	1,221.88	1,204.62	17.26	70.804		
2,000.00	1,985.64	1,937.86	1,931.36	9.27	8.97	17.57	1,383.92	145.26	1,211.39	1,193.20	18.19	66.582		
2,100.00	2,084.33	2,037.48	2,030.09	9.71	9.43	17.20	1,389.96	133.46	1,200.26	1,181.19	19.07	62.925		
2,200.00	2,183.01	2,126.47	2,118.25	10.15	9.85	16.86	1,395.85	122.90	1,189.72	1,169.80	19.92	59.735		
2,300.00	2,281.69	2,218.32	2,209.16	10.59	10.29	16.48	1,402.74	111.68	1,180.06	1,159.28	20.78	56.791		
2,400.00	2,380.38	2,318.48	2,308.31	11.03	10.77	16.08	1,410.25	99.68	1,170.50	1,148.81	21.68	53.980		
2,500.00	2,479.06	2,411.13	2,400.02	11.47	11.21	15.70	1,417.64	88.86	1,161.47	1,138.91	22.56	51.488		
2,600.00	2,577.74	2,510.86	2,498.80	11.92	11.69	15.32	1,425.56	77.64	1,152.54	1,129.07	23.47	49.114		
2,700.00	2,676.42	2,607.33	2,594.33	12.36	12.16	14.95	1,433.61	66.86	1,144.04	1,119.68	24.36	46.958		
2,800.00	2,775.11	2,713.90	2,699.90	12.81	12.68	14.53	1,442.01	54.92	1,135.15	1,109.84	25.31	44.850		
2,900.00	2,873.79	2,812.65	2,797.69	13.26	13.17	14.11	1,449.57	43.41	1,126.05	1,099.82	26.23	42.936		
3,000.00	2,972.47	2,908.51	2,892.53	13.72	13.65	13.67	1,457.17	31.71	1,117.24	1,090.11	27.13	41.174		
3,100.00	3,071.15	3,011.76	2,994.64	14.17	14.17	13.18	1,465.50	18.96	1,108.65	1,080.57	28.08	39.482		
3,200.00	3,169.84	3,112.33	3,094.22	14.62	14.68	12.72	1,473.02	7.01	1,099.55	1,070.54	29.01	37.900		
3,300.00	3,268.52	3,209.40	3,190.30	15.08	15.17	12.27	1,480.51	-4.64	1,090.76	1,060.83	29.93	36.442		
3,400.00	3,367.20	3,325.49	3,305.19	15.53	15.75	11.69	1,488.91	-18.95	1,081.60	1,050.67	30.93	34.964		
3,500.00	3,465.89	3,429.01	3,407.83	15.99	16.27	11.22	1,495.04	-30.91	1,071.19	1,039.31	31.88	33.603		
3,600.00	3,564.57	3,527.25	3,505.35	16.44	16.75	10.81	1,500.75	-41.34	1,060.76	1,027.97	32.79	32.346		
3,700.00	3,663.25	3,612.86	3,590.37	16.90	17.17	10.48	1,506.30	-49.76	1,051.07	1,017.42	33.66	31.231		
3,800.00	3,761.93	3,704.15	3,680.94	17.36	17.62	10.12	1,513.19	-58.85	1,042.48	1,007.94	34.54	30.183		
3,900.00	3,860.62	3,807.00	3,782.98	17.82	18.13	9.71	1,521.21	-68.97	1,034.20	998.73	35.47	29.156		
4,000.00	3,959.30	3,893.40	3,868.70	18.28	18.55	9.38	1,528.25	-77.21	1,026.32	989.99	36.33	28.251		
4,100.00	4,057.98	3,991.58	3,966.02	18.74	19.04	8.99	1,537.08	-86.61	1,019.32	982.08	37.24	27.371		
4,200.00	4,156.67	4,085.89	4,059.41	19.20	19.52	8.56	1,545.72	-96.56	1,012.56	974.42	38.14	26.549		
4,300.00	4,255.35	4,181.55	4,154.05	19.66	20.01	8.11	1,554.94	-106.96	1,006.35	967.30	39.05	25.773		
4,400.00	4,354.03	4,300.43	4,271.80	20.12	20.61	7.56	1,565.60	-119.42	999.54	959.48	40.06	24.951		
4,500.00	4,452.71	4,407.35	4,377.84	20.58	21.15	7.07	1,573.73	-130.36	991.41	950.40	41.01	24.174		
4,600.00	4,551.40	4,521.54	4,491.22	21.04	21.71	6.55	1,581.23	-141.69	982.32	940.34	41.98	23.400		
4,700.00	4,650.08	4,639.58	4,608.68	21.50	22.27	6.09	1,586.71	-151.89	971.26	928.32	42.94	22.619		
4,800.00	4,748.76	4,749.40	4,718.04	21.96	22.79	5.64	1,590.21	-161.41	958.82	914.95	43.87	21.858		
4,900.00	4,847.44	4,858.14	4,826.41	22.42	23.28	5.24	1,592.61	-169.89	945.40	900.63	44.78	21.114		
5,000.00	4,946.13	4,958.14	4,926.22	22.89	23.72	4.97	1,594.40	-175.81	931.48	885.82	45.66	20.400		
5,100.00	5,044.81	5,063.88	5,031.89	23.35	24.17	4.84	1,596.00	-179.47	917.11	870.57	46.53	19.708		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,166.91	5,134.88	23.81	24.60	4.78	1,596.94	-182.03	902.07	854.67	47.40	19.032		
5,300.00	5,242.18	5,265.90	5,233.85	24.27	25.00	4.73	1,597.79	-184.19	886.95	838.69	48.26	18.378		
5,400.00	5,340.86	5,367.26	5,335.18	24.74	25.42	4.68	1,598.35	-186.27	871.53	822.41	49.12	17.742		
5,500.00	5,439.54	5,468.58	5,436.48	25.20	25.83	4.64	1,598.84	-188.26	856.04	806.06	49.98	17.127		
5,600.00	5,538.22	5,571.81	5,539.69	25.66	26.25	4.62	1,598.69	-189.95	839.90	789.06	50.84	16.522		
5,700.00	5,636.91	5,667.66	5,635.53	26.13	26.64	4.59	1,598.46	-191.60	823.67	771.97	51.70	15.932		
5,800.00	5,735.59	5,765.26	5,733.11	26.59	27.03	4.55	1,598.67	-193.40	807.91	755.34	52.56	15.370		
5,900.00	5,834.27	5,863.67	5,831.51	27.06	27.44	4.52	1,598.77	-195.13	792.02	738.59	53.43	14.824		
6,000.00	5,932.95	5,963.52	5,931.34	27.52	27.85	4.48	1,599.00	-196.88	776.26	721.97	54.29	14.298		
6,100.00	6,031.64	6,064.93	6,032.73	27.98	28.26	4.44	1,598.86	-198.76	760.14	704.99	55.15	13.783		
6,200.00	6,130.32	6,165.48	6,133.27	28.45	28.67	4.42	1,598.46	-200.20	743.74	687.74	56.00	13.281		
6,300.00	6,229.00	6,264.50	6,232.29	28.91	29.06	4.45	1,597.95	-201.05	727.17	670.32	56.86	12.790		
6,400.00	6,327.69	6,364.04	6,331.82	29.38	29.46	4.47	1,597.36	-202.03	710.54	652.84	57.71	12.313		
6,500.00	6,426.37	6,914.91	6,845.20	29.84	31.05	3.16	1,434.95	-205.52	677.92	633.36	44.56	15.215		
6,600.00	6,525.05	6,600.00	6,958.64	30.31	31.34	1.59	1,331.88	-205.03	599.88	562.71	37.17	16.137		
6,700.00	6,623.18	7,165.17	7,022.11	30.77	31.43	57.22	1,258.79	-203.69	514.61	478.48	36.13	14.243		
6,800.00	6,718.58	7,253.96	7,074.68	31.22	31.63	97.41	1,187.28	-202.79	427.48	395.51	31.97	13.371		
6,900.00	6,808.91	7,307.80	7,103.34	31.66	31.85	125.24	1,141.72	-202.05	344.25	313.45	30.81	11.175		
7,000.00	6,891.95	7,347.92	7,123.42	32.07	32.07	142.54	1,107.00	-201.17	276.97	242.24	34.73	7.975		
7,100.00	6,965.65	7,382.34	7,139.64	32.51	32.28	153.87	1,076.65	-200.67	244.08	197.58	46.50	5.249		
7,116.53	6,976.81	7,387.27	7,141.87	32.58	32.31	155.31	1,072.25	-200.63	243.35	194.51	48.84	4.983 CC, ES		
7,200.00	7,028.20	7,407.97	7,150.93	33.02	32.44	161.05	1,053.64	-200.45	261.57	202.86	58.71	4.455 SF		
7,300.00	7,078.04	7,425.37	7,158.12	33.68	32.56	165.65	1,037.79	-200.27	322.22	258.23	63.99	5.036		
7,400.00	7,113.97	7,438.01	7,163.11	34.52	32.65	169.36	1,026.18	-200.14	406.71	341.41	65.30	6.228		
7,500.00	7,135.09	7,446.17	7,166.22	35.53	32.71	173.62	1,018.65	-200.07	501.94	436.42	65.53	7.660		
7,600.00	7,140.96	7,450.39	7,167.81	36.68	32.74	-167.48	1,014.73	-200.04	601.22	535.66	65.56	9.170		
7,700.00	7,140.53	7,453.12	7,168.82	37.99	32.76	-162.60	1,012.20	-200.02	701.15	635.57	65.58	10.692		
7,800.00	7,140.09	7,455.96	7,169.86	39.45	32.78	-158.13	1,009.56	-200.00	801.08	735.48	65.59	12.213		
7,900.00	7,139.66	7,458.91	7,170.93	41.06	32.80	-154.08	1,006.81	-199.98	901.02	835.40	65.61	13.732		
8,000.00	7,139.23	7,459.86	7,171.27	42.80	32.81	-152.88	1,005.92	-199.97	1,000.97	935.34	65.63	15.253		
8,100.00	7,138.79	7,461.83	7,171.98	44.65	32.82	-150.57	1,004.08	-199.96	1,100.92	1,035.28	65.64	16.771		
8,200.00	7,138.36	7,463.74	7,172.65	46.60	32.84	-148.52	1,002.29	-199.94	1,200.88	1,135.22	65.66	18.289		
8,300.00	7,137.93	7,465.59	7,173.30	48.65	32.85	-146.69	1,000.56	-199.93	1,300.84	1,235.16	65.68	19.805		
8,400.00	7,137.49	7,467.38	7,173.93	50.77	32.86	-145.05	998.89	-199.91	1,400.81	1,335.10	65.70	21.320		
8,500.00	7,137.06	7,469.11	7,174.53	52.95	32.87	-143.58	997.26	-199.90	1,500.77	1,435.05	65.73	22.834		
8,600.00	7,136.62	7,470.80	7,175.11	55.20	32.89	-142.24	995.68	-199.88	1,600.74	1,534.99	65.75	24.346		
8,700.00	7,136.19	7,472.43	7,175.66	57.51	32.90	-141.03	994.14	-199.86	1,700.71	1,634.94	65.78	25.856		
8,800.00	7,135.76	7,474.02	7,176.20	59.85	32.91	-139.93	992.65	-199.85	1,800.68	1,734.88	65.80	27.366		
8,900.00	7,135.32	7,475.56	7,176.72	62.24	32.92	-138.92	991.20	-199.83	1,900.65	1,834.83	65.83	28.873		
9,000.00	7,134.89	7,477.06	7,177.22	64.67	32.93	-137.99	989.79	-199.81	2,000.63	1,934.77	65.86	30.379		
9,100.00	7,134.45	7,478.51	7,177.70	67.13	32.94	-137.13	988.41	-199.80	2,100.60	2,034.72	65.88	31.883		
9,200.00	7,134.02	7,479.93	7,178.17	69.62	32.96	-136.34	987.08	-199.78	2,200.58	2,134.66	65.91	33.385		
9,300.00	7,133.59	7,481.30	7,178.62	72.14	32.97	-135.60	985.78	-199.76	2,300.56	2,234.61	65.95	34.886		
9,400.00	7,133.15	7,482.64	7,179.05	74.68	32.98	-134.92	984.51	-199.75	2,400.53	2,334.56	65.98	36.384		
9,500.00	7,132.72	7,486.00	7,180.13	77.24	33.00	-133.33	981.33	-199.70	2,500.51	2,434.49	66.02	37.874		
9,600.00	7,132.29	7,486.00	7,180.13	79.83	33.00	-133.33	981.33	-199.70	2,600.49	2,534.44	66.05	39.372		
9,700.00	7,131.85	7,486.00	7,180.13	82.42	33.00	-133.33	981.33	-199.70	2,700.47	2,634.39	66.08	40.868		
9,800.00	7,131.42	7,486.00	7,180.13	85.04	33.00	-133.33	981.33	-199.70	2,800.45	2,734.35	66.11	42.362		
9,900.00	7,130.98	7,486.00	7,180.13	87.67	33.00	-133.33	981.33	-199.70	2,900.44	2,834.30	66.14	43.854		
10,000.00	7,130.55	7,486.00	7,180.13	90.31	33.00	-133.33	981.33	-199.70	3,000.42	2,934.25	66.17	45.344		
10,100.00	7,130.12	7,486.00	7,180.13	92.97	33.00	-133.33	981.33	-199.70	3,100.40	3,034.20	66.20	46.832		
10,200.00	7,129.68	7,486.00	7,180.13	95.63	33.00	-133.33	981.33	-199.70	3,200.39	3,134.15	66.24	48.317		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,129.25	7,486.00	7,180.13	98.31	33.00	-133.33	981.33	-199.70	3,300.38	3,234.10	66.27	49.800		
10,400.00	7,128.82	7,486.00	7,180.13	101.00	33.00	-133.33	981.33	-199.70	3,400.36	3,334.05	66.31	51.280		
10,500.00	7,128.38	7,486.00	7,180.13	103.69	33.00	-133.33	981.33	-199.70	3,500.35	3,434.00	66.35	52.758		
10,600.00	7,127.95	7,486.00	7,180.13	106.39	33.00	-133.33	981.33	-199.70	3,600.34	3,533.95	66.39	54.234		
10,700.00	7,127.51	7,486.00	7,180.13	109.10	33.00	-133.33	981.33	-199.70	3,700.33	3,633.90	66.43	55.707		
10,800.00	7,127.08	7,486.00	7,180.13	111.82	33.00	-133.33	981.33	-199.70	3,800.32	3,733.85	66.47	57.177		
10,900.00	7,126.65	7,494.81	7,182.90	114.54	33.07	-129.84	972.97	-199.57	3,900.28	3,833.73	66.56	58.600		
11,000.00	7,126.21	7,495.37	7,183.07	117.27	33.07	-129.65	972.43	-199.56	4,000.27	3,933.67	66.60	60.061		
11,100.00	7,125.78	7,495.92	7,183.24	120.01	33.08	-129.46	971.91	-199.55	4,100.26	4,033.61	66.65	61.518		
11,200.00	7,125.35	7,496.45	7,183.40	122.75	33.08	-129.29	971.41	-199.54	4,200.25	4,133.55	66.70	62.973		
11,300.00	7,124.91	7,496.96	7,183.56	125.49	33.08	-129.12	970.92	-199.53	4,300.24	4,233.49	66.75	64.425		
11,400.00	7,124.48	7,497.46	7,183.71	128.24	33.09	-128.95	970.44	-199.52	4,400.23	4,333.43	66.80	65.874		
11,500.00	7,124.04	7,497.95	7,183.86	131.00	33.09	-128.80	969.98	-199.51	4,500.22	4,433.37	66.85	67.319		
11,600.00	7,123.61	7,498.42	7,184.00	133.75	33.10	-128.65	969.53	-199.51	4,600.21	4,533.31	66.90	68.761		
11,700.00	7,123.18	7,498.87	7,184.14	136.52	33.10	-128.50	969.10	-199.50	4,700.20	4,633.24	66.95	70.201		
11,800.00	7,122.74	7,499.32	7,184.27	139.28	33.10	-128.36	968.67	-199.49	4,800.19	4,733.18	67.01	71.636		
11,900.00	7,122.31	7,499.75	7,184.40	142.05	33.11	-128.23	968.26	-199.48	4,900.18	4,833.12	67.06	73.069		
12,000.00	7,121.88	7,500.17	7,184.53	144.82	33.11	-128.10	967.86	-199.47	5,000.17	4,933.05	67.12	74.498		
12,100.00	7,121.44	7,500.58	7,184.65	147.59	33.11	-127.98	967.47	-199.46	5,100.16	5,032.99	67.17	75.924		
12,200.00	7,121.01	7,500.98	7,184.77	150.37	33.12	-127.86	967.09	-199.46	5,200.15	5,132.92	67.23	77.346		
12,300.00	7,120.57	7,501.37	7,184.89	153.15	33.12	-127.75	966.72	-199.45	5,300.14	5,232.85	67.29	78.765		
12,400.00	7,120.14	7,501.75	7,185.00	155.93	33.12	-127.63	966.36	-199.44	5,400.14	5,332.79	67.35	80.180		
12,500.00	7,119.71	7,502.11	7,185.11	158.72	33.12	-127.53	966.01	-199.43	5,500.13	5,432.72	67.41	81.592		
12,600.00	7,119.27	7,502.47	7,185.22	161.50	33.13	-127.42	965.66	-199.43	5,600.12	5,532.65	67.47	83.000		
12,700.00	7,118.84	7,502.82	7,185.32	164.29	33.13	-127.32	965.33	-199.42	5,700.11	5,632.58	67.53	84.404		
12,800.00	7,118.41	7,503.17	7,185.43	167.08	33.13	-127.23	965.00	-199.41	5,800.11	5,732.51	67.60	85.805		
12,900.00	7,117.97	7,503.50	7,185.53	169.88	33.13	-127.13	964.69	-199.41	5,900.10	5,832.44	67.66	87.202		
13,000.00	7,117.54	7,503.83	7,185.62	172.67	33.14	-127.04	964.37	-199.40	6,000.09	5,932.37	67.73	88.595		
13,100.00	7,117.10	7,504.14	7,185.72	175.47	33.14	-126.96	964.07	-199.39	6,100.09	6,032.29	67.79	89.984		
13,200.00	7,116.67	7,504.45	7,185.81	178.27	33.14	-126.87	963.77	-199.39	6,200.08	6,132.22	67.86	91.369		
13,300.00	7,116.24	7,504.76	7,185.90	181.07	33.14	-126.79	963.48	-199.38	6,300.07	6,232.15	67.93	92.750		
13,400.00	7,115.80	7,505.05	7,185.99	183.87	33.15	-126.71	963.20	-199.37	6,400.07	6,332.07	67.99	94.128		
13,500.00	7,115.37	7,505.34	7,186.07	186.67	33.15	-126.63	962.92	-199.37	6,500.06	6,432.00	68.06	95.501		
13,600.00	7,114.93	7,505.63	7,186.16	189.47	33.15	-126.55	962.65	-199.36	6,600.05	6,531.92	68.13	96.870		
13,700.00	7,114.50	7,505.91	7,186.24	192.28	33.15	-126.48	962.39	-199.35	6,700.05	6,631.84	68.20	98.236		
13,800.00	7,114.07	7,506.18	7,186.32	195.09	33.16	-126.41	962.13	-199.35	6,800.04	6,731.77	68.28	99.597		
13,900.00	7,113.63	7,506.44	7,186.39	197.89	33.16	-126.34	961.88	-199.34	6,900.04	6,831.69	68.35	100.954		
14,000.00	7,113.20	7,506.70	7,186.47	200.70	33.16	-126.27	961.63	-199.34	7,000.03	6,931.61	68.42	102.307		
14,100.00	7,112.77	7,506.96	7,186.55	203.51	33.16	-126.20	961.38	-199.33	7,100.03	7,031.53	68.50	103.656		
14,200.00	7,112.33	7,518.00	7,189.70	206.32	33.25	-123.66	950.80	-199.06	7,200.05	7,131.42	68.63	104.904		
14,300.00	7,111.90	7,518.00	7,189.70	209.13	33.25	-123.66	950.80	-199.06	7,300.05	7,231.34	68.71	106.245		
14,400.00	7,111.46	7,518.00	7,189.70	211.95	33.25	-123.66	950.80	-199.06	7,400.04	7,331.25	68.78	107.582		
14,500.00	7,111.03	7,518.00	7,189.70	214.76	33.25	-123.66	950.80	-199.06	7,500.03	7,431.17	68.86	108.915		
14,600.00	7,110.60	7,518.00	7,189.70	217.58	33.25	-123.66	950.80	-199.06	7,600.03	7,531.09	68.94	110.244		
14,700.00	7,110.16	7,518.00	7,189.70	220.39	33.25	-123.66	950.80	-199.06	7,700.02	7,631.01	69.02	111.568		
14,800.00	7,109.73	7,518.00	7,189.70	223.21	33.25	-123.66	950.80	-199.06	7,800.02	7,730.92	69.10	112.888		
14,900.00	7,109.30	7,518.00	7,189.70	226.03	33.25	-123.66	950.80	-199.06	7,900.01	7,830.84	69.17	114.203		
14,969.16	7,109.00	7,518.00	7,189.70	227.97	33.25	-123.66	950.80	-199.06	7,969.17	7,899.94	69.23	115.110		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	11.67	1,331.89	275.06	1,360.00					
100.00	100.00	101.98	102.98	3.28	3.29	11.68	1,331.74	275.26	1,359.89	1,353.32	6.57	206.911		
200.00	200.00	208.62	209.61	3.34	3.33	11.70	1,331.19	275.76	1,359.49	1,352.82	6.67	203.794		
300.00	300.00	312.54	313.53	3.44	3.44	11.71	1,330.26	275.62	1,358.58	1,351.69	6.89	197.265		
400.00	400.00	415.36	416.34	3.60	3.60	11.67	1,329.31	274.64	1,357.49	1,350.28	7.20	188.433		
500.00	500.00	518.96	519.94	3.81	3.81	11.68	1,327.91	274.61	1,356.15	1,348.54	7.62	178.066		
600.00	600.00	612.13	613.10	4.05	4.03	11.70	1,326.75	274.84	1,354.98	1,346.90	8.08	167.729		
700.00	699.98	714.63	715.59	4.32	4.31	20.93	1,325.56	275.34	1,352.31	1,343.68	8.63	156.750		
800.00	799.84	817.61	818.55	4.62	4.62	21.10	1,324.00	275.98	1,346.07	1,336.84	9.23	145.792		
900.00	899.45	913.51	914.44	4.94	4.92	21.34	1,322.63	276.71	1,336.70	1,326.84	9.86	135.583		
1,000.00	998.70	1,007.13	1,008.05	5.28	5.24	21.67	1,321.44	277.86	1,324.38	1,313.87	10.51	126.005		
1,100.00	1,097.50	1,099.30	1,100.21	5.64	5.55	22.02	1,320.88	278.77	1,309.65	1,298.46	11.19	117.085		
1,200.00	1,196.18	1,197.08	1,197.99	6.00	5.90	22.32	1,320.56	279.46	1,294.48	1,282.59	11.90	108.807		
1,300.00	1,294.87	1,297.17	1,298.07	6.38	6.27	22.63	1,320.22	280.21	1,279.34	1,266.70	12.64	101.216		
1,400.00	1,393.55	1,393.76	1,394.66	6.77	6.63	22.94	1,319.82	280.75	1,264.13	1,250.74	13.39	94.423		
1,500.00	1,492.23	1,488.95	1,489.85	7.17	6.99	23.24	1,319.79	281.39	1,249.34	1,235.19	14.14	88.331		
1,600.00	1,590.91	1,587.18	1,588.08	7.58	7.36	23.57	1,319.81	282.10	1,234.66	1,219.73	14.92	82.738		
1,700.00	1,689.60	1,686.75	1,687.64	8.00	7.75	23.91	1,319.85	282.89	1,220.05	1,204.33	15.72	77.620		
1,800.00	1,788.28	1,790.00	1,790.89	8.42	8.16	24.27	1,319.68	283.53	1,205.25	1,188.71	16.54	72.872		
1,900.00	1,886.96	1,884.55	1,885.43	8.84	8.53	24.60	1,319.38	284.01	1,190.32	1,172.99	17.33	68.687		
2,000.00	1,985.64	1,973.88	1,974.76	9.27	8.87	24.85	1,320.05	283.30	1,176.10	1,158.00	18.10	64.992		
2,100.00	2,084.33	2,059.79	2,060.64	9.71	9.19	25.05	1,321.76	281.70	1,162.81	1,143.96	18.85	61.678		
2,200.00	2,183.01	2,142.14	2,142.90	10.15	9.51	25.19	1,324.69	279.56	1,150.83	1,131.23	19.60	58.706		
2,300.00	2,281.69	2,224.97	2,225.58	10.59	9.83	25.30	1,329.06	277.16	1,140.42	1,120.06	20.36	56.012		
2,400.00	2,380.38	2,314.36	2,314.75	11.03	10.18	25.41	1,334.76	274.70	1,131.10	1,109.95	21.15	53.488		
2,500.00	2,479.06	2,404.77	2,404.90	11.47	10.54	25.52	1,341.32	272.31	1,122.67	1,100.72	21.94	51.164		
2,600.00	2,577.74	2,499.00	2,498.77	11.92	10.92	25.60	1,348.90	269.26	1,114.83	1,092.07	22.76	48.983		
2,700.00	2,676.42	2,588.71	2,588.07	12.36	11.29	25.65	1,356.88	266.07	1,107.72	1,084.16	23.56	47.014		
2,800.00	2,775.11	2,680.37	2,679.23	12.81	11.67	25.69	1,365.83	262.75	1,101.43	1,077.05	24.38	45.184		
2,900.00	2,873.79	2,768.89	2,767.16	13.26	12.04	25.69	1,375.41	259.13	1,096.02	1,070.84	25.18	43.527		
3,000.00	2,972.47	2,871.39	2,868.87	13.72	12.48	25.65	1,387.14	254.33	1,091.05	1,064.99	26.06	41.873		
3,100.00	3,071.15	2,980.80	2,977.51	14.17	12.96	25.61	1,398.96	249.02	1,085.41	1,058.44	26.97	40.246		
3,200.00	3,169.84	3,082.73	3,078.72	14.62	13.40	25.54	1,409.66	243.43	1,079.31	1,051.45	27.85	38.752		
3,300.00	3,268.52	3,186.71	3,181.98	15.08	13.86	25.46	1,420.39	237.43	1,072.95	1,044.20	28.75	37.323		
3,400.00	3,367.20	3,288.25	3,282.90	15.53	14.31	25.42	1,430.22	232.12	1,066.13	1,036.49	29.63	35.976		
3,500.00	3,465.89	3,383.00	3,377.08	15.99	14.73	25.41	1,439.52	227.77	1,059.62	1,029.12	30.49	34.749		
3,600.00	3,564.57	3,479.09	3,472.57	16.44	15.16	25.39	1,449.38	223.36	1,053.52	1,022.16	31.36	33.594		
3,700.00	3,663.25	3,578.28	3,571.13	16.90	15.61	25.39	1,459.74	219.02	1,047.68	1,015.43	32.25	32.491		
3,800.00	3,761.93	3,681.22	3,673.40	17.36	16.08	25.36	1,470.40	214.27	1,041.68	1,008.53	33.15	31.423		
3,900.00	3,860.62	3,784.64	3,776.14	17.82	16.55	25.31	1,480.90	208.89	1,035.32	1,001.26	34.06	30.398		
4,000.00	3,959.30	3,879.01	3,869.89	18.28	16.98	25.25	1,490.49	203.76	1,028.93	994.00	34.93	29.457		
4,100.00	4,057.98	3,974.04	3,964.13	18.74	17.43	25.13	1,501.12	197.76	1,023.26	987.45	35.81	28.577		
4,200.00	4,156.67	4,068.48	4,057.72	19.20	17.87	24.99	1,512.07	191.54	1,017.94	981.26	36.68	27.749		
4,300.00	4,255.35	4,165.85	4,154.17	19.66	18.33	24.85	1,523.86	185.32	1,013.16	975.59	37.58	26.963		
4,400.00	4,354.03	4,270.93	4,258.37	20.12	18.83	24.75	1,536.17	179.51	1,008.24	969.74	38.51	26.183		
4,500.00	4,452.71	4,376.67	4,363.31	20.58	19.33	24.66	1,547.84	173.75	1,002.68	963.24	39.44	25.422		
4,600.00	4,551.40	4,473.27	4,459.25	21.04	19.78	24.63	1,558.12	169.25	996.96	956.63	40.33	24.719		
4,700.00	4,650.08	4,573.22	4,558.55	21.50	20.25	24.64	1,568.77	165.42	991.47	950.23	41.24	24.044		
4,800.00	4,748.76	4,676.74	4,661.45	21.96	20.74	24.68	1,579.53	161.77	985.79	943.64	42.16	23.384		
4,900.00	4,847.44	4,796.81	4,780.98	22.42	21.29	24.77	1,590.23	157.96	978.77	935.62	43.14	22.687		
5,000.00	4,946.13	4,891.02	4,894.86	22.89	21.81	24.92	1,598.33	154.76	970.12	926.03	44.09	22.004		
5,100.00	5,044.81	5,027.26	5,010.89	23.35	22.32	25.12	1,604.51	151.72	959.81	914.79	45.02	21.318		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	5,143.49	5,142.21	5,125.77	23.81	22.82	25.46	1,608.12	150.34	947.82	901.89	45.93	20.635		
5,300.00	5,242.18	5,248.89	5,232.44	24.27	23.26	25.87	1,609.83	149.98	934.63	887.81	46.82	19.961		
5,400.00	5,340.86	5,354.31	5,337.84	24.74	23.70	26.27	1,610.84	149.13	920.75	873.05	47.70	19.301		
5,500.00	5,439.54	5,459.75	5,443.28	25.20	24.14	26.65	1,611.27	147.53	906.17	857.59	48.58	18.653		
5,600.00	5,538.22	5,567.28	5,550.77	25.66	24.58	27.01	1,611.14	145.09	890.92	841.48	49.44	18.019		
5,700.00	5,636.91	5,673.01	5,656.48	26.13	25.00	27.50	1,609.21	144.06	874.47	824.17	50.30	17.386		
5,800.00	5,735.59	5,768.77	5,752.22	26.59	25.38	28.01	1,607.13	143.81	857.99	806.83	51.16	16.770		
5,900.00	5,834.27	5,863.02	5,846.45	27.06	25.75	28.52	1,605.51	143.64	842.02	789.99	52.03	16.182		
6,000.00	5,932.95	5,958.70	5,942.13	27.52	26.14	29.05	1,604.36	143.33	826.57	773.66	52.90	15.624		
6,100.00	6,031.64	6,056.34	6,039.76	27.98	26.53	29.58	1,603.48	142.78	811.39	757.62	53.78	15.089		
6,200.00	6,130.32	6,155.64	6,139.06	28.45	26.93	30.13	1,602.65	142.11	796.30	741.65	54.65	14.572		
6,300.00	6,229.00	6,254.27	6,237.68	28.91	27.34	30.70	1,601.74	141.34	781.17	725.65	55.52	14.070		
6,400.00	6,327.69	6,350.24	6,333.64	29.38	27.73	31.25	1,601.11	140.37	766.28	709.87	56.40	13.586		
6,500.00	6,426.37	6,449.76	6,433.15	29.84	28.14	31.80	1,600.94	139.10	751.81	694.53	57.28	13.125		
6,600.00	6,525.05	6,853.68	6,823.04	30.31	29.55	37.19	1,510.86	127.80	716.07	663.60	52.47	13.648		
6,700.00	6,623.18	7,128.01	7,042.41	30.77	30.38	96.43	1,348.46	129.18	654.28	609.08	45.20	14.476		
6,800.00	6,718.58	7,255.27	7,123.17	31.22	30.91	127.89	1,250.31	132.73	594.64	550.09	44.56	13.345		
6,900.00	6,808.91	7,320.80	7,159.65	31.66	31.23	143.37	1,195.92	134.43	552.82	504.49	48.33	11.440		
6,999.94	6,891.90	7,379.13	7,189.13	32.07	31.55	153.63	1,145.61	135.68	537.68	484.38	53.30	10.088 CC		
7,000.00	6,891.95	7,379.16	7,189.14	32.07	31.55	153.64	1,145.58	135.68	537.68	484.38	53.30	10.087 ES		
7,100.00	6,965.65	7,422.30	7,208.54	32.51	31.81	160.29	1,107.07	136.36	553.43	495.18	58.25	9.501 SF		
7,200.00	7,028.20	7,449.71	7,219.50	33.02	31.99	164.37	1,081.95	136.80	598.63	536.82	61.81	9.685		
7,300.00	7,078.04	7,467.05	7,225.86	33.68	32.10	166.95	1,065.82	137.08	667.06	603.28	63.78	10.458		
7,400.00	7,113.97	7,478.65	7,229.91	34.52	32.18	168.75	1,054.95	137.25	751.29	686.59	64.71	11.611		
7,500.00	7,135.09	7,485.98	7,232.38	35.53	32.22	170.13	1,048.05	137.35	845.01	779.93	65.09	12.983		
7,600.00	7,140.96	7,489.97	7,233.70	36.68	32.25	171.99	1,044.28	137.40	943.52	878.30	65.22	14.467		
7,700.00	7,140.53	7,493.42	7,234.82	37.99	32.28	174.14	1,041.03	137.45	1,043.10	977.82	65.28	15.979		
7,800.00	7,140.09	7,497.31	7,236.07	39.45	32.30	176.52	1,037.33	137.49	1,142.76	1,077.42	65.33	17.491		
7,900.00	7,139.66	7,501.76	7,237.46	41.06	32.33	179.19	1,033.12	137.54	1,242.46	1,177.08	65.39	19.002		
8,000.00	7,139.23	7,506.87	7,239.04	42.80	32.37	-177.84	1,028.25	137.58	1,342.20	1,276.77	65.44	20.512		
8,100.00	7,138.79	7,512.82	7,240.83	44.65	32.41	-174.50	1,022.58	137.62	1,441.97	1,376.48	65.49	22.019		
8,200.00	7,138.36	7,519.83	7,242.88	46.60	32.46	-170.76	1,015.88	137.65	1,541.75	1,476.21	65.54	23.523		
8,300.00	7,137.93	8,300.00	7,240.70	48.65	37.97	-174.47	1,022.54	137.59	1,641.54	1,570.61	70.93	23.143		
8,400.00	7,137.49	7,533.08	7,246.55	50.77	32.55	-164.24	1,003.14	137.68	1,741.36	1,675.71	65.65	26.524		
8,500.00	7,137.06	7,540.70	7,248.54	52.95	32.61	-160.82	995.79	137.68	1,841.18	1,775.47	65.71	28.019		
8,600.00	7,136.62	7,549.25	7,250.66	55.20	32.67	-157.26	987.51	137.67	1,941.01	1,875.23	65.78	29.508		
8,700.00	7,136.19	8,700.00	7,249.40	57.51	41.17	-159.08	991.89	137.66	2,040.83	1,966.79	74.03	27.566		
8,800.00	7,135.76	7,565.33	7,254.33	59.85	32.79	-151.27	971.85	137.60	2,140.67	2,074.75	65.91	32.478		
8,900.00	7,135.32	7,574.03	7,256.14	62.24	32.85	-148.38	963.34	137.54	2,240.50	2,174.51	65.98	33.955		
9,000.00	7,134.89	7,583.47	7,257.98	64.67	32.92	-145.48	954.08	137.47	2,340.33	2,274.26	66.06	35.426		
9,100.00	7,134.45	9,100.00	7,256.90	67.13	44.60	-146.96	959.00	137.50	2,440.15	2,362.80	77.35	31.547		
9,200.00	7,134.02	7,594.09	7,259.87	69.62	33.01	-142.51	943.64	137.38	2,539.99	2,473.81	66.18	38.381		
9,300.00	7,133.59	7,599.30	7,260.74	72.14	33.05	-141.14	938.49	137.33	2,639.83	2,573.59	66.24	39.854		
9,400.00	7,133.15	7,604.54	7,261.57	74.68	33.09	-139.82	933.32	137.29	2,739.67	2,673.38	66.30	41.323		
9,500.00	7,132.72	9,500.00	7,264.37	77.24	48.52	-135.15	912.97	137.07	2,839.51	2,758.22	81.29	34.932		
9,600.00	7,132.29	7,710.69	7,272.37	79.83	33.96	-122.01	827.79	134.84	2,939.22	2,872.03	67.19	43.743		
9,700.00	7,131.85	7,716.82	7,272.79	82.42	34.01	-121.34	821.67	134.61	3,038.89	2,971.61	67.28	45.166		
9,800.00	7,131.42	7,722.90	7,273.20	85.04	34.07	-120.70	815.61	134.38	3,138.56	3,071.19	67.37	46.585		
9,900.00	7,130.98	7,728.92	7,273.61	87.67	34.12	-120.09	809.61	134.16	3,238.25	3,170.78	67.46	48.000		
10,000.00	7,130.55	7,734.88	7,274.02	90.31	34.17	-119.52	803.67	133.94	3,337.93	3,270.38	67.56	49.409		
10,100.00	7,130.12	7,736.00	7,274.09	92.97	34.18	-119.42	802.55	133.90	3,437.63	3,370.03	67.60	50.850		
10,200.00	7,129.68	7,736.00	7,274.09	95.63	34.18	-119.42	802.55	133.90	3,537.35	3,469.71	67.64	52.298		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,129.25	7,744.44	7,274.65	98.31	34.26	-118.65	794.14	133.61	3,637.06	3,569.29	67.76	53.673		
10,400.00	7,128.82	7,747.26	7,274.83	101.00	34.29	-118.40	791.33	133.51	3,736.78	3,668.95	67.83	55.089		
10,500.00	7,128.38	7,749.98	7,275.00	103.69	34.31	-118.16	788.61	133.43	3,836.52	3,768.62	67.90	56.503		
10,600.00	7,127.95	7,752.62	7,275.16	106.39	34.33	-117.93	785.97	133.35	3,936.27	3,868.30	67.97	57.914		
10,700.00	7,127.51	7,755.18	7,275.31	109.10	34.36	-117.71	783.42	133.27	4,036.02	3,967.99	68.04	59.322		
10,800.00	7,127.08	7,757.66	7,275.45	111.82	34.38	-117.51	780.94	133.20	4,135.79	4,067.68	68.11	60.727		
10,900.00	7,126.65	7,767.00	7,275.96	114.54	34.47	-116.75	771.63	132.96	4,235.57	4,167.32	68.25	62.060		
11,000.00	7,126.21	7,767.00	7,275.96	117.27	34.47	-116.75	771.63	132.96	4,335.34	4,267.04	68.29	63.480		
11,100.00	7,125.78	7,767.00	7,275.96	120.01	34.47	-116.75	771.63	132.96	4,435.12	4,366.78	68.34	64.898		
11,200.00	7,125.35	7,767.00	7,275.96	122.75	34.47	-116.75	771.63	132.96	4,534.91	4,466.52	68.39	66.314		
11,300.00	7,124.91	7,767.00	7,275.96	125.49	34.47	-116.75	771.63	132.96	4,634.71	4,566.27	68.43	67.727		
11,400.00	7,124.48	7,767.00	7,275.96	128.24	34.47	-116.75	771.63	132.96	4,734.51	4,666.03	68.48	69.136		
11,500.00	7,124.04	7,767.00	7,275.96	131.00	34.47	-116.75	771.63	132.96	4,834.33	4,765.80	68.53	70.543		
11,600.00	7,123.61	7,767.00	7,275.96	133.75	34.47	-116.75	771.63	132.96	4,934.15	4,865.57	68.58	71.948		
11,700.00	7,123.18	7,767.00	7,275.96	136.52	34.47	-116.75	771.63	132.96	5,033.98	4,965.35	68.63	73.349		
11,800.00	7,122.74	7,767.00	7,275.96	139.28	34.47	-116.75	771.63	132.96	5,133.82	5,065.13	68.68	74.747		
11,900.00	7,122.31	7,778.18	7,276.51	142.05	34.57	-115.89	760.47	132.72	5,233.61	5,164.75	68.86	75.999		
12,000.00	7,121.88	7,779.61	7,276.57	144.82	34.58	-115.78	759.04	132.69	5,333.45	5,264.52	68.93	77.370		
12,100.00	7,121.44	7,781.00	7,276.64	147.59	34.60	-115.68	757.65	132.67	5,433.29	5,364.29	69.01	78.737		
12,200.00	7,121.01	7,782.35	7,276.69	150.37	34.61	-115.58	756.30	132.64	5,533.14	5,464.06	69.08	80.101		
12,300.00	7,120.57	7,783.66	7,276.75	153.15	34.62	-115.48	754.98	132.62	5,632.99	5,563.84	69.15	81.461		
12,400.00	7,120.14	7,784.95	7,276.81	155.93	34.64	-115.39	753.70	132.60	5,732.84	5,663.62	69.22	82.818		
12,500.00	7,119.71	7,786.19	7,276.86	158.72	34.65	-115.30	752.46	132.58	5,832.70	5,763.40	69.30	84.171		
12,600.00	7,119.27	7,797.00	7,277.27	161.50	34.75	-114.54	741.66	132.46	5,932.59	5,863.11	69.48	85.381		
12,700.00	7,118.84	7,797.00	7,277.27	164.29	34.75	-114.54	741.66	132.46	6,032.45	5,962.91	69.54	86.742		
12,800.00	7,118.41	7,797.00	7,277.27	167.08	34.75	-114.54	741.66	132.46	6,132.31	6,062.71	69.61	88.101		
12,900.00	7,117.97	7,797.00	7,277.27	169.88	34.75	-114.54	741.66	132.46	6,232.18	6,162.51	69.67	89.455		
13,000.00	7,117.54	7,797.00	7,277.27	172.67	34.75	-114.54	741.66	132.46	6,332.05	6,262.32	69.73	90.806		
13,100.00	7,117.10	7,797.00	7,277.27	175.47	34.75	-114.54	741.66	132.46	6,431.93	6,362.13	69.80	92.154		
13,200.00	7,116.67	7,797.00	7,277.27	178.27	34.75	-114.54	741.66	132.46	6,531.81	6,461.95	69.86	93.497		
13,300.00	7,116.24	7,797.00	7,277.27	181.07	34.75	-114.54	741.66	132.46	6,631.69	6,561.76	69.93	94.837		
13,400.00	7,115.80	7,797.00	7,277.27	183.87	34.75	-114.54	741.66	132.46	6,731.58	6,661.58	69.99	96.174		
13,500.00	7,115.37	7,797.00	7,277.27	186.67	34.75	-114.54	741.66	132.46	6,831.47	6,761.40	70.06	97.507		
13,600.00	7,114.93	7,797.00	7,277.27	189.47	34.75	-114.54	741.66	132.46	6,931.36	6,861.23	70.13	98.835		
13,700.00	7,114.50	7,797.00	7,277.27	192.28	34.75	-114.54	741.66	132.46	7,031.25	6,961.05	70.20	100.161		
13,800.00	7,114.07	7,797.00	7,277.27	195.09	34.75	-114.54	741.66	132.46	7,131.15	7,060.88	70.27	101.482		
13,900.00	7,113.63	7,797.00	7,277.27	197.89	34.75	-114.54	741.66	132.46	7,231.05	7,160.71	70.34	102.799		
14,000.00	7,113.20	7,797.00	7,277.27	200.70	34.75	-114.54	741.66	132.46	7,330.96	7,260.54	70.41	104.113		
14,100.00	7,112.77	7,797.00	7,277.27	203.51	34.75	-114.54	741.66	132.46	7,430.87	7,360.38	70.49	105.422		
14,200.00	7,112.33	7,797.00	7,277.27	206.32	34.75	-114.54	741.66	132.46	7,530.77	7,460.21	70.56	106.728		
14,300.00	7,111.90	7,797.00	7,277.27	209.13	34.75	-114.54	741.66	132.46	7,630.69	7,560.05	70.64	108.030		
14,400.00	7,111.46	7,808.00	7,277.64	211.95	34.86	-113.80	730.67	132.38	7,730.57	7,659.72	70.85	109.116		
14,500.00	7,111.03	7,809.09	7,277.67	214.76	34.87	-113.73	729.57	132.38	7,830.48	7,759.55	70.94	110.386		
14,600.00	7,110.60	7,810.17	7,277.70	217.58	34.88	-113.66	728.50	132.37	7,930.39	7,859.37	71.03	111.651		
14,700.00	7,110.16	7,811.23	7,277.74	220.39	34.89	-113.59	727.44	132.37	8,030.31	7,959.19	71.12	112.913		
14,800.00	7,109.73	7,812.27	7,277.77	223.21	34.90	-113.53	726.40	132.37	8,130.22	8,059.01	71.21	114.170		
14,900.00	7,109.30	7,813.28	7,277.80	226.03	34.91	-113.46	725.38	132.36	8,230.14	8,158.84	71.30	115.423		
14,969.16	7,109.00	7,813.98	7,277.82	227.97	34.91	-113.42	724.69	132.36	8,299.25	8,227.88	71.37	116.288		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	12.84	1,327.52	302.60	1,361.57					
100.00	100.00	80.14	81.14	3.28	3.29	12.86	1,327.95	303.24	1,362.26	1,355.69	6.57	207.335		
200.00	200.00	166.18	167.14	3.34	3.31	12.94	1,329.30	305.31	1,364.31	1,357.66	6.65	205.279		
300.00	300.00	281.90	282.80	3.44	3.41	13.06	1,330.85	308.82	1,366.32	1,359.46	6.85	199.365		
400.00	400.00	375.82	376.67	3.60	3.54	13.17	1,331.13	311.59	1,367.31	1,360.17	7.15	191.342		
500.00	500.00	474.46	475.28	3.81	3.72	13.19	1,333.32	312.45	1,369.67	1,362.14	7.53	181.898		
600.00	600.00	593.37	594.19	4.05	3.99	13.18	1,334.45	312.38	1,370.54	1,362.50	8.04	170.527		
700.00	699.98	683.75	684.57	4.32	4.23	22.37	1,335.01	312.74	1,369.63	1,361.08	8.55	160.270		
800.00	799.84	776.32	777.12	4.62	4.50	22.49	1,336.19	313.46	1,366.21	1,357.09	9.11	149.943		
900.00	899.45	884.80	885.59	4.94	4.83	22.71	1,337.52	314.29	1,359.52	1,349.75	9.77	139.141		
1,000.00	998.70	982.40	983.18	5.28	5.16	23.00	1,338.43	314.83	1,349.31	1,338.88	10.43	129.325		
1,100.00	1,097.50	1,071.35	1,072.12	5.64	5.46	23.31	1,339.73	315.35	1,336.64	1,325.54	11.10	120.445		
1,200.00	1,196.18	1,171.75	1,172.51	6.00	5.82	23.59	1,341.58	315.80	1,323.65	1,311.83	11.82	111.985		
1,300.00	1,294.87	1,277.16	1,277.90	6.38	6.20	23.86	1,343.26	315.43	1,310.24	1,297.66	12.58	104.161		
1,400.00	1,393.55	1,374.78	1,375.51	6.77	6.56	24.09	1,344.86	314.65	1,296.80	1,283.48	13.33	97.303		
1,500.00	1,492.23	1,468.86	1,469.57	7.17	6.92	24.32	1,346.38	313.97	1,283.39	1,269.31	14.08	91.151		
1,600.00	1,590.91	1,547.80	1,548.47	7.58	7.22	24.59	1,348.16	315.05	1,271.15	1,256.36	14.79	85.936		
1,700.00	1,689.60	1,625.36	1,625.94	8.00	7.53	24.92	1,350.75	317.87	1,260.59	1,245.08	15.51	81.273		
1,800.00	1,788.28	1,711.44	1,711.80	8.42	7.87	25.36	1,354.35	322.84	1,251.49	1,235.22	16.27	76.915		
1,900.00	1,886.96	1,791.65	1,791.68	8.84	8.20	25.84	1,358.21	329.05	1,243.69	1,226.67	17.02	73.088		
2,000.00	1,985.64	1,870.73	1,870.29	9.27	8.53	26.35	1,363.06	336.12	1,237.60	1,219.84	17.76	69.676		
2,100.00	2,084.33	1,955.82	1,954.77	9.71	8.90	26.89	1,369.57	343.88	1,233.14	1,214.60	18.54	66.514		
2,200.00	2,183.01	2,050.08	2,048.29	10.15	9.31	27.50	1,377.31	352.76	1,229.47	1,210.11	19.36	63.492		
2,300.00	2,281.69	2,147.00	2,144.51	10.59	9.74	28.05	1,386.01	360.52	1,226.21	1,206.00	20.21	60.684		
2,400.00	2,380.38	2,245.65	2,242.39	11.03	10.18	28.65	1,394.72	369.18	1,223.20	1,202.14	21.06	58.074		
2,500.00	2,479.06	2,356.99	2,352.82	11.47	10.68	29.40	1,403.77	380.12	1,220.07	1,198.08	21.99	55.492		
2,600.00	2,577.74	2,461.43	2,456.54	11.92	11.16	30.10	1,411.16	389.87	1,215.91	1,193.03	22.88	53.142		
2,700.00	2,676.42	2,554.02	2,548.50	12.36	11.58	30.71	1,418.03	398.21	1,212.13	1,188.41	23.72	51.098		
2,800.00	2,775.11	2,642.14	2,635.94	12.81	11.99	31.29	1,425.10	406.50	1,209.23	1,184.69	24.54	49.269		
2,900.00	2,873.79	2,739.60	2,732.55	13.26	12.45	31.96	1,433.47	416.20	1,207.21	1,181.80	25.41	47.501		
3,000.00	2,972.47	2,856.46	2,848.40	13.72	13.00	32.83	1,442.12	428.86	1,204.67	1,178.29	26.39	45.654		
3,100.00	3,071.15	2,962.14	2,953.24	14.17	13.50	33.66	1,448.40	440.59	1,201.11	1,173.80	27.31	43.987		
3,200.00	3,169.84	3,073.20	3,063.63	14.62	14.02	34.44	1,455.16	450.62	1,197.01	1,168.77	28.25	42.377		
3,300.00	3,268.52	3,157.02	3,146.94	15.08	14.41	35.03	1,460.52	458.22	1,193.37	1,164.30	29.06	41.065		
3,400.00	3,367.20	3,245.43	3,234.70	15.53	14.83	35.67	1,466.66	467.00	1,190.80	1,160.90	29.90	39.831		
3,500.00	3,465.89	3,366.87	3,355.39	15.99	15.41	36.52	1,474.73	477.77	1,187.61	1,156.72	30.89	38.442		
3,600.00	3,564.57	3,461.19	3,449.19	16.44	15.85	37.16	1,480.72	485.66	1,184.16	1,152.40	31.76	37.285		
3,700.00	3,663.25	3,556.20	3,543.62	16.90	16.30	37.83	1,486.85	494.13	1,181.22	1,148.59	32.63	36.201		
3,800.00	3,761.93	3,651.60	3,638.42	17.36	16.76	38.50	1,493.44	502.49	1,178.79	1,145.29	33.50	35.185		
3,900.00	3,860.62	3,749.14	3,735.29	17.82	17.22	39.21	1,499.99	511.77	1,176.76	1,142.37	34.39	34.220		
4,000.00	3,959.30	3,841.34	3,826.83	18.28	17.67	39.92	1,505.90	521.19	1,175.02	1,139.77	35.25	33.336		
4,055.00	4,013.58	3,883.45	3,868.56	18.53	17.88	40.26	1,508.81	525.95	1,174.70	1,139.03	35.67	32.929		
4,100.00	4,057.98	3,919.07	3,903.81	18.74	18.05	40.56	1,511.47	530.29	1,174.91	1,138.89	36.03	32.613		
4,200.00	4,156.67	4,011.59	3,995.30	19.20	18.52	41.33	1,518.73	542.01	1,176.13	1,139.25	36.89	31.885		
4,300.00	4,255.35	4,106.13	4,088.77	19.66	19.00	42.08	1,526.93	553.59	1,178.05	1,140.29	37.76	31.199		
4,400.00	4,354.03	4,226.22	4,207.70	20.12	19.59	42.94	1,537.78	566.22	1,179.54	1,140.76	38.78	30.416		
4,500.00	4,452.71	4,342.55	4,323.25	20.58	20.16	43.68	1,547.45	575.57	1,179.12	1,139.35	39.77	29.651		
4,600.00	4,551.40	4,443.42	4,423.50	21.04	20.64	44.27	1,555.99	582.59	1,178.39	1,137.73	40.67	28.977		
4,700.00	4,650.08	4,537.78	4,517.30	21.50	21.09	44.83	1,564.02	589.11	1,177.81	1,136.28	41.53	28.359		
4,800.00	4,748.76	4,639.39	4,618.24	21.96	21.58	45.44	1,572.82	596.67	1,177.79	1,135.35	42.44	27.753		
4,900.00	4,847.44	4,742.80	4,721.05	22.42	22.08	46.05	1,581.44	603.83	1,177.31	1,133.95	43.35	27.156		
5,000.00	4,946.13	4,857.06	4,834.70	22.89	22.62	46.76	1,590.04	611.81	1,176.39	1,132.07	44.32	26.542		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-243(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,044.81	4,968.04	4,945.22	23.35	23.14	47.46	1,597.28	618.86	1,174.41	1,129.15	45.27	25.943		
5,200.00	5,143.49	5,110.39	5,087.21	23.81	23.78	48.45	1,602.64	627.26	1,170.17	1,123.85	46.32	25.265		
5,300.00	5,242.18	5,223.29	5,200.02	24.27	24.27	49.12	1,606.17	629.96	1,163.34	1,116.10	47.24	24.627		
5,400.00	5,340.86	5,382.27	5,358.96	24.74	24.89	50.05	1,607.25	629.91	1,152.96	1,104.81	48.15	23.943		
5,500.00	5,439.54	5,476.87	5,453.56	25.20	25.23	50.64	1,606.32	628.96	1,141.15	1,092.16	48.99	23.293		
5,600.00	5,538.22	5,574.29	5,550.96	25.66	25.59	51.26	1,605.56	628.18	1,129.76	1,079.93	49.83	22.671		
5,700.00	5,636.91	5,677.12	5,653.79	26.13	25.97	51.92	1,604.69	627.20	1,118.36	1,067.68	50.67	22.070		
5,800.00	5,735.59	5,777.67	5,754.32	26.59	26.34	52.57	1,603.68	625.81	1,106.69	1,055.17	51.52	21.482		
5,900.00	5,834.27	5,878.35	5,854.98	27.06	26.72	53.21	1,602.97	624.00	1,095.10	1,042.73	52.36	20.913		
6,000.00	5,932.95	5,977.08	5,953.69	27.52	27.09	53.85	1,602.08	622.14	1,083.44	1,030.23	53.21	20.360		
6,100.00	6,031.64	6,077.36	6,053.95	27.98	27.47	54.50	1,601.37	620.06	1,071.92	1,017.86	54.07	19.827		
6,200.00	6,130.32	6,171.82	6,148.39	28.45	27.83	55.13	1,600.61	618.20	1,060.55	1,005.63	54.92	19.310		
6,300.00	6,229.00	6,268.39	6,244.95	28.91	28.20	55.82	1,599.76	616.92	1,049.73	993.95	55.78	18.819		
6,400.00	6,327.69	6,485.43	6,461.21	29.38	28.99	57.75	1,586.85	610.75	1,035.83	979.64	56.19	18.433		
6,500.00	6,426.37	6,661.93	6,632.69	29.84	29.55	60.85	1,546.05	609.13	1,011.50	955.16	56.35	17.951		
6,600.00	6,525.05	7,077.36	6,967.76	30.31	30.40	76.92	1,310.83	611.41	961.81	909.24	52.57	18.296		
6,700.00	6,623.18	7,297.65	7,077.22	30.77	31.23	131.70	1,121.05	617.53	917.97	864.69	53.27	17.232		
6,800.00	6,718.58	7,319.51	7,084.48	31.22	31.36	149.65	1,100.44	618.08	894.51	837.87	56.63	15.795		
6,840.12	6,755.56	7,326.22	7,086.63	31.40	31.40	153.67	1,094.08	618.28	892.37	834.48	57.89	15.414 CC, ES		
6,900.00	6,808.91	7,335.15	7,089.45	31.66	31.45	158.00	1,085.61	618.55	897.13	837.53	59.59	15.054		
7,000.00	6,891.95	7,346.11	7,092.80	32.07	31.53	162.54	1,075.18	618.94	925.67	863.86	61.81	14.977 SF		
7,100.00	6,965.65	7,353.95	7,095.10	32.51	31.58	165.25	1,067.70	619.25	977.30	914.09	63.21	15.461		
7,200.00	7,028.20	7,359.33	7,096.64	33.02	31.61	166.87	1,062.54	619.49	1,047.53	983.55	63.97	16.374		
7,300.00	7,078.04	7,364.00	7,097.95	33.68	31.64	167.82	1,058.07	619.70	1,131.37	1,067.04	64.33	17.586		
7,400.00	7,113.97	7,366.14	7,098.54	34.52	31.66	167.81	1,056.01	619.80	1,224.23	1,159.76	64.48	18.987		
7,500.00	7,135.09	7,368.34	7,099.14	35.53	31.67	165.61	1,053.90	619.90	1,322.18	1,257.65	64.53	20.490		
7,600.00	7,140.96	7,367.19	7,098.83	36.68	31.66	7.67	1,055.01	619.85	1,422.03	1,357.49	64.54	22.034		
7,700.00	7,140.53	7,364.29	7,098.03	37.99	31.64	10.71	1,057.79	619.71	1,521.97	1,457.44	64.54	23.583		
7,800.00	7,140.09	7,364.00	7,097.95	39.45	31.64	11.00	1,058.07	619.70	1,621.92	1,557.37	64.55	25.128		
7,900.00	7,139.66	7,364.00	7,097.95	41.06	31.64	11.00	1,058.07	619.70	1,721.88	1,657.32	64.56	26.670		
8,000.00	7,139.23	7,364.00	7,097.95	42.80	31.64	11.00	1,058.07	619.70	1,821.84	1,757.26	64.58	28.212		
8,100.00	7,138.79	7,364.00	7,097.95	44.65	31.64	11.00	1,058.07	619.70	1,921.80	1,857.21	64.59	29.754		
8,200.00	7,138.36	7,364.00	7,097.95	46.60	31.64	11.00	1,058.07	619.70	2,021.77	1,957.16	64.61	31.294		
8,300.00	7,137.93	7,364.00	7,097.95	48.65	31.64	11.00	1,058.07	619.70	2,121.74	2,057.12	64.62	32.832		
8,400.00	7,137.49	7,364.00	7,097.95	50.77	31.64	11.00	1,058.07	619.70	2,221.71	2,157.07	64.64	34.370		
8,500.00	7,137.06	7,364.00	7,097.95	52.95	31.64	11.00	1,058.07	619.70	2,321.69	2,257.03	64.66	35.906		
8,600.00	7,136.62	7,364.00	7,097.95	55.20	31.64	11.00	1,058.07	619.70	2,421.67	2,356.99	64.68	37.441		
8,700.00	7,136.19	7,364.00	7,097.95	57.51	31.64	11.00	1,058.07	619.70	2,521.65	2,456.95	64.70	38.975		
8,800.00	7,135.76	7,364.00	7,097.95	59.85	31.64	11.00	1,058.07	619.70	2,621.63	2,556.90	64.72	40.506		
8,900.00	7,135.32	7,364.00	7,097.95	62.24	31.64	11.00	1,058.07	619.70	2,721.61	2,656.86	64.74	42.036		
9,000.00	7,134.89	7,356.02	7,095.70	64.67	31.59	18.51	1,065.71	619.34	2,821.57	2,756.83	64.74	43.583		
9,100.00	7,134.45	7,355.57	7,095.57	67.13	31.59	18.90	1,066.14	619.32	2,921.55	2,856.78	64.76	45.111		
9,200.00	7,134.02	7,355.14	7,095.44	69.62	31.58	19.27	1,066.56	619.30	3,021.53	2,956.74	64.79	46.637		
9,300.00	7,133.59	7,354.72	7,095.32	72.14	31.58	19.62	1,066.96	619.29	3,121.51	3,056.70	64.81	48.161		
9,400.00	7,133.15	7,354.32	7,095.21	74.68	31.58	19.95	1,067.34	619.27	3,221.50	3,156.66	64.84	49.684		
9,500.00	7,132.72	7,353.93	7,095.09	77.24	31.58	20.27	1,067.71	619.25	3,321.48	3,256.62	64.87	51.204		
9,600.00	7,132.29	7,353.56	7,094.99	79.83	31.57	20.58	1,068.07	619.24	3,421.47	3,356.57	64.90	52.722		
9,700.00	7,131.85	7,353.20	7,094.88	82.42	31.57	20.87	1,068.41	619.22	3,521.46	3,456.53	64.93	54.237		
9,800.00	7,131.42	7,352.85	7,094.78	85.04	31.57	21.15	1,068.74	619.21	3,621.45	3,556.49	64.96	55.751		
9,900.00	7,130.98	7,352.52	7,094.68	87.67	31.57	21.42	1,069.06	619.19	3,721.43	3,656.44	64.99	57.262		
10,000.00	7,130.55	7,352.19	7,094.59	90.31	31.57	21.68	1,069.37	619.18	3,821.42	3,756.40	65.02	58.770		
10,100.00	7,130.12	7,351.88	7,094.50	92.97	31.56	21.93	1,069.67	619.17	3,921.41	3,856.36	65.06	60.276		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-243(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,129.68	7,351.57	7,094.41	95.63	31.56	22.16	1,069.97	619.15	4,021.40	3,956.31	65.09	61.780		
10,300.00	7,129.25	7,351.28	7,094.32	98.31	31.56	22.39	1,070.25	619.14	4,121.39	4,056.26	65.13	63.281		
10,400.00	7,128.82	7,351.00	7,094.24	101.00	31.56	22.61	1,070.52	619.13	4,221.38	4,156.22	65.17	64.779		
10,500.00	7,128.38	7,350.72	7,094.16	103.69	31.56	22.82	1,070.78	619.12	4,321.37	4,256.17	65.20	66.274		
10,600.00	7,127.95	7,350.45	7,094.08	106.39	31.55	23.03	1,071.04	619.11	4,421.37	4,356.12	65.24	67.766		
10,700.00	7,127.51	7,350.19	7,094.00	109.10	31.55	23.23	1,071.29	619.10	4,521.36	4,456.07	65.28	69.256		
10,800.00	7,127.08	7,349.94	7,093.93	111.82	31.55	23.42	1,071.53	619.09	4,621.35	4,556.02	65.33	70.743		
10,900.00	7,126.65	7,349.69	7,093.86	114.54	31.55	23.60	1,071.76	619.08	4,721.34	4,655.97	65.37	72.226		
11,000.00	7,126.21	7,349.46	7,093.79	117.27	31.55	23.78	1,071.99	619.07	4,821.33	4,755.92	65.41	73.707		
11,100.00	7,125.78	7,349.22	7,093.72	120.01	31.55	23.95	1,072.21	619.06	4,921.33	4,855.87	65.46	75.184		
11,200.00	7,125.35	7,349.00	7,093.65	122.75	31.54	24.11	1,072.42	619.05	5,021.32	4,955.82	65.50	76.658		
11,300.00	7,124.91	7,348.78	7,093.59	125.49	31.54	24.27	1,072.63	619.04	5,121.31	5,055.76	65.55	78.129		
11,400.00	7,124.48	7,348.57	7,093.53	128.24	31.54	24.43	1,072.84	619.03	5,221.31	5,155.71	65.60	79.597		
11,500.00	7,124.04	7,348.36	7,093.46	131.00	31.54	24.58	1,073.03	619.03	5,321.30	5,255.65	65.65	81.061		
11,600.00	7,123.61	7,348.16	7,093.40	133.75	31.54	24.73	1,073.23	619.02	5,421.29	5,355.60	65.70	82.522		
11,700.00	7,123.18	7,347.96	7,093.35	136.52	31.54	24.87	1,073.41	619.01	5,521.29	5,455.54	65.75	83.979		
11,800.00	7,122.74	7,347.77	7,093.29	139.28	31.54	25.00	1,073.60	619.00	5,621.28	5,555.49	65.80	85.433		
11,900.00	7,122.31	7,347.58	7,093.23	142.05	31.54	25.14	1,073.77	619.00	5,721.28	5,655.43	65.85	86.884		
12,000.00	7,121.88	7,347.40	7,093.18	144.82	31.53	25.27	1,073.95	618.99	5,821.27	5,755.37	65.90	88.330		
12,100.00	7,121.44	7,347.22	7,093.13	147.59	31.53	25.39	1,074.12	618.98	5,921.27	5,855.31	65.96	89.773		
12,200.00	7,121.01	7,347.05	7,093.08	150.37	31.53	25.51	1,074.28	618.98	6,021.26	5,955.25	66.01	91.213		
12,300.00	7,120.57	7,346.88	7,093.03	153.15	31.53	25.63	1,074.44	618.97	6,121.26	6,055.19	66.07	92.648		
12,400.00	7,120.14	7,346.72	7,092.98	155.93	31.53	25.75	1,074.60	618.96	6,221.25	6,155.12	66.13	94.080		
12,500.00	7,119.71	7,346.56	7,092.93	158.72	31.53	25.86	1,074.76	618.96	6,321.25	6,255.06	66.19	95.508		
12,600.00	7,119.27	7,346.40	7,092.88	161.50	31.53	25.97	1,074.91	618.95	6,421.24	6,355.00	66.24	96.932		
12,700.00	7,118.84	7,346.25	7,092.84	164.29	31.53	26.07	1,075.05	618.94	6,521.24	6,454.93	66.31	98.352		
12,800.00	7,118.41	7,346.10	7,092.79	167.08	31.53	26.18	1,075.20	618.94	6,621.23	6,554.87	66.37	99.768		
12,900.00	7,117.97	7,345.95	7,092.75	169.88	31.53	26.28	1,075.34	618.93	6,721.23	6,654.80	66.43	101.180		
13,000.00	7,117.54	7,345.80	7,092.70	172.67	31.52	26.37	1,075.47	618.93	6,821.23	6,754.73	66.49	102.588		
13,100.00	7,117.10	7,345.66	7,092.66	175.47	31.52	26.47	1,075.61	618.92	6,921.22	6,854.67	66.56	103.992		
13,200.00	7,116.67	7,345.53	7,092.62	178.27	31.52	26.56	1,075.74	618.92	7,021.22	6,954.60	66.62	105.392		
13,300.00	7,116.24	7,345.39	7,092.58	181.07	31.52	26.65	1,075.87	618.91	7,121.21	7,054.53	66.69	106.787		
13,400.00	7,115.80	7,345.26	7,092.54	183.87	31.52	26.74	1,075.99	618.91	7,221.21	7,154.46	66.75	108.179		
13,500.00	7,115.37	7,345.13	7,092.50	186.67	31.52	26.83	1,076.11	618.90	7,321.21	7,254.39	66.82	109.566		
13,600.00	7,114.93	7,345.01	7,092.46	189.47	31.52	26.91	1,076.23	618.90	7,421.20	7,354.32	66.89	110.949		
13,700.00	7,114.50	7,344.88	7,092.43	192.28	31.52	27.00	1,076.35	618.89	7,521.20	7,454.24	66.96	112.327		
13,800.00	7,114.07	7,344.76	7,092.39	195.09	31.52	27.08	1,076.47	618.89	7,621.20	7,554.17	67.03	113.702		
13,900.00	7,113.63	7,344.64	7,092.36	197.89	31.52	27.16	1,076.58	618.88	7,721.19	7,654.10	67.10	115.071		
14,000.00	7,113.20	7,333.00	7,088.78	200.70	31.44	33.88	1,087.65	618.48	7,821.23	7,754.09	67.14	116.491		
14,100.00	7,112.77	7,333.00	7,088.78	203.51	31.44	33.88	1,087.65	618.48	7,921.23	7,854.01	67.21	117.852		
14,200.00	7,112.33	7,333.00	7,088.78	206.32	31.44	33.88	1,087.65	618.48	8,021.22	7,953.94	67.29	119.208		
14,300.00	7,111.90	7,333.00	7,088.78	209.13	31.44	33.88	1,087.65	618.48	8,121.22	8,053.86	67.36	120.560		
14,400.00	7,111.46	7,333.00	7,088.78	211.95	31.44	33.88	1,087.65	618.48	8,221.22	8,153.78	67.44	121.908		
14,500.00	7,111.03	7,333.00	7,088.78	214.76	31.44	33.88	1,087.65	618.48	8,321.21	8,253.70	67.51	123.251		
14,600.00	7,110.60	7,333.00	7,088.78	217.58	31.44	33.88	1,087.65	618.48	8,421.21	8,353.62	67.59	124.590		
14,700.00	7,110.16	7,333.00	7,088.78	220.39	31.44	33.88	1,087.65	618.48	8,521.21	8,453.54	67.67	125.924		
14,800.00	7,109.73	7,333.00	7,088.78	223.21	31.44	33.88	1,087.65	618.48	8,621.20	8,553.45	67.75	127.253		
14,900.00	7,109.30	7,333.00	7,088.78	226.03	31.44	33.88	1,087.65	618.48	8,721.20	8,653.37	67.83	128.578		
14,969.16	7,109.00	7,333.00	7,088.78	227.97	31.44	33.88	1,087.65	618.48	8,790.36	8,722.47	67.88	129.491		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	51.98	1,323.93	1,693.20	2,149.35					
100.00	100.00	142.53	133.53	3.28	3.29	51.96	1,323.83	1,691.87	2,148.51	2,141.93	6.58	326.633		
200.00	200.00	257.71	248.66	3.34	3.37	51.90	1,324.08	1,688.86	2,146.58	2,139.87	6.71	319.876		
300.00	300.00	361.40	352.27	3.44	3.51	51.81	1,325.08	1,684.78	2,144.07	2,137.12	6.95	308.367		
400.00	400.00	452.18	442.94	3.60	3.67	51.71	1,326.93	1,680.85	2,141.92	2,134.65	7.27	294.543		
500.00	500.00	551.65	542.27	3.81	3.89	51.58	1,329.47	1,676.30	2,139.92	2,132.22	7.69	278.173		
600.00	600.00	649.50	639.94	4.05	4.15	51.43	1,332.69	1,671.34	2,138.00	2,129.81	8.18	261.210		
700.00	699.98	744.41	734.64	4.32	4.42	60.50	1,336.39	1,666.22	2,135.36	2,126.63	8.73	244.574		
800.00	799.84	847.10	837.06	4.62	4.75	60.51	1,341.06	1,660.41	2,131.21	2,121.85	9.35	227.846		
900.00	899.45	940.87	930.59	4.94	5.07	60.62	1,345.17	1,654.99	2,125.16	2,115.17	9.99	212.733		
1,000.00	998.70	1,034.29	1,023.70	5.28	5.41	60.82	1,350.21	1,649.48	2,117.91	2,107.25	10.66	198.618		
1,100.00	1,097.50	1,309.12	1,294.91	5.64	6.58	60.86	1,371.69	1,611.82	2,103.62	2,091.46	12.16	172.936		
1,200.00	1,196.18	1,419.49	1,403.17	6.00	7.12	60.78	1,379.37	1,591.80	2,085.90	2,072.86	13.04	160.022		
1,300.00	1,294.87	1,507.66	1,489.59	6.38	7.56	60.70	1,385.76	1,575.53	2,068.12	2,054.29	13.83	149.501		
1,400.00	1,393.55	1,685.35	1,663.63	6.77	8.49	60.57	1,395.69	1,541.17	2,048.51	2,033.45	15.06	135.996		
1,500.00	1,492.23	1,794.29	1,770.33	7.17	9.08	60.54	1,399.09	1,519.48	2,027.08	2,011.09	15.98	126.835		
1,600.00	1,590.91	1,871.56	1,846.08	7.58	9.49	60.53	1,401.07	1,504.35	2,005.59	1,988.82	16.77	119.596		
1,700.00	1,689.60	1,940.31	1,913.67	8.00	9.86	60.54	1,403.20	1,491.96	1,985.56	1,968.04	17.53	113.276		
1,800.00	1,788.28	2,011.00	1,983.31	8.42	10.23	60.55	1,405.67	1,480.14	1,966.84	1,948.53	18.30	107.469		
1,900.00	1,886.96	2,078.03	2,049.47	8.84	10.58	60.57	1,408.57	1,469.79	1,949.59	1,930.52	19.06	102.270		
2,000.00	1,985.64	2,160.87	2,131.31	9.27	11.01	60.59	1,413.15	1,457.81	1,933.79	1,913.89	19.90	97.163		
2,100.00	2,084.33	2,251.91	2,221.19	9.71	11.48	60.59	1,418.90	1,444.43	1,918.35	1,897.56	20.79	92.274		
2,200.00	2,183.01	2,339.64	2,307.71	10.15	11.94	60.56	1,425.33	1,431.46	1,903.46	1,881.78	21.67	87.822		
2,300.00	2,281.69	2,433.00	2,399.75	10.59	12.44	60.52	1,432.86	1,417.72	1,889.07	1,866.48	22.59	83.619		
2,400.00	2,380.38	2,526.89	2,492.48	11.03	12.93	60.51	1,439.63	1,404.66	1,874.80	1,851.29	23.51	79.749		
2,500.00	2,479.06	2,617.79	2,582.35	11.47	13.40	60.52	1,446.13	1,392.69	1,861.03	1,836.62	24.41	76.242		
2,600.00	2,577.74	2,719.40	2,682.90	11.92	13.92	60.54	1,453.03	1,379.78	1,847.41	1,822.05	25.36	72.855		
2,700.00	2,676.42	2,856.59	2,818.49	12.36	14.64	60.56	1,462.09	1,360.98	1,833.01	1,806.54	26.47	69.259		
2,800.00	2,775.11	2,981.52	2,941.41	12.81	15.34	60.49	1,470.34	1,340.26	1,816.22	1,788.68	27.54	65.945		
2,900.00	2,873.79	3,072.63	3,031.09	13.26	15.85	60.46	1,475.96	1,325.17	1,799.24	1,770.76	28.48	63.186		
3,000.00	2,972.47	3,173.30	3,130.27	13.72	16.40	60.44	1,481.72	1,308.96	1,782.33	1,752.89	29.44	60.533		
3,100.00	3,071.15	3,266.50	3,222.09	14.17	16.91	60.42	1,487.15	1,293.90	1,765.46	1,735.08	30.38	58.108		
3,200.00	3,169.84	3,352.49	3,307.09	14.62	17.37	60.46	1,491.21	1,281.58	1,749.28	1,718.00	31.28	55.925		
3,300.00	3,268.52	3,464.34	3,417.84	15.08	17.94	60.57	1,494.69	1,266.36	1,732.63	1,700.38	32.25	53.725		
3,400.00	3,367.20	3,543.50	3,496.33	15.53	18.35	60.68	1,496.93	1,256.32	1,716.54	1,683.44	33.10	51.857		
3,500.00	3,465.89	3,629.67	3,581.77	15.99	18.78	60.77	1,500.30	1,245.62	1,701.36	1,667.38	33.98	50.068		
3,600.00	3,564.57	3,719.07	3,670.29	16.44	19.24	60.83	1,505.16	1,234.17	1,686.82	1,651.93	34.89	48.351		
3,700.00	3,663.25	3,833.55	3,783.32	16.90	19.86	60.82	1,513.11	1,217.88	1,672.12	1,636.20	35.91	46.560		
3,800.00	3,761.93	3,947.40	3,895.34	17.36	20.50	60.74	1,521.99	1,199.59	1,656.53	1,619.57	36.96	44.814		
3,900.00	3,860.62	4,065.87	4,011.76	17.82	21.18	60.64	1,530.68	1,179.39	1,639.89	1,601.86	38.03	43.119		
4,000.00	3,959.30	4,185.36	4,129.08	18.28	21.88	60.55	1,538.26	1,158.02	1,622.00	1,582.90	39.10	41.488		
4,100.00	4,057.98	4,271.51	4,213.71	18.74	22.36	60.50	1,543.11	1,142.71	1,603.76	1,563.72	40.04	40.058		
4,200.00	4,156.67	4,355.03	4,296.00	19.20	22.83	60.49	1,547.52	1,129.10	1,586.44	1,545.47	40.96	38.727		
4,300.00	4,255.35	4,443.66	4,383.51	19.66	23.32	60.51	1,552.00	1,115.79	1,569.94	1,528.05	41.90	37.471		
4,400.00	4,354.03	4,535.30	4,474.05	20.12	23.81	60.54	1,556.77	1,102.48	1,553.93	1,511.10	42.84	36.276		
4,500.00	4,452.71	4,623.77	4,561.52	20.58	24.28	60.57	1,561.54	1,090.07	1,538.43	1,494.67	43.76	35.157		
4,600.00	4,551.40	4,709.81	4,646.68	21.04	24.73	60.62	1,566.29	1,078.80	1,523.71	1,479.04	44.67	34.112		
4,700.00	4,650.08	4,793.64	4,729.76	21.50	25.17	60.69	1,571.03	1,068.66	1,509.86	1,464.30	45.56	33.137		
4,800.00	4,748.76	4,874.07	4,809.57	21.96	25.57	60.77	1,575.84	1,059.97	1,497.20	1,450.77	46.44	32.242		
4,900.00	4,847.44	4,960.23	4,895.18	22.42	25.99	60.89	1,581.07	1,051.75	1,485.59	1,438.28	47.32	31.397		
5,000.00	4,946.13	5,056.83	4,991.23	22.89	26.45	61.04	1,586.84	1,043.27	1,474.52	1,426.29	48.23	30.573		
5,100.00	5,044.81	5,159.36	5,093.08	23.35	26.95	61.16	1,593.68	1,033.59	1,463.38	1,414.20	49.18	29.757		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,252.52	5,185.63	23.81	27.40	61.28	1,599.92	1,025.00	1,452.43	1,402.34	50.09	28.998		
5,300.00	5,242.18	5,355.09	5,287.67	24.27	27.88	61.47	1,605.70	1,016.40	1,441.49	1,390.47	51.02	28.255		
5,400.00	5,340.86	5,446.94	5,379.19	24.74	28.30	61.71	1,609.78	1,009.78	1,430.75	1,378.86	51.89	27.574		
5,500.00	5,439.54	5,535.65	5,467.70	25.20	28.69	61.99	1,612.98	1,004.70	1,420.71	1,367.98	52.73	26.944		
5,600.00	5,538.22	5,629.44	5,561.35	25.66	29.08	62.35	1,615.65	1,000.53	1,411.26	1,357.69	53.57	26.344		
5,700.00	5,636.91	5,725.16	5,656.97	26.13	29.48	62.73	1,618.26	996.73	1,402.19	1,347.77	54.42	25.768		
5,800.00	5,735.59	5,825.01	5,756.70	26.59	29.89	63.14	1,620.93	992.92	1,393.27	1,337.99	55.27	25.207		
5,900.00	5,834.27	5,924.04	5,855.65	27.06	30.30	63.58	1,623.11	989.41	1,384.37	1,328.24	56.12	24.667		
6,000.00	5,932.95	6,020.41	5,951.98	27.52	30.69	64.05	1,624.50	986.72	1,375.72	1,318.76	56.95	24.155		
6,100.00	6,031.64	6,122.01	6,053.53	27.98	31.09	64.57	1,625.53	984.12	1,367.11	1,309.32	57.79	23.655		
6,200.00	6,130.32	6,222.60	6,154.09	28.45	31.49	65.12	1,626.16	981.64	1,358.48	1,299.85	58.63	23.172		
6,300.00	6,229.00	6,321.57	6,253.04	28.91	31.86	65.72	1,625.44	979.97	1,349.85	1,290.42	59.44	22.711		
6,400.00	6,327.69	6,419.60	6,351.06	29.38	32.23	66.33	1,624.66	978.46	1,341.47	1,281.23	60.24	22.269		
6,500.00	6,426.37	7,096.58	6,969.46	29.84	34.23	78.75	1,403.04	933.47	1,306.75	1,249.64	57.10	22.883		
6,600.00	6,525.05	7,227.71	7,060.48	30.31	34.46	83.78	1,308.98	926.85	1,262.20	1,204.59	57.61	21.908		
6,700.00	6,623.18	7,331.00	7,120.00	30.77	34.64	129.05	1,224.83	923.50	1,225.14	1,166.26	58.87	20.810		
6,800.00	6,718.58	7,354.27	7,131.33	31.22	34.68	146.65	1,204.51	923.73	1,209.33	1,148.54	60.78	19.895		
6,818.27	6,735.53	7,357.41	7,132.81	31.30	34.68	148.56	1,201.74	923.82	1,208.94	1,147.83	61.11	19.783 CC, ES		
6,900.00	6,808.91	7,372.74	7,139.90	31.66	34.71	154.78	1,188.16	924.37	1,216.73	1,154.30	62.43	19.489 SF		
7,000.00	6,891.95	7,390.32	7,147.84	32.07	34.73	159.27	1,172.49	925.17	1,246.83	1,183.15	63.68	19.580		
7,100.00	6,965.65	7,413.79	7,158.14	32.51	34.77	162.35	1,151.44	926.40	1,297.45	1,232.90	64.55	20.100		
7,200.00	7,028.20	7,449.71	7,173.26	33.02	34.83	165.30	1,118.90	928.10	1,365.15	1,299.98	65.17	20.946		
7,300.00	7,078.04	7,505.98	7,195.35	33.68	34.97	169.73	1,067.18	929.59	1,445.92	1,380.18	65.75	21.993		
7,400.00	7,113.97	7,400.00	7,198.73	34.52	34.74	171.31	1,058.50	929.67	1,536.19	1,470.95	65.24	23.547		
7,500.00	7,135.09	7,534.20	7,205.52	35.53	35.06	176.06	1,040.85	929.85	1,632.61	1,566.53	66.08	24.707		
7,600.00	7,140.96	7,538.49	7,206.99	36.68	35.08	-159.06	1,036.83	929.89	1,732.02	1,665.90	66.11	26.198		
7,700.00	7,140.53	7,541.37	7,207.97	37.99	35.09	-157.12	1,034.12	929.91	1,831.95	1,765.82	66.13	27.701		
7,800.00	7,140.09	7,544.30	7,208.96	39.45	35.10	-155.27	1,031.36	929.93	1,931.89	1,865.74	66.15	29.203		
7,900.00	7,139.66	7,547.28	7,209.95	41.06	35.11	-153.49	1,028.55	929.95	2,031.83	1,965.66	66.18	30.703		
8,000.00	7,139.23	7,550.31	7,210.95	42.80	35.12	-151.78	1,025.69	929.97	2,131.78	2,065.58	66.20	32.202		
8,100.00	7,138.79	7,553.39	7,211.96	44.65	35.13	-150.15	1,022.78	929.99	2,231.72	2,165.50	66.22	33.699		
8,200.00	7,138.36	7,556.52	7,212.98	46.60	35.15	-148.59	1,019.82	930.01	2,331.67	2,265.42	66.25	35.195		
8,300.00	7,137.93	8,300.00	7,212.42	48.65	41.20	-149.54	1,021.60	930.00	2,431.63	2,360.77	70.86	34.317		
8,400.00	7,137.49	7,552.00	7,211.51	50.77	35.13	-150.87	1,024.10	929.98	2,531.59	2,465.34	66.24	38.217		
8,500.00	7,137.06	7,557.92	7,213.42	52.95	35.15	-147.91	1,018.49	930.03	2,631.53	2,565.24	66.29	39.697		
8,600.00	7,136.62	7,559.12	7,213.80	55.20	35.16	-147.35	1,017.36	930.04	2,731.49	2,665.18	66.31	41.192		
8,700.00	7,136.19	7,560.27	7,214.17	57.51	35.16	-146.83	1,016.27	930.05	2,831.45	2,765.12	66.33	42.686		
8,800.00	7,135.76	7,561.38	7,214.52	59.85	35.16	-146.33	1,015.21	930.06	2,931.42	2,865.06	66.35	44.178		
8,900.00	7,135.32	7,562.46	7,214.86	62.24	35.17	-145.86	1,014.19	930.07	3,031.38	2,965.00	66.38	45.669		
9,000.00	7,134.89	7,563.49	7,215.18	64.67	35.17	-145.41	1,013.21	930.08	3,131.35	3,064.94	66.40	47.158		
9,100.00	7,134.45	7,564.49	7,215.49	67.13	35.18	-144.98	1,012.26	930.09	3,231.31	3,164.89	66.43	48.644		
9,200.00	7,134.02	7,565.46	7,215.80	69.62	35.18	-144.58	1,011.34	930.10	3,331.28	3,264.83	66.45	50.129		
9,300.00	7,133.59	7,566.40	7,216.08	72.14	35.18	-144.20	1,010.45	930.11	3,431.25	3,364.77	66.48	51.612		
9,400.00	7,133.15	7,567.30	7,216.36	74.68	35.19	-143.83	1,009.58	930.13	3,531.22	3,464.71	66.51	53.093		
9,500.00	7,132.72	7,568.18	7,216.63	77.24	35.19	-143.49	1,008.75	930.14	3,631.19	3,564.66	66.54	54.572		
9,600.00	7,132.29	7,569.03	7,216.89	79.83	35.19	-143.15	1,007.94	930.15	3,731.17	3,664.60	66.57	56.049		
9,700.00	7,131.85	7,569.86	7,217.14	82.42	35.20	-142.84	1,007.15	930.16	3,831.14	3,764.54	66.60	57.523		
9,800.00	7,131.42	7,570.65	7,217.39	85.04	35.20	-142.53	1,006.39	930.17	3,931.12	3,864.48	66.63	58.995		
9,900.00	7,130.98	7,571.43	7,217.62	87.67	35.20	-142.24	1,005.65	930.18	4,031.09	3,964.43	66.67	60.465		
10,000.00	7,130.55	7,572.18	7,217.85	90.31	35.21	-141.96	1,004.94	930.19	4,131.07	4,064.37	66.70	61.932		
10,100.00	7,130.12	7,572.91	7,218.07	92.97	35.21	-141.70	1,004.24	930.20	4,231.05	4,164.31	66.74	63.397		
10,200.00	7,129.68	7,573.62	7,218.28	95.63	35.21	-141.44	1,003.56	930.21	4,331.03	4,264.25	66.78	64.859		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-403(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,129.25	7,574.31	7,218.49	98.31	35.22	-141.19	1,002.91	930.22	4,431.01	4,364.19	66.81	66.318		
10,400.00	7,128.82	7,574.98	7,218.69	101.00	35.22	-140.96	1,002.27	930.23	4,530.99	4,464.13	66.85	67.775		
10,500.00	7,128.38	7,584.00	7,221.32	103.69	35.26	-138.01	993.64	930.38	4,630.98	4,564.05	66.94	69.182		
10,600.00	7,127.95	7,584.00	7,221.32	106.39	35.26	-138.01	993.64	930.38	4,730.96	4,663.99	66.98	70.636		
10,700.00	7,127.51	7,584.00	7,221.32	109.10	35.26	-138.01	993.64	930.38	4,830.94	4,763.93	67.02	72.087		
10,800.00	7,127.08	7,584.00	7,221.32	111.82	35.26	-138.01	993.64	930.38	4,930.92	4,863.87	67.05	73.536		
10,900.00	7,126.65	7,584.00	7,221.32	114.54	35.26	-138.01	993.64	930.38	5,030.90	4,963.81	67.10	74.981		
11,000.00	7,126.21	7,584.00	7,221.32	117.27	35.26	-138.01	993.64	930.38	5,130.88	5,063.75	67.14	76.424		
11,100.00	7,125.78	7,584.00	7,221.32	120.01	35.26	-138.01	993.64	930.38	5,230.87	5,163.69	67.18	77.863		
11,200.00	7,125.35	7,584.00	7,221.32	122.75	35.26	-138.01	993.64	930.38	5,330.85	5,263.62	67.22	79.299		
11,300.00	7,124.91	7,584.00	7,221.32	125.49	35.26	-138.01	993.64	930.38	5,430.83	5,363.56	67.27	80.732		
11,400.00	7,124.48	7,584.00	7,221.32	128.24	35.26	-138.01	993.64	930.38	5,530.82	5,463.50	67.32	82.162		
11,500.00	7,124.04	7,584.00	7,221.32	131.00	35.26	-138.01	993.64	930.38	5,630.80	5,563.44	67.36	83.589		
11,600.00	7,123.61	7,584.00	7,221.32	133.75	35.26	-138.01	993.64	930.38	5,730.79	5,663.37	67.41	85.012		
11,700.00	7,123.18	7,584.00	7,221.32	136.52	35.26	-138.01	993.64	930.38	5,830.77	5,763.31	67.46	86.432		
11,800.00	7,122.74	7,584.00	7,221.32	139.28	35.26	-138.01	993.64	930.38	5,930.76	5,863.25	67.51	87.849		
11,900.00	7,122.31	7,584.00	7,221.32	142.05	35.26	-138.01	993.64	930.38	6,030.74	5,963.18	67.56	89.262		
12,000.00	7,121.88	7,584.00	7,221.32	144.82	35.26	-138.01	993.64	930.38	6,130.73	6,063.12	67.62	90.671		
12,100.00	7,121.44	7,584.00	7,221.32	147.59	35.26	-138.01	993.64	930.38	6,230.72	6,163.05	67.67	92.077		
12,200.00	7,121.01	7,584.00	7,221.32	150.37	35.26	-138.01	993.64	930.38	6,330.71	6,262.98	67.72	93.479		
12,300.00	7,120.57	7,584.00	7,221.32	153.15	35.26	-138.01	993.64	930.38	6,430.69	6,362.92	67.78	94.878		
12,400.00	7,120.14	7,584.00	7,221.32	155.93	35.26	-138.01	993.64	930.38	6,530.68	6,462.85	67.84	96.273		
12,500.00	7,119.71	7,584.00	7,221.32	158.72	35.26	-138.01	993.64	930.38	6,630.67	6,562.78	67.89	97.664		
12,600.00	7,119.27	7,584.00	7,221.32	161.50	35.26	-138.01	993.64	930.38	6,730.66	6,662.71	67.95	99.052		
12,700.00	7,118.84	7,584.00	7,221.32	164.29	35.26	-138.01	993.64	930.38	6,830.65	6,762.64	68.01	100.435		
12,800.00	7,118.41	7,584.00	7,221.32	167.08	35.26	-138.01	993.64	930.38	6,930.64	6,862.57	68.07	101.815		
12,900.00	7,117.97	7,584.00	7,221.32	169.88	35.26	-138.01	993.64	930.38	7,030.63	6,962.50	68.13	103.191		
13,000.00	7,117.54	7,584.00	7,221.32	172.67	35.26	-138.01	993.64	930.38	7,130.62	7,062.43	68.19	104.563		
13,100.00	7,117.10	7,584.00	7,221.32	175.47	35.26	-138.01	993.64	930.38	7,230.61	7,162.35	68.26	105.931		
13,200.00	7,116.67	7,584.00	7,221.32	178.27	35.26	-138.01	993.64	930.38	7,330.60	7,262.28	68.32	107.295		
13,300.00	7,116.24	7,584.00	7,221.32	181.07	35.26	-138.01	993.64	930.38	7,430.59	7,362.21	68.39	108.655		
13,400.00	7,115.80	7,584.00	7,221.32	183.87	35.26	-138.01	993.64	930.38	7,530.59	7,462.13	68.45	110.010		
13,500.00	7,115.37	7,584.00	7,221.32	186.67	35.26	-138.01	993.64	930.38	7,630.58	7,562.06	68.52	111.362		
13,600.00	7,114.93	7,584.00	7,221.32	189.47	35.26	-138.01	993.64	930.38	7,730.57	7,661.98	68.59	112.710		
13,700.00	7,114.50	7,584.00	7,221.32	192.28	35.26	-138.01	993.64	930.38	7,830.56	7,761.90	68.66	114.053		
13,800.00	7,114.07	7,584.00	7,221.32	195.09	35.26	-138.01	993.64	930.38	7,930.55	7,861.83	68.73	115.392		
13,900.00	7,113.63	7,584.00	7,221.32	197.89	35.26	-138.01	993.64	930.38	8,030.55	7,961.75	68.80	116.727		
14,000.00	7,113.20	7,584.00	7,221.32	200.70	35.26	-138.01	993.64	930.38	8,130.54	8,061.67	68.87	118.058		
14,100.00	7,112.77	7,584.00	7,221.32	203.51	35.26	-138.01	993.64	930.38	8,230.53	8,161.59	68.94	119.384		
14,200.00	7,112.33	7,584.00	7,221.32	206.32	35.26	-138.01	993.64	930.38	8,330.52	8,261.51	69.01	120.706		
14,300.00	7,111.90	7,584.00	7,221.32	209.13	35.26	-138.01	993.64	930.38	8,430.52	8,361.43	69.09	122.024		
14,400.00	7,111.46	7,584.00	7,221.32	211.95	35.26	-138.01	993.64	930.38	8,530.51	8,461.35	69.16	123.337		
14,500.00	7,111.03	7,584.00	7,221.32	214.76	35.26	-138.01	993.64	930.38	8,630.50	8,561.26	69.24	124.646		
14,600.00	7,110.60	7,584.00	7,221.32	217.58	35.26	-138.01	993.64	930.38	8,730.50	8,661.18	69.32	125.951		
14,700.00	7,110.16	7,584.00	7,221.32	220.39	35.26	-138.01	993.64	930.38	8,830.49	8,761.10	69.39	127.251		
14,800.00	7,109.73	7,584.00	7,221.32	223.21	35.26	-138.01	993.64	930.38	8,930.49	8,861.01	69.47	128.547		
14,900.00	7,109.30	7,584.00	7,221.32	226.03	35.26	-138.01	993.64	930.38	9,030.48	8,960.93	69.55	129.838		
14,969.16	7,109.00	7,584.00	7,221.32	227.97	35.26	-138.01	993.64	930.38	9,099.64	9,030.03	69.61	130.728		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.55	-320.23	-2.50	320.24					
100.00	100.00	101.00	100.00	3.28	3.28	-179.55	-320.23	-2.50	320.24	313.67	6.57	48.746		
200.00	200.00	199.00	200.00	3.34	3.34	-179.55	-320.23	-2.50	320.24	313.57	6.67	47.989 CC, ES		
300.00	300.00	289.05	290.04	3.44	3.43	-179.53	-321.61	-2.63	321.78	314.90	6.88	46.769		
400.00	400.00	378.83	379.71	3.60	3.56	-179.47	-325.79	-3.03	326.43	319.24	7.19	45.404		
500.00	500.00	468.25	468.86	3.81	3.72	-179.37	-332.73	-3.68	334.20	326.61	7.59	44.045		
600.00	600.00	557.15	557.23	4.05	3.93	-179.23	-342.37	-4.59	345.06	337.00	8.06	42.819		
700.00	699.98	645.12	644.33	4.32	4.16	-169.91	-354.59	-5.74	360.68	352.09	8.59	41.995		
800.00	799.84	731.50	729.46	4.62	4.41	-169.78	-369.18	-7.11	382.64	373.48	9.16	41.759		
900.00	899.45	815.81	812.08	4.94	4.69	-169.68	-385.87	-8.69	410.81	401.05	9.76	42.088		
1,000.00	998.70	897.61	891.73	5.28	4.99	-169.60	-404.38	-10.43	444.99	434.63	10.37	42.920		
1,100.00	1,097.50	981.90	973.29	5.64	5.32	-169.59	-425.58	-12.43	484.57	473.58	10.99	44.083		
1,200.00	1,196.18	1,073.24	1,061.56	6.00	5.70	-169.69	-448.96	-14.63	525.27	513.64	11.64	45.146		
1,300.00	1,294.87	1,164.58	1,149.82	6.38	6.09	-169.78	-472.35	-16.83	565.98	553.67	12.31	45.988		
1,400.00	1,393.55	1,255.91	1,238.09	6.77	6.50	-169.85	-495.73	-19.03	606.68	593.68	13.00	46.657		
1,500.00	1,492.23	1,347.25	1,326.36	7.17	6.92	-169.92	-519.11	-21.24	647.39	633.67	13.72	47.187		
1,600.00	1,590.91	1,438.59	1,414.62	7.58	7.35	-169.97	-542.49	-23.44	688.10	673.64	14.45	47.607		
1,700.00	1,689.60	1,529.93	1,502.89	8.00	7.79	-170.03	-565.88	-25.64	728.80	713.60	15.20	47.939		
1,800.00	1,788.28	1,621.26	1,591.16	8.42	8.24	-170.07	-589.26	-27.85	769.51	753.55	15.96	48.202		
1,900.00	1,886.96	1,712.60	1,679.42	8.84	8.69	-170.11	-612.64	-30.05	810.22	793.48	16.74	48.409		
2,000.00	1,985.64	1,803.94	1,767.69	9.27	9.14	-170.15	-636.03	-32.25	850.93	833.41	17.52	48.571		
2,100.00	2,084.33	1,904.72	1,855.96	9.71	9.65	-170.18	-659.41	-34.45	891.64	873.28	18.35	48.583		
2,200.00	2,183.01	1,986.62	1,944.22	10.15	10.06	-170.21	-682.79	-36.66	932.35	913.24	19.11	48.793		
2,300.00	2,281.69	2,077.95	2,032.49	10.59	10.52	-170.24	-706.17	-38.86	973.06	953.14	19.91	48.866		
2,400.00	2,380.38	2,169.29	2,120.75	11.03	10.99	-170.27	-729.56	-41.06	1,013.76	993.04	20.72	48.920		
2,500.00	2,479.06	2,260.63	2,209.02	11.47	11.46	-170.29	-752.94	-43.26	1,054.47	1,032.94	21.54	48.959		
2,600.00	2,577.74	2,351.97	2,297.29	11.92	11.93	-170.31	-776.32	-45.47	1,095.18	1,072.83	22.36	48.985		
2,700.00	2,676.42	2,443.30	2,385.55	12.36	12.41	-170.33	-799.71	-47.67	1,135.89	1,112.71	23.18	49.000		
2,800.00	2,775.11	2,534.64	2,473.82	12.81	12.88	-170.35	-823.09	-49.87	1,176.60	1,152.59	24.01	49.007		
2,900.00	2,873.79	2,625.98	2,562.09	13.26	13.36	-170.37	-846.47	-52.07	1,217.31	1,192.47	24.84	49.008		
3,000.00	2,972.47	2,717.32	2,650.35	13.72	13.84	-170.39	-869.85	-54.28	1,258.02	1,232.35	25.67	49.002		
3,100.00	3,071.15	2,808.65	2,738.62	14.17	14.32	-170.40	-893.24	-56.48	1,298.73	1,272.23	26.51	48.993		
3,200.00	3,169.84	2,900.01	2,826.89	14.62	14.80	-170.42	-916.62	-58.68	1,339.44	1,312.10	27.35	48.979		
3,300.00	3,268.52	3,008.67	2,915.15	15.08	15.37	-170.43	-940.00	-60.88	1,380.15	1,351.88	28.27	48.819		
3,400.00	3,367.20	3,082.67	3,003.42	15.53	15.76	-170.44	-963.39	-63.09	1,420.87	1,391.83	29.03	48.943		
3,500.00	3,465.89	3,174.01	3,091.69	15.99	16.24	-170.45	-986.77	-65.29	1,461.58	1,431.70	29.88	48.922		
3,600.00	3,564.57	3,265.34	3,179.95	16.44	16.72	-170.47	-1,010.15	-67.49	1,502.29	1,471.56	30.72	48.899		
3,700.00	3,663.25	3,356.68	3,268.22	16.90	17.21	-170.48	-1,033.53	-69.70	1,543.00	1,511.43	31.57	48.875		
3,800.00	3,761.93	3,448.02	3,356.49	17.36	17.69	-170.49	-1,056.92	-71.90	1,583.71	1,551.29	32.42	48.851		
3,900.00	3,860.62	3,539.36	3,444.75	17.82	18.18	-170.50	-1,080.30	-74.10	1,624.42	1,591.15	33.27	48.825		
4,000.00	3,959.30	3,630.69	3,533.02	18.28	18.66	-170.51	-1,103.68	-76.30	1,665.13	1,631.01	34.12	48.799		
4,100.00	4,057.98	3,722.03	3,621.28	18.74	19.15	-170.52	-1,127.07	-78.51	1,705.84	1,670.86	34.98	48.773		
4,200.00	4,156.67	3,813.37	3,709.55	19.20	19.64	-170.52	-1,150.45	-80.71	1,746.55	1,710.72	35.83	48.746		
4,300.00	4,255.35	3,904.71	3,797.82	19.66	20.12	-170.53	-1,173.83	-82.91	1,787.26	1,750.58	36.68	48.719		
4,400.00	4,354.03	3,996.05	3,886.08	20.12	20.61	-170.54	-1,197.21	-85.11	1,827.97	1,790.43	37.54	48.693		
4,500.00	4,452.71	4,087.38	3,974.35	20.58	21.10	-170.55	-1,220.60	-87.32	1,868.68	1,830.28	38.40	48.666		
4,600.00	4,551.40	4,178.72	4,062.62	21.04	21.59	-170.55	-1,243.98	-89.52	1,909.39	1,870.14	39.26	48.639		
4,700.00	4,650.08	4,270.06	4,150.88	21.50	22.08	-170.56	-1,267.36	-91.72	1,950.10	1,909.99	40.11	48.613		
4,800.00	4,748.76	4,361.40	4,239.15	21.96	22.56	-170.57	-1,290.75	-93.92	1,990.82	1,949.84	40.97	48.587		
4,900.00	4,847.44	4,452.73	4,327.42	22.42	23.05	-170.57	-1,314.13	-96.13	2,031.53	1,989.69	41.83	48.561		
5,000.00	4,946.13	4,544.07	4,415.68	22.89	23.54	-170.58	-1,337.51	-98.33	2,072.24	2,029.54	42.70	48.535		
5,100.00	5,044.81	4,635.41	4,503.95	23.35	24.03	-170.59	-1,360.89	-100.53	2,112.95	2,069.39	43.56	48.510		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	4,726.75	4,592.22	23.81	24.52	-170.59	-1,384.28	-102.73	2,153.66	2,109.24	44.42	48.485		
5,300.00	5,242.18	4,818.08	4,680.48	24.27	25.01	-170.60	-1,407.66	-104.94	2,194.37	2,149.09	45.28	48.460		
5,400.00	5,340.86	4,909.42	4,768.75	24.74	25.50	-170.60	-1,431.04	-107.14	2,235.08	2,188.94	46.15	48.435		
5,500.00	5,439.54	5,000.76	4,857.02	25.20	25.99	-170.61	-1,454.43	-109.34	2,275.79	2,228.78	47.01	48.411		
5,600.00	5,538.22	5,107.90	4,945.28	25.66	26.57	-170.61	-1,477.81	-111.55	2,316.50	2,268.55	47.95	48.310		
5,700.00	5,636.91	5,183.44	5,033.55	26.13	26.97	-170.62	-1,501.19	-113.75	2,357.21	2,308.48	48.74	48.364		
5,800.00	5,735.59	5,274.77	5,121.81	26.59	27.46	-170.62	-1,524.57	-115.95	2,397.93	2,348.32	49.60	48.341		
5,900.00	5,834.27	5,366.11	5,210.08	27.06	27.95	-170.63	-1,547.96	-118.15	2,438.64	2,388.17	50.47	48.318		
6,000.00	5,932.95	5,457.45	5,298.35	27.52	28.45	-170.63	-1,571.34	-120.36	2,479.35	2,428.01	51.34	48.296		
6,100.00	6,031.64	5,548.79	5,386.61	27.98	28.94	-170.63	-1,594.72	-122.56	2,520.06	2,467.86	52.20	48.273		
6,200.00	6,130.32	5,640.12	5,474.88	28.45	29.43	-170.64	-1,618.11	-124.76	2,560.77	2,507.70	53.07	48.252		
6,300.00	6,229.00	5,731.46	5,563.15	28.91	29.92	-170.64	-1,641.49	-126.96	2,601.48	2,547.54	53.94	48.230		
6,400.00	6,327.69	5,822.80	5,651.41	29.38	30.41	-170.65	-1,664.87	-129.17	2,642.19	2,587.39	54.81	48.209		
6,500.00	6,426.37	5,914.14	5,739.68	29.84	30.90	-170.65	-1,688.26	-131.37	2,682.90	2,627.23	55.68	48.188		
6,600.00	6,525.05	6,005.47	5,827.95	30.31	31.39	-170.65	-1,711.64	-133.57	2,723.61	2,667.07	56.54	48.168		
6,700.00	6,623.18	6,103.45	5,915.96	30.77	31.92	-126.77	-1,734.95	-135.77	2,763.89	2,706.45	57.45	48.111		
6,800.00	6,718.58	6,185.62	6,002.03	31.22	32.36	-107.14	-1,757.76	-137.92	2,802.78	2,744.51	58.27	48.097		
6,900.00	6,808.91	6,270.48	6,084.04	31.66	32.82	-97.01	-1,779.48	-139.96	2,839.68	2,780.57	59.11	48.041		
7,000.00	6,891.95	6,349.05	6,159.97	32.07	33.25	-90.74	-1,799.59	-141.86	2,874.24	2,814.32	59.92	47.965		
7,100.00	6,965.65	6,419.39	6,227.94	32.51	33.62	-86.42	-1,817.60	-143.55	2,906.30	2,845.57	60.73	47.855		
7,200.00	7,028.20	6,479.76	6,286.29	33.02	33.95	-83.22	-1,833.06	-145.01	2,935.80	2,874.24	61.56	47.691		
7,300.00	7,078.04	6,528.69	6,333.57	33.68	34.21	-80.72	-1,845.58	-146.19	2,962.75	2,900.31	62.44	47.453		
7,400.00	7,113.97	6,603.35	6,405.59	34.52	34.61	-79.36	-1,864.68	-150.46	2,987.04	2,923.30	63.75	46.858		
7,500.00	7,135.09	6,784.75	6,574.63	35.53	35.52	-80.43	-1,909.75	-196.00	3,007.62	2,941.46	66.16	45.462		
7,600.00	7,140.96	7,498.28	6,950.21	36.68	38.26	-86.38	-2,013.05	-749.43	3,018.84	2,946.03	72.80	41.466		
7,700.00	7,140.53	7,630.53	6,950.63	37.99	39.31	-86.40	-2,014.09	-881.67	3,015.99	2,940.26	75.73	39.827		
7,800.00	7,140.09	7,730.49	6,950.26	39.45	40.43	-86.39	-2,014.68	-981.62	3,013.13	2,934.52	78.61	38.330		
7,900.00	7,139.66	7,830.45	6,949.88	41.06	41.80	-86.39	-2,015.28	-1,081.58	3,010.27	2,928.48	81.79	36.806		
8,000.00	7,139.23	7,930.41	6,949.50	42.80	43.36	-86.39	-2,015.88	-1,181.54	3,007.41	2,922.18	85.23	35.287		
8,100.00	7,138.79	8,030.37	6,949.12	44.65	45.08	-86.39	-2,016.48	-1,281.49	3,004.55	2,915.65	88.90	33.797		
8,200.00	7,138.36	8,130.33	6,948.74	46.60	46.92	-86.38	-2,017.08	-1,381.45	3,001.69	2,908.92	92.78	32.354		
8,300.00	7,137.93	8,230.29	6,948.36	48.65	48.87	-86.38	-2,017.68	-1,481.40	2,998.83	2,902.00	96.83	30.969		
8,400.00	7,137.49	8,330.25	6,947.98	50.77	50.92	-86.38	-2,018.27	-1,581.36	2,995.97	2,894.93	101.05	29.650		
8,500.00	7,137.06	8,430.21	6,947.60	52.95	53.04	-86.38	-2,018.87	-1,681.32	2,993.11	2,887.71	105.40	28.398		
8,600.00	7,136.62	8,530.16	6,947.22	55.20	55.24	-86.37	-2,019.47	-1,781.27	2,990.25	2,880.38	109.88	27.215		
8,700.00	7,136.19	8,630.12	6,946.84	57.51	57.49	-86.37	-2,020.07	-1,881.23	2,987.39	2,872.94	114.46	26.100		
8,800.00	7,135.76	8,730.08	6,946.46	59.85	59.80	-86.37	-2,020.67	-1,981.19	2,984.54	2,865.40	119.14	25.051		
8,900.00	7,135.32	8,830.04	6,946.08	62.24	62.16	-86.37	-2,021.27	-2,081.14	2,981.68	2,857.77	123.90	24.064		
9,000.00	7,134.89	8,930.00	6,945.71	64.67	64.55	-86.36	-2,021.86	-2,181.10	2,978.82	2,850.07	128.74	23.137		
9,100.00	7,134.45	9,029.96	6,945.33	67.13	66.99	-86.36	-2,022.46	-2,281.06	2,975.96	2,842.30	133.65	22.266		
9,200.00	7,134.02	9,129.92	6,944.95	69.62	69.46	-86.36	-2,023.06	-2,381.01	2,973.10	2,834.48	138.62	21.448		
9,300.00	7,133.59	9,229.88	6,944.57	72.14	71.95	-86.36	-2,023.66	-2,480.97	2,970.24	2,826.59	143.64	20.678		
9,400.00	7,133.15	9,329.84	6,944.19	74.68	74.47	-86.35	-2,024.26	-2,580.93	2,967.38	2,818.67	148.71	19.954		
9,500.00	7,132.72	9,429.80	6,943.81	77.24	77.02	-86.35	-2,024.86	-2,680.88	2,964.52	2,810.69	153.83	19.272		
9,600.00	7,132.29	9,529.75	6,943.43	79.83	79.59	-86.35	-2,025.46	-2,780.84	2,961.66	2,802.68	158.98	18.629		
9,700.00	7,131.85	9,629.71	6,943.05	82.42	82.18	-86.35	-2,026.05	-2,880.80	2,958.80	2,794.63	164.17	18.023		
9,800.00	7,131.42	9,729.67	6,942.67	85.04	84.78	-86.34	-2,026.65	-2,980.75	2,955.94	2,786.55	169.39	17.451		
9,900.00	7,130.98	9,829.63	6,942.29	87.67	87.40	-86.34	-2,027.25	-3,080.71	2,953.08	2,778.44	174.64	16.910		
10,000.00	7,130.55	9,929.59	6,941.91	90.31	90.04	-86.34	-2,027.85	-3,180.67	2,950.22	2,770.30	179.92	16.398		
10,100.00	7,130.12	10,029.55	6,941.53	92.97	92.68	-86.34	-2,028.45	-3,280.62	2,947.36	2,762.14	185.22	15.913		
10,200.00	7,129.68	10,129.51	6,941.15	95.63	95.35	-86.33	-2,029.05	-3,380.58	2,944.50	2,753.96	190.54	15.453		
10,300.00	7,129.25	10,229.47	6,940.78	98.31	98.02	-86.33	-2,029.64	-3,480.53	2,941.64	2,745.75	195.89	15.017		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	7,128.82	10,329.43	6,940.40	101.00	100.70	-86.33	-2,030.24	-3,580.49	2,938.78	2,737.53	201.25	14.602		
10,500.00	7,128.38	10,429.39	6,940.02	103.69	103.39	-86.33	-2,030.84	-3,680.45	2,935.92	2,729.29	206.63	14.208		
10,600.00	7,127.95	10,529.35	6,939.64	106.39	106.09	-86.32	-2,031.44	-3,780.40	2,933.06	2,721.03	212.03	13.833		
10,700.00	7,127.51	10,629.30	6,939.26	109.10	108.80	-86.32	-2,032.04	-3,880.36	2,930.20	2,712.76	217.45	13.476		
10,800.00	7,127.08	10,729.26	6,938.88	111.82	111.52	-86.32	-2,032.64	-3,980.32	2,927.34	2,704.47	222.87	13.135		
10,900.00	7,126.65	10,829.22	6,938.50	114.54	114.24	-86.32	-2,033.23	-4,080.27	2,924.48	2,696.17	228.31	12.809		
11,000.00	7,126.21	10,929.18	6,938.12	117.27	116.97	-86.31	-2,033.83	-4,180.23	2,921.62	2,687.86	233.77	12.498		
11,100.00	7,125.78	11,029.14	6,937.74	120.01	119.70	-86.31	-2,034.43	-4,280.19	2,918.76	2,679.53	239.23	12.201		
11,200.00	7,125.35	11,129.10	6,937.36	122.75	122.44	-86.31	-2,035.03	-4,380.14	2,915.90	2,671.20	244.70	11.916		
11,300.00	7,124.91	11,229.06	6,936.98	125.49	125.19	-86.31	-2,035.63	-4,480.10	2,913.04	2,662.86	250.19	11.643		
11,400.00	7,124.48	11,329.02	6,936.60	128.24	127.94	-86.30	-2,036.23	-4,580.06	2,910.18	2,654.51	255.68	11.382		
11,500.00	7,124.04	11,428.98	6,936.23	131.00	130.70	-86.30	-2,036.82	-4,680.01	2,907.32	2,646.14	261.18	11.131		
11,600.00	7,123.61	11,528.94	6,935.85	133.75	133.46	-86.30	-2,037.42	-4,779.97	2,904.47	2,637.78	266.69	10.891		
11,700.00	7,123.18	11,628.89	6,935.47	136.52	136.22	-86.30	-2,038.02	-4,879.93	2,901.61	2,629.40	272.21	10.660		
11,800.00	7,122.74	11,728.85	6,935.09	139.28	138.99	-86.29	-2,038.62	-4,979.88	2,898.75	2,621.02	277.73	10.437		
11,900.00	7,122.31	11,828.81	6,934.71	142.05	141.76	-86.29	-2,039.22	-5,079.84	2,895.89	2,612.63	283.26	10.223		
12,000.00	7,121.88	11,928.77	6,934.33	144.82	144.53	-86.29	-2,039.82	-5,179.80	2,893.03	2,604.23	288.80	10.017		
12,100.00	7,121.44	12,028.73	6,933.95	147.59	147.31	-86.29	-2,040.41	-5,279.75	2,890.17	2,595.83	294.34	9.819		
12,200.00	7,121.01	12,128.69	6,933.57	150.37	150.09	-86.28	-2,041.01	-5,379.71	2,887.31	2,587.42	299.89	9.628		
12,300.00	7,120.57	12,228.65	6,933.19	153.15	152.88	-86.28	-2,041.61	-5,479.67	2,884.45	2,579.01	305.44	9.444		
12,400.00	7,120.14	12,328.61	6,932.81	155.93	155.66	-86.28	-2,042.21	-5,579.62	2,881.59	2,570.59	311.00	9.266		
12,500.00	7,119.71	12,428.57	6,932.43	158.72	158.45	-86.28	-2,042.81	-5,679.58	2,878.73	2,562.17	316.56	9.094		
12,600.00	7,119.27	12,528.53	6,932.05	161.50	161.24	-86.27	-2,043.41	-5,779.53	2,875.87	2,553.74	322.13	8.928		
12,700.00	7,118.84	12,628.48	6,931.68	164.29	164.04	-86.27	-2,044.01	-5,879.49	2,873.01	2,545.31	327.70	8.767		
12,800.00	7,118.41	12,728.44	6,931.30	167.08	166.83	-86.27	-2,044.60	-5,979.45	2,870.15	2,536.87	333.28	8.612		
12,900.00	7,117.97	12,828.40	6,930.92	169.88	169.63	-86.27	-2,045.20	-6,079.40	2,867.29	2,528.43	338.86	8.462		
13,000.00	7,117.54	12,928.36	6,930.54	172.67	172.43	-86.26	-2,045.80	-6,179.36	2,864.43	2,519.99	344.44	8.316		
13,100.00	7,117.10	13,028.32	6,930.16	175.47	175.23	-86.26	-2,046.40	-6,279.32	2,861.57	2,511.54	350.03	8.175		
13,200.00	7,116.67	13,128.28	6,929.78	178.27	178.04	-86.26	-2,047.00	-6,379.27	2,858.71	2,503.09	355.62	8.039		
13,300.00	7,116.24	13,228.24	6,929.40	181.07	180.84	-86.25	-2,047.60	-6,479.23	2,855.85	2,494.64	361.21	7.906		
13,400.00	7,115.80	13,328.20	6,929.02	183.87	183.65	-86.25	-2,048.19	-6,579.19	2,852.99	2,486.18	366.81	7.778		
13,500.00	7,115.37	13,428.16	6,928.64	186.67	186.46	-86.25	-2,048.79	-6,679.14	2,850.13	2,477.73	372.41	7.653		
13,600.00	7,114.93	13,528.12	6,928.26	189.47	189.27	-86.25	-2,049.39	-6,779.10	2,847.28	2,469.26	378.01	7.532		
13,700.00	7,114.50	13,628.07	6,927.88	192.28	192.08	-86.24	-2,049.99	-6,879.06	2,844.42	2,460.80	383.62	7.415		
13,800.00	7,114.07	13,728.03	6,927.50	195.09	194.89	-86.24	-2,050.59	-6,979.01	2,841.56	2,452.33	389.22	7.301		
13,900.00	7,113.63	13,827.99	6,927.13	197.89	197.71	-86.24	-2,051.19	-7,078.97	2,838.70	2,443.86	394.83	7.190		
14,000.00	7,113.20	13,927.95	6,926.75	200.70	200.52	-86.24	-2,051.78	-7,178.93	2,835.84	2,435.39	400.45	7.082		
14,100.00	7,112.77	14,027.91	6,926.37	203.51	203.34	-86.23	-2,052.38	-7,278.88	2,832.98	2,426.92	406.06	6.977		
14,200.00	7,112.33	14,127.87	6,925.99	206.32	206.16	-86.23	-2,052.98	-7,378.84	2,830.12	2,418.44	411.68	6.875		
14,300.00	7,111.90	14,227.83	6,925.61	209.13	208.97	-86.23	-2,053.58	-7,478.80	2,827.26	2,409.97	417.29	6.775		
14,400.00	7,111.46	14,327.79	6,925.23	211.95	211.79	-86.22	-2,054.18	-7,578.75	2,824.40	2,401.49	422.91	6.678		
14,500.00	7,111.03	14,427.75	6,924.85	214.76	214.61	-86.22	-2,054.78	-7,678.71	2,821.54	2,393.00	428.54	6.584		
14,600.00	7,110.60	14,527.71	6,924.47	217.58	217.44	-86.22	-2,055.37	-7,778.67	2,818.68	2,384.52	434.16	6.492		
14,700.00	7,110.16	14,627.67	6,924.09	220.39	220.26	-86.22	-2,055.97	-7,878.62	2,815.82	2,376.04	439.79	6.403		
14,800.00	7,109.73	14,727.62	6,923.71	223.21	223.08	-86.21	-2,056.57	-7,978.58	2,812.96	2,367.55	445.41	6.315		
14,900.00	7,109.30	14,827.58	6,923.33	226.03	225.91	-86.21	-2,057.17	-8,078.53	2,810.10	2,359.06	451.04	6.230		
14,969.16	7,109.00	14,896.72	6,923.07	227.97	227.86	-86.21	-2,057.58	-8,147.67	2,808.13	2,353.19	454.93	6.173 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	-179.54	-280.15	-2.23	280.16					
100.00	100.00	101.00	100.00	3.28	3.28	-179.54	-280.15	-2.23	280.16	273.59	6.57	42.645		
200.00	200.00	199.00	200.00	3.34	3.34	-179.54	-280.15	-2.23	280.16	273.49	6.67	41.983 CC, ES		
300.00	300.00	290.21	291.19	3.44	3.43	-179.51	-281.56	-2.41	281.71	274.83	6.88	40.936		
400.00	400.00	381.15	382.03	3.60	3.56	-179.41	-285.83	-2.96	286.41	279.22	7.19	39.813		
500.00	500.00	471.72	472.31	3.81	3.73	-179.24	-292.93	-3.87	294.26	286.66	7.60	38.738		
600.00	600.00	561.75	561.79	4.05	3.94	-179.03	-302.78	-5.14	305.22	297.15	8.07	37.816		
700.00	699.98	650.82	649.96	4.32	4.17	-169.62	-315.26	-6.75	320.97	312.37	8.61	37.295		
800.00	799.84	739.54	737.36	4.62	4.44	-169.40	-330.37	-8.70	343.08	333.90	9.18	37.359		
900.00	899.45	835.94	832.13	4.94	4.76	-169.25	-347.88	-10.96	369.65	359.87	9.78	37.795		
1,000.00	998.70	931.37	925.95	5.28	5.10	-169.19	-365.21	-13.20	399.51	389.09	10.42	38.344		
1,100.00	1,097.50	1,025.79	1,018.77	5.64	5.46	-169.24	-382.35	-15.41	432.43	421.34	11.09	39.010		
1,200.00	1,196.18	1,119.97	1,111.36	6.00	5.83	-169.38	-399.45	-17.61	466.05	454.29	11.76	39.627		
1,300.00	1,294.87	1,214.14	1,203.94	6.38	6.22	-169.49	-416.55	-19.82	499.67	487.21	12.46	40.097		
1,400.00	1,393.55	1,308.31	1,296.52	6.77	6.61	-169.60	-433.65	-22.03	533.29	520.11	13.18	40.452		
1,500.00	1,492.23	1,402.49	1,389.10	7.17	7.02	-169.68	-450.76	-24.23	566.91	552.99	13.92	40.718		
1,600.00	1,590.91	1,503.34	1,481.69	7.58	7.46	-169.76	-467.86	-26.44	600.54	585.83	14.71	40.839		
1,700.00	1,689.60	1,609.16	1,574.27	8.00	7.93	-169.84	-484.96	-28.64	634.16	618.64	15.52	40.857		
1,800.00	1,788.28	1,685.01	1,666.85	8.42	8.27	-169.90	-502.06	-30.85	667.79	651.56	16.22	41.160		
1,900.00	1,886.96	1,779.19	1,759.43	8.84	8.70	-169.96	-519.16	-33.05	701.41	684.40	17.01	41.230		
2,000.00	1,985.64	1,873.36	1,852.02	9.27	9.13	-170.01	-536.26	-35.26	735.04	717.23	17.81	41.274		
2,100.00	2,084.33	1,967.54	1,944.60	9.71	9.57	-170.06	-553.36	-37.47	768.67	750.06	18.61	41.299		
2,200.00	2,183.01	2,061.71	2,037.18	10.15	10.01	-170.10	-570.46	-39.67	802.30	782.87	19.42	41.308		
2,300.00	2,281.69	2,155.89	2,129.76	10.59	10.45	-170.14	-587.56	-41.88	835.92	815.69	20.24	41.305		
2,400.00	2,380.38	2,250.06	2,222.35	11.03	10.89	-170.18	-604.66	-44.08	869.55	848.49	21.06	41.293		
2,500.00	2,479.06	2,344.23	2,314.93	11.47	11.33	-170.21	-621.77	-46.29	903.18	881.30	21.88	41.273		
2,600.00	2,577.74	2,438.41	2,407.51	11.92	11.78	-170.25	-638.87	-48.50	936.81	914.10	22.71	41.248		
2,700.00	2,676.42	2,532.58	2,500.09	12.36	12.23	-170.28	-655.97	-50.70	970.44	946.90	23.54	41.218		
2,800.00	2,775.11	2,626.76	2,592.68	12.81	12.68	-170.30	-673.07	-52.91	1,004.07	979.69	24.38	41.186		
2,900.00	2,873.79	2,720.93	2,685.26	13.26	13.13	-170.33	-690.17	-55.11	1,037.70	1,012.48	25.22	41.150		
3,000.00	2,972.47	2,815.11	2,777.84	13.72	13.58	-170.35	-707.27	-57.32	1,071.33	1,045.27	26.06	41.113		
3,100.00	3,071.15	2,909.28	2,870.42	14.17	14.03	-170.38	-724.37	-59.52	1,104.96	1,078.06	26.90	41.075		
3,200.00	3,169.84	3,003.46	2,963.01	14.62	14.48	-170.40	-741.47	-61.73	1,138.59	1,110.84	27.75	41.037		
3,300.00	3,268.52	3,102.37	3,055.59	15.08	14.96	-170.42	-758.57	-63.94	1,172.22	1,143.61	28.61	40.966		
3,400.00	3,367.20	3,208.19	3,148.17	15.53	15.47	-170.44	-775.68	-66.14	1,205.85	1,176.34	29.52	40.854		
3,500.00	3,465.89	3,285.98	3,240.75	15.99	15.85	-170.46	-792.78	-68.35	1,239.48	1,209.19	30.29	40.918		
3,600.00	3,564.57	3,380.15	3,333.34	16.44	16.30	-170.47	-809.88	-70.55	1,273.11	1,241.97	31.14	40.879		
3,700.00	3,663.25	3,474.33	3,425.92	16.90	16.76	-170.49	-826.98	-72.76	1,306.74	1,274.75	32.00	40.840		
3,800.00	3,761.93	3,568.50	3,518.50	17.36	17.22	-170.50	-844.08	-74.97	1,340.38	1,307.52	32.85	40.802		
3,900.00	3,860.62	3,662.68	3,611.08	17.82	17.68	-170.52	-861.18	-77.17	1,374.01	1,340.30	33.71	40.764		
4,000.00	3,959.30	3,756.85	3,703.67	18.28	18.13	-170.53	-878.28	-79.38	1,407.64	1,373.07	34.56	40.727		
4,100.00	4,057.98	3,851.03	3,796.25	18.74	18.59	-170.55	-895.38	-81.58	1,441.27	1,405.85	35.42	40.690		
4,200.00	4,156.67	3,945.20	3,888.83	19.20	19.05	-170.56	-912.48	-83.79	1,474.90	1,438.62	36.28	40.654		
4,300.00	4,255.35	4,039.38	3,981.41	19.66	19.51	-170.57	-929.59	-86.00	1,508.53	1,471.39	37.14	40.619		
4,400.00	4,354.03	4,133.55	4,074.00	20.12	19.97	-170.58	-946.69	-88.20	1,542.16	1,504.16	38.00	40.584		
4,500.00	4,452.71	4,227.73	4,166.58	20.58	20.43	-170.59	-963.79	-90.41	1,575.79	1,536.93	38.86	40.550		
4,600.00	4,551.40	4,321.90	4,259.16	21.04	20.89	-170.61	-980.89	-92.61	1,609.43	1,569.70	39.72	40.517		
4,700.00	4,650.08	4,416.07	4,351.74	21.50	21.35	-170.62	-997.99	-94.82	1,643.06	1,602.47	40.58	40.485		
4,800.00	4,748.76	4,510.25	4,444.33	21.96	21.81	-170.63	-1,015.09	-97.02	1,676.69	1,635.24	41.45	40.453		
4,900.00	4,847.44	4,604.42	4,536.91	22.42	22.27	-170.63	-1,032.19	-99.23	1,710.32	1,668.01	42.31	40.422		
5,000.00	4,946.13	4,701.40	4,629.49	22.89	22.75	-170.64	-1,049.29	-101.44	1,743.95	1,700.76	43.19	40.380		
5,100.00	5,044.81	4,792.77	4,722.08	23.35	23.20	-170.65	-1,066.39	-103.64	1,777.58	1,733.54	44.04	40.362		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	4,886.95	4,814.66	23.81	23.66	-170.66	-1,083.49	-105.85	1,811.22	1,766.31	44.91	40.334		
5,300.00	5,242.18	4,981.12	4,907.24	24.27	24.12	-170.67	-1,100.60	-108.05	1,844.85	1,799.08	45.77	40.305		
5,400.00	5,340.86	5,075.30	4,999.82	24.74	24.58	-170.68	-1,117.70	-110.26	1,878.48	1,831.84	46.64	40.278		
5,500.00	5,439.54	5,169.47	5,092.41	25.20	25.05	-170.68	-1,134.80	-112.47	1,912.11	1,864.61	47.51	40.251		
5,600.00	5,538.22	5,263.64	5,184.99	25.66	25.51	-170.69	-1,151.90	-114.67	1,945.74	1,897.37	48.37	40.224		
5,700.00	5,636.91	5,357.82	5,277.57	26.13	25.97	-170.70	-1,169.00	-116.88	1,979.38	1,930.14	49.24	40.198		
5,800.00	5,735.59	5,451.99	5,370.15	26.59	26.43	-170.71	-1,186.10	-119.08	2,013.01	1,962.90	50.11	40.173		
5,900.00	5,834.27	5,546.17	5,462.74	27.06	26.90	-170.71	-1,203.20	-121.29	2,046.64	1,995.66	50.98	40.148		
6,000.00	5,932.95	5,640.34	5,555.32	27.52	27.36	-170.72	-1,220.30	-123.49	2,080.27	2,028.43	51.85	40.124		
6,100.00	6,031.64	5,734.52	5,647.90	27.98	27.82	-170.72	-1,237.40	-125.70	2,113.90	2,061.19	52.72	40.101		
6,200.00	6,130.32	5,828.69	5,740.48	28.45	28.29	-170.73	-1,254.51	-127.91	2,147.54	2,093.95	53.58	40.077		
6,300.00	6,229.00	5,922.87	5,833.07	28.91	28.75	-170.74	-1,271.61	-130.11	2,181.17	2,126.71	54.45	40.055		
6,400.00	6,327.69	6,017.04	5,925.65	29.38	29.21	-170.74	-1,288.71	-132.32	2,214.80	2,159.47	55.32	40.033		
6,500.00	6,426.37	6,111.22	6,018.23	29.84	29.68	-170.75	-1,305.81	-134.52	2,248.43	2,192.24	56.20	40.011		
6,600.00	6,525.05	6,205.39	6,110.81	30.31	30.14	-170.75	-1,322.91	-136.73	2,282.06	2,225.00	57.07	39.989		
6,700.00	6,623.18	6,300.74	6,203.10	30.77	30.61	-127.68	-1,339.96	-138.93	2,315.30	2,257.35	57.95	39.957		
6,800.00	6,718.58	6,409.00	6,293.28	31.22	31.14	-108.87	-1,356.61	-141.08	2,347.35	2,288.47	58.88	39.864		
6,900.00	6,808.91	6,478.33	6,379.14	31.66	31.48	-99.53	-1,372.47	-143.12	2,377.88	2,318.24	59.64	39.871		
7,000.00	6,891.95	6,559.12	6,458.56	32.07	31.88	-93.98	-1,387.14	-145.02	2,406.78	2,346.32	60.46	39.809		
7,100.00	6,965.65	6,631.37	6,529.59	32.51	32.24	-90.28	-1,400.26	-146.71	2,434.16	2,372.89	61.27	39.728		
7,200.00	7,028.20	6,727.77	6,623.84	33.02	32.71	-88.13	-1,417.79	-155.95	2,459.81	2,397.40	62.41	39.415		
7,300.00	7,078.04	6,846.50	6,736.27	33.68	33.26	-87.08	-1,439.03	-187.01	2,482.90	2,419.05	63.85	38.887		
7,400.00	7,113.97	7,003.01	6,872.14	34.52	33.91	-87.14	-1,465.28	-259.26	2,502.47	2,436.82	65.65	38.118		
7,500.00	7,135.09	7,224.77	7,026.20	35.53	34.68	-88.33	-1,496.26	-414.15	2,516.76	2,448.77	67.99	37.019		
7,600.00	7,140.96	7,535.77	7,135.98	36.68	36.19	-89.89	-1,521.28	-700.74	2,522.58	2,450.87	71.71	35.175		
7,700.00	7,140.53	7,703.89	7,140.58	37.99	37.90	-90.01	-1,524.80	-860.82	2,520.98	2,445.96	75.02	33.606		
7,800.00	7,140.09	7,796.09	7,140.04	39.45	39.11	-90.00	-1,526.37	-960.79	2,519.09	2,441.30	77.79	32.383		
7,900.00	7,139.66	7,903.93	7,139.50	41.06	40.73	-90.00	-1,527.94	-1,060.76	2,517.20	2,436.10	81.10	31.039		
8,000.00	7,139.23	8,003.95	7,138.96	42.80	42.38	-90.00	-1,529.51	-1,160.73	2,515.31	2,430.75	84.55	29.748		
8,100.00	7,138.79	8,103.96	7,138.42	44.65	44.17	-90.00	-1,531.08	-1,260.70	2,513.42	2,425.17	88.24	28.483		
8,200.00	7,138.36	8,203.98	7,137.87	46.60	46.07	-89.99	-1,532.65	-1,360.67	2,511.52	2,419.39	92.14	27.258		
8,300.00	7,137.93	8,304.00	7,137.33	48.65	48.06	-89.99	-1,534.22	-1,460.63	2,509.63	2,413.42	96.21	26.084		
8,400.00	7,137.49	8,404.02	7,136.79	50.77	50.14	-89.99	-1,535.79	-1,560.60	2,507.74	2,407.29	100.45	24.965		
8,500.00	7,137.06	8,504.04	7,136.25	52.95	52.30	-89.99	-1,537.36	-1,660.57	2,505.85	2,401.03	104.82	23.906		
8,600.00	7,136.62	8,604.05	7,135.71	55.20	54.52	-89.98	-1,538.93	-1,760.54	2,503.96	2,394.64	109.32	22.905		
8,700.00	7,136.19	8,704.07	7,135.17	57.51	56.80	-89.98	-1,540.50	-1,860.51	2,502.07	2,388.15	113.92	21.963		
8,800.00	7,135.76	8,804.09	7,134.62	59.85	59.13	-89.98	-1,542.07	-1,960.48	2,500.18	2,381.56	118.62	21.076		
8,900.00	7,135.32	8,904.11	7,134.08	62.24	61.50	-89.98	-1,543.64	-2,060.44	2,498.29	2,374.88	123.41	20.244		
9,000.00	7,134.89	9,004.13	7,133.54	64.67	63.92	-89.97	-1,545.21	-2,160.41	2,496.40	2,368.13	128.27	19.462		
9,100.00	7,134.45	9,104.14	7,133.00	67.13	66.37	-89.97	-1,546.78	-2,260.38	2,494.51	2,361.31	133.20	18.728		
9,200.00	7,134.02	9,204.16	7,132.46	69.62	68.85	-89.97	-1,548.35	-2,360.35	2,492.62	2,354.43	138.18	18.038		
9,300.00	7,133.59	9,304.18	7,131.91	72.14	71.36	-89.97	-1,549.92	-2,460.32	2,490.73	2,347.50	143.22	17.390		
9,400.00	7,133.15	9,404.20	7,131.37	74.68	73.89	-89.96	-1,551.49	-2,560.29	2,488.84	2,340.52	148.31	16.781		
9,500.00	7,132.72	9,504.21	7,130.83	77.24	76.45	-89.96	-1,553.06	-2,660.25	2,486.94	2,333.50	153.45	16.207		
9,600.00	7,132.29	9,604.23	7,130.29	79.83	79.03	-89.96	-1,554.63	-2,760.22	2,485.05	2,326.44	158.62	15.667		
9,700.00	7,131.85	9,704.25	7,129.75	82.42	81.63	-89.96	-1,556.20	-2,860.19	2,483.16	2,319.34	163.82	15.158		
9,800.00	7,131.42	9,804.27	7,129.20	85.04	84.24	-89.95	-1,557.77	-2,960.16	2,481.27	2,312.21	169.06	14.677		
9,900.00	7,130.98	9,904.29	7,128.66	87.67	86.87	-89.95	-1,559.34	-3,060.13	2,479.38	2,305.05	174.33	14.222		
10,000.00	7,130.55	10,004.30	7,128.12	90.31	89.51	-89.95	-1,560.91	-3,160.09	2,477.49	2,297.87	179.62	13.793		
10,100.00	7,130.12	10,104.32	7,127.58	92.97	92.17	-89.95	-1,562.48	-3,260.06	2,475.60	2,290.66	184.94	13.386		
10,200.00	7,129.68	10,204.34	7,127.04	95.63	94.83	-89.94	-1,564.05	-3,360.03	2,473.71	2,283.43	190.28	13.000		
10,300.00	7,129.25	10,304.36	7,126.50	98.31	97.51	-89.94	-1,565.62	-3,460.00	2,471.82	2,276.17	195.65	12.634		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	10,404.38	7,125.95	101.00	100.20	-89.94	-1,567.19	-3,559.97	2,469.93	2,268.90	201.03	12.287		
10,500.00	7,128.38	10,504.39	7,125.41	103.69	102.90	-89.94	-1,568.76	-3,659.94	2,468.04	2,261.61	206.42	11.956		
10,600.00	7,127.95	10,604.41	7,124.87	106.39	105.60	-89.93	-1,570.33	-3,759.90	2,466.15	2,254.31	211.84	11.642		
10,700.00	7,127.51	10,704.43	7,124.33	109.10	108.32	-89.93	-1,571.90	-3,859.87	2,464.26	2,246.99	217.27	11.342		
10,800.00	7,127.08	10,804.45	7,123.79	111.82	111.04	-89.93	-1,573.47	-3,959.84	2,462.37	2,239.66	222.71	11.056		
10,900.00	7,126.65	10,904.47	7,123.24	114.54	113.76	-89.93	-1,575.04	-4,059.81	2,460.47	2,232.31	228.16	10.784		
11,000.00	7,126.21	11,004.48	7,122.70	117.27	116.50	-89.92	-1,576.61	-4,159.78	2,458.58	2,224.95	233.63	10.523		
11,100.00	7,125.78	11,104.50	7,122.16	120.01	119.23	-89.92	-1,578.18	-4,259.75	2,456.69	2,217.58	239.11	10.274		
11,200.00	7,125.35	11,204.52	7,121.62	122.75	121.98	-89.92	-1,579.75	-4,359.71	2,454.80	2,210.20	244.60	10.036		
11,300.00	7,124.91	11,304.54	7,121.08	125.49	124.73	-89.92	-1,581.31	-4,459.68	2,452.91	2,202.82	250.10	9.808		
11,400.00	7,124.48	11,404.56	7,120.53	128.24	127.48	-89.91	-1,582.88	-4,559.65	2,451.02	2,195.42	255.60	9.589		
11,500.00	7,124.04	11,504.57	7,119.99	131.00	130.24	-89.91	-1,584.45	-4,659.62	2,449.13	2,188.01	261.12	9.379		
11,600.00	7,123.61	11,604.59	7,119.45	133.75	133.00	-89.91	-1,586.02	-4,759.59	2,447.24	2,180.60	266.64	9.178		
11,700.00	7,123.18	11,695.39	7,118.91	136.52	135.51	-89.90	-1,587.59	-4,859.56	2,445.35	2,173.43	271.92	8.993		
11,800.00	7,122.74	11,804.63	7,118.37	139.28	138.54	-89.90	-1,589.16	-4,959.52	2,443.46	2,165.75	277.71	8.799		
11,900.00	7,122.31	11,904.65	7,117.83	142.05	141.31	-89.90	-1,590.73	-5,059.49	2,441.57	2,158.31	283.26	8.620		
12,000.00	7,121.88	12,004.66	7,117.28	144.82	144.09	-89.90	-1,592.30	-5,159.46	2,439.68	2,150.87	288.81	8.447		
12,100.00	7,121.44	12,104.68	7,116.74	147.59	146.87	-89.89	-1,593.87	-5,259.43	2,437.79	2,143.42	294.36	8.282		
12,200.00	7,121.01	12,204.70	7,116.20	150.37	149.65	-89.89	-1,595.44	-5,359.40	2,435.90	2,135.97	299.93	8.122		
12,300.00	7,120.57	12,304.72	7,115.66	153.15	152.44	-89.89	-1,597.01	-5,459.37	2,434.01	2,128.51	305.49	7.967		
12,400.00	7,120.14	12,404.74	7,115.12	155.93	155.23	-89.89	-1,598.58	-5,559.33	2,432.12	2,121.05	311.07	7.819		
12,500.00	7,119.71	12,504.75	7,114.57	158.72	158.02	-89.88	-1,600.15	-5,659.30	2,430.22	2,113.58	316.64	7.675		
12,600.00	7,119.27	12,604.77	7,114.03	161.50	160.81	-89.88	-1,601.72	-5,759.27	2,428.33	2,106.11	322.23	7.536		
12,700.00	7,118.84	12,704.79	7,113.49	164.29	163.60	-89.88	-1,603.29	-5,859.24	2,426.44	2,098.63	327.81	7.402		
12,800.00	7,118.41	12,804.81	7,112.95	167.08	166.40	-89.88	-1,604.86	-5,959.21	2,424.55	2,091.15	333.40	7.272		
12,900.00	7,117.97	12,904.82	7,112.41	169.88	169.20	-89.87	-1,606.43	-6,059.17	2,422.66	2,083.67	338.99	7.147		
13,000.00	7,117.54	13,004.84	7,111.86	172.67	172.00	-89.87	-1,608.00	-6,159.14	2,420.77	2,076.18	344.59	7.025		
13,100.00	7,117.10	13,104.86	7,111.32	175.47	174.80	-89.87	-1,609.57	-6,259.11	2,418.88	2,068.69	350.19	6.907		
13,200.00	7,116.67	13,204.88	7,110.78	178.27	177.61	-89.87	-1,611.14	-6,359.08	2,416.99	2,061.19	355.80	6.793		
13,300.00	7,116.24	13,304.90	7,110.24	181.07	180.41	-89.86	-1,612.71	-6,459.05	2,415.10	2,053.70	361.40	6.683		
13,400.00	7,115.80	13,404.91	7,109.70	183.87	183.22	-89.86	-1,614.28	-6,559.02	2,413.21	2,046.20	367.01	6.575		
13,500.00	7,115.37	13,504.93	7,109.16	186.67	186.03	-89.86	-1,615.85	-6,658.98	2,411.32	2,038.69	372.63	6.471		
13,600.00	7,114.93	13,604.95	7,108.61	189.47	188.84	-89.85	-1,617.42	-6,758.95	2,409.43	2,031.19	378.24	6.370		
13,700.00	7,114.50	13,704.97	7,108.07	192.28	191.65	-89.85	-1,618.99	-6,858.92	2,407.54	2,023.68	383.86	6.272		
13,800.00	7,114.07	13,804.99	7,107.53	195.09	194.47	-89.85	-1,620.56	-6,958.89	2,405.65	2,016.17	389.48	6.177		
13,900.00	7,113.63	13,905.00	7,106.99	197.89	197.28	-89.85	-1,622.13	-7,058.86	2,403.76	2,008.65	395.10	6.084		
14,000.00	7,113.20	14,005.02	7,106.45	200.70	200.09	-89.84	-1,623.70	-7,158.83	2,401.87	2,001.14	400.73	5.994		
14,100.00	7,112.77	14,105.04	7,105.90	203.51	202.91	-89.84	-1,625.27	-7,258.79	2,399.98	1,993.62	406.36	5.906		
14,200.00	7,112.33	14,205.06	7,105.36	206.32	205.73	-89.84	-1,626.84	-7,358.76	2,398.09	1,986.10	411.99	5.821		
14,300.00	7,111.90	14,305.08	7,104.82	209.13	208.55	-89.84	-1,628.41	-7,458.73	2,396.19	1,978.58	417.62	5.738		
14,400.00	7,111.46	14,405.09	7,104.28	211.95	211.37	-89.83	-1,629.98	-7,558.70	2,394.30	1,971.05	423.25	5.657		
14,500.00	7,111.03	14,505.11	7,103.74	214.76	214.19	-89.83	-1,631.55	-7,658.67	2,392.41	1,963.53	428.89	5.578		
14,600.00	7,110.60	14,605.13	7,103.20	217.58	217.01	-89.83	-1,633.12	-7,758.64	2,390.52	1,956.00	434.52	5.501		
14,700.00	7,110.16	14,705.15	7,102.65	220.39	219.83	-89.82	-1,634.69	-7,858.60	2,388.63	1,948.47	440.16	5.427		
14,800.00	7,109.73	14,794.83	7,102.11	223.21	222.36	-89.82	-1,636.26	-7,958.57	2,386.74	1,941.23	445.51	5.357		
14,900.00	7,109.30	14,894.82	7,101.57	226.03	225.19	-89.82	-1,637.83	-8,058.54	2,384.85	1,933.70	451.15	5.286		
14,969.16	7,109.00	14,963.97	7,101.19	227.97	227.14	-89.82	-1,638.91	-8,127.68	2,383.54	1,928.49	455.06	5.238 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	-179.54	-420.05	-3.34	420.06					
100.00	100.00	102.00	100.00	3.28	3.29	-179.54	-420.05	-3.34	420.06	413.49	6.57	63.938		
200.00	200.00	198.00	200.00	3.34	3.34	-179.54	-420.05	-3.34	420.06	413.39	6.67	62.955 CC, ES		
300.00	300.00	285.46	287.44	3.44	3.42	-179.54	-421.32	-3.41	421.52	414.65	6.88	61.311		
400.00	400.00	372.50	374.40	3.60	3.55	-179.51	-425.23	-3.65	426.02	418.84	7.18	59.355		
500.00	500.00	459.23	460.87	3.81	3.71	-179.46	-431.75	-4.03	433.54	425.97	7.57	57.300		
600.00	600.00	545.48	546.64	4.05	3.90	-179.41	-440.82	-4.58	444.06	436.03	8.03	55.330		
700.00	699.98	630.87	631.25	4.32	4.12	-170.16	-452.33	-5.26	459.25	450.71	8.54	53.754		
800.00	799.84	714.78	714.02	4.62	4.36	-170.10	-466.09	-6.08	480.73	471.63	9.11	52.793		
900.00	899.45	796.76	794.45	4.94	4.63	-170.06	-481.87	-7.02	508.35	498.65	9.69	52.451		
1,000.00	998.70	876.37	872.11	5.28	4.91	-170.03	-499.38	-8.06	541.91	531.63	10.29	52.676		
1,100.00	1,097.50	953.33	946.68	5.64	5.21	-170.06	-518.35	-9.19	581.04	570.15	10.89	53.336		
1,200.00	1,196.18	1,028.25	1,018.76	6.00	5.52	-170.16	-538.74	-10.41	623.26	611.78	11.48	54.295		
1,300.00	1,294.87	1,101.34	1,088.54	6.38	5.83	-170.24	-560.43	-11.70	667.81	655.75	12.06	55.361		
1,400.00	1,393.55	1,172.56	1,155.99	6.77	6.16	-170.31	-583.27	-13.06	714.59	701.95	12.64	56.523		
1,500.00	1,492.23	1,241.91	1,221.09	7.17	6.50	-170.35	-607.11	-14.48	763.53	750.31	13.21	57.778		
1,600.00	1,590.91	1,309.38	1,283.86	7.58	6.84	-170.38	-631.80	-15.95	814.53	800.75	13.78	59.123		
1,700.00	1,689.60	1,385.55	1,354.14	8.00	7.24	-170.41	-661.12	-17.70	867.23	852.83	14.40	60.211		
1,800.00	1,788.28	1,470.40	1,432.36	8.42	7.71	-170.43	-693.94	-19.66	920.15	905.04	15.11	60.913		
1,900.00	1,886.96	1,555.25	1,510.58	8.84	8.18	-170.46	-726.76	-21.61	973.06	957.24	15.83	61.488		
2,000.00	1,985.64	1,640.10	1,588.81	9.27	8.66	-170.48	-759.59	-23.57	1,025.98	1,009.42	16.56	61.960		
2,100.00	2,084.33	1,724.96	1,667.03	9.71	9.15	-170.49	-792.41	-25.52	1,078.89	1,061.59	17.30	62.348		
2,200.00	2,183.01	1,809.81	1,745.25	10.15	9.65	-170.51	-825.23	-27.48	1,131.80	1,113.74	18.06	62.665		
2,300.00	2,281.69	1,905.34	1,823.47	10.59	10.22	-170.52	-858.06	-29.44	1,184.72	1,165.84	18.88	62.750		
2,400.00	2,380.38	1,979.52	1,901.70	11.03	10.66	-170.54	-890.88	-31.39	1,237.63	1,218.03	19.60	63.138		
2,500.00	2,479.06	2,064.37	1,979.92	11.47	11.17	-170.55	-923.71	-33.35	1,290.55	1,270.16	20.38	63.311		
2,600.00	2,577.74	2,149.22	2,058.14	11.92	11.68	-170.56	-956.53	-35.30	1,343.46	1,322.29	21.17	63.452		
2,700.00	2,676.42	2,234.07	2,136.36	12.36	12.20	-170.57	-989.35	-37.26	1,396.38	1,374.41	21.97	63.566		
2,800.00	2,775.11	2,318.93	2,214.59	12.81	12.72	-170.58	-1,022.18	-39.21	1,449.29	1,426.52	22.77	63.657		
2,900.00	2,873.79	2,403.78	2,292.81	13.26	13.24	-170.59	-1,055.00	-41.17	1,502.21	1,478.63	23.57	63.729		
3,000.00	2,972.47	2,488.63	2,371.03	13.72	13.77	-170.60	-1,087.82	-43.13	1,555.12	1,530.74	24.38	63.785		
3,100.00	3,071.15	2,573.49	2,449.25	14.17	14.30	-170.61	-1,120.65	-45.08	1,608.04	1,582.84	25.19	63.828		
3,200.00	3,169.84	2,658.34	2,527.48	14.62	14.82	-170.61	-1,153.47	-47.04	1,660.95	1,634.94	26.01	63.860		
3,300.00	3,268.52	2,743.19	2,605.70	15.08	15.35	-170.62	-1,186.30	-48.99	1,713.87	1,687.04	26.83	63.882		
3,400.00	3,367.20	2,828.04	2,683.92	15.53	15.88	-170.63	-1,219.12	-50.95	1,766.78	1,739.13	27.65	63.896		
3,500.00	3,465.89	2,912.90	2,762.14	15.99	16.42	-170.63	-1,251.94	-52.90	1,819.69	1,791.22	28.48	63.903		
3,600.00	3,564.57	3,002.25	2,840.37	16.44	16.98	-170.64	-1,284.77	-54.86	1,872.61	1,843.28	29.33	63.853		
3,700.00	3,663.25	3,082.60	2,918.59	16.90	17.48	-170.64	-1,317.59	-56.82	1,925.52	1,895.39	30.13	63.901		
3,800.00	3,761.93	3,167.46	2,996.81	17.36	18.02	-170.65	-1,350.41	-58.77	1,978.44	1,947.47	30.96	63.894		
3,900.00	3,860.62	3,252.31	3,075.04	17.82	18.55	-170.65	-1,383.24	-60.73	2,031.35	1,999.56	31.80	63.883		
4,000.00	3,959.30	3,337.16	3,153.26	18.28	19.09	-170.66	-1,416.06	-62.68	2,084.27	2,051.64	32.63	63.869		
4,100.00	4,057.98	3,422.01	3,231.48	18.74	19.63	-170.66	-1,448.89	-64.64	2,137.18	2,103.71	33.47	63.853		
4,200.00	4,156.67	3,506.87	3,309.70	19.20	20.17	-170.67	-1,481.71	-66.59	2,190.10	2,155.79	34.31	63.835		
4,300.00	4,255.35	3,608.28	3,387.93	19.66	20.81	-170.67	-1,514.53	-68.55	2,243.01	2,207.77	35.24	63.653		
4,400.00	4,354.03	3,676.57	3,466.15	20.12	21.24	-170.68	-1,547.36	-70.51	2,295.93	2,259.94	35.99	63.793		
4,500.00	4,452.71	3,761.43	3,544.37	20.58	21.78	-170.68	-1,580.18	-72.46	2,348.84	2,312.01	36.83	63.770		
4,600.00	4,551.40	3,846.28	3,622.59	21.04	22.32	-170.68	-1,613.00	-74.42	2,401.76	2,364.08	37.68	63.746		
4,700.00	4,650.08	3,931.13	3,700.82	21.50	22.86	-170.69	-1,645.83	-76.37	2,454.67	2,416.15	38.52	63.721		
4,800.00	4,748.76	4,015.98	3,779.04	21.96	23.40	-170.69	-1,678.65	-78.33	2,507.59	2,468.22	39.37	63.696		
4,900.00	4,847.44	4,100.84	3,857.26	22.42	23.95	-170.69	-1,711.47	-80.28	2,560.50	2,520.29	40.22	63.670		
5,000.00	4,946.13	4,185.69	3,935.48	22.89	24.49	-170.69	-1,744.30	-82.24	2,613.42	2,572.35	41.06	63.643		
5,100.00	5,044.81	4,270.54	4,013.71	23.35	25.03	-170.70	-1,777.12	-84.20	2,666.33	2,624.42	41.91	63.616		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	4,355.40	4,091.93	23.81	25.57	-170.70	-1,809.95	-86.15	2,719.25	2,676.48	42.76	63.589		
5,300.00	5,242.18	4,440.25	4,170.15	24.27	26.11	-170.70	-1,842.77	-88.11	2,772.16	2,728.55	43.61	63.562		
5,400.00	5,340.86	4,525.10	4,248.38	24.74	26.66	-170.71	-1,875.59	-90.06	2,825.08	2,780.61	44.47	63.534		
5,500.00	5,439.54	4,609.95	4,326.60	25.20	27.20	-170.71	-1,908.42	-92.02	2,877.99	2,832.67	45.32	63.507		
5,600.00	5,538.22	4,705.19	4,404.82	25.66	27.81	-170.71	-1,941.24	-93.97	2,930.91	2,884.68	46.23	63.402		
5,700.00	5,636.91	4,779.66	4,483.04	26.13	28.29	-170.71	-1,974.06	-95.93	2,983.82	2,936.80	47.03	63.452		
5,800.00	5,735.59	4,864.51	4,561.27	26.59	28.83	-170.71	-2,006.89	-97.89	3,036.74	2,988.86	47.88	63.424		
5,900.00	5,834.27	4,949.37	4,639.49	27.06	29.38	-170.72	-2,039.71	-99.84	3,089.65	3,040.92	48.74	63.397		
6,000.00	5,932.95	5,034.22	4,717.71	27.52	29.92	-170.72	-2,072.54	-101.80	3,142.57	3,092.97	49.59	63.369		
6,100.00	6,031.64	5,119.07	4,795.93	27.98	30.46	-170.72	-2,105.36	-103.75	3,195.48	3,145.03	50.45	63.342		
6,200.00	6,130.32	5,203.92	4,874.16	28.45	31.01	-170.72	-2,138.18	-105.71	3,248.40	3,197.09	51.31	63.315		
6,300.00	6,229.00	5,288.78	4,952.38	28.91	31.55	-170.72	-2,171.01	-107.66	3,301.31	3,249.15	52.16	63.288		
6,400.00	6,327.69	5,373.63	5,030.60	29.38	32.10	-170.73	-2,203.83	-109.62	3,354.23	3,301.20	53.02	63.261		
6,500.00	6,426.37	5,458.48	5,108.82	29.84	32.64	-170.73	-2,236.65	-111.58	3,407.14	3,353.26	53.88	63.234		
6,600.00	6,525.05	5,543.34	5,187.05	30.31	33.19	-170.73	-2,269.48	-113.53	3,460.05	3,405.31	54.74	63.207		
6,700.00	6,623.18	5,627.99	5,265.09	30.77	33.73	-125.24	-2,302.23	-115.48	3,512.51	3,456.91	55.60	63.172		
6,800.00	6,718.58	5,710.87	5,341.49	31.22	34.27	-104.07	-2,334.28	-117.39	3,563.31	3,506.86	56.45	63.123		
6,900.00	6,808.91	5,789.92	5,414.36	31.66	34.77	-92.54	-2,364.86	-119.22	3,611.47	3,554.19	57.27	63.058		
7,000.00	6,891.95	5,863.21	5,481.92	32.07	35.25	-85.04	-2,393.21	-120.90	3,656.24	3,598.17	58.07	62.964		
7,100.00	6,965.65	5,928.92	5,542.50	32.51	35.67	-79.70	-2,418.63	-122.42	3,697.07	3,638.21	58.85	62.817		
7,200.00	7,028.20	5,985.44	5,594.61	33.02	36.03	-75.73	-2,440.50	-123.72	3,733.52	3,673.86	59.66	62.581		
7,300.00	7,078.04	6,031.39	5,636.96	33.68	36.33	-72.71	-2,458.27	-124.78	3,765.29	3,704.77	60.51	62.224		
7,400.00	7,113.97	6,065.61	5,668.52	34.52	36.55	-70.41	-2,471.51	-125.57	3,792.11	3,730.67	61.44	61.724		
7,500.00	7,135.09	6,087.29	5,688.50	35.53	36.69	-68.68	-2,479.90	-126.07	3,813.76	3,751.33	62.43	61.084		
7,600.00	7,140.96	6,104.07	5,696.47	36.68	36.79	-67.56	-2,483.24	-126.27	3,830.06	3,766.53	63.53	60.289		
7,700.00	7,140.53	6,099.18	5,699.46	37.99	36.76	-67.61	-2,484.49	-126.34	3,845.62	3,780.97	64.64	59.490		
7,800.00	7,140.09	6,102.42	5,702.44	39.45	36.78	-67.66	-2,485.75	-126.42	3,863.69	3,797.75	65.94	58.593		
7,900.00	7,139.66	6,105.66	5,705.43	41.06	36.80	-67.71	-2,487.00	-126.49	3,884.26	3,816.91	67.35	57.669		
8,000.00	7,139.23	6,108.90	5,708.42	42.80	36.83	-67.76	-2,488.26	-126.57	3,907.28	3,838.41	68.86	56.740		
8,100.00	7,138.79	6,112.14	5,711.41	44.65	36.85	-67.81	-2,489.51	-126.64	3,932.70	3,862.25	70.44	55.827		
8,200.00	7,138.36	6,115.39	5,714.40	46.60	36.87	-67.86	-2,490.77	-126.72	3,960.48	3,888.40	72.08	54.945		
8,300.00	7,137.93	6,118.63	5,717.39	48.65	36.89	-67.90	-2,492.02	-126.79	3,990.57	3,916.81	73.76	54.103		
8,400.00	7,137.49	6,121.87	5,720.38	50.77	36.91	-67.95	-2,493.27	-126.87	4,022.92	3,947.46	75.46	53.309		
8,500.00	7,137.06	8,844.74	7,068.34	52.95	56.10	-89.03	-3,069.85	-1,675.57	4,038.69	3,930.93	107.76	37.478		
8,600.00	7,136.62	8,944.70	7,068.04	55.20	58.08	-89.03	-3,070.45	-1,775.53	4,035.83	3,923.69	112.14	35.990		
8,700.00	7,136.19	9,044.66	7,067.75	57.51	60.15	-89.03	-3,071.05	-1,875.48	4,032.97	3,916.34	116.63	34.579		
8,800.00	7,135.76	9,144.62	7,067.45	59.85	62.30	-89.04	-3,071.65	-1,975.44	4,030.10	3,908.88	121.22	33.246		
8,900.00	7,135.32	9,244.58	7,067.15	62.24	64.51	-89.04	-3,072.25	-2,075.40	4,027.24	3,901.33	125.90	31.987		
9,000.00	7,134.89	9,344.54	7,066.85	64.67	66.78	-89.04	-3,072.84	-2,175.35	4,024.37	3,893.70	130.67	30.798		
9,100.00	7,134.45	9,444.49	7,066.56	67.13	69.10	-89.04	-3,073.44	-2,275.31	4,021.51	3,886.00	135.50	29.678		
9,200.00	7,134.02	9,544.45	7,066.26	69.62	71.46	-89.04	-3,074.04	-2,375.27	4,018.64	3,878.24	140.41	28.622		
9,300.00	7,133.59	9,644.41	7,065.96	72.14	73.86	-89.04	-3,074.64	-2,475.22	4,015.78	3,870.41	145.37	27.625		
9,400.00	7,133.15	9,744.37	7,065.66	74.68	76.29	-89.04	-3,075.23	-2,575.18	4,012.91	3,862.53	150.38	26.685		
9,500.00	7,132.72	9,844.33	7,065.37	77.24	78.75	-89.04	-3,075.83	-2,675.14	4,010.05	3,854.61	155.44	25.798		
9,600.00	7,132.29	9,944.29	7,065.07	79.83	81.24	-89.05	-3,076.43	-2,775.09	4,007.18	3,846.64	160.54	24.960		
9,700.00	7,131.85	10,044.25	7,064.77	82.42	83.76	-89.05	-3,077.03	-2,875.05	4,004.32	3,838.63	165.68	24.168		
9,800.00	7,131.42	10,144.21	7,064.47	85.04	86.29	-89.05	-3,077.62	-2,975.01	4,001.45	3,830.59	170.86	23.419		
9,900.00	7,130.98	10,244.17	7,064.18	87.67	88.85	-89.05	-3,078.22	-3,074.96	3,998.59	3,822.52	176.07	22.710		
10,000.00	7,130.55	10,344.12	7,063.88	90.31	91.43	-89.05	-3,078.82	-3,174.92	3,995.72	3,814.41	181.31	22.038		
10,100.00	7,130.12	10,444.08	7,063.58	92.97	94.02	-89.05	-3,079.42	-3,274.88	3,992.86	3,806.28	186.58	21.400		
10,200.00	7,129.68	10,544.04	7,063.28	95.63	96.63	-89.05	-3,080.02	-3,374.83	3,990.00	3,798.12	191.87	20.795		
10,300.00	7,129.25	10,644.00	7,062.99	98.31	99.25	-89.05	-3,080.61	-3,474.79	3,987.13	3,789.94	197.19	20.220		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +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)				
10,400.00	7,128.82	10,743.96	7,062.69	101.00	101.88	-89.06	-3,081.21	-3,574.75	3,984.27	3,781.74	202.53	19.673		
10,500.00	7,128.38	10,843.92	7,062.39	103.69	104.53	-89.06	-3,081.81	-3,674.70	3,981.40	3,773.52	207.88	19.152		
10,600.00	7,127.95	10,943.88	7,062.09	106.39	107.19	-89.06	-3,082.41	-3,774.66	3,978.54	3,765.28	213.26	18.656		
10,700.00	7,127.51	11,043.84	7,061.80	109.10	109.86	-89.06	-3,083.00	-3,874.62	3,975.67	3,757.03	218.65	18.183		
10,800.00	7,127.08	11,143.80	7,061.50	111.82	112.54	-89.06	-3,083.60	-3,974.57	3,972.81	3,748.76	224.05	17.732		
10,900.00	7,126.65	11,243.75	7,061.20	114.54	115.22	-89.06	-3,084.20	-4,074.53	3,969.94	3,740.47	229.47	17.300		
11,000.00	7,126.21	11,343.71	7,060.90	117.27	117.92	-89.06	-3,084.80	-4,174.49	3,967.08	3,732.17	234.91	16.888		
11,100.00	7,125.78	11,443.67	7,060.61	120.01	120.62	-89.06	-3,085.39	-4,274.44	3,964.21	3,723.86	240.35	16.493		
11,200.00	7,125.35	11,543.63	7,060.31	122.75	123.33	-89.07	-3,085.99	-4,374.40	3,961.35	3,715.54	245.81	16.115		
11,300.00	7,124.91	11,643.59	7,060.01	125.49	126.05	-89.07	-3,086.59	-4,474.36	3,958.49	3,707.20	251.28	15.753		
11,400.00	7,124.48	11,743.55	7,059.71	128.24	128.77	-89.07	-3,087.19	-4,574.31	3,955.62	3,698.86	256.76	15.406		
11,500.00	7,124.04	11,843.51	7,059.42	131.00	131.50	-89.07	-3,087.78	-4,674.27	3,952.76	3,690.51	262.25	15.072		
11,600.00	7,123.61	11,943.47	7,059.12	133.75	134.23	-89.07	-3,088.38	-4,774.23	3,949.89	3,682.14	267.75	14.752		
11,700.00	7,123.18	12,043.43	7,058.82	136.52	136.97	-89.07	-3,088.98	-4,874.18	3,947.03	3,673.77	273.25	14.445		
11,800.00	7,122.74	12,143.39	7,058.52	139.28	139.71	-89.07	-3,089.58	-4,974.14	3,944.16	3,665.39	278.77	14.148		
11,900.00	7,122.31	12,243.34	7,058.23	142.05	142.46	-89.08	-3,090.18	-5,074.10	3,941.30	3,657.01	284.29	13.864		
12,000.00	7,121.88	12,343.30	7,057.93	144.82	145.22	-89.08	-3,090.77	-5,174.05	3,938.43	3,648.61	289.82	13.589		
12,100.00	7,121.44	12,443.26	7,057.63	147.59	147.97	-89.08	-3,091.37	-5,274.01	3,935.57	3,640.21	295.36	13.325		
12,200.00	7,121.01	12,543.22	7,057.33	150.37	150.73	-89.08	-3,091.97	-5,373.97	3,932.70	3,631.81	300.90	13.070		
12,300.00	7,120.57	12,643.18	7,057.04	153.15	153.50	-89.08	-3,092.57	-5,473.92	3,929.84	3,623.39	306.45	12.824		
12,400.00	7,120.14	12,743.14	7,056.74	155.93	156.26	-89.08	-3,093.16	-5,573.88	3,926.97	3,614.98	312.00	12.586		
12,500.00	7,119.71	12,843.10	7,056.44	158.72	159.03	-89.08	-3,093.76	-5,673.84	3,924.11	3,606.55	317.56	12.357		
12,600.00	7,119.27	12,943.06	7,056.14	161.50	161.81	-89.08	-3,094.36	-5,773.79	3,921.25	3,598.12	323.12	12.136		
12,700.00	7,118.84	13,043.02	7,055.85	164.29	164.58	-89.09	-3,094.96	-5,873.75	3,918.38	3,589.69	328.69	11.921		
12,800.00	7,118.41	13,142.97	7,055.55	167.08	167.36	-89.09	-3,095.55	-5,973.71	3,915.52	3,581.25	334.26	11.714		
12,900.00	7,117.97	13,242.93	7,055.25	169.88	170.15	-89.09	-3,096.15	-6,073.66	3,912.65	3,572.81	339.84	11.513		
13,000.00	7,117.54	13,342.89	7,054.95	172.67	172.93	-89.09	-3,096.75	-6,173.62	3,909.79	3,564.36	345.42	11.319		
13,100.00	7,117.10	13,442.85	7,054.66	175.47	175.72	-89.09	-3,097.35	-6,273.58	3,906.92	3,555.91	351.01	11.131		
13,200.00	7,116.67	13,542.81	7,054.36	178.27	178.51	-89.09	-3,097.95	-6,373.53	3,904.06	3,547.46	356.60	10.948		
13,300.00	7,116.24	13,642.77	7,054.06	181.07	181.30	-89.09	-3,098.54	-6,473.49	3,901.19	3,539.00	362.19	10.771		
13,400.00	7,115.80	13,742.73	7,053.76	183.87	184.09	-89.09	-3,099.14	-6,573.45	3,898.33	3,530.54	367.79	10.599		
13,500.00	7,115.37	13,842.69	7,053.47	186.67	186.89	-89.10	-3,099.74	-6,673.40	3,895.46	3,522.08	373.39	10.433		
13,600.00	7,114.93	13,942.65	7,053.17	189.47	189.68	-89.10	-3,100.34	-6,773.36	3,892.60	3,513.61	378.99	10.271		
13,700.00	7,114.50	14,042.60	7,052.87	192.28	192.48	-89.10	-3,100.93	-6,873.32	3,889.74	3,505.14	384.60	10.114		
13,800.00	7,114.07	14,142.56	7,052.57	195.09	195.28	-89.10	-3,101.53	-6,973.27	3,886.87	3,496.67	390.21	9.961		
13,900.00	7,113.63	14,242.52	7,052.28	197.89	198.08	-89.10	-3,102.13	-7,073.23	3,884.01	3,488.19	395.82	9.813		
14,000.00	7,113.20	14,342.48	7,051.98	200.70	200.89	-89.10	-3,102.73	-7,173.19	3,881.14	3,479.71	401.43	9.668		
14,100.00	7,112.77	14,442.44	7,051.68	203.51	203.69	-89.10	-3,103.32	-7,273.14	3,878.28	3,471.23	407.05	9.528		
14,200.00	7,112.33	14,542.40	7,051.38	206.32	206.50	-89.11	-3,103.92	-7,373.10	3,875.41	3,462.75	412.67	9.391		
14,300.00	7,111.90	14,642.36	7,051.09	209.13	209.31	-89.11	-3,104.52	-7,473.06	3,872.55	3,454.26	418.29	9.258		
14,400.00	7,111.46	14,742.32	7,050.79	211.95	212.12	-89.11	-3,105.12	-7,573.01	3,869.68	3,445.77	423.91	9.129		
14,500.00	7,111.03	14,842.28	7,050.49	214.76	214.93	-89.11	-3,105.72	-7,672.97	3,866.82	3,437.28	429.54	9.002		
14,600.00	7,110.60	14,942.23	7,050.19	217.58	217.74	-89.11	-3,106.31	-7,772.93	3,863.95	3,428.79	435.16	8.879		
14,700.00	7,110.16	15,042.19	7,049.90	220.39	220.55	-89.11	-3,106.91	-7,872.88	3,861.09	3,420.30	440.79	8.759		
14,800.00	7,109.73	15,142.15	7,049.60	223.21	223.37	-89.11	-3,107.51	-7,972.84	3,858.23	3,411.80	446.43	8.642		
14,900.00	7,109.30	15,242.11	7,049.30	226.03	226.18	-89.12	-3,108.11	-8,072.80	3,855.36	3,403.30	452.06	8.528		
14,969.16	7,109.00	15,311.24	7,049.10	227.97	228.13	-89.12	-3,108.52	-8,141.93	3,853.38	3,397.42	455.96	8.451 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.73	-60.11	-0.28	60.11					
100.00	100.00	100.00	100.00	3.28	3.28	-179.73	-60.11	-0.28	60.11	53.54	6.57	9.150		
200.00	200.00	200.00	200.00	3.34	3.34	-179.73	-60.11	-0.28	60.11	53.44	6.67	9.007		
300.00	300.00	300.00	300.00	3.44	3.44	-179.73	-60.11	-0.28	60.11	53.22	6.89	8.725		
400.00	400.00	400.00	400.00	3.60	3.60	-179.73	-60.11	-0.28	60.11	52.90	7.21	8.341		
500.00	500.00	500.00	500.00	3.81	3.81	-179.73	-60.11	-0.28	60.11	52.50	7.61	7.897		
600.00	600.00	601.85	601.83	4.05	4.05	-178.91	-58.50	-1.11	58.54	50.44	8.10	7.225		
700.00	699.98	702.67	702.52	4.32	4.33	-167.70	-54.16	-3.36	56.02	47.37	8.65	6.476		
732.73	732.68	735.39	735.20	4.41	4.42	-167.10	-52.63	-4.15	55.84	47.00	8.84	6.316 CC, ES		
800.00	799.84	802.65	802.37	4.62	4.62	-167.12	-49.48	-5.78	56.62	47.37	9.25	6.124		
900.00	899.45	902.56	902.14	4.94	4.94	-165.43	-44.80	-8.21	60.62	50.74	9.89	6.133		
1,000.00	998.70	1,002.28	1,001.72	5.28	5.28	-165.57	-40.13	-10.63	68.00	57.44	10.56	6.439		
1,100.00	1,097.50	1,101.72	1,101.02	5.64	5.63	-166.28	-35.47	-13.04	78.56	67.29	11.27	6.971		
1,200.00	1,196.18	1,201.07	1,200.24	6.00	5.99	-166.96	-30.82	-15.45	89.85	77.85	12.00	7.490		
1,300.00	1,294.87	1,300.43	1,299.45	6.38	6.36	-167.48	-26.17	-17.86	101.15	88.41	12.75	7.936		
1,400.00	1,393.55	1,400.22	1,398.67	6.77	6.74	-167.90	-21.52	-20.26	112.46	98.94	13.51	8.321		
1,500.00	1,492.23	1,500.86	1,497.89	7.17	7.13	-168.24	-16.87	-22.67	123.77	109.47	14.30	8.654		
1,600.00	1,590.91	1,601.51	1,597.11	7.58	7.53	-168.52	-12.21	-25.08	135.09	119.98	15.10	8.944		
1,700.00	1,689.60	1,702.15	1,696.32	8.00	7.93	-168.76	-7.56	-27.49	146.41	130.49	15.91	9.200		
1,800.00	1,788.28	1,802.79	1,795.54	8.42	8.33	-168.97	-2.91	-29.90	157.73	140.99	16.74	9.425		
1,900.00	1,886.96	1,903.44	1,894.76	8.84	8.74	-169.15	1.74	-32.31	169.05	151.48	17.56	9.625		
2,000.00	1,985.64	2,004.08	1,993.98	9.27	9.16	-169.30	6.39	-34.72	180.37	161.97	18.40	9.803		
2,100.00	2,084.33	2,104.73	2,093.19	9.71	9.57	-169.44	11.05	-37.13	191.70	172.45	19.24	9.963		
2,200.00	2,183.01	2,205.37	2,192.41	10.15	9.99	-169.56	15.70	-39.54	203.02	182.93	20.09	10.106		
2,300.00	2,281.69	2,306.02	2,291.63	10.59	10.41	-169.67	20.35	-41.95	214.35	193.41	20.94	10.236		
2,400.00	2,380.38	2,406.66	2,390.85	11.03	10.83	-169.77	25.00	-44.36	225.68	203.88	21.80	10.354		
2,500.00	2,479.06	2,507.30	2,490.06	11.47	11.26	-169.86	29.65	-46.77	237.00	214.35	22.66	10.461		
2,600.00	2,577.74	2,607.95	2,589.28	11.92	11.68	-169.94	34.31	-49.17	248.33	224.81	23.52	10.558		
2,700.00	2,676.42	2,691.41	2,688.50	12.36	12.04	-170.02	38.96	-51.58	259.66	235.35	24.31	10.680		
2,800.00	2,775.11	2,809.24	2,787.72	12.81	12.54	-170.08	43.61	-53.99	270.99	245.74	25.25	10.731		
2,900.00	2,873.79	2,909.88	2,886.93	13.26	12.97	-170.14	48.26	-56.40	282.32	256.20	26.12	10.807		
3,000.00	2,972.47	2,989.47	2,986.15	13.72	13.31	-170.20	52.91	-58.81	293.65	266.74	26.91	10.913		
3,100.00	3,071.15	3,088.83	3,085.37	14.17	13.73	-170.26	57.57	-61.22	304.98	277.20	27.78	10.980		
3,200.00	3,169.84	3,188.19	3,184.59	14.62	14.16	-170.30	62.22	-63.63	316.31	287.66	28.65	11.041		
3,300.00	3,268.52	3,287.54	3,283.80	15.08	14.58	-170.35	66.87	-66.04	327.64	298.12	29.52	11.099		
3,400.00	3,367.20	3,386.90	3,383.02	15.53	15.01	-170.39	71.52	-68.45	338.97	308.58	30.39	11.152		
3,500.00	3,465.89	3,486.25	3,482.24	15.99	15.44	-170.43	76.17	-70.86	350.30	319.03	31.27	11.203		
3,600.00	3,564.57	3,585.61	3,581.46	16.44	15.87	-170.47	80.83	-73.27	361.63	329.49	32.15	11.250		
3,700.00	3,663.25	3,684.96	3,680.67	16.90	16.30	-170.51	85.48	-75.68	372.97	339.94	33.02	11.294		
3,800.00	3,761.93	3,784.32	3,779.89	17.36	16.73	-170.54	90.13	-78.09	384.30	350.40	33.90	11.335		
3,900.00	3,860.62	3,883.67	3,879.11	17.82	17.16	-170.57	94.78	-80.49	395.63	360.85	34.78	11.374		
4,000.00	3,959.30	3,983.03	3,978.33	18.28	17.59	-170.60	99.43	-82.90	406.96	371.30	35.66	11.411		
4,100.00	4,057.98	4,082.39	4,077.54	18.74	18.02	-170.63	104.09	-85.31	418.29	381.75	36.54	11.446		
4,200.00	4,156.67	4,181.74	4,176.76	19.20	18.45	-170.65	108.74	-87.72	429.62	392.20	37.43	11.479		
4,300.00	4,255.35	4,281.10	4,275.98	19.66	18.88	-170.68	113.39	-90.13	440.96	402.65	38.31	11.511		
4,400.00	4,354.03	4,380.45	4,375.20	20.12	19.31	-170.70	118.04	-92.54	452.29	413.10	39.19	11.540		
4,500.00	4,452.71	4,479.81	4,474.41	20.58	19.75	-170.73	122.69	-94.95	463.62	423.54	40.08	11.568		
4,600.00	4,551.40	4,579.16	4,573.63	21.04	20.18	-170.75	127.35	-97.36	474.95	433.99	40.96	11.595		
4,700.00	4,650.08	4,678.52	4,672.85	21.50	20.61	-170.77	132.00	-99.77	486.29	444.44	41.85	11.621		
4,800.00	4,748.76	4,777.88	4,772.07	21.96	21.05	-170.79	136.65	-102.18	497.62	454.89	42.73	11.645		
4,900.00	4,847.44	4,877.23	4,871.28	22.42	21.48	-170.81	141.30	-104.59	508.95	465.33	43.62	11.668		
5,000.00	4,946.13	4,976.59	4,970.50	22.89	21.91	-170.82	145.95	-107.00	520.28	475.78	44.51	11.690		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,044.81	5,075.94	5,069.72	23.35	22.35	-170.84	150.61	-109.41	531.61	486.22	45.39	11.712	
5,200.00	5,143.49	5,175.30	5,168.94	23.81	22.78	-170.86	155.26	-111.81	542.95	496.67	46.28	11.732	
5,300.00	5,242.18	5,274.65	5,268.15	24.27	23.21	-170.87	159.91	-114.22	554.28	507.11	47.17	11.751	
5,400.00	5,340.86	5,374.01	5,367.37	24.74	23.65	-170.89	164.56	-116.63	565.61	517.56	48.06	11.770	
5,500.00	5,439.54	5,473.37	5,466.59	25.20	24.08	-170.90	169.21	-119.04	576.94	528.00	48.94	11.788	
5,600.00	5,538.22	5,572.72	5,565.81	25.66	24.52	-170.92	173.87	-121.45	588.28	538.44	49.83	11.805	
5,700.00	5,636.91	5,672.08	5,665.02	26.13	24.95	-170.93	178.52	-123.86	599.61	548.89	50.72	11.821	
5,800.00	5,735.59	5,771.43	5,764.24	26.59	25.39	-170.94	183.17	-126.27	610.94	559.33	51.61	11.837	
5,900.00	5,834.27	5,870.79	5,863.46	27.06	25.82	-170.96	187.82	-128.68	622.28	569.77	52.50	11.852	
6,000.00	5,932.95	5,970.14	5,962.67	27.52	26.26	-170.97	192.47	-131.09	633.61	580.22	53.39	11.867	
6,100.00	6,031.64	6,069.50	6,061.89	27.98	26.69	-170.98	197.13	-133.50	644.94	590.66	54.28	11.881	
6,200.00	6,130.32	6,168.86	6,161.11	28.45	27.13	-170.99	201.78	-135.91	656.27	601.10	55.17	11.895	
6,300.00	6,229.00	6,268.21	6,260.33	28.91	27.56	-171.00	206.43	-138.32	667.61	611.54	56.06	11.908	
6,400.00	6,327.69	6,367.57	6,359.54	29.38	28.00	-171.01	211.08	-140.72	678.94	621.98	56.96	11.921	
6,500.00	6,426.37	6,466.86	6,458.69	29.84	28.43	-171.00	215.73	-143.40	690.27	632.43	57.85	11.933	
6,600.00	6,525.05	6,564.63	6,555.44	30.31	28.86	-170.17	220.20	-156.04	701.72	642.99	58.73	11.949	
6,700.00	6,623.18	6,659.26	6,646.19	30.77	29.28	-127.65	224.29	-182.25	713.30	653.72	59.58	11.972	
6,800.00	6,718.58	6,751.75	6,730.18	31.22	29.69	-109.09	227.98	-220.60	724.49	664.09	60.40	11.995	
6,900.00	6,808.91	6,842.40	6,806.28	31.66	30.12	-99.76	231.24	-269.61	734.93	673.74	61.19	12.011	
7,000.00	6,891.95	6,931.51	6,873.57	32.07	30.57	-94.08	234.01	-327.83	744.28	682.29	61.99	12.007	
7,100.00	6,965.65	7,019.32	6,931.32	32.51	31.08	-90.26	236.29	-393.86	752.23	689.38	62.85	11.969	
7,200.00	7,028.20	7,106.09	6,978.93	33.02	31.67	-87.60	238.04	-466.30	758.53	694.68	63.85	11.880	
7,300.00	7,078.04	7,192.03	7,015.97	33.68	32.37	-85.77	239.26	-543.77	762.96	697.88	65.07	11.724	
7,400.00	7,113.97	7,277.35	7,042.11	34.52	33.18	-84.61	239.95	-624.91	765.37	698.79	66.58	11.496	
7,500.00	7,135.09	7,362.24	7,057.14	35.53	34.11	-84.04	240.10	-708.40	765.67	697.29	68.38	11.198	
7,600.00	7,140.96	7,447.34	7,060.95	36.68	35.14	-83.99	239.71	-793.35	763.85	693.39	70.46	10.841	
7,700.00	7,140.53	7,547.29	7,059.20	37.99	36.52	-83.87	238.96	-893.28	761.30	688.20	73.10	10.414	
7,800.00	7,140.09	7,647.25	7,057.45	39.45	38.04	-83.75	238.20	-993.22	758.75	682.69	76.05	9.976	
7,900.00	7,139.66	7,747.20	7,055.70	41.06	39.71	-83.63	237.45	-1,093.16	756.20	676.90	79.30	9.536	
8,000.00	7,139.23	7,847.16	7,053.95	42.80	41.51	-83.51	236.70	-1,193.09	753.66	670.86	82.80	9.102	
8,100.00	7,138.79	7,947.11	7,052.20	44.65	43.42	-83.38	235.95	-1,293.03	751.12	664.59	86.53	8.681	
8,200.00	7,138.36	8,047.07	7,050.46	46.60	45.44	-83.26	235.19	-1,392.97	748.58	658.13	90.45	8.276	
8,300.00	7,137.93	8,147.02	7,048.71	48.65	47.54	-83.14	234.44	-1,492.90	746.05	651.50	94.55	7.891	
8,400.00	7,137.49	8,246.98	7,046.96	50.77	49.71	-83.01	233.69	-1,592.84	743.52	644.72	98.79	7.526	
8,500.00	7,137.06	8,346.93	7,045.21	52.95	51.95	-82.88	232.94	-1,692.78	740.99	637.82	103.17	7.182	
8,600.00	7,136.62	8,446.89	7,043.46	55.20	54.25	-82.76	232.18	-1,792.71	738.47	630.81	107.66	6.859	
8,700.00	7,136.19	8,546.84	7,041.71	57.51	56.60	-82.63	231.43	-1,892.65	735.95	623.70	112.25	6.556	
8,800.00	7,135.76	8,646.79	7,039.96	59.85	59.00	-82.50	230.68	-1,992.59	733.44	616.51	116.93	6.272	
8,900.00	7,135.32	8,746.75	7,038.21	62.24	61.43	-82.37	229.93	-2,092.52	730.93	609.24	121.69	6.007	
9,000.00	7,134.89	8,846.70	7,036.47	64.67	63.90	-82.24	229.18	-2,192.46	728.42	601.91	126.51	5.758	
9,100.00	7,134.45	8,946.66	7,034.72	67.13	66.40	-82.11	228.42	-2,292.40	725.92	594.53	131.39	5.525	
9,200.00	7,134.02	9,046.61	7,032.97	69.62	68.93	-81.97	227.67	-2,392.33	723.42	587.09	136.32	5.307	
9,300.00	7,133.59	9,146.57	7,031.22	72.14	71.48	-81.84	226.92	-2,492.27	720.92	579.62	141.30	5.102	
9,400.00	7,133.15	9,246.52	7,029.47	74.68	74.06	-81.71	226.17	-2,592.21	718.43	572.10	146.33	4.910	
9,500.00	7,132.72	9,346.48	7,027.72	77.24	76.65	-81.57	225.41	-2,692.14	715.94	564.56	151.38	4.729	
9,600.00	7,132.29	9,446.43	7,025.97	79.83	79.26	-81.43	224.66	-2,792.08	713.46	556.98	156.47	4.560	
9,700.00	7,131.85	9,546.39	7,024.22	82.42	81.89	-81.30	223.91	-2,892.02	710.98	549.39	161.59	4.400	
9,800.00	7,131.42	9,646.34	7,022.48	85.04	84.54	-81.16	223.16	-2,991.95	708.50	541.77	166.74	4.249	
9,900.00	7,130.98	9,746.30	7,020.73	87.67	87.20	-81.02	222.41	-3,091.89	706.03	534.13	171.90	4.107	
10,000.00	7,130.55	9,846.25	7,018.98	90.31	89.87	-80.88	221.65	-3,191.82	703.56	526.48	177.09	3.973	
10,100.00	7,130.12	9,946.21	7,017.23	92.97	92.55	-80.74	220.90	-3,291.76	701.10	518.81	182.29	3.846	
10,200.00	7,129.68	10,046.16	7,015.48	95.63	95.24	-80.60	220.15	-3,391.70	698.64	511.13	187.51	3.726	

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,129.25	10,146.12	7,013.73	98.31	97.94	-80.45	219.40	-3,491.63	696.19	503.44	192.74	3.612		
10,400.00	7,128.82	10,246.07	7,011.98	101.00	100.65	-80.31	218.64	-3,591.57	693.74	495.75	197.99	3.504		
10,500.00	7,128.38	10,346.02	7,010.23	103.69	103.36	-80.16	217.89	-3,691.51	691.29	488.05	203.24	3.401		
10,600.00	7,127.95	10,445.98	7,008.49	106.39	106.09	-80.02	217.14	-3,791.44	688.85	480.35	208.50	3.304		
10,700.00	7,127.51	10,545.93	7,006.74	109.10	108.82	-79.87	216.39	-3,891.38	686.41	472.64	213.78	3.211		
10,800.00	7,127.08	10,645.89	7,004.99	111.82	111.56	-79.72	215.63	-3,991.32	683.98	464.93	219.05	3.122		
10,900.00	7,126.65	10,745.84	7,003.24	114.54	114.30	-79.57	214.88	-4,091.25	681.56	457.22	224.34	3.038		
11,000.00	7,126.21	10,845.80	7,001.49	117.27	117.05	-79.42	214.13	-4,191.19	679.13	449.51	229.62	2.958		
11,100.00	7,125.78	10,945.75	6,999.74	120.01	119.80	-79.27	213.38	-4,291.13	676.71	441.80	234.91	2.881		
11,200.00	7,125.35	11,045.71	6,997.99	122.75	122.56	-79.12	212.63	-4,391.06	674.30	434.10	240.20	2.807		
11,300.00	7,124.91	11,145.66	6,996.24	125.49	125.33	-78.96	211.87	-4,491.00	671.89	426.39	245.50	2.737		
11,400.00	7,124.48	11,245.62	6,994.50	128.24	128.09	-78.81	211.12	-4,590.94	669.49	418.70	250.79	2.669		
11,500.00	7,124.04	11,345.57	6,992.75	131.00	130.86	-78.65	210.37	-4,690.87	667.09	411.00	256.09	2.605		
11,600.00	7,123.61	11,445.53	6,991.00	133.75	133.64	-78.49	209.62	-4,790.81	664.70	403.31	261.38	2.543		
11,700.00	7,123.18	11,545.48	6,989.25	136.52	136.42	-78.34	208.86	-4,890.75	662.31	395.63	266.67	2.484		
11,800.00	7,122.74	11,645.44	6,987.50	139.28	139.20	-78.18	208.11	-4,990.68	659.93	387.96	271.97	2.427		
11,900.00	7,122.31	11,745.39	6,985.75	142.05	141.98	-78.02	207.36	-5,090.62	657.55	380.29	277.25	2.372		
12,000.00	7,121.88	11,845.34	6,984.00	144.82	144.77	-77.85	206.61	-5,190.56	655.17	372.64	282.54	2.319		
12,100.00	7,121.44	11,945.30	6,982.25	147.59	147.56	-77.69	205.85	-5,290.49	652.81	364.99	287.82	2.268		
12,200.00	7,121.01	12,045.25	6,980.51	150.37	150.35	-77.53	205.10	-5,390.43	650.44	357.35	293.10	2.219		
12,300.00	7,120.57	12,145.21	6,978.76	153.15	153.14	-77.36	204.35	-5,490.37	648.09	349.72	298.37	2.172		
12,400.00	7,120.14	12,245.16	6,977.01	155.93	155.94	-77.20	203.60	-5,590.30	645.73	342.10	303.64	2.127		
12,500.00	7,119.71	12,345.12	6,975.26	158.72	158.74	-77.03	202.85	-5,690.24	643.39	334.49	308.90	2.083		
12,600.00	7,119.27	12,445.07	6,973.51	161.50	161.54	-76.86	202.09	-5,790.18	641.05	326.90	314.15	2.041		
12,700.00	7,118.84	12,545.03	6,971.76	164.29	164.34	-76.69	201.34	-5,890.11	638.71	319.31	319.40	2.000		
12,800.00	7,118.41	12,644.98	6,970.01	167.08	167.15	-76.52	200.59	-5,990.05	636.38	311.74	324.64	1.960		
12,900.00	7,117.97	12,744.94	6,968.26	169.88	169.96	-76.35	199.84	-6,089.98	634.06	304.19	329.87	1.922		
13,000.00	7,117.54	12,844.89	6,966.52	172.67	172.76	-76.17	199.08	-6,189.92	631.74	296.64	335.10	1.885		
13,100.00	7,117.10	12,944.85	6,964.77	175.47	175.57	-76.00	198.33	-6,289.86	629.43	289.12	340.31	1.850		
13,200.00	7,116.67	13,044.80	6,963.02	178.27	178.38	-75.82	197.58	-6,389.79	627.12	281.60	345.52	1.815		
13,300.00	7,116.24	13,144.76	6,961.27	181.07	181.20	-75.64	196.83	-6,489.73	624.82	274.11	350.72	1.782		
13,400.00	7,115.80	13,244.71	6,959.52	183.87	184.01	-75.46	196.08	-6,589.67	622.53	266.62	355.90	1.749		
13,500.00	7,115.37	13,344.66	6,957.77	186.67	186.83	-75.28	195.32	-6,689.60	620.24	259.16	361.08	1.718		
13,600.00	7,114.93	13,444.62	6,956.02	189.47	189.64	-75.10	194.57	-6,789.54	617.96	251.71	366.25	1.687		
13,700.00	7,114.50	13,544.57	6,954.27	192.28	192.46	-74.92	193.82	-6,889.48	615.68	244.28	371.40	1.658		
13,800.00	7,114.07	13,644.53	6,952.53	195.09	195.28	-74.73	193.07	-6,989.41	613.41	236.87	376.55	1.629		
13,900.00	7,113.63	13,744.48	6,950.78	197.89	198.10	-74.55	192.31	-7,089.35	611.15	229.47	381.68	1.601		
14,000.00	7,113.20	13,844.44	6,949.03	200.70	200.92	-74.36	191.56	-7,189.29	608.90	222.10	386.80	1.574		
14,100.00	7,112.77	13,944.39	6,947.28	203.51	203.74	-74.17	190.81	-7,289.22	606.65	214.74	391.90	1.548		
14,200.00	7,112.33	14,044.35	6,945.53	206.32	206.56	-73.98	190.06	-7,389.16	604.40	207.41	397.00	1.522		
14,300.00	7,111.90	14,144.30	6,943.78	209.13	209.39	-73.79	189.30	-7,489.10	602.17	200.09	402.08	1.498 Level 3		
14,400.00	7,111.46	14,244.26	6,942.03	211.95	212.21	-73.60	188.55	-7,589.03	599.94	192.80	407.14	1.474 Level 3		
14,500.00	7,111.03	14,344.21	6,940.28	214.76	215.04	-73.40	187.80	-7,688.97	597.71	185.52	412.19	1.450 Level 3		
14,600.00	7,110.60	14,444.17	6,938.54	217.58	217.86	-73.21	187.05	-7,788.91	595.50	178.27	417.23	1.427 Level 3		
14,700.00	7,110.16	14,544.12	6,936.79	220.39	220.69	-73.01	186.30	-7,888.84	593.29	171.04	422.24	1.405 Level 3		
14,800.00	7,109.73	14,644.08	6,935.04	223.21	223.52	-72.81	185.54	-7,988.78	591.09	163.84	427.25	1.383 Level 3		
14,900.00	7,109.30	14,744.03	6,933.29	226.03	226.35	-72.61	184.79	-8,088.72	588.89	156.66	432.23	1.362 Level 3		
14,969.16	7,109.00	14,813.16	6,932.08	227.97	228.30	-72.47	184.27	-8,157.83	587.38	151.71	435.67	1.348 Level 3, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	-179.57	-260.12	-1.95	260.13					
100.00	100.00	101.00	100.00	3.28	3.28	-179.57	-260.12	-1.95	260.13	253.56	6.57	39.595		
200.00	200.00	199.00	200.00	3.34	3.34	-179.57	-260.12	-1.95	260.13	253.45	6.67	38.980	CC, ES	
300.00	300.00	290.80	291.78	3.44	3.43	-179.53	-261.54	-2.15	261.68	254.80	6.88	38.021		
400.00	400.00	382.32	383.20	3.60	3.56	-179.41	-265.86	-2.76	266.41	259.21	7.20	37.020		
500.00	500.00	473.48	474.06	3.81	3.74	-179.21	-273.03	-3.77	274.29	266.69	7.60	36.089		
600.00	600.00	564.08	564.10	4.05	3.96	-178.95	-283.00	-5.18	285.31	277.23	8.08	35.319		
700.00	699.98	653.70	652.81	4.32	4.22	-169.50	-295.62	-6.96	301.13	292.52	8.62	34.954		
800.00	799.84	749.48	747.29	4.62	4.55	-169.25	-311.11	-9.15	322.42	313.23	9.19	35.081		
900.00	899.45	846.38	842.88	4.94	4.93	-169.12	-326.85	-11.37	347.10	337.31	9.79	35.447		
1,000.00	998.70	942.37	937.58	5.28	5.33	-169.08	-342.44	-13.58	375.10	364.66	10.44	35.936		
1,100.00	1,097.50	1,037.41	1,031.33	5.64	5.74	-169.15	-357.88	-15.76	406.17	395.06	11.11	36.556		
1,200.00	1,196.18	1,132.22	1,124.86	6.00	6.18	-169.30	-373.28	-17.93	437.95	426.15	11.79	37.132		
1,300.00	1,294.87	1,227.03	1,218.38	6.38	6.63	-169.43	-388.68	-20.11	469.72	457.22	12.50	37.572		
1,400.00	1,393.55	1,321.85	1,311.91	6.77	7.09	-169.55	-404.07	-22.28	501.51	488.27	13.23	37.906		
1,500.00	1,492.23	1,416.66	1,405.44	7.17	7.56	-169.65	-419.47	-24.46	533.29	519.31	13.98	38.157		
1,600.00	1,590.91	1,511.47	1,498.97	7.58	8.03	-169.74	-434.87	-26.63	565.07	550.33	14.74	38.345		
1,700.00	1,689.60	1,606.28	1,592.49	8.00	8.52	-169.82	-450.27	-28.81	596.86	581.35	15.51	38.484		
1,800.00	1,788.28	1,701.09	1,686.02	8.42	9.01	-169.89	-465.67	-30.99	628.64	612.35	16.29	38.584		
1,900.00	1,886.96	1,804.10	1,779.55	8.84	9.54	-169.95	-481.07	-33.16	660.43	643.31	17.12	38.575		
2,000.00	1,985.64	1,890.71	1,873.07	9.27	10.00	-170.01	-496.47	-35.34	692.21	674.33	17.89	38.700		
2,100.00	2,084.33	1,985.52	1,966.60	9.71	10.50	-170.07	-511.86	-37.51	724.00	705.31	18.69	38.727		
2,200.00	2,183.01	2,080.34	2,060.13	10.15	11.00	-170.11	-527.26	-39.69	755.79	736.28	19.51	38.741		
2,300.00	2,281.69	2,175.15	2,153.66	10.59	11.51	-170.16	-542.66	-41.86	787.58	767.25	20.33	38.743		
2,400.00	2,380.38	2,269.96	2,247.18	11.03	12.02	-170.20	-558.06	-44.04	819.37	798.21	21.15	38.736		
2,500.00	2,479.06	2,364.77	2,340.71	11.47	12.53	-170.24	-573.46	-46.21	851.16	829.17	21.98	38.722		
2,600.00	2,577.74	2,459.58	2,434.24	11.92	13.04	-170.27	-588.86	-48.39	882.94	860.13	22.81	38.703		
2,700.00	2,676.42	2,554.39	2,527.76	12.36	13.55	-170.31	-604.26	-50.56	914.73	891.08	23.65	38.679		
2,800.00	2,775.11	2,649.20	2,621.29	12.81	14.07	-170.34	-619.65	-52.74	946.52	922.04	24.49	38.653		
2,900.00	2,873.79	2,744.01	2,714.82	13.26	14.59	-170.37	-635.05	-54.91	978.31	952.99	25.33	38.624		
3,000.00	2,972.47	2,838.83	2,808.35	13.72	15.10	-170.39	-650.45	-57.09	1,010.10	983.93	26.17	38.593		
3,100.00	3,071.15	2,933.64	2,901.87	14.17	15.62	-170.42	-665.85	-59.26	1,041.90	1,014.88	27.02	38.561		
3,200.00	3,169.84	3,028.45	2,995.40	14.62	16.14	-170.44	-681.25	-61.44	1,073.69	1,045.82	27.87	38.528		
3,300.00	3,268.52	3,123.26	3,088.93	15.08	16.66	-170.47	-696.65	-63.62	1,105.48	1,076.76	28.72	38.494		
3,400.00	3,367.20	3,218.07	3,182.45	15.53	17.18	-170.49	-712.05	-65.79	1,137.27	1,107.70	29.57	38.461		
3,500.00	3,465.89	3,312.88	3,275.98	15.99	17.70	-170.51	-727.44	-67.97	1,169.06	1,138.64	30.42	38.427		
3,600.00	3,564.57	3,407.69	3,369.51	16.44	18.23	-170.53	-742.84	-70.14	1,200.85	1,169.57	31.28	38.393		
3,700.00	3,663.25	3,502.50	3,463.04	16.90	18.75	-170.55	-758.24	-72.32	1,232.64	1,200.51	32.13	38.360		
3,800.00	3,761.93	3,602.69	3,556.56	17.36	19.30	-170.56	-773.64	-74.49	1,264.43	1,231.42	33.02	38.298		
3,900.00	3,860.62	3,707.87	3,650.09	17.82	19.88	-170.58	-789.04	-76.67	1,296.23	1,262.30	33.92	38.213		
4,000.00	3,959.30	3,786.94	3,743.62	18.28	20.32	-170.59	-804.44	-78.84	1,328.02	1,293.31	34.71	38.261		
4,100.00	4,057.98	3,881.75	3,837.14	18.74	20.85	-170.61	-819.83	-81.02	1,359.81	1,324.24	35.57	38.230		
4,200.00	4,156.67	3,976.56	3,930.67	19.20	21.37	-170.62	-835.23	-83.19	1,391.60	1,355.17	36.43	38.198		
4,300.00	4,255.35	4,071.37	4,024.20	19.66	21.90	-170.64	-850.63	-85.37	1,423.39	1,386.10	37.29	38.168		
4,400.00	4,354.03	4,166.18	4,117.73	20.12	22.42	-170.65	-866.03	-87.54	1,455.19	1,417.03	38.16	38.138		
4,500.00	4,452.71	4,260.99	4,211.25	20.58	22.95	-170.66	-881.43	-89.72	1,486.98	1,447.96	39.02	38.108		
4,600.00	4,551.40	4,355.80	4,304.78	21.04	23.47	-170.67	-896.83	-91.90	1,518.77	1,478.89	39.88	38.079		
4,700.00	4,650.08	4,450.62	4,398.31	21.50	24.00	-170.69	-912.23	-94.07	1,550.56	1,509.81	40.75	38.051		
4,800.00	4,748.76	4,545.43	4,491.83	21.96	24.53	-170.70	-927.62	-96.25	1,582.35	1,540.74	41.62	38.023		
4,900.00	4,847.44	4,640.24	4,585.36	22.42	25.05	-170.71	-943.02	-98.42	1,614.15	1,571.66	42.48	37.996		
5,000.00	4,946.13	4,735.05	4,678.89	22.89	25.58	-170.72	-958.42	-100.60	1,645.94	1,602.59	43.35	37.969		
5,100.00	5,044.81	4,829.86	4,772.42	23.35	26.11	-170.73	-973.82	-102.77	1,677.73	1,633.52	44.22	37.944		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	4,924.67	4,865.94	23.81	26.63	-170.74	-989.22	-104.95	1,709.52	1,664.44	45.08	37.918		
5,300.00	5,242.18	5,019.48	4,959.47	24.27	27.16	-170.75	-1,004.62	-107.12	1,741.32	1,695.36	45.95	37.893		
5,400.00	5,340.86	5,114.29	5,053.00	24.74	27.69	-170.75	-1,020.02	-109.30	1,773.11	1,726.29	46.82	37.869		
5,500.00	5,439.54	5,209.11	5,146.52	25.20	28.22	-170.76	-1,035.41	-111.47	1,804.90	1,757.21	47.69	37.845		
5,600.00	5,538.22	5,303.92	5,240.05	25.66	28.75	-170.77	-1,050.81	-113.65	1,836.69	1,788.13	48.56	37.822		
5,700.00	5,636.91	5,401.27	5,333.58	26.13	29.29	-170.78	-1,066.21	-115.82	1,868.49	1,819.04	49.44	37.791		
5,800.00	5,735.59	5,493.54	5,427.10	26.59	29.80	-170.79	-1,081.61	-118.00	1,900.28	1,849.98	50.30	37.777		
5,900.00	5,834.27	5,588.35	5,520.63	27.06	30.33	-170.79	-1,097.01	-120.18	1,932.07	1,880.90	51.17	37.755		
6,000.00	5,932.95	5,683.16	5,614.16	27.52	30.86	-170.80	-1,112.41	-122.35	1,963.87	1,911.82	52.04	37.734		
6,100.00	6,031.64	5,777.97	5,707.69	27.98	31.39	-170.81	-1,127.80	-124.53	1,995.66	1,942.74	52.92	37.713		
6,200.00	6,130.32	5,872.78	5,801.21	28.45	31.92	-170.81	-1,143.20	-126.70	2,027.45	1,973.66	53.79	37.693		
6,300.00	6,229.00	5,967.60	5,894.74	28.91	32.45	-170.82	-1,158.60	-128.88	2,059.24	2,004.58	54.66	37.673		
6,400.00	6,327.69	6,062.41	5,988.27	29.38	32.98	-170.83	-1,174.00	-131.05	2,091.04	2,035.50	55.53	37.653		
6,500.00	6,426.37	6,157.22	6,081.79	29.84	33.51	-170.83	-1,189.40	-133.23	2,122.83	2,066.42	56.41	37.634		
6,600.00	6,525.05	6,252.03	6,175.32	30.31	34.03	-170.84	-1,204.80	-135.40	2,154.62	2,097.34	57.28	37.616		
6,700.00	6,623.18	6,346.53	6,268.54	30.77	34.56	-127.97	-1,220.15	-137.57	2,186.04	2,127.88	58.16	37.587		
6,800.00	6,718.58	6,438.85	6,359.61	31.22	35.08	-109.37	-1,235.14	-139.69	2,216.34	2,157.31	59.04	37.541		
6,900.00	6,808.91	6,526.73	6,446.30	31.66	35.57	-100.24	-1,249.41	-141.71	2,245.26	2,185.35	59.91	37.479		
7,000.00	6,891.95	6,607.99	6,526.46	32.07	36.02	-94.89	-1,262.61	-143.57	2,272.78	2,212.01	60.77	37.400		
7,100.00	6,965.65	6,680.64	6,598.13	32.51	36.43	-91.35	-1,274.41	-145.24	2,299.08	2,237.44	61.64	37.298		
7,200.00	7,028.20	6,760.93	6,677.26	33.02	36.88	-89.10	-1,287.45	-148.60	2,324.36	2,261.65	62.71	37.062		
7,300.00	7,078.04	6,880.78	6,793.28	33.68	37.55	-88.31	-1,306.68	-170.75	2,347.77	2,283.47	64.30	36.510		
7,400.00	7,113.97	7,048.80	6,944.67	34.52	38.48	-88.82	-1,332.03	-237.88	2,368.13	2,301.71	66.42	35.652		
7,500.00	7,135.09	7,500.00	7,117.00	35.53	41.30	-90.48	-1,361.43	-394.82	2,382.97	2,311.82	71.15	33.490		
7,600.00	7,140.96	7,706.91	7,246.99	36.68	43.41	-92.55	-1,385.45	-787.09	2,387.17	2,311.97	75.20	31.744		
7,700.00	7,140.53	7,806.87	7,246.46	37.99	44.75	-92.55	-1,386.03	-887.05	2,384.29	2,305.96	78.33	30.440		
7,800.00	7,140.09	7,906.83	7,245.94	39.45	46.32	-92.56	-1,386.62	-987.00	2,381.41	2,299.61	81.80	29.113		
7,900.00	7,139.66	8,006.78	7,245.41	41.06	48.12	-92.56	-1,387.20	-1,086.96	2,378.53	2,292.96	85.57	27.795		
8,000.00	7,139.23	8,106.74	7,244.88	42.80	50.10	-92.56	-1,387.78	-1,186.91	2,375.65	2,286.04	89.62	26.509		
8,100.00	7,138.79	8,206.70	7,244.35	44.65	52.25	-92.56	-1,388.37	-1,286.87	2,372.78	2,278.89	93.89	25.272		
8,200.00	7,138.36	8,306.66	7,243.82	46.60	54.54	-92.56	-1,388.95	-1,386.82	2,369.90	2,271.54	98.36	24.093		
8,300.00	7,137.93	8,406.62	7,243.29	48.65	56.95	-92.56	-1,389.54	-1,486.78	2,367.02	2,264.01	103.01	22.978		
8,400.00	7,137.49	8,506.58	7,242.76	50.77	59.45	-92.56	-1,390.12	-1,586.73	2,364.14	2,256.33	107.81	21.928		
8,500.00	7,137.06	8,606.54	7,242.24	52.95	62.05	-92.56	-1,390.70	-1,686.69	2,361.27	2,248.52	112.75	20.943		
8,600.00	7,136.62	8,706.49	7,241.71	55.20	64.72	-92.56	-1,391.29	-1,786.65	2,358.39	2,240.59	117.80	20.020		
8,700.00	7,136.19	8,806.45	7,241.18	57.51	67.45	-92.56	-1,391.87	-1,886.60	2,355.51	2,232.56	122.96	19.157		
8,800.00	7,135.76	8,906.41	7,240.65	59.85	70.24	-92.56	-1,392.46	-1,986.56	2,352.63	2,224.43	128.20	18.351		
8,900.00	7,135.32	9,006.37	7,240.12	62.24	73.08	-92.56	-1,393.04	-2,086.51	2,349.76	2,216.23	133.52	17.598		
9,000.00	7,134.89	9,106.33	7,239.59	64.67	75.96	-92.57	-1,393.63	-2,186.47	2,346.88	2,207.96	138.92	16.894		
9,100.00	7,134.45	9,206.29	7,239.07	67.13	78.88	-92.57	-1,394.21	-2,286.42	2,344.00	2,199.63	144.37	16.236		
9,200.00	7,134.02	9,306.25	7,238.54	69.62	81.83	-92.57	-1,394.79	-2,386.38	2,341.12	2,191.24	149.89	15.619		
9,300.00	7,133.59	9,406.21	7,238.01	72.14	84.81	-92.57	-1,395.38	-2,486.33	2,338.25	2,182.80	155.45	15.042		
9,400.00	7,133.15	9,506.16	7,237.48	74.68	87.82	-92.57	-1,395.96	-2,586.29	2,335.37	2,174.31	161.05	14.501		
9,500.00	7,132.72	9,606.12	7,236.95	77.24	90.85	-92.57	-1,396.55	-2,686.24	2,332.49	2,165.79	166.70	13.992		
9,600.00	7,132.29	9,706.08	7,236.42	79.83	93.90	-92.57	-1,397.13	-2,786.20	2,329.61	2,157.23	172.38	13.514		
9,700.00	7,131.85	9,806.04	7,235.89	82.42	96.97	-92.57	-1,397.71	-2,886.16	2,326.73	2,148.64	178.10	13.065		
9,800.00	7,131.42	9,906.00	7,235.37	85.04	100.06	-92.57	-1,398.30	-2,986.11	2,323.86	2,140.02	183.84	12.641		
9,900.00	7,130.98	10,005.96	7,234.84	87.67	103.17	-92.57	-1,398.88	-3,086.07	2,320.98	2,131.37	189.61	12.241		
10,000.00	7,130.55	10,105.92	7,234.31	90.31	106.29	-92.57	-1,399.47	-3,186.02	2,318.10	2,122.69	195.41	11.863		
10,100.00	7,130.12	10,205.87	7,233.78	92.97	109.42	-92.57	-1,400.05	-3,285.98	2,315.22	2,114.00	201.23	11.505		
10,200.00	7,129.68	10,305.83	7,233.25	95.63	112.56	-92.58	-1,400.63	-3,385.93	2,312.35	2,105.28	207.07	11.167		
10,300.00	7,129.25	10,405.79	7,232.72	98.31	115.72	-92.58	-1,401.22	-3,485.89	2,309.47	2,096.54	212.93	10.846		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	10,505.75	7,232.19	101.00	118.88	-92.58	-1,401.80	-3,585.84	2,306.59	2,087.79	218.80	10.542		
10,500.00	7,128.38	10,605.71	7,231.67	103.69	122.05	-92.58	-1,402.39	-3,685.80	2,303.71	2,079.02	224.69	10.253		
10,600.00	7,127.95	10,705.67	7,231.14	106.39	125.24	-92.58	-1,402.97	-3,785.76	2,300.84	2,070.24	230.60	9.978		
10,700.00	7,127.51	10,805.63	7,230.61	109.10	128.43	-92.58	-1,403.55	-3,885.71	2,297.96	2,061.44	236.52	9.716		
10,800.00	7,127.08	10,905.58	7,230.08	111.82	131.62	-92.58	-1,404.14	-3,985.67	2,295.08	2,052.63	242.45	9.466		
10,900.00	7,126.65	11,005.54	7,229.55	114.54	134.83	-92.58	-1,404.72	-4,085.62	2,292.20	2,043.81	248.40	9.228		
11,000.00	7,126.21	11,105.50	7,229.02	117.27	138.04	-92.58	-1,405.31	-4,185.58	2,289.33	2,034.97	254.35	9.001		
11,100.00	7,125.78	11,205.46	7,228.50	120.01	141.25	-92.58	-1,405.89	-4,285.53	2,286.45	2,026.13	260.32	8.783		
11,200.00	7,125.35	11,305.42	7,227.97	122.75	144.47	-92.58	-1,406.48	-4,385.49	2,283.57	2,017.28	266.29	8.575		
11,300.00	7,124.91	11,405.38	7,227.44	125.49	147.70	-92.58	-1,407.06	-4,485.44	2,280.69	2,008.42	272.28	8.376		
11,400.00	7,124.48	11,505.34	7,226.91	128.24	150.93	-92.59	-1,407.64	-4,585.40	2,277.81	1,999.55	278.27	8.186		
11,500.00	7,124.04	11,605.29	7,226.38	131.00	154.16	-92.59	-1,408.23	-4,685.35	2,274.94	1,990.67	284.27	8.003		
11,600.00	7,123.61	11,705.25	7,225.85	133.75	157.40	-92.59	-1,408.81	-4,785.31	2,272.06	1,981.78	290.28	7.827		
11,700.00	7,123.18	11,805.21	7,225.32	136.52	160.65	-92.59	-1,409.40	-4,885.27	2,269.18	1,972.89	296.29	7.659		
11,800.00	7,122.74	11,905.17	7,224.80	139.28	163.89	-92.59	-1,409.98	-4,985.22	2,266.30	1,963.99	302.31	7.497		
11,900.00	7,122.31	12,005.13	7,224.27	142.05	167.14	-92.59	-1,410.56	-5,085.18	2,263.43	1,955.09	308.34	7.341		
12,000.00	7,121.88	12,105.09	7,223.74	144.82	170.40	-92.59	-1,411.15	-5,185.13	2,260.55	1,946.18	314.37	7.191		
12,100.00	7,121.44	12,205.05	7,223.21	147.59	173.65	-92.59	-1,411.73	-5,285.09	2,257.67	1,937.26	320.41	7.046		
12,200.00	7,121.01	12,305.00	7,222.68	150.37	176.91	-92.59	-1,412.32	-5,385.04	2,254.79	1,928.34	326.45	6.907		
12,300.00	7,120.57	12,404.96	7,222.15	153.15	180.17	-92.59	-1,412.90	-5,485.00	2,251.92	1,919.42	332.50	6.773		
12,400.00	7,120.14	12,504.92	7,221.62	155.93	183.44	-92.59	-1,413.48	-5,584.95	2,249.04	1,910.49	338.55	6.643		
12,500.00	7,119.71	12,604.88	7,221.10	158.72	186.70	-92.60	-1,414.07	-5,684.91	2,246.16	1,901.55	344.61	6.518		
12,600.00	7,119.27	12,704.84	7,220.57	161.50	189.97	-92.60	-1,414.65	-5,784.86	2,243.28	1,892.61	350.67	6.397		
12,700.00	7,118.84	12,804.80	7,220.04	164.29	193.24	-92.60	-1,415.24	-5,884.82	2,240.41	1,883.67	356.73	6.280		
12,800.00	7,118.41	12,904.76	7,219.51	167.08	196.52	-92.60	-1,415.82	-5,984.78	2,237.53	1,874.73	362.80	6.167		
12,900.00	7,117.97	13,004.71	7,219.98	169.88	199.79	-92.60	-1,416.41	-6,084.73	2,234.65	1,865.78	368.87	6.058		
13,000.00	7,117.54	13,104.67	7,218.45	172.67	203.07	-92.60	-1,416.99	-6,184.69	2,231.77	1,856.82	374.95	5.952		
13,100.00	7,117.10	13,204.63	7,217.93	175.47	206.35	-92.60	-1,417.57	-6,284.64	2,228.90	1,847.87	381.03	5.850		
13,200.00	7,116.67	13,304.59	7,217.40	178.27	209.63	-92.60	-1,418.16	-6,384.60	2,226.02	1,838.91	387.11	5.750		
13,300.00	7,116.24	13,404.55	7,216.87	181.07	212.91	-92.60	-1,418.74	-6,484.55	2,223.14	1,829.95	393.19	5.654		
13,400.00	7,115.80	13,504.51	7,216.34	183.87	216.20	-92.60	-1,419.33	-6,584.51	2,220.26	1,820.98	399.28	5.561		
13,500.00	7,115.37	13,604.47	7,215.81	186.67	219.48	-92.60	-1,419.91	-6,684.46	2,217.38	1,812.01	405.37	5.470		
13,600.00	7,114.93	13,704.42	7,215.28	189.47	222.77	-92.61	-1,420.49	-6,784.42	2,214.51	1,803.04	411.46	5.382		
13,700.00	7,114.50	13,804.38	7,214.75	192.28	226.06	-92.61	-1,421.08	-6,884.37	2,211.63	1,794.07	417.56	5.297		
13,800.00	7,114.07	13,904.34	7,214.23	195.09	229.35	-92.61	-1,421.66	-6,984.33	2,208.75	1,785.10	423.65	5.214		
13,900.00	7,113.63	14,004.30	7,213.70	197.89	232.64	-92.61	-1,422.25	-7,084.29	2,205.87	1,776.12	429.75	5.133		
14,000.00	7,113.20	14,104.26	7,213.17	200.70	235.93	-92.61	-1,422.83	-7,184.24	2,203.00	1,767.14	435.85	5.054		
14,100.00	7,112.77	14,204.22	7,212.64	203.51	239.22	-92.61	-1,423.41	-7,284.20	2,200.12	1,758.16	441.96	4.978		
14,200.00	7,112.33	14,304.18	7,212.11	206.32	242.51	-92.61	-1,424.00	-7,384.15	2,197.24	1,749.18	448.06	4.904		
14,300.00	7,111.90	14,404.13	7,211.58	209.13	245.81	-92.61	-1,424.58	-7,484.11	2,194.36	1,740.19	454.17	4.832		
14,400.00	7,111.46	14,504.09	7,211.06	211.95	249.11	-92.61	-1,425.17	-7,584.06	2,191.49	1,731.21	460.28	4.761		
14,500.00	7,111.03	14,604.05	7,210.53	214.76	252.40	-92.61	-1,425.75	-7,684.02	2,188.61	1,722.22	466.39	4.693		
14,600.00	7,110.60	14,704.01	7,210.00	217.58	255.70	-92.61	-1,426.34	-7,783.97	2,185.73	1,713.23	472.50	4.626		
14,700.00	7,110.16	14,803.97	7,209.47	220.39	259.00	-92.62	-1,426.92	-7,883.93	2,182.85	1,704.24	478.61	4.561		
14,800.00	7,109.73	14,903.93	7,208.94	223.21	262.30	-92.62	-1,427.50	-7,983.89	2,179.98	1,695.25	484.73	4.497		
14,900.00	7,109.30	15,003.89	7,208.41	226.03	265.60	-92.62	-1,428.09	-8,083.84	2,177.10	1,686.25	490.85	4.435		
14,969.16	7,109.00	15,073.02	7,208.05	227.97	267.88	-92.62	-1,428.49	-8,152.97	2,175.11	1,680.03	495.08	4.393 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.55	-140.26	-1.11	140.27					
100.00	100.00	100.00	100.00	3.28	3.28	-179.55	-140.26	-1.11	140.27	133.70	6.57	21.351		
200.00	200.00	200.00	200.00	3.34	3.34	-179.55	-140.26	-1.11	140.27	133.59	6.67	21.017		
300.00	300.00	300.00	300.00	3.44	3.44	-179.55	-140.26	-1.11	140.27	133.38	6.89	20.359		
400.00	400.00	400.00	400.00	3.60	3.60	-179.55	-140.26	-1.11	140.27	133.06	7.21	19.463		
500.00	500.00	500.00	500.00	3.81	3.81	-179.55	-140.26	-1.11	140.27	132.65	7.61	18.427 CC, ES		
600.00	600.00	595.51	595.49	4.05	4.02	-179.35	-141.77	-1.61	141.86	133.78	8.08	17.565		
700.00	699.98	690.69	690.55	4.32	4.26	-169.73	-146.29	-3.09	148.34	139.74	8.60	17.249		
800.00	799.84	788.17	787.75	4.62	4.54	-169.23	-153.36	-5.41	160.77	151.59	9.17	17.523		
900.00	899.45	886.87	886.14	4.94	4.83	-168.97	-160.72	-7.82	176.80	167.01	9.79	18.057		
1,000.00	998.70	984.97	983.93	5.28	5.15	-168.93	-168.03	-10.22	196.20	185.76	10.44	18.790		
1,100.00	1,097.50	1,082.39	1,081.05	5.64	5.48	-169.07	-175.30	-12.61	218.76	207.63	11.12	19.666		
1,200.00	1,196.18	1,179.64	1,178.00	6.00	5.83	-169.27	-182.55	-14.99	242.03	230.21	11.82	20.477		
1,300.00	1,294.87	1,276.89	1,274.95	6.38	6.19	-169.43	-189.80	-17.36	265.31	252.77	12.54	21.159		
1,400.00	1,393.55	1,374.14	1,371.90	6.77	6.56	-169.57	-197.05	-19.74	288.59	275.31	13.28	21.734		
1,500.00	1,492.23	1,471.39	1,468.86	7.17	6.93	-169.68	-204.30	-22.12	311.87	297.83	14.03	22.223		
1,600.00	1,590.91	1,568.64	1,565.81	7.58	7.32	-169.78	-211.55	-24.50	335.15	320.35	14.80	22.641		
1,700.00	1,689.60	1,665.89	1,662.76	8.00	7.71	-169.87	-218.80	-26.88	358.43	342.85	15.58	22.999		
1,800.00	1,788.28	1,763.14	1,759.71	8.42	8.10	-169.94	-226.05	-29.26	381.71	365.34	16.38	23.309		
1,900.00	1,886.96	1,860.39	1,856.66	8.84	8.50	-170.01	-233.30	-31.64	405.00	387.82	17.18	23.578		
2,000.00	1,985.64	1,957.64	1,953.61	9.27	8.91	-170.07	-240.55	-34.02	428.28	410.29	17.98	23.813		
2,100.00	2,084.33	2,054.89	2,050.56	9.71	9.31	-170.12	-247.80	-36.39	451.56	432.76	18.80	24.020		
2,200.00	2,183.01	2,152.14	2,147.51	10.15	9.72	-170.17	-255.05	-38.77	474.85	455.23	19.62	24.202		
2,300.00	2,281.69	2,249.39	2,244.46	10.59	10.13	-170.21	-262.30	-41.15	498.13	477.69	20.45	24.363		
2,400.00	2,380.38	2,346.64	2,341.41	11.03	10.55	-170.25	-269.55	-43.53	521.42	500.14	21.28	24.507		
2,500.00	2,479.06	2,443.90	2,438.36	11.47	10.96	-170.29	-276.80	-45.91	544.70	522.59	22.11	24.635		
2,600.00	2,577.74	2,541.15	2,535.32	11.92	11.38	-170.32	-284.05	-48.29	567.99	545.04	22.95	24.751		
2,700.00	2,676.42	2,638.40	2,632.27	12.36	11.80	-170.35	-291.30	-50.67	591.27	567.48	23.79	24.854		
2,800.00	2,775.11	2,735.65	2,729.22	12.81	12.22	-170.38	-298.55	-53.05	614.56	589.93	24.63	24.948		
2,900.00	2,873.79	2,832.90	2,826.17	13.26	12.64	-170.41	-305.80	-55.42	637.84	612.36	25.48	25.033		
3,000.00	2,972.47	2,930.15	2,923.12	13.72	13.07	-170.43	-313.05	-57.80	661.13	634.80	26.33	25.111		
3,100.00	3,071.15	3,027.40	3,020.07	14.17	13.49	-170.46	-320.30	-60.18	684.42	657.24	27.18	25.181		
3,200.00	3,169.84	3,124.65	3,117.02	14.62	13.92	-170.48	-327.55	-62.56	707.70	679.67	28.03	25.246		
3,300.00	3,268.52	3,221.90	3,213.97	15.08	14.34	-170.50	-334.80	-64.94	730.99	702.10	28.89	25.305		
3,400.00	3,367.20	3,319.15	3,310.92	15.53	14.77	-170.52	-342.05	-67.32	754.27	724.53	29.74	25.359		
3,500.00	3,465.89	3,416.40	3,407.87	15.99	15.20	-170.53	-349.30	-69.70	777.56	746.96	30.60	25.410		
3,600.00	3,564.57	3,513.65	3,504.82	16.44	15.62	-170.55	-356.55	-72.08	800.85	769.39	31.46	25.456		
3,700.00	3,663.25	3,610.90	3,601.78	16.90	16.05	-170.57	-363.80	-74.45	824.13	791.81	32.32	25.499		
3,800.00	3,761.93	3,708.15	3,698.73	17.36	16.48	-170.58	-371.05	-76.83	847.42	814.24	33.18	25.539		
3,900.00	3,860.62	3,805.40	3,795.68	17.82	16.91	-170.60	-378.31	-79.21	870.71	836.66	34.04	25.576		
4,000.00	3,959.30	3,902.66	3,892.63	18.28	17.34	-170.61	-385.56	-81.59	893.99	859.08	34.91	25.610		
4,100.00	4,057.98	4,000.09	3,989.58	18.74	17.77	-170.62	-392.81	-83.97	917.28	881.51	35.77	25.641		
4,200.00	4,156.67	4,102.84	4,086.53	19.20	18.23	-170.63	-400.06	-86.35	940.57	903.90	36.66	25.655		
4,300.00	4,255.35	4,205.59	4,183.48	19.66	18.69	-170.65	-407.31	-88.73	963.85	926.30	37.55	25.667		
4,400.00	4,354.03	4,308.34	4,280.43	20.12	19.14	-170.66	-414.56	-91.11	987.14	948.70	38.44	25.678		
4,500.00	4,452.71	4,388.91	4,377.38	20.58	19.50	-170.67	-421.81	-93.48	1,010.43	971.19	39.24	25.751		
4,600.00	4,551.40	4,486.16	4,474.33	21.04	19.93	-170.68	-429.06	-95.86	1,033.71	993.61	40.11	25.774		
4,700.00	4,650.08	4,583.41	4,571.28	21.50	20.37	-170.69	-436.31	-98.24	1,057.00	1,016.02	40.98	25.796		
4,800.00	4,748.76	4,680.66	4,668.23	21.96	20.80	-170.69	-443.56	-100.62	1,080.29	1,038.44	41.84	25.817		
4,900.00	4,847.44	4,777.91	4,765.19	22.42	21.23	-170.70	-450.81	-103.00	1,103.57	1,060.86	42.71	25.836		
5,000.00	4,946.13	4,875.16	4,862.14	22.89	21.67	-170.71	-458.06	-105.38	1,126.86	1,083.27	43.58	25.854		
5,100.00	5,044.81	4,972.41	4,959.09	23.35	22.10	-170.72	-465.31	-107.76	1,150.15	1,105.69	44.46	25.872		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,069.66	5,056.04	23.81	22.53	-170.73	-472.56	-110.14	1,173.43	1,128.11	45.33	25.888		
5,300.00	5,242.18	5,166.91	5,152.99	24.27	22.97	-170.73	-479.81	-112.51	1,196.72	1,150.52	46.20	25.903		
5,400.00	5,340.86	5,264.17	5,249.94	24.74	23.40	-170.74	-487.06	-114.89	1,220.01	1,172.94	47.07	25.918		
5,500.00	5,439.54	5,361.42	5,346.89	25.20	23.84	-170.75	-494.31	-117.27	1,243.29	1,195.35	47.94	25.932		
5,600.00	5,538.22	5,458.67	5,443.84	25.66	24.27	-170.76	-501.56	-119.65	1,266.58	1,217.76	48.82	25.945		
5,700.00	5,636.91	5,555.92	5,540.79	26.13	24.71	-170.76	-508.81	-122.03	1,289.87	1,240.18	49.69	25.958		
5,800.00	5,735.59	5,653.17	5,637.74	26.59	25.14	-170.77	-516.06	-124.41	1,313.15	1,262.59	50.56	25.970		
5,900.00	5,834.27	5,750.42	5,734.69	27.06	25.58	-170.77	-523.31	-126.79	1,336.44	1,285.00	51.44	25.981		
6,000.00	5,932.95	5,847.67	5,831.65	27.52	26.01	-170.78	-530.56	-129.16	1,359.73	1,307.42	52.31	25.992		
6,100.00	6,031.64	5,944.92	5,928.60	27.98	26.45	-170.78	-537.81	-131.54	1,383.02	1,329.83	53.19	26.003		
6,200.00	6,130.32	6,042.17	6,025.55	28.45	26.88	-170.79	-545.06	-133.92	1,406.30	1,352.24	54.06	26.013		
6,300.00	6,229.00	6,139.42	6,122.50	28.91	27.32	-170.80	-552.31	-136.30	1,429.59	1,374.65	54.94	26.022		
6,400.00	6,327.69	6,236.67	6,219.45	29.38	27.76	-170.80	-559.56	-138.68	1,452.88	1,397.06	55.81	26.031		
6,500.00	6,426.37	6,333.92	6,316.40	29.84	28.19	-170.81	-566.81	-141.06	1,476.16	1,419.47	56.69	26.040		
6,600.00	6,525.05	6,431.17	6,413.35	30.31	28.63	-170.81	-574.06	-143.44	1,499.45	1,441.89	57.57	26.048		
6,700.00	6,623.18	6,528.09	6,509.96	30.77	29.06	-128.87	-581.29	-145.81	1,522.39	1,463.95	58.44	26.050		
6,800.00	6,718.58	6,622.73	6,604.32	31.22	29.49	-111.33	-588.34	-148.12	1,544.49	1,485.18	59.31	26.042		
6,900.00	6,808.91	6,719.98	6,700.96	31.66	29.92	-103.28	-595.61	-155.20	1,565.70	1,505.49	60.21	26.003		
7,000.00	6,891.95	6,824.44	6,802.30	32.07	30.38	-98.83	-603.36	-178.80	1,585.57	1,524.37	61.19	25.911		
7,100.00	6,965.65	6,936.63	6,905.26	32.51	30.85	-96.17	-611.39	-222.25	1,603.52	1,541.26	62.26	25.753		
7,200.00	7,028.20	7,057.74	7,005.99	33.02	31.32	-94.58	-619.44	-288.68	1,618.98	1,555.51	63.47	25.509		
7,300.00	7,078.04	7,188.54	7,098.56	33.68	31.83	-93.71	-627.09	-380.45	1,631.31	1,566.42	64.89	25.140		
7,400.00	7,113.97	7,328.92	7,174.87	34.52	32.60	-93.34	-633.74	-497.75	1,639.88	1,573.21	66.68	24.594		
7,500.00	7,135.09	7,477.30	7,225.63	35.53	33.82	-93.34	-638.65	-636.73	1,644.14	1,575.15	68.99	23.830		
7,600.00	7,140.96	7,630.46	7,242.99	36.68	35.50	-93.57	-641.18	-788.52	1,643.71	1,571.85	71.86	22.873		
7,700.00	7,140.53	7,729.94	7,242.60	37.99	36.81	-93.57	-641.95	-887.99	1,641.04	1,566.54	74.51	22.026		
7,800.00	7,140.09	7,829.91	7,242.21	39.45	38.29	-93.58	-642.74	-987.96	1,638.37	1,560.91	77.47	21.149		
7,900.00	7,139.66	7,929.87	7,241.82	41.06	39.92	-93.59	-643.52	-1,087.92	1,635.70	1,554.98	80.72	20.263		
8,000.00	7,139.23	8,029.84	7,241.42	42.80	41.68	-93.60	-644.30	-1,187.88	1,633.03	1,548.79	84.24	19.386		
8,100.00	7,138.79	8,129.80	7,241.03	44.65	43.55	-93.60	-645.08	-1,287.84	1,630.36	1,542.38	87.98	18.531		
8,200.00	7,138.36	8,229.77	7,240.64	46.60	45.53	-93.61	-645.86	-1,387.80	1,627.69	1,535.76	91.93	17.706		
8,300.00	7,137.93	8,329.73	7,240.24	48.65	47.60	-93.62	-646.65	-1,487.76	1,625.02	1,528.97	96.05	16.919		
8,400.00	7,137.49	8,429.69	7,239.85	50.77	49.75	-93.63	-647.43	-1,587.72	1,622.35	1,522.03	100.32	16.171		
8,500.00	7,137.06	8,529.66	7,239.46	52.95	51.97	-93.63	-648.21	-1,687.68	1,619.68	1,514.95	104.73	15.465		
8,600.00	7,136.62	8,629.62	7,239.06	55.20	54.24	-93.64	-648.99	-1,787.64	1,617.01	1,507.75	109.26	14.799		
8,700.00	7,136.19	8,729.59	7,238.67	57.51	56.57	-93.65	-649.77	-1,887.60	1,614.34	1,500.44	113.90	14.174		
8,800.00	7,135.76	8,829.55	7,238.28	59.85	58.95	-93.66	-650.56	-1,987.56	1,611.67	1,493.04	118.62	13.587		
8,900.00	7,135.32	8,929.51	7,237.89	62.24	61.36	-93.66	-651.34	-2,087.52	1,609.00	1,485.57	123.43	13.036		
9,000.00	7,134.89	9,029.48	7,237.49	64.67	63.82	-93.67	-652.12	-2,187.48	1,606.33	1,478.02	128.31	12.519		
9,100.00	7,134.45	9,129.44	7,237.10	67.13	66.30	-93.68	-652.90	-2,287.44	1,603.66	1,470.40	133.26	12.034		
9,200.00	7,134.02	9,229.41	7,236.71	69.62	68.82	-93.69	-653.68	-2,387.40	1,600.98	1,462.73	138.26	11.580		
9,300.00	7,133.59	9,329.37	7,236.31	72.14	71.36	-93.69	-654.47	-2,487.36	1,598.31	1,455.00	143.31	11.153		
9,400.00	7,133.15	9,429.33	7,235.92	74.68	73.92	-93.70	-655.25	-2,587.32	1,595.64	1,447.23	148.41	10.751		
9,500.00	7,132.72	9,529.30	7,235.53	77.24	76.51	-93.71	-656.03	-2,687.28	1,592.97	1,439.42	153.56	10.374		
9,600.00	7,132.29	9,629.26	7,235.13	79.83	79.11	-93.72	-656.81	-2,787.24	1,590.30	1,431.57	158.74	10.019		
9,700.00	7,131.85	9,729.23	7,234.74	82.42	81.73	-93.72	-657.59	-2,887.20	1,587.63	1,423.68	163.95	9.684		
9,800.00	7,131.42	9,829.19	7,234.35	85.04	84.36	-93.73	-658.38	-2,987.16	1,584.96	1,415.77	169.19	9.368		
9,900.00	7,130.98	9,929.16	7,233.95	87.67	87.01	-93.74	-659.16	-3,087.12	1,582.29	1,407.82	174.47	9.069		
10,000.00	7,130.55	10,029.12	7,233.56	90.31	89.68	-93.75	-659.94	-3,187.08	1,579.62	1,399.86	179.77	8.787		
10,100.00	7,130.12	10,129.08	7,233.17	92.97	92.35	-93.75	-660.72	-3,287.04	1,576.95	1,391.86	185.09	8.520		
10,200.00	7,129.68	10,229.05	7,232.77	95.63	95.03	-93.76	-661.50	-3,387.00	1,574.28	1,383.85	190.43	8.267		
10,300.00	7,129.25	10,329.01	7,232.38	98.31	97.73	-93.77	-662.28	-3,486.96	1,571.61	1,375.82	195.80	8.027		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	10,428.98	7,231.99	101.00	100.43	-93.78	-663.07	-3,586.92	1,568.94	1,367.77	201.18	7.799		
10,500.00	7,128.38	10,528.94	7,231.59	103.69	103.14	-93.79	-663.85	-3,686.88	1,566.27	1,359.70	206.57	7.582		
10,600.00	7,127.95	10,628.90	7,231.20	106.39	105.86	-93.79	-664.63	-3,786.84	1,563.60	1,351.61	211.99	7.376		
10,700.00	7,127.51	10,728.87	7,230.81	109.10	108.59	-93.80	-665.41	-3,886.80	1,560.93	1,343.52	217.42	7.179		
10,800.00	7,127.08	10,828.83	7,230.42	111.82	111.32	-93.81	-666.19	-3,986.76	1,558.26	1,335.41	222.86	6.992		
10,900.00	7,126.65	10,928.80	7,230.02	114.54	114.06	-93.82	-666.98	-4,086.72	1,555.59	1,327.28	228.31	6.814		
11,000.00	7,126.21	11,028.76	7,229.63	117.27	116.81	-93.83	-667.76	-4,186.68	1,552.92	1,319.15	233.77	6.643		
11,100.00	7,125.78	11,128.72	7,229.24	120.01	119.56	-93.83	-668.54	-4,286.64	1,550.25	1,311.00	239.25	6.480		
11,200.00	7,125.35	11,128.69	7,228.84	122.75	122.31	-93.84	-669.32	-4,386.60	1,547.58	1,302.85	244.73	6.324		
11,300.00	7,124.91	11,328.65	7,228.45	125.49	125.07	-93.85	-670.10	-4,486.57	1,544.91	1,294.69	250.23	6.174		
11,400.00	7,124.48	11,428.62	7,228.06	128.24	127.84	-93.86	-670.89	-4,586.53	1,542.24	1,286.51	255.73	6.031		
11,500.00	7,124.04	11,528.58	7,227.66	131.00	130.60	-93.87	-671.67	-4,686.49	1,539.57	1,278.33	261.24	5.893		
11,600.00	7,123.61	11,628.54	7,227.27	133.75	133.38	-93.88	-672.45	-4,786.45	1,536.90	1,270.15	266.76	5.761		
11,700.00	7,123.18	11,728.51	7,226.88	136.52	136.15	-93.88	-673.23	-4,886.41	1,534.23	1,261.95	272.28	5.635		
11,800.00	7,122.74	11,828.47	7,226.48	139.28	138.93	-93.89	-674.01	-4,986.37	1,531.56	1,253.75	277.81	5.513		
11,900.00	7,122.31	11,928.44	7,226.09	142.05	141.71	-93.90	-674.80	-5,086.33	1,528.89	1,245.54	283.35	5.396		
12,000.00	7,121.88	12,028.40	7,225.70	144.82	144.50	-93.91	-675.58	-5,186.29	1,526.23	1,237.33	288.90	5.283		
12,100.00	7,121.44	12,128.37	7,225.30	147.59	147.28	-93.92	-676.36	-5,286.25	1,523.56	1,229.11	294.45	5.174		
12,200.00	7,121.01	12,228.33	7,224.91	150.37	150.07	-93.93	-677.14	-5,386.21	1,520.89	1,220.89	300.00	5.070		
12,300.00	7,120.57	12,328.29	7,224.52	153.15	152.87	-93.93	-677.92	-5,486.17	1,518.22	1,212.66	305.56	4.969		
12,400.00	7,120.14	12,428.26	7,224.12	155.93	155.66	-93.94	-678.71	-5,586.13	1,515.55	1,204.42	311.12	4.871		
12,500.00	7,119.71	12,528.22	7,223.73	158.72	158.46	-93.95	-679.49	-5,686.09	1,512.88	1,196.18	316.69	4.777		
12,600.00	7,119.27	12,628.19	7,223.34	161.50	161.26	-93.96	-680.27	-5,786.05	1,510.21	1,187.94	322.27	4.686		
12,700.00	7,118.84	12,728.15	7,222.94	164.29	164.06	-93.97	-681.05	-5,886.01	1,507.54	1,179.70	327.84	4.598		
12,800.00	7,118.41	12,828.11	7,222.55	167.08	166.86	-93.98	-681.83	-5,985.97	1,504.87	1,171.45	333.42	4.513		
12,900.00	7,117.97	12,928.08	7,222.16	169.88	169.67	-93.99	-682.61	-6,085.93	1,502.20	1,163.19	339.01	4.431		
13,000.00	7,117.54	13,028.04	7,221.77	172.67	172.47	-93.99	-683.40	-6,185.89	1,499.53	1,154.94	344.60	4.352		
13,100.00	7,117.10	13,128.01	7,221.37	175.47	175.28	-94.00	-684.18	-6,285.85	1,496.86	1,146.68	350.19	4.274		
13,200.00	7,116.67	13,227.97	7,220.98	178.27	178.09	-94.01	-684.96	-6,385.81	1,494.19	1,138.41	355.78	4.200		
13,300.00	7,116.24	13,327.93	7,220.59	181.07	180.90	-94.02	-685.74	-6,485.77	1,491.52	1,130.15	361.38	4.127		
13,400.00	7,115.80	13,427.90	7,220.19	183.87	183.72	-94.03	-686.52	-6,585.73	1,488.86	1,121.88	366.98	4.057		
13,500.00	7,115.37	13,527.86	7,219.80	186.67	186.53	-94.04	-687.31	-6,685.69	1,486.19	1,113.61	372.58	3.989		
13,600.00	7,114.93	13,627.83	7,219.41	189.47	189.34	-94.05	-688.09	-6,785.65	1,483.52	1,105.33	378.18	3.923		
13,700.00	7,114.50	13,727.79	7,219.01	192.28	192.16	-94.06	-688.87	-6,885.61	1,480.85	1,097.06	383.79	3.858		
13,800.00	7,114.07	13,827.76	7,218.62	195.09	194.98	-94.06	-689.65	-6,985.57	1,478.18	1,088.78	389.40	3.796		
13,900.00	7,113.63	13,927.72	7,218.23	197.89	197.80	-94.07	-690.43	-7,085.53	1,475.51	1,080.50	395.01	3.735		
14,000.00	7,113.20	14,027.68	7,217.83	200.70	200.62	-94.08	-691.22	-7,185.49	1,472.84	1,072.22	400.63	3.676		
14,100.00	7,112.77	14,127.65	7,217.44	203.51	203.44	-94.09	-692.00	-7,285.45	1,470.17	1,063.93	406.24	3.619		
14,200.00	7,112.33	14,227.61	7,217.05	206.32	206.26	-94.10	-692.78	-7,385.41	1,467.50	1,055.65	411.86	3.563		
14,300.00	7,111.90	14,327.58	7,216.65	209.13	209.08	-94.11	-693.56	-7,485.37	1,464.83	1,047.36	417.48	3.509		
14,400.00	7,111.46	14,427.54	7,216.26	211.95	211.91	-94.12	-694.34	-7,585.33	1,462.17	1,039.07	423.10	3.456		
14,500.00	7,111.03	14,527.50	7,215.87	214.76	214.73	-94.13	-695.13	-7,685.29	1,459.50	1,030.78	428.72	3.404		
14,600.00	7,110.60	14,627.47	7,215.47	217.58	217.56	-94.14	-695.91	-7,785.25	1,456.83	1,022.48	434.35	3.354		
14,700.00	7,110.16	14,727.43	7,215.08	220.39	220.38	-94.15	-696.69	-7,885.21	1,454.16	1,014.19	439.97	3.305		
14,800.00	7,109.73	14,827.40	7,214.69	223.21	223.21	-94.15	-697.47	-7,985.18	1,451.49	1,005.89	445.60	3.257		
14,900.00	7,109.30	14,927.36	7,214.30	226.03	226.04	-94.16	-698.25	-8,085.14	1,448.82	997.60	451.23	3.211		
14,969.16	7,109.00	14,996.50	7,214.02	227.97	228.00	-94.17	-698.79	-8,154.27	1,446.98	991.86	455.12	3.179 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.54	-240.08	-1.95	240.09					
100.00	100.00	101.00	100.00	3.28	3.28	-179.54	-240.08	-1.95	240.09	233.52	6.57	36.545		
200.00	200.00	201.00	200.00	3.34	3.34	-179.54	-240.08	-1.95	240.09	233.41	6.67	35.969		
300.00	300.00	299.00	300.00	3.44	3.44	-179.54	-240.08	-1.95	240.09	233.20	6.89	34.854 CC, ES		
400.00	400.00	391.41	392.39	3.60	3.58	-179.48	-241.52	-2.20	241.65	234.46	7.19	33.597		
500.00	500.00	483.55	484.43	3.81	3.75	-179.31	-245.87	-2.95	246.38	238.80	7.59	32.480		
600.00	600.00	575.31	575.89	4.05	3.96	-179.05	-253.11	-4.21	254.29	246.23	8.06	31.568		
700.00	699.98	666.30	666.31	4.32	4.20	-169.57	-263.12	-5.95	267.04	258.45	8.59	31.096		
800.00	799.84	760.74	759.83	4.62	4.47	-169.29	-276.01	-8.18	285.80	276.64	9.16	31.196		
900.00	899.45	858.18	856.30	4.94	4.78	-169.12	-289.59	-10.54	308.23	298.46	9.77	31.546		
1,000.00	998.70	954.80	951.94	5.28	5.11	-169.07	-303.06	-12.88	333.98	323.57	10.41	32.069		
1,100.00	1,097.50	1,050.54	1,046.72	5.64	5.46	-169.14	-316.41	-15.20	362.84	351.75	11.09	32.721		
1,200.00	1,196.18	1,146.07	1,141.29	6.00	5.82	-169.28	-329.72	-17.51	392.40	380.63	11.77	33.327		
1,300.00	1,294.87	1,241.60	1,235.85	6.38	6.19	-169.40	-343.04	-19.82	421.97	409.49	12.48	33.801		
1,400.00	1,393.55	1,337.12	1,330.42	6.77	6.58	-169.51	-356.36	-22.13	451.54	438.32	13.21	34.172		
1,500.00	1,492.23	1,432.65	1,424.98	7.17	6.97	-169.61	-369.67	-24.45	481.10	467.14	13.96	34.462		
1,600.00	1,590.91	1,528.17	1,519.55	7.58	7.37	-169.69	-382.99	-26.76	510.67	495.95	14.72	34.688		
1,700.00	1,689.60	1,623.70	1,614.11	8.00	7.77	-169.76	-396.30	-29.07	540.24	524.75	15.50	34.864		
1,800.00	1,788.28	1,719.23	1,708.68	8.42	8.18	-169.83	-409.62	-31.38	569.81	553.53	16.28	35.001		
1,900.00	1,886.96	1,814.75	1,803.24	8.84	8.60	-169.89	-422.94	-33.69	599.38	582.31	17.07	35.106		
2,000.00	1,985.64	1,910.28	1,897.81	9.27	9.01	-169.94	-436.25	-36.00	628.96	611.08	17.88	35.186		
2,100.00	2,084.33	2,005.80	1,992.37	9.71	9.44	-169.99	-449.57	-38.32	658.53	639.84	18.68	35.247		
2,200.00	2,183.01	2,101.33	2,086.94	10.15	9.86	-170.04	-462.88	-40.63	688.10	668.60	19.50	35.291		
2,300.00	2,281.69	2,203.15	2,181.50	10.59	10.32	-170.08	-476.20	-42.94	717.67	697.33	20.34	35.276		
2,400.00	2,380.38	2,292.38	2,276.07	11.03	10.72	-170.12	-489.52	-45.25	747.25	726.11	21.14	35.344		
2,500.00	2,479.06	2,387.91	2,370.63	11.47	11.15	-170.15	-502.83	-47.56	776.82	754.85	21.97	35.358		
2,600.00	2,577.74	2,483.43	2,465.20	11.92	11.58	-170.18	-516.15	-49.88	806.39	783.59	22.80	35.364		
2,700.00	2,676.42	2,578.96	2,559.76	12.36	12.01	-170.22	-529.46	-52.19	835.97	812.33	23.64	35.365		
2,800.00	2,775.11	2,674.48	2,654.33	12.81	12.45	-170.24	-542.78	-54.50	865.54	841.07	24.48	35.362		
2,900.00	2,873.79	2,770.01	2,748.89	13.26	12.89	-170.27	-556.10	-56.81	895.12	869.80	25.32	35.355		
3,000.00	2,972.47	2,865.54	2,843.46	13.72	13.33	-170.29	-569.41	-59.12	924.69	898.53	26.16	35.345		
3,100.00	3,071.15	2,961.06	2,938.02	14.17	13.76	-170.32	-582.73	-61.43	954.27	927.26	27.01	35.333		
3,200.00	3,169.84	3,056.59	3,032.59	14.62	14.20	-170.34	-596.04	-63.75	983.84	955.99	27.86	35.319		
3,300.00	3,268.52	3,152.11	3,127.15	15.08	14.65	-170.36	-609.36	-66.06	1,013.42	984.71	28.71	35.304		
3,400.00	3,367.20	3,247.64	3,221.72	15.53	15.09	-170.38	-622.68	-68.37	1,042.99	1,013.43	29.56	35.288		
3,500.00	3,465.89	3,343.17	3,316.28	15.99	15.53	-170.40	-635.99	-70.68	1,072.57	1,042.16	30.41	35.271		
3,600.00	3,564.57	3,438.69	3,410.85	16.44	15.97	-170.41	-649.31	-72.99	1,102.14	1,070.88	31.26	35.253		
3,700.00	3,663.25	3,534.22	3,505.41	16.90	16.42	-170.43	-662.62	-75.30	1,131.72	1,099.60	32.12	35.235		
3,800.00	3,761.93	3,629.74	3,599.98	17.36	16.86	-170.45	-675.94	-77.62	1,161.29	1,128.32	32.98	35.216		
3,900.00	3,860.62	3,725.27	3,694.54	17.82	17.30	-170.46	-689.26	-79.93	1,190.87	1,157.03	33.83	35.197		
4,000.00	3,959.30	3,820.80	3,789.11	18.28	17.75	-170.48	-702.57	-82.24	1,220.44	1,185.75	34.69	35.178		
4,100.00	4,057.98	3,916.32	3,883.67	18.74	18.19	-170.49	-715.89	-84.55	1,250.02	1,214.47	35.55	35.159		
4,200.00	4,156.67	4,011.85	3,978.24	19.20	18.64	-170.50	-729.20	-86.86	1,279.60	1,243.18	36.41	35.140		
4,300.00	4,255.35	4,107.37	4,072.80	19.66	19.09	-170.51	-742.52	-89.18	1,309.17	1,271.90	37.28	35.121		
4,400.00	4,354.03	4,202.90	4,167.37	20.12	19.53	-170.53	-755.84	-91.49	1,338.75	1,300.61	38.14	35.103		
4,500.00	4,452.71	4,301.57	4,261.93	20.58	20.00	-170.54	-769.15	-93.80	1,368.32	1,329.31	39.02	35.071		
4,600.00	4,551.40	4,406.05	4,356.50	21.04	20.48	-170.55	-782.47	-96.11	1,397.90	1,357.98	39.92	35.018		
4,700.00	4,650.08	4,489.48	4,451.06	21.50	20.87	-170.56	-795.78	-98.42	1,427.47	1,386.74	40.73	35.048		
4,800.00	4,748.76	4,585.00	4,545.63	21.96	21.32	-170.57	-809.10	-100.73	1,457.05	1,415.46	41.59	35.030		
4,900.00	4,847.44	4,680.53	4,640.19	22.42	21.77	-170.58	-822.42	-103.05	1,486.63	1,444.17	42.46	35.012		
5,000.00	4,946.13	4,776.06	4,734.76	22.89	22.22	-170.59	-835.73	-105.36	1,516.20	1,472.88	43.33	34.995		
5,100.00	5,044.81	4,871.58	4,829.32	23.35	22.67	-170.59	-849.05	-107.67	1,545.78	1,501.59	44.19	34.977		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	4,967.11	4,923.89	23.81	23.12	-170.60	-862.36	-109.98	1,575.35	1,530.29	45.06	34.961		
5,300.00	5,242.18	5,062.63	5,018.45	24.27	23.56	-170.61	-875.68	-112.29	1,604.93	1,559.00	45.93	34.944		
5,400.00	5,340.86	5,158.16	5,113.02	24.74	24.01	-170.62	-889.00	-114.61	1,634.51	1,587.71	46.80	34.928		
5,500.00	5,439.54	5,253.69	5,207.58	25.20	24.46	-170.63	-902.31	-116.92	1,664.08	1,616.42	47.67	34.912		
5,600.00	5,538.22	5,349.21	5,302.15	25.66	24.91	-170.63	-915.63	-119.23	1,693.66	1,645.13	48.53	34.896		
5,700.00	5,636.91	5,444.74	5,396.71	26.13	25.36	-170.64	-928.94	-121.54	1,723.24	1,673.83	49.40	34.880		
5,800.00	5,735.59	5,540.26	5,491.28	26.59	25.81	-170.65	-942.26	-123.85	1,752.81	1,702.54	50.27	34.865		
5,900.00	5,834.27	5,635.79	5,585.84	27.06	26.26	-170.65	-955.57	-126.16	1,782.39	1,731.24	51.14	34.850		
6,000.00	5,932.95	5,731.31	5,680.41	27.52	26.71	-170.66	-968.89	-128.48	1,811.97	1,759.95	52.01	34.836		
6,100.00	6,031.64	5,826.84	5,774.97	27.98	27.16	-170.67	-982.21	-130.79	1,841.54	1,788.66	52.89	34.821		
6,200.00	6,130.32	5,922.37	5,869.54	28.45	27.61	-170.67	-995.52	-133.10	1,871.12	1,817.36	53.76	34.807		
6,300.00	6,229.00	6,017.89	5,964.10	28.91	28.06	-170.68	-1,008.84	-135.41	1,900.69	1,846.07	54.63	34.793		
6,400.00	6,327.69	6,113.42	6,058.67	29.38	28.51	-170.68	-1,022.15	-137.72	1,930.27	1,874.77	55.50	34.780		
6,500.00	6,426.37	6,208.94	6,153.23	29.84	28.96	-170.69	-1,035.47	-140.04	1,959.85	1,903.47	56.37	34.766		
6,600.00	6,525.05	6,304.47	6,247.80	30.31	29.41	-170.69	-1,048.79	-142.35	1,989.42	1,932.18	57.24	34.753		
6,700.00	6,623.18	6,400.32	6,342.05	30.77	29.86	-128.07	-1,062.06	-144.65	2,018.61	1,960.49	58.12	34.731		
6,800.00	6,718.58	6,492.71	6,434.14	31.22	30.30	-109.74	-1,075.03	-146.90	2,046.72	1,987.74	58.98	34.701		
6,900.00	6,808.91	6,588.00	6,528.16	31.66	30.75	-100.85	-1,088.31	-153.93	2,073.44	2,013.56	59.88	34.627		
7,000.00	6,891.95	6,680.22	6,626.67	32.07	31.21	-95.64	-1,102.36	-176.86	2,098.20	2,037.34	60.86	34.478		
7,100.00	6,965.65	6,800.25	6,727.14	32.51	31.68	-92.30	-1,116.85	-218.96	2,120.35	2,058.42	61.93	34.239		
7,200.00	7,028.20	6,919.51	6,826.14	33.02	32.14	-90.13	-1,131.33	-283.55	2,139.25	2,076.11	63.14	33.880		
7,300.00	7,078.04	7,049.03	6,918.07	33.68	32.60	-88.79	-1,145.03	-373.43	2,154.26	2,089.68	64.58	33.357		
7,400.00	7,113.97	7,188.93	6,994.92	34.52	33.13	-88.08	-1,156.84	-489.39	2,164.74	2,098.34	66.40	32.603		
7,500.00	7,135.09	7,337.75	7,047.07	35.53	34.05	-87.86	-1,165.38	-628.15	2,170.13	2,101.41	68.72	31.577		
7,600.00	7,140.96	7,492.13	7,066.00	36.68	35.59	-88.03	-1,169.36	-780.93	2,170.07	2,098.48	71.60	30.310		
7,700.00	7,140.53	7,606.27	7,065.62	37.99	37.04	-88.03	-1,170.19	-882.53	2,167.42	2,093.01	74.41	29.127		
7,800.00	7,140.09	7,706.31	7,065.22	39.45	38.50	-88.02	-1,171.00	-982.49	2,164.77	2,087.39	77.39	27.974		
7,900.00	7,139.66	7,806.34	7,064.83	41.06	40.11	-88.02	-1,171.81	-1,082.45	2,162.13	2,081.47	80.65	26.808		
8,000.00	7,139.23	7,906.38	7,064.44	42.80	41.87	-88.02	-1,172.63	-1,182.41	2,159.48	2,075.30	84.18	25.653		
8,100.00	7,138.79	8,006.41	7,064.04	44.65	43.74	-88.02	-1,173.44	-1,282.37	2,156.83	2,068.89	87.94	24.527		
8,200.00	7,138.36	8,106.45	7,063.65	46.60	45.72	-88.02	-1,174.25	-1,382.33	2,154.18	2,062.29	91.89	23.443		
8,300.00	7,137.93	8,206.48	7,063.26	48.65	47.79	-88.02	-1,175.06	-1,482.29	2,151.53	2,055.51	96.02	22.406		
8,400.00	7,137.49	8,306.52	7,062.86	50.77	49.93	-88.02	-1,175.87	-1,582.25	2,148.88	2,048.57	100.31	21.422		
8,500.00	7,137.06	8,406.55	7,062.47	52.95	52.15	-88.01	-1,176.68	-1,682.21	2,146.23	2,041.50	104.73	20.493		
8,600.00	7,136.62	8,506.59	7,062.08	55.20	54.42	-88.01	-1,177.49	-1,782.18	2,143.58	2,034.31	109.27	19.617		
8,700.00	7,136.19	8,606.62	7,061.68	57.51	56.75	-88.01	-1,178.31	-1,882.14	2,140.94	2,027.02	113.92	18.794		
8,800.00	7,135.76	8,693.34	7,061.29	59.85	58.81	-88.01	-1,179.12	-1,982.10	2,138.29	2,019.95	118.33	18.070		
8,900.00	7,135.32	8,806.69	7,060.90	62.24	61.55	-88.01	-1,179.93	-2,082.06	2,135.64	2,012.17	123.47	17.296		
9,000.00	7,134.89	8,906.73	7,060.51	64.67	64.00	-88.01	-1,180.74	-2,182.02	2,132.99	2,004.63	128.36	16.617		
9,100.00	7,134.45	9,006.76	7,060.11	67.13	66.49	-88.01	-1,181.55	-2,281.98	2,130.34	1,997.02	133.32	15.979		
9,200.00	7,134.02	9,106.80	7,059.72	69.62	69.00	-88.00	-1,182.36	-2,381.94	2,127.69	1,989.36	138.33	15.381		
9,300.00	7,133.59	9,206.83	7,059.33	72.14	71.54	-88.00	-1,183.17	-2,481.90	2,125.04	1,981.64	143.40	14.819		
9,400.00	7,133.15	9,306.87	7,058.93	74.68	74.11	-88.00	-1,183.99	-2,581.86	2,122.39	1,973.88	148.51	14.291		
9,500.00	7,132.72	9,406.90	7,058.54	77.24	76.69	-88.00	-1,184.80	-2,681.82	2,119.74	1,966.08	153.66	13.795		
9,600.00	7,132.29	9,506.94	7,058.15	79.83	79.29	-88.00	-1,185.61	-2,781.78	2,117.10	1,958.24	158.85	13.327		
9,700.00	7,131.85	9,606.97	7,057.75	82.42	81.92	-88.00	-1,186.42	-2,881.74	2,114.45	1,950.37	164.08	12.887		
9,800.00	7,131.42	9,707.01	7,057.36	85.04	84.55	-88.00	-1,187.23	-2,981.71	2,111.80	1,942.47	169.33	12.471		
9,900.00	7,130.98	9,807.04	7,056.97	87.67	87.20	-87.99	-1,188.04	-3,081.67	2,109.15	1,934.53	174.62	12.079		
10,000.00	7,130.55	9,907.08	7,056.58	90.31	89.87	-87.99	-1,188.85	-3,181.63	2,106.50	1,926.58	179.93	11.708		
10,100.00	7,130.12	10,007.11	7,056.18	92.97	92.54	-87.99	-1,189.67	-3,281.59	2,103.85	1,918.59	185.26	11.356		
10,200.00	7,129.68	10,107.15	7,055.79	95.63	95.23	-87.99	-1,190.48	-3,381.55	2,101.20	1,910.59	190.61	11.023		
10,300.00	7,129.25	10,207.18	7,055.40	98.31	97.92	-87.99	-1,191.29	-3,481.51	2,098.55	1,902.57	195.98	10.708		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	10,307.22	7,055.00	101.00	100.63	-87.99	-1,192.10	-3,581.47	2,095.91	1,894.53	201.38	10.408		
10,500.00	7,128.38	10,407.26	7,054.61	103.69	103.34	-87.99	-1,192.91	-3,681.43	2,093.26	1,886.47	206.78	10.123		
10,600.00	7,127.95	10,507.29	7,054.22	106.39	106.06	-87.98	-1,193.72	-3,781.39	2,090.61	1,878.40	212.21	9.852		
10,700.00	7,127.51	10,607.33	7,053.82	109.10	108.79	-87.98	-1,194.53	-3,881.35	2,087.96	1,870.31	217.65	9.593		
10,800.00	7,127.08	10,707.36	7,053.43	111.82	111.52	-87.98	-1,195.35	-3,981.31	2,085.31	1,862.21	223.10	9.347		
10,900.00	7,126.65	10,807.40	7,053.04	114.54	114.26	-87.98	-1,196.16	-4,081.27	2,082.66	1,854.10	228.56	9.112		
11,000.00	7,126.21	10,907.43	7,052.65	117.27	117.01	-87.98	-1,196.97	-4,181.24	2,080.01	1,845.98	234.04	8.888		
11,100.00	7,125.78	11,007.47	7,052.25	120.01	119.76	-87.98	-1,197.78	-4,281.20	2,077.36	1,837.84	239.52	8.673		
11,200.00	7,125.35	11,107.50	7,051.86	122.75	122.52	-87.98	-1,198.59	-4,381.16	2,074.72	1,829.70	245.02	8.468		
11,300.00	7,124.91	11,207.54	7,051.47	125.49	125.28	-87.97	-1,199.40	-4,481.12	2,072.07	1,821.54	250.52	8.271		
11,400.00	7,124.48	11,307.57	7,051.07	128.24	128.04	-87.97	-1,200.21	-4,581.08	2,069.42	1,813.38	256.04	8.083		
11,500.00	7,124.04	11,407.61	7,050.68	131.00	130.81	-87.97	-1,201.03	-4,681.04	2,066.77	1,805.21	261.56	7.902		
11,600.00	7,123.61	11,507.64	7,050.29	133.75	133.59	-87.97	-1,201.84	-4,781.00	2,064.12	1,797.03	267.09	7.728		
11,700.00	7,123.18	11,607.68	7,049.89	136.52	136.36	-87.97	-1,202.65	-4,880.96	2,061.47	1,788.85	272.62	7.562		
11,800.00	7,122.74	11,707.71	7,049.50	139.28	139.14	-87.97	-1,203.46	-4,980.92	2,058.82	1,780.66	278.17	7.401		
11,900.00	7,122.31	11,807.75	7,049.11	142.05	141.93	-87.97	-1,204.27	-5,080.88	2,056.17	1,772.46	283.71	7.247		
12,000.00	7,121.88	11,907.78	7,048.72	144.82	144.71	-87.96	-1,205.08	-5,180.84	2,053.53	1,764.26	289.27	7.099		
12,100.00	7,121.44	12,007.82	7,048.32	147.59	147.50	-87.96	-1,205.89	-5,280.80	2,050.88	1,756.05	294.83	6.956		
12,200.00	7,121.01	12,107.85	7,047.93	150.37	150.29	-87.96	-1,206.71	-5,380.77	2,048.23	1,747.83	300.40	6.818		
12,300.00	7,120.57	12,207.89	7,047.54	153.15	153.09	-87.96	-1,207.52	-5,480.73	2,045.58	1,739.61	305.97	6.686		
12,400.00	7,120.14	12,307.92	7,047.14	155.93	155.88	-87.96	-1,208.33	-5,580.69	2,042.93	1,731.39	311.54	6.557		
12,500.00	7,119.71	12,407.96	7,046.75	158.72	158.68	-87.96	-1,209.14	-5,680.65	2,040.28	1,723.16	317.12	6.434		
12,600.00	7,119.27	12,507.99	7,046.36	161.50	161.48	-87.96	-1,209.95	-5,780.61	2,037.63	1,714.92	322.71	6.314		
12,700.00	7,118.84	12,608.03	7,045.96	164.29	164.28	-87.95	-1,210.76	-5,880.57	2,034.98	1,706.69	328.30	6.199		
12,800.00	7,118.41	12,708.06	7,045.57	167.08	167.09	-87.95	-1,211.57	-5,980.53	2,032.33	1,698.44	333.89	6.087		
12,900.00	7,117.97	12,808.10	7,045.18	169.88	169.90	-87.95	-1,212.39	-6,080.49	2,029.69	1,690.20	339.49	5.979		
13,000.00	7,117.54	12,908.13	7,044.78	172.67	172.70	-87.95	-1,213.20	-6,180.45	2,027.04	1,681.95	345.09	5.874		
13,100.00	7,117.10	12,998.13	7,044.39	175.47	175.05	-87.95	-1,214.01	-6,280.41	2,024.39	1,674.16	350.23	5.780		
13,200.00	7,116.67	13,088.20	7,044.00	178.27	178.33	-87.95	-1,214.82	-6,380.37	2,021.74	1,665.44	356.29	5.674		
13,300.00	7,116.24	13,178.24	7,043.61	181.07	181.14	-87.94	-1,215.63	-6,480.33	2,019.09	1,657.19	361.90	5.579		
13,400.00	7,115.80	13,268.27	7,043.21	183.87	183.95	-87.94	-1,216.44	-6,580.30	2,016.44	1,648.93	367.52	5.487		
13,500.00	7,115.37	13,358.31	7,042.82	186.67	186.77	-87.94	-1,217.25	-6,680.26	2,013.79	1,640.66	373.13	5.397		
13,600.00	7,114.93	13,448.34	7,042.43	189.47	189.59	-87.94	-1,218.07	-6,780.22	2,011.14	1,632.40	378.75	5.310		
13,700.00	7,114.50	13,538.38	7,042.03	192.28	192.40	-87.94	-1,218.88	-6,880.18	2,008.50	1,624.13	384.37	5.225		
13,800.00	7,114.07	13,628.41	7,041.64	195.09	195.22	-87.94	-1,219.69	-6,980.14	2,005.85	1,615.86	389.99	5.143		
13,900.00	7,113.63	13,718.45	7,041.25	197.89	198.04	-87.93	-1,220.50	-7,080.10	2,003.20	1,607.58	395.61	5.064		
14,000.00	7,113.20	13,808.48	7,040.85	200.70	200.87	-87.93	-1,221.31	-7,180.06	2,000.55	1,599.31	401.24	4.986		
14,100.00	7,112.77	13,898.52	7,040.46	203.51	203.69	-87.93	-1,222.12	-7,280.02	1,997.90	1,591.03	406.87	4.910		
14,200.00	7,112.33	13,988.55	7,040.07	206.32	206.51	-87.93	-1,222.93	-7,379.98	1,995.25	1,582.75	412.50	4.837		
14,300.00	7,111.90	14,078.59	7,039.68	209.13	209.34	-87.93	-1,223.75	-7,479.94	1,992.60	1,574.47	418.13	4.765		
14,400.00	7,111.46	14,168.62	7,039.28	211.95	212.16	-87.93	-1,224.56	-7,579.90	1,989.95	1,566.19	423.77	4.696		
14,500.00	7,111.03	14,258.66	7,038.89	214.76	214.99	-87.93	-1,225.37	-7,679.86	1,987.31	1,557.90	429.40	4.628		
14,600.00	7,110.60	14,348.69	7,038.50	217.58	217.82	-87.92	-1,226.18	-7,779.83	1,984.66	1,549.61	435.04	4.562		
14,700.00	7,110.16	14,438.73	7,038.10	220.39	220.65	-87.92	-1,226.99	-7,879.79	1,982.01	1,541.82	440.19	4.503		
14,800.00	7,109.73	14,528.76	7,037.71	223.21	223.47	-87.92	-1,227.80	-7,979.75	1,979.36	1,533.04	446.32	4.435		
14,900.00	7,109.30	14,618.80	7,037.32	226.03	226.30	-87.92	-1,228.61	-8,079.71	1,976.71	1,525.24	451.47	4.378		
14,969.16	7,109.00	14,660.34	7,037.05	227.97	227.76	-87.92	-1,229.18	-8,148.84	1,974.88	1,519.51	455.37	4.337 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.60	-159.93	-1.11	159.93					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-159.93	-1.11	159.93	153.36	6.57	24.345		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-159.93	-1.11	159.93	153.26	6.67	23.964		
300.00	300.00	300.00	300.00	3.44	3.44	-179.60	-159.93	-1.11	159.93	153.04	6.89	23.213		
400.00	400.00	400.00	400.00	3.60	3.60	-179.60	-159.93	-1.11	159.93	152.73	7.21	22.193		
500.00	500.00	500.00	500.00	3.81	3.81	-179.60	-159.93	-1.11	159.93	152.32	7.61	21.011		
508.33	508.33	508.33	508.33	3.82	3.82	-179.60	-159.93	-1.11	159.93	152.28	7.65	20.908	CC	
600.00	600.00	598.97	598.97	4.05	4.04	-179.60	-159.99	-1.13	160.00	151.91	8.09	19.783	ES	
700.00	699.98	693.66	693.63	4.32	4.28	-170.36	-162.13	-1.63	163.98	155.38	8.60	19.065		
800.00	799.84	787.68	787.49	4.62	4.54	-170.21	-167.26	-2.82	174.59	165.42	9.17	19.033		
900.00	899.45	880.40	879.85	4.94	4.82	-170.03	-175.25	-4.69	191.76	181.98	9.78	19.600		
1,000.00	998.70	976.62	975.48	5.28	5.12	-169.88	-185.59	-7.11	214.39	203.96	10.42	20.566		
1,100.00	1,097.50	1,073.23	1,071.49	5.64	5.45	-169.91	-196.02	-9.54	240.21	229.11	11.10	21.650		
1,200.00	1,196.18	1,169.64	1,167.31	6.00	5.79	-170.00	-206.42	-11.98	266.74	254.96	11.78	22.643		
1,300.00	1,294.87	1,266.06	1,263.14	6.38	6.15	-170.08	-216.83	-14.41	293.27	280.78	12.49	23.481		
1,400.00	1,393.55	1,362.47	1,358.96	6.77	6.52	-170.15	-227.24	-16.84	319.81	306.59	13.22	24.192		
1,500.00	1,492.23	1,458.89	1,454.78	7.17	6.90	-170.20	-237.65	-19.27	346.34	332.38	13.97	24.798		
1,600.00	1,590.91	1,555.30	1,550.60	7.58	7.28	-170.25	-248.06	-21.71	372.88	358.15	14.73	25.317		
1,700.00	1,689.60	1,651.72	1,646.42	8.00	7.67	-170.29	-258.47	-24.14	399.41	383.91	15.50	25.764		
1,800.00	1,788.28	1,748.13	1,742.24	8.42	8.07	-170.33	-268.88	-26.57	425.94	409.66	16.29	26.151		
1,900.00	1,886.96	1,844.55	1,838.06	8.84	8.47	-170.36	-279.29	-29.00	452.48	435.40	17.08	26.489		
2,000.00	1,985.64	1,940.96	1,933.88	9.27	8.88	-170.39	-289.69	-31.44	479.01	461.13	17.88	26.784		
2,100.00	2,084.33	2,037.38	2,029.70	9.71	9.29	-170.42	-300.10	-33.87	505.55	486.85	18.69	27.044		
2,200.00	2,183.01	2,133.79	2,125.52	10.15	9.70	-170.44	-310.51	-36.30	532.08	512.57	19.51	27.274		
2,300.00	2,281.69	2,230.21	2,221.34	10.59	10.12	-170.46	-320.92	-38.73	558.62	538.29	20.33	27.478		
2,400.00	2,380.38	2,326.62	2,317.16	11.03	10.54	-170.48	-331.33	-41.16	585.15	564.00	21.16	27.660		
2,500.00	2,479.06	2,423.04	2,412.98	11.47	10.96	-170.50	-341.74	-43.60	611.69	589.70	21.98	27.823		
2,600.00	2,577.74	2,519.45	2,508.80	11.92	11.38	-170.51	-352.15	-46.03	638.22	615.40	22.82	27.970		
2,700.00	2,676.42	2,615.87	2,604.63	12.36	11.80	-170.53	-362.55	-48.46	664.76	641.10	23.66	28.102		
2,800.00	2,775.11	2,712.28	2,700.45	12.81	12.23	-170.54	-372.96	-50.89	691.29	666.80	24.49	28.222		
2,900.00	2,873.79	2,808.70	2,796.27	13.26	12.66	-170.55	-383.37	-53.33	717.83	692.49	25.34	28.331		
3,000.00	2,972.47	2,905.11	2,892.09	13.72	13.09	-170.56	-393.78	-55.76	744.36	718.18	26.18	28.430		
3,100.00	3,071.15	3,001.53	2,987.91	14.17	13.51	-170.57	-404.19	-58.19	770.90	743.87	27.03	28.520		
3,200.00	3,169.84	3,102.06	3,083.73	14.62	13.96	-170.58	-414.60	-60.62	797.43	769.54	27.90	28.585		
3,300.00	3,268.52	3,194.36	3,179.55	15.08	14.38	-170.59	-425.01	-63.05	823.97	795.24	28.73	28.680		
3,400.00	3,367.20	3,309.23	3,275.37	15.53	14.89	-170.60	-435.42	-65.49	850.50	820.84	29.66	28.672		
3,500.00	3,465.89	3,387.19	3,371.19	15.99	15.24	-170.61	-445.82	-67.92	877.04	846.60	30.44	28.815		
3,600.00	3,564.57	3,483.60	3,467.01	16.44	15.68	-170.62	-456.23	-70.35	903.58	872.28	31.29	28.875		
3,700.00	3,663.25	3,580.02	3,562.83	16.90	16.11	-170.63	-466.64	-72.78	930.11	897.96	32.15	28.930		
3,800.00	3,761.93	3,676.43	3,658.65	17.36	16.55	-170.63	-477.05	-75.22	956.65	923.64	33.01	28.982		
3,900.00	3,860.62	3,772.85	3,754.47	17.82	16.98	-170.64	-487.46	-77.65	983.18	949.31	33.87	29.030		
4,000.00	3,959.30	3,869.26	3,850.29	18.28	17.42	-170.65	-497.87	-80.08	1,009.72	974.99	34.73	29.075		
4,100.00	4,057.98	3,965.68	3,946.12	18.74	17.85	-170.65	-508.28	-82.51	1,036.25	1,000.66	35.59	29.117		
4,200.00	4,156.67	4,062.09	4,041.94	19.20	18.29	-170.66	-518.69	-84.94	1,062.79	1,026.34	36.45	29.156		
4,300.00	4,255.35	4,158.51	4,137.76	19.66	18.73	-170.66	-529.09	-87.38	1,089.32	1,052.01	37.31	29.193		
4,400.00	4,354.03	4,254.92	4,233.58	20.12	19.17	-170.67	-539.50	-89.81	1,115.86	1,077.68	38.18	29.227		
4,500.00	4,452.71	4,351.34	4,329.40	20.58	19.60	-170.67	-549.91	-92.24	1,142.39	1,103.35	39.04	29.260		
4,600.00	4,551.40	4,447.75	4,425.22	21.04	20.04	-170.68	-560.32	-94.67	1,168.93	1,129.02	39.91	29.290		
4,700.00	4,650.08	4,544.17	4,521.04	21.50	20.48	-170.68	-570.73	-97.11	1,195.47	1,154.69	40.77	29.319		
4,800.00	4,748.76	4,640.58	4,616.86	21.96	20.92	-170.69	-581.14	-99.54	1,222.00	1,180.36	41.64	29.346		
4,900.00	4,847.44	4,737.00	4,712.68	22.42	21.36	-170.69	-591.55	-101.97	1,248.54	1,206.03	42.51	29.371		
5,000.00	4,946.13	4,833.41	4,808.50	22.89	21.80	-170.69	-601.95	-104.40	1,275.07	1,231.70	43.38	29.395		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,044.81	4,929.83	4,904.32	23.35	22.24	-170.70	-612.36	-106.84	1,301.61	1,257.36	44.24	29.418		
5,200.00	5,143.49	5,026.24	5,000.14	23.81	22.68	-170.70	-622.77	-109.27	1,328.14	1,283.03	45.11	29.440		
5,300.00	5,242.18	5,122.66	5,095.96	24.27	23.12	-170.70	-633.18	-111.70	1,354.68	1,308.70	45.98	29.461		
5,400.00	5,340.86	5,219.07	5,191.78	24.74	23.56	-170.71	-643.59	-114.13	1,381.21	1,334.36	46.85	29.480		
5,500.00	5,439.54	5,315.49	5,287.60	25.20	24.00	-170.71	-654.00	-116.56	1,407.75	1,360.03	47.72	29.499		
5,600.00	5,538.22	5,411.90	5,383.43	25.66	24.44	-170.71	-664.41	-119.00	1,434.28	1,385.69	48.59	29.516		
5,700.00	5,636.91	5,508.32	5,479.25	26.13	24.88	-170.72	-674.82	-121.43	1,460.82	1,411.36	49.46	29.533		
5,800.00	5,735.59	5,604.73	5,575.07	26.59	25.33	-170.72	-685.22	-123.86	1,487.36	1,437.02	50.34	29.549		
5,900.00	5,834.27	5,701.15	5,670.89	27.06	25.77	-170.72	-695.63	-126.29	1,513.89	1,462.68	51.21	29.564		
6,000.00	5,932.95	5,802.44	5,766.71	27.52	26.23	-170.73	-706.04	-128.73	1,540.43	1,488.33	52.10	29.567		
6,100.00	6,031.64	5,893.98	5,862.53	27.98	26.65	-170.73	-716.45	-131.16	1,566.96	1,514.01	52.95	29.593		
6,200.00	6,130.32	6,009.61	5,958.35	28.45	27.18	-170.73	-726.86	-133.59	1,593.50	1,539.59	53.91	29.559		
6,300.00	6,229.00	6,086.81	6,054.17	28.91	27.53	-170.73	-737.27	-136.02	1,620.03	1,565.34	54.70	29.619		
6,400.00	6,327.69	6,183.22	6,149.99	29.38	27.98	-170.74	-747.68	-138.45	1,646.57	1,591.00	55.57	29.631		
6,500.00	6,426.37	6,279.64	6,245.81	29.84	28.42	-170.74	-758.08	-140.89	1,673.10	1,616.66	56.44	29.642		
6,600.00	6,525.05	6,376.05	6,341.63	30.31	28.86	-170.74	-768.49	-143.32	1,699.64	1,642.32	57.32	29.653		
6,700.00	6,623.18	6,472.15	6,437.14	30.77	29.30	-128.45	-778.87	-145.74	1,725.80	1,667.61	58.19	29.657		
6,800.00	6,718.58	6,566.60	6,531.00	31.22	29.74	-110.51	-789.07	-148.34	1,751.00	1,691.94	59.06	29.647		
6,900.00	6,808.91	6,665.10	6,628.01	31.66	30.18	-101.91	-799.69	-160.95	1,774.90	1,714.92	59.98	29.592		
7,000.00	6,891.95	6,769.14	6,727.06	32.07	30.64	-96.93	-810.67	-190.42	1,796.94	1,735.98	60.96	29.479		
7,100.00	6,965.65	6,879.67	6,825.54	32.51	31.09	-93.77	-821.75	-239.04	1,816.53	1,754.51	62.02	29.290		
7,200.00	7,028.20	6,997.44	6,919.58	33.02	31.53	-91.73	-832.52	-308.83	1,833.10	1,769.88	63.22	28.996		
7,300.00	7,078.04	7,122.81	7,003.82	33.68	32.00	-90.46	-842.41	-400.89	1,846.07	1,781.41	64.66	28.549		
7,400.00	7,113.97	7,255.41	7,071.58	34.52	32.67	-89.77	-850.69	-514.29	1,854.93	1,788.46	66.47	27.908		
7,500.00	7,135.09	7,393.87	7,115.84	35.53	33.78	-89.55	-856.57	-645.05	1,859.25	1,790.49	68.77	27.037		
7,600.00	7,140.96	7,535.77	7,131.00	36.68	35.32	-89.70	-859.37	-785.83	1,858.78	1,787.24	71.54	25.982		
7,700.00	7,140.53	7,635.89	7,130.56	37.99	36.64	-89.70	-860.15	-885.93	1,856.10	1,781.90	74.20	25.016		
7,800.00	7,140.09	7,735.85	7,130.13	39.45	38.11	-89.70	-860.93	-985.89	1,853.41	1,776.25	77.16	24.019		
7,900.00	7,139.66	7,835.81	7,129.70	41.06	39.73	-89.70	-861.70	-1,085.85	1,850.73	1,770.30	80.43	23.011		
8,000.00	7,139.23	7,935.78	7,129.26	42.80	41.49	-89.70	-862.48	-1,185.81	1,848.05	1,764.10	83.95	22.013		
8,100.00	7,138.79	8,035.74	7,128.83	44.65	43.37	-89.70	-863.26	-1,285.77	1,845.36	1,757.66	87.71	21.040		
8,200.00	7,138.36	8,135.71	7,128.40	46.60	45.35	-89.70	-864.04	-1,385.73	1,842.68	1,751.02	91.66	20.103		
8,300.00	7,137.93	8,235.67	7,127.96	48.65	47.42	-89.70	-864.81	-1,485.69	1,840.00	1,744.20	95.80	19.208		
8,400.00	7,137.49	8,335.63	7,127.53	50.77	49.57	-89.70	-865.59	-1,585.65	1,837.31	1,737.23	100.08	18.358		
8,500.00	7,137.06	8,435.60	7,127.09	52.95	51.79	-89.70	-866.37	-1,685.61	1,834.63	1,730.13	104.51	17.555		
8,600.00	7,136.62	8,535.56	7,126.66	55.20	54.06	-89.69	-867.14	-1,785.57	1,831.95	1,722.90	109.05	16.800		
8,700.00	7,136.19	8,635.53	7,126.23	57.51	56.40	-89.69	-867.92	-1,885.53	1,829.26	1,715.57	113.69	16.089		
8,800.00	7,135.76	8,735.49	7,125.79	59.85	58.77	-89.69	-868.70	-1,985.49	1,826.58	1,708.15	118.43	15.423		
8,900.00	7,135.32	8,835.45	7,125.36	62.24	61.19	-89.69	-869.47	-2,085.45	1,823.90	1,700.64	123.26	14.798		
9,000.00	7,134.89	8,935.42	7,124.92	64.67	63.65	-89.69	-870.25	-2,185.41	1,821.21	1,693.06	128.15	14.212		
9,100.00	7,134.45	9,035.38	7,124.49	67.13	66.14	-89.69	-871.03	-2,285.37	1,818.53	1,685.42	133.11	13.662		
9,200.00	7,134.02	9,135.35	7,124.06	69.62	68.65	-89.69	-871.81	-2,385.33	1,815.85	1,677.72	138.12	13.147		
9,300.00	7,133.59	9,235.31	7,123.62	72.14	71.20	-89.69	-872.58	-2,485.29	1,813.16	1,669.97	143.19	12.662		
9,400.00	7,133.15	9,335.27	7,123.19	74.68	73.76	-89.69	-873.36	-2,585.25	1,810.48	1,662.18	148.31	12.208		
9,500.00	7,132.72	9,435.24	7,122.76	77.24	76.35	-89.69	-874.14	-2,685.21	1,807.80	1,654.34	153.46	11.780		
9,600.00	7,132.29	9,535.20	7,122.32	79.83	78.95	-89.69	-874.91	-2,785.17	1,805.11	1,646.46	158.65	11.378		
9,700.00	7,131.85	9,635.17	7,121.89	82.42	81.57	-89.69	-875.69	-2,885.13	1,802.43	1,638.55	163.88	10.998		
9,800.00	7,131.42	9,735.13	7,121.45	85.04	84.21	-89.69	-876.47	-2,985.09	1,799.75	1,630.61	169.14	10.641		
9,900.00	7,130.98	9,835.09	7,121.02	87.67	86.86	-89.69	-877.25	-3,085.05	1,797.06	1,622.64	174.43	10.303		
10,000.00	7,130.55	9,935.06	7,120.59	90.31	89.53	-89.69	-878.02	-3,185.01	1,794.38	1,614.64	179.74	9.983		
10,100.00	7,130.12	10,035.02	7,120.15	92.97	92.20	-89.69	-878.80	-3,284.97	1,791.70	1,606.62	185.07	9.681		
10,200.00	7,129.68	10,134.99	7,119.72	95.63	94.89	-89.69	-879.58	-3,384.93	1,789.01	1,598.58	190.43	9.395		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,129.25	10,234.95	7,119.29	98.31	97.58	-89.69	-880.35	-3,484.89	1,786.33	1,590.53	195.81	9.123		
10,400.00	7,128.82	10,334.91	7,118.85	101.00	100.29	-89.69	-881.13	-3,584.85	1,783.65	1,582.45	201.20	8.865		
10,500.00	7,128.38	10,434.88	7,118.42	103.69	103.00	-89.69	-881.91	-3,684.81	1,780.96	1,574.35	206.61	8.620		
10,600.00	7,127.95	10,534.84	7,117.98	106.39	105.72	-89.69	-882.69	-3,784.77	1,778.28	1,566.24	212.04	8.387		
10,700.00	7,127.51	10,634.81	7,117.55	109.10	108.45	-89.69	-883.46	-3,884.73	1,775.60	1,558.12	217.48	8.164		
10,800.00	7,127.08	10,734.77	7,117.12	111.82	111.18	-89.68	-884.24	-3,984.69	1,772.91	1,549.98	222.93	7.953		
10,900.00	7,126.65	10,834.73	7,116.68	114.54	113.92	-89.68	-885.02	-4,084.65	1,770.23	1,541.83	228.40	7.751		
11,000.00	7,126.21	10,934.70	7,116.25	117.27	116.67	-89.68	-885.79	-4,184.61	1,767.55	1,533.67	233.88	7.558		
11,100.00	7,125.78	11,034.66	7,115.82	120.01	119.42	-89.68	-886.57	-4,284.57	1,764.86	1,525.50	239.36	7.373		
11,200.00	7,125.35	11,134.63	7,115.38	122.75	122.18	-89.68	-887.35	-4,384.53	1,762.18	1,517.32	244.86	7.197		
11,300.00	7,124.91	11,234.59	7,114.95	125.49	124.94	-89.68	-888.12	-4,484.49	1,759.50	1,509.13	250.37	7.028		
11,400.00	7,124.48	11,334.55	7,114.51	128.24	127.70	-89.68	-888.90	-4,584.45	1,756.81	1,500.93	255.88	6.866		
11,500.00	7,124.04	11,434.52	7,114.08	131.00	130.47	-89.68	-889.68	-4,684.41	1,754.13	1,492.72	261.41	6.710		
11,600.00	7,123.61	11,534.48	7,113.65	133.75	133.24	-89.68	-890.46	-4,784.37	1,751.45	1,484.51	266.94	6.561		
11,700.00	7,123.18	11,634.45	7,113.21	136.52	136.02	-89.68	-891.23	-4,884.33	1,748.76	1,476.29	272.48	6.418		
11,800.00	7,122.74	11,734.41	7,112.78	139.28	138.80	-89.68	-892.01	-4,984.29	1,746.08	1,468.06	278.02	6.280		
11,900.00	7,122.31	11,834.37	7,112.35	142.05	141.58	-89.68	-892.79	-5,084.25	1,743.40	1,459.82	283.58	6.148		
12,000.00	7,121.88	11,934.34	7,111.91	144.82	144.37	-89.68	-893.56	-5,184.21	1,740.71	1,451.58	289.13	6.020		
12,100.00	7,121.44	12,034.30	7,111.48	147.59	147.15	-89.68	-894.34	-5,284.17	1,738.03	1,443.33	294.70	5.898		
12,200.00	7,121.01	12,134.26	7,111.04	150.37	149.94	-89.68	-895.12	-5,384.13	1,735.35	1,435.08	300.27	5.779		
12,300.00	7,120.57	12,234.23	7,110.61	153.15	152.74	-89.68	-895.90	-5,484.09	1,732.66	1,426.83	305.84	5.665		
12,400.00	7,120.14	12,334.19	7,110.18	155.93	155.53	-89.68	-896.67	-5,584.05	1,729.98	1,418.56	311.42	5.555		
12,500.00	7,119.71	12,434.16	7,109.74	158.72	158.33	-89.68	-897.45	-5,684.01	1,727.30	1,410.30	317.00	5.449		
12,600.00	7,119.27	12,534.12	7,109.31	161.50	161.13	-89.68	-898.23	-5,783.97	1,724.61	1,402.03	322.59	5.346		
12,700.00	7,118.84	12,634.08	7,108.88	164.29	163.93	-89.68	-899.00	-5,883.94	1,721.93	1,393.75	328.18	5.247		
12,800.00	7,118.41	12,734.05	7,108.44	167.08	166.74	-89.67	-899.78	-5,983.90	1,719.25	1,385.47	333.77	5.151		
12,900.00	7,117.97	12,834.01	7,108.01	169.88	169.54	-89.67	-900.56	-6,083.86	1,716.56	1,377.19	339.37	5.058		
13,000.00	7,117.54	12,933.98	7,107.57	172.67	172.35	-89.67	-901.33	-6,183.82	1,713.88	1,368.91	344.97	4.968		
13,100.00	7,117.10	13,033.94	7,107.14	175.47	175.16	-89.67	-902.11	-6,283.78	1,711.20	1,360.62	350.58	4.881		
13,200.00	7,116.67	13,133.90	7,106.71	178.27	177.97	-89.67	-902.89	-6,383.74	1,708.51	1,352.33	356.19	4.797		
13,300.00	7,116.24	13,233.87	7,106.27	181.07	180.78	-89.67	-903.67	-6,483.70	1,705.83	1,344.03	361.80	4.715		
13,400.00	7,115.80	13,333.83	7,105.84	183.87	183.59	-89.67	-904.44	-6,583.66	1,703.15	1,335.73	367.41	4.636		
13,500.00	7,115.37	13,433.80	7,105.41	186.67	186.41	-89.67	-905.22	-6,683.62	1,700.46	1,327.43	373.03	4.559		
13,600.00	7,114.93	13,533.76	7,104.97	189.47	189.22	-89.67	-906.00	-6,783.58	1,697.78	1,319.13	378.65	4.484		
13,700.00	7,114.50	13,633.72	7,104.54	192.28	192.04	-89.67	-906.77	-6,883.54	1,695.10	1,310.83	384.27	4.411		
13,800.00	7,114.07	13,733.69	7,104.10	195.09	194.86	-89.67	-907.55	-6,983.50	1,692.41	1,302.52	389.90	4.341		
13,900.00	7,113.63	13,833.65	7,103.67	197.89	197.68	-89.67	-908.33	-7,083.46	1,689.73	1,294.21	395.52	4.272		
14,000.00	7,113.20	13,933.62	7,103.24	200.70	200.50	-89.67	-909.11	-7,183.42	1,687.05	1,285.89	401.15	4.205		
14,100.00	7,112.77	14,033.58	7,102.80	203.51	203.32	-89.67	-909.88	-7,283.38	1,684.37	1,277.58	406.78	4.141		
14,200.00	7,112.33	14,133.54	7,102.37	206.32	206.14	-89.67	-910.66	-7,383.34	1,681.68	1,269.26	412.42	4.078		
14,300.00	7,111.90	14,233.51	7,101.94	209.13	208.96	-89.67	-911.44	-7,483.30	1,679.00	1,260.95	418.05	4.016		
14,400.00	7,111.46	14,333.47	7,101.50	211.95	211.79	-89.67	-912.21	-7,583.26	1,676.32	1,252.62	423.69	3.956		
14,500.00	7,111.03	14,433.44	7,101.07	214.76	214.61	-89.67	-912.99	-7,683.22	1,673.63	1,244.30	429.33	3.898		
14,600.00	7,110.60	14,533.40	7,100.63	217.58	217.44	-89.66	-913.77	-7,783.18	1,670.95	1,235.98	434.97	3.842		
14,700.00	7,110.16	14,633.36	7,100.20	220.39	220.27	-89.66	-914.55	-7,883.14	1,668.27	1,227.65	440.61	3.786		
14,800.00	7,109.73	14,733.33	7,099.77	223.21	223.09	-89.66	-915.32	-7,983.10	1,665.58	1,219.33	446.26	3.732		
14,900.00	7,109.30	14,833.29	7,099.33	226.03	225.92	-89.66	-916.10	-8,083.06	1,662.90	1,211.00	451.90	3.680		
14,969.16	7,109.00	14,902.43	7,099.03	227.97	227.88	-89.66	-916.64	-8,152.19	1,661.04	1,205.24	455.81	3.644 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.56	-359.93	-2.78	359.94					
100.00	100.00	101.00	100.00	3.28	3.28	-179.56	-359.93	-2.78	359.94	353.37	6.57	54.789		
200.00	200.00	199.00	200.00	3.34	3.34	-179.56	-359.93	-2.78	359.94	353.27	6.67	53.938	CC, ES	
300.00	300.00	287.95	288.93	3.44	3.42	-179.54	-361.28	-2.88	361.46	354.58	6.88	52.549		
400.00	400.00	376.61	377.50	3.60	3.55	-179.50	-365.36	-3.20	366.07	358.88	7.19	50.946		
500.00	500.00	464.94	465.56	3.81	3.72	-179.43	-372.14	-3.72	373.75	366.17	7.58	49.308		
600.00	600.00	552.76	552.87	4.05	3.92	-179.33	-381.56	-4.44	384.49	376.44	8.05	47.785		
700.00	699.98	639.68	638.96	4.32	4.14	-170.05	-393.51	-5.36	399.95	391.38	8.57	46.661		
800.00	799.84	725.06	723.12	4.62	4.39	-169.96	-407.77	-6.45	421.73	412.59	9.14	46.136		
900.00	899.45	808.42	804.85	4.94	4.67	-169.89	-424.11	-7.71	449.70	439.96	9.73	46.198		
1,000.00	998.70	889.32	883.69	5.28	4.96	-169.84	-442.22	-9.10	483.65	473.31	10.34	46.792		
1,100.00	1,097.50	967.47	959.32	5.64	5.26	-169.85	-461.82	-10.60	523.18	512.23	10.95	47.792		
1,200.00	1,196.18	1,043.50	1,032.36	6.00	5.58	-169.94	-482.86	-12.21	565.83	554.30	11.54	49.046		
1,300.00	1,294.87	1,122.62	1,107.80	6.38	5.93	-170.01	-506.65	-14.04	610.72	598.58	12.14	50.286		
1,400.00	1,393.55	1,211.71	1,192.58	6.77	6.34	-170.07	-533.93	-16.13	656.15	643.33	12.82	51.201		
1,500.00	1,492.23	1,300.79	1,277.36	7.17	6.77	-170.12	-561.20	-18.22	701.57	688.06	13.51	51.936		
1,600.00	1,590.91	1,389.88	1,362.15	7.58	7.21	-170.17	-588.48	-20.32	746.99	732.77	14.22	52.526		
1,700.00	1,689.60	1,478.97	1,446.93	8.00	7.65	-170.21	-615.75	-22.41	792.42	777.47	14.95	52.999		
1,800.00	1,788.28	1,568.05	1,531.71	8.42	8.11	-170.25	-643.02	-24.50	837.84	822.15	15.70	53.378		
1,900.00	1,886.96	1,657.14	1,616.50	8.84	8.57	-170.28	-670.30	-26.60	883.27	866.81	16.45	53.682		
2,000.00	1,985.64	1,746.23	1,701.28	9.27	9.04	-170.31	-697.57	-28.69	928.69	911.47	17.22	53.924		
2,100.00	2,084.33	1,835.31	1,786.06	9.71	9.51	-170.34	-724.84	-30.78	974.12	956.12	18.00	54.117		
2,200.00	2,183.01	1,924.40	1,870.85	10.15	9.99	-170.36	-752.12	-32.87	1,019.54	1,000.75	18.79	54.270		
2,300.00	2,281.69	2,013.49	1,955.63	10.59	10.47	-170.39	-779.39	-34.97	1,064.97	1,045.39	19.58	54.391		
2,400.00	2,380.38	2,102.57	2,040.41	11.03	10.96	-170.41	-806.66	-37.06	1,110.39	1,090.01	20.38	54.485		
2,500.00	2,479.06	2,208.34	2,125.20	11.47	11.53	-170.43	-833.94	-39.15	1,155.82	1,134.55	21.27	54.352		
2,600.00	2,577.74	2,280.75	2,209.98	11.92	11.93	-170.44	-861.21	-41.24	1,201.24	1,179.25	22.00	54.610		
2,700.00	2,676.42	2,369.83	2,294.76	12.36	12.42	-170.46	-888.49	-43.34	1,246.67	1,223.86	22.81	54.649		
2,800.00	2,775.11	2,458.92	2,379.54	12.81	12.92	-170.48	-915.76	-45.43	1,292.09	1,268.46	23.63	54.676		
2,900.00	2,873.79	2,548.00	2,464.33	13.26	13.41	-170.49	-943.03	-47.52	1,337.52	1,313.07	24.45	54.693		
3,000.00	2,972.47	2,637.09	2,549.11	13.72	13.91	-170.50	-970.31	-49.62	1,382.95	1,357.66	25.28	54.702		
3,100.00	3,071.15	2,726.18	2,633.89	14.17	14.41	-170.52	-997.58	-51.71	1,428.37	1,402.26	26.11	54.704		
3,200.00	3,169.84	2,815.26	2,718.68	14.62	14.91	-170.53	-1,024.85	-53.80	1,473.80	1,446.86	26.94	54.700		
3,300.00	3,268.52	2,904.35	2,803.46	15.08	15.41	-170.54	-1,052.13	-55.89	1,519.22	1,491.45	27.78	54.691		
3,400.00	3,367.20	2,993.44	2,888.24	15.53	15.91	-170.55	-1,079.40	-57.99	1,564.65	1,536.04	28.62	54.679		
3,500.00	3,465.89	3,082.52	2,973.03	15.99	16.41	-170.56	-1,106.67	-60.08	1,610.08	1,580.62	29.45	54.663		
3,600.00	3,564.57	3,171.61	3,057.81	16.44	16.91	-170.57	-1,133.95	-62.17	1,655.50	1,625.21	30.30	54.645		
3,700.00	3,663.25	3,260.70	3,142.59	16.90	17.42	-170.58	-1,161.22	-64.26	1,700.93	1,669.79	31.14	54.625		
3,800.00	3,761.93	3,349.78	3,227.38	17.36	17.92	-170.58	-1,188.50	-66.36	1,746.36	1,714.37	31.98	54.602		
3,900.00	3,860.62	3,438.87	3,312.16	17.82	18.43	-170.59	-1,215.77	-68.45	1,791.78	1,758.95	32.83	54.579		
4,000.00	3,959.30	3,527.96	3,396.94	18.28	18.93	-170.60	-1,243.04	-70.54	1,837.21	1,803.53	33.68	54.554		
4,100.00	4,057.98	3,617.04	3,481.73	18.74	19.44	-170.61	-1,270.32	-72.64	1,882.63	1,848.11	34.53	54.529		
4,200.00	4,156.67	3,706.13	3,566.51	19.20	19.95	-170.61	-1,297.59	-74.73	1,928.06	1,892.69	35.38	54.503		
4,300.00	4,255.35	3,804.78	3,651.29	19.66	20.51	-170.62	-1,324.86	-76.82	1,973.49	1,937.21	36.27	54.404		
4,400.00	4,354.03	3,884.30	3,736.07	20.12	20.96	-170.63	-1,352.14	-78.91	2,018.91	1,981.83	37.08	54.449		
4,500.00	4,452.71	3,973.39	3,820.86	20.58	21.47	-170.63	-1,379.41	-81.01	2,064.34	2,026.41	37.93	54.422		
4,600.00	4,551.40	4,062.48	3,905.64	21.04	21.98	-170.64	-1,406.68	-83.10	2,109.77	2,070.98	38.79	54.394		
4,700.00	4,650.08	4,151.56	3,990.42	21.50	22.49	-170.64	-1,433.96	-85.19	2,155.19	2,115.55	39.64	54.367		
4,800.00	4,748.76	4,240.65	4,075.21	21.96	22.99	-170.65	-1,461.23	-87.28	2,200.62	2,160.12	40.50	54.339		
4,900.00	4,847.44	4,329.73	4,159.99	22.42	23.50	-170.65	-1,488.51	-89.38	2,246.05	2,204.69	41.35	54.312		
5,000.00	4,946.13	4,418.82	4,244.77	22.89	24.01	-170.66	-1,515.78	-91.47	2,291.47	2,249.26	42.21	54.284		
5,100.00	5,044.81	4,507.91	4,329.56	23.35	24.52	-170.66	-1,543.05	-93.56	2,336.90	2,293.83	43.07	54.257		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	4,603.01	4,414.34	23.81	25.07	-170.67	-1,570.33	-95.65	2,382.33	2,338.36	43.96	54.193		
5,300.00	5,242.18	4,686.08	4,499.12	24.27	25.54	-170.67	-1,597.60	-97.75	2,427.75	2,382.96	44.79	54.203		
5,400.00	5,340.86	4,775.17	4,583.91	24.74	26.05	-170.68	-1,624.87	-99.84	2,473.18	2,427.53	45.65	54.177		
5,500.00	5,439.54	4,864.25	4,668.69	25.20	26.56	-170.68	-1,652.15	-101.93	2,518.60	2,472.09	46.51	54.151		
5,600.00	5,538.22	4,953.34	4,753.47	25.66	27.08	-170.68	-1,679.42	-104.03	2,564.03	2,516.66	47.37	54.125		
5,700.00	5,636.91	5,042.43	4,838.26	26.13	27.59	-170.69	-1,706.69	-106.12	2,609.46	2,561.22	48.23	54.099		
5,800.00	5,735.59	5,131.51	4,923.04	26.59	28.10	-170.69	-1,733.97	-108.21	2,654.88	2,605.79	49.10	54.073		
5,900.00	5,834.27	5,220.60	5,007.82	27.06	28.61	-170.69	-1,761.24	-110.30	2,700.31	2,650.35	49.96	54.048		
6,000.00	5,932.95	5,309.69	5,092.60	27.52	29.12	-170.70	-1,788.52	-112.40	2,745.74	2,694.91	50.82	54.023		
6,100.00	6,031.64	5,401.23	5,177.39	27.98	29.65	-170.70	-1,815.79	-114.49	2,791.16	2,739.46	51.70	53.986		
6,200.00	6,130.32	5,487.86	5,262.17	28.45	30.14	-170.70	-1,843.06	-116.58	2,836.59	2,784.04	52.55	53.974		
6,300.00	6,229.00	5,576.95	5,346.95	28.91	30.66	-170.71	-1,870.34	-118.67	2,882.02	2,828.60	53.42	53.950		
6,400.00	6,327.69	5,666.03	5,431.74	29.38	31.17	-170.71	-1,897.61	-120.77	2,927.44	2,873.16	54.29	53.927		
6,500.00	6,426.37	5,755.12	5,516.52	29.84	31.68	-170.71	-1,924.88	-122.86	2,972.87	2,917.72	55.15	53.903		
6,600.00	6,525.05	5,844.21	5,601.30	30.31	32.19	-170.72	-1,952.16	-124.95	3,018.30	2,962.28	56.02	53.880		
6,700.00	6,623.18	5,933.05	5,685.86	30.77	32.70	-126.25	-1,979.36	-127.04	3,063.29	3,006.40	56.89	53.849		
6,800.00	6,718.58	6,019.97	5,768.57	31.22	33.20	-106.04	-2,005.97	-129.08	3,106.78	3,049.04	57.74	53.804		
6,900.00	6,808.91	6,102.81	5,847.41	31.66	33.68	-95.38	-2,031.33	-131.03	3,148.04	3,089.46	58.58	53.744		
7,000.00	6,891.95	6,179.54	5,920.44	32.07	34.12	-88.63	-2,054.82	-132.83	3,186.54	3,127.16	59.38	53.660		
7,100.00	6,965.65	6,248.27	5,985.84	32.51	34.52	-83.90	-2,075.86	-134.44	3,221.96	3,161.78	60.18	53.535		
7,200.00	7,028.20	6,307.30	6,042.03	33.02	34.86	-80.39	-2,093.93	-135.83	3,254.10	3,193.09	61.01	53.341		
7,300.00	7,078.04	6,355.18	6,087.60	33.68	35.13	-77.67	-2,108.59	-136.96	3,282.81	3,220.94	61.88	53.055		
7,400.00	7,113.97	6,409.26	6,121.44	34.52	35.45	-75.51	-2,119.48	-137.79	3,308.01	3,245.10	62.91	52.582		
7,500.00	7,135.09	6,413.10	6,142.71	35.53	35.47	-73.77	-2,126.32	-138.32	3,329.57	3,265.74	63.83	52.166		
7,600.00	7,140.96	6,421.77	6,150.97	36.68	35.52	-72.51	-2,128.98	-138.52	3,347.32	3,282.44	64.88	51.594		
7,700.00	7,140.53	6,424.76	6,153.82	37.99	35.54	-72.56	-2,129.89	-138.59	3,365.16	3,299.13	66.03	50.960		
7,800.00	7,140.09	6,427.76	6,156.66	39.45	35.55	-72.61	-2,130.81	-138.66	3,385.87	3,318.55	67.32	50.295		
7,900.00	7,139.66	6,430.75	6,159.51	41.06	35.57	-72.67	-2,131.73	-138.73	3,409.38	3,340.67	68.71	49.618		
8,000.00	7,139.23	6,432.42	6,161.72	42.80	35.57	-88.93	-2,433.98	-1,177.19	3,420.15	3,333.61	86.53	39.524		
8,100.00	7,138.79	8,252.38	7,074.39	44.65	46.75	-88.93	-2,434.65	-1,277.15	3,417.35	3,327.21	90.15	37.909		
8,200.00	7,138.36	8,352.35	7,074.07	46.60	48.45	-88.93	-2,435.31	-1,377.10	3,414.56	3,320.59	93.97	36.338		
8,300.00	7,137.93	8,452.31	7,073.75	48.65	50.29	-88.93	-2,435.98	-1,477.06	3,411.76	3,313.79	97.97	34.824		
8,400.00	7,137.49	8,552.27	7,073.42	50.77	52.24	-88.93	-2,436.65	-1,577.02	3,408.97	3,306.83	102.14	33.377		
8,500.00	7,137.06	8,652.23	7,073.10	52.95	54.28	-88.93	-2,437.31	-1,676.98	3,406.17	3,299.73	106.44	32.000		
8,600.00	7,136.62	8,752.19	7,072.77	55.20	56.39	-88.93	-2,437.98	-1,776.94	3,403.38	3,292.50	110.88	30.695		
8,700.00	7,136.19	8,852.15	7,072.45	57.51	58.58	-88.93	-2,438.65	-1,876.90	3,400.58	3,285.16	115.42	29.462		
8,800.00	7,135.76	8,952.11	7,072.12	59.85	60.83	-88.93	-2,439.32	-1,976.85	3,397.79	3,277.72	120.07	28.299		
8,900.00	7,135.32	9,052.07	7,071.80	62.24	63.13	-88.93	-2,439.98	-2,076.81	3,395.00	3,270.20	124.80	27.204		
9,000.00	7,134.89	9,152.03	7,071.47	64.67	65.47	-88.94	-2,440.65	-2,176.77	3,392.20	3,262.59	129.61	26.172		
9,100.00	7,134.45	9,251.99	7,071.15	67.13	67.86	-88.94	-2,441.32	-2,276.73	3,389.41	3,254.92	134.49	25.202		
9,200.00	7,134.02	9,351.95	7,070.82	69.62	70.28	-88.94	-2,441.99	-2,376.69	3,386.61	3,247.18	139.43	24.288		
9,300.00	7,133.59	9,451.92	7,070.50	72.14	72.73	-88.94	-2,442.65	-2,476.64	3,383.82	3,239.38	144.43	23.429		
9,400.00	7,133.15	9,551.88	7,070.17	74.68	75.22	-88.94	-2,443.32	-2,576.60	3,381.02	3,231.54	149.48	22.618		
9,500.00	7,132.72	9,651.84	7,069.85	77.24	77.73	-88.94	-2,443.99	-2,676.56	3,378.23	3,223.65	154.58	21.855		
9,600.00	7,132.29	9,751.80	7,069.52	79.83	80.26	-88.94	-2,444.65	-2,776.52	3,375.43	3,215.72	159.71	21.135		
9,700.00	7,131.85	9,851.76	7,069.20	82.42	82.82	-88.94	-2,445.32	-2,876.48	3,372.64	3,207.75	164.89	20.454		
9,800.00	7,131.42	9,951.72	7,068.87	85.04	85.40	-88.94	-2,445.99	-2,976.44	3,369.84	3,199.75	170.09	19.812		
9,900.00	7,130.98	10,051.68	7,068.55	87.67	87.99	-88.94	-2,446.66	-3,076.39	3,367.05	3,191.72	175.33	19.204		
10,000.00	7,130.55	10,151.64	7,068.22	90.31	90.60	-88.94	-2,447.32	-3,176.35	3,364.25	3,183.66	180.60	18.629		
10,100.00	7,130.12	10,251.60	7,067.90	92.97	93.22	-88.95	-2,447.99	-3,276.31	3,361.46	3,175.57	185.89	18.083		
10,200.00	7,129.68	10,351.56	7,067.57	95.63	95.86	-88.95	-2,448.66	-3,376.27	3,358.66	3,167.46	191.20	17.566		
10,300.00	7,129.25	10,451.53	7,067.25	98.31	98.51	-88.95	-2,449.32	-3,476.23	3,355.87	3,159.33	196.54	17.075		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	10,551.49	7,066.93	101.00	101.17	-88.95	-2,449.99	-3,576.18	3,353.07	3,151.17	201.90	16.608		
10,500.00	7,128.38	10,651.45	7,066.60	103.69	103.85	-88.95	-2,450.66	-3,676.14	3,350.28	3,143.00	207.28	16.163		
10,600.00	7,127.95	10,751.41	7,066.28	106.39	106.53	-88.95	-2,451.33	-3,776.10	3,347.48	3,134.81	212.67	15.740		
10,700.00	7,127.51	10,851.37	7,065.95	109.10	109.22	-88.95	-2,451.99	-3,876.06	3,344.69	3,126.61	218.08	15.337		
10,800.00	7,127.08	10,951.33	7,065.63	111.82	111.92	-88.95	-2,452.66	-3,976.02	3,341.89	3,118.39	223.50	14.952		
10,900.00	7,126.65	11,051.29	7,065.30	114.54	114.62	-88.95	-2,453.33	-4,075.98	3,339.10	3,110.16	228.94	14.585		
11,000.00	7,126.21	11,151.25	7,064.98	117.27	117.34	-88.95	-2,454.00	-4,175.93	3,336.31	3,101.92	234.39	14.234		
11,100.00	7,125.78	11,251.21	7,064.65	120.01	120.06	-88.96	-2,454.66	-4,275.89	3,333.51	3,093.66	239.85	13.898		
11,200.00	7,125.35	11,351.17	7,064.33	122.75	122.79	-88.96	-2,455.33	-4,375.85	3,330.72	3,085.39	245.32	13.577		
11,300.00	7,124.91	11,451.13	7,064.00	125.49	125.52	-88.96	-2,456.00	-4,475.81	3,327.92	3,077.11	250.81	13.269		
11,400.00	7,124.48	11,551.10	7,063.68	128.24	128.26	-88.96	-2,456.66	-4,575.77	3,325.13	3,068.83	256.30	12.974		
11,500.00	7,124.04	11,651.06	7,063.35	131.00	131.00	-88.96	-2,457.33	-4,675.72	3,322.33	3,060.53	261.80	12.690		
11,600.00	7,123.61	11,751.02	7,063.03	133.75	133.75	-88.96	-2,458.00	-4,775.68	3,319.54	3,052.22	267.31	12.418		
11,700.00	7,123.18	11,850.98	7,062.70	136.52	136.50	-88.96	-2,458.67	-4,875.64	3,316.74	3,043.91	272.83	12.157		
11,800.00	7,122.74	11,950.94	7,062.38	139.28	139.26	-88.96	-2,459.33	-4,975.60	3,313.95	3,035.59	278.36	11.905		
11,900.00	7,122.31	12,050.90	7,062.05	142.05	142.02	-88.96	-2,460.00	-5,075.56	3,311.15	3,027.26	283.89	11.664		
12,000.00	7,121.88	12,150.86	7,061.73	144.82	144.79	-88.96	-2,460.67	-5,175.52	3,308.36	3,018.93	289.43	11.431		
12,100.00	7,121.44	12,250.82	7,061.40	147.59	147.55	-88.97	-2,461.33	-5,275.47	3,305.56	3,010.59	294.97	11.206		
12,200.00	7,121.01	12,350.78	7,061.08	150.37	150.33	-88.97	-2,462.00	-5,375.43	3,302.77	3,002.24	300.53	10.990		
12,300.00	7,120.57	12,450.74	7,060.75	153.15	153.10	-88.97	-2,462.67	-5,475.39	3,299.97	2,993.89	306.08	10.781		
12,400.00	7,120.14	12,550.70	7,060.43	155.93	155.88	-88.97	-2,463.34	-5,575.35	3,297.18	2,985.53	311.65	10.580		
12,500.00	7,119.71	12,650.67	7,060.10	158.72	158.66	-88.97	-2,464.00	-5,675.31	3,294.38	2,977.17	317.21	10.385		
12,600.00	7,119.27	12,750.63	7,059.78	161.50	161.44	-88.97	-2,464.67	-5,775.26	3,291.59	2,968.80	322.79	10.197		
12,700.00	7,118.84	12,850.59	7,059.46	164.29	164.23	-88.97	-2,465.34	-5,875.22	3,288.80	2,960.43	328.36	10.016		
12,800.00	7,118.41	12,950.55	7,059.13	167.08	167.02	-88.97	-2,466.01	-5,975.18	3,286.00	2,952.06	333.94	9.840		
12,900.00	7,117.97	13,050.51	7,058.81	169.88	169.81	-88.97	-2,466.67	-6,075.14	3,283.21	2,943.68	339.53	9.670		
13,000.00	7,117.54	13,150.47	7,058.48	172.67	172.60	-88.97	-2,467.34	-6,175.10	3,280.41	2,935.29	345.12	9.505		
13,100.00	7,117.10	13,250.43	7,058.16	175.47	175.40	-88.98	-2,468.01	-6,275.06	3,277.62	2,926.91	350.71	9.346		
13,200.00	7,116.67	13,350.39	7,057.83	178.27	178.19	-88.98	-2,468.67	-6,375.01	3,274.82	2,918.52	356.31	9.191		
13,300.00	7,116.24	13,450.35	7,057.51	181.07	180.99	-88.98	-2,469.34	-6,474.97	3,272.03	2,910.12	361.91	9.041		
13,400.00	7,115.80	13,550.31	7,057.18	183.87	183.79	-88.98	-2,470.01	-6,574.93	3,269.23	2,901.72	367.51	8.896		
13,500.00	7,115.37	13,650.27	7,056.86	186.67	186.60	-88.98	-2,470.68	-6,674.89	3,266.44	2,893.32	373.12	8.755		
13,600.00	7,114.93	13,750.24	7,056.53	189.47	189.40	-88.98	-2,471.34	-6,774.85	3,263.64	2,884.92	378.72	8.617		
13,700.00	7,114.50	13,850.20	7,056.21	192.28	192.20	-88.98	-2,472.01	-6,874.80	3,260.85	2,876.51	384.34	8.484		
13,800.00	7,114.07	13,950.16	7,055.88	195.09	195.01	-88.98	-2,472.68	-6,974.76	3,258.05	2,868.10	389.95	8.355		
13,900.00	7,113.63	14,050.12	7,055.56	197.89	197.82	-88.98	-2,473.34	-7,074.72	3,255.26	2,859.69	395.57	8.229		
14,000.00	7,113.20	14,150.08	7,055.23	200.70	200.63	-88.99	-2,474.01	-7,174.68	3,252.46	2,851.28	401.19	8.107		
14,100.00	7,112.77	14,250.04	7,054.91	203.51	203.44	-88.99	-2,474.68	-7,274.64	3,249.67	2,842.86	406.81	7.988		
14,200.00	7,112.33	14,350.00	7,054.58	206.32	206.25	-88.99	-2,475.35	-7,374.60	3,246.87	2,834.44	412.43	7.873		
14,300.00	7,111.90	14,449.96	7,054.26	209.13	209.07	-88.99	-2,476.01	-7,474.55	3,244.08	2,826.02	418.06	7.760		
14,400.00	7,111.46	14,549.92	7,053.93	211.95	211.88	-88.99	-2,476.68	-7,574.51	3,241.28	2,817.60	423.69	7.650		
14,500.00	7,111.03	14,649.88	7,053.61	214.76	214.70	-88.99	-2,477.35	-7,674.47	3,238.49	2,809.17	429.32	7.543		
14,600.00	7,110.60	14,749.84	7,053.28	217.58	217.52	-88.99	-2,478.01	-7,774.43	3,235.70	2,800.75	434.95	7.439		
14,700.00	7,110.16	14,849.81	7,052.96	220.39	220.33	-88.99	-2,478.68	-7,874.39	3,232.90	2,792.32	440.58	7.338		
14,800.00	7,109.73	14,949.77	7,052.63	223.21	223.15	-88.99	-2,479.35	-7,974.34	3,230.11	2,783.89	446.22	7.239		
14,900.00	7,109.30	15,049.73	7,052.31	226.03	225.97	-88.99	-2,480.02	-8,074.30	3,227.31	2,775.46	451.86	7.142		
14,969.16	7,109.00	15,118.86	7,052.09	227.97	227.93	-89.00	-2,480.48	-8,143.43	3,225.38	2,769.62	455.76	7.077 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34N-16C-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	2.00	0.00	3.28	3.28	-179.53	-440.08	-3.62	440.10				
100.00	100.00	102.00	100.00	3.28	3.29	-179.53	-440.08	-3.62	440.10	433.53	6.57	66.988	
200.00	200.00	198.00	200.00	3.34	3.34	-179.53	-440.08	-3.62	440.10	433.43	6.67	65.958	CC, ES
300.00	300.00	284.94	286.92	3.44	3.42	-179.52	-441.34	-3.68	441.55	434.68	6.87	64.231	
400.00	400.00	371.45	373.35	3.60	3.54	-179.50	-445.21	-3.90	446.02	438.84	7.18	62.159	
500.00	500.00	457.66	459.31	3.81	3.70	-179.46	-451.65	-4.25	453.50	445.93	7.56	59.968	
600.00	600.00	543.40	544.57	4.05	3.89	-179.41	-460.61	-4.74	463.96	455.94	8.02	57.852	
700.00	699.98	628.29	628.69	4.32	4.11	-170.18	-471.99	-5.36	479.08	470.54	8.54	56.127	
800.00	799.84	711.72	711.00	4.62	4.35	-170.12	-485.60	-6.11	500.46	491.36	9.10	55.023	
900.00	899.45	793.24	791.01	4.94	4.61	-170.09	-501.20	-6.96	527.97	518.29	9.68	54.544	
1,000.00	998.70	872.43	868.27	5.28	4.90	-170.06	-518.52	-7.91	561.42	551.15	10.27	54.650	
1,100.00	1,097.50	949.00	942.49	5.64	5.19	-170.09	-537.30	-8.94	600.42	589.54	10.88	55.197	
1,200.00	1,196.18	1,023.55	1,014.26	6.00	5.50	-170.20	-557.47	-10.04	642.50	631.04	11.46	56.058	
1,300.00	1,294.87	1,096.30	1,083.74	6.38	5.81	-170.29	-578.95	-11.22	686.91	674.86	12.04	57.034	
1,400.00	1,393.55	1,167.20	1,150.93	6.77	6.14	-170.36	-601.57	-12.46	733.54	720.92	12.62	58.114	
1,500.00	1,492.23	1,236.26	1,215.81	7.17	6.47	-170.41	-625.19	-13.75	782.32	769.12	13.19	59.294	
1,600.00	1,590.91	1,300.00	1,275.17	7.58	6.79	-170.45	-648.38	-15.02	833.16	819.43	13.73	60.669	
1,700.00	1,689.60	1,368.80	1,338.64	8.00	7.16	-170.48	-674.87	-16.47	885.97	871.66	14.31	61.923	
1,800.00	1,788.28	1,441.01	1,404.65	8.42	7.56	-170.50	-704.11	-18.07	940.51	925.60	14.91	63.070	
1,900.00	1,886.96	1,524.62	1,480.96	8.84	8.03	-170.52	-738.22	-19.94	995.36	979.74	15.62	63.735	
2,000.00	1,985.64	1,608.24	1,557.28	9.27	8.51	-170.54	-772.33	-21.81	1,050.21	1,033.88	16.34	64.282	
2,100.00	2,084.33	1,708.15	1,633.60	9.71	9.10	-170.56	-806.44	-23.67	1,105.07	1,087.92	17.15	64.433	
2,200.00	2,183.01	1,775.46	1,709.91	10.15	9.50	-170.57	-840.55	-25.54	1,159.92	1,142.10	17.82	65.100	
2,300.00	2,281.69	1,859.07	1,786.23	10.59	10.01	-170.59	-874.66	-27.41	1,214.77	1,196.20	18.57	65.403	
2,400.00	2,380.38	1,942.69	1,862.54	11.03	10.52	-170.60	-908.77	-29.28	1,269.63	1,250.29	19.34	65.651	
2,500.00	2,479.06	2,026.30	1,938.86	11.47	11.03	-170.61	-942.88	-31.14	1,324.48	1,304.37	20.11	65.854	
2,600.00	2,577.74	2,109.91	2,015.17	11.92	11.55	-170.62	-976.99	-33.01	1,379.34	1,358.44	20.89	66.020	
2,700.00	2,676.42	2,206.48	2,091.49	12.36	12.16	-170.63	-1,011.10	-34.88	1,434.19	1,412.44	21.75	65.950	
2,800.00	2,775.11	2,277.14	2,167.80	12.81	12.60	-170.64	-1,045.21	-36.75	1,489.04	1,466.57	22.47	66.262	
2,900.00	2,873.79	2,360.75	2,244.12	13.26	13.13	-170.65	-1,079.32	-38.62	1,543.90	1,520.63	23.27	66.348	
3,000.00	2,972.47	2,444.36	2,320.43	13.72	13.66	-170.66	-1,113.43	-40.48	1,598.75	1,574.68	24.07	66.416	
3,100.00	3,071.15	2,527.97	2,396.75	14.17	14.19	-170.66	-1,147.54	-42.35	1,653.60	1,628.73	24.88	66.469	
3,200.00	3,169.84	2,611.58	2,473.07	14.62	14.72	-170.67	-1,181.65	-44.22	1,708.46	1,682.77	25.69	66.508	
3,300.00	3,268.52	2,704.80	2,549.38	15.08	15.32	-170.68	-1,215.76	-46.09	1,763.31	1,736.76	26.55	66.408	
3,400.00	3,367.20	2,778.81	2,625.70	15.53	15.80	-170.68	-1,249.87	-47.95	1,818.17	1,790.85	27.32	66.555	
3,500.00	3,465.89	2,862.42	2,702.01	15.99	16.34	-170.69	-1,283.98	-49.82	1,873.02	1,844.88	28.14	66.567	
3,600.00	3,564.57	2,946.03	2,778.33	16.44	16.88	-170.70	-1,318.09	-51.69	1,927.87	1,898.91	28.96	66.571	
3,700.00	3,663.25	3,029.65	2,854.64	16.90	17.42	-170.70	-1,352.20	-53.56	1,982.73	1,952.94	29.78	66.570	
3,800.00	3,761.93	3,113.26	2,930.96	17.36	17.96	-170.71	-1,386.31	-55.42	2,037.58	2,006.97	30.61	66.564	
3,900.00	3,860.62	3,203.13	3,007.27	17.82	18.54	-170.71	-1,420.42	-57.29	2,092.44	2,060.96	31.47	66.482	
4,000.00	3,959.30	3,280.48	3,083.59	18.28	19.05	-170.71	-1,454.53	-59.16	2,147.29	2,115.02	32.27	66.541	
4,100.00	4,057.98	3,364.10	3,159.91	18.74	19.59	-170.72	-1,488.64	-61.03	2,202.14	2,169.04	33.10	66.524	
4,200.00	4,156.67	3,447.71	3,236.22	19.20	20.14	-170.72	-1,522.75	-62.89	2,257.00	2,223.06	33.94	66.506	
4,300.00	4,255.35	3,531.32	3,312.54	19.66	20.68	-170.73	-1,556.86	-64.76	2,311.85	2,277.08	34.77	66.485	
4,400.00	4,354.03	3,614.93	3,388.85	20.12	21.23	-170.73	-1,590.97	-66.63	2,366.71	2,331.10	35.61	66.462	
4,500.00	4,452.71	3,701.45	3,465.17	20.58	21.80	-170.73	-1,625.08	-68.50	2,421.56	2,385.09	36.46	66.409	
4,600.00	4,551.40	3,782.16	3,541.48	21.04	22.32	-170.74	-1,659.19	-70.36	2,476.41	2,439.12	37.29	66.413	
4,700.00	4,650.08	3,865.77	3,617.80	21.50	22.87	-170.74	-1,693.30	-72.23	2,531.27	2,493.14	38.13	66.386	
4,800.00	4,748.76	3,949.38	3,694.11	21.96	23.42	-170.74	-1,727.41	-74.10	2,586.12	2,547.15	38.97	66.359	
4,900.00	4,847.44	4,032.99	3,770.43	22.42	23.97	-170.75	-1,761.52	-75.97	2,640.97	2,601.16	39.81	66.331	
5,000.00	4,946.13	4,116.61	3,846.74	22.89	24.52	-170.75	-1,795.63	-77.83	2,695.83	2,655.17	40.66	66.303	
5,100.00	5,044.81	4,200.22	3,923.06	23.35	25.07	-170.75	-1,829.74	-79.70	2,750.68	2,709.18	41.50	66.274	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	4,283.83	3,999.38	23.81	25.62	-170.75	-1,863.85	-81.57	2,805.54	2,763.19	42.35	66.245		
5,300.00	5,242.18	4,367.44	4,075.69	24.27	26.17	-170.76	-1,897.96	-83.44	2,860.39	2,817.19	43.20	66.215		
5,400.00	5,340.86	4,451.06	4,152.01	24.74	26.72	-170.76	-1,932.07	-85.30	2,915.24	2,871.20	44.05	66.186		
5,500.00	5,439.54	4,534.67	4,228.32	25.20	27.27	-170.76	-1,966.18	-87.17	2,970.10	2,925.20	44.90	66.156		
5,600.00	5,538.22	4,618.28	4,304.64	25.66	27.82	-170.76	-2,000.29	-89.04	3,024.95	2,979.21	45.75	66.126		
5,700.00	5,636.91	4,701.89	4,380.95	26.13	28.37	-170.77	-2,034.40	-90.91	3,079.81	3,033.21	46.60	66.096		
5,800.00	5,735.59	4,785.51	4,457.27	26.59	28.93	-170.77	-2,068.51	-92.77	3,134.66	3,087.21	47.45	66.066		
5,900.00	5,834.27	4,869.12	4,533.58	27.06	29.48	-170.77	-2,102.62	-94.64	3,189.51	3,141.22	48.30	66.036		
6,000.00	5,932.95	4,952.73	4,609.90	27.52	30.03	-170.77	-2,136.73	-96.51	3,244.37	3,195.22	49.15	66.006		
6,100.00	6,031.64	5,036.34	4,686.21	27.98	30.58	-170.77	-2,170.84	-98.38	3,299.22	3,249.22	50.01	65.977		
6,200.00	6,130.32	5,119.96	4,762.53	28.45	31.13	-170.77	-2,204.95	-100.25	3,354.08	3,303.22	50.86	65.947		
6,300.00	6,229.00	5,203.57	4,838.85	28.91	31.69	-170.78	-2,239.06	-102.11	3,408.93	3,357.22	51.72	65.917		
6,400.00	6,327.69	5,287.18	4,915.16	29.38	32.24	-170.78	-2,273.17	-103.98	3,463.79	3,411.21	52.57	65.888		
6,500.00	6,426.37	5,370.79	4,991.48	29.84	32.79	-170.78	-2,307.28	-105.85	3,518.64	3,465.21	53.43	65.859		
6,600.00	6,525.05	5,454.41	5,067.79	30.31	33.35	-170.78	-2,341.39	-107.72	3,573.49	3,519.21	54.28	65.830		
6,700.00	6,623.18	5,537.83	5,143.93	30.77	33.90	-125.01	-2,375.42	-109.58	3,627.89	3,572.75	55.14	65.792		
6,800.00	6,718.58	5,619.50	5,218.48	31.22	34.44	-103.56	-2,408.74	-111.40	3,680.59	3,624.61	55.99	65.741		
6,900.00	6,808.91	5,702.58	5,289.60	31.66	34.99	-91.79	-2,440.53	-113.14	3,730.57	3,673.74	56.83	65.640		
7,000.00	6,891.95	5,789.66	5,355.54	32.07	35.43	-84.09	-2,470.00	-114.76	3,777.02	3,719.42	57.60	65.578		
7,100.00	6,965.65	5,834.45	5,414.67	32.51	35.86	-78.60	-2,496.43	-116.20	3,819.31	3,760.94	58.38	65.425		
7,200.00	7,028.20	5,909.81	5,465.55	33.02	36.36	-74.50	-2,519.17	-117.45	3,856.97	3,797.69	59.28	65.059		
7,300.00	7,078.04	5,935.51	5,506.91	33.68	36.53	-71.41	-2,537.66	-118.46	3,889.64	3,829.62	60.02	64.806		
7,400.00	7,113.97	5,969.28	5,537.74	34.52	36.76	-69.06	-2,551.44	-119.22	3,917.01	3,856.07	60.94	64.279		
7,500.00	7,135.09	6,009.31	5,557.28	35.53	37.02	-67.33	-2,560.17	-119.69	3,938.84	3,876.80	62.03	63.494		
7,600.00	7,140.96	6,000.74	5,565.10	36.68	36.96	-66.24	-2,563.67	-119.89	3,954.93	3,891.95	62.98	62.796		
7,700.00	7,140.53	6,002.51	5,568.06	37.99	36.98	-66.28	-2,564.99	-119.96	3,970.07	3,905.94	64.13	61.908		
7,800.00	7,140.09	6,005.76	5,571.03	39.45	37.00	-66.33	-2,566.32	-120.03	3,987.66	3,922.23	65.42	60.950		
7,900.00	7,139.66	6,009.01	5,573.99	41.06	37.02	-66.38	-2,567.64	-120.10	4,007.67	3,940.83	66.84	59.961		
8,000.00	7,139.23	6,012.26	5,576.96	42.80	37.04	-66.43	-2,568.97	-120.18	4,030.05	3,961.71	68.35	58.965		
8,100.00	7,138.79	6,015.50	5,579.92	44.65	37.06	-66.47	-2,570.29	-120.25	4,054.78	3,984.85	69.93	57.982		
8,200.00	7,138.36	6,018.75	5,582.89	46.60	37.08	-66.52	-2,571.62	-120.32	4,081.80	4,010.23	71.58	57.028		
8,300.00	7,137.93	6,022.00	5,585.85	48.65	37.10	-66.57	-2,572.94	-120.39	4,111.08	4,037.82	73.26	56.115		
8,400.00	7,137.49	6,025.25	5,588.82	50.77	37.13	-66.62	-2,574.27	-120.47	4,142.56	4,067.59	74.98	55.252		
8,500.00	7,137.06	6,028.50	5,591.78	52.95	37.15	-66.66	-2,575.59	-120.54	4,176.20	4,099.49	76.71	54.442		
8,600.00	7,136.62	6,031.74	5,594.75	55.20	37.17	-66.71	-2,576.92	-120.61	4,211.94	4,133.50	78.45	53.691		
8,700.00	7,136.19	6,035.00	5,597.72	57.51	37.19	-66.76	-2,578.25	-120.68	4,248.21	4,166.68	80.20	52.940		
8,800.00	7,135.76	6,038.25	5,600.69	59.85	37.21	-66.81	-2,579.58	-120.75	4,284.81	4,199.86	81.95	52.189		
8,900.00	7,135.32	6,041.50	5,603.66	62.24	37.23	-66.86	-2,580.91	-120.82	4,321.41	4,233.04	83.70	51.438		
9,000.00	7,134.89	6,044.75	5,606.63	64.67	37.25	-66.91	-2,582.24	-120.89	4,357.91	4,266.12	85.45	50.687		
9,100.00	7,134.45	6,048.00	5,609.60	67.13	37.27	-66.96	-2,583.57	-120.96	4,394.41	4,299.20	87.20	49.936		
9,200.00	7,134.02	6,051.25	5,612.57	69.62	37.29	-67.01	-2,584.90	-121.03	4,430.91	4,332.28	88.95	49.185		
9,300.00	7,133.59	6,054.50	5,615.54	72.14	37.31	-67.06	-2,586.23	-121.10	4,467.41	4,365.36	90.70	48.434		
9,400.00	7,133.15	6,057.75	5,618.51	74.68	37.33	-67.11	-2,587.56	-121.17	4,503.91	4,398.44	92.45	47.683		
9,500.00	7,132.72	6,061.00	5,621.48	77.24	37.35	-67.16	-2,588.89	-121.24	4,540.41	4,431.52	94.20	46.932		
9,600.00	7,132.29	6,064.25	5,624.45	79.83	37.37	-67.21	-2,590.22	-121.31	4,576.91	4,464.60	95.95	46.181		
9,700.00	7,131.85	6,067.50	5,627.42	82.42	37.39	-67.26	-2,591.55	-121.38	4,613.41	4,497.68	97.70	45.430		
9,800.00	7,131.42	6,070.75	5,630.39	85.04	37.41	-67.31	-2,592.88	-121.45	4,650.01	4,530.76	99.45	44.679		
9,900.00	7,130.98	6,074.00	5,633.36	87.67	37.43	-67.36	-2,594.21	-121.52	4,686.51	4,563.84	101.20	43.928		
10,000.00	7,130.55	6,077.25	5,636.33	90.31	37.45	-67.41	-2,595.54	-121.59	4,723.01	4,596.92	102.95	43.177		
10,100.00	7,130.12	6,080.50	5,639.30	92.97	37.47	-67.46	-2,596.87	-121.66	4,759.51	4,630.00	104.70	42.426		
10,200.00	7,129.68	6,083.75	5,642.27	95.63	37.49	-67.51	-2,598.20	-121.73	4,796.01	4,663.08	106.45	41.675		
10,300.00	7,129.25	6,087.00	5,645.24	98.31	37.51	-67.56	-2,599.53	-121.80	4,832.51	4,696.16	108.20	40.924		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	10,889.71	7,130.90	101.00	102.29	-90.04	-3,291.86	-3,574.11	4,194.37	3,991.58	202.79	20.683		
10,500.00	7,128.38	10,989.67	7,130.36	103.69	104.93	-90.03	-3,292.45	-3,674.07	4,191.50	3,983.35	208.14	20.138		
10,600.00	7,127.95	11,089.63	7,129.82	106.39	107.58	-90.03	-3,293.04	-3,774.02	4,188.62	3,975.11	213.51	19.618		
10,700.00	7,127.51	11,189.59	7,129.28	109.10	110.24	-90.03	-3,293.62	-3,873.98	4,185.75	3,966.86	218.89	19.122		
10,800.00	7,127.08	11,289.54	7,128.74	111.82	112.90	-90.03	-3,294.21	-3,973.94	4,182.88	3,958.58	224.29	18.649		
10,900.00	7,126.65	11,389.50	7,128.20	114.54	115.58	-90.03	-3,294.80	-4,073.89	4,180.00	3,950.30	229.71	18.197		
11,000.00	7,126.21	11,489.46	7,127.65	117.27	118.27	-90.03	-3,295.39	-4,173.85	4,177.13	3,941.99	235.14	17.765		
11,100.00	7,125.78	11,589.42	7,127.11	120.01	120.96	-90.03	-3,295.97	-4,273.80	4,174.26	3,933.68	240.58	17.351		
11,200.00	7,125.35	11,689.38	7,126.57	122.75	123.66	-90.02	-3,296.56	-4,373.76	4,171.39	3,925.35	246.03	16.955		
11,300.00	7,124.91	11,789.34	7,126.03	125.49	126.37	-90.02	-3,297.15	-4,473.71	4,168.51	3,917.02	251.50	16.575		
11,400.00	7,124.48	11,889.30	7,125.49	128.24	129.09	-90.02	-3,297.74	-4,573.67	4,165.64	3,908.67	256.97	16.211		
11,500.00	7,124.04	11,989.26	7,124.95	131.00	131.81	-90.02	-3,298.33	-4,673.62	4,162.77	3,900.31	262.46	15.861		
11,600.00	7,123.61	12,089.21	7,124.41	133.75	134.54	-90.02	-3,298.91	-4,773.58	4,159.90	3,891.94	267.95	15.525		
11,700.00	7,123.18	12,189.17	7,123.87	136.52	137.27	-90.02	-3,299.50	-4,873.54	4,157.02	3,883.57	273.45	15.202		
11,800.00	7,122.74	12,289.13	7,123.33	139.28	140.01	-90.02	-3,300.09	-4,973.49	4,154.15	3,875.19	278.96	14.891		
11,900.00	7,122.31	12,389.09	7,122.79	142.05	142.75	-90.01	-3,300.68	-5,073.45	4,151.28	3,866.79	284.48	14.592		
12,000.00	7,121.88	12,489.05	7,122.25	144.82	145.49	-90.01	-3,301.26	-5,173.40	4,148.40	3,858.40	290.01	14.304		
12,100.00	7,121.44	12,589.01	7,121.71	147.59	148.25	-90.01	-3,301.85	-5,273.36	4,145.53	3,849.99	295.54	14.027		
12,200.00	7,121.01	12,688.97	7,121.16	150.37	151.00	-90.01	-3,302.44	-5,373.31	4,142.66	3,841.58	301.08	13.759		
12,300.00	7,120.57	12,788.92	7,120.62	153.15	153.76	-90.01	-3,303.03	-5,473.27	4,139.79	3,833.16	306.62	13.501		
12,400.00	7,120.14	12,888.88	7,120.08	155.93	156.52	-90.01	-3,303.61	-5,573.22	4,136.91	3,824.74	312.18	13.252		
12,500.00	7,119.71	12,988.84	7,119.54	158.72	159.29	-90.00	-3,304.20	-5,673.18	4,134.04	3,816.31	317.73	13.011		
12,600.00	7,119.27	13,088.80	7,119.00	161.50	162.06	-90.00	-3,304.79	-5,773.13	4,131.17	3,807.87	323.29	12.778		
12,700.00	7,118.84	13,188.76	7,118.46	164.29	164.83	-90.00	-3,305.38	-5,873.09	4,128.30	3,799.44	328.86	12.553		
12,800.00	7,118.41	13,288.72	7,117.92	167.08	167.60	-90.00	-3,305.97	-5,973.05	4,125.42	3,790.99	334.43	12.336		
12,900.00	7,117.97	13,388.68	7,117.38	169.88	170.38	-90.00	-3,306.55	-6,073.00	4,122.55	3,782.54	340.01	12.125		
13,000.00	7,117.54	13,488.64	7,116.84	172.67	173.16	-90.00	-3,307.14	-6,172.96	4,119.68	3,774.09	345.59	11.921		
13,100.00	7,117.10	13,588.59	7,116.30	175.47	175.95	-90.00	-3,307.73	-6,272.91	4,116.80	3,765.63	351.17	11.723		
13,200.00	7,116.67	13,688.55	7,115.76	178.27	178.73	-89.99	-3,308.32	-6,372.87	4,113.93	3,757.17	356.76	11.531		
13,300.00	7,116.24	13,788.51	7,115.22	181.07	181.52	-89.99	-3,308.90	-6,472.82	4,111.06	3,748.71	362.35	11.346		
13,400.00	7,115.80	13,888.47	7,114.67	183.87	184.31	-89.99	-3,309.49	-6,572.78	4,108.19	3,740.24	367.94	11.165		
13,500.00	7,115.37	13,988.43	7,114.13	186.67	187.10	-89.99	-3,310.08	-6,672.73	4,105.31	3,731.77	373.54	10.990		
13,600.00	7,114.93	14,088.39	7,113.59	189.47	189.89	-89.99	-3,310.67	-6,772.69	4,102.44	3,723.30	379.14	10.820		
13,700.00	7,114.50	14,188.35	7,113.05	192.28	192.69	-89.99	-3,311.25	-6,872.64	4,099.57	3,714.82	384.75	10.655		
13,800.00	7,114.07	14,288.30	7,112.51	195.09	195.49	-89.99	-3,311.84	-6,972.60	4,096.70	3,706.34	390.35	10.495		
13,900.00	7,113.63	14,388.26	7,111.97	197.89	198.29	-89.98	-3,312.43	-7,072.56	4,093.82	3,697.86	395.96	10.339		
14,000.00	7,113.20	14,488.22	7,111.43	200.70	201.09	-89.98	-3,313.02	-7,172.51	4,090.95	3,689.37	401.58	10.187		
14,100.00	7,112.77	14,588.18	7,110.89	203.51	203.89	-89.98	-3,313.61	-7,272.47	4,088.08	3,680.88	407.19	10.040		
14,200.00	7,112.33	14,688.14	7,110.35	206.32	206.69	-89.98	-3,314.19	-7,372.42	4,085.21	3,672.39	412.81	9.896		
14,300.00	7,111.90	14,788.10	7,109.81	209.13	209.50	-89.98	-3,314.78	-7,472.38	4,082.33	3,663.90	418.43	9.756		
14,400.00	7,111.46	14,888.06	7,109.27	211.95	212.31	-89.98	-3,315.37	-7,572.33	4,079.46	3,655.41	424.05	9.620		
14,500.00	7,111.03	14,988.02	7,108.72	214.76	215.11	-89.97	-3,315.96	-7,672.29	4,076.59	3,646.91	429.68	9.488		
14,600.00	7,110.60	15,087.97	7,108.18	217.58	217.92	-89.97	-3,316.54	-7,772.24	4,073.71	3,638.41	435.30	9.358		
14,700.00	7,110.16	15,187.93	7,107.64	220.39	220.73	-89.97	-3,317.13	-7,872.20	4,070.84	3,629.91	440.93	9.232		
14,800.00	7,109.73	15,287.89	7,107.10	223.21	223.55	-89.97	-3,317.72	-7,972.16	4,067.97	3,621.41	446.56	9.109		
14,900.00	7,109.30	15,387.85	7,106.56	226.03	226.36	-89.97	-3,318.31	-8,072.11	4,065.10	3,612.90	452.20	8.990		
14,969.16	7,109.00	15,456.98	7,106.19	227.97	228.30	-89.97	-3,318.71	-8,141.24	4,063.11	3,607.02	456.09	8.909 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	180.00	-20.04	0.00	20.04					
100.00	100.00	100.00	100.00	3.28	3.28	180.00	-20.04	0.00	20.04	13.48	6.57	3.051		
200.00	200.00	200.00	200.00	3.34	3.34	180.00	-20.04	0.00	20.04	13.37	6.67	3.003		
300.00	300.00	300.00	300.00	3.44	3.44	180.00	-20.04	0.00	20.04	13.16	6.89	2.909		
400.00	400.00	400.00	400.00	3.60	3.60	180.00	-20.04	0.00	20.04	12.84	7.21	2.781		
500.00	500.00	500.00	500.00	3.81	3.81	180.00	-20.04	0.00	20.04	12.43	7.61	2.633		
600.00	600.00	600.00	600.00	4.05	4.05	180.00	-20.04	0.00	20.04	11.95	8.09	2.477 CC		
700.00	699.98	700.68	700.66	4.32	4.32	-170.47	-18.32	-0.41	20.06	11.42	8.64	2.321		
800.00	799.84	801.37	801.20	4.62	4.62	-169.34	-13.17	-1.65	20.11	10.86	9.25	2.174		
900.00	899.45	902.05	901.49	4.94	4.95	-167.46	-4.57	-3.71	20.21	10.31	9.90	2.041		
1,000.00	998.70	1,002.25	1,001.03	5.28	5.29	-165.64	6.58	-6.38	21.17	10.59	10.58	2.001		
1,100.00	1,097.50	1,102.17	1,100.27	5.64	5.64	-165.89	17.86	-9.08	25.16	13.87	11.28	2.229		
1,200.00	1,196.18	1,202.05	1,199.48	6.00	6.00	-166.44	29.14	-11.78	29.87	17.86	12.02	2.486		
1,300.00	1,294.87	1,301.94	1,298.70	6.38	6.38	-166.83	40.42	-14.48	34.59	21.82	12.77	2.708		
1,400.00	1,393.55	1,401.83	1,397.91	6.77	6.76	-167.13	51.70	-17.19	39.31	25.76	13.55	2.902		
1,500.00	1,492.23	1,501.72	1,497.12	7.17	7.16	-167.37	62.98	-19.89	44.03	29.69	14.34	3.071		
1,600.00	1,590.91	1,601.61	1,596.34	7.58	7.56	-167.56	74.26	-22.59	48.75	33.61	15.14	3.219		
1,700.00	1,689.60	1,701.50	1,695.55	8.00	7.96	-167.71	85.54	-25.29	53.47	37.51	15.96	3.350		
1,800.00	1,788.28	1,801.38	1,794.76	8.42	8.37	-167.84	96.82	-27.99	58.19	41.41	16.78	3.467		
1,900.00	1,886.96	1,901.27	1,893.97	8.84	8.79	-167.95	108.10	-30.70	62.91	45.29	17.62	3.571		
2,000.00	1,985.64	2,001.16	1,993.19	9.27	9.21	-168.05	119.38	-33.40	67.63	49.17	18.46	3.664		
2,100.00	2,084.33	2,101.05	2,092.40	9.71	9.63	-168.13	130.67	-36.10	72.35	53.05	19.31	3.747		
2,200.00	2,183.01	2,200.94	2,191.61	10.15	10.05	-168.21	141.95	-38.80	77.08	56.92	20.16	3.823		
2,300.00	2,281.69	2,300.83	2,290.82	10.59	10.48	-168.27	153.23	-41.50	81.80	60.78	21.02	3.891		
2,400.00	2,380.38	2,400.72	2,390.04	11.03	10.91	-168.33	164.51	-44.21	86.52	64.64	21.88	3.954		
2,500.00	2,479.06	2,500.60	2,489.25	11.47	11.34	-168.38	175.79	-46.91	91.24	68.49	22.75	4.011		
2,600.00	2,577.74	2,600.49	2,588.46	11.92	11.77	-168.43	187.07	-49.61	95.96	72.35	23.62	4.063		
2,700.00	2,676.42	2,700.38	2,687.67	12.36	12.20	-168.47	198.35	-52.31	100.69	76.20	24.49	4.111		
2,800.00	2,775.11	2,800.27	2,786.89	12.81	12.64	-168.51	209.63	-55.01	105.41	80.04	25.37	4.155		
2,900.00	2,873.79	2,900.16	2,886.10	13.26	13.07	-168.54	220.91	-57.72	110.13	83.89	26.25	4.196		
3,000.00	2,972.47	3,000.05	2,985.31	13.72	13.51	-168.57	232.19	-60.42	114.85	87.73	27.13	4.234		
3,100.00	3,071.15	3,100.07	3,084.52	14.17	13.95	-168.60	243.47	-63.12	119.58	91.57	28.01	4.269		
3,200.00	3,169.84	3,200.18	3,183.74	14.62	14.39	-168.63	254.75	-65.82	124.30	95.41	28.89	4.302		
3,300.00	3,268.52	3,300.29	3,282.95	15.08	14.83	-168.66	266.03	-68.53	129.02	99.24	29.78	4.332		
3,400.00	3,367.20	3,400.40	3,382.16	15.53	15.27	-168.68	277.31	-71.23	133.74	103.08	30.67	4.361		
3,500.00	3,465.89	3,500.51	3,481.37	15.99	15.72	-168.70	288.59	-73.93	138.47	106.91	31.56	4.388		
3,600.00	3,564.57	3,600.62	3,580.59	16.44	16.16	-168.72	299.87	-76.63	143.19	110.74	32.45	4.413		
3,700.00	3,663.25	3,700.74	3,679.80	16.90	16.60	-168.74	311.15	-79.33	147.91	114.57	33.34	4.436		
3,800.00	3,761.93	3,800.85	3,779.01	17.36	17.05	-168.76	322.44	-82.04	152.63	118.40	34.23	4.459		
3,900.00	3,860.62	3,900.96	3,878.23	17.82	17.49	-168.78	333.72	-84.74	157.36	122.23	35.13	4.480		
4,000.00	3,959.30	4,001.07	3,977.44	18.28	17.93	-168.79	345.00	-87.44	162.08	126.06	36.02	4.499		
4,100.00	4,057.98	4,101.18	4,076.65	18.74	18.38	-168.81	356.28	-90.14	166.80	129.88	36.92	4.518		
4,200.00	4,156.67	4,201.29	4,175.86	19.20	18.83	-168.82	367.56	-92.84	171.52	133.71	37.82	4.536		
4,300.00	4,255.35	4,301.40	4,275.08	19.66	19.27	-168.84	378.84	-95.55	176.25	137.53	38.71	4.553		
4,400.00	4,354.03	4,401.52	4,374.29	20.12	19.72	-168.85	390.12	-98.25	180.97	141.36	39.61	4.569		
4,500.00	4,452.71	4,501.63	4,473.50	20.58	20.16	-168.86	401.40	-100.95	185.69	145.18	40.51	4.584		
4,600.00	4,551.40	4,601.74	4,572.71	21.04	20.61	-168.87	412.68	-103.65	190.41	149.01	41.41	4.598		
4,700.00	4,650.08	4,701.85	4,671.93	21.50	21.06	-168.88	423.96	-106.35	195.14	152.83	42.31	4.612		
4,800.00	4,748.76	4,798.04	4,771.14	21.96	21.49	-168.89	435.24	-109.06	199.86	156.67	43.19	4.627		
4,900.00	4,847.44	4,902.07	4,870.35	22.42	21.95	-168.90	446.52	-111.76	204.58	160.47	44.11	4.638		
5,000.00	4,946.13	4,997.81	4,969.56	22.89	22.38	-168.91	457.80	-114.46	209.31	164.31	44.99	4.652		
5,100.00	5,044.81	5,102.30	5,068.78	23.35	22.85	-168.92	469.08	-117.16	214.03	168.11	45.91	4.662		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,143.49	5,197.59	5,167.99	23.81	23.28	-168.93	480.36	-119.86	218.75	171.96	46.79	4.675	
5,300.00	5,242.18	5,297.48	5,267.20	24.27	23.72	-168.94	491.64	-122.57	223.47	175.78	47.70	4.685	
5,400.00	5,340.86	5,397.37	5,366.41	24.74	24.17	-168.95	502.92	-125.27	228.20	179.60	48.60	4.696	
5,500.00	5,439.54	5,497.26	5,465.63	25.20	24.62	-168.95	514.20	-127.97	232.92	183.42	49.50	4.705	
5,600.00	5,538.22	5,602.86	5,564.84	25.66	25.09	-168.96	525.49	-130.67	237.64	187.21	50.43	4.712	
5,700.00	5,636.91	5,697.03	5,664.05	26.13	25.52	-168.97	536.77	-133.38	242.36	191.06	51.31	4.724	
5,800.00	5,735.59	5,803.08	5,763.27	26.59	25.99	-168.98	548.05	-136.08	247.09	194.85	52.24	4.730	
5,900.00	5,834.27	5,903.19	5,862.48	27.06	26.44	-168.98	559.33	-138.78	251.81	198.67	53.14	4.738	
6,000.00	5,932.95	6,003.30	5,961.69	27.52	26.89	-168.99	570.61	-141.48	256.53	202.49	54.05	4.747	
6,100.00	6,031.64	6,103.41	6,060.90	27.98	27.34	-168.99	581.89	-144.18	261.25	206.30	54.95	4.754	
6,200.00	6,130.32	6,203.53	6,160.12	28.45	27.79	-169.00	593.17	-146.89	265.98	210.12	55.86	4.762	
6,300.00	6,229.00	6,303.64	6,259.33	28.91	28.24	-169.01	604.45	-149.59	270.70	213.94	56.76	4.769	
6,400.00	6,327.69	6,395.84	6,358.12	29.38	28.66	-168.92	615.68	-152.70	275.44	217.81	57.63	4.779	
6,500.00	6,426.37	6,492.58	6,453.21	29.84	29.09	-166.72	626.42	-166.14	280.85	222.32	58.53	4.798	
6,600.00	6,525.05	6,584.00	6,540.28	30.31	29.50	-162.08	636.15	-192.02	288.79	229.43	59.35	4.866	
6,700.00	6,623.18	6,669.98	6,618.02	30.77	29.87	-115.86	644.75	-227.57	300.13	240.24	59.89	5.011	
6,800.00	6,718.58	6,753.02	6,687.94	31.22	30.24	-94.17	652.41	-271.60	313.02	253.01	60.01	5.216	
6,900.00	6,808.91	6,833.68	6,749.85	31.66	30.62	-82.26	659.10	-322.78	326.36	266.68	59.68	5.468	
7,000.00	6,891.95	6,912.42	6,803.62	32.07	31.05	-74.53	664.82	-379.94	339.22	280.23	58.99	5.750	
7,100.00	6,965.65	6,989.62	6,849.16	32.51	31.54	-69.10	669.57	-442.04	350.79	292.70	58.09	6.039	
7,200.00	7,028.20	7,065.62	6,886.37	33.02	32.10	-65.19	673.34	-508.15	360.47	303.29	57.18	6.305	
7,300.00	7,078.04	7,140.71	6,915.21	33.68	32.76	-62.43	676.14	-577.38	367.78	311.31	56.47	6.513	
7,400.00	7,113.97	7,215.16	6,935.61	34.52	33.50	-60.61	677.96	-648.91	372.39	316.20	56.18	6.628	
7,500.00	7,135.09	7,289.20	6,947.53	35.53	34.33	-59.61	678.80	-721.94	374.06	317.58	56.48	6.623	
7,600.00	7,140.96	7,364.92	6,950.98	36.68	35.25	-59.35	678.66	-797.53	372.73	315.21	57.52	6.480	
7,700.00	7,140.53	7,464.88	6,950.68	37.99	36.62	-59.16	677.93	-897.49	370.32	310.60	59.72	6.201	
7,800.00	7,140.09	7,564.84	6,950.38	39.45	38.14	-58.96	677.19	-997.45	367.91	305.71	62.20	5.915	
7,900.00	7,139.66	7,664.81	6,950.08	41.06	39.81	-58.75	676.45	-1,097.41	365.51	300.57	64.95	5.628	
8,000.00	7,139.23	7,764.77	6,949.79	42.80	41.60	-58.55	675.71	-1,197.37	363.12	295.20	67.92	5.346	
8,100.00	7,138.79	7,864.73	6,949.49	44.65	43.51	-58.34	674.98	-1,297.33	360.72	289.64	71.09	5.074	
8,200.00	7,138.36	7,964.70	6,949.19	46.60	45.52	-58.13	674.24	-1,397.29	358.34	283.92	74.42	4.815	
8,300.00	7,137.93	8,064.66	6,948.89	48.65	47.61	-57.92	673.50	-1,497.25	355.96	278.07	77.89	4.570	
8,400.00	7,137.49	8,164.62	6,948.59	50.77	49.78	-57.70	672.76	-1,597.21	353.58	272.10	81.48	4.340	
8,500.00	7,137.06	8,264.58	6,948.30	52.95	52.02	-57.49	672.03	-1,697.17	351.21	266.05	85.16	4.124	
8,600.00	7,136.62	8,364.55	6,948.00	55.20	54.32	-57.26	671.29	-1,797.13	348.84	259.91	88.93	3.923	
8,700.00	7,136.19	8,464.51	6,947.70	57.51	56.66	-57.04	670.55	-1,897.09	346.48	253.72	92.76	3.735	
8,800.00	7,135.76	8,564.47	6,947.40	59.85	59.06	-56.81	669.81	-1,997.05	344.12	247.47	96.65	3.560	
8,900.00	7,135.32	8,664.44	6,947.10	62.24	61.49	-56.58	669.08	-2,097.01	341.77	241.18	100.59	3.398	
9,000.00	7,134.89	8,764.40	6,946.80	64.67	63.95	-56.35	668.34	-2,196.97	339.43	234.87	104.56	3.246	
9,100.00	7,134.45	8,864.36	6,946.51	67.13	66.45	-56.11	667.60	-2,296.93	337.09	228.53	108.56	3.105	
9,200.00	7,134.02	8,964.32	6,946.21	69.62	68.98	-55.87	666.86	-2,396.89	334.76	222.18	112.58	2.974	
9,300.00	7,133.59	9,064.29	6,945.91	72.14	71.53	-55.62	666.13	-2,496.85	332.43	215.82	116.61	2.851	
9,400.00	7,133.15	9,164.25	6,945.61	74.68	74.10	-55.38	665.39	-2,596.81	330.11	209.46	120.65	2.736	
9,500.00	7,132.72	9,264.21	6,945.31	77.24	76.69	-55.13	664.65	-2,696.77	327.79	203.09	124.70	2.629	
9,600.00	7,132.29	9,364.18	6,945.01	79.83	79.31	-54.87	663.91	-2,796.73	325.49	196.74	128.75	2.528	
9,700.00	7,131.85	9,464.14	6,944.72	82.42	81.93	-54.61	663.18	-2,896.69	323.18	190.39	132.79	2.434	
9,800.00	7,131.42	9,564.10	6,944.42	85.04	84.58	-54.35	662.44	-2,996.65	320.89	184.06	136.83	2.345	
9,900.00	7,130.98	9,664.06	6,944.12	87.67	87.23	-54.09	661.70	-3,096.61	318.60	177.75	140.85	2.262	
10,000.00	7,130.55	9,764.03	6,943.82	90.31	89.90	-53.82	660.96	-3,196.57	316.32	171.46	144.86	2.184	
10,100.00	7,130.12	9,863.99	6,943.52	92.97	92.58	-53.54	660.23	-3,296.52	314.05	165.19	148.85	2.110	
10,200.00	7,129.68	9,963.95	6,943.22	95.63	95.27	-53.27	659.49	-3,396.48	311.78	158.95	152.82	2.040	
10,300.00	7,129.25	10,063.92	6,942.93	98.31	97.97	-52.98	658.75	-3,496.44	309.52	152.74	156.77	1.974	

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1													Offset Site Error: 0.00 ft	
Survey Program: 0-MWD+IFR1													Offset Well Error: 3.28 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	10,163.88	6,942.63	101.00	100.68	-52.70	658.01	-3,596.40	307.27	146.57	160.70	1.912		
10,500.00	7,128.38	10,263.84	6,942.33	103.69	103.40	-52.41	657.28	-3,696.36	305.02	140.42	164.60	1.853		
10,600.00	7,127.95	10,363.80	6,942.03	106.39	106.12	-52.11	656.54	-3,796.32	302.79	134.32	168.47	1.797		
10,700.00	7,127.51	10,463.77	6,941.73	109.10	108.85	-51.82	655.80	-3,896.28	300.56	128.25	172.31	1.744		
10,800.00	7,127.08	10,563.73	6,941.44	111.82	111.59	-51.51	655.06	-3,996.24	298.34	122.23	176.11	1.694		
10,900.00	7,126.65	10,663.69	6,941.14	114.54	114.33	-51.21	654.33	-4,096.20	296.13	116.25	179.88	1.646		
11,000.00	7,126.21	10,763.66	6,940.84	117.27	117.08	-50.89	653.59	-4,196.16	293.92	110.31	183.61	1.601		
11,100.00	7,125.78	10,863.62	6,940.54	120.01	119.83	-50.58	652.85	-4,296.12	291.73	104.43	187.30	1.558		
11,200.00	7,125.35	10,963.58	6,940.24	122.75	122.59	-50.26	652.11	-4,396.08	289.54	98.59	190.95	1.516		
11,300.00	7,124.91	11,063.54	6,939.94	125.49	125.35	-49.93	651.38	-4,496.04	287.37	92.81	194.56	1.477 Level 3		
11,400.00	7,124.48	11,163.51	6,939.65	128.24	128.12	-49.60	650.64	-4,596.00	285.20	87.08	198.12	1.440 Level 3		
11,500.00	7,124.04	11,263.47	6,939.35	131.00	130.89	-49.26	649.90	-4,695.96	283.05	81.41	201.64	1.404 Level 3		
11,600.00	7,123.61	11,363.43	6,939.05	133.75	133.67	-48.92	649.16	-4,795.92	280.90	75.80	205.10	1.370 Level 3		
11,700.00	7,123.18	11,463.40	6,938.75	136.52	136.44	-48.57	648.43	-4,895.88	278.76	70.25	208.51	1.337 Level 3		
11,800.00	7,122.74	11,563.36	6,938.45	139.28	139.23	-48.22	647.69	-4,995.84	276.64	64.76	211.87	1.306 Level 3		
11,900.00	7,122.31	11,663.32	6,938.15	142.05	142.01	-47.86	646.95	-5,095.80	274.52	59.34	215.18	1.276 Level 3		
12,000.00	7,121.88	11,763.28	6,937.86	144.82	144.80	-47.50	646.21	-5,195.76	272.42	53.99	218.42	1.247 Level 2		
12,100.00	7,121.44	11,863.25	6,937.56	147.59	147.59	-47.13	645.48	-5,295.72	270.32	48.71	221.61	1.220 Level 2		
12,200.00	7,121.01	11,963.21	6,937.26	150.37	150.38	-46.76	644.74	-5,395.68	268.24	43.50	224.74	1.194 Level 2		
12,300.00	7,120.57	12,063.17	6,936.96	153.15	153.17	-46.38	644.00	-5,495.64	266.17	38.37	227.80	1.168 Level 2		
12,400.00	7,120.14	12,163.14	6,936.66	155.93	155.97	-45.99	643.26	-5,595.60	264.11	33.31	230.79	1.144 Level 2		
12,500.00	7,119.71	12,263.10	6,936.36	158.72	158.77	-45.60	642.53	-5,695.56	262.06	28.34	233.72	1.121 Level 2		
12,600.00	7,119.27	12,363.06	6,936.07	161.50	161.57	-45.20	641.79	-5,795.52	260.03	23.45	236.58	1.099 Level 2		
12,700.00	7,118.84	12,463.02	6,935.77	164.29	164.37	-44.80	641.05	-5,895.48	258.01	18.64	239.37	1.078 Level 2		
12,800.00	7,118.41	12,562.99	6,935.47	167.08	167.18	-44.38	640.31	-5,995.44	256.00	13.92	242.08	1.058 Level 2		
12,900.00	7,117.97	12,662.95	6,935.17	169.88	169.98	-43.97	639.58	-6,095.40	254.00	9.29	244.71	1.038 Level 2		
13,000.00	7,117.54	12,762.91	6,934.87	172.67	172.79	-43.54	638.84	-6,195.36	252.02	4.75	247.27	1.019 Level 2		
13,100.00	7,117.10	12,862.88	6,934.57	175.47	175.60	-43.11	638.10	-6,295.31	250.06	0.31	249.75	1.001 Level 2		
13,200.00	7,116.67	12,962.84	6,934.28	178.27	178.41	-42.67	637.36	-6,395.27	248.10	-4.03	252.14	0.984 Level 1		
13,300.00	7,116.24	13,062.80	6,933.98	181.07	181.23	-42.23	636.63	-6,495.23	246.17	-8.28	254.44	0.967 Level 1		
13,400.00	7,115.80	13,162.76	6,933.68	183.87	184.04	-41.78	635.89	-6,595.19	244.24	-12.42	256.66	0.952 Level 1		
13,500.00	7,115.37	13,262.73	6,933.38	186.67	186.86	-41.32	635.15	-6,695.15	242.33	-16.45	258.78	0.936 Level 1		
13,600.00	7,114.93	13,362.69	6,933.08	189.47	189.67	-40.85	634.41	-6,795.11	240.44	-20.37	260.82	0.922 Level 1		
13,700.00	7,114.50	13,462.65	6,932.79	192.28	192.49	-40.38	633.68	-6,895.07	238.57	-24.19	262.75	0.908 Level 1		
13,800.00	7,114.07	13,562.61	6,932.49	195.09	195.31	-39.90	632.94	-6,995.03	236.71	-27.89	264.59	0.895 Level 1		
13,900.00	7,113.63	13,662.58	6,932.19	197.89	198.13	-39.41	632.20	-7,094.99	234.87	-31.47	266.33	0.882 Level 1		
14,000.00	7,113.20	13,762.54	6,931.89	200.70	200.95	-38.92	631.46	-7,194.95	233.04	-34.93	267.97	0.870 Level 1		
14,100.00	7,112.77	13,862.50	6,931.59	203.51	203.77	-38.41	630.73	-7,294.91	231.23	-38.27	269.50	0.858 Level 1		
14,200.00	7,112.33	13,962.47	6,931.29	206.32	206.60	-37.90	629.99	-7,394.87	229.44	-41.48	270.92	0.847 Level 1		
14,300.00	7,111.90	14,062.43	6,931.00	209.13	209.42	-37.38	629.25	-7,494.83	227.67	-44.56	272.24	0.836 Level 1		
14,400.00	7,111.46	14,162.39	6,930.70	211.95	212.25	-36.85	628.51	-7,594.79	225.92	-47.51	273.44	0.826 Level 1		
14,500.00	7,111.03	14,262.35	6,930.40	214.76	215.07	-36.32	627.78	-7,694.75	224.19	-50.33	274.52	0.817 Level 1		
14,600.00	7,110.60	14,362.32	6,930.10	217.58	217.90	-35.77	627.04	-7,794.71	222.48	-53.02	275.49	0.808 Level 1		
14,700.00	7,110.16	14,462.28	6,929.80	220.39	220.72	-35.22	626.30	-7,894.67	220.79	-55.56	276.35	0.799 Level 1		
14,800.00	7,109.73	14,562.24	6,929.50	223.21	223.55	-34.66	625.56	-7,994.63	219.12	-57.96	277.08	0.791 Level 1		
14,900.00	7,109.30	14,662.21	6,929.21	226.03	226.38	-34.09	624.83	-8,094.59	217.47	-60.22	277.69	0.783 Level 1		
14,969.16	7,109.00	14,731.34	6,929.00	227.97	228.34	-33.69	624.32	-8,163.72	216.34	-61.70	278.04	0.778 Level 1, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.60	-120.22	-0.83	120.22					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-120.22	-0.83	120.22	113.65	6.57	18.301		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-120.22	-0.83	120.22	113.55	6.67	18.014		
300.00	300.00	300.00	300.00	3.44	3.44	-179.60	-120.22	-0.83	120.22	113.33	6.89	17.450		
400.00	400.00	400.00	400.00	3.60	3.60	-179.60	-120.22	-0.83	120.22	113.02	7.21	16.682 CC, ES		
500.00	500.00	496.75	496.74	3.81	3.79	-179.13	-121.50	-1.84	121.56	113.96	7.60	15.992		
600.00	600.00	603.94	595.96	4.05	4.03	-178.04	-124.59	-4.27	124.73	116.65	8.08	15.430		
700.00	699.98	704.09	695.73	4.32	4.29	-167.97	-127.74	-6.75	129.69	121.08	8.61	15.055		
800.00	799.84	804.46	795.29	4.62	4.58	-167.42	-130.88	-9.22	138.09	128.88	9.20	15.005		
900.00	899.45	905.16	894.50	4.94	4.89	-167.22	-134.01	-11.69	149.87	140.03	9.84	15.236		
1,000.00	998.70	1,006.32	993.26	5.28	5.23	-167.30	-137.13	-14.14	165.03	154.52	10.51	15.703		
1,100.00	1,097.50	1,108.02	1,091.48	5.64	5.58	-167.59	-140.23	-16.58	183.35	172.14	11.22	16.347		
1,200.00	1,196.18	1,209.86	1,189.57	6.00	5.95	-167.92	-143.33	-19.02	202.40	190.46	11.94	16.951		
1,300.00	1,294.87	1,288.31	1,287.65	6.38	6.23	-168.20	-146.42	-21.45	221.45	208.85	12.60	17.576		
1,400.00	1,393.55	1,386.47	1,385.74	6.77	6.61	-168.43	-149.52	-23.89	240.51	227.16	13.35	18.015		
1,500.00	1,492.23	1,484.63	1,483.82	7.17	6.98	-168.62	-152.61	-26.33	259.57	245.45	14.12	18.388		
1,600.00	1,590.91	1,582.80	1,581.90	7.58	7.37	-168.79	-155.71	-28.76	278.63	263.73	14.90	18.706		
1,700.00	1,689.60	1,680.96	1,679.99	8.00	7.76	-168.94	-158.81	-31.20	297.69	282.01	15.69	18.978		
1,800.00	1,788.28	1,779.12	1,778.07	8.42	8.15	-169.07	-161.90	-33.63	316.76	300.27	16.49	19.214		
1,900.00	1,886.96	1,877.29	1,876.16	8.84	8.55	-169.19	-165.00	-36.07	335.82	318.53	17.29	19.418		
2,000.00	1,985.64	1,975.45	1,974.24	9.27	8.95	-169.29	-168.09	-38.51	354.89	336.78	18.11	19.596		
2,100.00	2,084.33	2,073.61	2,072.33	9.71	9.35	-169.38	-171.19	-40.94	373.96	355.03	18.93	19.752		
2,200.00	2,183.01	2,171.78	2,170.41	10.15	9.76	-169.46	-174.29	-43.38	393.03	373.27	19.76	19.889		
2,300.00	2,281.69	2,269.94	2,268.49	10.59	10.17	-169.54	-177.38	-45.82	412.10	391.51	20.59	20.011		
2,400.00	2,380.38	2,368.10	2,366.58	11.03	10.58	-169.61	-180.48	-48.25	431.17	409.74	21.43	20.119		
2,500.00	2,479.06	2,466.27	2,464.66	11.47	10.99	-169.67	-183.57	-50.69	450.24	427.97	22.27	20.216		
2,600.00	2,577.74	2,564.43	2,562.75	11.92	11.41	-169.73	-186.67	-53.12	469.31	446.20	23.12	20.303		
2,700.00	2,676.42	2,662.59	2,660.83	12.36	11.83	-169.78	-189.76	-55.56	488.39	464.42	23.96	20.381		
2,800.00	2,775.11	2,760.76	2,758.92	12.81	12.24	-169.83	-192.86	-58.00	507.46	482.65	24.81	20.452		
2,900.00	2,873.79	2,858.92	2,857.00	13.26	12.66	-169.88	-195.96	-60.43	526.53	500.87	25.66	20.516		
3,000.00	2,972.47	2,957.08	2,955.08	13.72	13.08	-169.92	-199.05	-62.87	545.61	519.09	26.52	20.574		
3,100.00	3,071.15	3,055.25	3,053.17	14.17	13.50	-169.96	-202.15	-65.31	564.68	537.30	27.38	20.627		
3,200.00	3,169.84	3,153.41	3,151.25	14.62	13.92	-170.00	-205.24	-67.74	583.75	555.52	28.23	20.675		
3,300.00	3,268.52	3,251.57	3,249.34	15.08	14.35	-170.03	-208.34	-70.18	602.83	573.73	29.09	20.720		
3,400.00	3,367.20	3,349.74	3,347.42	15.53	14.77	-170.07	-211.44	-72.61	621.90	591.95	29.96	20.760		
3,500.00	3,465.89	3,447.90	3,445.51	15.99	15.19	-170.10	-214.53	-75.05	640.98	610.16	30.82	20.798		
3,600.00	3,564.57	3,546.06	3,543.59	16.44	15.62	-170.13	-217.63	-77.49	660.05	628.37	31.68	20.833		
3,700.00	3,663.25	3,644.23	3,641.67	16.90	16.04	-170.15	-220.72	-79.92	679.13	646.58	32.55	20.865		
3,800.00	3,761.93	3,742.39	3,739.76	17.36	16.47	-170.18	-223.82	-82.36	698.20	664.79	33.42	20.894		
3,900.00	3,860.62	3,840.55	3,837.84	17.82	16.89	-170.20	-226.92	-84.79	717.28	682.99	34.28	20.922		
4,000.00	3,959.30	3,938.72	3,935.93	18.28	17.32	-170.23	-230.01	-87.23	736.35	701.20	35.15	20.948		
4,100.00	4,057.98	4,036.88	4,034.01	18.74	17.75	-170.25	-233.11	-89.67	755.43	719.41	36.02	20.972		
4,200.00	4,156.67	4,135.04	4,132.10	19.20	18.18	-170.27	-236.20	-92.10	774.50	737.61	36.89	20.994		
4,300.00	4,255.35	4,233.21	4,230.18	19.66	18.60	-170.29	-239.30	-94.54	793.58	755.82	37.76	21.015		
4,400.00	4,354.03	4,331.37	4,328.27	20.12	19.03	-170.31	-242.39	-96.98	812.65	774.02	38.63	21.035		
4,500.00	4,452.71	4,429.53	4,426.35	20.58	19.46	-170.33	-245.49	-99.41	831.73	792.22	39.51	21.053		
4,600.00	4,551.40	4,527.70	4,524.43	21.04	19.89	-170.34	-248.59	-101.85	850.81	810.43	40.38	21.070		
4,700.00	4,650.08	4,625.86	4,622.52	21.50	20.32	-170.36	-251.68	-104.28	869.88	828.63	41.25	21.087		
4,800.00	4,748.76	4,724.02	4,720.60	21.96	20.75	-170.38	-254.78	-106.72	888.96	846.83	42.13	21.102		
4,900.00	4,847.44	4,822.19	4,818.69	22.42	21.17	-170.39	-257.87	-109.16	908.03	865.03	43.00	21.116		
5,000.00	4,946.13	4,920.35	4,916.77	22.89	21.60	-170.41	-260.97	-111.59	927.11	883.23	43.88	21.130		
5,100.00	5,044.81	5,018.51	5,014.86	23.35	22.03	-170.42	-264.07	-114.03	946.19	901.43	44.75	21.143		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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+HFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	5,143.49	5,116.68	5,112.94	23.81	22.46	-170.43	-267.16	-116.47	965.26	919.63	45.63	21.155		
5,300.00	5,242.18	5,214.84	5,211.02	24.27	22.89	-170.45	-270.26	-118.90	984.34	937.83	46.50	21.167		
5,400.00	5,340.86	5,313.00	5,309.11	24.74	23.32	-170.46	-273.35	-121.34	1,003.41	956.03	47.38	21.177		
5,500.00	5,439.54	5,411.17	5,407.19	25.20	23.75	-170.47	-276.45	-123.77	1,022.49	974.23	48.26	21.188		
5,600.00	5,538.22	5,509.33	5,505.28	25.66	24.19	-170.48	-279.54	-126.21	1,041.57	992.43	49.14	21.198		
5,700.00	5,636.91	5,607.49	5,603.36	26.13	24.62	-170.49	-282.64	-128.65	1,060.64	1,010.63	50.01	21.207		
5,800.00	5,735.59	5,705.66	5,701.45	26.59	25.05	-170.50	-285.74	-131.08	1,079.72	1,028.83	50.89	21.216		
5,900.00	5,834.27	5,803.82	5,799.53	27.06	25.48	-170.51	-288.83	-133.52	1,098.80	1,047.03	51.77	21.224		
6,000.00	5,932.95	5,901.98	5,897.61	27.52	25.91	-170.52	-291.93	-135.95	1,117.87	1,065.22	52.65	21.233		
6,100.00	6,031.64	6,000.15	5,995.70	27.98	26.34	-170.53	-295.02	-138.39	1,136.95	1,083.42	53.53	21.240		
6,200.00	6,130.32	6,101.69	6,093.78	28.45	26.79	-170.54	-298.12	-140.83	1,156.03	1,101.60	54.42	21.242		
6,300.00	6,229.00	6,203.53	6,191.87	28.91	27.23	-170.55	-301.22	-143.26	1,175.10	1,119.79	55.32	21.243		
6,400.00	6,327.69	6,305.36	6,289.95	29.38	27.68	-170.56	-304.31	-145.70	1,194.18	1,137.97	56.21	21.244		
6,500.00	6,426.37	6,392.80	6,388.04	29.84	28.07	-170.57	-307.41	-148.14	1,213.26	1,156.21	57.05	21.268		
6,600.00	6,525.05	6,490.20	6,485.28	30.31	28.50	-170.50	-310.49	-152.13	1,232.35	1,174.43	57.92	21.277		
6,700.00	6,623.18	6,586.01	6,579.56	30.77	28.92	-128.37	-313.55	-168.36	1,251.18	1,192.40	58.78	21.287		
6,800.00	6,718.58	6,681.16	6,669.74	31.22	29.33	-110.14	-316.56	-198.30	1,269.06	1,209.44	59.62	21.286		
6,900.00	6,808.91	6,775.86	6,754.06	31.66	29.73	-101.10	-319.47	-241.10	1,285.56	1,225.10	60.46	21.264		
7,000.00	6,891.95	6,870.27	6,830.89	32.07	30.13	-95.68	-322.22	-295.76	1,300.24	1,238.92	61.32	21.203		
7,100.00	6,965.65	6,964.53	6,898.70	32.51	30.57	-92.09	-324.75	-361.05	1,312.76	1,250.48	62.28	21.079		
7,200.00	7,028.20	7,058.73	6,956.10	33.02	31.11	-89.63	-327.01	-435.60	1,322.79	1,259.39	63.40	20.864		
7,300.00	7,078.04	7,152.92	7,001.89	33.68	31.77	-87.97	-328.95	-517.79	1,330.10	1,265.32	64.77	20.534		
7,400.00	7,113.97	7,247.15	7,035.08	34.52	32.60	-86.96	-330.54	-605.88	1,334.50	1,268.04	66.46	20.081		
7,500.00	7,135.09	7,341.41	7,054.92	35.53	33.59	-86.52	-331.72	-697.93	1,335.88	1,267.42	68.46	19.513		
7,600.00	7,140.96	7,435.91	7,060.98	36.68	34.71	-86.57	-332.49	-792.14	1,334.24	1,263.50	70.74	18.860		
7,700.00	7,140.53	7,535.87	7,060.55	37.99	36.08	-86.56	-333.09	-892.10	1,331.38	1,257.96	73.43	18.132		
7,800.00	7,140.09	7,635.83	7,060.11	39.45	37.60	-86.55	-333.69	-992.06	1,328.53	1,252.10	76.42	17.384		
7,900.00	7,139.66	7,735.79	7,059.68	41.06	39.27	-86.55	-334.29	-1,092.01	1,325.67	1,245.95	79.72	16.630		
8,000.00	7,139.23	7,835.74	7,059.24	42.80	41.08	-86.54	-334.88	-1,191.97	1,322.81	1,239.55	83.27	15.886		
8,100.00	7,138.79	7,935.70	7,058.81	44.65	42.99	-86.53	-335.48	-1,291.93	1,319.96	1,232.91	87.05	15.164		
8,200.00	7,138.36	8,035.66	7,058.38	46.60	45.01	-86.52	-336.08	-1,391.88	1,317.10	1,226.07	91.03	14.470		
8,300.00	7,137.93	8,135.62	7,057.94	48.65	47.11	-86.52	-336.68	-1,491.84	1,314.24	1,219.06	95.18	13.808		
8,400.00	7,137.49	8,235.58	7,057.51	50.77	49.29	-86.51	-337.28	-1,591.79	1,311.39	1,211.90	99.48	13.182		
8,500.00	7,137.06	8,335.54	7,057.08	52.95	51.54	-86.50	-337.88	-1,691.75	1,308.53	1,204.61	103.92	12.591		
8,600.00	7,136.62	8,435.50	7,056.64	55.20	53.85	-86.49	-338.47	-1,791.71	1,305.67	1,197.19	108.48	12.036		
8,700.00	7,136.19	8,535.46	7,056.21	57.51	56.20	-86.49	-339.07	-1,891.66	1,302.82	1,189.68	113.14	11.515		
8,800.00	7,135.76	8,635.42	7,055.77	59.85	58.60	-86.48	-339.67	-1,991.62	1,299.96	1,182.07	117.89	11.027		
8,900.00	7,135.32	8,735.38	7,055.34	62.24	61.04	-86.47	-340.27	-2,091.58	1,297.10	1,174.38	122.72	10.569		
9,000.00	7,134.89	8,835.33	7,054.91	64.67	63.52	-86.46	-340.87	-2,191.53	1,294.25	1,166.62	127.62	10.141		
9,100.00	7,134.45	8,935.29	7,054.47	67.13	66.02	-86.45	-341.47	-2,291.49	1,291.39	1,158.80	132.59	9.740		
9,200.00	7,134.02	9,035.25	7,054.04	69.62	68.56	-86.45	-342.07	-2,391.45	1,288.53	1,150.92	137.61	9.364		
9,300.00	7,133.59	9,135.21	7,053.61	72.14	71.11	-86.44	-342.66	-2,491.40	1,285.68	1,143.00	142.68	9.011		
9,400.00	7,133.15	9,235.17	7,053.17	74.68	73.69	-86.43	-343.26	-2,591.36	1,282.82	1,135.02	147.80	8.679		
9,500.00	7,132.72	9,335.13	7,052.74	77.24	76.29	-86.42	-343.86	-2,691.31	1,279.97	1,127.01	152.96	8.368		
9,600.00	7,132.29	9,435.09	7,052.30	79.83	78.91	-86.41	-344.46	-2,791.27	1,277.11	1,118.96	158.15	8.075		
9,700.00	7,131.85	9,535.05	7,051.87	82.42	81.55	-86.41	-345.06	-2,891.23	1,274.25	1,110.88	163.38	7.799		
9,800.00	7,131.42	9,635.01	7,051.44	85.04	84.19	-86.40	-345.66	-2,991.18	1,271.40	1,102.76	168.64	7.539		
9,900.00	7,130.98	9,734.97	7,051.00	87.67	86.86	-86.39	-346.26	-3,091.14	1,268.54	1,094.62	173.92	7.294		
10,000.00	7,130.55	9,834.92	7,050.57	90.31	89.53	-86.38	-346.85	-3,191.10	1,265.68	1,086.46	179.23	7.062		
10,100.00	7,130.12	9,934.88	7,050.13	92.97	92.21	-86.37	-347.45	-3,291.05	1,262.83	1,078.27	184.56	6.842		
10,200.00	7,129.68	10,034.84	7,049.70	95.63	94.91	-86.37	-348.05	-3,391.01	1,259.97	1,070.06	189.91	6.634		
10,300.00	7,129.25	10,134.80	7,049.27	98.31	97.61	-86.36	-348.65	-3,490.96	1,257.12	1,061.83	195.29	6.437		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +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)				
10,400.00	7,128.82	10,234.76	7,048.83	101.00	100.33	-86.35	-349.25	-3,590.92	1,254.26	1,053.58	200.68	6.250		
10,500.00	7,128.38	10,334.72	7,048.40	103.69	103.05	-86.34	-349.85	-3,690.88	1,251.40	1,045.32	206.08	6.072		
10,600.00	7,127.95	10,434.68	7,047.97	106.39	105.77	-86.33	-350.44	-3,790.83	1,248.55	1,037.05	211.50	5.903		
10,700.00	7,127.51	10,534.64	7,047.53	109.10	108.51	-86.32	-351.04	-3,890.79	1,245.69	1,028.75	216.94	5.742		
10,800.00	7,127.08	10,634.60	7,047.10	111.82	111.25	-86.32	-351.64	-3,990.75	1,242.84	1,020.45	222.38	5.589		
10,900.00	7,126.65	10,734.56	7,046.66	114.54	114.00	-86.31	-352.24	-4,090.70	1,239.98	1,012.14	227.84	5.442		
11,000.00	7,126.21	10,834.52	7,046.23	117.27	116.75	-86.30	-352.84	-4,190.66	1,237.12	1,003.81	233.31	5.302		
11,100.00	7,125.78	10,934.47	7,045.80	120.01	119.50	-86.29	-353.44	-4,290.62	1,234.27	995.47	238.79	5.169		
11,200.00	7,125.35	11,034.43	7,045.36	122.75	122.27	-86.28	-354.04	-4,390.57	1,231.41	987.13	244.28	5.041		
11,300.00	7,124.91	11,134.39	7,044.93	125.49	125.03	-86.27	-354.63	-4,490.53	1,228.56	978.77	249.78	4.919		
11,400.00	7,124.48	11,234.35	7,044.49	128.24	127.80	-86.26	-355.23	-4,590.48	1,225.70	970.41	255.29	4.801		
11,500.00	7,124.04	11,334.31	7,044.06	131.00	130.58	-86.26	-355.83	-4,690.44	1,222.84	962.04	260.80	4.689		
11,600.00	7,123.61	11,434.27	7,043.63	133.75	133.35	-86.25	-356.43	-4,790.40	1,219.99	953.66	266.33	4.581		
11,700.00	7,123.18	11,534.23	7,043.19	136.52	136.13	-86.24	-357.03	-4,890.35	1,217.13	945.28	271.85	4.477		
11,800.00	7,122.74	11,634.19	7,042.76	139.28	138.92	-86.23	-357.63	-4,990.31	1,214.28	936.89	277.39	4.378		
11,900.00	7,122.31	11,734.15	7,042.33	142.05	141.70	-86.22	-358.23	-5,090.27	1,211.42	928.49	282.93	4.282		
12,000.00	7,121.88	11,834.11	7,041.89	144.82	144.49	-86.21	-358.82	-5,190.22	1,208.57	920.09	288.48	4.189		
12,100.00	7,121.44	11,934.06	7,041.46	147.59	147.28	-86.20	-359.42	-5,290.18	1,205.71	911.68	294.03	4.101		
12,200.00	7,121.01	12,034.02	7,041.02	150.37	150.08	-86.19	-360.02	-5,390.13	1,202.86	903.27	299.59	4.015		
12,300.00	7,120.57	12,133.98	7,040.59	153.15	152.88	-86.18	-360.62	-5,490.09	1,200.00	894.85	305.15	3.933		
12,400.00	7,120.14	12,233.94	7,040.16	155.93	155.67	-86.17	-361.22	-5,590.05	1,197.14	886.43	310.72	3.853		
12,500.00	7,119.71	12,333.90	7,039.72	158.72	158.48	-86.17	-361.82	-5,690.00	1,194.29	878.00	316.29	3.776		
12,600.00	7,119.27	12,433.86	7,039.29	161.50	161.28	-86.16	-362.42	-5,789.96	1,191.43	869.57	321.86	3.702		
12,700.00	7,118.84	12,533.82	7,038.86	164.29	164.08	-86.15	-363.01	-5,889.92	1,188.58	861.14	327.44	3.630		
12,800.00	7,118.41	12,633.78	7,038.42	167.08	166.89	-86.14	-363.61	-5,989.87	1,185.72	852.70	333.02	3.561		
12,900.00	7,117.97	12,733.74	7,037.99	169.88	169.70	-86.13	-364.21	-6,089.83	1,182.87	844.26	338.61	3.493		
13,000.00	7,117.54	12,833.70	7,037.55	172.67	172.51	-86.12	-364.81	-6,189.78	1,180.01	835.82	344.20	3.428		
13,100.00	7,117.10	12,933.66	7,037.12	175.47	175.32	-86.11	-365.41	-6,289.74	1,177.16	827.37	349.79	3.365		
13,200.00	7,116.67	13,033.61	7,036.69	178.27	178.13	-86.10	-366.01	-6,389.70	1,174.30	818.92	355.38	3.304		
13,300.00	7,116.24	13,133.57	7,036.25	181.07	180.95	-86.09	-366.60	-6,489.65	1,171.45	810.47	360.98	3.245		
13,400.00	7,115.80	13,233.53	7,035.82	183.87	183.76	-86.08	-367.20	-6,589.61	1,168.59	802.01	366.58	3.188		
13,500.00	7,115.37	13,333.49	7,035.38	186.67	186.58	-86.07	-367.80	-6,689.57	1,165.74	793.55	372.18	3.132		
13,600.00	7,114.93	13,433.45	7,034.95	189.47	189.40	-86.06	-368.40	-6,789.52	1,162.88	785.09	377.79	3.078		
13,700.00	7,114.50	13,533.41	7,034.52	192.28	192.22	-86.05	-369.00	-6,889.48	1,160.03	776.63	383.39	3.026		
13,800.00	7,114.07	13,633.37	7,034.08	195.09	195.04	-86.04	-369.60	-6,989.44	1,157.17	768.17	389.00	2.975		
13,900.00	7,113.63	13,733.33	7,033.65	197.89	197.86	-86.03	-370.20	-7,089.39	1,154.32	759.70	394.62	2.925		
14,000.00	7,113.20	13,833.29	7,033.22	200.70	200.68	-86.02	-370.79	-7,189.35	1,151.46	751.23	400.23	2.877		
14,100.00	7,112.77	13,933.25	7,032.78	203.51	203.51	-86.01	-371.39	-7,289.30	1,148.61	742.76	405.85	2.830		
14,200.00	7,112.33	14,033.20	7,032.35	206.32	206.33	-86.00	-371.99	-7,389.26	1,145.75	734.29	411.46	2.785		
14,300.00	7,111.90	14,133.16	7,031.91	209.13	209.16	-85.99	-372.59	-7,489.22	1,142.90	725.81	417.08	2.740		
14,400.00	7,111.46	14,233.12	7,031.48	211.95	211.98	-85.98	-373.19	-7,589.17	1,140.04	717.34	422.70	2.697		
14,500.00	7,111.03	14,333.08	7,031.05	214.76	214.81	-85.97	-373.79	-7,689.13	1,137.19	708.86	428.32	2.655		
14,600.00	7,110.60	14,433.04	7,030.61	217.58	217.64	-85.96	-374.39	-7,789.09	1,134.33	700.38	433.95	2.614		
14,700.00	7,110.16	14,533.00	7,030.18	220.39	220.47	-85.95	-374.98	-7,889.04	1,131.48	691.90	439.57	2.574		
14,800.00	7,109.73	14,632.96	7,029.75	223.21	223.30	-85.94	-375.58	-7,989.00	1,128.62	683.42	445.20	2.535		
14,900.00	7,109.30	14,732.92	7,029.31	226.03	226.13	-85.93	-376.18	-8,088.95	1,125.77	674.94	450.83	2.497		
14,969.16	7,109.00	14,802.05	7,029.01	227.97	228.08	-85.92	-376.59	-8,158.09	1,123.79	669.07	454.72	2.471 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-179.52	-100.19	-0.83	100.19					
100.00	100.00	100.00	100.00	3.28	3.28	-179.52	-100.19	-0.83	100.19	93.62	6.57	15.251		
200.00	200.00	200.00	200.00	3.34	3.34	-179.52	-100.19	-0.83	100.19	93.52	6.67	15.012		
300.00	300.00	300.00	300.00	3.44	3.44	-179.52	-100.19	-0.83	100.19	93.30	6.89	14.542		
400.00	400.00	400.00	400.00	3.60	3.60	-179.52	-100.19	-0.83	100.19	92.98	7.21	13.903		
500.00	500.00	500.00	500.00	3.81	3.81	-179.52	-100.19	-0.83	100.19	92.58	7.61	13.162 CC		
600.00	600.00	600.04	599.94	4.05	4.04	-178.61	-100.19	-2.44	100.22	92.13	8.09	12.395 ES		
700.00	699.98	700.09	699.86	4.32	4.30	-168.23	-100.19	-4.94	102.02	93.40	8.62	11.836		
800.00	799.84	800.24	799.68	4.62	4.59	-167.44	-100.19	-7.43	107.26	98.06	9.21	11.648		
900.00	899.45	900.62	899.27	4.94	4.90	-167.11	-100.19	-9.92	115.92	106.08	9.84	11.775		
1,000.00	998.70	1,001.36	998.50	5.28	5.24	-167.16	-100.19	-12.40	127.96	117.44	10.52	12.166		
1,100.00	1,097.50	1,102.53	1,097.30	5.64	5.59	-167.49	-100.19	-14.87	143.18	131.95	11.23	12.755		
1,200.00	1,196.18	1,203.81	1,195.99	6.00	5.95	-167.86	-100.19	-17.34	159.12	147.17	11.95	13.314		
1,300.00	1,294.87	1,305.10	1,294.67	6.38	6.32	-168.15	-100.19	-19.80	175.07	162.37	12.70	13.785		
1,400.00	1,393.55	1,406.38	1,393.36	6.77	6.71	-168.40	-100.19	-22.27	191.02	177.56	13.47	14.184		
1,500.00	1,492.23	1,507.66	1,492.04	7.17	7.10	-168.61	-100.19	-24.74	206.98	192.73	14.25	14.524		
1,600.00	1,590.91	1,608.95	1,590.73	7.58	7.49	-168.79	-100.19	-27.20	222.94	207.89	15.05	14.816		
1,700.00	1,689.60	1,689.77	1,689.41	8.00	7.81	-168.94	-100.19	-29.67	238.90	223.13	15.77	15.146		
1,800.00	1,788.28	1,788.49	1,788.10	8.42	8.21	-169.08	-100.19	-32.14	254.86	238.28	16.58	15.373		
1,900.00	1,886.96	1,887.20	1,886.78	8.84	8.60	-169.20	-100.19	-34.60	270.82	253.43	17.39	15.571		
2,000.00	1,985.64	1,985.92	1,985.47	9.27	9.01	-169.31	-100.19	-37.07	286.79	268.57	18.21	15.745		
2,100.00	2,084.33	2,084.63	2,084.15	9.71	9.41	-169.40	-100.19	-39.54	302.75	283.71	19.04	15.899		
2,200.00	2,183.01	2,183.35	2,182.84	10.15	9.82	-169.49	-100.19	-42.00	318.72	298.84	19.87	16.036		
2,300.00	2,281.69	2,282.07	2,281.53	10.59	10.23	-169.57	-100.19	-44.47	334.68	313.97	20.71	16.158		
2,400.00	2,380.38	2,380.78	2,380.21	11.03	10.64	-169.64	-100.19	-46.94	350.65	329.10	21.55	16.268		
2,500.00	2,479.06	2,479.50	2,478.90	11.47	11.05	-169.70	-100.19	-49.40	366.62	344.22	22.40	16.367		
2,600.00	2,577.74	2,578.22	2,577.58	11.92	11.47	-169.76	-100.19	-51.87	382.58	359.34	23.25	16.456		
2,700.00	2,676.42	2,676.93	2,676.27	12.36	11.89	-169.81	-100.19	-54.34	398.55	374.45	24.10	16.537		
2,800.00	2,775.11	2,775.65	2,774.95	12.81	12.30	-169.86	-100.19	-56.80	414.52	389.56	24.96	16.610		
2,900.00	2,873.79	2,874.36	2,873.64	13.26	12.72	-169.91	-100.19	-59.27	430.49	404.68	25.81	16.678		
3,000.00	2,972.47	2,973.08	2,972.32	13.72	13.14	-169.95	-100.19	-61.73	446.46	419.79	26.67	16.739		
3,100.00	3,071.15	3,071.80	3,071.01	14.17	13.56	-169.99	-100.19	-64.20	462.43	434.89	27.53	16.795		
3,200.00	3,169.84	3,170.51	3,169.69	14.62	13.98	-170.03	-100.19	-66.67	478.40	450.00	28.40	16.847		
3,300.00	3,268.52	3,269.23	3,268.38	15.08	14.41	-170.07	-100.19	-69.13	494.37	465.11	29.26	16.895		
3,400.00	3,367.20	3,367.95	3,367.06	15.53	14.83	-170.10	-100.19	-71.60	510.33	480.21	30.13	16.940		
3,500.00	3,465.89	3,466.66	3,465.75	15.99	15.25	-170.13	-100.19	-74.07	526.30	495.31	30.99	16.981		
3,600.00	3,564.57	3,565.38	3,564.44	16.44	15.68	-170.16	-100.19	-76.53	542.27	510.41	31.86	17.019		
3,700.00	3,663.25	3,664.09	3,663.12	16.90	16.10	-170.19	-100.19	-79.00	558.24	525.51	32.73	17.055		
3,800.00	3,761.93	3,762.81	3,761.81	17.36	16.53	-170.21	-100.19	-81.47	574.21	540.61	33.60	17.088		
3,900.00	3,860.62	3,861.53	3,860.49	17.82	16.95	-170.24	-100.19	-83.93	590.18	555.71	34.48	17.119		
4,000.00	3,959.30	3,960.24	3,959.18	18.28	17.38	-170.26	-100.19	-86.40	606.16	570.81	35.35	17.148		
4,100.00	4,057.98	4,058.96	4,057.86	18.74	17.81	-170.28	-100.19	-88.87	622.13	585.90	36.22	17.176		
4,200.00	4,156.67	4,157.67	4,156.55	19.20	18.23	-170.30	-100.19	-91.33	638.10	601.00	37.10	17.201		
4,300.00	4,255.35	4,256.39	4,255.23	19.66	18.66	-170.32	-100.19	-93.80	654.07	616.10	37.97	17.225		
4,400.00	4,354.03	4,355.11	4,353.92	20.12	19.09	-170.34	-100.19	-96.27	670.04	631.19	38.85	17.248		
4,500.00	4,452.71	4,453.82	4,452.60	20.58	19.52	-170.36	-100.19	-98.73	686.01	646.28	39.72	17.270		
4,600.00	4,551.40	4,552.54	4,551.29	21.04	19.94	-170.38	-100.19	-101.20	701.98	661.38	40.60	17.290		
4,700.00	4,650.08	4,651.26	4,649.97	21.50	20.37	-170.39	-100.19	-103.67	717.95	676.47	41.48	17.309		
4,800.00	4,748.76	4,749.97	4,748.66	21.96	20.80	-170.41	-100.19	-106.13	733.92	691.56	42.36	17.327		
4,900.00	4,847.44	4,848.69	4,847.35	22.42	21.23	-170.42	-100.19	-108.60	749.89	706.66	43.24	17.344		
5,000.00	4,946.13	4,947.40	4,946.03	22.89	21.66	-170.44	-100.19	-111.07	765.86	721.75	44.11	17.361		
5,100.00	5,044.81	5,046.12	5,044.72	23.35	22.09	-170.45	-100.19	-113.53	781.83	736.84	44.99	17.376		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,144.84	5,143.40	23.81	22.52	-170.47	-100.19	-116.00	797.80	751.93	45.87	17.391		
5,300.00	5,242.18	5,243.55	5,242.09	24.27	22.95	-170.48	-100.19	-118.47	813.78	767.02	46.75	17.405		
5,400.00	5,340.86	5,342.27	5,340.77	24.74	23.38	-170.49	-100.19	-120.93	829.75	782.11	47.64	17.419		
5,500.00	5,439.54	5,440.99	5,439.46	25.20	23.81	-170.50	-100.19	-123.40	845.72	797.20	48.52	17.431		
5,600.00	5,538.22	5,539.70	5,538.14	25.66	24.24	-170.51	-100.19	-125.87	861.69	812.29	49.40	17.444		
5,700.00	5,636.91	5,638.42	5,636.83	26.13	24.67	-170.52	-100.19	-128.33	877.66	827.38	50.28	17.455		
5,800.00	5,735.59	5,737.13	5,735.51	26.59	25.10	-170.53	-100.19	-130.80	893.63	842.47	51.16	17.467		
5,900.00	5,834.27	5,835.85	5,834.20	27.06	25.53	-170.55	-100.19	-133.27	909.60	857.56	52.04	17.477		
6,000.00	5,932.95	5,934.57	5,932.88	27.52	25.96	-170.55	-100.19	-135.73	925.57	872.65	52.93	17.488		
6,100.00	6,031.64	6,033.28	6,031.57	27.98	26.39	-170.56	-100.19	-138.20	941.55	887.74	53.81	17.497		
6,200.00	6,130.32	6,132.00	6,130.26	28.45	26.83	-170.57	-100.19	-140.67	957.52	902.82	54.69	17.507		
6,300.00	6,229.00	6,230.72	6,228.94	28.91	27.26	-170.58	-100.19	-143.13	973.49	917.91	55.58	17.516		
6,400.00	6,327.69	6,329.43	6,327.63	29.38	27.69	-170.59	-100.19	-145.60	989.46	933.00	56.46	17.525		
6,500.00	6,426.37	6,428.15	6,426.31	29.84	28.12	-170.60	-100.19	-148.07	1,005.43	948.09	57.34	17.533		
6,600.00	6,525.05	6,526.37	6,524.50	30.31	28.55	-170.60	-100.19	-150.68	1,021.41	963.18	58.23	17.542		
6,700.00	6,623.18	6,621.60	6,618.93	30.77	28.97	-128.95	-100.37	-162.27	1,037.22	978.13	59.09	17.554		
6,800.00	6,718.58	6,716.72	6,710.48	31.22	29.40	-111.17	-100.83	-187.76	1,052.34	992.39	59.95	17.553		
6,900.00	6,808.91	6,811.91	6,797.27	31.66	29.83	-102.54	-101.54	-226.62	1,066.42	1,005.60	60.82	17.534		
7,000.00	6,891.95	6,907.30	6,877.47	32.07	30.27	-97.50	-102.51	-278.10	1,079.09	1,017.36	61.73	17.482		
7,100.00	6,965.65	7,003.02	6,949.31	32.51	30.75	-94.23	-103.71	-341.21	1,090.05	1,027.34	62.72	17.381		
7,200.00	7,028.20	7,099.17	7,011.13	33.02	31.32	-92.03	-105.12	-414.71	1,099.04	1,035.17	63.87	17.208		
7,300.00	7,078.04	7,195.79	7,061.41	33.68	32.00	-90.59	-106.70	-497.10	1,105.84	1,040.57	65.27	16.942		
7,400.00	7,113.97	7,292.91	7,098.81	34.52	32.83	-89.74	-108.44	-586.61	1,110.29	1,043.31	66.98	16.577		
7,500.00	7,135.09	7,390.53	7,122.25	35.53	33.82	-89.39	-110.28	-681.26	1,112.27	1,043.26	69.01	16.117		
7,600.00	7,140.96	7,488.63	7,130.96	36.68	34.96	-89.49	-112.18	-778.85	1,111.76	1,040.44	71.32	15.587		
7,700.00	7,140.53	7,588.45	7,130.67	37.99	36.28	-89.50	-114.13	-878.66	1,110.25	1,036.29	73.96	15.012		
7,800.00	7,140.09	7,688.44	7,130.31	39.45	37.77	-89.50	-116.09	-978.63	1,108.75	1,031.83	76.92	14.414		
7,900.00	7,139.66	7,788.43	7,129.94	41.06	39.40	-89.50	-118.04	-1,078.60	1,107.24	1,027.06	80.18	13.809		
8,000.00	7,139.23	7,888.42	7,129.57	42.80	41.17	-89.50	-120.00	-1,178.56	1,105.74	1,022.04	83.70	13.211		
8,100.00	7,138.79	7,988.41	7,129.21	44.65	43.05	-89.51	-121.95	-1,278.53	1,104.23	1,016.78	87.45	12.627		
8,200.00	7,138.36	8,088.39	7,128.84	46.60	45.04	-89.51	-123.91	-1,378.50	1,102.72	1,011.32	91.41	12.064		
8,300.00	7,137.93	8,188.38	7,128.48	48.65	47.12	-89.51	-125.86	-1,478.47	1,101.22	1,005.68	95.54	11.527		
8,400.00	7,137.49	8,288.37	7,128.11	50.77	49.27	-89.51	-127.82	-1,578.44	1,099.71	999.89	99.82	11.017		
8,500.00	7,137.06	8,388.36	7,127.74	52.95	51.49	-89.52	-129.77	-1,678.41	1,098.21	993.96	104.24	10.535		
8,600.00	7,136.62	8,488.35	7,127.38	55.20	53.77	-89.52	-131.73	-1,778.38	1,096.70	987.92	108.78	10.082		
8,700.00	7,136.19	8,588.34	7,127.01	57.51	56.11	-89.52	-133.69	-1,878.35	1,095.19	981.77	113.43	9.655		
8,800.00	7,135.76	8,688.33	7,126.64	59.85	58.49	-89.53	-135.64	-1,978.32	1,093.69	975.52	118.17	9.256		
8,900.00	7,135.32	8,788.32	7,126.28	62.24	60.91	-89.53	-137.60	-2,078.28	1,092.18	969.20	122.99	8.881		
9,000.00	7,134.89	8,888.30	7,125.91	64.67	63.37	-89.53	-139.55	-2,178.25	1,090.68	962.80	127.88	8.529		
9,100.00	7,134.45	8,988.29	7,125.55	67.13	65.85	-89.54	-141.51	-2,278.22	1,089.17	956.34	132.84	8.199		
9,200.00	7,134.02	9,088.28	7,125.18	69.62	68.37	-89.54	-143.46	-2,378.19	1,087.67	949.82	137.85	7.890		
9,300.00	7,133.59	9,188.27	7,124.81	72.14	70.92	-89.54	-145.42	-2,478.16	1,086.16	943.24	142.92	7.600		
9,400.00	7,133.15	9,288.26	7,124.45	74.68	73.48	-89.54	-147.37	-2,578.13	1,084.65	936.63	148.03	7.327		
9,500.00	7,132.72	9,388.25	7,124.08	77.24	76.07	-89.55	-149.33	-2,678.10	1,083.15	929.97	153.18	7.071		
9,600.00	7,132.29	9,488.24	7,123.72	79.83	78.67	-89.55	-151.28	-2,778.07	1,081.64	923.27	158.37	6.830		
9,700.00	7,131.85	9,588.22	7,123.35	82.42	81.29	-89.55	-153.24	-2,878.04	1,080.14	916.54	163.60	6.602		
9,800.00	7,131.42	9,688.21	7,122.98	85.04	83.93	-89.56	-155.19	-2,978.00	1,078.63	909.77	168.86	6.388		
9,900.00	7,130.98	9,788.20	7,122.62	87.67	86.58	-89.56	-157.15	-3,077.97	1,077.13	902.98	174.14	6.185		
10,000.00	7,130.55	9,888.19	7,122.25	90.31	89.25	-89.56	-159.10	-3,177.94	1,075.62	896.17	179.45	5.994		
10,100.00	7,130.12	9,988.18	7,121.89	92.97	91.92	-89.56	-161.06	-3,277.91	1,074.11	889.33	184.78	5.813		
10,200.00	7,129.68	10,088.17	7,121.52	95.63	94.61	-89.57	-163.02	-3,377.88	1,072.61	882.47	190.14	5.641		
10,300.00	7,129.25	10,188.16	7,121.15	98.31	97.30	-89.57	-164.97	-3,477.85	1,071.10	875.59	195.51	5.478		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	10,288.15	7,120.79	101.00	100.00	-89.57	-166.93	-3,577.82	1,069.60	868.69	200.91	5.324		
10,500.00	7,128.38	10,388.13	7,120.42	103.69	102.72	-89.58	-168.88	-3,677.79	1,068.09	861.77	206.32	5.177		
10,600.00	7,127.95	10,488.12	7,120.05	106.39	105.43	-89.58	-170.84	-3,777.76	1,066.58	854.84	211.74	5.037		
10,700.00	7,127.51	10,588.11	7,119.69	109.10	108.16	-89.58	-172.79	-3,877.72	1,065.08	847.90	217.18	4.904		
10,800.00	7,127.08	10,688.10	7,119.32	111.82	110.89	-89.59	-174.75	-3,977.69	1,063.57	840.94	222.63	4.777		
10,900.00	7,126.65	10,788.09	7,118.96	114.54	113.63	-89.59	-176.70	-4,077.66	1,062.07	833.97	228.10	4.656		
11,000.00	7,126.21	10,888.08	7,118.59	117.27	116.38	-89.59	-178.66	-4,177.63	1,060.56	826.99	233.57	4.541		
11,100.00	7,125.78	10,988.07	7,118.22	120.01	119.12	-89.59	-180.61	-4,277.60	1,059.06	820.00	239.06	4.430		
11,200.00	7,125.35	11,088.05	7,117.86	122.75	121.88	-89.60	-182.57	-4,377.57	1,057.55	813.00	244.55	4.324		
11,300.00	7,124.91	11,188.04	7,117.49	125.49	124.64	-89.60	-184.52	-4,477.54	1,056.04	805.98	250.06	4.223		
11,400.00	7,124.48	11,288.03	7,117.13	128.24	127.40	-89.60	-186.48	-4,577.51	1,054.54	798.96	255.57	4.126		
11,500.00	7,124.04	11,388.02	7,116.76	131.00	130.17	-89.61	-188.43	-4,677.47	1,053.03	791.94	261.10	4.033		
11,600.00	7,123.61	11,488.01	7,116.39	133.75	132.94	-89.61	-190.39	-4,777.44	1,051.53	784.90	266.63	3.944		
11,700.00	7,123.18	11,588.00	7,116.03	136.52	135.71	-89.61	-192.35	-4,877.41	1,050.02	777.86	272.16	3.858		
11,800.00	7,122.74	11,687.99	7,115.66	139.28	138.49	-89.62	-194.30	-4,977.38	1,048.52	770.81	277.71	3.776		
11,900.00	7,122.31	11,787.97	7,115.29	142.05	141.27	-89.62	-196.26	-5,077.35	1,047.01	763.75	283.26	3.696		
12,000.00	7,121.88	11,887.96	7,114.93	144.82	144.05	-89.62	-198.21	-5,177.32	1,045.50	756.69	288.81	3.620		
12,100.00	7,121.44	11,987.95	7,114.56	147.59	146.84	-89.63	-200.17	-5,277.29	1,044.00	749.63	294.37	3.547		
12,200.00	7,121.01	12,087.94	7,114.20	150.37	149.63	-89.63	-202.12	-5,377.26	1,042.49	742.55	299.94	3.476		
12,300.00	7,120.57	12,187.93	7,113.83	153.15	152.42	-89.63	-204.08	-5,477.23	1,040.99	735.48	305.51	3.407		
12,400.00	7,120.14	12,287.92	7,113.46	155.93	155.21	-89.64	-206.03	-5,577.19	1,039.48	728.39	311.09	3.341		
12,500.00	7,119.71	12,387.91	7,113.10	158.72	158.00	-89.64	-207.99	-5,677.16	1,037.98	721.31	316.67	3.278		
12,600.00	7,119.27	12,487.90	7,112.73	161.50	160.80	-89.64	-209.94	-5,777.13	1,036.47	714.22	322.25	3.216		
12,700.00	7,118.84	12,587.88	7,112.37	164.29	163.60	-89.65	-211.90	-5,877.10	1,034.96	707.12	327.84	3.157		
12,800.00	7,118.41	12,687.87	7,112.00	167.08	166.40	-89.65	-213.85	-5,977.07	1,033.46	700.02	333.44	3.099		
12,900.00	7,117.97	12,787.86	7,111.63	169.88	169.20	-89.65	-215.81	-6,077.04	1,031.95	692.92	339.03	3.044		
13,000.00	7,117.54	12,887.85	7,111.27	172.67	172.01	-89.66	-217.76	-6,177.01	1,030.45	685.81	344.63	2.990		
13,100.00	7,117.10	12,987.84	7,110.90	175.47	174.81	-89.66	-219.72	-6,276.98	1,028.94	678.70	350.24	2.938		
13,200.00	7,116.67	13,087.83	7,110.53	178.27	177.62	-89.66	-221.68	-6,376.95	1,027.44	671.59	355.84	2.887		
13,300.00	7,116.24	13,187.82	7,110.17	181.07	180.43	-89.66	-223.63	-6,476.91	1,025.93	664.48	361.45	2.838		
13,400.00	7,115.80	13,287.80	7,109.80	183.87	183.24	-89.67	-225.59	-6,576.88	1,024.42	657.36	367.06	2.791		
13,500.00	7,115.37	13,387.79	7,109.44	186.67	186.05	-89.67	-227.54	-6,676.85	1,022.92	650.24	372.68	2.745		
13,600.00	7,114.93	13,487.78	7,109.07	189.47	188.87	-89.67	-229.50	-6,776.82	1,021.41	643.11	378.30	2.700		
13,700.00	7,114.50	13,587.77	7,108.70	192.28	191.68	-89.68	-231.45	-6,876.79	1,019.91	635.99	383.92	2.657		
13,800.00	7,114.07	13,687.76	7,108.34	195.09	194.50	-89.68	-233.41	-6,976.76	1,018.40	628.86	389.54	2.614		
13,900.00	7,113.63	13,787.75	7,107.97	197.89	197.31	-89.68	-235.36	-7,076.73	1,016.90	621.73	395.17	2.573		
14,000.00	7,113.20	13,887.74	7,107.61	200.70	200.13	-89.69	-237.32	-7,176.70	1,015.39	614.60	400.79	2.533		
14,100.00	7,112.77	13,987.73	7,107.24	203.51	202.95	-89.69	-239.27	-7,276.67	1,013.88	607.46	406.42	2.495		
14,200.00	7,112.33	14,087.71	7,106.87	206.32	205.77	-89.69	-241.23	-7,376.63	1,012.38	600.33	412.05	2.457		
14,300.00	7,111.90	14,187.70	7,106.51	209.13	208.59	-89.70	-243.18	-7,476.60	1,010.87	593.19	417.69	2.420		
14,400.00	7,111.46	14,287.69	7,106.14	211.95	211.41	-89.70	-245.14	-7,576.57	1,009.37	586.05	423.32	2.384		
14,500.00	7,111.03	14,387.68	7,105.78	214.76	214.23	-89.70	-247.09	-7,676.54	1,007.86	578.90	428.96	2.350		
14,600.00	7,110.60	14,487.67	7,105.41	217.58	217.06	-89.71	-249.05	-7,776.51	1,006.36	571.76	434.60	2.316		
14,700.00	7,110.16	14,587.66	7,105.04	220.39	219.88	-89.71	-251.01	-7,876.48	1,004.85	564.61	440.24	2.283		
14,800.00	7,109.73	14,687.65	7,104.68	223.21	222.70	-89.72	-252.96	-7,976.45	1,003.34	557.47	445.88	2.250		
14,900.00	7,109.30	14,787.63	7,104.31	226.03	225.53	-89.72	-254.92	-8,076.42	1,001.84	550.32	451.52	2.219		
14,969.16	7,109.00	14,856.79	7,104.06	227.97	227.48	-89.72	-256.27	-8,145.56	1,000.80	545.37	455.43	2.197 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 41-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,400.00	7,113.97	7,052.97	7,113.97	34.52	244.50	-66.60	-4,375.85	-8,995.71	9,967.58	9,689.22	278.36	35.808		
7,500.00	7,135.09	7,074.09	7,135.09	35.53	245.23	-77.93	-4,375.85	-8,995.71	9,885.58	9,605.98	279.60	35.356		
7,600.00	7,140.96	7,079.96	7,140.96	36.68	245.44	-90.41	-4,375.85	-8,995.71	9,800.74	9,520.41	280.33	34.962		
7,700.00	7,140.53	7,079.53	7,140.53	37.99	245.42	-90.40	-4,375.85	-8,995.71	9,715.41	9,434.53	280.89	34.589		
7,800.00	7,140.09	7,079.09	7,140.09	39.45	245.41	-90.40	-4,375.85	-8,995.71	9,630.37	9,348.86	281.51	34.210		
7,900.00	7,139.66	7,078.66	7,139.66	41.06	245.39	-90.39	-4,375.85	-8,995.71	9,545.61	9,263.41	282.21	33.825		
8,000.00	7,139.23	7,078.23	7,139.23	42.80	245.38	-90.39	-4,375.85	-8,995.71	9,461.16	9,178.19	282.97	33.435		
8,100.00	7,138.79	7,077.79	7,138.79	44.65	245.36	-90.38	-4,375.85	-8,995.71	9,377.01	9,093.20	283.81	33.040		
8,200.00	7,138.36	7,077.36	7,138.36	46.60	245.35	-90.38	-4,375.85	-8,995.71	9,293.17	9,008.46	284.71	32.641		
8,300.00	7,137.93	7,076.93	7,137.93	48.65	245.33	-90.37	-4,375.85	-8,995.71	9,209.65	8,923.97	285.68	32.238		
8,400.00	7,137.49	7,076.49	7,137.49	50.77	245.32	-90.37	-4,375.85	-8,995.71	9,126.47	8,839.75	286.72	31.831		
8,500.00	7,137.06	7,076.06	7,137.06	52.95	245.30	-90.37	-4,375.85	-8,995.71	9,043.63	8,755.81	287.82	31.421		
8,600.00	7,136.62	7,075.62	7,136.62	55.20	245.29	-90.36	-4,375.85	-8,995.71	8,961.14	8,672.14	288.99	31.008		
8,700.00	7,136.19	7,075.19	7,136.19	57.51	245.27	-90.36	-4,375.85	-8,995.71	8,879.00	8,588.78	290.23	30.593		
8,800.00	7,135.76	7,074.76	7,135.76	59.85	245.26	-90.35	-4,375.85	-8,995.71	8,797.24	8,505.72	291.53	30.176		
8,900.00	7,135.32	7,074.32	7,135.32	62.24	245.24	-90.35	-4,375.85	-8,995.71	8,715.86	8,422.97	292.89	29.758		
9,000.00	7,134.89	7,073.89	7,134.89	64.67	245.23	-90.34	-4,375.85	-8,995.71	8,634.87	8,340.56	294.31	29.339		
9,100.00	7,134.45	7,073.45	7,134.45	67.13	245.21	-90.34	-4,375.85	-8,995.71	8,554.28	8,258.48	295.80	28.920		
9,200.00	7,134.02	7,073.02	7,134.02	69.62	245.20	-90.33	-4,375.85	-8,995.71	8,474.10	8,176.76	297.34	28.500		
9,300.00	7,133.59	7,072.59	7,133.59	72.14	245.18	-90.33	-4,375.85	-8,995.71	8,394.35	8,095.41	298.94	28.080		
9,400.00	7,133.15	7,072.15	7,133.15	74.68	245.17	-90.32	-4,375.85	-8,995.71	8,315.04	8,014.43	300.61	27.661		
9,500.00	7,132.72	7,071.72	7,132.72	77.24	245.15	-90.32	-4,375.85	-8,995.71	8,236.18	7,933.85	302.33	27.242		
9,600.00	7,132.29	7,071.29	7,132.29	79.83	245.14	-90.31	-4,375.85	-8,995.71	8,157.78	7,853.67	304.11	26.825		
9,700.00	7,131.85	7,070.85	7,131.85	82.42	245.12	-90.31	-4,375.85	-8,995.71	8,079.86	7,773.91	305.95	26.409		
9,800.00	7,131.42	7,070.42	7,131.42	85.04	245.11	-90.30	-4,375.85	-8,995.71	8,002.43	7,694.59	307.84	25.995		
9,900.00	7,130.98	7,069.98	7,130.98	87.67	245.09	-90.30	-4,375.85	-8,995.71	7,925.51	7,615.71	309.79	25.583		
10,000.00	7,130.55	7,069.55	7,130.55	90.31	245.07	-90.29	-4,375.85	-8,995.71	7,849.10	7,537.30	311.80	25.174		
10,100.00	7,130.12	7,069.12	7,130.12	92.97	245.06	-90.29	-4,375.85	-8,995.71	7,773.23	7,459.37	313.86	24.767		
10,200.00	7,129.68	7,068.68	7,129.68	95.63	245.04	-90.28	-4,375.85	-8,995.71	7,697.91	7,381.93	315.98	24.362		
10,300.00	7,129.25	7,068.25	7,129.25	98.31	245.03	-90.28	-4,375.85	-8,995.71	7,623.16	7,305.01	318.15	23.961		
10,400.00	7,128.82	7,067.82	7,128.82	101.00	245.01	-90.27	-4,375.85	-8,995.71	7,549.00	7,228.61	320.38	23.563		
10,500.00	7,128.38	7,067.38	7,128.38	103.69	245.00	-90.27	-4,375.85	-8,995.71	7,475.43	7,152.77	322.67	23.168		
10,600.00	7,127.95	7,066.95	7,127.95	106.39	244.98	-90.26	-4,375.85	-8,995.71	7,402.49	7,077.48	325.01	22.776		
10,700.00	7,127.51	7,066.51	7,127.51	109.10	244.97	-90.26	-4,375.85	-8,995.71	7,330.18	7,002.78	327.40	22.389		
10,800.00	7,127.08	7,066.08	7,127.08	111.82	244.95	-90.25	-4,375.85	-8,995.71	7,258.53	6,928.68	329.85	22.006		
10,900.00	7,126.65	7,065.65	7,126.65	114.54	244.94	-90.25	-4,375.85	-8,995.71	7,187.56	6,855.21	332.35	21.626		
11,000.00	7,126.21	7,065.21	7,126.21	117.27	244.92	-90.24	-4,375.85	-8,995.71	7,117.29	6,782.37	334.91	21.251		
11,100.00	7,125.78	7,064.78	7,125.78	120.01	244.91	-90.24	-4,375.85	-8,995.71	7,047.73	6,710.20	337.53	20.880		
11,200.00	7,125.35	7,064.35	7,125.35	122.75	244.89	-90.23	-4,375.85	-8,995.71	6,978.91	6,638.72	340.20	20.514		
11,300.00	7,124.91	7,063.91	7,124.91	125.49	244.88	-90.23	-4,375.85	-8,995.71	6,910.86	6,567.94	342.92	20.153		
11,400.00	7,124.48	7,063.48	7,124.48	128.24	244.86	-90.22	-4,375.85	-8,995.71	6,843.59	6,497.89	345.69	19.797		
11,500.00	7,124.04	7,063.04	7,124.04	131.00	244.85	-90.22	-4,375.85	-8,995.71	6,777.13	6,428.60	348.52	19.445		
11,600.00	7,123.61	7,062.61	7,123.61	133.75	244.83	-90.21	-4,375.85	-8,995.71	6,711.49	6,360.09	351.40	19.099		
11,700.00	7,123.18	7,062.18	7,123.18	136.52	244.82	-90.21	-4,375.85	-8,995.71	6,646.72	6,292.38	354.34	18.758		
11,800.00	7,122.74	7,061.74	7,122.74	139.28	244.80	-90.20	-4,375.85	-8,995.71	6,582.83	6,225.50	357.33	18.422		
11,900.00	7,122.31	7,061.31	7,122.31	142.05	244.79	-90.20	-4,375.85	-8,995.71	6,519.84	6,159.48	360.37	18.092		
12,000.00	7,121.88	7,060.88	7,121.88	144.82	244.77	-90.19	-4,375.85	-8,995.71	6,457.79	6,094.34	363.46	17.768		
12,100.00	7,121.44	7,060.44	7,121.44	147.59	244.76	-90.19	-4,375.85	-8,995.71	6,396.70	6,030.11	366.60	17.449		
12,200.00	7,121.01	7,060.01	7,121.01	150.37	244.74	-90.18	-4,375.85	-8,995.71	6,336.60	5,966.82	369.78	17.136		
12,300.00	7,120.57	7,059.57	7,120.57	153.15	244.73	-90.18	-4,375.85	-8,995.71	6,277.52	5,904.50	373.02	16.829		
12,400.00	7,120.14	7,059.14	7,120.14	155.93	244.71	-90.17	-4,375.85	-8,995.71	6,219.49	5,843.18	376.30	16.528		
12,500.00	7,119.71	7,058.71	7,119.71	158.72	244.70	-90.17	-4,375.85	-8,995.71	6,162.53	5,782.89	379.63	16.233		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	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	
12,600.00	7,119.27	7,058.27	7,119.27	161.50	244.68	-90.16	-4,375.85	-8,995.71	6,106.68	5,723.67	383.01	15.944	
12,700.00	7,118.84	7,057.84	7,118.84	164.29	244.67	-90.16	-4,375.85	-8,995.71	6,051.96	5,665.54	386.42	15.661	
12,800.00	7,118.41	7,057.41	7,118.41	167.08	244.65	-90.16	-4,375.85	-8,995.71	5,998.41	5,608.53	389.88	15.385	
12,900.00	7,117.97	7,056.97	7,117.97	169.88	244.64	-90.15	-4,375.85	-8,995.71	5,946.06	5,552.69	393.37	15.116	
13,000.00	7,117.54	7,056.54	7,117.54	172.67	244.62	-90.15	-4,375.85	-8,995.71	5,894.95	5,498.04	396.90	14.852	
13,100.00	7,117.10	7,056.10	7,117.10	175.47	244.61	-90.14	-4,375.85	-8,995.71	5,845.09	5,444.63	400.47	14.596	
13,200.00	7,116.67	7,055.67	7,116.67	178.27	244.59	-90.14	-4,375.85	-8,995.71	5,796.54	5,392.47	404.07	14.346	
13,300.00	7,116.24	7,055.24	7,116.24	181.07	244.58	-90.13	-4,375.85	-8,995.71	5,749.31	5,341.62	407.69	14.102	
13,400.00	7,115.80	7,054.80	7,115.80	183.87	244.56	-90.13	-4,375.85	-8,995.71	5,703.45	5,292.11	411.34	13.866	
13,500.00	7,115.37	7,054.37	7,115.37	186.67	244.54	-90.12	-4,375.85	-8,995.71	5,658.98	5,243.97	415.01	13.636	
13,600.00	7,114.93	7,053.93	7,114.93	189.47	244.53	-90.12	-4,375.85	-8,995.71	5,615.94	5,197.23	418.70	13.413	
13,700.00	7,114.50	7,053.50	7,114.50	192.28	244.51	-90.11	-4,375.85	-8,995.71	5,574.36	5,151.95	422.41	13.197	
13,800.00	7,114.07	7,053.07	7,114.07	195.09	244.50	-90.11	-4,375.85	-8,995.71	5,534.28	5,108.15	426.13	12.987	
13,900.00	7,113.63	7,052.63	7,113.63	197.89	244.48	-90.10	-4,375.85	-8,995.71	5,495.72	5,065.87	429.85	12.785	
14,000.00	7,113.20	7,052.20	7,113.20	200.70	244.47	-90.10	-4,375.85	-8,995.71	5,458.72	5,025.14	433.58	12.590	
14,100.00	7,112.77	7,051.77	7,112.77	203.51	244.45	-90.09	-4,375.85	-8,995.71	5,423.32	4,986.01	437.31	12.402	
14,200.00	7,112.33	7,051.33	7,112.33	206.32	244.44	-90.09	-4,375.85	-8,995.71	5,389.54	4,948.51	441.03	12.220	
14,300.00	7,111.90	7,050.90	7,111.90	209.13	244.42	-90.08	-4,375.85	-8,995.71	5,357.41	4,912.67	444.74	12.046	
14,400.00	7,111.46	7,050.46	7,111.46	211.95	244.41	-90.08	-4,375.85	-8,995.71	5,326.97	4,878.53	448.43	11.879	
14,500.00	7,111.03	7,050.03	7,111.03	214.76	244.39	-90.07	-4,375.85	-8,995.71	5,298.23	4,846.13	452.11	11.719	
14,600.00	7,110.60	7,049.60	7,110.60	217.58	244.38	-90.07	-4,375.85	-8,995.71	5,271.24	4,815.49	455.75	11.566	
14,700.00	7,110.16	7,049.16	7,110.16	220.39	244.36	-90.06	-4,375.85	-8,995.71	5,246.02	4,786.65	459.37	11.420	
14,800.00	7,109.73	7,048.73	7,109.73	223.21	244.35	-90.06	-4,375.85	-8,995.71	5,222.59	4,759.64	462.95	11.281	
14,900.00	7,109.30	7,048.30	7,109.30	226.03	244.33	-90.05	-4,375.85	-8,995.71	5,200.98	4,734.49	466.49	11.149	
14,969.16	7,109.00	7,048.00	7,109.00	227.97	244.32	-90.05	-4,375.85	-8,995.71	5,187.11	4,718.20	468.91	11.062	CC, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
0.00	0.00	668.25	702.15	3.28	4.32	-108.83	-3,048.66	-8,938.04	9,469.73					
100.00	100.00	724.00	757.32	3.28	4.49	-108.88	-3,054.06	-8,932.11	9,462.66	9,454.91	7.75	1,221.220		
200.00	200.00	724.00	757.32	3.34	4.49	-108.88	-3,054.06	-8,932.11	9,456.24	9,448.45	7.79	1,213.968		
300.00	300.00	724.00	757.32	3.44	4.49	-108.88	-3,054.06	-8,932.11	9,450.88	9,442.99	7.89	1,198.063		
400.00	400.00	724.00	757.32	3.60	4.49	-108.88	-3,054.06	-8,932.11	9,446.57	9,438.53	8.04	1,174.875		
500.00	500.00	775.85	808.55	3.81	4.66	-108.92	-3,060.40	-8,927.28	9,442.33	9,433.92	8.41	1,122.972		
600.00	600.00	818.00	850.05	4.05	4.81	-108.97	-3,067.06	-8,924.15	9,439.80	9,431.01	8.79	1,073.813		
700.00	699.98	818.00	850.05	4.32	4.81	-99.85	-3,067.06	-8,924.15	9,437.98	9,428.92	9.06	1,041.772		
759.96	759.87	818.00	850.05	4.50	4.81	-99.86	-3,067.06	-8,924.15	9,437.68	9,428.45	9.23	1,022.101		
800.00	799.84	818.00	850.05	4.62	4.81	-99.86	-3,067.06	-8,924.15	9,437.81	9,428.46	9.35	1,008.885		
900.00	899.45	818.00	850.05	4.94	4.81	-99.83	-3,067.06	-8,924.15	9,439.31	9,429.63	9.67	975.913		
1,000.00	998.70	818.00	850.05	5.28	4.81	-99.76	-3,067.06	-8,924.15	9,442.45	9,432.44	10.01	943.355		
1,100.00	1,097.50	860.71	892.00	5.64	4.96	-99.79	-3,074.71	-8,921.86	9,446.56	9,436.04	10.52	898.069		
1,200.00	1,196.18	912.00	942.33	6.00	5.15	-99.90	-3,084.50	-8,920.44	9,452.51	9,441.43	11.08	853.042		
1,300.00	1,294.87	912.00	942.33	6.38	5.15	-99.90	-3,084.50	-8,920.44	9,458.57	9,447.11	11.46	825.212		
1,400.00	1,393.55	912.00	942.33	6.77	5.15	-99.90	-3,084.50	-8,920.44	9,465.69	9,453.83	11.85	798.600		
1,500.00	1,492.23	912.00	942.33	7.17	5.15	-99.90	-3,084.50	-8,920.44	9,473.85	9,461.60	12.25	773.279		
1,600.00	1,590.91	912.00	942.33	7.58	5.15	-99.90	-3,084.50	-8,920.44	9,483.07	9,470.41	12.66	749.269		
1,700.00	1,689.60	912.00	942.33	8.00	5.15	-99.90	-3,084.50	-8,920.44	9,493.32	9,480.26	13.07	726.558		
1,800.00	1,788.28	956.88	986.34	8.42	5.31	-99.99	-3,093.28	-8,920.53	9,503.89	9,490.24	13.65	696.082		
1,900.00	1,886.96	1,006.00	1,034.51	8.84	5.50	-100.09	-3,102.74	-8,922.22	9,516.18	9,501.91	14.26	667.116		
2,000.00	1,985.64	1,006.00	1,034.51	9.27	5.50	-100.09	-3,102.74	-8,922.22	9,528.62	9,513.94	14.68	648.978		
2,100.00	2,084.33	1,006.00	1,034.51	9.71	5.50	-100.09	-3,102.74	-8,922.22	9,542.10	9,527.00	15.10	631.857		
2,200.00	2,183.01	1,006.00	1,034.51	10.15	5.50	-100.09	-3,102.74	-8,922.22	9,556.61	9,541.09	15.52	615.697		
2,300.00	2,281.69	1,006.00	1,034.51	10.59	5.50	-100.09	-3,102.74	-8,922.22	9,572.14	9,556.20	15.94	600.444		
2,400.00	2,380.38	1,050.44	1,078.09	11.03	5.66	-100.17	-3,110.97	-8,925.04	9,588.16	9,571.63	16.54	579.809		
2,500.00	2,479.06	1,101.00	1,127.68	11.47	5.85	-100.26	-3,119.71	-8,929.59	9,605.46	9,588.30	17.16	559.766		
2,600.00	2,577.74	1,101.00	1,127.68	11.92	5.85	-100.26	-3,119.71	-8,929.59	9,623.10	9,605.52	17.58	547.440		
2,700.00	2,676.42	1,101.00	1,127.68	12.36	5.85	-100.26	-3,119.71	-8,929.59	9,641.74	9,623.75	18.00	535.782		
2,800.00	2,775.11	1,101.00	1,127.68	12.81	5.85	-100.26	-3,119.71	-8,929.59	9,661.39	9,642.98	18.41	524.751		
2,900.00	2,873.79	1,101.00	1,127.68	13.26	5.85	-100.26	-3,119.71	-8,929.59	9,682.02	9,663.20	18.83	514.308		
3,000.00	2,972.47	1,153.96	1,179.45	13.72	6.05	-100.35	-3,129.02	-8,935.63	9,702.79	9,683.34	19.46	498.712		
3,100.00	3,071.15	1,197.00	1,221.30	14.17	6.23	-100.43	-3,137.33	-8,941.34	9,725.03	9,704.99	20.05	485.106		
3,200.00	3,169.84	1,197.00	1,221.30	14.62	6.23	-100.43	-3,137.33	-8,941.34	9,747.69	9,727.24	20.46	476.541		
3,300.00	3,268.52	1,197.00	1,221.30	15.08	6.23	-100.43	-3,137.33	-8,941.34	9,771.32	9,750.46	20.86	468.415		
3,400.00	3,367.20	1,197.00	1,221.30	15.53	6.23	-100.43	-3,137.33	-8,941.34	9,795.91	9,774.65	21.26	460.705		
3,500.00	3,465.89	1,236.60	1,259.60	15.99	6.40	-100.50	-3,145.52	-8,947.17	9,821.03	9,799.19	21.84	449.689		
3,600.00	3,564.57	1,253.84	1,276.22	16.44	6.47	-100.53	-3,149.24	-8,949.88	9,847.08	9,824.76	22.31	441.276		
3,700.00	3,663.25	1,292.00	1,312.86	16.90	6.64	-100.60	-3,157.79	-8,956.22	9,874.03	9,851.14	22.89	431.458		
3,800.00	3,761.93	1,292.00	1,312.86	17.36	6.64	-100.60	-3,157.79	-8,956.22	9,901.52	9,878.24	23.28	425.392		
3,900.00	3,860.62	1,292.00	1,312.86	17.82	6.64	-100.60	-3,157.79	-8,956.22	9,929.94	9,906.28	23.66	419.625		
4,000.00	3,959.30	1,292.00	1,312.86	18.28	6.64	-100.60	-3,157.79	-8,956.22	9,959.29	9,935.24	24.05	414.143		
4,100.00	4,057.98	1,338.70	1,357.44	18.74	6.87	-100.69	-3,168.84	-8,964.65	9,988.96	9,964.31	24.65	405.247		
4,400.00	7,137.49	3,893.39	3,663.85	50.77	30.31	-54.90	-4,191.78	-9,328.57	9,922.61	9,860.87	61.74	160.706		
8,500.00	7,137.06	3,900.31	3,670.08	52.95	30.38	-54.96	-4,194.63	-9,329.47	9,843.00	9,780.32	62.68	157.040		
8,600.00	7,136.62	3,925.00	3,692.33	55.20	30.62	-55.19	-4,204.84	-9,332.71	9,763.78	9,699.95	63.84	152.952		
8,700.00	7,136.19	3,925.00	3,692.33	57.51	30.62	-55.19	-4,204.84	-9,332.71	9,684.89	9,620.07	64.82	149.416		
8,800.00	7,135.76	3,925.00	3,692.33	59.85	30.62	-55.19	-4,204.84	-9,332.71	9,606.38	9,540.53	65.85	145.873		
8,900.00	7,135.32	3,925.00	3,692.33	62.24	30.62	-55.19	-4,204.84	-9,332.71	9,528.28	9,461.34	66.94	142.334		
9,000.00	7,134.89	3,925.00	3,692.33	64.67	30.62	-55.19	-4,204.84	-9,332.71	9,450.60	9,382.51	68.08	138.809		
9,100.00	7,134.45	3,925.00	3,692.33	67.13	30.62	-55.19	-4,204.84	-9,332.71	9,373.33	9,304.06	69.27	135.307		
9,200.00	7,134.02	3,925.00	3,692.33	69.62	30.62	-55.19	-4,204.84	-9,332.71	9,296.50	9,225.99	70.52	131.837		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
9,300.00	7,133.59	3,925.00	3,692.33	72.14	30.62	-55.19	-4,204.84	-9,332.71	9,220.11	9,148.31	71.80	128.406		
9,400.00	7,133.15	3,925.00	3,692.33	74.68	30.62	-55.19	-4,204.84	-9,332.71	9,144.18	9,071.04	73.14	125.020		
9,500.00	7,132.72	3,925.00	3,692.33	77.24	30.62	-55.19	-4,204.84	-9,332.71	9,068.72	8,994.19	74.53	121.685		
9,600.00	7,132.29	3,925.00	3,692.33	79.83	30.62	-55.19	-4,204.84	-9,332.71	8,993.73	8,917.78	75.96	118.405		
9,700.00	7,131.85	3,925.00	3,692.33	82.42	30.62	-55.19	-4,204.84	-9,332.71	8,919.24	8,841.81	77.43	115.185		
9,800.00	7,131.42	7,330.44	6,919.29	85.04	53.43	-88.16	-5,011.36	-9,554.28	8,845.00	8,741.69	103.31	85.620		
9,900.00	7,130.98	7,332.47	6,921.32	87.67	53.44	-88.18	-5,011.39	-9,554.32	8,768.83	8,663.71	105.13	83.411		
10,000.00	7,130.55	7,334.50	6,923.36	90.31	53.44	-88.21	-5,011.42	-9,554.36	8,693.16	8,586.16	107.00	81.245		
10,100.00	7,130.12	7,336.54	6,925.40	92.97	53.45	-88.23	-5,011.44	-9,554.40	8,617.97	8,509.05	108.92	79.121		
10,200.00	7,129.68	7,338.58	6,927.43	95.63	53.46	-88.25	-5,011.47	-9,554.44	8,543.30	8,432.41	110.89	77.042		
10,300.00	7,129.25	7,340.62	6,929.47	98.31	53.46	-88.27	-5,011.50	-9,554.48	8,469.15	8,356.24	112.91	75.008		
10,400.00	7,128.82	7,342.66	6,931.52	101.00	53.47	-88.29	-5,011.52	-9,554.52	8,395.53	8,280.55	114.98	73.018		
10,500.00	7,128.38	7,344.71	6,933.56	103.69	53.47	-88.31	-5,011.55	-9,554.56	8,322.46	8,205.37	117.09	71.075		
10,600.00	7,127.95	7,346.76	6,935.61	106.39	53.48	-88.33	-5,011.58	-9,554.60	8,249.96	8,130.70	119.26	69.177		
10,700.00	7,127.51	7,348.81	6,937.66	109.10	53.49	-88.35	-5,011.60	-9,554.65	8,178.04	8,056.57	121.47	67.325		
10,800.00	7,127.08	7,350.86	6,939.71	111.82	53.49	-88.37	-5,011.63	-9,554.69	8,106.71	7,982.98	123.73	65.519		
10,900.00	7,126.65	7,352.91	6,941.76	114.54	53.50	-88.39	-5,011.66	-9,554.73	8,035.99	7,909.95	126.04	63.758		
11,000.00	7,126.21	7,354.97	6,943.82	117.27	53.50	-88.41	-5,011.68	-9,554.77	7,965.90	7,837.51	128.39	62.043		
11,100.00	7,125.78	7,357.03	6,945.87	120.01	53.51	-88.43	-5,011.71	-9,554.81	7,896.46	7,765.66	130.80	60.372		
11,200.00	7,125.35	7,359.09	6,947.93	122.75	53.52	-88.45	-5,011.73	-9,554.85	7,827.67	7,694.43	133.25	58.745		
11,300.00	7,124.91	7,361.15	6,950.00	125.49	53.52	-88.47	-5,011.76	-9,554.89	7,759.57	7,623.82	135.74	57.163		
11,400.00	7,124.48	7,363.21	6,952.06	128.24	53.53	-88.49	-5,011.78	-9,554.94	7,692.16	7,553.87	138.29	55.623		
11,500.00	7,124.04	7,365.28	6,954.12	131.00	53.53	-88.51	-5,011.81	-9,554.98	7,625.46	7,484.58	140.88	54.127		
11,600.00	7,123.61	7,367.35	6,956.19	133.75	53.54	-88.53	-5,011.84	-9,555.02	7,559.50	7,415.98	143.52	52.672		
11,700.00	7,123.18	7,369.42	6,958.26	136.52	53.55	-88.56	-5,011.86	-9,555.06	7,494.30	7,348.09	146.21	51.258		
11,800.00	7,122.74	7,371.49	6,960.33	139.28	53.55	-88.58	-5,011.89	-9,555.10	7,429.86	7,280.92	148.94	49.885		
11,900.00	7,122.31	7,373.56	6,962.41	142.05	53.56	-88.60	-5,011.91	-9,555.15	7,366.22	7,214.51	151.72	48.552		
12,000.00	7,121.88	7,375.64	6,964.48	144.82	53.56	-88.62	-5,011.93	-9,555.19	7,303.40	7,148.85	154.54	47.258		
12,100.00	7,121.44	7,370.54	6,959.39	147.59	53.54	-88.57	-5,011.88	-9,555.10	7,241.43	7,084.04	157.39	46.010		
12,200.00	7,121.01	7,372.45	6,961.30	150.37	53.55	-88.59	-5,011.91	-9,555.15	7,180.30	7,019.99	160.30	44.792		
12,300.00	7,120.57	7,374.38	6,963.22	153.15	53.55	-88.61	-5,011.93	-9,555.19	7,120.05	6,956.78	163.26	43.610		
12,400.00	7,120.14	7,376.31	6,965.15	155.93	53.56	-88.62	-5,011.95	-9,555.23	7,060.70	6,894.42	166.27	42.465		
12,500.00	7,119.71	7,378.25	6,967.09	158.72	53.56	-88.64	-5,011.98	-9,555.27	7,002.27	6,832.95	169.32	41.355		
12,600.00	7,119.27	7,380.19	6,969.03	161.50	53.57	-88.66	-5,012.00	-9,555.31	6,944.79	6,772.38	172.41	40.280		
12,700.00	7,118.84	7,382.15	6,970.99	164.29	53.57	-88.68	-5,012.03	-9,555.35	6,888.28	6,712.74	175.55	39.239		
12,800.00	7,118.41	7,384.11	6,972.95	167.08	53.58	-88.70	-5,012.05	-9,555.39	6,832.77	6,654.05	178.73	38.230		
12,900.00	7,117.97	7,386.08	6,974.92	169.88	53.58	-88.72	-5,012.07	-9,555.43	6,778.28	6,596.34	181.94	37.255		
13,000.00	7,117.54	7,388.06	6,976.90	172.67	53.59	-88.74	-5,012.10	-9,555.48	6,724.84	6,539.63	185.20	36.310		
13,100.00	7,117.10	7,390.05	6,978.89	175.47	53.59	-88.76	-5,012.12	-9,555.52	6,672.46	6,483.96	188.50	35.397		
13,200.00	7,116.67	7,392.05	6,980.89	178.27	53.60	-88.78	-5,012.14	-9,555.56	6,621.18	6,429.34	191.84	34.514		
13,300.00	7,116.24	7,394.06	6,982.90	181.07	53.61	-88.80	-5,012.17	-9,555.61	6,571.02	6,375.81	195.21	33.661		
13,400.00	7,115.80	7,396.07	6,984.91	183.87	53.61	-88.82	-5,012.19	-9,555.65	6,522.01	6,323.39	198.62	32.837		
13,500.00	7,115.37	7,398.10	6,986.94	186.67	53.62	-88.84	-5,012.21	-9,555.69	6,474.17	6,272.12	202.06	32.041		
13,600.00	7,114.93	7,400.13	6,988.97	189.47	53.62	-88.86	-5,012.24	-9,555.74	6,427.54	6,222.00	205.53	31.273		
13,700.00	7,114.50	7,402.18	6,991.01	192.28	53.63	-88.88	-5,012.26	-9,555.78	6,382.12	6,173.09	209.04	30.531		
13,800.00	7,114.07	7,404.23	6,993.06	195.09	53.63	-88.91	-5,012.28	-9,555.83	6,337.96	6,125.39	212.57	29.816		
13,900.00	7,113.63	7,406.29	6,995.12	197.89	53.64	-88.93	-5,012.31	-9,555.87	6,295.08	6,078.95	216.13	29.127		
14,000.00	7,113.20	7,408.36	6,997.19	200.70	53.64	-88.95	-5,012.33	-9,555.92	6,253.50	6,033.79	219.71	28.463		
14,100.00	7,112.77	7,410.44	6,999.27	203.51	53.65	-88.97	-5,012.35	-9,555.96	6,213.25	5,989.94	223.31	27.823		
14,200.00	7,112.33	7,412.53	7,001.36	206.32	53.66	-88.99	-5,012.37	-9,556.01	6,174.36	5,947.43	226.93	27.208		
14,300.00	7,111.90	7,414.62	7,003.45	209.13	53.66	-89.01	-5,012.40	-9,556.05	6,136.85	5,906.28	230.57	26.616		
14,400.00	7,111.46	7,416.73	7,005.56	211.95	53.67	-89.03	-5,012.42	-9,556.10	6,100.75	5,866.53	234.22	26.047		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
14,500.00	7,111.03	7,418.85	7,007.68	214.76	53.67	-89.05	-5,012.44	-9,556.14	6,066.09	5,828.20	237.88	25.500	
14,600.00	7,110.60	7,420.97	7,009.80	217.58	53.68	-89.07	-5,012.47	-9,556.19	6,032.88	5,791.32	241.55	24.975	
14,700.00	7,110.16	7,423.11	7,011.94	220.39	53.68	-89.09	-5,012.49	-9,556.24	6,001.15	5,755.92	245.23	24.472	
14,800.00	7,109.73	7,425.26	7,014.08	223.21	53.69	-89.12	-5,012.51	-9,556.29	5,970.93	5,722.03	248.90	23.989	
14,900.00	7,109.30	7,427.41	7,016.24	226.03	53.70	-89.14	-5,012.54	-9,556.33	5,942.24	5,689.67	252.57	23.527	
14,969.16	7,109.00	7,428.91	7,017.73	227.97	53.70	-89.15	-5,012.55	-9,556.37	5,923.30	5,668.19	255.11	23.219 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-131.19	-4,303.05	-4,917.48	6,534.67					
100.00	100.00	49.10	113.10	3.28	3.28	-131.19	-4,302.89	-4,917.56	6,534.33	6,527.76	6.57	995.093		
200.00	200.00	184.40	248.38	3.34	3.33	-131.17	-4,300.98	-4,918.38	6,533.85	6,527.18	6.67	979.441		
300.00	300.00	278.82	342.78	3.44	3.43	-131.15	-4,299.17	-4,919.04	6,533.12	6,526.24	6.88	950.206		
400.00	400.00	376.53	440.48	3.60	3.58	-131.14	-4,297.61	-4,919.60	6,532.50	6,525.32	7.18	910.014		
500.00	500.00	479.94	543.87	3.81	3.77	-131.13	-4,296.16	-4,919.98	6,531.86	6,524.28	7.58	861.967		
600.00	600.00	599.04	662.97	4.05	4.05	-131.12	-4,294.55	-4,920.12	6,531.06	6,522.97	8.09	807.024		
647.43	647.43	640.75	704.67	4.17	4.15	-121.97	-4,293.99	-4,920.10	6,530.83	6,522.51	8.32	784.548		
700.00	699.98	686.67	750.59	4.32	4.28	-121.97	-4,293.45	-4,920.07	6,531.11	6,522.52	8.59	760.040		
800.00	799.84	788.67	852.59	4.62	4.57	-121.97	-4,292.37	-4,919.96	6,533.11	6,523.93	9.18	711.559		
900.00	899.45	877.28	941.19	4.94	4.84	-121.95	-4,291.45	-4,919.90	6,537.00	6,527.23	9.77	669.009		
1,000.00	998.70	970.57	1,034.47	5.28	5.14	-121.93	-4,290.57	-4,919.96	6,542.90	6,532.49	10.41	628.564		
1,100.00	1,097.50	1,077.74	1,141.64	5.64	5.50	-121.97	-4,289.52	-4,920.04	6,550.56	6,539.43	11.13	588.807		
1,200.00	1,196.18	1,169.97	1,233.86	6.00	5.82	-122.07	-4,288.57	-4,920.08	6,558.56	6,546.74	11.82	555.094		
1,300.00	1,294.87	1,254.84	1,318.73	6.38	6.12	-122.17	-4,287.76	-4,920.26	6,566.76	6,554.26	12.50	525.354		
1,400.00	1,393.55	1,340.28	1,404.17	6.77	6.44	-122.26	-4,287.20	-4,920.46	6,575.21	6,562.01	13.20	498.037		
1,500.00	1,492.23	1,435.99	1,499.88	7.17	6.79	-122.37	-4,286.81	-4,920.69	6,583.84	6,569.89	13.96	471.714		
1,600.00	1,590.91	1,540.20	1,604.09	7.58	7.19	-122.49	-4,286.33	-4,920.85	6,592.41	6,577.65	14.76	446.692		
1,700.00	1,689.60	1,637.95	1,701.84	8.00	7.56	-122.61	-4,286.06	-4,920.87	6,601.02	6,585.48	15.55	424.595		
1,800.00	1,788.28	1,738.53	1,802.42	8.42	7.95	-122.73	-4,285.69	-4,920.90	6,609.61	6,593.25	16.36	404.110		
1,900.00	1,886.96	1,824.36	1,888.25	8.84	8.29	-122.83	-4,285.48	-4,920.92	6,618.30	6,601.19	17.11	386.703		
2,000.00	1,985.64	1,900.00	1,963.89	9.27	8.59	-122.91	-4,285.46	-4,921.10	6,627.33	6,609.49	17.84	371.529		
2,100.00	2,084.33	1,985.84	2,049.72	9.71	8.93	-123.01	-4,285.57	-4,921.52	6,636.65	6,618.05	18.61	356.689		
2,200.00	2,183.01	2,078.42	2,142.30	10.15	9.29	-123.12	-4,285.77	-4,922.06	6,646.14	6,626.73	19.41	342.463		
2,300.00	2,281.69	2,176.56	2,240.44	10.59	9.69	-123.23	-4,286.04	-4,922.64	6,655.70	6,635.47	20.24	328.916		
2,400.00	2,380.38	2,268.42	2,332.30	11.03	10.06	-123.34	-4,286.20	-4,923.31	6,665.32	6,644.28	21.04	316.758		
2,500.00	2,479.06	2,366.09	2,429.97	11.47	10.45	-123.45	-4,286.39	-4,924.14	6,675.06	6,653.19	21.88	305.114		
2,600.00	2,577.74	2,461.14	2,525.01	11.92	10.84	-123.55	-4,286.54	-4,924.96	6,684.82	6,662.12	22.70	294.422		
2,700.00	2,676.42	2,553.57	2,617.44	12.36	11.22	-123.66	-4,286.73	-4,925.84	6,694.70	6,671.18	23.52	284.583		
2,800.00	2,775.11	2,641.07	2,704.93	12.81	11.57	-123.75	-4,286.80	-4,926.91	6,704.71	6,680.38	24.33	275.618		
2,900.00	2,873.79	2,724.92	2,788.77	13.26	11.92	-123.84	-4,286.96	-4,928.11	6,714.96	6,689.85	25.11	267.379		
3,000.00	2,972.47	2,813.82	2,877.66	13.72	12.29	-123.94	-4,287.26	-4,929.46	6,725.41	6,699.48	25.93	259.413		
3,100.00	3,071.15	2,902.65	2,966.48	14.17	12.65	-124.04	-4,287.77	-4,930.79	6,736.02	6,709.29	26.74	251.925		
3,200.00	3,169.84	2,994.10	3,057.92	14.62	13.03	-124.14	-4,288.40	-4,932.22	6,746.79	6,719.22	27.56	244.769		
3,300.00	3,268.52	3,115.40	3,179.20	15.08	13.53	-124.27	-4,289.18	-4,934.10	6,757.54	6,729.02	28.52	236.931		
3,400.00	3,367.20	3,264.85	3,328.65	15.53	14.15	-124.44	-4,289.62	-4,935.14	6,767.34	6,737.74	29.60	228.607		
3,500.00	3,465.89	3,373.42	3,437.21	15.99	14.61	-124.56	-4,289.77	-4,935.84	6,777.16	6,746.65	30.51	222.141		
3,600.00	3,564.57	3,469.54	3,533.33	16.44	15.01	-124.66	-4,289.81	-4,936.33	6,786.83	6,755.47	31.36	216.405		
3,700.00	3,663.25	3,550.64	3,614.43	16.90	15.35	-124.75	-4,290.01	-4,936.78	6,796.70	6,764.55	32.15	211.404		
3,800.00	3,761.93	3,628.51	3,692.29	17.36	15.67	-124.84	-4,290.18	-4,937.56	6,806.89	6,773.96	32.93	206.738		
3,900.00	3,860.62	3,707.95	3,771.72	17.82	16.01	-124.92	-4,290.35	-4,938.70	6,817.39	6,783.69	33.71	202.252		
4,000.00	3,959.30	3,794.44	3,858.21	18.28	16.37	-125.01	-4,290.61	-4,940.13	6,828.15	6,793.62	34.52	197.795		
4,100.00	4,057.98	3,880.73	3,944.48	18.74	16.73	-125.10	-4,291.07	-4,941.59	6,839.10	6,803.76	35.33	193.551		
4,200.00	4,156.67	3,950.56	4,014.29	19.20	17.02	-125.18	-4,291.67	-4,942.79	6,850.34	6,814.26	36.07	189.893		
4,300.00	4,255.35	4,016.51	4,080.23	19.66	17.30	-125.25	-4,292.48	-4,944.15	6,862.08	6,825.28	36.80	186.487		
4,400.00	4,354.03	4,085.26	4,148.95	20.12	17.59	-125.32	-4,293.63	-4,945.69	6,874.28	6,836.75	37.53	183.166		
4,500.00	4,452.71	4,152.71	4,216.37	20.58	17.88	-125.39	-4,295.06	-4,947.31	6,886.94	6,848.68	38.26	180.016		
4,600.00	4,551.40	4,249.43	4,313.02	21.04	18.28	-125.50	-4,297.40	-4,949.89	6,900.00	6,860.88	39.12	176.384		
4,700.00	4,650.08	4,389.10	4,452.63	21.50	18.87	-125.65	-4,300.10	-4,953.34	6,912.60	6,872.42	40.18	172.040		
4,800.00	4,748.76	4,507.94	4,571.41	21.96	19.38	-125.77	-4,301.69	-4,956.34	6,924.85	6,883.71	41.15	168.300		
4,900.00	4,847.44	4,672.45	4,735.88	22.42	20.07	-125.94	-4,303.26	-4,959.59	6,936.47	6,894.15	42.32	163.901		
5,000.00	4,946.13	4,805.01	4,868.43	22.89	20.63	-126.08	-4,304.07	-4,961.30	6,947.40	6,904.05	43.35	160.264		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,044.81	4,899.93	4,963.34	23.35	21.03	-126.18	-4,304.67	-4,962.25	6,958.18	6,913.97	44.21	157.397		
5,200.00	5,143.49	5,015.12	5,078.53	23.81	21.52	-126.30	-4,305.15	-4,963.50	6,968.89	6,923.73	45.16	154.320		
5,300.00	5,242.18	5,132.68	5,196.08	24.27	22.02	-126.42	-4,305.22	-4,964.74	6,979.34	6,933.22	46.12	151.329		
5,400.00	5,340.86	5,241.12	5,304.51	24.74	22.48	-126.52	-4,304.80	-4,966.12	6,989.64	6,942.60	47.04	148.587		
5,500.00	5,439.54	5,333.96	5,397.35	25.20	22.87	-126.61	-4,304.30	-4,967.29	6,999.85	6,951.96	47.89	146.163		
5,600.00	5,538.22	5,415.03	5,478.41	25.66	23.22	-126.69	-4,304.13	-4,968.41	7,010.38	6,961.69	48.69	143.988		
5,700.00	5,636.91	5,535.34	5,598.70	26.13	23.73	-126.81	-4,303.66	-4,969.80	7,020.63	6,970.97	49.66	141.365		
5,800.00	5,735.59	5,600.22	5,663.58	26.59	24.00	-126.87	-4,303.68	-4,970.53	7,031.20	6,980.81	50.39	139.547		
5,900.00	5,834.27	5,683.60	5,746.95	27.06	24.36	-126.96	-4,303.92	-4,971.64	7,042.14	6,990.94	51.19	137.560		
6,000.00	5,932.95	5,775.05	5,838.39	27.52	24.74	-127.05	-4,304.24	-4,973.03	7,053.26	7,001.22	52.04	135.541		
6,100.00	6,031.64	5,860.37	5,923.70	27.98	25.11	-127.13	-4,304.63	-4,974.39	7,064.52	7,011.67	52.85	133.662		
6,200.00	6,130.32	5,952.36	6,015.67	28.45	25.50	-127.22	-4,304.80	-4,976.37	7,075.99	7,022.29	53.70	131.766		
6,300.00	6,229.00	6,057.29	6,120.57	28.91	25.94	-127.31	-4,304.87	-4,978.73	7,087.46	7,032.85	54.61	129.786		
6,400.00	6,327.69	6,152.86	6,216.12	29.38	26.35	-127.40	-4,305.06	-4,980.65	7,098.88	7,043.40	55.47	127.969		
6,500.00	6,426.37	6,231.95	6,295.18	29.84	26.69	-127.47	-4,304.94	-4,982.71	7,110.48	7,054.22	56.26	126.385		
6,600.00	6,525.05	6,302.47	6,365.67	30.31	26.99	-127.54	-4,305.18	-4,984.59	7,122.46	7,065.46	57.01	124.942		
6,700.00	6,623.18	6,423.34	6,486.50	30.77	27.50	-87.16	-4,305.47	-4,987.90	7,128.91	7,070.92	57.99	122.925		
6,800.00	6,718.58	6,511.95	6,575.08	31.22	27.88	-71.29	-4,305.51	-4,990.42	7,124.17	7,065.34	58.83	121.096		
6,900.00	6,808.91	6,586.24	6,649.34	31.66	28.20	-65.16	-4,305.84	-4,992.41	7,108.69	7,049.09	59.60	119.276		
7,000.00	6,891.95	6,658.53	6,721.60	32.07	28.50	-63.26	-4,306.31	-4,994.40	7,083.03	7,022.66	60.37	117.333		
7,100.00	6,965.65	6,723.63	6,786.66	32.51	28.78	-63.80	-4,306.48	-4,996.63	7,047.90	6,986.77	61.13	115.293		
7,200.00	7,028.20	6,778.68	6,841.66	33.02	29.02	-66.12	-4,306.43	-4,998.88	7,004.32	6,942.42	61.90	113.155		
7,300.00	7,078.04	6,817.82	6,880.77	33.68	29.18	-69.91	-4,306.30	-5,000.66	6,953.49	6,890.81	62.67	110.946		
7,400.00	7,113.97	6,843.14	6,906.06	34.52	29.29	-75.03	-4,306.25	-5,001.87	6,896.79	6,833.31	63.48	108.642		
7,500.00	7,135.09	6,859.45	6,922.35	35.53	29.36	-81.34	-4,306.24	-5,002.67	6,835.68	6,771.33	64.35	106.226		
7,600.00	7,140.96	6,866.30	6,929.19	36.68	29.39	-87.86	-4,306.24	-5,003.01	6,771.65	6,706.39	65.27	103.755		
7,700.00	7,140.53	6,869.21	6,932.10	37.99	29.40	-87.89	-4,306.24	-5,003.16	6,707.34	6,641.07	66.27	101.209		
7,800.00	7,140.09	6,872.15	6,935.03	39.45	29.42	-87.92	-4,306.24	-5,003.31	6,643.90	6,576.49	67.41	98.562		
7,900.00	7,139.66	6,875.11	6,937.98	41.06	29.43	-87.96	-4,306.25	-5,003.46	6,581.37	6,512.70	68.67	95.838		
8,000.00	7,139.23	6,878.09	6,940.97	42.80	29.44	-87.99	-4,306.25	-5,003.61	6,519.78	6,449.72	70.06	93.064		
8,100.00	7,138.79	6,881.10	6,943.97	44.65	29.45	-88.02	-4,306.25	-5,003.76	6,459.14	6,387.58	71.56	90.263		
8,200.00	7,138.36	6,884.14	6,947.00	46.60	29.47	-88.06	-4,306.26	-5,003.92	6,399.48	6,326.31	73.17	87.456		
8,300.00	7,137.93	6,887.20	6,950.06	48.65	29.48	-88.09	-4,306.26	-5,004.07	6,340.85	6,265.95	74.89	84.663		
8,400.00	7,137.49	6,900.01	6,962.86	50.77	29.53	-88.23	-4,306.28	-5,004.74	6,283.26	6,206.49	76.77	81.848		
8,500.00	7,137.06	6,900.01	6,962.86	52.95	29.53	-88.23	-4,306.28	-5,004.74	6,226.73	6,148.06	78.67	79.149		
8,600.00	7,136.62	6,900.01	6,962.86	55.20	29.53	-88.23	-4,306.28	-5,004.74	6,171.30	6,090.63	80.67	76.503		
8,700.00	7,136.19	6,900.01	6,962.86	57.51	29.53	-88.23	-4,306.28	-5,004.74	6,117.00	6,034.25	82.75	73.921		
8,800.00	7,135.76	6,900.01	6,962.86	59.85	29.53	-88.23	-4,306.28	-5,004.74	6,063.87	5,978.95	84.92	71.410		
8,900.00	7,135.32	6,900.01	6,962.86	62.24	29.53	-88.23	-4,306.28	-5,004.74	6,011.93	5,924.77	87.16	68.976		
9,000.00	7,134.89	6,900.01	6,962.86	64.67	29.53	-88.23	-4,306.28	-5,004.74	5,961.21	5,871.74	89.48	66.623		
9,100.00	7,134.45	6,900.01	6,962.86	67.13	29.53	-88.23	-4,306.28	-5,004.74	5,911.75	5,819.89	91.86	64.354		
9,200.00	7,134.02	6,900.01	6,962.86	69.62	29.53	-88.23	-4,306.28	-5,004.74	5,863.59	5,769.27	94.32	62.170		
9,300.00	7,133.59	6,916.64	6,979.46	72.14	29.61	-88.42	-4,306.33	-5,005.62	5,816.70	5,719.78	96.92	60.018		
9,400.00	7,133.15	6,919.58	6,982.40	74.68	29.62	-88.45	-4,306.34	-5,005.78	5,771.18	5,671.68	99.50	58.000		
9,500.00	7,132.72	6,922.56	6,985.37	77.24	29.63	-88.48	-4,306.35	-5,005.94	5,727.05	5,624.91	102.15	56.067		
9,600.00	7,132.29	6,925.59	6,988.39	79.83	29.64	-88.52	-4,306.36	-5,006.11	5,684.34	5,579.50	104.84	54.219		
9,700.00	7,131.85	6,928.65	6,991.45	82.42	29.66	-88.55	-4,306.38	-5,006.28	5,643.07	5,535.48	107.58	52.454		
9,800.00	7,131.42	6,931.75	6,994.55	85.04	29.67	-88.59	-4,306.39	-5,006.45	5,603.27	5,492.91	110.37	50.770		
9,900.00	7,130.98	6,934.90	6,997.69	87.67	29.68	-88.62	-4,306.41	-5,006.63	5,564.99	5,451.80	113.19	49.165		
10,000.00	7,130.55	6,938.09	7,000.87	90.31	29.70	-88.66	-4,306.42	-5,006.81	5,528.25	5,412.20	116.05	47.637		
10,100.00	7,130.12	6,941.32	7,004.10	92.97	29.71	-88.69	-4,306.44	-5,006.99	5,493.08	5,374.14	118.94	46.182		
10,200.00	7,129.68	6,944.60	7,007.37	95.63	29.72	-88.73	-4,306.46	-5,007.17	5,459.51	5,337.65	121.87	44.800		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 1 21-2(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,129.25	6,947.92	7,010.69	98.31	29.74	-88.76	-4,306.48	-5,007.37	5,427.58	5,302.77	124.81	43.486		
10,400.00	7,128.82	6,951.29	7,014.06	101.00	29.75	-88.80	-4,306.50	-5,007.56	5,397.30	5,269.53	127.78	42.240		
10,500.00	7,128.38	6,954.71	7,017.47	103.69	29.77	-88.84	-4,306.52	-5,007.76	5,368.72	5,237.96	130.76	41.057		
10,600.00	7,127.95	6,958.18	7,020.93	106.39	29.78	-88.88	-4,306.55	-5,007.96	5,341.85	5,208.09	133.76	39.937		
10,700.00	7,127.51	6,961.69	7,024.44	109.10	29.80	-88.92	-4,306.57	-5,008.17	5,316.72	5,179.96	136.76	38.876		
10,800.00	7,127.08	6,965.26	7,028.00	111.82	29.81	-88.96	-4,306.60	-5,008.38	5,293.36	5,153.59	139.77	37.872		
10,900.00	7,126.65	6,968.88	7,031.62	114.54	29.83	-89.00	-4,306.62	-5,008.59	5,271.79	5,129.01	142.78	36.923		
11,000.00	7,126.21	6,972.55	7,035.28	117.27	29.84	-89.04	-4,306.65	-5,008.81	5,252.03	5,106.24	145.78	36.027		
11,100.00	7,125.78	6,976.28	7,039.00	120.01	29.86	-89.08	-4,306.68	-5,009.04	5,234.10	5,085.32	148.78	35.181		
11,200.00	7,125.35	6,980.06	7,042.78	122.75	29.88	-89.12	-4,306.72	-5,009.27	5,218.02	5,066.26	151.76	34.384		
11,300.00	7,124.91	6,983.90	7,046.61	125.49	29.89	-89.16	-4,306.75	-5,009.50	5,203.81	5,049.09	154.72	33.633		
11,400.00	7,124.48	6,987.80	7,050.50	128.24	29.91	-89.21	-4,306.79	-5,009.74	5,191.49	5,033.82	157.67	32.927		
11,500.00	7,124.04	7,000.01	7,062.69	131.00	29.96	-89.34	-4,306.91	-5,010.50	5,181.07	5,020.44	160.63	32.255		
11,600.00	7,123.61	7,000.01	7,062.69	133.75	29.96	-89.34	-4,306.91	-5,010.50	5,172.54	5,009.05	163.49	31.637		
11,700.00	7,123.18	7,000.01	7,062.69	136.52	29.96	-89.34	-4,306.91	-5,010.50	5,165.94	4,999.61	166.33	31.059		
11,800.00	7,122.74	7,004.45	7,067.12	139.28	29.98	-89.39	-4,306.95	-5,010.78	5,161.26	4,992.11	169.15	30.514		
11,900.00	7,122.31	7,009.07	7,071.73	142.05	30.00	-89.44	-4,307.00	-5,011.08	5,158.51	4,986.59	171.92	30.005		
11,992.22	7,121.91	7,013.34	7,075.99	144.60	30.02	-89.49	-4,307.05	-5,011.35	5,157.69	4,983.24	174.45	29.566 CC		
12,000.00	7,121.88	7,013.70	7,076.35	144.82	30.02	-89.49	-4,307.05	-5,011.37	5,157.69	4,983.04	174.66	29.530		
12,100.00	7,121.44	7,018.33	7,080.97	147.59	30.04	-89.55	-4,307.11	-5,011.66	5,158.81	4,981.47	177.34	29.090 ES		
12,200.00	7,121.01	7,022.97	7,085.59	150.37	30.06	-89.60	-4,307.16	-5,011.95	5,161.86	4,981.89	179.97	28.681		
12,300.00	7,120.57	7,027.61	7,090.22	153.15	30.08	-89.65	-4,307.21	-5,012.25	5,166.84	4,984.29	182.55	28.303		
12,400.00	7,120.14	7,032.25	7,094.86	155.93	30.10	-89.70	-4,307.27	-5,012.54	5,173.74	4,988.67	185.07	27.955		
12,500.00	7,119.71	7,036.90	7,099.50	158.72	30.12	-89.75	-4,307.33	-5,012.83	5,182.56	4,995.02	187.53	27.635		
12,600.00	7,119.27	7,041.56	7,104.14	161.50	30.14	-89.80	-4,307.38	-5,013.13	5,193.28	5,003.35	189.93	27.343		
12,700.00	7,118.84	7,046.22	7,108.79	164.29	30.16	-89.85	-4,307.44	-5,013.42	5,205.89	5,013.63	192.27	27.076		
12,800.00	7,118.41	7,050.88	7,113.45	167.08	30.18	-89.91	-4,307.50	-5,013.72	5,220.39	5,025.86	194.53	26.835		
12,900.00	7,117.97	7,055.55	7,118.11	169.88	30.20	-89.96	-4,307.57	-5,014.01	5,236.75	5,040.02	196.73	26.618		
13,000.00	7,117.54	7,060.22	7,122.77	172.67	30.22	-90.01	-4,307.63	-5,014.31	5,254.96	5,056.09	198.87	26.425		
13,100.00	7,117.10	7,064.90	7,127.44	175.47	30.24	-90.06	-4,307.69	-5,014.61	5,274.99	5,074.07	200.93	26.253		
13,200.00	7,116.67	7,069.58	7,132.11	178.27	30.26	-90.11	-4,307.76	-5,014.90	5,296.84	5,093.92	202.92	26.103		
13,300.00	7,116.24	7,074.27	7,136.79	181.07	30.28	-90.17	-4,307.83	-5,015.20	5,320.46	5,115.63	204.84	25.974		
13,400.00	7,115.80	7,078.97	7,141.48	183.87	30.30	-90.22	-4,307.89	-5,015.50	5,345.85	5,139.17	206.68	25.865		
13,500.00	7,115.37	7,083.66	7,146.16	186.67	30.32	-90.27	-4,307.96	-5,015.80	5,372.98	5,164.52	208.46	25.775		
13,600.00	7,114.93	7,088.37	7,150.86	189.47	30.34	-90.32	-4,308.03	-5,016.10	5,401.81	5,191.65	210.17	25.703		
13,700.00	7,114.50	7,093.07	7,155.55	192.28	30.36	-90.37	-4,308.11	-5,016.39	5,432.33	5,220.53	211.80	25.649		
13,800.00	7,114.07	7,100.01	7,162.48	195.09	30.39	-90.45	-4,308.21	-5,016.84	5,464.50	5,251.13	213.37	25.610		
13,900.00	7,113.63	7,103.17	7,165.62	197.89	30.40	-90.49	-4,308.26	-5,017.04	5,498.30	5,283.44	214.86	25.590		
14,000.00	7,113.20	7,109.14	7,171.58	200.70	30.43	-90.55	-4,308.36	-5,017.41	5,533.69	5,317.40	216.29	25.585 SF		
14,100.00	7,112.77	7,115.11	7,177.54	203.51	30.45	-90.62	-4,308.45	-5,017.79	5,570.65	5,353.00	217.65	25.594		
14,200.00	7,112.33	7,121.08	7,183.50	206.32	30.48	-90.68	-4,308.55	-5,018.17	5,609.14	5,390.19	218.95	25.618		
14,300.00	7,111.90	7,127.05	7,189.45	209.13	30.50	-90.75	-4,308.64	-5,018.55	5,649.13	5,428.95	220.18	25.656		
14,400.00	7,111.46	7,133.02	7,195.41	211.95	30.53	-90.82	-4,308.73	-5,018.93	5,690.59	5,469.24	221.35	25.708		
14,500.00	7,111.03	7,138.98	7,201.37	214.76	30.56	-90.88	-4,308.83	-5,019.31	5,733.49	5,511.04	222.46	25.773		
14,600.00	7,110.60	7,144.95	7,207.32	217.58	30.58	-90.95	-4,308.92	-5,019.69	5,777.80	5,554.30	223.50	25.851		
14,700.00	7,110.16	7,150.92	7,213.28	220.39	30.61	-91.02	-4,309.02	-5,020.07	5,823.48	5,598.99	224.49	25.941		
14,800.00	7,109.73	7,156.89	7,219.23	223.21	30.63	-91.08	-4,309.11	-5,020.45	5,870.50	5,645.09	225.42	26.043		
14,900.00	7,109.30	7,162.86	7,225.19	226.03	30.66	-91.15	-4,309.21	-5,020.83	5,918.84	5,692.55	226.29	26.156		
14,969.16	7,109.00	7,166.98	7,229.31	227.97	30.68	-91.19	-4,309.27	-5,021.09	5,953.01	5,726.15	226.86	26.241		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-148.77	-5,433.34	-3,294.42	6,354.51				
100.00	100.00	91.29	139.29	3.28	3.28	-148.77	-5,433.18	-3,294.29	6,354.00	6,347.43	6.57	967.400	
200.00	200.00	193.78	241.77	3.34	3.33	-148.77	-5,432.42	-3,294.11	6,353.27	6,346.60	6.67	952.953	
300.00	300.00	263.36	311.36	3.44	3.39	-148.76	-5,431.93	-3,294.32	6,352.83	6,346.00	6.84	929.026	
400.00	400.00	1,484.38	1,518.97	3.60	7.57	-147.85	-5,290.79	-3,325.39	6,348.45	6,337.37	11.07	573.306	
500.00	500.00	1,542.56	1,575.61	3.81	7.88	-147.77	-5,277.68	-3,327.54	6,331.14	6,319.61	11.52	549.374	
600.00	600.00	1,626.29	1,657.17	4.05	8.33	-147.65	-5,259.05	-3,330.95	6,314.30	6,302.16	12.15	519.871	
700.00	699.98	1,691.63	1,720.80	4.32	8.69	-138.62	-5,244.48	-3,334.01	6,299.09	6,286.37	12.71	495.412	
800.00	799.84	1,815.96	1,841.92	4.62	9.39	-138.64	-5,217.05	-3,340.05	6,286.81	6,273.20	13.61	461.795	
900.00	899.45	1,914.90	1,938.19	4.94	9.96	-138.68	-5,194.76	-3,344.88	6,276.72	6,262.30	14.42	435.236	
1,000.00	998.70	2,014.28	2,034.89	5.28	10.54	-138.70	-5,172.36	-3,349.74	6,269.26	6,254.00	15.26	410.819	
1,100.00	1,097.50	2,113.97	2,131.89	5.64	11.13	-138.69	-5,149.90	-3,354.61	6,264.26	6,248.14	16.13	388.453	
1,200.00	1,196.18	2,213.72	2,228.95	6.00	11.72	-138.64	-5,127.42	-3,359.48	6,259.83	6,242.82	17.02	367.889	
1,300.00	1,294.87	2,313.47	2,326.01	6.38	12.32	-138.59	-5,104.95	-3,364.36	6,255.41	6,237.49	17.92	349.034	
1,400.00	1,393.55	2,413.22	2,423.08	6.77	12.92	-138.54	-5,082.47	-3,369.23	6,250.99	6,232.15	18.84	331.739	
1,500.00	1,492.23	2,512.96	2,520.14	7.17	13.52	-138.49	-5,059.99	-3,374.10	6,246.58	6,226.80	19.78	315.859	
1,600.00	1,590.91	2,612.71	2,617.20	7.58	14.13	-138.44	-5,037.51	-3,378.98	6,242.17	6,221.45	20.72	301.257	
1,700.00	1,689.60	2,712.46	2,714.26	8.00	14.74	-138.39	-5,015.04	-3,383.85	6,237.77	6,216.10	21.67	287.807	
1,800.00	1,788.28	2,812.21	2,811.32	8.42	15.35	-138.34	-4,992.56	-3,388.73	6,233.37	6,210.74	22.63	275.396	
1,900.00	1,886.96	2,911.96	2,908.38	8.84	15.97	-138.29	-4,970.08	-3,393.60	6,228.98	6,205.37	23.60	263.918	
2,000.00	1,985.64	3,011.71	3,005.44	9.27	16.58	-138.24	-4,947.61	-3,398.48	6,224.59	6,200.01	24.58	253.283	
2,100.00	2,084.33	3,111.46	3,102.50	9.71	17.20	-138.18	-4,925.13	-3,403.35	6,220.20	6,194.65	25.55	243.408	
2,200.00	2,183.01	3,211.20	3,199.56	10.15	17.82	-138.13	-4,902.65	-3,408.22	6,215.83	6,189.29	26.54	234.221	
2,300.00	2,281.69	3,310.95	3,296.62	10.59	18.44	-138.08	-4,880.17	-3,413.10	6,211.45	6,183.93	27.53	225.656	
2,400.00	2,380.38	3,410.70	3,393.68	11.03	19.06	-138.03	-4,857.70	-3,417.97	6,207.08	6,178.57	28.52	217.656	
2,500.00	2,479.06	3,510.45	3,490.74	11.47	19.68	-137.98	-4,835.22	-3,422.85	6,202.72	6,173.21	29.51	210.169	
2,600.00	2,577.74	3,610.20	3,587.80	11.92	20.31	-137.93	-4,812.74	-3,427.72	6,198.36	6,167.85	30.51	203.151	
2,700.00	2,676.42	3,709.95	3,684.86	12.36	20.93	-137.88	-4,790.27	-3,432.60	6,194.01	6,162.50	31.51	196.560	
2,800.00	2,775.11	10,724.14	7,245.20	12.81	120.96	-173.16	-3,952.08	42.28	6,179.98	6,078.47	101.51	60.879	
2,900.00	2,873.79	10,719.88	7,245.27	13.26	120.83	-173.11	-3,952.09	38.02	6,120.19	6,017.43	102.76	59.559	
3,000.00	2,972.47	10,715.63	7,245.35	13.72	120.69	-173.07	-3,952.10	33.77	6,061.45	5,957.43	104.02	58.272	
3,100.00	3,071.15	10,711.37	7,245.42	14.17	120.56	-173.02	-3,952.12	29.51	6,003.80	5,898.50	105.30	57.018	
3,200.00	3,169.84	10,707.12	7,245.50	14.62	120.42	-172.97	-3,952.13	25.26	5,947.27	5,840.68	106.59	55.797	
3,300.00	3,268.52	10,702.86	7,245.57	15.08	120.29	-172.92	-3,952.15	21.01	5,891.89	5,784.00	107.89	54.610	
3,400.00	3,367.20	10,701.39	7,245.65	15.53	120.24	-172.87	-3,952.16	16.75	5,837.69	5,728.42	109.27	53.423	
3,500.00	3,465.89	10,694.35	7,245.72	15.99	120.02	-172.82	-3,952.17	12.50	5,784.72	5,674.19	110.53	52.336	
3,600.00	3,564.57	10,690.10	7,245.80	16.44	119.89	-172.77	-3,952.19	8.24	5,732.99	5,621.13	111.86	51.251	
3,700.00	3,663.25	10,685.84	7,245.87	16.90	119.75	-172.72	-3,952.20	3.99	5,682.55	5,569.35	113.20	50.200	
3,800.00	3,761.93	10,681.59	7,245.95	17.36	119.62	-172.67	-3,952.22	-0.26	5,633.43	5,518.89	114.54	49.183	
3,900.00	3,860.62	10,677.33	7,246.02	17.82	119.48	-172.62	-3,952.23	-4.52	5,585.67	5,469.79	115.88	48.201	
4,000.00	3,959.30	10,673.08	7,246.10	18.28	119.35	-172.57	-3,952.25	-8.77	5,539.30	5,422.07	117.23	47.253	
4,100.00	4,057.98	10,668.82	7,246.17	18.74	119.21	-172.52	-3,952.26	-13.03	5,494.35	5,375.78	118.57	46.339	
4,200.00	4,156.67	10,664.57	7,246.25	19.20	119.08	-172.47	-3,952.27	-17.28	5,450.86	5,330.96	119.91	45.459	
4,300.00	4,255.35	10,660.31	7,246.32	19.66	118.94	-172.42	-3,952.29	-21.54	5,408.87	5,287.63	121.24	44.613	
4,400.00	4,354.03	10,656.06	7,246.40	20.12	118.81	-172.37	-3,952.30	-25.79	5,368.41	5,245.85	122.56	43.801	
4,500.00	4,452.71	10,651.80	7,246.47	20.58	118.67	-172.32	-3,952.32	-30.04	5,329.52	5,205.64	123.88	43.023	
4,600.00	4,551.40	10,656.49	7,246.55	21.04	118.82	-172.27	-3,952.33	-34.30	5,292.23	5,166.80	125.42	42.195	
4,700.00	4,650.08	10,643.29	7,246.62	21.50	118.40	-172.23	-3,952.35	-38.55	5,256.57	5,130.11	126.46	41.567	
4,800.00	4,748.76	10,639.04	7,246.70	21.96	118.27	-172.18	-3,952.36	-42.81	5,222.58	5,094.85	127.73	40.889	
4,900.00	4,847.44	10,634.78	7,246.77	22.42	118.13	-172.13	-3,952.37	-47.06	5,190.29	5,061.32	128.97	40.244	
5,000.00	4,946.13	10,630.53	7,246.85	22.89	118.00	-172.08	-3,952.39	-51.31	5,159.73	5,029.54	130.19	39.632	
5,100.00	5,044.81	10,626.27	7,246.92	23.35	117.87	-172.03	-3,952.40	-55.57	5,130.94	4,999.55	131.39	39.052	

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	10,622.02	7,247.00	23.81	117.73	-171.98	-3,952.42	-59.82	5,103.94	4,971.38	132.56	38.504	
5,300.00	5,242.18	10,617.77	7,247.07	24.27	117.60	-171.93	-3,952.43	-64.08	5,078.76	4,945.07	133.69	37.988	
5,400.00	5,340.86	10,613.51	7,247.15	24.74	117.46	-171.88	-3,952.44	-68.33	5,055.44	4,920.64	134.80	37.504	
5,500.00	5,439.54	10,609.26	7,247.22	25.20	117.33	-171.83	-3,952.46	-72.59	5,033.98	4,898.12	135.87	37.051	
5,600.00	5,538.22	10,605.00	7,247.30	25.66	117.19	-171.78	-3,952.47	-76.84	5,014.43	4,877.54	136.90	36.630	
5,700.00	5,636.91	10,600.75	7,247.37	26.13	117.06	-171.73	-3,952.49	-81.09	4,996.80	4,858.92	137.88	36.239	
5,800.00	5,735.59	10,603.51	7,247.45	26.59	117.15	-171.68	-3,952.50	-85.35	4,981.11	4,842.07	139.04	35.824	
5,900.00	5,834.27	10,592.24	7,247.52	27.06	116.79	-171.63	-3,952.52	-89.60	4,967.38	4,827.65	139.73	35.549	
6,000.00	5,932.95	10,587.98	7,247.59	27.52	116.66	-171.58	-3,952.53	-93.86	4,955.63	4,815.04	140.59	35.249	
6,100.00	6,031.64	10,583.73	7,247.67	27.98	116.52	-171.53	-3,952.54	-98.11	4,945.87	4,804.47	141.39	34.979	
6,200.00	6,130.32	10,579.47	7,247.74	28.45	116.39	-171.48	-3,952.56	-102.36	4,938.11	4,795.96	142.15	34.739	
6,300.00	6,229.00	10,575.22	7,247.82	28.91	116.25	-171.43	-3,952.57	-106.62	4,932.36	4,789.51	142.85	34.527	
6,400.00	6,327.69	10,570.96	7,247.89	29.38	116.12	-171.39	-3,952.59	-110.87	4,928.63	4,785.13	143.51	34.345	
6,500.00	6,426.37	10,566.71	7,247.97	29.84	115.98	-171.34	-3,952.60	-115.13	4,926.93	4,782.82	144.10	34.190	
6,534.17	6,460.09	10,565.25	7,247.99	30.00	115.94	-171.32	-3,952.61	-116.58	4,926.81	4,782.51	144.29	34.144	
6,600.00	6,525.05	10,562.45	7,248.04	30.31	115.85	-171.29	-3,952.62	-119.38	4,927.25	4,782.60	144.65	34.064	
6,700.00	6,623.18	10,550.44	7,248.26	30.77	115.47	-130.83	-3,952.66	-131.39	4,929.36	4,784.47	144.89	34.021	
6,800.00	6,718.58	10,523.07	7,248.74	31.22	114.61	-113.84	-3,952.75	-158.76	4,932.87	4,788.28	144.59	34.116	
6,900.00	6,808.91	10,481.01	7,249.48	31.66	113.28	-105.63	-3,952.89	-200.81	4,937.45	4,793.67	143.78	34.341	
7,000.00	6,891.95	10,425.31	7,250.46	32.07	111.53	-100.68	-3,953.07	-256.50	4,942.62	4,800.13	142.50	34.685	
7,100.00	6,965.65	10,354.33	7,251.55	32.51	109.30	-97.24	-3,953.31	-327.47	4,947.82	4,807.08	140.74	35.155	
7,200.00	7,028.20	10,274.79	7,251.62	33.02	106.82	-94.75	-3,953.58	-407.01	4,952.40	4,813.62	138.78	35.684	
7,300.00	7,078.04	10,188.39	7,251.62	33.68	104.12	-92.98	-3,953.86	-493.41	4,955.87	4,819.14	136.74	36.244	
7,400.00	7,113.97	10,104.78	7,251.62	34.52	101.52	-91.82	-3,954.18	-586.58	4,957.74	4,822.80	134.94	36.740	
7,500.00	7,135.09	10,002.41	7,251.62	35.53	98.36	-91.27	-3,954.50	-684.21	4,957.65	4,824.91	132.74	37.348	
7,600.00	7,140.96	9,902.12	7,251.62	36.68	95.27	-91.29	-3,954.83	-783.92	4,955.42	4,824.64	130.78	37.891	
7,700.00	7,140.53	9,802.07	7,251.62	37.99	92.21	-91.29	-3,955.17	-883.87	4,952.31	4,823.30	129.01	38.388	
7,800.00	7,140.09	9,702.02	7,251.62	39.45	89.17	-91.30	-3,955.50	-983.82	4,949.19	4,821.78	127.41	38.844	
7,900.00	7,139.66	9,601.97	7,251.62	41.06	86.16	-91.31	-3,955.84	-1,083.77	4,946.07	4,820.10	125.98	39.261	
8,000.00	7,139.23	9,501.92	7,251.62	42.80	83.16	-91.31	-3,956.17	-1,183.72	4,942.96	4,818.26	124.70	39.640	
8,100.00	7,138.79	9,401.87	7,251.62	44.65	80.20	-91.32	-3,956.50	-1,283.67	4,939.84	4,816.29	123.55	39.982	
8,200.00	7,138.36	9,301.82	7,251.62	46.60	77.26	-91.32	-3,956.84	-1,383.62	4,936.73	4,814.19	122.53	40.289	
8,300.00	7,137.93	9,201.77	7,251.62	48.65	74.36	-91.33	-3,957.17	-1,483.57	4,933.61	4,811.98	121.63	40.563	
8,400.00	7,137.49	9,101.72	7,251.62	50.77	71.50	-91.33	-3,957.50	-1,583.52	4,930.50	4,809.66	120.84	40.803	
8,500.00	7,137.06	9,001.67	7,251.62	52.95	68.69	-91.34	-3,957.84	-1,683.47	4,927.38	4,807.23	120.15	41.010	
8,600.00	7,136.62	8,901.62	7,251.62	55.20	65.93	-91.35	-3,958.17	-1,783.42	4,924.26	4,804.70	119.57	41.184	
8,700.00	7,136.19	8,801.57	7,251.62	57.51	63.22	-91.35	-3,958.51	-1,883.37	4,921.15	4,802.06	119.09	41.324	
8,800.00	7,135.76	8,701.52	7,251.62	59.85	60.58	-91.36	-3,958.84	-1,983.32	4,918.03	4,799.33	118.71	41.430	
8,900.00	7,135.32	8,601.47	7,251.62	62.24	58.03	-91.36	-3,959.17	-2,083.27	4,914.92	4,796.48	118.43	41.499	
9,000.00	7,134.89	8,501.42	7,251.62	64.67	55.57	-91.37	-3,959.51	-2,183.22	4,911.80	4,793.53	118.27	41.529	
9,100.00	7,134.45	8,401.37	7,251.62	67.13	53.23	-91.38	-3,959.84	-2,283.16	4,908.69	4,790.46	118.23	41.518	
9,200.00	7,134.02	8,301.32	7,251.62	69.62	51.03	-91.38	-3,960.18	-2,383.11	4,905.57	4,787.26	118.31	41.463	
9,300.00	7,133.59	8,201.27	7,251.62	72.14	49.01	-91.39	-3,960.51	-2,483.06	4,902.46	4,783.92	118.54	41.358	
9,400.00	7,133.15	8,101.22	7,251.62	74.68	47.23	-91.39	-3,960.84	-2,583.01	4,899.34	4,780.42	118.92	41.199	
9,500.00	7,132.72	8,001.17	7,251.62	77.24	45.74	-91.40	-3,961.18	-2,682.96	4,896.23	4,776.75	119.47	40.982	
9,600.00	7,132.29	7,901.13	7,251.62	79.83	44.61	-91.41	-3,961.51	-2,782.91	4,893.11	4,772.89	120.22	40.700	
9,700.00	7,131.85	7,801.08	7,251.62	82.42	43.83	-91.41	-3,961.84	-2,882.86	4,890.00	4,768.81	121.19	40.350	
9,800.00	7,131.42	7,722.75	7,251.44	85.04	43.43	-91.41	-3,962.14	-2,959.04	4,886.98	4,764.28	122.69	39.830	
9,900.00	7,130.98	7,683.62	7,249.35	87.67	43.28	-91.39	-3,962.76	-2,998.10	4,884.97	4,760.15	124.82	39.137	
10,000.00	7,130.55	7,652.02	7,245.96	90.31	43.18	-91.35	-3,963.65	-3,029.50	4,884.23	4,757.19	127.04	38.446	
10,017.54	7,130.47	7,638.10	7,243.99	90.78	43.13	-91.33	-3,964.15	-3,043.27	4,884.21	4,756.88	127.34	38.357 CC	
10,100.00	7,130.12	7,600.00	7,237.09	92.97	43.03	-91.25	-3,965.87	-3,080.69	4,884.74	4,755.70	129.04	37.855	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,129.68	7,569.44	7,229.99	95.63	42.96	-91.17	-3,967.62	-3,110.36	4,886.53	4,755.22	131.31	37.214	ES	
10,300.00	7,129.25	7,533.28	7,219.80	98.31	42.88	-91.05	-3,970.09	-3,144.96	4,889.65	4,756.13	133.52	36.620		
10,400.00	7,128.82	7,500.00	7,208.75	101.00	42.81	-90.92	-3,972.76	-3,176.24	4,894.12	4,758.36	135.77	36.048		
10,500.00	7,128.38	7,452.02	7,190.05	103.69	42.71	-90.71	-3,977.24	-3,220.19	4,900.02	4,762.13	137.89	35.535		
10,600.00	7,127.95	7,432.90	7,181.71	106.39	42.67	-90.61	-3,979.23	-3,237.27	4,907.25	4,766.99	140.26	34.986		
10,700.00	7,127.51	7,400.00	7,166.20	109.10	42.61	-90.43	-3,982.92	-3,266.05	4,915.99	4,773.49	142.50	34.498		
10,800.00	7,127.08	7,373.56	7,152.70	111.82	42.55	-90.27	-3,986.12	-3,288.55	4,926.21	4,781.43	144.78	34.025		
10,900.00	7,126.65	7,352.01	7,141.03	114.54	42.51	-90.14	-3,988.89	-3,306.45	4,937.97	4,790.92	147.05	33.579		
11,000.00	7,126.21	7,317.32	7,121.02	117.27	42.43	-89.90	-3,993.62	-3,334.39	4,951.26	4,802.03	149.24	33.177		
11,100.00	7,125.78	7,300.00	7,110.48	120.01	42.39	-89.78	-3,996.11	-3,347.91	4,966.14	4,814.66	151.48	32.783		
11,200.00	7,125.35	7,273.23	7,093.50	122.75	42.32	-89.58	-4,000.11	-3,368.21	4,982.60	4,828.95	153.65	32.427		
11,300.00	7,124.91	7,252.01	7,079.46	125.49	42.27	-89.42	-4,003.42	-3,383.77	5,000.68	4,844.88	155.80	32.096		
11,400.00	7,124.48	7,231.44	7,065.37	128.24	42.22	-89.26	-4,006.73	-3,398.39	5,020.39	4,862.46	157.93	31.789		
11,500.00	7,124.04	7,208.36	7,049.03	131.00	42.16	-89.07	-4,010.57	-3,414.22	5,041.73	4,881.74	159.99	31.513		
11,600.00	7,123.61	7,200.00	7,042.96	133.75	42.13	-89.00	-4,011.99	-3,419.80	5,064.70	4,902.63	162.07	31.251		
11,700.00	7,123.18	7,177.63	7,026.41	136.52	42.07	-88.81	-4,015.88	-3,434.34	5,089.29	4,925.25	164.05	31.023		
11,800.00	7,122.74	7,152.01	7,006.86	139.28	41.99	-88.58	-4,020.46	-3,450.23	5,115.57	4,949.60	165.96	30.823		
11,900.00	7,122.31	7,152.01	7,006.86	142.05	41.99	-88.58	-4,020.46	-3,450.23	5,143.40	4,975.48	167.92	30.630		
12,000.00	7,121.88	7,132.78	6,991.77	144.82	41.93	-88.41	-4,024.00	-3,461.63	5,172.86	5,003.10	169.76	30.471		
12,100.00	7,121.44	7,119.51	6,981.17	147.59	41.88	-88.29	-4,026.48	-3,469.22	5,203.93	5,032.36	171.57	30.332		
12,200.00	7,121.01	7,100.00	6,965.32	150.37	41.82	-88.10	-4,030.19	-3,479.96	5,236.60	5,063.31	173.30	30.218		
12,300.00	7,120.57	7,100.00	6,965.32	153.15	41.82	-88.10	-4,030.19	-3,479.96	5,270.81	5,095.78	175.03	30.113		
12,400.00	7,120.14	7,100.00	6,965.32	155.93	41.82	-88.10	-4,030.19	-3,479.96	5,306.69	5,129.98	176.71	30.030		
12,500.00	7,119.71	7,073.40	6,943.19	158.72	41.72	-87.85	-4,035.36	-3,493.79	5,343.87	5,165.60	178.27	29.977		
12,600.00	7,119.27	7,052.01	6,925.01	161.50	41.65	-87.64	-4,039.61	-3,504.22	5,382.72	5,202.94	179.78	29.941		
12,700.00	7,118.84	7,052.01	6,925.01	164.29	41.65	-87.64	-4,039.61	-3,504.22	5,422.93	5,241.64	181.29	29.912		
12,800.00	7,118.41	7,049.69	6,923.02	167.08	41.64	-87.62	-4,040.08	-3,505.31	5,464.67	5,281.92	182.75	29.903	SF	
12,900.00	7,117.97	7,049.69	6,923.02	169.88	41.64	-87.62	-4,040.08	-3,505.31	5,507.89	5,323.74	184.15	29.909		
13,000.00	7,117.54	7,028.14	6,904.32	172.67	41.55	-87.41	-4,044.44	-3,515.10	5,552.35	5,366.89	185.46	29.939		
13,100.00	7,117.10	7,010.76	6,889.02	175.47	41.48	-87.23	-4,048.01	-3,522.52	5,598.31	5,411.59	186.72	29.983		
13,200.00	7,116.67	7,010.76	6,889.02	178.27	41.48	-87.23	-4,048.01	-3,522.52	5,645.51	5,457.54	187.97	30.034		
13,300.00	7,116.24	7,005.96	6,884.76	181.07	41.46	-87.18	-4,049.01	-3,524.50	5,694.07	5,504.91	189.16	30.102		
13,400.00	7,115.80	7,000.00	6,879.45	183.87	41.44	-87.12	-4,050.25	-3,526.90	5,743.91	5,553.62	190.29	30.185		
13,500.00	7,115.37	7,000.00	6,879.45	186.67	41.44	-87.12	-4,050.25	-3,526.90	5,795.03	5,603.64	191.39	30.278		
13,600.00	7,114.93	7,000.00	6,879.45	189.47	41.44	-87.12	-4,050.25	-3,526.90	5,847.41	5,654.97	192.44	30.385		
13,700.00	7,114.50	7,000.00	6,879.45	192.28	41.44	-87.12	-4,050.25	-3,526.90	5,901.03	5,707.58	193.45	30.504		
13,800.00	7,114.07	6,975.21	6,857.13	195.09	41.33	-86.87	-4,055.45	-3,536.35	5,955.49	5,761.12	194.37	30.640		
13,900.00	7,113.63	6,952.01	6,835.94	197.89	41.23	-86.63	-4,060.39	-3,544.38	6,011.47	5,816.22	195.24	30.790		
14,000.00	7,113.20	6,952.01	6,835.94	200.70	41.23	-86.63	-4,060.39	-3,544.38	6,068.28	5,872.16	196.12	30.941		
14,100.00	7,112.77	6,952.01	6,835.94	203.51	41.23	-86.63	-4,060.39	-3,544.38	6,126.20	5,929.24	196.96	31.104		
14,200.00	7,112.33	6,952.01	6,835.94	206.32	41.23	-86.63	-4,060.39	-3,544.38	6,185.19	5,987.43	197.76	31.277		
14,300.00	7,111.90	6,952.01	6,835.94	209.13	41.23	-86.63	-4,060.39	-3,544.38	6,245.22	6,046.71	198.51	31.460		
14,400.00	7,111.46	6,952.01	6,835.94	211.95	41.23	-86.63	-4,060.39	-3,544.38	6,306.27	6,107.04	199.23	31.653		
14,500.00	7,111.03	6,952.01	6,835.94	214.76	41.23	-86.63	-4,060.39	-3,544.38	6,368.31	6,168.39	199.92	31.855		
14,600.00	7,110.60	6,952.01	6,835.94	217.58	41.23	-86.63	-4,060.39	-3,544.38	6,431.30	6,230.74	200.57	32.066		
14,700.00	7,110.16	6,952.01	6,835.94	220.39	41.23	-86.63	-4,060.39	-3,544.38	6,495.22	6,294.04	201.18	32.286		
14,800.00	7,109.73	6,952.01	6,835.94	223.21	41.23	-86.63	-4,060.39	-3,544.38	6,560.04	6,358.28	201.76	32.514		
14,900.00	7,109.30	6,926.36	6,812.18	226.03	41.11	-86.36	-4,065.92	-3,552.34	6,625.32	6,423.03	202.29	32.751		
14,969.16	7,109.00	6,923.91	6,809.90	227.97	41.10	-86.33	-4,066.45	-3,553.04	6,671.17	6,468.52	202.65	32.919		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-148.68	-5,413.30	-3,294.42	6,337.38					
100.00	100.00	1,271.43	1,300.75	3.28	7.16	-147.56	-5,238.95	-3,329.45	6,322.47	6,312.17	10.30	613.722		
200.00	200.00	1,403.92	1,428.46	3.34	7.95	-147.33	-5,204.42	-3,336.70	6,303.06	6,292.04	11.03	571.609		
300.00	300.00	1,491.66	1,513.20	3.44	8.49	-147.19	-5,182.03	-3,340.71	6,283.76	6,272.19	11.57	543.259		
400.00	400.00	1,585.57	1,603.96	3.60	9.06	-147.04	-5,158.20	-3,344.43	6,264.32	6,252.13	12.19	513.787		
500.00	500.00	1,642.00	1,658.61	3.81	9.41	-146.95	-5,144.30	-3,346.54	6,245.44	6,232.78	12.66	493.304		
600.00	600.00	1,812.54	1,823.57	4.05	10.48	-146.68	-5,101.62	-3,353.51	6,226.53	6,212.73	13.80	451.180		
700.00	699.98	1,909.39	1,916.93	4.32	11.10	-137.63	-5,076.27	-3,358.01	6,208.17	6,193.59	14.58	425.723		
800.00	799.84	2,007.05	2,011.07	4.62	11.74	-137.71	-5,050.71	-3,362.55	6,192.39	6,176.99	15.40	402.086		
900.00	899.45	2,105.39	2,105.88	4.94	12.39	-137.77	-5,024.97	-3,367.11	6,179.19	6,162.94	16.25	380.176		
1,000.00	998.70	2,204.31	2,201.24	5.28	13.04	-137.82	-4,999.08	-3,371.71	6,168.58	6,151.44	17.14	359.964		
1,100.00	1,097.50	2,303.66	2,297.01	5.64	13.70	-137.82	-4,973.07	-3,376.32	6,160.40	6,142.36	18.05	341.380		
1,200.00	1,196.18	2,403.09	2,392.87	6.00	14.37	-137.75	-4,947.05	-3,380.94	6,152.79	6,133.81	18.98	324.202		
1,300.00	1,294.87	2,502.52	2,488.72	6.38	15.03	-137.68	-4,921.02	-3,385.56	6,145.19	6,125.26	19.93	308.384		
1,400.00	1,393.55	2,601.95	2,584.58	6.77	15.70	-137.62	-4,895.00	-3,390.17	6,137.59	6,116.70	20.89	293.813		
1,500.00	1,492.23	2,701.39	2,680.43	7.17	16.37	-137.55	-4,868.97	-3,394.79	6,130.01	6,108.14	21.86	280.378		
1,600.00	1,590.91	2,800.82	2,776.29	7.58	17.04	-137.48	-4,842.95	-3,399.41	6,122.43	6,099.58	22.85	267.972		
1,700.00	1,689.60	2,900.25	2,872.14	8.00	17.72	-137.41	-4,816.92	-3,404.03	6,114.86	6,091.02	23.84	256.499		
1,800.00	1,788.28	2,999.68	2,967.99	8.42	18.39	-137.34	-4,790.90	-3,408.65	6,107.30	6,082.46	24.84	245.869		
1,900.00	1,886.96	3,100.89	3,063.85	8.84	19.08	-137.27	-4,764.87	-3,413.26	6,099.75	6,073.90	25.86	235.909		
2,000.00	1,985.64	3,201.45	3,159.70	9.27	19.76	-137.19	-4,738.85	-3,417.88	6,092.21	6,065.34	26.88	226.685		
2,100.00	2,084.33	3,302.02	3,255.56	9.71	20.45	-137.12	-4,712.82	-3,422.50	6,084.68	6,056.78	27.90	218.095		
2,200.00	2,183.01	3,402.59	3,351.41	10.15	21.13	-137.05	-4,686.80	-3,427.12	6,077.16	6,048.23	28.93	210.081		
2,300.00	2,281.69	3,503.16	3,447.27	10.59	21.82	-136.98	-4,660.77	-3,431.73	6,069.65	6,039.69	29.96	202.589		
2,400.00	2,380.38	3,596.27	3,543.12	11.03	22.46	-136.91	-4,634.75	-3,436.35	6,062.14	6,031.19	30.95	195.851		
2,500.00	2,479.06	3,695.71	3,638.98	11.47	23.14	-136.84	-4,608.72	-3,440.97	6,054.65	6,022.67	31.99	189.292		
2,600.00	2,577.74	10,489.04	7,077.96	11.92	118.02	-172.00	-3,689.25	-59.77	6,002.14	5,905.82	96.32	62.315		
2,700.00	2,676.42	10,486.53	7,077.96	12.36	117.94	-171.97	-3,689.24	-62.29	5,939.22	5,841.65	97.57	60.872		
2,800.00	2,775.11	10,484.01	7,077.96	12.81	117.86	-171.94	-3,689.23	-64.80	5,877.32	5,778.48	98.84	59.462		
2,900.00	2,873.79	10,481.50	7,077.95	13.26	117.78	-171.91	-3,689.23	-67.31	5,816.48	5,716.35	100.13	58.087		
3,000.00	2,972.47	10,478.99	7,077.95	13.72	117.70	-171.88	-3,689.22	-69.83	5,756.74	5,655.29	101.45	56.747		
3,100.00	3,071.15	10,476.47	7,077.95	14.17	117.62	-171.85	-3,689.21	-72.34	5,698.12	5,595.34	102.78	55.442		
3,200.00	3,169.84	10,473.96	7,077.95	14.62	117.54	-171.82	-3,689.21	-74.86	5,640.66	5,536.54	104.12	54.173		
3,300.00	3,268.52	10,471.44	7,077.94	15.08	117.46	-171.78	-3,689.20	-77.37	5,584.41	5,478.92	105.48	52.940		
3,400.00	3,367.20	10,468.93	7,077.94	15.53	117.38	-171.75	-3,689.20	-79.88	5,529.39	5,422.53	106.86	51.744		
3,500.00	3,465.89	10,466.42	7,077.94	15.99	117.31	-171.72	-3,689.19	-82.40	5,475.64	5,367.39	108.25	50.585		
3,600.00	3,564.57	10,463.90	7,077.94	16.44	117.23	-171.69	-3,689.18	-84.91	5,423.20	5,313.56	109.64	49.463		
3,700.00	3,663.25	10,461.39	7,077.93	16.90	117.15	-171.66	-3,689.18	-87.43	5,372.11	5,261.07	111.04	48.378		
3,800.00	3,761.93	10,458.87	7,077.93	17.36	117.07	-171.63	-3,689.17	-89.94	5,322.41	5,209.96	112.45	47.330		
3,900.00	3,860.62	10,456.36	7,077.93	17.82	116.99	-171.60	-3,689.16	-92.45	5,274.13	5,160.27	113.87	46.319		
4,000.00	3,959.30	10,453.85	7,077.93	18.28	116.91	-171.57	-3,689.16	-94.97	5,227.32	5,112.05	115.28	45.345		
4,100.00	4,057.98	10,451.33	7,077.92	18.74	116.83	-171.54	-3,689.15	-97.48	5,182.02	5,065.33	116.69	44.408		
4,200.00	4,156.67	10,448.82	7,077.92	19.20	116.75	-171.51	-3,689.15	-99.99	5,138.26	5,020.16	118.10	43.508		
4,300.00	4,255.35	10,446.30	7,077.92	19.66	116.67	-171.47	-3,689.14	-102.51	5,096.09	4,976.59	119.50	42.645		
4,400.00	4,354.03	10,443.79	7,077.92	20.12	116.59	-171.44	-3,689.13	-105.02	5,055.54	4,934.65	120.90	41.818		
4,500.00	4,452.71	10,441.28	7,077.91	20.58	116.51	-171.41	-3,689.13	-107.54	5,016.66	4,894.39	122.28	41.027		
4,600.00	4,551.40	10,438.76	7,077.91	21.04	116.43	-171.38	-3,689.12	-110.05	4,979.48	4,855.84	123.64	40.273		
4,700.00	4,650.08	10,436.25	7,077.91	21.50	116.36	-171.35	-3,689.11	-112.56	4,944.05	4,819.05	124.99	39.554		
4,800.00	4,748.76	10,433.74	7,077.91	21.96	116.28	-171.32	-3,689.11	-115.08	4,910.39	4,784.07	126.32	38.871		
4,900.00	4,847.44	10,431.22	7,077.90	22.42	116.20	-171.29	-3,689.10	-117.59	4,878.55	4,750.70	127.65	38.159		
5,000.00	4,946.13	10,428.71	7,077.90	22.89	116.12	-171.26	-3,689.10	-120.11	4,848.56	4,719.65	128.91	37.611		
5,100.00	5,044.81	10,426.19	7,077.90	23.35	116.04	-171.23	-3,689.09	-122.62	4,820.46	4,690.30	130.16	37.034		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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-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		
5,200.00	5,143.49	10,423.68	7,077.90	23.81	115.96	-171.19	-3,689.08	-125.13	4,794.28	4,662.90	131.38	36.490		
5,300.00	5,242.18	10,421.17	7,077.89	24.27	115.88	-171.16	-3,689.08	-127.65	4,770.05	4,637.48	132.57	35.982		
5,400.00	5,340.86	10,418.65	7,077.89	24.74	115.80	-171.13	-3,689.07	-130.16	4,747.81	4,614.09	133.72	35.507		
5,500.00	5,439.54	10,416.14	7,077.89	25.20	115.72	-171.10	-3,689.06	-132.67	4,727.57	4,592.75	134.82	35.066		
5,600.00	5,538.22	10,413.62	7,077.89	25.66	115.64	-171.07	-3,689.06	-135.19	4,709.37	4,573.49	135.88	34.658		
5,700.00	5,636.91	10,411.11	7,077.88	26.13	115.56	-171.04	-3,689.05	-137.70	4,693.23	4,556.33	136.90	34.283		
5,800.00	5,735.59	10,408.60	7,077.88	26.59	115.49	-171.01	-3,689.05	-140.22	4,679.16	4,541.30	137.86	33.940		
5,900.00	5,834.27	10,406.08	7,077.88	27.06	115.41	-170.98	-3,689.04	-142.73	4,667.20	4,528.42	138.78	33.630		
6,000.00	5,932.95	10,403.57	7,077.88	27.52	115.33	-170.95	-3,689.03	-145.24	4,657.35	4,517.71	139.64	33.352		
6,100.00	6,031.64	10,401.06	7,077.87	27.98	115.25	-170.92	-3,689.03	-147.76	4,649.64	4,509.19	140.45	33.106		
6,200.00	6,130.32	10,401.46	7,077.87	28.45	115.26	-170.88	-3,689.02	-150.27	4,644.06	4,502.77	141.29	32.869		
6,300.00	6,229.00	10,396.03	7,077.87	28.91	115.09	-170.85	-3,689.02	-152.79	4,640.63	4,498.74	141.89	32.706		
6,400.00	6,327.69	10,393.51	7,077.87	29.38	115.01	-170.82	-3,689.01	-155.30	4,639.35	4,496.83	142.52	32.552		
6,409.38	6,336.95	10,393.28	7,077.87	29.42	115.00	-170.82	-3,689.01	-155.53	4,639.34	4,496.76	142.58	32.539		
6,500.00	6,426.37	10,391.00	7,077.86	29.84	114.93	-170.79	-3,689.00	-157.81	4,640.22	4,497.13	143.09	32.428		
6,600.00	6,525.05	10,388.49	7,077.86	30.31	114.85	-170.76	-3,689.00	-160.33	4,643.25	4,499.65	143.60	32.334		
6,700.00	6,623.18	10,378.21	7,077.85	30.77	114.53	-130.07	-3,688.97	-170.61	4,648.11	4,504.30	143.81	32.322		
6,800.00	6,718.58	10,352.52	7,077.82	31.22	113.73	-112.84	-3,688.91	-196.29	4,654.29	4,510.83	143.46	32.443		
6,900.00	6,808.91	10,312.06	7,077.78	31.66	112.46	-104.39	-3,688.81	-236.75	4,661.39	4,518.79	142.60	32.689		
7,000.00	6,891.95	10,257.82	7,077.73	32.07	110.76	-99.21	-3,688.67	-290.99	4,668.87	4,527.60	141.27	33.049		
7,100.00	6,965.65	10,191.14	7,077.66	32.51	108.68	-95.59	-3,688.51	-357.68	4,676.08	4,536.51	139.57	33.504		
7,200.00	7,028.20	10,113.65	7,077.59	33.02	106.27	-92.93	-3,688.32	-435.16	4,682.35	4,544.75	137.60	34.030		
7,300.00	7,078.04	10,027.27	7,077.50	33.68	103.59	-91.01	-3,688.10	-521.54	4,687.06	4,551.57	135.48	34.595		
7,400.00	7,113.97	9,935.91	7,077.41	34.52	100.77	-89.77	-3,687.87	-614.68	4,689.66	4,556.26	133.40	35.155		
7,500.00	7,135.09	9,836.51	7,077.31	35.53	97.72	-89.19	-3,687.63	-712.30	4,689.75	4,558.49	131.27	35.727		
7,600.00	7,140.96	9,736.82	7,077.21	36.68	94.68	-89.23	-3,687.39	-811.99	4,687.16	4,557.84	129.32	36.246		
7,700.00	7,140.53	9,636.89	7,077.11	37.99	91.65	-89.23	-3,687.14	-911.92	4,683.45	4,555.90	127.55	36.719		
7,800.00	7,140.09	9,536.96	7,077.01	39.45	88.64	-89.24	-3,686.89	-1,011.85	4,679.73	4,553.77	125.96	37.152		
7,900.00	7,139.66	9,437.03	7,076.91	41.06	85.66	-89.24	-3,686.64	-1,111.78	4,676.02	4,551.48	124.54	37.547		
8,000.00	7,139.23	9,337.10	7,076.81	42.80	82.70	-89.24	-3,686.40	-1,211.71	4,672.31	4,549.04	123.27	37.904		
8,100.00	7,138.79	9,237.17	7,076.72	44.65	79.78	-89.25	-3,686.15	-1,311.64	4,668.60	4,546.47	122.13	38.225		
8,200.00	7,138.36	9,137.69	7,076.63	46.60	76.91	-89.24	-3,685.90	-1,411.12	4,664.90	4,543.76	121.14	38.509		
8,300.00	7,137.93	9,037.76	7,076.50	48.65	74.06	-89.24	-3,685.66	-1,511.04	4,661.19	4,540.95	120.25	38.764		
8,400.00	7,137.49	8,937.83	7,076.38	50.77	71.27	-89.23	-3,685.41	-1,610.97	4,657.49	4,538.03	119.47	38.986		
8,500.00	7,137.06	8,837.90	7,076.25	52.95	68.52	-89.23	-3,685.16	-1,710.90	4,653.79	4,535.00	118.79	39.175		
8,600.00	7,136.62	8,737.97	7,076.12	55.20	65.84	-89.22	-3,684.92	-1,810.82	4,650.09	4,531.86	118.23	39.332		
8,700.00	7,136.19	8,638.04	7,076.00	57.51	63.23	-89.22	-3,684.67	-1,910.75	4,646.39	4,528.63	117.76	39.456		
8,800.00	7,135.76	8,538.11	7,075.87	59.85	60.72	-89.21	-3,684.42	-2,010.68	4,642.69	4,525.28	117.40	39.545		
8,900.00	7,135.32	8,438.18	7,075.74	62.24	58.31	-89.20	-3,684.17	-2,110.60	4,638.98	4,521.83	117.15	39.598		
9,000.00	7,134.89	8,338.24	7,075.62	64.67	56.04	-89.20	-3,683.93	-2,210.53	4,635.28	4,518.27	117.02	39.612		
9,100.00	7,134.45	8,238.31	7,075.50	67.13	53.93	-89.19	-3,683.68	-2,310.46	4,631.58	4,514.58	117.00	39.585		
9,200.00	7,134.02	8,138.38	7,075.38	69.62	52.04	-89.19	-3,683.43	-2,410.38	4,627.88	4,510.76	117.12	39.513		
9,300.00	7,133.59	8,038.45	7,075.26	72.14	50.42	-89.18	-3,683.19	-2,510.31	4,624.18	4,506.79	117.39	39.392		
9,400.00	7,133.15	7,938.52	7,075.14	74.68	49.10	-89.18	-3,682.94	-2,610.24	4,620.48	4,502.66	117.82	39.217		
9,500.00	7,132.72	7,838.59	7,075.02	77.24	48.10	-89.17	-3,682.69	-2,710.17	4,616.78	4,498.35	118.43	38.983		
9,600.00	7,132.29	7,738.66	7,074.90	79.83	47.39	-89.17	-3,682.45	-2,810.09	4,613.07	4,493.83	119.25	38.686		
9,700.00	7,131.85	7,638.73	7,074.78	82.42	46.92	-89.16	-3,682.20	-2,910.02	4,609.37	4,489.08	120.29	38.319		
9,800.00	7,131.42	7,538.80	7,074.66	85.04	46.73	-89.15	-3,682.16	-2,965.76	4,605.99	4,483.83	122.16	37.704		
9,900.00	7,130.98	7,438.87	7,074.54	87.67	46.64	-89.13	-3,682.60	-2,998.66	4,603.97	4,479.60	124.37	37.019		
9,988.45	7,130.60	7,328.94	7,074.42	90.01	46.56	-89.09	-3,683.37	-3,027.87	4,603.40	4,477.07	126.33	36.439 CC		
10,000.00	7,130.55	7,219.01	7,074.30	90.31	46.56	-89.08	-3,683.50	-3,031.61	4,603.41	4,476.82	126.59	36.365		
10,100.00	7,130.12	7,119.08	7,074.18	92.97	46.48	-89.02	-3,684.81	-3,063.62	4,604.32	4,475.50	128.82	35.744 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,129.68	7,450.00	7,043.94	95.63	46.40	-88.93	-3,686.66	-3,097.08	4,606.71	4,475.69	131.02	35.160		
10,300.00	7,129.25	7,421.28	7,036.42	98.31	46.34	-88.83	-3,688.56	-3,124.72	4,610.60	4,477.30	133.30	34.589		
10,400.00	7,128.82	7,400.00	7,030.08	101.00	46.29	-88.76	-3,690.19	-3,144.97	4,616.05	4,480.41	135.63	34.033		
10,500.00	7,128.38	7,350.00	7,012.63	103.69	46.19	-88.54	-3,694.70	-3,191.60	4,623.03	4,485.35	137.68	33.579		
10,600.00	7,127.95	7,335.01	7,006.72	106.39	46.16	-88.47	-3,696.24	-3,205.28	4,631.52	4,491.47	140.05	33.071		
10,700.00	7,127.51	7,300.00	6,991.71	109.10	46.08	-88.29	-3,700.16	-3,236.67	4,641.66	4,499.44	142.22	32.637		
10,800.00	7,127.08	7,280.06	6,982.43	111.82	46.04	-88.17	-3,702.60	-3,254.14	4,653.39	4,508.87	144.52	32.199		
10,900.00	7,126.65	7,250.00	6,967.45	114.54	45.97	-87.99	-3,706.54	-3,279.90	4,666.78	4,520.12	146.67	31.819		
11,000.00	7,126.21	7,235.01	6,959.54	117.27	45.94	-87.89	-3,708.63	-3,292.46	4,681.81	4,532.89	148.92	31.438		
11,100.00	7,125.78	7,208.52	6,944.88	120.01	45.87	-87.71	-3,712.50	-3,314.18	4,698.50	4,547.45	151.06	31.104		
11,200.00	7,125.35	7,183.10	6,930.01	122.75	45.81	-87.53	-3,716.44	-3,334.41	4,716.89	4,563.72	153.17	30.796		
11,300.00	7,124.91	7,166.34	6,919.78	125.49	45.76	-87.41	-3,719.16	-3,347.42	4,736.94	4,581.65	155.29	30.503		
11,400.00	7,124.48	7,150.00	6,909.49	128.24	45.72	-87.28	-3,721.89	-3,359.81	4,758.70	4,601.33	157.37	30.239		
11,500.00	7,124.04	7,128.25	6,895.34	131.00	45.66	-87.11	-3,725.65	-3,375.88	4,782.14	4,622.77	159.37	30.006		
11,600.00	7,123.61	7,110.64	6,883.49	133.75	45.61	-86.97	-3,728.81	-3,388.52	4,807.27	4,645.92	161.36	29.793		
11,700.00	7,123.18	7,100.00	6,876.16	136.52	45.57	-86.88	-3,730.76	-3,395.99	4,834.11	4,670.79	163.32	29.599		
11,800.00	7,122.74	7,078.07	6,860.71	139.28	45.50	-86.69	-3,734.88	-3,410.98	4,862.59	4,697.40	165.18	29.438		
11,900.00	7,122.31	7,050.00	6,840.20	142.05	45.42	-86.44	-3,740.36	-3,429.36	4,892.82	4,725.86	166.96	29.306		
12,000.00	7,121.88	7,050.00	6,840.20	144.82	45.42	-86.44	-3,740.36	-3,429.36	4,924.55	4,755.74	168.81	29.172		
12,100.00	7,121.44	7,035.01	6,828.94	147.59	45.36	-86.31	-3,743.37	-3,438.78	4,957.98	4,787.44	170.54	29.072		
12,200.00	7,121.01	7,035.01	6,828.94	150.37	45.36	-86.31	-3,743.37	-3,438.78	4,993.11	4,820.84	172.28	28.983		
12,300.00	7,120.57	7,000.00	6,801.83	153.15	45.24	-85.98	-3,750.62	-3,459.70	5,029.72	4,855.91	173.81	28.937		
12,400.00	7,120.14	7,000.00	6,801.83	155.93	45.24	-85.98	-3,750.62	-3,459.70	5,067.88	4,892.44	175.44	28.887		
12,500.00	7,119.71	7,000.00	6,801.83	158.72	45.24	-85.98	-3,750.62	-3,459.70	5,107.71	4,930.71	177.00	28.857		
12,600.00	7,119.27	6,976.70	6,783.19	161.50	45.15	-85.76	-3,755.62	-3,472.75	5,148.89	4,970.46	178.43	28.857 SF		
12,700.00	7,118.84	6,950.00	6,761.27	164.29	45.05	-85.50	-3,761.50	-3,486.83	5,191.79	5,012.01	179.78	28.878		
12,800.00	7,118.41	6,950.00	6,761.27	167.08	45.05	-85.50	-3,761.50	-3,486.83	5,235.89	5,054.70	181.18	28.899		
12,900.00	7,117.97	6,950.00	6,761.27	169.88	45.05	-85.50	-3,761.50	-3,486.83	5,281.50	5,098.98	182.52	28.936		
13,000.00	7,117.54	6,935.01	6,748.73	172.67	44.98	-85.35	-3,764.86	-3,494.31	5,328.55	5,144.79	183.76	28.997		
13,100.00	7,117.10	6,935.01	6,748.73	175.47	44.98	-85.35	-3,764.86	-3,494.31	5,376.96	5,191.97	184.99	29.066		
13,200.00	7,116.67	6,935.01	6,748.73	178.27	44.98	-85.35	-3,764.86	-3,494.31	5,426.78	5,240.61	186.17	29.149		
13,300.00	7,116.24	6,915.20	6,731.90	181.07	44.90	-85.15	-3,769.38	-3,503.73	5,477.75	5,290.50	187.25	29.254		
13,400.00	7,115.80	6,900.00	6,718.80	183.87	44.83	-84.99	-3,772.91	-3,510.58	5,530.11	5,341.82	188.28	29.371		
13,500.00	7,115.37	6,900.00	6,718.80	186.67	44.83	-84.99	-3,772.91	-3,510.58	5,583.64	5,394.32	189.31	29.494		
13,600.00	7,114.93	6,900.00	6,718.80	189.47	44.83	-84.99	-3,772.91	-3,510.58	5,638.43	5,448.14	190.29	29.630		
13,700.00	7,114.50	6,900.00	6,718.80	192.28	44.83	-84.99	-3,772.91	-3,510.58	5,694.46	5,503.23	191.23	29.778		
13,800.00	7,114.07	6,900.00	6,718.80	195.09	44.83	-84.99	-3,772.91	-3,510.58	5,751.67	5,559.56	192.12	29.939		
13,900.00	7,113.63	6,875.64	6,697.49	197.89	44.72	-84.74	-3,778.64	-3,520.89	5,809.68	5,616.77	192.91	30.115		
14,000.00	7,113.20	6,850.00	6,674.66	200.70	44.60	-84.47	-3,784.79	-3,530.81	5,869.23	5,675.57	193.66	30.307		
14,100.00	7,112.77	6,850.00	6,674.66	203.51	44.60	-84.47	-3,784.79	-3,530.81	5,929.47	5,735.04	194.43	30.497		
14,200.00	7,112.33	6,850.00	6,674.66	206.32	44.60	-84.47	-3,784.79	-3,530.81	5,990.77	5,795.61	195.16	30.697		
14,300.00	7,111.90	6,850.00	6,674.66	209.13	44.60	-84.47	-3,784.79	-3,530.81	6,053.11	5,857.26	195.85	30.907		
14,400.00	7,111.46	6,850.00	6,674.66	211.95	44.60	-84.47	-3,784.79	-3,530.81	6,116.44	5,919.94	196.50	31.127		
14,500.00	7,111.03	6,850.00	6,674.66	214.76	44.60	-84.47	-3,784.79	-3,530.81	6,180.74	5,983.63	197.12	31.356		
14,600.00	7,110.60	6,835.01	6,661.14	217.58	44.53	-84.31	-3,788.43	-3,536.17	6,245.94	6,048.26	197.68	31.596		
14,700.00	7,110.16	6,835.01	6,661.14	220.39	44.53	-84.31	-3,788.43	-3,536.17	6,312.00	6,113.77	198.23	31.842		
14,800.00	7,109.73	6,835.01	6,661.14	223.21	44.53	-84.31	-3,788.43	-3,536.17	6,378.95	6,180.20	198.75	32.095		
14,900.00	7,109.30	6,835.01	6,661.14	226.03	44.53	-84.31	-3,788.43	-3,536.17	6,446.75	6,247.51	199.24	32.357		
14,969.16	7,109.00	6,835.01	6,661.14	227.97	44.53	-84.31	-3,788.43	-3,536.17	6,494.14	6,294.57	199.56	32.542		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-125.53	-4,530.78	-6,345.74	7,797.48				
100.00	100.00	34.00	100.00	3.28	3.33	-125.53	-4,530.78	-6,345.74	7,797.20	7,790.59	6.62	1,178.185	
200.00	200.00	134.00	200.00	3.34	4.40	-125.53	-4,530.78	-6,345.74	7,797.20	7,789.47	7.74	1,007.813	
300.00	300.00	234.00	300.00	3.44	7.21	-125.53	-4,530.78	-6,345.74	7,797.20	7,786.55	10.66	731.629	
400.00	400.00	334.00	400.00	3.60	10.44	-125.53	-4,530.78	-6,345.74	7,797.20	7,783.16	14.05	555.109	
500.00	500.00	434.00	500.00	3.81	13.80	-125.53	-4,530.78	-6,345.74	7,797.20	7,779.60	17.61	442.849	
600.00	600.00	534.00	600.00	4.05	17.21	-125.53	-4,530.78	-6,345.74	7,797.20	7,775.95	21.26	366.786	
700.00	699.98	633.98	699.98	4.32	20.65	-116.37	-4,530.78	-6,345.74	7,797.98	7,773.01	24.97	312.338	
800.00	799.84	733.84	799.84	4.62	24.10	-116.37	-4,530.78	-6,345.74	7,800.31	7,771.60	28.71	271.678	
900.00	899.45	833.45	899.45	4.94	27.55	-116.35	-4,530.78	-6,345.74	7,804.19	7,771.71	32.48	240.280	
1,000.00	998.70	932.70	998.70	5.28	30.99	-116.34	-4,530.78	-6,345.74	7,809.63	7,773.37	36.26	215.377	
1,100.00	1,097.50	1,031.50	1,097.50	5.64	34.42	-116.36	-4,530.78	-6,345.74	7,816.54	7,776.50	40.05	195.184	
1,200.00	1,196.18	1,130.18	1,196.18	6.00	37.85	-116.46	-4,530.78	-6,345.74	7,823.82	7,779.97	43.85	178.434	
1,300.00	1,294.87	1,228.87	1,294.87	6.38	41.28	-116.57	-4,530.78	-6,345.74	7,831.12	7,783.45	47.66	164.304	
1,400.00	1,393.55	1,327.55	1,393.55	6.77	44.72	-116.67	-4,530.78	-6,345.74	7,838.44	7,786.95	51.49	152.233	
1,500.00	1,492.23	1,426.23	1,492.23	7.17	48.16	-116.78	-4,530.78	-6,345.74	7,845.79	7,790.47	55.33	141.806	
1,600.00	1,590.91	1,524.91	1,590.91	7.58	51.59	-116.88	-4,530.78	-6,345.74	7,853.17	7,794.00	59.17	132.713	
1,700.00	1,689.60	1,623.60	1,689.60	8.00	55.03	-116.98	-4,530.78	-6,345.74	7,860.58	7,797.55	63.03	124.716	
1,800.00	1,788.28	1,722.28	1,788.28	8.42	58.47	-117.09	-4,530.78	-6,345.74	7,868.01	7,801.12	66.89	117.631	
1,900.00	1,886.96	1,820.96	1,886.96	8.84	61.91	-117.19	-4,530.78	-6,345.74	7,875.47	7,804.71	70.75	111.311	
2,000.00	1,985.64	1,919.64	1,985.64	9.27	65.35	-117.30	-4,530.78	-6,345.74	7,882.95	7,808.33	74.62	105.639	
2,100.00	2,084.33	2,018.33	2,084.33	9.71	68.79	-117.40	-4,530.78	-6,345.74	7,890.46	7,811.96	78.49	100.522	
2,200.00	2,183.01	2,117.01	2,183.01	10.15	72.23	-117.50	-4,530.78	-6,345.74	7,898.00	7,815.62	82.37	95.883	
2,300.00	2,281.69	2,215.69	2,281.69	10.59	75.68	-117.61	-4,530.78	-6,345.74	7,905.56	7,819.31	86.25	91.657	
2,400.00	2,380.38	2,314.38	2,380.38	11.03	79.12	-117.71	-4,530.78	-6,345.74	7,913.14	7,823.01	90.13	87.794	
2,500.00	2,479.06	2,413.06	2,479.06	11.47	82.56	-117.81	-4,530.78	-6,345.74	7,920.76	7,826.74	94.02	84.247	
2,600.00	2,577.74	2,511.74	2,577.74	11.92	86.00	-117.91	-4,530.78	-6,345.74	7,928.40	7,830.49	97.90	80.981	
2,700.00	2,676.42	2,610.42	2,676.42	12.36	89.44	-118.01	-4,530.78	-6,345.74	7,936.06	7,834.27	101.79	77.963	
2,800.00	2,775.11	2,709.11	2,775.11	12.81	92.89	-118.12	-4,530.78	-6,345.74	7,943.75	7,838.07	105.68	75.166	
2,900.00	2,873.79	2,807.79	2,873.79	13.26	96.33	-118.22	-4,530.78	-6,345.74	7,951.47	7,841.89	109.57	72.567	
3,000.00	2,972.47	2,906.47	2,972.47	13.72	99.77	-118.32	-4,530.78	-6,345.74	7,959.21	7,845.74	113.47	70.146	
3,100.00	3,071.15	3,005.15	3,071.15	14.17	103.22	-118.42	-4,530.78	-6,345.74	7,966.97	7,849.61	117.36	67.885	
3,200.00	3,169.84	3,103.84	3,169.84	14.62	106.66	-118.52	-4,530.78	-6,345.74	7,974.77	7,853.51	121.25	65.769	
3,300.00	3,268.52	3,202.52	3,268.52	15.08	110.10	-118.62	-4,530.78	-6,345.74	7,982.58	7,857.43	125.15	63.784	
3,400.00	3,367.20	3,301.20	3,367.20	15.53	113.55	-118.72	-4,530.78	-6,345.74	7,990.42	7,861.38	129.05	61.919	
3,500.00	3,465.89	3,400.11	3,465.89	15.99	117.00	-118.83	-4,530.78	-6,345.74	7,998.29	7,865.34	132.95	60.159	
3,600.00	3,564.57	3,501.43	3,564.57	16.44	120.53	-118.93	-4,530.78	-6,345.74	8,006.18	7,869.24	136.94	58.464	
3,700.00	3,663.25	3,602.75	3,663.25	16.90	124.07	-119.03	-4,530.78	-6,345.74	8,014.10	7,873.17	140.93	56.864	
3,800.00	3,761.93	3,704.07	3,761.93	17.36	127.61	-119.13	-4,530.78	-6,345.74	8,022.04	7,877.12	144.92	55.353	
3,900.00	3,860.62	3,805.38	3,860.62	17.82	131.14	-119.23	-4,530.78	-6,345.74	8,030.01	7,881.09	148.92	53.923	
4,000.00	3,959.30	3,906.70	3,959.30	18.28	134.68	-119.33	-4,530.78	-6,345.74	8,038.00	7,885.09	152.91	52.567	
4,100.00	4,057.98	4,008.02	4,057.98	18.74	138.21	-119.42	-4,530.78	-6,345.74	8,046.01	7,889.11	156.90	51.281	
4,200.00	4,156.67	4,109.34	4,156.67	19.20	141.75	-119.52	-4,530.78	-6,345.74	8,054.05	7,893.16	160.90	50.058	
4,300.00	4,255.35	4,189.35	4,255.35	19.66	144.54	-119.62	-4,530.78	-6,345.74	8,062.12	7,897.97	164.15	49.116	
4,400.00	4,354.03	4,288.03	4,354.03	20.12	147.99	-119.72	-4,530.78	-6,345.74	8,070.21	7,902.16	168.05	48.023	
4,500.00	4,452.71	4,386.71	4,452.71	20.58	151.43	-119.82	-4,530.78	-6,345.74	8,078.32	7,906.37	171.95	46.981	
4,600.00	4,551.40	4,485.40	4,551.40	21.04	154.87	-119.92	-4,530.78	-6,345.74	8,086.46	7,910.61	175.85	45.984	
4,700.00	4,650.08	4,584.08	4,650.08	21.50	158.32	-120.02	-4,530.78	-6,345.74	8,094.62	7,914.86	179.76	45.031	
4,800.00	4,748.76	4,682.76	4,748.76	21.96	161.76	-120.12	-4,530.78	-6,345.74	8,102.81	7,919.15	183.66	44.119	
4,900.00	4,847.44	4,781.44	4,847.44	22.42	165.21	-120.21	-4,530.78	-6,345.74	8,111.01	7,923.45	187.56	43.244	
5,000.00	4,946.13	4,880.13	4,946.13	22.89	168.65	-120.31	-4,530.78	-6,345.74	8,119.25	7,927.78	191.47	42.406	
5,100.00	5,044.81	4,978.81	5,044.81	23.35	172.10	-120.41	-4,530.78	-6,345.74	8,127.51	7,932.13	195.37	41.600	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,077.49	5,143.49	23.81	175.54	-120.51	-4,530.78	-6,345.74	8,135.79	7,936.51	199.28	40.827		
5,300.00	5,242.18	5,176.18	5,242.18	24.27	178.99	-120.60	-4,530.78	-6,345.74	8,144.09	7,940.91	203.18	40.083		
5,400.00	5,340.86	5,274.86	5,340.86	24.74	182.43	-120.70	-4,530.78	-6,345.74	8,152.42	7,945.34	207.08	39.368		
5,500.00	5,439.54	5,373.54	5,439.54	25.20	185.87	-120.80	-4,530.78	-6,345.74	8,160.77	7,949.78	210.99	38.679		
5,600.00	5,538.22	5,472.22	5,538.22	25.66	189.32	-120.89	-4,530.78	-6,345.74	8,169.15	7,954.25	214.89	38.015		
5,700.00	5,636.91	5,570.91	5,636.91	26.13	192.76	-120.99	-4,530.78	-6,345.74	8,177.55	7,958.75	218.80	37.375		
5,800.00	5,735.59	5,669.59	5,735.59	26.59	196.21	-121.09	-4,530.78	-6,345.74	8,185.97	7,963.26	222.70	36.757		
5,900.00	5,834.27	5,768.27	5,834.27	27.06	199.65	-121.18	-4,530.78	-6,345.74	8,194.42	7,967.81	226.61	36.161		
6,000.00	5,932.95	5,866.95	5,932.95	27.52	203.10	-121.28	-4,530.78	-6,345.74	8,202.88	7,972.37	230.52	35.585		
6,100.00	6,031.64	5,965.64	6,031.64	27.98	206.54	-121.37	-4,530.78	-6,345.74	8,211.38	7,976.95	234.42	35.028		
6,200.00	6,130.32	6,064.32	6,130.32	28.45	209.99	-121.47	-4,530.78	-6,345.74	8,219.89	7,981.56	238.33	34.490		
6,300.00	6,229.00	6,163.00	6,229.00	28.91	213.43	-121.56	-4,530.78	-6,345.74	8,228.43	7,986.20	242.23	33.969		
6,400.00	6,327.69	6,261.69	6,327.69	29.38	216.88	-121.66	-4,530.78	-6,345.74	8,236.99	7,990.85	246.14	33.465		
6,500.00	6,426.37	6,360.37	6,426.37	29.84	220.32	-121.75	-4,530.78	-6,345.74	8,245.57	7,995.53	250.05	32.976		
6,600.00	6,525.05	6,459.05	6,525.05	30.31	223.76	-121.85	-4,530.78	-6,345.74	8,254.18	8,000.23	253.95	32.503		
6,700.00	6,623.18	6,557.18	6,623.18	30.77	227.19	-81.70	-4,530.78	-6,345.74	8,256.76	7,998.91	257.84	32.023		
6,800.00	6,718.58	6,652.58	6,718.58	31.22	230.52	-66.07	-4,530.78	-6,345.74	8,247.21	7,985.58	261.63	31.522		
6,900.00	6,808.91	6,742.91	6,808.91	31.66	233.67	-60.23	-4,530.78	-6,345.74	8,225.89	7,960.64	265.24	31.013		
7,000.00	6,891.95	6,825.95	6,891.95	32.07	236.57	-58.66	-4,530.78	-6,345.74	8,193.41	7,924.81	268.60	30.504		
7,100.00	6,965.65	6,900.35	6,965.65	32.51	239.17	-59.64	-4,530.78	-6,345.74	8,150.70	7,879.04	271.67	30.002		
7,200.00	7,028.20	6,962.20	7,028.20	33.02	241.33	-62.62	-4,530.78	-6,345.74	8,098.95	7,824.62	274.33	29.522		
7,300.00	7,078.04	7,012.04	7,078.04	33.68	243.07	-67.39	-4,530.78	-6,345.74	8,039.54	7,762.91	276.63	29.062		
7,400.00	7,113.97	7,047.97	7,113.97	34.52	244.32	-73.90	-4,530.78	-6,345.74	7,974.03	7,695.51	278.52	28.630		
7,500.00	7,135.09	7,069.09	7,135.09	35.53	245.06	-81.97	-4,530.78	-6,345.74	7,904.09	7,624.13	279.96	28.233		
7,600.00	7,140.96	7,074.96	7,140.96	36.68	245.26	-90.27	-4,530.78	-6,345.74	7,831.48	7,550.56	280.93	27.877		
7,700.00	7,140.53	7,074.53	7,140.53	37.99	245.25	-90.26	-4,530.78	-6,345.74	7,758.57	7,476.81	281.76	27.536		
7,800.00	7,140.09	7,074.09	7,140.09	39.45	245.23	-90.26	-4,530.78	-6,345.74	7,686.27	7,403.57	282.71	27.188		
7,900.00	7,139.66	7,073.66	7,139.66	41.06	245.22	-90.25	-4,530.78	-6,345.74	7,614.60	7,330.84	283.76	26.835		
8,000.00	7,139.23	7,073.23	7,139.23	42.80	245.20	-90.25	-4,530.78	-6,345.74	7,543.57	7,258.66	284.92	26.476		
8,100.00	7,138.79	7,072.79	7,138.79	44.65	245.19	-90.24	-4,530.78	-6,345.74	7,473.21	7,187.03	286.18	26.114		
8,200.00	7,138.36	7,072.36	7,138.36	46.60	245.17	-90.24	-4,530.78	-6,345.74	7,403.53	7,115.99	287.54	25.748		
8,300.00	7,137.93	7,071.93	7,137.93	48.65	245.16	-90.23	-4,530.78	-6,345.74	7,334.54	7,045.55	288.99	25.380		
8,400.00	7,137.49	7,071.49	7,137.49	50.77	245.14	-90.23	-4,530.78	-6,345.74	7,266.28	6,975.75	290.54	25.010		
8,500.00	7,137.06	7,071.06	7,137.06	52.95	245.13	-90.23	-4,530.78	-6,345.74	7,198.77	6,906.59	292.17	24.639		
8,600.00	7,136.62	7,070.62	7,136.62	55.20	245.11	-90.22	-4,530.78	-6,345.74	7,132.01	6,838.11	293.90	24.267		
8,700.00	7,136.19	7,070.19	7,136.19	57.51	245.10	-90.22	-4,530.78	-6,345.74	7,066.04	6,770.34	295.70	23.896		
8,800.00	7,135.76	7,069.76	7,135.76	59.85	245.08	-90.21	-4,530.78	-6,345.74	7,000.87	6,703.28	297.59	23.525		
8,900.00	7,135.32	7,069.32	7,135.32	62.24	245.07	-90.21	-4,530.78	-6,345.74	6,936.54	6,636.98	299.56	23.156		
9,000.00	7,134.89	7,068.89	7,134.89	64.67	245.05	-90.20	-4,530.78	-6,345.74	6,873.06	6,571.46	301.60	22.789		
9,100.00	7,134.45	7,068.45	7,134.45	67.13	245.04	-90.20	-4,530.78	-6,345.74	6,810.45	6,506.74	303.71	22.424		
9,200.00	7,134.02	7,068.02	7,134.02	69.62	245.02	-90.19	-4,530.78	-6,345.74	6,748.75	6,442.86	305.89	22.063		
9,300.00	7,133.59	7,067.59	7,133.59	72.14	245.01	-90.19	-4,530.78	-6,345.74	6,687.97	6,379.83	308.14	21.704		
9,400.00	7,133.15	7,067.15	7,133.15	74.68	244.99	-90.18	-4,530.78	-6,345.74	6,628.14	6,317.69	310.46	21.350		
9,500.00	7,132.72	7,066.72	7,132.72	77.24	244.98	-90.18	-4,530.78	-6,345.74	6,569.29	6,256.46	312.84	20.999		
9,600.00	7,132.29	7,066.29	7,132.29	79.83	244.96	-90.17	-4,530.78	-6,345.74	6,511.45	6,196.17	315.28	20.653		
9,700.00	7,131.85	7,065.85	7,131.85	82.42	244.95	-90.17	-4,530.78	-6,345.74	6,454.63	6,136.86	317.78	20.312		
9,800.00	7,131.42	7,065.42	7,131.42	85.04	244.93	-90.16	-4,530.78	-6,345.74	6,398.88	6,078.54	320.34	19.976		
9,900.00	7,130.98	7,064.98	7,130.98	87.67	244.92	-90.16	-4,530.78	-6,345.74	6,344.21	6,021.26	322.95	19.645		
10,000.00	7,130.55	7,064.55	7,130.55	90.31	244.90	-90.16	-4,530.78	-6,345.74	6,290.65	5,965.04	325.61	19.319		
10,100.00	7,130.12	7,064.12	7,130.12	92.97	244.89	-90.15	-4,530.78	-6,345.74	6,238.24	5,909.91	328.33	19.000		
10,200.00	7,129.68	7,063.68	7,129.68	95.63	244.87	-90.15	-4,530.78	-6,345.74	6,187.00	5,855.91	331.10	18.686		
10,300.00	7,129.25	7,063.25	7,129.25	98.31	244.85	-90.14	-4,530.78	-6,345.74	6,136.96	5,803.06	333.91	18.379		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER FARM 1-21(PA_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	7,062.82	7,128.82	101.00	244.84	-90.14	-4,530.78	-6,345.74	6,088.16	5,751.39	336.77	18.078		
10,500.00	7,128.38	7,062.38	7,128.38	103.69	244.82	-90.13	-4,530.78	-6,345.74	6,040.61	5,700.95	339.67	17.784		
10,600.00	7,127.95	7,061.95	7,127.95	106.39	244.81	-90.13	-4,530.78	-6,345.74	5,994.36	5,651.75	342.61	17.496		
10,700.00	7,127.51	7,061.51	7,127.51	109.10	244.79	-90.12	-4,530.78	-6,345.74	5,949.43	5,603.84	345.58	17.216		
10,800.00	7,127.08	7,061.08	7,127.08	111.82	244.78	-90.12	-4,530.78	-6,345.74	5,905.85	5,557.25	348.60	16.942		
10,900.00	7,126.65	7,060.65	7,126.65	114.54	244.76	-90.11	-4,530.78	-6,345.74	5,863.65	5,512.01	351.64	16.675		
11,000.00	7,126.21	7,060.21	7,126.21	117.27	244.75	-90.11	-4,530.78	-6,345.74	5,822.86	5,468.15	354.71	16.416		
11,100.00	7,125.78	7,059.78	7,125.78	120.01	244.73	-90.10	-4,530.78	-6,345.74	5,783.51	5,425.70	357.81	16.163		
11,200.00	7,125.35	7,059.35	7,125.35	122.75	244.72	-90.10	-4,530.78	-6,345.74	5,745.64	5,384.70	360.94	15.919		
11,300.00	7,124.91	7,058.91	7,124.91	125.49	244.70	-90.09	-4,530.78	-6,345.74	5,709.26	5,345.18	364.08	15.681		
11,400.00	7,124.48	7,058.48	7,124.48	128.24	244.69	-90.09	-4,530.78	-6,345.74	5,674.42	5,307.18	367.24	15.452		
11,500.00	7,124.04	7,058.04	7,124.04	131.00	244.67	-90.09	-4,530.78	-6,345.74	5,641.13	5,270.72	370.41	15.229		
11,600.00	7,123.61	7,057.61	7,123.61	133.75	244.66	-90.08	-4,530.78	-6,345.74	5,609.43	5,235.83	373.60	15.015		
11,700.00	7,123.18	7,057.18	7,123.18	136.52	244.64	-90.08	-4,530.78	-6,345.74	5,579.34	5,202.55	376.79	14.808		
11,800.00	7,122.74	7,056.74	7,122.74	139.28	244.63	-90.07	-4,530.78	-6,345.74	5,550.89	5,170.91	379.98	14.608		
11,900.00	7,122.31	7,056.31	7,122.31	142.05	244.61	-90.07	-4,530.78	-6,345.74	5,524.10	5,140.93	383.17	14.417		
12,000.00	7,121.88	7,055.88	7,121.88	144.82	244.60	-90.06	-4,530.78	-6,345.74	5,499.00	5,112.65	386.35	14.233		
12,100.00	7,121.44	7,055.44	7,121.44	147.59	244.58	-90.06	-4,530.78	-6,345.74	5,475.61	5,086.08	389.53	14.057		
12,200.00	7,121.01	7,055.01	7,121.01	150.37	244.57	-90.05	-4,530.78	-6,345.74	5,453.96	5,061.27	392.69	13.889		
12,300.00	7,120.57	7,054.57	7,120.57	153.15	244.55	-90.05	-4,530.78	-6,345.74	5,434.06	5,038.22	395.84	13.728		
12,400.00	7,120.14	7,054.14	7,120.14	155.93	244.54	-90.04	-4,530.78	-6,345.74	5,415.93	5,016.97	398.96	13.575		
12,500.00	7,119.71	7,053.71	7,119.71	158.72	244.52	-90.04	-4,530.78	-6,345.74	5,399.60	4,997.54	402.06	13.430		
12,600.00	7,119.27	7,053.27	7,119.27	161.50	244.51	-90.03	-4,530.78	-6,345.74	5,385.07	4,979.95	405.12	13.292		
12,700.00	7,118.84	7,052.84	7,118.84	164.29	244.49	-90.03	-4,530.78	-6,345.74	5,372.37	4,964.21	408.16	13.162		
12,800.00	7,118.41	7,052.41	7,118.41	167.08	244.48	-90.02	-4,530.78	-6,345.74	5,361.50	4,950.34	411.15	13.040		
12,900.00	7,117.97	7,051.97	7,117.97	169.88	244.46	-90.02	-4,530.78	-6,345.74	5,352.47	4,938.37	414.11	12.925		
13,000.00	7,117.54	7,051.54	7,117.54	172.67	244.45	-90.02	-4,530.78	-6,345.74	5,345.31	4,928.29	417.02	12.818		
13,100.00	7,117.10	7,051.10	7,117.10	175.47	244.43	-90.01	-4,530.78	-6,345.74	5,340.00	4,920.13	419.88	12.718		
13,200.00	7,116.67	7,050.67	7,116.67	178.27	244.42	-90.01	-4,530.78	-6,345.74	5,336.57	4,913.88	422.68	12.625		
13,300.00	7,116.24	7,050.24	7,116.24	181.07	244.40	-90.00	-4,530.78	-6,345.74	5,335.00	4,909.57	425.43	12.540		
13,333.37	7,116.09	7,050.09	7,116.09	182.00	244.40	-90.00	-4,530.78	-6,345.74	5,334.90	4,908.56	426.34	12.513 CC		
13,400.00	7,115.80	7,049.80	7,115.80	183.87	244.39	-90.00	-4,530.78	-6,345.74	5,335.32	4,907.19	428.12	12.462		
13,500.00	7,115.37	7,049.37	7,115.37	186.67	244.37	-89.99	-4,530.78	-6,345.74	5,337.50	4,906.75	430.75	12.391 ES		
13,600.00	7,114.93	7,048.93	7,114.93	189.47	244.36	-89.99	-4,530.78	-6,345.74	5,341.56	4,908.24	433.32	12.327		
13,700.00	7,114.50	7,048.50	7,114.50	192.28	244.34	-89.98	-4,530.78	-6,345.74	5,347.48	4,911.67	435.82	12.270		
13,800.00	7,114.07	7,048.07	7,114.07	195.09	244.33	-89.98	-4,530.78	-6,345.74	5,355.27	4,917.02	438.24	12.220		
13,900.00	7,113.63	7,047.63	7,113.63	197.89	244.31	-89.97	-4,530.78	-6,345.74	5,364.91	4,924.31	440.60	12.176		
14,000.00	7,113.20	7,047.20	7,113.20	200.70	244.29	-89.97	-4,530.78	-6,345.74	5,376.39	4,933.51	442.88	12.140		
14,100.00	7,112.77	7,046.77	7,112.77	203.51	244.28	-89.96	-4,530.78	-6,345.74	5,389.70	4,944.61	445.09	12.109		
14,200.00	7,112.33	7,046.33	7,112.33	206.32	244.26	-89.96	-4,530.78	-6,345.74	5,404.83	4,957.61	447.22	12.085		
14,300.00	7,111.90	7,045.90	7,111.90	209.13	244.25	-89.95	-4,530.78	-6,345.74	5,421.76	4,972.49	449.27	12.068		
14,400.00	7,111.46	7,045.46	7,111.46	211.95	244.23	-89.95	-4,530.78	-6,345.74	5,440.48	4,989.23	451.25	12.057		
14,500.00	7,111.03	7,045.03	7,111.03	214.76	244.22	-89.95	-4,530.78	-6,345.74	5,460.97	5,007.82	453.14	12.051 SF		
14,600.00	7,110.60	7,044.60	7,110.60	217.58	244.20	-89.94	-4,530.78	-6,345.74	5,483.20	5,028.24	454.96	12.052		
14,700.00	7,110.16	7,044.16	7,110.16	220.39	244.19	-89.94	-4,530.78	-6,345.74	5,507.16	5,050.46	456.70	12.059		
14,800.00	7,109.73	7,043.73	7,109.73	223.21	244.17	-89.93	-4,530.78	-6,345.74	5,532.82	5,074.46	458.36	12.071		
14,900.00	7,109.30	7,043.30	7,109.30	226.03	244.16	-89.93	-4,530.78	-6,345.74	5,560.16	5,100.23	459.94	12.089		
14,969.16	7,109.00	7,043.00	7,109.00	227.97	244.15	-89.92	-4,530.78	-6,345.74	5,580.05	5,119.06	460.99	12.105		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-70.37	2,268.25	-6,358.18	6,750.69					
100.00	100.00	81.00	100.00	3.28	3.57	-70.37	2,268.25	-6,358.18	6,750.66	6,743.80	6.86	984.569		
200.00	200.00	181.00	200.00	3.34	5.63	-70.37	2,268.25	-6,358.18	6,750.66	6,741.70	8.96	753.012		
300.00	300.00	281.00	300.00	3.44	8.71	-70.37	2,268.25	-6,358.18	6,750.66	6,738.51	12.15	555.580		
400.00	400.00	381.00	400.00	3.60	12.01	-70.37	2,268.25	-6,358.18	6,750.66	6,735.05	15.62	432.317		
500.00	500.00	481.00	500.00	3.81	15.40	-70.37	2,268.25	-6,358.18	6,750.66	6,731.45	19.21	351.495		
600.00	600.00	581.00	600.00	4.05	18.83	-70.37	2,268.25	-6,358.18	6,750.66	6,727.79	22.87	295.157		
700.00	699.98	680.98	699.98	4.32	22.27	-61.24	2,268.25	-6,358.18	6,749.82	6,723.23	26.59	253.870		
800.00	799.84	780.84	799.84	4.62	25.72	-61.33	2,268.25	-6,358.18	6,747.30	6,716.97	30.34	222.409		
900.00	899.45	880.45	899.45	4.94	29.18	-61.47	2,268.25	-6,358.18	6,743.12	6,709.01	34.11	197.702		
1,000.00	998.70	979.70	998.70	5.28	32.62	-61.66	2,268.25	-6,358.18	6,737.28	6,699.39	37.89	177.816		
1,100.00	1,097.50	1,078.50	1,097.50	5.64	36.05	-61.86	2,268.25	-6,358.18	6,729.91	6,688.23	41.68	161.484		
1,200.00	1,196.18	1,177.18	1,196.18	6.00	39.49	-61.98	2,268.25	-6,358.18	6,722.22	6,676.74	45.47	147.825		
1,300.00	1,294.87	1,275.87	1,294.87	6.38	42.92	-62.10	2,268.25	-6,358.18	6,714.55	6,665.26	49.29	136.232		
1,400.00	1,393.55	1,374.55	1,393.55	6.77	46.36	-62.22	2,268.25	-6,358.18	6,706.92	6,653.80	53.11	126.275		
1,500.00	1,492.23	1,473.23	1,492.23	7.17	49.79	-62.34	2,268.25	-6,358.18	6,699.31	6,642.36	56.95	117.636		
1,600.00	1,590.91	1,571.91	1,590.91	7.58	53.23	-62.46	2,268.25	-6,358.18	6,691.74	6,630.95	60.79	110.072		
1,700.00	1,689.60	1,670.60	1,689.60	8.00	56.67	-62.58	2,268.25	-6,358.18	6,684.20	6,619.55	64.65	103.397		
1,800.00	1,788.28	1,769.28	1,788.28	8.42	60.11	-62.70	2,268.25	-6,358.18	6,676.69	6,608.18	68.50	97.465		
1,900.00	1,886.96	1,867.96	1,886.96	8.84	63.55	-62.83	2,268.25	-6,358.18	6,669.20	6,596.84	72.37	92.159		
2,000.00	1,985.64	1,966.64	1,985.64	9.27	66.99	-62.95	2,268.25	-6,358.18	6,661.75	6,585.52	76.23	87.385		
2,100.00	2,084.33	2,065.33	2,084.33	9.71	70.43	-63.07	2,268.25	-6,358.18	6,654.34	6,574.23	80.11	83.069		
2,200.00	2,183.01	2,164.01	2,183.01	10.15	73.87	-63.20	2,268.25	-6,358.18	6,646.95	6,562.97	83.98	79.149		
2,300.00	2,281.69	2,262.69	2,281.69	10.59	77.31	-63.32	2,268.25	-6,358.18	6,639.59	6,551.73	87.86	75.571		
2,400.00	2,380.38	2,361.38	2,380.38	11.03	80.76	-63.44	2,268.25	-6,358.18	6,632.26	6,540.53	91.74	72.295		
2,500.00	2,479.06	2,460.06	2,479.06	11.47	84.20	-63.57	2,268.25	-6,358.18	6,624.97	6,529.35	95.62	69.283		
2,600.00	2,577.74	2,558.74	2,577.74	11.92	87.64	-63.69	2,268.25	-6,358.18	6,617.71	6,518.20	99.51	66.505		
2,700.00	2,676.42	2,657.42	2,676.42	12.36	91.08	-63.81	2,268.25	-6,358.18	6,610.48	6,507.08	103.39	63.935		
2,800.00	2,775.11	2,756.11	2,775.11	12.81	94.53	-63.94	2,268.25	-6,358.18	6,603.28	6,495.99	107.28	61.550		
2,900.00	2,873.79	2,854.79	2,873.79	13.26	97.97	-64.06	2,268.25	-6,358.18	6,596.11	6,484.94	111.17	59.332		
3,000.00	2,972.47	2,953.47	2,972.47	13.72	101.41	-64.19	2,268.25	-6,358.18	6,588.97	6,473.91	115.06	57.263		
3,100.00	3,071.15	3,052.15	3,071.15	14.17	104.86	-64.31	2,268.25	-6,358.18	6,581.87	6,462.91	118.96	55.330		
3,200.00	3,169.84	3,150.84	3,169.84	14.62	108.30	-64.44	2,268.25	-6,358.18	6,574.80	6,451.95	122.85	53.518		
3,300.00	3,268.52	3,249.52	3,268.52	15.08	111.74	-64.57	2,268.25	-6,358.18	6,567.76	6,441.01	126.75	51.818		
3,400.00	3,367.20	3,348.20	3,367.20	15.53	115.19	-64.69	2,268.25	-6,358.18	6,560.75	6,430.11	130.64	50.219		
3,500.00	3,465.89	3,446.89	3,465.89	15.99	118.63	-64.82	2,268.25	-6,358.18	6,553.78	6,419.24	134.54	48.713		
3,600.00	3,564.57	3,545.57	3,564.57	16.44	122.07	-64.95	2,268.25	-6,358.18	6,546.84	6,408.40	138.44	47.291		
3,700.00	3,663.25	3,644.25	3,663.25	16.90	125.52	-65.07	2,268.25	-6,358.18	6,539.93	6,397.59	142.33	45.948		
3,800.00	3,761.93	3,742.93	3,761.93	17.36	128.96	-65.20	2,268.25	-6,358.18	6,533.05	6,386.82	146.23	44.675		
3,900.00	3,860.62	3,841.62	3,860.62	17.82	132.41	-65.33	2,268.25	-6,358.18	6,526.21	6,376.07	150.13	43.469		
4,000.00	3,959.30	3,940.30	3,959.30	18.28	135.85	-65.46	2,268.25	-6,358.18	6,519.40	6,365.36	154.03	42.325		
4,100.00	4,057.98	4,038.98	4,057.98	18.74	139.29	-65.58	2,268.25	-6,358.18	6,512.62	6,354.68	157.93	41.236		
4,200.00	4,156.67	4,137.67	4,156.67	19.20	142.74	-65.71	2,268.25	-6,358.18	6,505.87	6,344.04	161.84	40.201		
4,300.00	4,255.35	4,236.35	4,255.35	19.66	146.18	-65.84	2,268.25	-6,358.18	6,499.16	6,333.42	165.74	39.214		
4,400.00	4,354.03	4,335.03	4,354.03	20.12	149.63	-65.97	2,268.25	-6,358.18	6,492.48	6,322.84	169.64	38.272		
4,500.00	4,452.71	4,433.71	4,452.71	20.58	153.07	-66.10	2,268.25	-6,358.18	6,485.84	6,312.30	173.54	37.373		
4,600.00	4,551.40	4,532.40	4,551.40	21.04	156.52	-66.23	2,268.25	-6,358.18	6,479.23	6,301.78	177.45	36.514		
4,700.00	4,650.08	4,631.08	4,650.08	21.50	159.96	-66.36	2,268.25	-6,358.18	6,472.65	6,291.30	181.35	35.692		
4,800.00	4,748.76	4,729.76	4,748.76	21.96	163.40	-66.49	2,268.25	-6,358.18	6,466.11	6,280.86	185.25	34.904		
4,900.00	4,847.44	4,828.44	4,847.44	22.42	166.85	-66.62	2,268.25	-6,358.18	6,459.60	6,270.44	189.16	34.149		
5,000.00	4,946.13	4,927.13	4,946.13	22.89	170.29	-66.75	2,268.25	-6,358.18	6,453.12	6,260.06	193.06	33.425		
5,100.00	5,044.81	5,025.81	5,044.81	23.35	173.74	-66.88	2,268.25	-6,358.18	6,446.68	6,249.72	196.97	32.730		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,124.49	5,143.49	23.81	177.18	-67.01	2,268.25	-6,358.18	6,440.27	6,239.40	200.87	32.062		
5,300.00	5,242.18	5,223.18	5,242.18	24.27	180.63	-67.14	2,268.25	-6,358.18	6,433.90	6,229.13	204.78	31.419		
5,400.00	5,340.86	5,321.86	5,340.86	24.74	184.07	-67.27	2,268.25	-6,358.18	6,427.56	6,218.88	208.68	30.801		
5,500.00	5,439.54	5,420.54	5,439.54	25.20	187.51	-67.40	2,268.25	-6,358.18	6,421.26	6,208.67	212.59	30.205		
5,600.00	5,538.22	5,519.22	5,538.22	25.66	190.96	-67.53	2,268.25	-6,358.18	6,414.99	6,198.50	216.49	29.631		
5,700.00	5,636.91	5,617.91	5,636.91	26.13	194.40	-67.67	2,268.25	-6,358.18	6,408.76	6,188.35	220.40	29.078		
5,800.00	5,735.59	5,716.59	5,735.59	26.59	197.85	-67.80	2,268.25	-6,358.18	6,402.56	6,178.25	224.31	28.544		
5,900.00	5,834.27	5,815.27	5,834.27	27.06	201.29	-67.93	2,268.25	-6,358.18	6,396.39	6,168.18	228.21	28.028		
6,000.00	5,932.95	5,913.95	5,932.95	27.52	204.74	-68.07	2,268.25	-6,358.18	6,390.26	6,158.14	232.12	27.530		
6,100.00	6,031.64	6,012.64	6,031.64	27.98	208.18	-68.20	2,268.25	-6,358.18	6,384.17	6,148.14	236.03	27.048		
6,200.00	6,130.32	6,111.32	6,130.32	28.45	211.63	-68.33	2,268.25	-6,358.18	6,378.11	6,138.17	239.94	26.583		
6,300.00	6,229.00	6,210.00	6,229.00	28.91	215.07	-68.47	2,268.25	-6,358.18	6,372.08	6,128.24	243.84	26.132		
6,400.00	6,327.69	6,308.69	6,327.69	29.38	218.52	-68.60	2,268.25	-6,358.18	6,366.09	6,118.34	247.75	25.696		
6,500.00	6,426.37	6,407.37	6,426.37	29.84	221.96	-68.73	2,268.25	-6,358.18	6,360.14	6,108.48	251.66	25.273		
6,600.00	6,525.05	6,506.05	6,525.05	30.31	225.41	-68.87	2,268.25	-6,358.18	6,354.22	6,098.65	255.57	24.863		
6,700.00	6,623.73	6,604.73	6,623.73	30.77	228.83	-68.99	2,268.25	-6,358.18	6,348.22	6,088.65	259.45	24.439		
6,800.00	6,722.41	6,703.41	6,722.41	31.22	232.19	-69.11	2,268.25	-6,358.18	6,342.22	6,078.65	263.25	23.980		
6,900.00	6,821.10	6,802.10	6,821.10	31.66	235.31	-69.22	2,268.25	-6,358.18	6,336.22	6,068.65	266.77	23.504		
7,000.00	6,919.78	6,900.78	6,919.78	32.07	238.21	-69.32	2,268.25	-6,358.18	6,330.22	6,058.65	270.02	23.015		
7,100.00	7,018.47	7,000.47	7,018.47	32.51	240.78	-69.41	2,268.25	-6,358.18	6,324.22	6,048.65	272.89	22.527		
7,200.00	7,117.15	7,099.15	7,117.15	33.02	242.97	-69.50	2,268.25	-6,358.18	6,318.22	6,038.65	275.30	22.048		
7,300.00	7,215.84	7,197.84	7,215.84	33.68	244.71	-69.58	2,268.25	-6,358.18	6,312.22	6,028.65	277.20	21.589		
7,400.00	7,314.52	7,296.52	7,314.52	34.52	246.31	-69.65	2,268.25	-6,358.18	6,306.22	6,018.65	278.90	21.129		
7,500.00	7,413.21	7,395.21	7,413.21	35.53	246.70	-69.71	2,268.25	-6,358.18	6,300.22	6,008.65	279.32	20.755		
7,600.00	7,511.90	7,493.90	7,511.90	36.68	246.90	-69.76	2,268.25	-6,358.18	6,294.22	6,000.00	279.53	20.394		
7,700.00	7,610.59	7,592.59	7,610.59	37.99	246.89	-69.80	2,268.25	-6,358.18	6,288.22	5,991.40	279.53	20.049		
7,800.00	7,709.28	7,691.28	7,709.28	39.45	246.87	-69.83	2,268.25	-6,358.18	6,282.22	5,982.80	279.54	19.702		
7,900.00	7,807.97	7,789.97	7,807.97	41.06	246.86	-69.85	2,268.25	-6,358.18	6,276.22	5,974.20	279.58	19.355		
8,000.00	7,906.66	7,888.66	7,906.66	42.80	246.84	-69.87	2,268.25	-6,358.18	6,270.22	5,965.60	279.65	19.006		
8,100.00	8,005.35	7,987.35	8,005.35	44.65	246.83	-69.88	2,268.25	-6,358.18	6,264.22	5,957.00	279.74	18.656		
8,200.00	8,104.04	8,086.04	8,104.04	46.60	246.81	-69.89	2,268.25	-6,358.18	6,258.22	5,948.40	279.87	18.305		
8,300.00	8,202.73	8,184.73	8,202.73	48.65	246.80	-69.90	2,268.25	-6,358.18	6,252.22	5,939.80	280.04	17.952		
8,400.00	8,301.42	8,283.42	8,301.42	50.77	246.78	-69.91	2,268.25	-6,358.18	6,246.22	5,931.20	280.24	17.598		
8,500.00	8,400.11	8,382.11	8,400.11	52.95	246.77	-69.92	2,268.25	-6,358.18	6,240.22	5,922.60	280.49	17.242		
8,600.00	8,498.80	8,480.80	8,498.80	55.20	246.75	-69.93	2,268.25	-6,358.18	6,234.22	5,914.00	280.78	16.885		
8,700.00	8,597.49	8,579.49	8,597.49	57.51	246.74	-69.94	2,268.25	-6,358.18	6,228.22	5,905.40	281.12	16.527		
8,800.00	8,696.18	8,678.18	8,696.18	59.85	246.72	-69.95	2,268.25	-6,358.18	6,222.22	5,896.80	281.52	16.167		
8,900.00	8,794.87	8,776.87	8,794.87	62.24	246.71	-69.96	2,268.25	-6,358.18	6,216.22	5,888.20	281.97	15.805		
9,000.00	8,893.56	8,875.56	8,893.56	64.67	246.69	-69.97	2,268.25	-6,358.18	6,210.22	5,879.60	282.48	15.442		
9,100.00	8,992.25	8,974.25	8,992.25	67.13	246.68	-69.98	2,268.25	-6,358.18	6,204.22	5,871.00	283.07	15.078		
9,200.00	9,090.94	9,072.94	9,090.94	69.62	246.66	-69.99	2,268.25	-6,358.18	6,198.22	5,862.40	283.72	14.713		
9,300.00	9,189.63	9,171.63	9,189.63	72.14	246.65	-70.00	2,268.25	-6,358.18	6,192.22	5,853.80	284.45	14.346		
9,400.00	9,288.32	9,270.32	9,288.32	74.68	246.63	-70.01	2,268.25	-6,358.18	6,186.22	5,845.20	285.27	13.978		
9,500.00	9,387.01	9,369.01	9,387.01	77.24	246.62	-70.02	2,268.25	-6,358.18	6,180.22	5,836.60	286.17	13.610		
9,600.00	9,485.70	9,467.70	9,485.70	79.83	246.60	-70.03	2,268.25	-6,358.18	6,174.22	5,828.00	287.17	13.240		
9,700.00	9,584.39	9,566.39	9,584.39	82.42	246.59	-70.04	2,268.25	-6,358.18	6,168.22	5,819.40	288.27	12.870		
9,800.00	9,683.08	9,665.08	9,683.08	85.04	246.57	-70.05	2,268.25	-6,358.18	6,162.22	5,810.80	289.48	12.500		
9,900.00	9,781.77	9,763.77	9,781.77	87.67	246.56	-70.06	2,268.25	-6,358.18	6,156.22	5,802.20	290.80	12.129		
10,000.00	9,880.46	9,862.46	9,880.46	90.31	246.54	-70.07	2,268.25	-6,358.18	6,150.22	5,793.60	292.24	11.759		
10,100.00	9,979.15	9,961.15	9,979.15	92.97	246.53	-70.08	2,268.25	-6,358.18	6,144.22	5,785.00	293.81	11.389		
10,200.00	10,077.84	10,059.84	10,077.84	95.63	246.51	-70.09	2,268.25	-6,358.18	6,138.22	5,776.40	295.51	11.019		
10,300.00	10,176.53	10,158.53	10,176.53	98.31	246.50	-70.10	2,268.25	-6,358.18	6,132.22	5,767.80	297.37	10.651		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	7,109.82	7,128.82	101.00	246.48	90.46	2,268.25	-6,358.18	3,078.93	2,779.56	299.37	10.285		
10,500.00	7,128.38	7,109.38	7,128.38	103.69	246.47	90.44	2,268.25	-6,358.18	2,991.28	2,689.74	301.54	9.920		
10,600.00	7,127.95	7,108.95	7,127.95	106.39	246.45	90.43	2,268.25	-6,358.18	2,904.42	2,600.53	303.89	9.558		
10,700.00	7,127.51	7,108.51	7,127.51	109.10	246.44	90.41	2,268.25	-6,358.18	2,818.43	2,512.02	306.41	9.198		
10,800.00	7,127.08	7,108.08	7,127.08	111.82	246.42	90.39	2,268.25	-6,358.18	2,733.40	2,424.26	309.13	8.842		
10,900.00	7,126.65	7,107.65	7,126.65	114.54	246.40	90.38	2,268.25	-6,358.18	2,649.41	2,337.35	312.06	8.490		
11,000.00	7,126.21	7,107.21	7,126.21	117.27	246.39	90.36	2,268.25	-6,358.18	2,566.57	2,251.36	315.21	8.143		
11,100.00	7,125.78	7,106.78	7,125.78	120.01	246.37	90.34	2,268.25	-6,358.18	2,484.99	2,166.41	318.58	7.800		
11,200.00	7,125.35	7,106.35	7,125.35	122.75	246.36	90.33	2,268.25	-6,358.18	2,404.80	2,082.61	322.19	7.464		
11,300.00	7,124.91	7,105.91	7,124.91	125.49	246.34	90.31	2,268.25	-6,358.18	2,326.15	2,000.09	326.06	7.134		
11,400.00	7,124.48	7,105.48	7,124.48	128.24	246.33	90.29	2,268.25	-6,358.18	2,249.19	1,919.01	330.18	6.812		
11,500.00	7,124.04	7,105.04	7,124.04	131.00	246.31	90.27	2,268.25	-6,358.18	2,174.11	1,839.54	334.58	6.498		
11,600.00	7,123.61	7,104.61	7,123.61	133.75	246.30	90.26	2,268.25	-6,358.18	2,101.11	1,761.87	339.24	6.194		
11,700.00	7,123.18	7,104.18	7,123.18	136.52	246.28	90.24	2,268.25	-6,358.18	2,030.41	1,686.22	344.19	5.899		
11,800.00	7,122.74	7,103.74	7,122.74	139.28	246.27	90.22	2,268.25	-6,358.18	1,962.26	1,612.85	349.41	5.616		
11,900.00	7,122.31	7,103.31	7,122.31	142.05	246.25	90.21	2,268.25	-6,358.18	1,896.94	1,542.05	354.89	5.345		
12,000.00	7,121.88	7,102.88	7,121.88	144.82	246.24	90.19	2,268.25	-6,358.18	1,834.74	1,474.13	360.61	5.088		
12,100.00	7,121.44	7,102.44	7,121.44	147.59	246.22	90.17	2,268.25	-6,358.18	1,776.00	1,409.44	366.56	4.845		
12,200.00	7,121.01	7,102.01	7,121.01	150.37	246.21	90.15	2,268.25	-6,358.18	1,721.07	1,348.39	372.67	4.618		
12,300.00	7,120.57	7,101.57	7,120.57	153.15	246.19	90.14	2,268.25	-6,358.18	1,670.32	1,291.42	378.90	4.408		
12,400.00	7,120.14	7,101.14	7,120.14	155.93	246.18	90.12	2,268.25	-6,358.18	1,624.15	1,238.97	385.18	4.217		
12,500.00	7,119.71	7,100.71	7,119.71	158.72	246.16	90.10	2,268.25	-6,358.18	1,582.96	1,191.55	391.41	4.044		
12,600.00	7,119.27	7,100.27	7,119.27	161.50	246.15	90.09	2,268.25	-6,358.18	1,547.14	1,149.66	397.48	3.892		
12,700.00	7,118.84	7,100.16	7,118.84	164.29	246.14	90.07	2,268.25	-6,358.18	1,517.09	1,113.79	403.30	3.762		
12,800.00	7,118.41	7,100.60	7,118.41	167.08	246.16	90.05	2,268.25	-6,358.18	1,493.13	1,084.39	408.75	3.653		
12,900.00	7,117.97	7,101.03	7,117.97	169.88	246.17	90.04	2,268.25	-6,358.18	1,475.58	1,061.90	413.68	3.567		
13,000.00	7,117.54	7,101.46	7,117.54	172.67	246.19	90.02	2,268.25	-6,358.18	1,464.66	1,046.68	417.99	3.504		
13,100.00	7,117.10	7,101.90	7,117.10	175.47	246.20	90.00	2,268.25	-6,358.18	1,460.53	1,038.95	421.57	3.464		
13,110.53	7,117.06	7,101.94	7,117.06	175.76	246.21	90.00	2,268.25	-6,358.18	1,460.49	1,038.58	421.91	3.462 CC, ES		
13,200.00	7,116.67	7,102.33	7,116.67	178.27	246.22	89.98	2,268.25	-6,358.18	1,463.23	1,038.84	424.38	3.448 SF		
13,300.00	7,116.24	7,102.76	7,116.24	181.07	246.23	89.97	2,268.25	-6,358.18	1,472.73	1,046.35	426.38	3.454		
13,400.00	7,115.80	7,103.20	7,115.80	183.87	246.25	89.95	2,268.25	-6,358.18	1,488.90	1,061.34	427.56	3.482		
13,500.00	7,115.37	7,103.63	7,115.37	186.67	246.26	89.93	2,268.25	-6,358.18	1,511.53	1,083.56	427.97	3.532		
13,600.00	7,114.93	7,104.07	7,114.93	189.47	246.28	89.92	2,268.25	-6,358.18	1,540.33	1,112.66	427.66	3.602		
13,700.00	7,114.50	7,104.50	7,114.50	192.28	246.29	89.90	2,268.25	-6,358.18	1,574.96	1,148.24	426.72	3.691		
13,800.00	7,114.07	7,104.93	7,114.07	195.09	246.31	89.88	2,268.25	-6,358.18	1,615.05	1,189.81	425.24	3.798		
13,900.00	7,113.63	7,105.37	7,113.63	197.89	246.33	89.87	2,268.25	-6,358.18	1,660.21	1,236.89	423.32	3.922		
14,000.00	7,113.20	7,105.80	7,113.20	200.70	246.34	89.85	2,268.25	-6,358.18	1,710.02	1,288.98	421.04	4.061		
14,100.00	7,112.77	7,106.23	7,112.77	203.51	246.36	89.83	2,268.25	-6,358.18	1,764.10	1,345.61	418.49	4.215		
14,200.00	7,112.33	7,106.67	7,112.33	206.32	246.37	89.81	2,268.25	-6,358.18	1,822.07	1,406.32	415.76	4.383		
14,300.00	7,111.90	7,107.10	7,111.90	209.13	246.39	89.80	2,268.25	-6,358.18	1,883.57	1,470.68	412.90	4.562		
14,400.00	7,111.46	7,107.54	7,111.46	211.95	246.40	89.78	2,268.25	-6,358.18	1,948.26	1,538.30	409.96	4.752		
14,500.00	7,111.03	7,107.97	7,111.03	214.76	246.42	89.76	2,268.25	-6,358.18	2,015.84	1,608.84	407.01	4.953		
14,600.00	7,110.60	7,108.40	7,110.60	217.58	246.43	89.75	2,268.25	-6,358.18	2,086.03	1,681.97	404.06	5.163		
14,700.00	7,110.16	7,108.84	7,110.16	220.39	246.45	89.73	2,268.25	-6,358.18	2,158.57	1,757.41	401.15	5.381		
14,800.00	7,109.73	7,109.27	7,109.73	223.21	246.46	89.71	2,268.25	-6,358.18	2,233.22	1,834.92	398.30	5.607		
14,900.00	7,109.30	7,109.70	7,109.30	226.03	246.48	89.70	2,268.25	-6,358.18	2,309.80	1,914.28	395.52	5.840		
14,969.16	7,109.00	7,090.00	7,109.00	227.97	245.79	89.68	2,268.25	-6,358.18	2,363.79	1,970.83	392.96	6.015		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-74.33	2,203.11	-7,854.44	8,157.58				
100.00	100.00	84.00	100.00	3.28	3.59	-74.33	2,203.11	-7,854.44	8,157.57	8,150.69	6.88	1,186.122	
200.00	200.00	184.00	200.00	3.34	5.71	-74.33	2,203.11	-7,854.44	8,157.57	8,148.52	9.05	901.358	
300.00	300.00	284.00	300.00	3.44	8.80	-74.33	2,203.11	-7,854.44	8,157.57	8,145.32	12.25	666.046	
400.00	400.00	384.00	400.00	3.60	12.11	-74.33	2,203.11	-7,854.44	8,157.57	8,141.85	15.72	519.067	
500.00	500.00	484.00	500.00	3.81	15.50	-74.33	2,203.11	-7,854.44	8,157.57	8,138.26	19.31	422.498	
600.00	600.00	584.00	600.00	4.05	18.93	-74.33	2,203.11	-7,854.44	8,157.57	8,134.59	22.97	355.069	
700.00	699.98	683.98	699.98	4.32	22.37	-65.21	2,203.11	-7,854.44	8,156.83	8,130.14	26.69	305.599	
800.00	799.84	783.84	799.84	4.62	25.83	-65.28	2,203.11	-7,854.44	8,154.64	8,124.20	30.44	267.884	
900.00	899.45	883.45	899.45	4.94	29.28	-65.40	2,203.11	-7,854.44	8,150.99	8,116.78	34.21	238.256	
1,000.00	998.70	982.70	998.70	5.28	32.73	-65.57	2,203.11	-7,854.44	8,145.90	8,107.91	37.99	214.408	
1,100.00	1,097.50	1,081.50	1,097.50	5.64	36.16	-65.74	2,203.11	-7,854.44	8,139.48	8,097.70	41.78	194.823	
1,200.00	1,196.18	1,180.18	1,196.18	6.00	39.59	-65.85	2,203.11	-7,854.44	8,132.77	8,087.19	45.58	178.436	
1,300.00	1,294.87	1,278.87	1,294.87	6.38	43.02	-65.95	2,203.11	-7,854.44	8,126.09	8,076.70	49.39	164.521	
1,400.00	1,393.55	1,377.55	1,393.55	6.77	46.46	-66.05	2,203.11	-7,854.44	8,119.44	8,066.22	53.22	152.567	
1,500.00	1,492.23	1,476.23	1,492.23	7.17	49.90	-66.16	2,203.11	-7,854.44	8,112.81	8,055.76	57.06	142.192	
1,600.00	1,590.91	1,574.91	1,590.91	7.58	53.34	-66.26	2,203.11	-7,854.44	8,106.22	8,045.32	60.90	133.106	
1,700.00	1,689.60	1,673.60	1,689.60	8.00	56.77	-66.36	2,203.11	-7,854.44	8,099.64	8,034.89	64.75	125.085	
1,800.00	1,788.28	1,772.28	1,788.28	8.42	60.21	-66.47	2,203.11	-7,854.44	8,093.10	8,024.49	68.61	117.955	
1,900.00	1,886.96	1,870.96	1,886.96	8.84	63.65	-66.57	2,203.11	-7,854.44	8,086.58	8,014.11	72.48	111.577	
2,000.00	1,985.64	1,969.64	1,985.64	9.27	67.10	-66.68	2,203.11	-7,854.44	8,080.09	8,003.75	76.34	105.839	
2,100.00	2,084.33	2,068.33	2,084.33	9.71	70.54	-66.78	2,203.11	-7,854.44	8,073.63	7,993.41	80.22	100.649	
2,200.00	2,183.01	2,167.01	2,183.01	10.15	73.98	-66.88	2,203.11	-7,854.44	8,067.19	7,983.10	84.09	95.934	
2,300.00	2,281.69	2,265.69	2,281.69	10.59	77.42	-66.99	2,203.11	-7,854.44	8,060.78	7,972.81	87.97	91.631	
2,400.00	2,380.38	2,364.38	2,380.38	11.03	80.86	-67.09	2,203.11	-7,854.44	8,054.40	7,962.55	91.85	87.690	
2,500.00	2,479.06	2,463.06	2,479.06	11.47	84.30	-67.20	2,203.11	-7,854.44	8,048.04	7,952.31	95.73	84.066	
2,600.00	2,577.74	2,561.74	2,577.74	11.92	87.75	-67.30	2,203.11	-7,854.44	8,041.72	7,942.10	99.62	80.723	
2,700.00	2,676.42	2,660.42	2,676.42	12.36	91.19	-67.41	2,203.11	-7,854.44	8,035.42	7,931.91	103.51	77.631	
2,800.00	2,775.11	2,759.11	2,775.11	12.81	94.63	-67.51	2,203.11	-7,854.44	8,029.15	7,921.75	107.40	74.761	
2,900.00	2,873.79	2,857.79	2,873.79	13.26	98.07	-67.62	2,203.11	-7,854.44	8,022.90	7,911.61	111.29	72.091	
3,000.00	2,972.47	2,956.47	2,972.47	13.72	101.52	-67.72	2,203.11	-7,854.44	8,016.69	7,901.51	115.18	69.601	
3,100.00	3,071.15	3,055.15	3,071.15	14.17	104.96	-67.83	2,203.11	-7,854.44	8,010.50	7,891.43	119.07	67.273	
3,200.00	3,169.84	3,153.84	3,169.84	14.62	108.40	-67.94	2,203.11	-7,854.44	8,004.34	7,881.37	122.97	65.093	
3,300.00	3,268.52	3,252.52	3,268.52	15.08	111.85	-68.04	2,203.11	-7,854.44	7,998.21	7,871.34	126.86	63.046	
3,400.00	3,367.20	3,351.20	3,367.20	15.53	115.29	-68.15	2,203.11	-7,854.44	7,992.10	7,861.34	130.76	61.120	
3,500.00	3,465.89	3,449.89	3,465.89	15.99	118.74	-68.26	2,203.11	-7,854.44	7,986.03	7,851.37	134.66	59.306	
3,600.00	3,564.57	3,548.57	3,564.57	16.44	122.18	-68.36	2,203.11	-7,854.44	7,979.98	7,841.42	138.56	57.594	
3,700.00	3,663.25	3,647.25	3,663.25	16.90	125.62	-68.47	2,203.11	-7,854.44	7,973.96	7,831.50	142.45	55.976	
3,800.00	3,761.93	3,745.93	3,761.93	17.36	129.07	-68.58	2,203.11	-7,854.44	7,967.97	7,821.61	146.35	54.443	
3,900.00	3,860.62	3,844.62	3,860.62	17.82	132.51	-68.68	2,203.11	-7,854.44	7,962.00	7,811.75	150.25	52.990	
4,000.00	3,959.30	3,943.30	3,959.30	18.28	135.95	-68.79	2,203.11	-7,854.44	7,956.07	7,801.91	154.15	51.611	
4,100.00	4,057.98	4,041.98	4,057.98	18.74	139.40	-68.90	2,203.11	-7,854.44	7,950.16	7,792.11	158.06	50.300	
4,200.00	4,156.67	4,140.67	4,156.67	19.20	142.84	-69.01	2,203.11	-7,854.44	7,944.29	7,782.33	161.96	49.052	
4,300.00	4,255.35	4,239.35	4,255.35	19.66	146.29	-69.11	2,203.11	-7,854.44	7,938.44	7,772.58	165.86	47.862	
4,400.00	4,354.03	4,338.03	4,354.03	20.12	149.73	-69.22	2,203.11	-7,854.44	7,932.62	7,762.85	169.76	46.728	
4,500.00	4,452.71	4,436.71	4,452.71	20.58	153.18	-69.33	2,203.11	-7,854.44	7,926.82	7,753.16	173.67	45.644	
4,600.00	4,551.40	4,535.40	4,551.40	21.04	156.62	-69.44	2,203.11	-7,854.44	7,921.06	7,743.49	177.57	44.608	
4,700.00	4,650.08	4,634.08	4,650.08	21.50	160.06	-69.55	2,203.11	-7,854.44	7,915.33	7,733.85	181.47	43.617	
4,800.00	4,748.76	4,732.76	4,748.76	21.96	163.51	-69.65	2,203.11	-7,854.44	7,909.62	7,724.25	185.38	42.668	
4,900.00	4,847.44	4,831.44	4,847.44	22.42	166.95	-69.76	2,203.11	-7,854.44	7,903.95	7,714.67	189.28	41.757	
5,000.00	4,946.13	4,930.13	4,946.13	22.89	170.40	-69.87	2,203.11	-7,854.44	7,898.30	7,705.11	193.19	40.884	
5,100.00	5,044.81	5,028.81	5,044.81	23.35	173.84	-69.98	2,203.11	-7,854.44	7,892.68	7,695.59	197.09	40.046	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	5,143.49	5,127.49	5,143.49	23.81	177.29	-70.09	2,203.11	-7,854.44	7,887.09	7,686.10	201.00	39.240		
5,300.00	5,242.18	5,226.18	5,242.18	24.27	180.73	-70.20	2,203.11	-7,854.44	7,881.53	7,676.63	204.90	38.465		
5,400.00	5,340.86	5,324.86	5,340.86	24.74	184.17	-70.31	2,203.11	-7,854.44	7,876.00	7,667.20	208.81	37.719		
5,500.00	5,439.54	5,423.54	5,439.54	25.20	187.62	-70.42	2,203.11	-7,854.44	7,870.50	7,657.79	212.72	37.000		
5,600.00	5,538.22	5,522.22	5,538.22	25.66	191.06	-70.53	2,203.11	-7,854.44	7,865.03	7,648.41	216.62	36.308		
5,700.00	5,636.91	5,620.91	5,636.91	26.13	194.51	-70.64	2,203.11	-7,854.44	7,859.59	7,639.06	220.53	35.640		
5,800.00	5,735.59	5,719.59	5,735.59	26.59	197.95	-70.75	2,203.11	-7,854.44	7,854.18	7,629.74	224.44	34.995		
5,900.00	5,834.27	5,818.27	5,834.27	27.06	201.40	-70.86	2,203.11	-7,854.44	7,848.80	7,620.45	228.34	34.373		
6,000.00	5,932.95	5,916.95	5,932.95	27.52	204.84	-70.97	2,203.11	-7,854.44	7,843.44	7,611.19	232.25	33.772		
6,100.00	6,031.64	6,015.64	6,031.64	27.98	208.29	-71.08	2,203.11	-7,854.44	7,838.12	7,601.96	236.16	33.190		
6,200.00	6,130.32	6,114.32	6,130.32	28.45	211.73	-71.19	2,203.11	-7,854.44	7,832.83	7,592.76	240.07	32.628		
6,300.00	6,229.00	6,213.00	6,229.00	28.91	215.18	-71.30	2,203.11	-7,854.44	7,827.56	7,583.59	243.97	32.084		
6,400.00	6,327.69	6,311.69	6,327.69	29.38	218.62	-71.41	2,203.11	-7,854.44	7,822.33	7,574.45	247.88	31.557		
6,500.00	6,426.37	6,410.37	6,426.37	29.84	222.07	-71.52	2,203.11	-7,854.44	7,817.13	7,565.34	251.79	31.046		
6,600.00	6,525.05	6,509.05	6,525.05	30.31	225.51	-71.63	2,203.11	-7,854.44	7,811.95	7,556.26	255.70	30.552		
6,700.00	6,623.18	6,607.18	6,623.18	30.77	228.93	-31.38	2,203.11	-7,854.44	7,799.20	7,539.62	259.58	30.045		
6,800.00	6,718.58	6,702.58	6,718.58	31.22	232.27	-14.57	2,203.11	-7,854.44	7,771.43	7,508.08	263.35	29.510		
6,900.00	6,808.91	6,807.09	6,808.91	31.66	235.91	-6.37	2,203.11	-7,854.44	7,729.30	7,461.89	267.40	28.905		
7,000.00	6,891.95	6,875.95	6,891.95	32.07	238.32	-1.05	2,203.11	-7,854.44	7,673.83	7,403.67	270.16	28.405		
7,100.00	6,965.65	6,949.65	6,965.65	32.51	240.89	3.47	2,203.11	-7,854.44	7,606.40	7,333.37	273.03	27.859		
7,200.00	7,028.20	7,012.20	7,028.20	33.02	243.07	8.47	2,203.11	-7,854.44	7,528.67	7,253.22	275.44	27.333		
7,300.00	7,078.04	7,062.04	7,078.04	33.68	244.81	15.48	2,203.11	-7,854.44	7,442.55	7,165.20	277.34	26.835		
7,400.00	7,113.97	7,102.03	7,113.97	34.52	246.21	27.73	2,203.11	-7,854.44	7,350.18	7,071.34	278.83	26.361		
7,500.00	7,135.09	7,119.09	7,135.09	35.53	246.80	53.11	2,203.11	-7,854.44	7,253.85	6,974.38	279.46	25.956		
7,600.00	7,140.96	7,124.96	7,140.96	36.68	247.01	91.20	2,203.11	-7,854.44	7,155.95	6,876.29	279.66	25.588		
7,700.00	7,140.53	7,124.53	7,140.53	37.99	246.99	91.19	2,203.11	-7,854.44	7,058.05	6,778.41	279.64	25.240		
7,800.00	7,140.09	7,124.09	7,140.09	39.45	246.98	91.17	2,203.11	-7,854.44	6,960.20	6,680.58	279.62	24.891		
7,900.00	7,139.66	7,123.66	7,139.66	41.06	246.96	91.15	2,203.11	-7,854.44	6,862.42	6,582.80	279.62	24.542		
8,000.00	7,139.23	7,123.23	7,139.23	42.80	246.95	91.13	2,203.11	-7,854.44	6,764.70	6,485.06	279.64	24.191		
8,100.00	7,138.79	7,122.79	7,138.79	44.65	246.93	91.12	2,203.11	-7,854.44	6,667.05	6,387.38	279.67	23.839		
8,200.00	7,138.36	7,122.36	7,138.36	46.60	246.92	91.10	2,203.11	-7,854.44	6,569.47	6,289.75	279.72	23.486		
8,300.00	7,137.93	7,121.93	7,137.93	48.65	246.90	91.08	2,203.11	-7,854.44	6,471.97	6,192.17	279.79	23.131		
8,400.00	7,137.49	7,121.49	7,137.49	50.77	246.89	91.07	2,203.11	-7,854.44	6,374.54	6,094.66	279.89	22.776		
8,500.00	7,137.06	7,121.06	7,137.06	52.95	246.87	91.05	2,203.11	-7,854.44	6,277.19	5,997.19	280.00	22.419		
8,600.00	7,136.62	7,120.62	7,136.62	55.20	246.86	91.03	2,203.11	-7,854.44	6,179.93	5,899.80	280.14	22.060		
8,700.00	7,136.19	7,120.19	7,136.19	57.51	246.84	91.01	2,203.11	-7,854.44	6,082.76	5,802.46	280.30	21.701		
8,800.00	7,135.76	7,119.76	7,135.76	59.85	246.83	91.00	2,203.11	-7,854.44	5,985.68	5,705.19	280.49	21.340		
8,900.00	7,135.32	7,119.32	7,135.32	62.24	246.81	90.98	2,203.11	-7,854.44	5,888.69	5,607.99	280.71	20.978		
9,000.00	7,134.89	7,118.89	7,134.89	64.67	246.80	90.96	2,203.11	-7,854.44	5,791.81	5,510.85	280.96	20.614		
9,100.00	7,134.45	7,118.45	7,134.45	67.13	246.78	90.95	2,203.11	-7,854.44	5,695.04	5,413.80	281.24	20.249		
9,200.00	7,134.02	7,118.02	7,134.02	69.62	246.77	90.93	2,203.11	-7,854.44	5,598.38	5,316.82	281.56	19.883		
9,300.00	7,133.59	7,117.59	7,133.59	72.14	246.75	90.91	2,203.11	-7,854.44	5,501.84	5,219.92	281.92	19.515		
9,400.00	7,133.15	7,117.15	7,133.15	74.68	246.74	90.89	2,203.11	-7,854.44	5,405.43	5,123.11	282.32	19.146		
9,500.00	7,132.72	7,116.72	7,132.72	77.24	246.72	90.88	2,203.11	-7,854.44	5,309.15	5,026.38	282.77	18.776		
9,600.00	7,132.29	7,116.29	7,132.29	79.83	246.71	90.86	2,203.11	-7,854.44	5,213.01	4,929.75	283.25	18.404		
9,700.00	7,131.85	7,115.85	7,131.85	82.42	246.69	90.84	2,203.11	-7,854.44	5,117.01	4,833.22	283.79	18.031		
9,800.00	7,131.42	7,115.42	7,131.42	85.04	246.68	90.83	2,203.11	-7,854.44	5,021.18	4,736.79	284.38	17.656		
9,900.00	7,130.98	7,114.98	7,130.98	87.67	246.66	90.81	2,203.11	-7,854.44	4,925.51	4,640.48	285.03	17.281		
10,000.00	7,130.55	7,114.55	7,130.55	90.31	246.65	90.79	2,203.11	-7,854.44	4,830.01	4,544.28	285.73	16.904		
10,100.00	7,130.12	7,114.12	7,130.12	92.97	246.63	90.77	2,203.11	-7,854.44	4,734.70	4,448.21	286.49	16.526		
10,200.00	7,129.68	7,113.68	7,129.68	95.63	246.62	90.76	2,203.11	-7,854.44	4,639.59	4,352.26	287.32	16.148		
10,300.00	7,129.25	7,113.25	7,129.25	98.31	246.60	90.74	2,203.11	-7,854.44	4,544.68	4,256.46	288.22	15.768		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 14-9(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	7,112.82	7,128.82	101.00	246.59	90.72	2,203.11	-7,854.44	4,450.00	4,160.81	289.19	15.388		
10,500.00	7,128.38	7,112.38	7,128.38	103.69	246.57	90.71	2,203.11	-7,854.44	4,355.56	4,065.32	290.24	15.007		
10,600.00	7,127.95	7,111.95	7,127.95	106.39	246.55	90.69	2,203.11	-7,854.44	4,261.37	3,970.00	291.37	14.625		
10,700.00	7,127.51	7,111.51	7,127.51	109.10	246.54	90.67	2,203.11	-7,854.44	4,167.45	3,874.86	292.59	14.243		
10,800.00	7,127.08	7,111.08	7,127.08	111.82	246.52	90.65	2,203.11	-7,854.44	4,073.83	3,779.93	293.90	13.861		
10,900.00	7,126.65	7,110.65	7,126.65	114.54	246.51	90.64	2,203.11	-7,854.44	3,980.51	3,685.21	295.30	13.479		
11,000.00	7,126.21	7,110.21	7,126.21	117.27	246.49	90.62	2,203.11	-7,854.44	3,887.52	3,590.71	296.81	13.098		
11,100.00	7,125.78	7,109.78	7,125.78	120.01	246.48	90.60	2,203.11	-7,854.44	3,794.89	3,496.47	298.42	12.716		
11,200.00	7,125.35	7,109.35	7,125.35	122.75	246.46	90.59	2,203.11	-7,854.44	3,702.65	3,402.49	300.15	12.336		
11,300.00	7,124.91	7,108.91	7,124.91	125.49	246.45	90.57	2,203.11	-7,854.44	3,610.81	3,308.81	302.00	11.956		
11,400.00	7,124.48	7,108.48	7,124.48	128.24	246.43	90.55	2,203.11	-7,854.44	3,519.42	3,215.44	303.98	11.578		
11,500.00	7,124.04	7,108.04	7,124.04	131.00	246.42	90.53	2,203.11	-7,854.44	3,428.52	3,122.42	306.10	11.201		
11,600.00	7,123.61	7,107.61	7,123.61	133.75	246.40	90.52	2,203.11	-7,854.44	3,338.13	3,029.78	308.35	10.826		
11,700.00	7,123.18	7,107.18	7,123.18	136.52	246.39	90.50	2,203.11	-7,854.44	3,248.31	2,937.54	310.77	10.453		
11,800.00	7,122.74	7,106.74	7,122.74	139.28	246.37	90.48	2,203.11	-7,854.44	3,159.09	2,845.75	313.34	10.082		
11,900.00	7,122.31	7,106.31	7,122.31	142.05	246.36	90.47	2,203.11	-7,854.44	3,070.55	2,754.45	316.09	9.714		
12,000.00	7,121.88	7,105.88	7,121.88	144.82	246.34	90.45	2,203.11	-7,854.44	2,982.72	2,663.70	319.03	9.349		
12,100.00	7,121.44	7,105.44	7,121.44	147.59	246.33	90.43	2,203.11	-7,854.44	2,895.69	2,573.53	322.15	8.989		
12,200.00	7,121.01	7,105.01	7,121.01	150.37	246.31	90.41	2,203.11	-7,854.44	2,809.52	2,484.03	325.49	8.632		
12,300.00	7,120.57	7,104.57	7,120.57	153.15	246.30	90.40	2,203.11	-7,854.44	2,724.29	2,395.24	329.05	8.279		
12,400.00	7,120.14	7,104.14	7,120.14	155.93	246.28	90.38	2,203.11	-7,854.44	2,640.10	2,307.26	332.84	7.932		
12,500.00	7,119.71	7,103.71	7,119.71	158.72	246.27	90.36	2,203.11	-7,854.44	2,557.05	2,220.18	336.87	7.591		
12,600.00	7,119.27	7,103.27	7,119.27	161.50	246.25	90.34	2,203.11	-7,854.44	2,475.26	2,134.08	341.17	7.255		
12,700.00	7,118.84	7,102.84	7,118.84	164.29	246.24	90.33	2,203.11	-7,854.44	2,394.84	2,049.10	345.74	6.927		
12,800.00	7,118.41	7,102.41	7,118.41	167.08	246.22	90.31	2,203.11	-7,854.44	2,315.95	1,965.35	350.60	6.606		
12,900.00	7,117.97	7,101.97	7,117.97	169.88	246.21	90.29	2,203.11	-7,854.44	2,238.75	1,883.00	355.75	6.293		
13,000.00	7,117.54	7,101.54	7,117.54	172.67	246.19	90.28	2,203.11	-7,854.44	2,163.42	1,802.21	361.21	5.989		
13,100.00	7,117.10	7,101.10	7,117.10	175.47	246.18	90.26	2,203.11	-7,854.44	2,090.16	1,723.18	366.98	5.696		
13,200.00	7,116.67	7,100.67	7,116.67	178.27	246.16	90.24	2,203.11	-7,854.44	2,019.19	1,646.13	373.06	5.412		
13,300.00	7,116.24	7,100.24	7,116.24	181.07	246.15	90.22	2,203.11	-7,854.44	1,950.77	1,571.32	379.45	5.141		
13,400.00	7,115.80	7,100.20	7,115.80	183.87	246.14	90.21	2,203.11	-7,854.44	1,885.18	1,499.03	386.14	4.882		
13,500.00	7,115.37	7,100.63	7,115.37	186.67	246.16	90.19	2,203.11	-7,854.44	1,822.71	1,429.59	393.11	4.637		
13,600.00	7,114.93	7,101.07	7,114.93	189.47	246.18	90.17	2,203.11	-7,854.44	1,763.70	1,363.39	400.31	4.406		
13,700.00	7,114.50	7,101.50	7,114.50	192.28	246.19	90.16	2,203.11	-7,854.44	1,708.51	1,300.83	407.68	4.191		
13,800.00	7,114.07	7,101.93	7,114.07	195.09	246.21	90.14	2,203.11	-7,854.44	1,657.52	1,242.38	415.14	3.993		
13,900.00	7,113.63	7,102.37	7,113.63	197.89	246.22	90.12	2,203.11	-7,854.44	1,611.13	1,188.52	422.61	3.812		
14,000.00	7,113.20	7,102.80	7,113.20	200.70	246.24	90.10	2,203.11	-7,854.44	1,569.75	1,139.79	429.97	3.651		
14,100.00	7,112.77	7,103.23	7,112.77	203.51	246.25	90.09	2,203.11	-7,854.44	1,533.78	1,096.71	437.08	3.509		
14,200.00	7,112.33	7,103.67	7,112.33	206.32	246.27	90.07	2,203.11	-7,854.44	1,503.62	1,059.82	443.79	3.388		
14,300.00	7,111.90	7,104.10	7,111.90	209.13	246.28	90.05	2,203.11	-7,854.44	1,479.60	1,029.64	449.97	3.288		
14,400.00	7,111.46	7,104.54	7,111.46	211.95	246.30	90.04	2,203.11	-7,854.44	1,462.05	1,006.60	455.45	3.210		
14,500.00	7,111.03	7,104.97	7,111.03	214.76	246.31	90.02	2,203.11	-7,854.44	1,451.20	991.09	460.10	3.154		
14,600.00	7,110.60	7,105.40	7,110.60	217.58	246.33	90.00	2,203.11	-7,854.44	1,447.18	983.36	463.83	3.120		
14,608.16	7,110.56	7,105.44	7,110.56	217.81	246.33	90.00	2,203.11	-7,854.44	1,447.16	983.07	464.09	3.118 CC, ES		
14,700.00	7,110.16	7,105.84	7,110.16	220.39	246.34	89.98	2,203.11	-7,854.44	1,450.07	983.53	466.54	3.108 SF		
14,800.00	7,109.73	7,106.27	7,109.73	223.21	246.36	89.97	2,203.11	-7,854.44	1,459.82	991.59	468.23	3.118		
14,900.00	7,109.30	7,106.70	7,109.30	226.03	246.37	89.95	2,203.11	-7,854.44	1,476.29	1,007.39	468.91	3.148		
14,969.16	7,109.00	7,107.00	7,109.00	227.97	246.38	89.94	2,203.11	-7,854.44	1,491.51	1,022.70	468.81	3.181		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 1(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	-57.43	2,318.70	-3,629.90	4,307.27					
100.00	100.00	101.00	100.00	3.28	3.73	-57.43	2,318.70	-3,629.90	4,307.27	4,300.25	7.02	613.855		
200.00	200.00	201.00	200.00	3.34	6.21	-57.43	2,318.70	-3,629.90	4,307.27	4,297.72	9.55	451.231		
300.00	300.00	301.00	300.00	3.44	9.36	-57.43	2,318.70	-3,629.90	4,307.27	4,294.47	12.80	336.476		
400.00	400.00	401.00	400.00	3.60	12.68	-57.43	2,318.70	-3,629.90	4,307.27	4,290.98	16.29	264.442		
500.00	500.00	501.00	500.00	3.81	16.08	-57.43	2,318.70	-3,629.90	4,307.27	4,287.38	19.89	216.571		
600.00	600.00	601.00	600.00	4.05	19.51	-57.43	2,318.70	-3,629.90	4,307.27	4,283.71	23.56	182.826		
700.00	699.98	700.98	699.98	4.32	22.96	-48.32	2,318.70	-3,629.90	4,306.11	4,278.83	27.28	157.856		
800.00	799.84	800.84	799.84	4.62	26.42	-48.42	2,318.70	-3,629.90	4,302.63	4,271.60	31.03	138.656		
900.00	899.45	900.45	899.45	4.94	29.87	-48.59	2,318.70	-3,629.90	4,296.84	4,262.04	34.80	123.461		
1,000.00	998.70	1,000.30	998.70	5.28	33.34	-48.84	2,318.70	-3,629.90	4,288.77	4,250.16	38.61	111.087		
1,100.00	1,097.50	1,101.50	1,097.50	5.64	36.85	-49.09	2,318.70	-3,629.90	4,278.56	4,236.09	42.48	100.723		
1,200.00	1,196.18	1,202.82	1,196.18	6.00	40.38	-49.25	2,318.70	-3,629.90	4,267.91	4,221.54	46.37	92.045		
1,300.00	1,294.87	1,304.13	1,294.87	6.38	43.90	-49.42	2,318.70	-3,629.90	4,257.28	4,207.01	50.27	84.686		
1,400.00	1,393.55	1,405.45	1,393.55	6.77	47.43	-49.58	2,318.70	-3,629.90	4,246.70	4,192.51	54.19	78.370		
1,500.00	1,492.23	1,506.77	1,492.23	7.17	50.96	-49.75	2,318.70	-3,629.90	4,236.15	4,178.03	58.11	72.894		
1,600.00	1,590.91	1,608.09	1,590.91	7.58	54.49	-49.91	2,318.70	-3,629.90	4,225.63	4,163.58	62.05	68.103		
1,700.00	1,689.60	1,709.40	1,689.60	8.00	58.02	-50.08	2,318.70	-3,629.90	4,215.15	4,149.16	65.99	63.876		
1,800.00	1,788.28	1,789.28	1,788.28	8.42	60.81	-50.25	2,318.70	-3,629.90	4,204.70	4,135.51	69.19	60.771		
1,900.00	1,886.96	1,887.96	1,886.96	8.84	64.25	-50.42	2,318.70	-3,629.90	4,194.30	4,121.25	73.05	57.417		
2,000.00	1,985.64	1,986.64	1,985.64	9.27	67.69	-50.58	2,318.70	-3,629.90	4,183.92	4,107.01	76.92	54.397		
2,100.00	2,084.33	2,085.33	2,084.33	9.71	71.13	-50.76	2,318.70	-3,629.90	4,173.59	4,092.81	80.78	51.663		
2,200.00	2,183.01	2,184.01	2,183.01	10.15	74.57	-50.93	2,318.70	-3,629.90	4,163.29	4,078.64	84.66	49.178		
2,300.00	2,281.69	2,282.69	2,281.69	10.59	78.01	-51.10	2,318.70	-3,629.90	4,153.03	4,064.50	88.53	46.910		
2,400.00	2,380.38	2,381.38	2,380.38	11.03	81.45	-51.27	2,318.70	-3,629.90	4,142.81	4,050.40	92.41	44.830		
2,500.00	2,479.06	2,480.06	2,479.06	11.47	84.90	-51.44	2,318.70	-3,629.90	4,132.63	4,036.34	96.29	42.918		
2,600.00	2,577.74	2,578.74	2,577.74	11.92	88.34	-51.62	2,318.70	-3,629.90	4,122.48	4,022.31	100.17	41.153		
2,700.00	2,676.42	2,677.42	2,676.42	12.36	91.78	-51.79	2,318.70	-3,629.90	4,112.38	4,008.32	104.06	39.520		
2,800.00	2,775.11	2,776.11	2,775.11	12.81	95.23	-51.97	2,318.70	-3,629.90	4,102.31	3,994.36	107.94	38.004		
2,900.00	2,873.79	2,874.79	2,873.79	13.26	98.67	-52.15	2,318.70	-3,629.90	4,092.28	3,980.45	111.83	36.593		
3,000.00	2,972.47	2,973.47	2,972.47	13.72	102.11	-52.32	2,318.70	-3,629.90	4,082.29	3,966.57	115.72	35.277		
3,100.00	3,071.15	3,072.15	3,071.15	14.17	105.55	-52.50	2,318.70	-3,629.90	4,072.34	3,952.73	119.61	34.046		
3,200.00	3,169.84	3,170.84	3,169.84	14.62	109.00	-52.68	2,318.70	-3,629.90	4,062.43	3,938.93	123.50	32.893		
3,300.00	3,268.52	3,269.52	3,268.52	15.08	112.44	-52.86	2,318.70	-3,629.90	4,052.56	3,925.16	127.40	31.811		
3,400.00	3,367.20	3,368.20	3,367.20	15.53	115.89	-53.04	2,318.70	-3,629.90	4,042.73	3,911.44	131.29	30.792		
3,500.00	3,465.89	3,466.89	3,465.89	15.99	119.33	-53.23	2,318.70	-3,629.90	4,032.94	3,897.76	135.18	29.833		
3,600.00	3,564.57	3,565.57	3,564.57	16.44	122.77	-53.41	2,318.70	-3,629.90	4,023.20	3,884.12	139.08	28.927		
3,700.00	3,663.25	3,664.25	3,663.25	16.90	126.22	-53.59	2,318.70	-3,629.90	4,013.49	3,870.52	142.98	28.071		
3,800.00	3,761.93	3,762.93	3,761.93	17.36	129.66	-53.78	2,318.70	-3,629.90	4,003.83	3,856.96	146.87	27.260		
3,900.00	3,860.62	3,861.62	3,860.62	17.82	133.10	-53.96	2,318.70	-3,629.90	3,994.21	3,843.44	150.77	26.492		
4,000.00	3,959.30	3,960.30	3,959.30	18.28	136.55	-54.15	2,318.70	-3,629.90	3,984.63	3,829.96	154.67	25.762		
4,100.00	4,057.98	4,058.98	4,057.98	18.74	139.99	-54.34	2,318.70	-3,629.90	3,975.10	3,816.53	158.57	25.069		
4,200.00	4,156.67	4,157.67	4,156.67	19.20	143.44	-54.53	2,318.70	-3,629.90	3,965.60	3,803.14	162.47	24.409		
4,300.00	4,255.35	4,256.35	4,255.35	19.66	146.88	-54.72	2,318.70	-3,629.90	3,956.15	3,789.79	166.37	23.780		
4,400.00	4,354.03	4,355.03	4,354.03	20.12	150.32	-54.91	2,318.70	-3,629.90	3,946.75	3,776.48	170.27	23.180		
4,500.00	4,452.71	4,453.71	4,452.71	20.58	153.77	-55.10	2,318.70	-3,629.90	3,937.39	3,763.22	174.17	22.607		
4,600.00	4,551.40	4,552.40	4,551.40	21.04	157.21	-55.29	2,318.70	-3,629.90	3,928.07	3,750.00	178.07	22.059		
4,700.00	4,650.08	4,651.08	4,650.08	21.50	160.66	-55.48	2,318.70	-3,629.90	3,918.80	3,736.83	181.97	21.535		
4,800.00	4,748.76	4,749.76	4,748.76	21.96	164.10	-55.67	2,318.70	-3,629.90	3,909.57	3,723.70	185.87	21.034		
4,900.00	4,847.44	4,848.44	4,847.44	22.42	167.55	-55.87	2,318.70	-3,629.90	3,900.39	3,710.61	189.78	20.553		
5,000.00	4,946.13	4,947.13	4,946.13	22.89	170.99	-56.06	2,318.70	-3,629.90	3,891.25	3,697.57	193.68	20.091		
5,100.00	5,044.81	5,045.81	5,044.81	23.35	174.43	-56.26	2,318.70	-3,629.90	3,882.16	3,684.58	197.58	19.648		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,144.49	5,143.49	23.81	177.88	-56.46	2,318.70	-3,629.90	3,873.11	3,671.63	201.49	19.223		
5,300.00	5,242.18	5,243.18	5,242.18	24.27	181.32	-56.66	2,318.70	-3,629.90	3,864.12	3,658.73	205.39	18.814		
5,400.00	5,340.86	5,341.86	5,340.86	24.74	184.77	-56.85	2,318.70	-3,629.90	3,855.17	3,645.87	209.29	18.420		
5,500.00	5,439.54	5,440.54	5,439.54	25.20	188.21	-57.05	2,318.70	-3,629.90	3,846.26	3,633.06	213.20	18.041		
5,600.00	5,538.22	5,539.22	5,538.22	25.66	191.66	-57.26	2,318.70	-3,629.90	3,837.41	3,620.30	217.10	17.676		
5,700.00	5,636.91	5,637.91	5,636.91	26.13	195.10	-57.46	2,318.70	-3,629.90	3,828.60	3,607.59	221.01	17.323		
5,800.00	5,735.59	5,736.59	5,735.59	26.59	198.55	-57.66	2,318.70	-3,629.90	3,819.84	3,594.92	224.91	16.984		
5,900.00	5,834.27	5,835.27	5,834.27	27.06	201.99	-57.86	2,318.70	-3,629.90	3,811.12	3,582.31	228.82	16.656		
6,000.00	5,932.95	5,933.95	5,932.95	27.52	205.44	-58.07	2,318.70	-3,629.90	3,802.46	3,569.74	232.72	16.339		
6,100.00	6,031.64	6,032.64	6,031.64	27.98	208.88	-58.27	2,318.70	-3,629.90	3,793.85	3,557.22	236.63	16.033		
6,200.00	6,130.32	6,131.32	6,130.32	28.45	212.32	-58.48	2,318.70	-3,629.90	3,785.28	3,544.75	240.54	15.737		
6,300.00	6,229.00	6,230.00	6,229.00	28.91	215.77	-58.69	2,318.70	-3,629.90	3,776.77	3,532.33	244.44	15.450		
6,400.00	6,327.69	6,328.69	6,327.69	29.38	219.21	-58.89	2,318.70	-3,629.90	3,768.31	3,519.95	248.35	15.173		
6,500.00	6,426.37	6,427.37	6,426.37	29.84	222.66	-59.10	2,318.70	-3,629.90	3,759.89	3,507.63	252.26	14.905		
6,600.00	6,525.05	6,526.05	6,525.05	30.31	226.10	-59.31	2,318.70	-3,629.90	3,751.53	3,495.36	256.16	14.645		
6,700.00	6,623.18	6,624.18	6,623.18	30.77	229.53	-18.78	2,318.70	-3,629.90	3,736.13	3,476.09	260.05	14.367		
6,800.00	6,718.58	6,719.58	6,718.58	31.22	232.86	-1.34	2,318.70	-3,629.90	3,706.80	3,442.98	263.81	14.051		
6,900.00	6,808.91	6,809.91	6,808.91	31.66	236.01	7.93	2,318.70	-3,629.90	3,664.22	3,396.86	267.36	13.705		
7,000.00	6,891.95	6,907.05	6,891.95	32.07	239.40	14.87	2,318.70	-3,629.90	3,609.47	3,338.37	271.10	13.314		
7,100.00	6,965.65	6,966.65	6,965.65	32.51	241.48	21.74	2,318.70	-3,629.90	3,543.94	3,270.47	273.47	12.959		
7,200.00	7,028.20	7,029.20	7,028.20	33.02	243.67	29.95	2,318.70	-3,629.90	3,469.33	3,193.45	275.88	12.575		
7,300.00	7,078.04	7,079.04	7,078.04	33.68	245.41	40.84	2,318.70	-3,629.90	3,387.60	3,109.80	277.80	12.194		
7,400.00	7,113.97	7,114.97	7,113.97	34.52	246.66	55.56	2,318.70	-3,629.90	3,300.92	3,021.73	279.19	11.823		
7,500.00	7,135.09	7,136.09	7,135.09	35.53	247.40	73.76	2,318.70	-3,629.90	3,211.57	2,931.53	280.05	11.468		
7,600.00	7,140.96	7,141.96	7,140.96	36.68	247.60	90.49	2,318.70	-3,629.90	3,121.93	2,841.55	280.38	11.135		
7,700.00	7,140.53	7,141.53	7,140.53	37.99	247.59	90.47	2,318.70	-3,629.90	3,033.16	2,752.61	280.55	10.811		
7,800.00	7,140.09	7,141.09	7,140.09	39.45	247.57	90.45	2,318.70	-3,629.90	2,945.10	2,664.29	280.82	10.488		
7,900.00	7,139.66	7,140.66	7,139.66	41.06	247.56	90.44	2,318.70	-3,629.90	2,857.84	2,576.65	281.19	10.163		
8,000.00	7,139.23	7,140.23	7,139.23	42.80	247.54	90.42	2,318.70	-3,629.90	2,771.43	2,489.75	281.68	9.839		
8,100.00	7,138.79	7,139.79	7,138.79	44.65	247.53	90.40	2,318.70	-3,629.90	2,685.96	2,403.66	282.30	9.515		
8,200.00	7,138.36	7,139.36	7,138.36	46.60	247.51	90.38	2,318.70	-3,629.90	2,601.53	2,318.46	283.07	9.190		
8,300.00	7,137.93	7,138.93	7,137.93	48.65	247.50	90.37	2,318.70	-3,629.90	2,518.25	2,234.24	284.01	8.867		
8,400.00	7,137.49	7,138.49	7,137.49	50.77	247.48	90.35	2,318.70	-3,629.90	2,436.22	2,151.09	285.13	8.544		
8,500.00	7,137.06	7,138.06	7,137.06	52.95	247.47	90.33	2,318.70	-3,629.90	2,355.58	2,069.13	286.44	8.224		
8,600.00	7,136.62	7,137.62	7,136.62	55.20	247.45	90.31	2,318.70	-3,629.90	2,276.47	1,988.50	287.97	7.905		
8,700.00	7,136.19	7,137.19	7,136.19	57.51	247.44	90.30	2,318.70	-3,629.90	2,199.07	1,909.34	289.73	7.590		
8,800.00	7,135.76	7,136.76	7,135.76	59.85	247.42	90.28	2,318.70	-3,629.90	2,123.56	1,831.83	291.73	7.279		
8,900.00	7,135.32	7,136.32	7,135.32	62.24	247.41	90.26	2,318.70	-3,629.90	2,050.14	1,756.16	293.98	6.974		
9,000.00	7,134.89	7,135.89	7,134.89	64.67	247.39	90.24	2,318.70	-3,629.90	1,979.06	1,682.57	296.49	6.675		
9,100.00	7,134.45	7,135.45	7,134.45	67.13	247.38	90.22	2,318.70	-3,629.90	1,910.56	1,611.30	299.26	6.384		
9,200.00	7,134.02	7,135.02	7,134.02	69.62	247.36	90.21	2,318.70	-3,629.90	1,844.95	1,542.65	302.30	6.103		
9,300.00	7,133.59	7,134.59	7,133.59	72.14	247.35	90.19	2,318.70	-3,629.90	1,782.53	1,476.93	305.60	5.833		
9,400.00	7,133.15	7,134.15	7,133.15	74.68	247.33	90.17	2,318.70	-3,629.90	1,723.66	1,414.51	309.14	5.576		
9,500.00	7,132.72	7,133.72	7,132.72	77.24	247.31	90.15	2,318.70	-3,629.90	1,668.70	1,355.79	312.92	5.333		
9,600.00	7,132.29	7,133.29	7,132.29	79.83	247.30	90.14	2,318.70	-3,629.90	1,618.07	1,301.19	316.88	5.106		
9,700.00	7,131.85	7,132.85	7,131.85	82.42	247.28	90.12	2,318.70	-3,629.90	1,572.18	1,251.18	321.00	4.898		
9,800.00	7,131.42	7,132.42	7,131.42	85.04	247.27	90.10	2,318.70	-3,629.90	1,531.44	1,206.23	325.21	4.709		
9,900.00	7,130.98	7,131.98	7,130.98	87.67	247.25	90.08	2,318.70	-3,629.90	1,496.29	1,166.85	329.45	4.542		
10,000.00	7,130.55	7,131.55	7,130.55	90.31	247.24	90.07	2,318.70	-3,629.90	1,467.13	1,133.50	333.63	4.397		
10,100.00	7,130.12	7,131.12	7,130.12	92.97	247.22	90.05	2,318.70	-3,629.90	1,444.32	1,106.64	337.68	4.277		
10,200.00	7,129.68	7,130.68	7,129.68	95.63	247.21	90.03	2,318.70	-3,629.90	1,428.16	1,086.66	341.49	4.182		
10,300.00	7,129.25	7,130.25	7,129.25	98.31	247.19	90.01	2,318.70	-3,629.90	1,418.88	1,073.88	345.00	4.113		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,382.11	7,128.89	7,129.89	7,128.89	100.52	247.18	90.00	2,318.70	-3,629.90	1,416.50	1,068.91	347.59	4.075 CC		
10,400.00	7,128.82	7,129.82	7,128.82	101.00	247.18	90.00	2,318.70	-3,629.90	1,416.61	1,068.49	348.12	4.069 ES		
10,500.00	7,128.38	7,129.38	7,128.38	103.69	247.16	89.98	2,318.70	-3,629.90	1,421.40	1,070.60	350.79	4.052 SF		
10,600.00	7,127.95	7,128.95	7,127.95	106.39	247.15	89.96	2,318.70	-3,629.90	1,433.16	1,080.16	353.00	4.060		
10,700.00	7,127.51	7,128.51	7,127.51	109.10	247.13	89.94	2,318.70	-3,629.90	1,451.73	1,097.02	354.71	4.093		
10,800.00	7,127.08	7,128.08	7,127.08	111.82	247.12	89.93	2,318.70	-3,629.90	1,476.85	1,120.91	355.94	4.149		
10,900.00	7,126.65	7,127.65	7,126.65	114.54	247.10	89.91	2,318.70	-3,629.90	1,508.20	1,151.48	356.72	4.228		
11,000.00	7,126.21	7,127.21	7,126.21	117.27	247.09	89.89	2,318.70	-3,629.90	1,545.40	1,188.31	357.09	4.328		
11,100.00	7,125.78	7,126.78	7,125.78	120.01	247.07	89.87	2,318.70	-3,629.90	1,588.03	1,230.93	357.10	4.447		
11,200.00	7,125.35	7,126.35	7,125.35	122.75	247.06	89.86	2,318.70	-3,629.90	1,635.66	1,278.86	356.80	4.584		
11,300.00	7,124.91	7,125.91	7,124.91	125.49	247.04	89.84	2,318.70	-3,629.90	1,687.89	1,331.63	356.26	4.738		
11,400.00	7,124.48	7,125.48	7,124.48	128.24	247.03	89.82	2,318.70	-3,629.90	1,744.29	1,388.78	355.51	4.906		
11,500.00	7,124.04	7,125.04	7,124.04	131.00	247.01	89.80	2,318.70	-3,629.90	1,804.47	1,449.87	354.60	5.089		
11,600.00	7,123.61	7,124.61	7,123.61	133.75	247.00	89.79	2,318.70	-3,629.90	1,868.07	1,514.49	353.58	5.283		
11,700.00	7,123.18	7,124.18	7,123.18	136.52	246.98	89.77	2,318.70	-3,629.90	1,934.75	1,582.27	352.48	5.489		
11,800.00	7,122.74	7,123.74	7,122.74	139.28	246.97	89.75	2,318.70	-3,629.90	2,004.21	1,652.88	351.32	5.705		
11,900.00	7,122.31	7,123.31	7,122.31	142.05	246.95	89.73	2,318.70	-3,629.90	2,076.15	1,726.02	350.13	5.930		
12,000.00	7,121.88	7,122.88	7,121.88	144.82	246.94	89.72	2,318.70	-3,629.90	2,150.35	1,801.41	348.93	6.163		
12,100.00	7,121.44	7,122.44	7,121.44	147.59	246.92	89.70	2,318.70	-3,629.90	2,226.56	1,878.82	347.73	6.403		
12,200.00	7,121.01	7,122.01	7,121.01	150.37	246.91	89.68	2,318.70	-3,629.90	2,304.59	1,958.04	346.55	6.650		
12,300.00	7,120.57	7,121.57	7,120.57	153.15	246.89	89.66	2,318.70	-3,629.90	2,384.26	2,038.88	345.38	6.903		
12,400.00	7,120.14	7,121.14	7,120.14	155.93	246.88	89.65	2,318.70	-3,629.90	2,465.42	2,121.17	344.24	7.162		
12,500.00	7,119.71	7,120.71	7,119.71	158.72	246.86	89.63	2,318.70	-3,629.90	2,547.91	2,204.77	343.14	7.425		
12,600.00	7,119.27	7,120.27	7,119.27	161.50	246.85	89.61	2,318.70	-3,629.90	2,631.62	2,289.55	342.06	7.693		
12,700.00	7,118.84	7,119.84	7,118.84	164.29	246.83	89.59	2,318.70	-3,629.90	2,716.43	2,375.40	341.03	7.965		
12,800.00	7,118.41	7,119.41	7,118.41	167.08	246.82	89.58	2,318.70	-3,629.90	2,802.24	2,462.21	340.03	8.241		
12,900.00	7,117.97	7,118.97	7,117.97	169.88	246.80	89.56	2,318.70	-3,629.90	2,888.96	2,549.90	339.06	8.520		
13,000.00	7,117.54	7,118.54	7,117.54	172.67	246.78	89.54	2,318.70	-3,629.90	2,976.52	2,638.39	338.14	8.803		
13,100.00	7,117.10	7,118.10	7,117.10	175.47	246.77	89.52	2,318.70	-3,629.90	3,064.84	2,727.59	337.25	9.088		
13,200.00	7,116.67	7,117.67	7,116.67	178.27	246.75	89.51	2,318.70	-3,629.90	3,153.86	2,817.47	336.39	9.376		
13,300.00	7,116.24	7,117.24	7,116.24	181.07	246.74	89.49	2,318.70	-3,629.90	3,243.52	2,907.94	335.57	9.666		
13,400.00	7,115.80	7,116.80	7,115.80	183.87	246.72	89.47	2,318.70	-3,629.90	3,333.76	2,998.97	334.79	9.958		
13,500.00	7,115.37	7,116.37	7,115.37	186.67	246.71	89.45	2,318.70	-3,629.90	3,424.55	3,090.51	334.04	10.252		
13,600.00	7,114.93	7,115.93	7,114.93	189.47	246.69	89.44	2,318.70	-3,629.90	3,515.83	3,182.52	333.32	10.548		
13,700.00	7,114.50	7,115.50	7,114.50	192.28	246.68	89.42	2,318.70	-3,629.90	3,607.58	3,274.96	332.62	10.846		
13,800.00	7,114.07	7,115.07	7,114.07	195.09	246.66	89.40	2,318.70	-3,629.90	3,699.76	3,367.80	331.96	11.145		
13,900.00	7,113.63	7,114.63	7,113.63	197.89	246.65	89.38	2,318.70	-3,629.90	3,792.33	3,461.01	331.33	11.446		
14,000.00	7,113.20	7,114.20	7,113.20	200.70	246.63	89.37	2,318.70	-3,629.90	3,885.27	3,554.56	330.72	11.748		
14,100.00	7,112.77	7,113.77	7,112.77	203.51	246.62	89.35	2,318.70	-3,629.90	3,978.56	3,648.42	330.13	12.051		
14,200.00	7,112.33	7,113.33	7,112.33	206.32	246.60	89.33	2,318.70	-3,629.90	4,072.16	3,742.59	329.57	12.356		
14,300.00	7,111.90	7,112.90	7,111.90	209.13	246.59	89.31	2,318.70	-3,629.90	4,166.06	3,837.02	329.03	12.661		
14,400.00	7,111.46	7,112.46	7,111.46	211.95	246.57	89.30	2,318.70	-3,629.90	4,260.24	3,931.72	328.52	12.968		
14,500.00	7,111.03	7,112.03	7,111.03	214.76	246.56	89.28	2,318.70	-3,629.90	4,354.67	4,026.65	328.02	13.275		
14,600.00	7,110.60	7,111.60	7,110.60	217.58	246.54	89.26	2,318.70	-3,629.90	4,449.35	4,121.80	327.55	13.584		
14,700.00	7,110.16	7,111.16	7,110.16	220.39	246.53	89.24	2,318.70	-3,629.90	4,544.26	4,217.17	327.09	13.893		
14,800.00	7,109.73	7,110.73	7,109.73	223.21	246.51	89.22	2,318.70	-3,629.90	4,639.38	4,312.73	326.66	14.203		
14,900.00	7,109.30	7,110.30	7,109.30	226.03	246.50	89.21	2,318.70	-3,629.90	4,734.70	4,408.47	326.23	14.513		
14,969.16	7,109.00	7,110.00	7,109.00	227.97	246.49	89.20	2,318.70	-3,629.90	4,800.74	4,474.79	325.95	14.728		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-64.71	2,289.77	-4,845.25	5,359.20				
100.00	100.00	61.00	100.00	3.28	3.45	-64.71	2,289.77	-4,845.25	5,359.06	5,352.32	6.73	795.913	
200.00	200.00	161.00	200.00	3.34	5.08	-64.71	2,289.77	-4,845.25	5,359.06	5,350.64	8.41	636.933	
300.00	300.00	261.00	300.00	3.44	8.06	-64.71	2,289.77	-4,845.25	5,359.06	5,347.55	11.51	465.673	
400.00	400.00	361.00	400.00	3.60	11.34	-64.71	2,289.77	-4,845.25	5,359.06	5,344.11	14.94	358.585	
500.00	500.00	461.00	500.00	3.81	14.72	-64.71	2,289.77	-4,845.25	5,359.06	5,340.53	18.52	289.301	
600.00	600.00	561.00	600.00	4.05	18.14	-64.71	2,289.77	-4,845.25	5,359.06	5,336.87	22.18	241.569	
700.00	699.98	660.98	699.98	4.32	21.58	-55.59	2,289.77	-4,845.25	5,358.07	5,332.17	25.90	206.895	
800.00	799.84	760.84	799.84	4.62	25.03	-55.68	2,289.77	-4,845.25	5,355.11	5,325.47	29.65	180.639	
900.00	899.45	860.45	899.45	4.94	28.48	-55.84	2,289.77	-4,845.25	5,350.20	5,316.78	33.41	160.115	
1,000.00	998.70	959.70	998.70	5.28	31.93	-56.06	2,289.77	-4,845.25	5,343.34	5,306.14	37.20	143.656	
1,100.00	1,097.50	1,058.50	1,097.50	5.64	35.36	-56.29	2,289.77	-4,845.25	5,334.67	5,293.69	40.98	130.173	
1,200.00	1,196.18	1,157.18	1,196.18	6.00	38.79	-56.43	2,289.77	-4,845.25	5,325.63	5,280.85	44.78	118.932	
1,300.00	1,294.87	1,255.87	1,294.87	6.38	42.22	-56.58	2,289.77	-4,845.25	5,316.62	5,268.03	48.59	109.415	
1,400.00	1,393.55	1,354.55	1,393.55	6.77	45.66	-56.72	2,289.77	-4,845.25	5,307.65	5,255.23	52.42	101.260	
1,500.00	1,492.23	1,453.23	1,492.23	7.17	49.10	-56.87	2,289.77	-4,845.25	5,298.70	5,242.45	56.25	94.198	
1,600.00	1,590.91	1,551.91	1,590.91	7.58	52.53	-57.01	2,289.77	-4,845.25	5,289.80	5,229.70	60.09	88.025	
1,700.00	1,689.60	1,650.60	1,689.60	8.00	55.97	-57.16	2,289.77	-4,845.25	5,280.92	5,216.98	63.94	82.586	
1,800.00	1,788.28	1,749.28	1,788.28	8.42	59.41	-57.31	2,289.77	-4,845.25	5,272.09	5,204.28	67.80	77.758	
1,900.00	1,886.96	1,847.96	1,886.96	8.84	62.85	-57.45	2,289.77	-4,845.25	5,263.28	5,191.62	71.66	73.445	
2,000.00	1,985.64	1,946.64	1,985.64	9.27	66.29	-57.60	2,289.77	-4,845.25	5,254.51	5,178.98	75.53	69.569	
2,100.00	2,084.33	2,045.33	2,084.33	9.71	69.73	-57.75	2,289.77	-4,845.25	5,245.78	5,166.38	79.40	66.068	
2,200.00	2,183.01	2,144.01	2,183.01	10.15	73.18	-57.90	2,289.77	-4,845.25	5,237.08	5,153.81	83.27	62.890	
2,300.00	2,281.69	2,242.69	2,281.69	10.59	76.62	-58.04	2,289.77	-4,845.25	5,228.42	5,141.27	87.15	59.993	
2,400.00	2,380.38	2,341.38	2,380.38	11.03	80.06	-58.19	2,289.77	-4,845.25	5,219.80	5,128.76	91.03	57.341	
2,500.00	2,479.06	2,440.06	2,479.06	11.47	83.50	-58.34	2,289.77	-4,845.25	5,211.20	5,116.29	94.91	54.905	
2,600.00	2,577.74	2,538.74	2,577.74	11.92	86.94	-58.49	2,289.77	-4,845.25	5,202.65	5,103.85	98.80	52.660	
2,700.00	2,676.42	2,637.42	2,676.42	12.36	90.39	-58.64	2,289.77	-4,845.25	5,194.13	5,091.45	102.68	50.585	
2,800.00	2,775.11	2,736.11	2,775.11	12.81	93.83	-58.80	2,289.77	-4,845.25	5,185.65	5,079.08	106.57	48.660	
2,900.00	2,873.79	2,834.79	2,873.79	13.26	97.27	-58.95	2,289.77	-4,845.25	5,177.21	5,066.75	110.46	46.870	
3,000.00	2,972.47	2,933.47	2,972.47	13.72	100.72	-59.10	2,289.77	-4,845.25	5,168.80	5,054.45	114.35	45.202	
3,100.00	3,071.15	3,032.15	3,071.15	14.17	104.16	-59.25	2,289.77	-4,845.25	5,160.43	5,042.19	118.24	43.643	
3,200.00	3,169.84	3,130.84	3,169.84	14.62	107.60	-59.40	2,289.77	-4,845.25	5,152.09	5,029.96	122.13	42.184	
3,300.00	3,268.52	3,229.52	3,268.52	15.08	111.05	-59.56	2,289.77	-4,845.25	5,143.80	5,017.77	126.03	40.815	
3,400.00	3,367.20	3,328.20	3,367.20	15.53	114.49	-59.71	2,289.77	-4,845.25	5,135.54	5,005.62	129.92	39.528	
3,500.00	3,465.89	3,426.89	3,465.89	15.99	117.93	-59.87	2,289.77	-4,845.25	5,127.32	4,993.50	133.82	38.315	
3,600.00	3,564.57	3,525.57	3,564.57	16.44	121.38	-60.02	2,289.77	-4,845.25	5,119.14	4,981.42	137.72	37.172	
3,700.00	3,663.25	3,624.25	3,663.25	16.90	124.82	-60.18	2,289.77	-4,845.25	5,110.99	4,969.38	141.61	36.091	
3,800.00	3,761.93	3,722.93	3,761.93	17.36	128.26	-60.33	2,289.77	-4,845.25	5,102.88	4,957.37	145.51	35.069	
3,900.00	3,860.62	3,821.62	3,860.62	17.82	131.71	-60.49	2,289.77	-4,845.25	5,094.82	4,945.41	149.41	34.100	
4,000.00	3,959.30	3,920.30	3,959.30	18.28	135.15	-60.65	2,289.77	-4,845.25	5,086.79	4,933.48	153.31	33.180	
4,100.00	4,057.98	4,018.98	4,057.98	18.74	138.60	-60.80	2,289.77	-4,845.25	5,078.80	4,921.59	157.21	32.306	
4,200.00	4,156.67	4,117.67	4,156.67	19.20	142.04	-60.96	2,289.77	-4,845.25	5,070.84	4,909.73	161.11	31.474	
4,300.00	4,255.35	4,216.35	4,255.35	19.66	145.48	-61.12	2,289.77	-4,845.25	5,062.93	4,897.92	165.01	30.682	
4,400.00	4,354.03	4,315.03	4,354.03	20.12	148.93	-61.28	2,289.77	-4,845.25	5,055.06	4,886.15	168.91	29.927	
4,500.00	4,452.71	4,413.71	4,452.71	20.58	152.37	-61.44	2,289.77	-4,845.25	5,047.23	4,874.41	172.81	29.206	
4,600.00	4,551.40	4,512.40	4,551.40	21.04	155.82	-61.60	2,289.77	-4,845.25	5,039.43	4,862.71	176.72	28.517	
4,700.00	4,650.08	4,611.08	4,650.08	21.50	159.26	-61.76	2,289.77	-4,845.25	5,031.68	4,851.06	180.62	27.858	
4,800.00	4,748.76	4,709.76	4,748.76	21.96	162.71	-61.92	2,289.77	-4,845.25	5,023.96	4,839.44	184.52	27.227	
4,900.00	4,847.44	4,808.44	4,847.44	22.42	166.15	-62.08	2,289.77	-4,845.25	5,016.29	4,827.86	188.43	26.622	
5,000.00	4,946.13	4,907.13	4,946.13	22.89	169.59	-62.24	2,289.77	-4,845.25	5,008.66	4,816.33	192.33	26.042	
5,100.00	5,044.81	5,005.81	5,044.81	23.35	173.04	-62.41	2,289.77	-4,845.25	5,001.07	4,804.83	196.23	25.485	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,104.49	5,143.49	23.81	176.48	-62.57	2,289.77	-4,845.25	4,993.51	4,793.38	200.14	24.950		
5,300.00	5,242.18	5,203.18	5,242.18	24.27	179.93	-62.73	2,289.77	-4,845.25	4,986.00	4,781.96	204.04	24.436		
5,400.00	5,340.86	5,301.86	5,340.86	24.74	183.37	-62.90	2,289.77	-4,845.25	4,978.54	4,770.59	207.95	23.941		
5,500.00	5,439.54	5,400.54	5,439.54	25.20	186.82	-63.06	2,289.77	-4,845.25	4,971.11	4,759.25	211.85	23.465		
5,600.00	5,538.22	5,500.78	5,538.22	25.66	190.32	-63.22	2,289.77	-4,845.25	4,963.72	4,747.91	215.81	23.000		
5,700.00	5,636.91	5,602.09	5,636.91	26.13	193.85	-63.39	2,289.77	-4,845.25	4,956.38	4,736.57	219.81	22.548		
5,800.00	5,735.59	5,703.41	5,735.59	26.59	197.39	-63.56	2,289.77	-4,845.25	4,949.08	4,725.26	223.81	22.113		
5,900.00	5,834.27	5,804.73	5,834.27	27.06	200.92	-63.72	2,289.77	-4,845.25	4,941.82	4,714.01	227.81	21.693		
6,000.00	5,932.95	5,906.05	5,932.95	27.52	204.46	-63.89	2,289.77	-4,845.25	4,934.60	4,702.79	231.81	21.288		
6,100.00	6,031.64	6,007.36	6,031.64	27.98	208.00	-64.06	2,289.77	-4,845.25	4,927.42	4,691.62	235.81	20.896		
6,200.00	6,130.32	6,108.68	6,130.32	28.45	211.53	-64.22	2,289.77	-4,845.25	4,920.29	4,680.48	239.80	20.518		
6,300.00	6,229.00	6,210.00	6,229.00	28.91	215.07	-64.39	2,289.77	-4,845.25	4,913.20	4,669.40	243.80	20.152		
6,400.00	6,327.69	6,288.69	6,327.69	29.38	217.82	-64.56	2,289.77	-4,845.25	4,906.15	4,659.14	247.01	19.862		
6,500.00	6,426.37	6,387.37	6,426.37	29.84	221.26	-64.73	2,289.77	-4,845.25	4,899.15	4,648.23	250.92	19.525		
6,600.00	6,525.05	6,486.05	6,525.05	30.31	224.71	-64.90	2,289.77	-4,845.25	4,892.19	4,637.36	254.83	19.198		
6,700.00	6,623.18	6,584.18	6,623.18	30.77	228.13	-24.51	2,289.77	-4,845.25	4,877.91	4,619.20	258.71	18.855		
6,800.00	6,718.58	6,679.58	6,718.58	31.22	231.46	-7.36	2,289.77	-4,845.25	4,849.12	4,586.64	262.48	18.474		
6,900.00	6,808.91	6,769.91	6,808.91	31.66	234.62	1.41	2,289.77	-4,845.25	4,806.50	4,540.47	266.03	18.067		
7,000.00	6,891.95	6,852.95	6,891.95	32.07	237.51	7.63	2,289.77	-4,845.25	4,751.09	4,481.81	269.28	17.644		
7,100.00	6,965.65	6,926.65	6,965.65	32.51	240.09	13.50	2,289.77	-4,845.25	4,684.28	4,412.13	272.14	17.213		
7,200.00	7,028.20	6,989.20	7,028.20	33.02	242.27	20.47	2,289.77	-4,845.25	4,607.73	4,333.18	274.55	16.783		
7,300.00	7,078.04	7,039.04	7,078.04	33.68	244.01	30.20	2,289.77	-4,845.25	4,523.39	4,246.94	276.45	16.362		
7,400.00	7,113.97	7,074.97	7,113.97	34.52	245.26	45.12	2,289.77	-4,845.25	4,433.39	4,155.58	277.81	15.958		
7,500.00	7,135.09	7,103.91	7,135.09	35.53	246.27	67.34	2,289.77	-4,845.25	4,340.02	4,061.14	278.88	15.562		
7,600.00	7,140.96	7,101.96	7,140.96	36.68	246.21	90.69	2,289.77	-4,845.25	4,245.65	3,966.80	278.85	15.226		
7,700.00	7,140.53	7,101.53	7,140.53	37.99	246.19	90.68	2,289.77	-4,845.25	4,151.62	3,872.73	278.89	14.886		
7,800.00	7,140.09	7,101.09	7,140.09	39.45	246.18	90.66	2,289.77	-4,845.25	4,057.89	3,778.91	278.98	14.545		
7,900.00	7,139.66	7,100.66	7,139.66	41.06	246.16	90.64	2,289.77	-4,845.25	3,964.46	3,685.34	279.12	14.204		
8,000.00	7,139.23	7,100.23	7,139.23	42.80	246.15	90.63	2,289.77	-4,845.25	3,871.35	3,592.05	279.31	13.860		
8,100.00	7,138.79	7,100.21	7,138.79	44.65	246.15	90.61	2,289.77	-4,845.25	3,778.60	3,499.03	279.58	13.515		
8,200.00	7,138.36	7,100.64	7,138.36	46.60	246.16	90.59	2,289.77	-4,845.25	3,686.23	3,406.30	279.93	13.168		
8,300.00	7,137.93	7,101.08	7,137.93	48.65	246.18	90.57	2,289.77	-4,845.25	3,594.27	3,313.91	280.36	12.820		
8,400.00	7,137.49	7,101.51	7,137.49	50.77	246.19	90.56	2,289.77	-4,845.25	3,502.75	3,221.88	280.87	12.471		
8,500.00	7,137.06	7,101.94	7,137.06	52.95	246.21	90.54	2,289.77	-4,845.25	3,411.70	3,130.23	281.47	12.121		
8,600.00	7,136.62	7,102.38	7,136.62	55.20	246.22	90.52	2,289.77	-4,845.25	3,321.17	3,038.99	282.18	11.770		
8,700.00	7,136.19	7,102.81	7,136.19	57.51	246.24	90.50	2,289.77	-4,845.25	3,231.20	2,948.20	283.00	11.418		
8,800.00	7,135.76	7,103.24	7,135.76	59.85	246.25	90.49	2,289.77	-4,845.25	3,141.83	2,857.90	283.93	11.065		
8,900.00	7,135.32	7,103.68	7,135.32	62.24	246.27	90.47	2,289.77	-4,845.25	3,053.12	2,768.12	285.00	10.713		
9,000.00	7,134.89	7,104.11	7,134.89	64.67	246.28	90.45	2,289.77	-4,845.25	2,965.13	2,678.92	286.21	10.360		
9,100.00	7,134.45	7,104.55	7,134.45	67.13	246.30	90.43	2,289.77	-4,845.25	2,877.93	2,590.36	287.57	10.008		
9,200.00	7,134.02	7,104.98	7,134.02	69.62	246.31	90.42	2,289.77	-4,845.25	2,791.58	2,502.49	289.09	9.656		
9,300.00	7,133.59	7,105.41	7,133.59	72.14	246.33	90.40	2,289.77	-4,845.25	2,706.18	2,415.39	290.79	9.306		
9,400.00	7,133.15	7,105.85	7,133.15	74.68	246.34	90.38	2,289.77	-4,845.25	2,621.80	2,329.13	292.67	8.958		
9,500.00	7,132.72	7,106.28	7,132.72	77.24	246.36	90.36	2,289.77	-4,845.25	2,538.56	2,243.81	294.75	8.613		
9,600.00	7,132.29	7,106.71	7,132.29	79.83	246.37	90.35	2,289.77	-4,845.25	2,456.58	2,159.53	297.04	8.270		
9,700.00	7,131.85	7,107.15	7,131.85	82.42	246.39	90.33	2,289.77	-4,845.25	2,375.97	2,076.42	299.55	7.932		
9,800.00	7,131.42	7,107.58	7,131.42	85.04	246.40	90.31	2,289.77	-4,845.25	2,296.89	1,994.60	302.29	7.598		
9,900.00	7,130.98	7,108.02	7,130.98	87.67	246.42	90.30	2,289.77	-4,845.25	2,219.49	1,914.22	305.27	7.271		
10,000.00	7,130.55	7,108.45	7,130.55	90.31	246.43	90.28	2,289.77	-4,845.25	2,143.97	1,835.46	308.50	6.950		
10,100.00	7,130.12	7,108.88	7,130.12	92.97	246.45	90.26	2,289.77	-4,845.25	2,070.52	1,758.53	311.99	6.636		
10,200.00	7,129.68	7,109.32	7,129.68	95.63	246.46	90.24	2,289.77	-4,845.25	1,999.38	1,683.63	315.75	6.332		
10,300.00	7,129.25	7,109.75	7,129.25	98.31	246.48	90.23	2,289.77	-4,845.25	1,930.79	1,611.03	319.76	6.038		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 34-9(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	7,089.82	7,128.82	101.00	245.78	90.21	2,289.77	-4,845.25	1,865.05	1,541.73	323.32	5.768		
10,500.00	7,128.38	7,089.38	7,128.38	103.69	245.77	90.19	2,289.77	-4,845.25	1,802.46	1,474.65	327.82	5.498		
10,600.00	7,127.95	7,088.95	7,127.95	106.39	245.75	90.17	2,289.77	-4,845.25	1,743.37	1,410.83	332.53	5.243		
10,700.00	7,127.51	7,088.51	7,127.51	109.10	245.74	90.16	2,289.77	-4,845.25	1,688.13	1,350.68	337.45	5.003		
10,800.00	7,127.08	7,088.08	7,127.08	111.82	245.72	90.14	2,289.77	-4,845.25	1,637.14	1,294.63	342.52	4.780		
10,900.00	7,126.65	7,087.65	7,126.65	114.54	245.71	90.12	2,289.77	-4,845.25	1,590.82	1,243.13	347.69	4.575		
11,000.00	7,126.21	7,087.21	7,126.21	117.27	245.69	90.10	2,289.77	-4,845.25	1,549.56	1,196.68	352.88	4.391		
11,100.00	7,125.78	7,086.78	7,125.78	120.01	245.68	90.09	2,289.77	-4,845.25	1,513.80	1,155.79	358.01	4.228		
11,200.00	7,125.35	7,086.35	7,125.35	122.75	245.66	90.07	2,289.77	-4,845.25	1,483.93	1,120.94	362.99	4.088		
11,300.00	7,124.91	7,085.91	7,124.91	125.49	245.65	90.05	2,289.77	-4,845.25	1,460.31	1,092.61	367.71	3.971		
11,400.00	7,124.48	7,085.48	7,124.48	128.24	245.63	90.03	2,289.77	-4,845.25	1,443.25	1,071.19	372.06	3.879		
11,500.00	7,124.04	7,085.04	7,124.04	131.00	245.62	90.02	2,289.77	-4,845.25	1,432.97	1,057.03	375.94	3.812		
11,597.74	7,123.62	7,084.62	7,123.62	133.69	245.60	90.00	2,289.77	-4,845.25	1,429.64	1,050.42	379.21	3.770 CC		
11,600.00	7,123.61	7,084.61	7,123.61	133.75	245.60	90.00	2,289.77	-4,845.25	1,429.64	1,050.36	379.28	3.769 ES		
11,700.00	7,123.18	7,084.18	7,123.18	136.52	245.59	89.98	2,289.77	-4,845.25	1,433.29	1,051.27	382.02	3.752 SF		
11,800.00	7,122.74	7,083.74	7,122.74	139.28	245.57	89.96	2,289.77	-4,845.25	1,443.87	1,059.76	384.11	3.759		
11,900.00	7,122.31	7,083.31	7,122.31	142.05	245.56	89.95	2,289.77	-4,845.25	1,461.24	1,075.67	385.56	3.790		
12,000.00	7,121.88	7,082.88	7,121.88	144.82	245.54	89.93	2,289.77	-4,845.25	1,485.15	1,098.75	386.39	3.844		
12,100.00	7,121.44	7,082.44	7,121.44	147.59	245.52	89.91	2,289.77	-4,845.25	1,515.29	1,128.64	386.65	3.919		
12,200.00	7,121.01	7,082.01	7,121.01	150.37	245.51	89.90	2,289.77	-4,845.25	1,551.31	1,164.92	386.39	4.015		
12,300.00	7,120.57	7,081.57	7,120.57	153.15	245.49	89.88	2,289.77	-4,845.25	1,592.80	1,207.11	385.69	4.130		
12,400.00	7,120.14	7,081.14	7,120.14	155.93	245.48	89.86	2,289.77	-4,845.25	1,639.35	1,254.72	384.62	4.262		
12,500.00	7,119.71	7,080.71	7,119.71	158.72	245.46	89.84	2,289.77	-4,845.25	1,690.54	1,307.27	383.26	4.411		
12,600.00	7,119.27	7,080.27	7,119.27	161.50	245.45	89.83	2,289.77	-4,845.25	1,745.95	1,364.29	381.67	4.575		
12,700.00	7,118.84	7,079.84	7,118.84	164.29	245.43	89.81	2,289.77	-4,845.25	1,805.22	1,425.31	379.91	4.752		
12,800.00	7,118.41	7,079.41	7,118.41	167.08	245.42	89.79	2,289.77	-4,845.25	1,867.95	1,489.92	378.03	4.941		
12,900.00	7,117.97	7,078.97	7,117.97	169.88	245.40	89.77	2,289.77	-4,845.25	1,933.83	1,557.75	376.08	5.142		
13,000.00	7,117.54	7,078.54	7,117.54	172.67	245.39	89.76	2,289.77	-4,845.25	2,002.53	1,628.44	374.09	5.353		
13,100.00	7,117.10	7,078.10	7,117.10	175.47	245.37	89.74	2,289.77	-4,845.25	2,073.79	1,701.69	372.09	5.573		
13,200.00	7,116.67	7,077.67	7,116.67	178.27	245.36	89.72	2,289.77	-4,845.25	2,147.33	1,777.22	370.11	5.802		
13,300.00	7,116.24	7,077.24	7,116.24	181.07	245.34	89.70	2,289.77	-4,845.25	2,222.94	1,854.79	368.15	6.038		
13,400.00	7,115.80	7,076.80	7,115.80	183.87	245.33	89.69	2,289.77	-4,845.25	2,300.42	1,934.18	366.24	6.281		
13,500.00	7,115.37	7,076.37	7,115.37	186.67	245.31	89.67	2,289.77	-4,845.25	2,379.57	2,015.19	364.38	6.530		
13,600.00	7,114.93	7,075.93	7,114.93	189.47	245.30	89.65	2,289.77	-4,845.25	2,460.25	2,097.67	362.58	6.785		
13,700.00	7,114.50	7,075.50	7,114.50	192.28	245.28	89.63	2,289.77	-4,845.25	2,542.29	2,181.46	360.84	7.046		
13,800.00	7,114.07	7,075.07	7,114.07	195.09	245.27	89.62	2,289.77	-4,845.25	2,625.59	2,266.43	359.16	7.310		
13,900.00	7,113.63	7,074.63	7,113.63	197.89	245.25	89.60	2,289.77	-4,845.25	2,710.01	2,352.46	357.54	7.580		
14,000.00	7,113.20	7,074.20	7,113.20	200.70	245.24	89.58	2,289.77	-4,845.25	2,795.46	2,439.46	356.00	7.853		
14,100.00	7,112.77	7,073.77	7,112.77	203.51	245.22	89.57	2,289.77	-4,845.25	2,881.84	2,527.33	354.51	8.129		
14,200.00	7,112.33	7,073.33	7,112.33	206.32	245.21	89.55	2,289.77	-4,845.25	2,969.09	2,616.00	353.09	8.409		
14,300.00	7,111.90	7,072.90	7,111.90	209.13	245.19	89.53	2,289.77	-4,845.25	3,057.11	2,705.38	351.73	8.692		
14,400.00	7,111.46	7,072.46	7,111.46	211.95	245.18	89.51	2,289.77	-4,845.25	3,145.85	2,795.42	350.42	8.977		
14,500.00	7,111.03	7,072.03	7,111.03	214.76	245.16	89.50	2,289.77	-4,845.25	3,235.24	2,886.07	349.17	9.265		
14,600.00	7,110.60	7,071.60	7,110.60	217.58	245.15	89.48	2,289.77	-4,845.25	3,325.24	2,977.26	347.98	9.556		
14,700.00	7,110.16	7,071.16	7,110.16	220.39	245.13	89.46	2,289.77	-4,845.25	3,415.80	3,068.96	346.84	9.848		
14,800.00	7,109.73	7,070.73	7,109.73	223.21	245.12	89.44	2,289.77	-4,845.25	3,506.87	3,161.12	345.75	10.143		
14,900.00	7,109.30	7,070.30	7,109.30	226.03	245.10	89.43	2,289.77	-4,845.25	3,598.41	3,253.71	344.70	10.439		
14,969.16	7,109.00	7,070.00	7,109.00	227.97	245.09	89.41	2,289.77	-4,845.25	3,661.98	3,317.97	344.01	10.645		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-124.29	-4,331.86	-6,352.37	7,689.08				
100.00	100.00	34.00	100.00	3.28	3.33	-124.29	-4,331.86	-6,352.37	7,688.80	7,682.18	6.62	1,161.805	
200.00	200.00	134.00	200.00	3.34	4.40	-124.29	-4,331.86	-6,352.37	7,688.80	7,681.06	7.74	993.801	
300.00	300.00	234.00	300.00	3.44	7.21	-124.29	-4,331.86	-6,352.37	7,688.80	7,678.14	10.66	721.457	
400.00	400.00	334.00	400.00	3.60	10.44	-124.29	-4,331.86	-6,352.37	7,688.80	7,674.75	14.05	547.391	
500.00	500.00	434.00	500.00	3.81	13.80	-124.29	-4,331.86	-6,352.37	7,688.80	7,671.19	17.61	436.693	
600.00	600.00	534.00	600.00	4.05	17.21	-124.29	-4,331.86	-6,352.37	7,688.80	7,667.54	21.26	361.687	
700.00	699.98	633.98	699.98	4.32	20.65	-115.14	-4,331.86	-6,352.37	7,689.54	7,664.57	24.97	307.995	
800.00	799.84	733.84	799.84	4.62	24.10	-115.13	-4,331.86	-6,352.37	7,691.77	7,663.06	28.71	267.899	
900.00	899.45	833.45	899.45	4.94	27.55	-115.13	-4,331.86	-6,352.37	7,695.48	7,663.00	32.48	236.935	
1,000.00	998.70	932.70	998.70	5.28	30.99	-115.11	-4,331.86	-6,352.37	7,700.69	7,664.43	36.26	212.375	
1,100.00	1,097.50	1,031.50	1,097.50	5.64	34.42	-115.14	-4,331.86	-6,352.37	7,707.30	7,667.26	40.05	192.458	
1,200.00	1,196.18	1,130.18	1,196.18	6.00	37.85	-115.25	-4,331.86	-6,352.37	7,714.26	7,670.42	43.85	175.937	
1,300.00	1,294.87	1,228.87	1,294.87	6.38	41.28	-115.35	-4,331.86	-6,352.37	7,721.25	7,673.59	47.66	162.000	
1,400.00	1,393.55	1,327.55	1,393.55	6.77	44.72	-115.46	-4,331.86	-6,352.37	7,728.27	7,676.78	51.49	150.094	
1,500.00	1,492.23	1,426.23	1,492.23	7.17	48.16	-115.57	-4,331.86	-6,352.37	7,735.31	7,679.99	55.33	139.809	
1,600.00	1,590.91	1,524.91	1,590.91	7.58	51.59	-115.68	-4,331.86	-6,352.37	7,742.38	7,683.21	59.17	130.841	
1,700.00	1,689.60	1,623.60	1,689.60	8.00	55.03	-115.78	-4,331.86	-6,352.37	7,749.48	7,686.46	63.03	122.953	
1,800.00	1,788.28	1,722.28	1,788.28	8.42	58.47	-115.89	-4,331.86	-6,352.37	7,756.61	7,689.72	66.89	115.965	
1,900.00	1,886.96	1,820.96	1,886.96	8.84	61.91	-115.99	-4,331.86	-6,352.37	7,763.76	7,693.01	70.75	109.731	
2,000.00	1,985.64	1,919.64	1,985.64	9.27	65.35	-116.10	-4,331.86	-6,352.37	7,770.94	7,696.32	74.62	104.137	
2,100.00	2,084.33	2,018.33	2,084.33	9.71	68.79	-116.21	-4,331.86	-6,352.37	7,778.15	7,699.65	78.50	99.090	
2,200.00	2,183.01	2,117.01	2,183.01	10.15	72.23	-116.31	-4,331.86	-6,352.37	7,785.38	7,703.01	82.37	94.514	
2,300.00	2,281.69	2,215.69	2,281.69	10.59	75.68	-116.42	-4,331.86	-6,352.37	7,792.64	7,706.39	86.25	90.347	
2,400.00	2,380.38	2,314.38	2,380.38	11.03	79.12	-116.52	-4,331.86	-6,352.37	7,799.93	7,709.80	90.13	86.536	
2,500.00	2,479.06	2,413.06	2,479.06	11.47	82.56	-116.63	-4,331.86	-6,352.37	7,807.25	7,713.23	94.02	83.039	
2,600.00	2,577.74	2,511.74	2,577.74	11.92	86.00	-116.73	-4,331.86	-6,352.37	7,814.59	7,716.68	97.91	79.817	
2,700.00	2,676.42	2,610.42	2,676.42	12.36	89.44	-116.84	-4,331.86	-6,352.37	7,821.96	7,720.16	101.79	76.841	
2,800.00	2,775.11	2,709.11	2,775.11	12.81	92.89	-116.94	-4,331.86	-6,352.37	7,829.35	7,723.67	105.68	74.082	
2,900.00	2,873.79	2,807.79	2,873.79	13.26	96.33	-117.05	-4,331.86	-6,352.37	7,836.77	7,727.20	109.58	71.519	
3,000.00	2,972.47	2,906.47	2,972.47	13.72	99.77	-117.15	-4,331.86	-6,352.37	7,844.22	7,730.75	113.47	69.131	
3,100.00	3,071.15	3,005.15	3,071.15	14.17	103.22	-117.25	-4,331.86	-6,352.37	7,851.69	7,734.33	117.36	66.901	
3,200.00	3,169.84	3,103.84	3,169.84	14.62	106.66	-117.36	-4,331.86	-6,352.37	7,859.19	7,737.93	121.26	64.814	
3,300.00	3,268.52	3,202.52	3,268.52	15.08	110.10	-117.46	-4,331.86	-6,352.37	7,866.72	7,741.56	125.15	62.856	
3,400.00	3,367.20	3,301.20	3,367.20	15.53	113.55	-117.57	-4,331.86	-6,352.37	7,874.27	7,745.22	129.05	61.017	
3,500.00	3,465.89	3,400.11	3,465.89	15.99	117.00	-117.67	-4,331.86	-6,352.37	7,881.85	7,748.89	132.96	59.282	
3,600.00	3,564.57	3,501.43	3,564.57	16.44	120.53	-117.77	-4,331.86	-6,352.37	7,889.45	7,752.50	136.95	57.610	
3,700.00	3,663.25	3,602.75	3,663.25	16.90	124.07	-117.87	-4,331.86	-6,352.37	7,897.08	7,756.14	140.94	56.033	
3,800.00	3,761.93	3,704.07	3,761.93	17.36	127.61	-117.98	-4,331.86	-6,352.37	7,904.73	7,759.80	144.93	54.542	
3,900.00	3,860.62	3,805.38	3,860.62	17.82	131.14	-118.08	-4,331.86	-6,352.37	7,912.41	7,763.49	148.92	53.132	
4,000.00	3,959.30	3,906.70	3,959.30	18.28	134.68	-118.18	-4,331.86	-6,352.37	7,920.12	7,767.21	152.91	51.795	
4,100.00	4,057.98	4,008.02	4,057.98	18.74	138.21	-118.28	-4,331.86	-6,352.37	7,927.85	7,770.95	156.91	50.526	
4,200.00	4,156.67	4,109.34	4,156.67	19.20	141.75	-118.39	-4,331.86	-6,352.37	7,935.61	7,774.71	160.90	49.320	
4,300.00	4,255.35	4,189.35	4,255.35	19.66	144.54	-118.49	-4,331.86	-6,352.37	7,943.39	7,779.24	164.15	48.391	
4,400.00	4,354.03	4,288.03	4,354.03	20.12	147.99	-118.59	-4,331.86	-6,352.37	7,951.20	7,783.15	168.05	47.314	
4,500.00	4,452.71	4,386.71	4,452.71	20.58	151.43	-118.69	-4,331.86	-6,352.37	7,959.03	7,787.08	171.96	46.285	
4,600.00	4,551.40	4,482.00	4,551.40	21.04	153.71	-118.76	-4,331.86	-6,352.37	7,966.96	7,792.28	174.69	45.607	
4,700.00	4,650.08	4,482.00	4,650.08	21.50	153.71	-118.76	-4,331.86	-6,352.37	7,975.87	7,800.76	175.11	45.549	
4,800.00	4,748.76	4,482.00	4,748.76	21.96	153.71	-118.76	-4,331.86	-6,352.37	7,986.02	7,810.52	175.50	45.505	
4,900.00	4,847.44	4,482.00	4,847.44	22.42	153.71	-118.76	-4,331.86	-6,352.37	7,997.41	7,821.54	175.86	45.475	
5,000.00	4,946.13	4,482.00	4,946.13	22.89	153.71	-118.76	-4,331.86	-6,352.37	8,010.02	7,833.82	176.20	45.460	
5,100.00	5,044.81	4,482.00	5,044.81	23.35	153.71	-118.76	-4,331.86	-6,352.37	8,023.87	7,847.36	176.51	45.458	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	4,452.00	4,518.00	23.81	153.71	-118.76	-4,331.86	-6,352.37	8,038.94	7,862.14	176.79	45.471		
5,300.00	5,242.18	4,452.00	4,518.00	24.27	153.71	-118.76	-4,331.86	-6,352.37	8,055.22	7,878.17	177.05	45.497		
5,400.00	5,340.86	4,452.00	4,518.00	24.74	153.71	-118.76	-4,331.86	-6,352.37	8,072.70	7,895.42	177.28	45.536		
5,500.00	5,439.54	4,452.00	4,518.00	25.20	153.71	-118.76	-4,331.86	-6,352.37	8,091.39	7,913.90	177.48	45.589		
5,600.00	5,538.22	4,452.00	4,518.00	25.66	153.71	-118.76	-4,331.86	-6,352.37	8,111.26	7,933.60	177.66	45.656		
5,700.00	5,636.91	4,452.00	4,518.00	26.13	153.71	-118.76	-4,331.86	-6,352.37	8,132.31	7,954.50	177.81	45.735		
5,800.00	5,735.59	4,452.00	4,518.00	26.59	153.71	-118.76	-4,331.86	-6,352.37	8,154.54	7,976.60	177.94	45.828		
5,900.00	5,834.27	4,452.00	4,518.00	27.06	153.71	-118.76	-4,331.86	-6,352.37	8,177.93	7,999.89	178.04	45.933		
6,000.00	5,932.95	4,452.00	4,518.00	27.52	153.71	-118.76	-4,331.86	-6,352.37	8,202.47	8,024.36	178.11	46.052		
6,100.00	6,031.64	4,452.00	4,518.00	27.98	153.71	-118.76	-4,331.86	-6,352.37	8,228.16	8,049.99	178.17	46.183		
6,200.00	6,130.32	4,452.00	4,518.00	28.45	153.71	-118.76	-4,331.86	-6,352.37	8,254.97	8,076.78	178.19	46.326		
6,300.00	6,229.00	4,452.00	4,518.00	28.91	153.71	-118.76	-4,331.86	-6,352.37	8,282.91	8,104.71	178.20	46.481		
6,400.00	6,327.69	4,452.00	4,518.00	29.38	153.71	-118.76	-4,331.86	-6,352.37	8,311.95	8,133.77	178.18	46.649		
6,500.00	6,426.37	4,452.00	4,518.00	29.84	153.71	-118.76	-4,331.86	-6,352.37	8,342.10	8,163.96	178.14	46.829		
6,600.00	6,525.05	4,452.00	4,518.00	30.31	153.71	-118.76	-4,331.86	-6,352.37	8,373.32	8,195.25	178.08	47.021		
6,700.00	6,623.18	4,452.00	4,518.00	30.77	153.71	-77.22	-4,331.86	-6,352.37	8,399.54	8,221.55	177.99	47.191		
6,800.00	6,718.58	4,452.00	4,518.00	31.22	153.71	-60.11	-4,331.86	-6,352.37	8,414.24	8,236.36	177.88	47.303		
6,900.00	6,808.91	4,452.00	4,518.00	31.66	153.71	-52.60	-4,331.86	-6,352.37	8,417.12	8,239.36	177.76	47.350		
7,000.00	6,891.95	4,452.00	4,518.00	32.07	153.71	-49.10	-4,331.86	-6,352.37	8,408.13	8,230.48	177.65	47.330		
7,100.00	6,965.65	4,452.00	4,518.00	32.51	153.71	-47.82	-4,331.86	-6,352.37	8,387.45	8,209.88	177.57	47.235		
7,200.00	7,028.20	4,452.00	4,518.00	33.02	153.71	-48.10	-4,331.86	-6,352.37	8,355.50	8,177.95	177.55	47.059		
7,300.00	7,078.04	4,452.00	4,518.00	33.68	153.71	-49.76	-4,331.86	-6,352.37	8,312.95	8,135.31	177.63	46.798		
7,400.00	7,113.97	4,452.00	4,518.00	34.52	153.71	-52.81	-4,331.86	-6,352.37	8,260.69	8,082.85	177.84	46.451		
7,500.00	7,135.09	4,452.00	4,518.00	35.53	153.71	-57.42	-4,331.86	-6,352.37	8,199.83	8,021.66	178.17	46.021		
7,600.00	7,140.96	4,452.00	4,518.00	36.68	153.71	-63.17	-4,331.86	-6,352.37	8,131.74	7,953.08	178.65	45.517		
7,700.00	7,140.53	4,452.00	4,518.00	37.99	153.71	-63.17	-4,331.86	-6,352.37	8,061.40	7,882.17	179.23	44.977		
7,800.00	7,140.09	4,452.00	4,518.00	39.45	153.71	-63.17	-4,331.86	-6,352.37	7,991.71	7,811.79	179.91	44.419		
7,900.00	7,139.66	4,452.00	4,518.00	41.06	153.71	-63.17	-4,331.86	-6,352.37	7,922.66	7,741.96	180.69	43.846		
8,000.00	7,139.23	4,452.00	4,518.00	42.80	153.71	-63.17	-4,331.86	-6,352.37	7,854.27	7,672.71	181.57	43.258		
8,100.00	7,138.79	4,452.00	4,518.00	44.65	153.71	-63.17	-4,331.86	-6,352.37	7,786.57	7,604.04	182.53	42.658		
8,200.00	7,138.36	4,452.00	4,518.00	46.60	153.71	-63.17	-4,331.86	-6,352.37	7,719.58	7,535.99	183.59	42.048		
8,300.00	7,137.93	4,452.00	4,518.00	48.65	153.71	-63.17	-4,331.86	-6,352.37	7,653.30	7,468.57	184.73	41.429		
8,400.00	7,137.49	4,452.00	4,518.00	50.77	153.71	-63.17	-4,331.86	-6,352.37	7,587.76	7,401.80	185.96	40.804		
8,500.00	7,137.06	4,452.00	4,518.00	52.95	153.71	-63.17	-4,331.86	-6,352.37	7,522.98	7,335.72	187.26	40.173		
8,600.00	7,136.62	4,452.00	4,518.00	55.20	153.71	-63.17	-4,331.86	-6,352.37	7,458.98	7,270.33	188.65	39.540		
8,700.00	7,136.19	4,452.00	4,518.00	57.51	153.71	-63.17	-4,331.86	-6,352.37	7,395.77	7,205.67	190.10	38.904		
8,800.00	7,135.76	4,452.00	4,518.00	59.85	153.71	-63.17	-4,331.86	-6,352.37	7,333.39	7,141.76	191.63	38.269		
8,900.00	7,135.32	4,452.00	4,518.00	62.24	153.71	-63.17	-4,331.86	-6,352.37	7,271.84	7,078.62	193.22	37.634		
9,000.00	7,134.89	4,452.00	4,518.00	64.67	153.71	-63.17	-4,331.86	-6,352.37	7,211.16	7,016.28	194.89	37.002		
9,100.00	7,134.45	4,452.00	4,518.00	67.13	153.71	-63.17	-4,331.86	-6,352.37	7,151.36	6,954.75	196.61	36.373		
9,200.00	7,134.02	4,452.00	4,518.00	69.62	153.71	-63.17	-4,331.86	-6,352.37	7,092.47	6,894.07	198.39	35.749		
9,300.00	7,133.59	4,452.00	4,518.00	72.14	153.71	-63.17	-4,331.86	-6,352.37	7,034.50	6,834.27	200.24	35.131		
9,400.00	7,133.15	4,452.00	4,518.00	74.68	153.71	-63.17	-4,331.86	-6,352.37	6,977.49	6,775.35	202.14	34.519		
9,500.00	7,132.72	4,452.00	4,518.00	77.24	153.71	-63.17	-4,331.86	-6,352.37	6,921.45	6,717.36	204.09	33.914		
9,600.00	7,132.29	4,452.00	4,518.00	79.83	153.71	-63.17	-4,331.86	-6,352.37	6,866.41	6,660.32	206.09	33.317		
9,700.00	7,131.85	4,452.00	4,518.00	82.42	153.71	-63.17	-4,331.86	-6,352.37	6,812.39	6,604.25	208.15	32.729		
9,800.00	7,131.42	4,452.00	4,518.00	85.04	153.71	-63.17	-4,331.86	-6,352.37	6,759.43	6,549.18	210.25	32.149		
9,900.00	7,130.98	4,452.00	4,518.00	87.67	153.71	-63.17	-4,331.86	-6,352.37	6,707.53	6,495.13	212.40	31.580		
10,000.00	7,130.55	4,452.00	4,518.00	90.31	153.71	-63.17	-4,331.86	-6,352.37	6,656.73	6,442.14	214.59	31.020		
10,100.00	7,130.12	4,452.00	4,518.00	92.97	153.71	-63.17	-4,331.86	-6,352.37	6,607.06	6,390.23	216.83	30.471		
10,200.00	7,129.68	4,452.00	4,518.00	95.63	153.71	-63.17	-4,331.86	-6,352.37	6,558.53	6,339.42	219.11	29.932		
10,300.00	7,129.25	4,452.00	4,518.00	98.31	153.71	-63.17	-4,331.86	-6,352.37	6,511.18	6,289.75	221.43	29.405		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MAURICE LEFFLER 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	4,452.00	4,518.00	101.00	153.71	-63.17	-4,331.86	-6,352.37	6,465.03	6,241.24	223.79	28.889		
10,500.00	7,128.38	4,452.00	4,518.00	103.69	153.71	-63.17	-4,331.86	-6,352.37	6,420.10	6,193.92	226.18	28.385		
10,600.00	7,127.95	4,452.00	4,518.00	106.39	153.71	-63.17	-4,331.86	-6,352.37	6,376.43	6,147.82	228.60	27.893		
10,700.00	7,127.51	4,452.00	4,518.00	109.10	153.71	-63.17	-4,331.86	-6,352.37	6,334.03	6,102.97	231.06	27.412		
10,800.00	7,127.08	4,452.00	4,518.00	111.82	153.71	-63.17	-4,331.86	-6,352.37	6,292.94	6,059.38	233.55	26.944		
10,900.00	7,126.65	4,452.00	4,518.00	114.54	153.71	-63.17	-4,331.86	-6,352.37	6,253.18	6,017.10	236.07	26.488		
11,000.00	7,126.21	4,452.00	4,518.00	117.27	153.71	-63.17	-4,331.86	-6,352.37	6,214.77	5,976.15	238.62	26.045		
11,100.00	7,125.78	4,452.00	4,518.00	120.01	153.71	-63.17	-4,331.86	-6,352.37	6,177.74	5,936.55	241.19	25.614		
11,200.00	7,125.35	4,452.00	4,518.00	122.75	153.71	-63.17	-4,331.86	-6,352.37	6,142.11	5,898.34	243.78	25.195		
11,300.00	7,124.91	4,452.00	4,518.00	125.49	153.71	-63.17	-4,331.86	-6,352.37	6,107.92	5,861.53	246.39	24.789		
11,400.00	7,124.48	4,452.00	4,518.00	128.24	153.71	-63.17	-4,331.86	-6,352.37	6,075.18	5,826.16	249.02	24.396		
11,500.00	7,124.04	4,452.00	4,518.00	131.00	153.71	-63.17	-4,331.86	-6,352.37	6,043.92	5,792.25	251.67	24.015		
11,600.00	7,123.61	4,452.00	4,518.00	133.75	153.71	-63.17	-4,331.86	-6,352.37	6,014.16	5,759.83	254.33	23.647		
11,700.00	7,123.18	4,452.00	4,518.00	136.52	153.71	-63.17	-4,331.86	-6,352.37	5,985.92	5,728.91	257.00	23.291		
11,800.00	7,122.74	4,452.00	4,518.00	139.28	153.71	-63.17	-4,331.86	-6,352.37	5,959.22	5,699.54	259.68	22.948		
11,900.00	7,122.31	4,452.00	4,518.00	142.05	153.71	-63.17	-4,331.86	-6,352.37	5,934.09	5,671.72	262.37	22.617		
12,000.00	7,121.88	4,452.00	4,518.00	144.82	153.71	-63.17	-4,331.86	-6,352.37	5,910.55	5,645.49	265.06	22.299		
12,100.00	7,121.44	4,452.00	4,518.00	147.59	153.71	-63.17	-4,331.86	-6,352.37	5,888.61	5,620.86	267.75	21.993		
12,200.00	7,121.01	4,452.00	4,518.00	150.37	153.71	-63.17	-4,331.86	-6,352.37	5,868.29	5,597.85	270.43	21.699		
12,300.00	7,120.57	4,452.00	4,518.00	153.15	153.71	-63.17	-4,331.86	-6,352.37	5,849.61	5,576.49	273.12	21.418		
12,400.00	7,120.14	4,452.00	4,518.00	155.93	153.71	-63.17	-4,331.86	-6,352.37	5,832.59	5,556.79	275.79	21.148		
12,500.00	7,119.71	4,452.00	4,518.00	158.72	153.71	-63.17	-4,331.86	-6,352.37	5,817.23	5,538.77	278.46	20.891		
12,600.00	7,119.27	4,452.00	4,518.00	161.50	153.71	-63.17	-4,331.86	-6,352.37	5,803.56	5,522.45	281.11	20.645		
12,700.00	7,118.84	4,452.00	4,518.00	164.29	153.71	-63.17	-4,331.86	-6,352.37	5,791.58	5,507.83	283.75	20.411		
12,800.00	7,118.41	4,452.00	4,518.00	167.08	153.71	-63.17	-4,331.86	-6,352.37	5,781.31	5,494.94	286.37	20.188		
12,900.00	7,117.97	4,452.00	4,518.00	169.88	153.71	-63.17	-4,331.86	-6,352.37	5,772.75	5,483.79	288.97	19.977		
13,000.00	7,117.54	4,452.00	4,518.00	172.67	153.71	-63.17	-4,331.86	-6,352.37	5,765.92	5,474.38	291.54	19.778		
13,100.00	7,117.10	4,452.00	4,518.00	175.47	153.71	-63.17	-4,331.86	-6,352.37	5,760.81	5,466.72	294.09	19.589		
13,200.00	7,116.67	4,452.00	4,518.00	178.27	153.71	-63.17	-4,331.86	-6,352.37	5,757.43	5,460.83	296.60	19.411		
13,300.00	7,116.24	4,452.00	4,518.00	181.07	153.71	-63.17	-4,331.86	-6,352.37	5,755.79	5,456.71	299.09	19.244		
13,344.38	7,116.04	4,452.00	4,518.00	182.31	153.71	-63.17	-4,331.86	-6,352.37	5,755.62	5,455.44	300.18	19.174 CC		
13,400.00	7,115.80	4,452.00	4,518.00	183.87	153.71	-63.17	-4,331.86	-6,352.37	5,755.89	5,454.35	301.54	19.088		
13,500.00	7,115.37	4,452.00	4,518.00	186.67	153.71	-63.17	-4,331.86	-6,352.37	5,757.73	5,453.77	303.96	18.943 ES		
13,600.00	7,114.93	4,452.00	4,518.00	189.47	153.71	-63.17	-4,331.86	-6,352.37	5,761.30	5,454.96	306.33	18.807		
13,700.00	7,114.50	4,452.00	4,518.00	192.28	153.71	-63.17	-4,331.86	-6,352.37	5,766.60	5,457.93	308.67	18.682		
13,800.00	7,114.07	4,452.00	4,518.00	195.09	153.71	-63.17	-4,331.86	-6,352.37	5,773.63	5,462.67	310.96	18.567		
13,900.00	7,113.63	4,452.00	4,518.00	197.89	153.71	-63.17	-4,331.86	-6,352.37	5,782.38	5,469.17	313.21	18.462		
14,000.00	7,113.20	4,452.00	4,518.00	200.70	153.71	-63.17	-4,331.86	-6,352.37	5,792.84	5,477.43	315.41	18.366		
14,100.00	7,112.77	4,452.00	4,518.00	203.51	153.71	-63.17	-4,331.86	-6,352.37	5,805.01	5,487.45	317.56	18.280		
14,200.00	7,112.33	4,452.00	4,518.00	206.32	153.71	-63.17	-4,331.86	-6,352.37	5,818.87	5,499.21	319.67	18.203		
14,300.00	7,111.90	4,452.00	4,518.00	209.13	153.71	-63.17	-4,331.86	-6,352.37	5,834.42	5,512.70	321.72	18.135		
14,400.00	7,111.46	4,452.00	4,518.00	211.95	153.71	-63.17	-4,331.86	-6,352.37	5,851.63	5,527.91	323.72	18.076		
14,500.00	7,111.03	4,452.00	4,518.00	214.76	153.71	-63.17	-4,331.86	-6,352.37	5,870.49	5,544.82	325.67	18.026		
14,600.00	7,110.60	4,452.00	4,518.00	217.58	153.71	-63.17	-4,331.86	-6,352.37	5,890.99	5,563.43	327.56	17.984		
14,700.00	7,110.16	4,452.00	4,518.00	220.39	153.71	-63.17	-4,331.86	-6,352.37	5,913.11	5,583.71	329.40	17.951		
14,800.00	7,109.73	4,452.00	4,518.00	223.21	153.71	-63.17	-4,331.86	-6,352.37	5,936.84	5,605.65	331.18	17.926		
14,900.00	7,109.30	4,452.00	4,518.00	226.03	153.71	-63.17	-4,331.86	-6,352.37	5,962.14	5,629.23	332.91	17.909		
14,969.16	7,109.00	4,452.00	4,518.00	227.97	153.71	-63.17	-4,331.86	-6,352.37	5,980.56	5,646.49	334.07	17.902 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-108.26	-2,909.21	-8,816.00	9,375.20					
100.00	100.00	1,414.34	1,344.17	3.28	7.57	-108.24	-2,904.90	-8,812.10	9,361.59	9,351.31	10.28	910.572		
200.00	200.00	1,471.00	1,400.14	3.34	7.85	-108.21	-2,897.94	-8,806.76	9,348.66	9,338.10	10.56	885.348		
300.00	300.00	1,548.32	1,458.32	3.44	8.39	-108.14	-2,879.89	-8,792.67	9,336.12	9,329.16	6.96	1,340.629		
400.00	400.00	1,660.00	1,586.91	3.60	8.77	-108.12	-2,875.39	-8,788.66	9,322.94	9,311.32	11.62	802.201		
500.00	500.00	1,707.85	1,634.22	3.81	9.00	-108.10	-2,870.25	-8,783.66	9,310.08	9,298.06	12.01	774.962		
600.00	600.00	1,755.00	1,680.96	4.05	9.23	-108.08	-2,865.48	-8,779.74	9,298.57	9,286.12	12.44	747.311		
700.00	699.98	1,940.40	1,864.38	4.32	10.15	-99.09	-2,844.03	-8,763.41	9,286.91	9,273.37	13.53	686.252		
800.00	799.84	2,278.75	2,197.95	4.62	11.92	-99.25	-2,798.74	-8,729.60	9,274.30	9,258.91	15.40	602.369		
900.00	899.45	2,792.00	2,381.67	4.94	14.85	-99.52	-2,772.84	-8,708.13	9,260.66	9,250.92	9.74	950.909		
1,000.00	998.70	2,542.09	2,456.92	5.28	13.37	-99.81	-2,762.45	-8,698.57	9,246.53	9,229.27	17.27	535.544		
1,100.00	1,097.50	2,569.07	2,483.48	5.64	13.51	-100.00	-2,759.03	-8,695.32	9,233.63	9,215.90	17.73	520.711		
1,200.00	1,196.18	2,758.00	2,669.49	6.00	14.55	-100.09	-2,735.14	-8,672.50	9,220.88	9,201.91	18.98	485.936		
1,300.00	1,294.87	2,792.00	2,702.94	6.38	14.74	-100.11	-2,730.69	-8,668.30	9,207.82	9,188.31	19.51	471.929		
1,400.00	1,393.55	2,792.00	2,702.94	6.77	14.74	-100.11	-2,730.69	-8,668.30	9,195.71	9,175.81	19.90	462.113		
1,500.00	1,492.23	2,832.94	2,743.30	7.17	14.95	-100.13	-2,725.65	-8,663.65	9,184.14	9,163.66	20.48	448.336		
1,600.00	1,590.91	2,887.00	2,796.81	7.58	15.23	-100.16	-2,719.87	-8,658.61	9,174.08	9,152.94	21.14	433.985		
1,700.00	1,689.60	1,700.00	2,795.33	8.00	9.28	-100.16	-2,720.04	-8,658.74	9,164.18	9,147.96	16.21	565.198		
1,800.00	1,788.28	3,053.86	2,961.81	8.42	16.10	-100.24	-2,700.53	-8,643.11	9,154.37	9,131.62	22.74	402.558		
1,900.00	1,886.96	3,200.35	3,106.43	8.84	16.87	-100.31	-2,681.95	-8,629.05	9,143.91	9,120.06	23.85	383.395		
2,000.00	1,985.64	3,262.00	3,167.33	9.27	17.20	-100.34	-2,674.46	-8,623.06	9,133.54	9,108.97	24.57	371.766		
2,100.00	2,084.33	3,393.62	3,297.33	9.71	17.89	-100.40	-2,658.57	-8,609.97	9,122.94	9,097.33	25.61	356.198		
2,200.00	2,183.01	3,455.90	3,358.87	10.15	18.22	-100.43	-2,651.04	-8,603.94	9,112.64	9,086.30	26.34	345.963		
2,300.00	2,281.69	4,109.00	4,000.00	10.59	21.92	-100.67	-2,555.76	-8,529.49	9,102.04	9,072.17	29.87	304.706		
2,400.00	2,380.38	4,488.00	4,368.51	11.03	24.30	-100.80	-2,492.08	-8,468.95	9,083.81	9,051.67	32.13	282.681		
2,500.00	2,479.06	4,543.12	4,421.99	11.47	24.65	-100.82	-2,483.09	-8,459.06	9,064.56	9,031.70	32.86	275.869		
2,600.00	2,577.74	4,583.00	4,460.81	11.92	24.90	-100.84	-2,476.85	-8,452.39	9,046.29	9,012.77	33.51	269.931		
2,700.00	2,676.42	4,583.00	4,460.81	12.36	24.90	-100.84	-2,476.85	-8,452.39	9,028.76	8,994.78	33.98	265.677		
2,800.00	2,775.11	4,583.00	4,460.81	12.81	24.90	-100.84	-2,476.85	-8,452.39	9,012.31	8,977.86	34.45	261.570		
2,900.00	2,873.79	4,623.95	4,500.83	13.26	25.14	-100.86	-2,470.87	-8,446.12	8,996.38	8,961.27	35.11	256.220		
3,000.00	2,972.47	4,678.00	4,553.95	13.72	25.46	-100.89	-2,463.90	-8,439.03	8,982.04	8,946.21	35.83	250.686		
3,100.00	3,071.15	4,678.00	4,553.95	14.17	25.46	-100.89	-2,463.90	-8,439.03	8,967.80	8,931.50	36.30	247.039		
3,200.00	3,169.84	4,678.00	4,553.95	14.62	25.46	-100.89	-2,463.90	-8,439.03	8,954.66	8,917.89	36.77	243.525		
3,300.00	3,268.52	4,704.62	4,580.20	15.08	25.60	-100.90	-2,460.79	-8,435.91	8,942.52	8,905.16	37.36	239.373		
3,400.00	3,367.20	4,742.02	4,617.13	15.53	25.80	-100.93	-2,456.64	-8,431.67	8,931.08	8,893.08	37.99	235.071		
3,500.00	3,465.89	4,772.00	4,646.77	15.99	25.96	-100.95	-2,453.50	-8,428.41	8,920.34	8,881.74	38.59	231.130		
3,600.00	3,564.57	4,832.18	4,706.32	16.44	26.27	-100.98	-2,447.54	-8,422.12	8,910.17	8,870.85	39.33	226.573		
3,700.00	3,663.25	4,867.00	4,740.81	16.90	26.45	-101.01	-2,444.26	-8,418.61	8,900.60	8,860.66	39.94	222.822		
3,800.00	3,761.93	4,912.64	4,786.05	17.36	26.68	-101.04	-2,440.15	-8,414.26	8,891.67	8,851.07	40.61	218.961		
3,900.00	3,860.62	4,961.00	4,834.06	17.82	26.92	-101.07	-2,436.04	-8,410.06	8,883.52	8,842.24	41.28	215.183		
4,000.00	3,959.30	4,997.17	4,869.98	18.28	27.09	-101.10	-2,433.11	-8,407.11	8,875.99	8,834.09	41.90	211.829		
4,100.00	4,057.98	5,056.00	4,928.46	18.74	27.37	-101.14	-2,428.54	-8,402.47	8,868.98	8,826.36	42.62	208.099		
4,200.00	4,156.67	5,056.00	4,928.46	19.20	27.37	-101.14	-2,428.54	-8,402.47	8,862.75	8,819.68	43.07	205.753		
4,300.00	4,255.35	5,108.06	4,980.26	19.66	27.61	-101.18	-2,424.80	-8,398.83	8,857.07	8,813.32	43.76	202.418		
4,400.00	4,354.03	5,150.00	5,022.04	20.12	27.80	-101.21	-2,422.06	-8,396.47	8,852.43	8,808.03	44.39	199.413		
4,500.00	4,452.71	5,174.80	5,046.76	20.58	27.91	-101.23	-2,420.55	-8,395.22	8,848.47	8,803.52	44.95	196.858		
4,600.00	4,551.40	5,243.00	5,114.77	21.04	28.20	-101.29	-2,416.83	-8,391.86	8,845.08	8,799.38	45.69	193.574		
4,700.00	4,650.08	5,243.00	5,114.77	21.50	28.20	-101.29	-2,416.83	-8,391.86	8,842.39	8,796.26	46.14	191.661		
4,800.00	4,748.76	5,301.73	5,173.39	21.96	28.45	-101.34	-2,414.11	-8,389.40	8,840.21	8,793.38	46.83	188.766		
4,900.00	4,847.44	5,336.00	5,207.61	22.42	28.59	-101.37	-2,412.74	-8,388.31	8,838.96	8,791.54	47.42	186.403		
5,000.00	4,946.13	5,378.11	5,249.68	22.89	28.75	-101.40	-2,411.32	-8,387.18	8,838.42	8,790.39	48.03	184.004		
5,039.94	4,985.55	5,397.13	5,268.69	23.07	28.82	-101.42	-2,410.80	-8,386.70	8,838.37	8,790.08	48.29	183.031		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	5,044.81	5,430.00	5,301.54	23.35	28.95	-101.45	-2,410.07	-8,385.91	8,838.48	8,789.79	48.69	181.525		
5,200.00	5,143.49	5,492.80	5,364.32	23.81	29.19	-101.51	-2,408.77	-8,384.62	8,839.04	8,789.65	49.39	178.954		
5,300.00	5,242.18	5,561.95	5,433.44	24.27	29.45	-101.58	-2,407.08	-8,383.54	8,839.96	8,789.84	50.12	176.366		
5,400.00	5,340.86	5,631.21	5,502.66	24.74	29.71	-101.64	-2,405.12	-8,382.80	8,841.23	8,790.38	50.85	173.859		
5,500.00	5,439.54	5,711.00	5,582.41	25.20	30.01	-101.70	-2,402.52	-8,382.39	8,842.87	8,791.24	51.63	171.276		
5,600.00	5,538.22	5,769.41	5,640.79	25.66	30.23	-101.75	-2,400.52	-8,382.34	8,844.85	8,792.54	52.31	169.081		
5,700.00	5,636.91	5,838.17	5,709.51	26.13	30.48	-101.81	-2,398.24	-8,382.49	8,847.19	8,794.15	53.04	166.807		
5,800.00	5,735.59	5,906.91	5,778.21	26.59	30.74	-101.87	-2,396.06	-8,382.85	8,849.89	8,796.13	53.77	164.603		
5,900.00	5,834.27	5,995.00	5,866.26	27.06	31.07	-101.94	-2,393.39	-8,383.63	8,852.98	8,798.40	54.58	162.205		
6,000.00	5,932.95	6,072.39	5,943.61	27.52	31.35	-102.00	-2,391.16	-8,384.43	8,856.26	8,800.92	55.34	160.026		
6,100.00	6,031.64	6,180.10	6,051.28	27.98	31.75	-102.09	-2,388.19	-8,385.39	8,859.50	8,803.26	56.24	157.520		
6,200.00	6,130.32	6,287.89	6,159.03	28.45	32.15	-102.18	-2,385.39	-8,386.18	8,862.67	8,805.53	57.15	155.088		
6,300.00	6,229.00	6,397.04	6,268.13	28.91	32.56	-102.27	-2,382.04	-8,387.05	8,865.76	8,807.69	58.06	152.688		
6,400.00	6,327.69	6,506.45	6,377.44	29.38	32.98	-102.36	-2,377.69	-8,388.18	8,868.75	8,809.76	58.98	150.358		
6,500.00	6,426.37	6,609.30	6,540.06	29.84	33.62	-102.47	-2,369.30	-8,390.06	8,871.49	8,811.32	60.17	147.440		
6,600.00	6,525.05	6,889.61	6,759.82	30.31	34.51	-102.60	-2,353.86	-8,391.55	8,873.06	8,811.42	61.63	143.965		
6,700.00	6,623.18	6,934.77	6,804.85	30.77	34.71	-62.69	-2,350.38	-8,392.01	8,867.12	8,804.84	62.28	142.367		
6,800.00	6,718.58	7,006.99	6,876.83	31.22	35.01	-47.05	-2,344.58	-8,392.84	8,846.84	8,783.80	63.05	140.324		
6,900.00	6,808.91	7,075.68	6,945.28	31.66	35.30	-40.98	-2,338.93	-8,393.89	8,812.74	8,748.97	63.77	138.194		
7,000.00	6,891.95	7,129.00	6,998.40	32.07	35.52	-39.01	-2,334.45	-8,394.87	8,765.64	8,701.25	64.40	136.114		
7,100.00	6,965.65	7,193.04	7,062.22	32.51	35.78	-39.65	-2,329.28	-8,396.14	8,706.69	8,641.63	65.06	133.835		
7,200.00	7,028.20	7,239.27	7,108.31	33.02	35.97	-42.57	-2,325.87	-8,397.04	8,637.31	8,571.70	65.61	131.647		
7,300.00	7,078.04	7,276.39	7,145.34	33.68	36.12	-48.25	-2,323.33	-8,397.76	8,559.18	8,493.07	66.11	129.469		
7,400.00	7,113.97	7,303.50	7,172.38	34.52	36.23	-57.83	-2,321.58	-8,398.28	8,474.17	8,407.62	66.56	127.323		
7,500.00	7,135.09	7,319.95	7,188.80	35.53	36.30	-72.93	-2,320.57	-8,398.60	8,384.35	8,317.40	66.95	125.233		
7,600.00	7,140.96	7,325.41	7,194.25	36.68	36.32	-91.63	-2,320.24	-8,398.70	8,291.90	8,224.61	67.29	123.223		
7,700.00	7,140.53	7,326.32	7,195.16	37.99	36.33	-91.64	-2,320.19	-8,398.72	8,199.02	8,131.39	67.63	121.228		
7,800.00	7,140.09	7,327.23	7,196.07	39.45	36.33	-91.66	-2,320.14	-8,398.74	8,106.31	8,038.29	68.02	119.181		
7,900.00	7,139.66	7,328.14	7,196.98	41.06	36.33	-91.68	-2,320.08	-8,398.75	8,013.78	7,945.33	68.44	117.086		
8,000.00	7,139.23	7,329.05	7,197.89	42.80	36.34	-91.69	-2,320.03	-8,398.77	7,921.42	7,852.51	68.91	114.945		
8,100.00	7,138.79	7,329.96	7,198.80	44.65	36.34	-91.71	-2,319.97	-8,398.79	7,829.26	7,759.83	69.43	112.761		
8,200.00	7,138.36	7,330.87	7,199.71	46.60	36.34	-91.73	-2,319.92	-8,398.81	7,737.29	7,667.29	70.00	110.539		
8,300.00	7,137.93	7,331.79	7,200.61	48.65	36.35	-91.75	-2,319.87	-8,398.82	7,645.52	7,574.91	70.61	108.281		
8,400.00	7,137.49	7,332.70	7,201.52	50.77	36.35	-91.76	-2,319.81	-8,398.84	7,553.96	7,482.69	71.27	105.992		
8,500.00	7,137.06	7,333.61	7,202.43	52.95	36.36	-91.78	-2,319.76	-8,398.86	7,462.62	7,390.63	71.98	103.675		
8,600.00	7,136.62	7,334.52	7,203.34	55.20	36.36	-91.80	-2,319.71	-8,398.88	7,371.50	7,298.75	72.74	101.336		
8,700.00	7,136.19	7,335.43	7,204.25	57.51	36.36	-91.81	-2,319.65	-8,398.89	7,280.61	7,207.05	73.56	98.977		
8,800.00	7,135.76	7,336.34	7,205.16	59.85	36.37	-91.83	-2,319.60	-8,398.91	7,189.97	7,115.54	74.43	96.605		
8,900.00	7,135.32	7,337.25	7,206.07	62.24	36.37	-91.85	-2,319.55	-8,398.93	7,099.57	7,024.22	75.35	94.223		
9,000.00	7,134.89	7,338.16	7,206.98	64.67	36.37	-91.87	-2,319.49	-8,398.95	7,009.44	6,933.11	76.33	91.835		
9,100.00	7,134.45	7,339.07	7,207.89	67.13	36.38	-91.88	-2,319.44	-8,398.96	6,919.58	6,842.22	77.36	89.447		
9,200.00	7,134.02	7,339.99	7,208.80	69.62	36.38	-91.90	-2,319.39	-8,398.98	6,830.00	6,751.55	78.45	87.062		
9,300.00	7,133.59	7,340.90	7,209.71	72.14	36.38	-91.92	-2,319.33	-8,399.00	6,740.71	6,661.11	79.60	84.684		
9,400.00	7,133.15	7,341.81	7,210.62	74.68	36.39	-91.93	-2,319.28	-8,399.02	6,651.73	6,570.92	80.81	82.318		
9,500.00	7,132.72	7,342.72	7,211.53	77.24	36.39	-91.95	-2,319.23	-8,399.03	6,563.06	6,480.99	82.07	79.966		
9,600.00	7,132.29	7,343.63	7,212.44	79.83	36.40	-91.97	-2,319.18	-8,399.05	6,474.73	6,391.33	83.40	77.634		
9,700.00	7,131.85	7,344.54	7,213.35	82.42	36.40	-91.98	-2,319.12	-8,399.07	6,386.74	6,301.95	84.79	75.324		
9,800.00	7,131.42	7,345.46	7,214.26	85.04	36.40	-92.00	-2,319.07	-8,399.08	6,299.10	6,212.86	86.24	73.039		
9,900.00	7,130.98	7,346.37	7,215.17	87.67	36.41	-92.02	-2,319.02	-8,399.10	6,211.84	6,124.08	87.76	70.782		
10,000.00	7,130.55	7,347.28	7,216.08	90.31	36.41	-92.04	-2,318.97	-8,399.12	6,124.97	6,035.63	89.34	68.556		
10,100.00	7,130.12	7,348.19	7,216.99	92.97	36.41	-92.05	-2,318.92	-8,399.14	6,038.51	5,947.52	90.99	66.363		
10,200.00	7,129.68	7,349.10	7,217.90	95.63	36.42	-92.07	-2,318.86	-8,399.15	5,952.47	5,859.76	92.71	64.206		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,129.25	7,350.01	7,218.81	98.31	36.42	-92.09	-2,318.81	-8,399.17	5,866.87	5,772.38	94.50	62.087		
10,400.00	7,128.82	7,350.93	7,219.72	101.00	36.43	-92.10	-2,318.76	-8,399.19	5,781.73	5,685.38	96.35	60.006		
10,500.00	7,128.38	7,351.84	7,220.63	103.69	36.43	-92.12	-2,318.71	-8,399.21	5,697.08	5,598.80	98.28	57.967		
10,600.00	7,127.95	7,352.75	7,221.54	106.39	36.43	-92.14	-2,318.66	-8,399.22	5,612.93	5,512.65	100.28	55.970		
10,700.00	7,127.51	7,353.66	7,222.45	109.10	36.44	-92.16	-2,318.61	-8,399.24	5,529.31	5,426.95	102.36	54.017		
10,800.00	7,127.08	7,354.58	7,223.36	111.82	36.44	-92.17	-2,318.56	-8,399.26	5,446.24	5,341.73	104.52	52.109		
10,900.00	7,126.65	7,355.49	7,224.27	114.54	36.44	-92.19	-2,318.50	-8,399.28	5,363.75	5,257.00	106.75	50.246		
11,000.00	7,126.21	7,356.40	7,225.19	117.27	36.45	-92.21	-2,318.45	-8,399.29	5,281.87	5,172.80	109.06	48.429		
11,100.00	7,125.78	7,357.31	7,226.10	120.01	36.45	-92.22	-2,318.40	-8,399.31	5,200.61	5,089.15	111.46	46.659		
11,200.00	7,125.35	7,358.23	7,227.01	122.75	36.46	-92.24	-2,318.35	-8,399.33	5,120.03	5,006.08	113.94	44.936		
11,300.00	7,124.91	7,359.14	7,227.92	125.49	36.46	-92.26	-2,318.30	-8,399.34	5,040.13	4,923.62	116.51	43.261		
11,400.00	7,124.48	7,360.05	7,228.83	128.24	36.46	-92.28	-2,318.25	-8,399.36	4,960.97	4,841.81	119.16	41.633		
11,500.00	7,124.04	7,360.96	7,229.74	131.00	36.47	-92.29	-2,318.20	-8,399.38	4,882.57	4,760.66	121.90	40.054		
11,600.00	7,123.61	7,361.88	7,230.65	133.75	36.47	-92.31	-2,318.15	-8,399.40	4,804.97	4,680.23	124.73	38.522		
11,700.00	7,123.18	7,362.79	7,231.56	136.52	36.47	-92.33	-2,318.10	-8,399.41	4,728.21	4,600.55	127.66	37.038		
11,800.00	7,122.74	7,363.70	7,232.48	139.28	36.48	-92.34	-2,318.05	-8,399.43	4,652.33	4,521.66	130.68	35.602		
11,900.00	7,122.31	7,382.00	7,250.74	142.05	36.55	-92.69	-2,317.07	-8,399.78	4,577.43	4,443.57	133.86	34.195		
12,000.00	7,121.88	7,382.00	7,250.74	144.82	36.55	-92.69	-2,317.07	-8,399.78	4,503.45	4,366.38	137.07	32.855		
12,100.00	7,121.44	7,382.00	7,250.74	147.59	36.55	-92.69	-2,317.07	-8,399.78	4,430.50	4,290.12	140.37	31.562		
12,200.00	7,121.01	7,382.00	7,250.74	150.37	36.55	-92.69	-2,317.07	-8,399.78	4,358.61	4,214.84	143.78	30.315		
12,300.00	7,120.57	7,382.00	7,250.74	153.15	36.55	-92.69	-2,317.07	-8,399.78	4,287.86	4,140.58	147.28	29.114		
12,400.00	7,120.14	7,382.00	7,250.74	155.93	36.55	-92.69	-2,317.07	-8,399.78	4,218.28	4,067.41	150.88	27.958		
12,500.00	7,119.71	7,382.00	7,250.74	158.72	36.55	-92.69	-2,317.07	-8,399.78	4,149.95	3,995.38	154.58	26.847		
12,600.00	7,119.27	7,382.00	7,250.74	161.50	36.55	-92.69	-2,317.07	-8,399.78	4,082.93	3,924.56	158.37	25.780		
12,700.00	7,118.84	7,382.00	7,250.74	164.29	36.55	-92.69	-2,317.07	-8,399.78	4,017.28	3,855.01	162.27	24.757		
12,800.00	7,118.41	7,382.00	7,250.74	167.08	36.55	-92.69	-2,317.07	-8,399.78	3,953.07	3,786.81	166.26	23.777		
12,900.00	7,117.97	7,382.00	7,250.74	169.88	36.55	-92.69	-2,317.07	-8,399.78	3,890.37	3,720.03	170.34	22.839		
13,000.00	7,117.54	7,382.00	7,250.74	172.67	36.55	-92.69	-2,317.07	-8,399.78	3,829.25	3,654.74	174.51	21.943		
13,100.00	7,117.10	7,382.00	7,250.74	175.47	36.55	-92.69	-2,317.07	-8,399.78	3,769.79	3,591.03	178.77	21.088		
13,200.00	7,116.67	7,382.00	7,250.74	178.27	36.55	-92.69	-2,317.07	-8,399.78	3,712.08	3,528.98	183.10	20.273		
13,300.00	7,116.24	7,382.00	7,250.74	181.07	36.55	-92.69	-2,317.07	-8,399.78	3,656.20	3,468.68	187.51	19.498		
13,400.00	7,115.80	7,387.12	7,245.63	183.87	36.57	-92.59	-2,317.34	-8,399.68	3,602.21	3,410.20	192.01	18.760		
13,500.00	7,115.37	7,385.85	7,246.90	186.67	36.57	-92.62	-2,317.27	-8,399.70	3,550.23	3,353.69	196.54	18.063		
13,600.00	7,114.93	7,384.58	7,248.17	189.47	36.56	-92.64	-2,317.20	-8,399.73	3,500.34	3,299.22	201.12	17.404		
13,700.00	7,114.50	7,383.30	7,249.44	192.28	36.56	-92.66	-2,317.14	-8,399.75	3,452.62	3,246.89	205.73	16.782		
13,800.00	7,114.07	7,382.03	7,250.71	195.09	36.55	-92.69	-2,317.07	-8,399.78	3,407.17	3,196.80	210.37	16.196		
13,900.00	7,113.63	7,383.24	7,251.98	197.89	36.56	-92.71	-2,317.00	-8,399.80	3,364.07	3,149.04	215.03	15.644		
14,000.00	7,113.20	7,384.51	7,253.25	200.70	36.56	-92.73	-2,316.93	-8,399.83	3,323.43	3,103.74	219.69	15.128		
14,100.00	7,112.77	7,385.79	7,254.52	203.51	36.57	-92.76	-2,316.87	-8,399.85	3,285.33	3,061.00	224.33	14.645		
14,200.00	7,112.33	7,387.06	7,255.80	206.32	36.57	-92.78	-2,316.80	-8,399.87	3,249.86	3,020.93	228.93	14.196		
14,300.00	7,111.90	7,388.33	7,257.07	209.13	36.58	-92.81	-2,316.73	-8,399.90	3,217.11	2,983.63	233.48	13.779		
14,400.00	7,111.46	7,389.61	7,258.34	211.95	36.58	-92.83	-2,316.67	-8,399.92	3,187.16	2,949.21	237.95	13.394		
14,500.00	7,111.03	7,390.88	7,259.61	214.76	36.59	-92.85	-2,316.60	-8,399.95	3,160.09	2,917.76	242.33	13.040		
14,600.00	7,110.60	7,392.15	7,260.88	217.58	36.59	-92.88	-2,316.53	-8,399.97	3,135.97	2,889.38	246.59	12.717		
14,700.00	7,110.16	7,393.43	7,262.15	220.39	36.60	-92.90	-2,316.47	-8,399.99	3,114.89	2,864.16	250.73	12.423		
14,800.00	7,109.73	7,394.70	7,263.42	223.21	36.60	-92.93	-2,316.40	-8,400.02	3,096.88	2,842.18	254.70	12.159		
14,900.00	7,109.30	7,395.97	7,264.69	226.03	36.61	-92.95	-2,316.33	-8,400.04	3,082.02	2,823.51	258.51	11.922		
14,969.16	7,109.00	7,396.85	7,265.57	227.97	36.61	-92.97	-2,316.29	-8,400.06	3,073.60	2,812.57	261.03	11.775	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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-83.28	1,077.85	-9,145.29	9,208.64					
100.00	100.00	70.00	100.00	3.28	3.50	-83.28	1,077.85	-9,145.29	9,208.59	9,201.81	6.78	1,357.217		
200.00	200.00	170.00	200.00	3.34	5.32	-83.28	1,077.85	-9,145.29	9,208.59	9,199.94	8.66	1,063.650		
300.00	300.00	270.00	300.00	3.44	8.35	-83.28	1,077.85	-9,145.29	9,208.59	9,196.80	11.80	780.641		
400.00	400.00	370.00	400.00	3.60	11.64	-83.28	1,077.85	-9,145.29	9,208.59	9,193.35	15.25	603.996		
500.00	500.00	470.00	500.00	3.81	15.02	-83.28	1,077.85	-9,145.29	9,208.59	9,189.76	18.83	489.022		
600.00	600.00	570.00	600.00	4.05	18.45	-83.28	1,077.85	-9,145.29	9,208.59	9,186.10	22.49	409.390		
700.00	699.98	669.98	699.98	4.32	21.89	-74.15	1,077.85	-9,145.29	9,208.12	9,181.91	26.21	351.349		
800.00	799.84	769.84	799.84	4.62	25.34	-74.21	1,077.85	-9,145.29	9,206.69	9,176.73	29.96	307.342		
900.00	899.45	869.45	899.45	4.94	28.79	-74.30	1,077.85	-9,145.29	9,204.31	9,170.59	33.72	272.924		
1,000.00	998.70	968.70	998.70	5.28	32.24	-74.44	1,077.85	-9,145.29	9,201.01	9,163.50	37.51	245.325		
1,100.00	1,097.50	1,067.50	1,097.50	5.64	35.67	-74.58	1,077.85	-9,145.29	9,196.84	9,155.55	41.29	222.732		
1,200.00	1,196.18	1,166.18	1,196.18	6.00	39.10	-74.68	1,077.85	-9,145.29	9,192.50	9,147.41	45.09	203.865		
1,300.00	1,294.87	1,264.87	1,294.87	6.38	42.54	-74.78	1,077.85	-9,145.29	9,188.19	9,139.28	48.91	187.874		
1,400.00	1,393.55	1,363.55	1,393.55	6.77	45.97	-74.87	1,077.85	-9,145.29	9,183.90	9,131.16	52.73	174.156		
1,500.00	1,492.23	1,462.23	1,492.23	7.17	49.41	-74.97	1,077.85	-9,145.29	9,179.64	9,123.07	56.57	162.266		
1,600.00	1,590.91	1,560.91	1,590.91	7.58	52.85	-75.06	1,077.85	-9,145.29	9,175.40	9,114.98	60.42	151.866		
1,700.00	1,689.60	1,659.60	1,689.60	8.00	56.29	-75.16	1,077.85	-9,145.29	9,171.19	9,106.92	64.27	142.695		
1,800.00	1,788.28	1,758.28	1,788.28	8.42	59.73	-75.26	1,077.85	-9,145.29	9,167.01	9,098.88	68.13	134.550		
1,900.00	1,886.96	1,856.96	1,886.96	8.84	63.17	-75.35	1,077.85	-9,145.29	9,162.86	9,090.86	72.00	127.269		
2,000.00	1,985.64	1,955.64	1,985.64	9.27	66.61	-75.45	1,077.85	-9,145.29	9,158.73	9,082.86	75.87	120.723		
2,100.00	2,084.33	2,054.33	2,084.33	9.71	70.05	-75.55	1,077.85	-9,145.29	9,154.63	9,074.89	79.74	114.807		
2,200.00	2,183.01	2,153.01	2,183.01	10.15	73.49	-75.64	1,077.85	-9,145.29	9,150.55	9,066.94	83.62	109.435		
2,300.00	2,281.69	2,251.69	2,281.69	10.59	76.93	-75.74	1,077.85	-9,145.29	9,146.51	9,059.01	87.50	104.536		
2,400.00	2,380.38	2,350.38	2,380.38	11.03	80.37	-75.84	1,077.85	-9,145.29	9,142.48	9,051.11	91.38	100.050		
2,500.00	2,479.06	2,449.06	2,479.06	11.47	83.82	-75.94	1,077.85	-9,145.29	9,138.49	9,043.23	95.26	95.928		
2,600.00	2,577.74	2,547.74	2,577.74	11.92	87.26	-76.03	1,077.85	-9,145.29	9,134.52	9,035.37	99.15	92.127		
2,700.00	2,676.42	2,646.42	2,676.42	12.36	90.70	-76.13	1,077.85	-9,145.29	9,130.58	9,027.54	103.04	88.612		
2,800.00	2,775.11	2,745.11	2,775.11	12.81	94.14	-76.23	1,077.85	-9,145.29	9,126.67	9,019.74	106.93	85.351		
2,900.00	2,873.79	2,843.79	2,873.79	13.26	97.59	-76.33	1,077.85	-9,145.29	9,122.78	9,011.96	110.82	82.319		
3,000.00	2,972.47	2,942.47	2,972.47	13.72	101.03	-76.42	1,077.85	-9,145.29	9,118.92	9,004.21	114.72	79.491		
3,100.00	3,071.15	3,041.15	3,071.15	14.17	104.47	-76.52	1,077.85	-9,145.29	9,115.09	8,996.48	118.61	76.849		
3,200.00	3,169.84	3,139.84	3,169.84	14.62	107.92	-76.62	1,077.85	-9,145.29	9,111.29	8,988.78	122.51	74.374		
3,300.00	3,268.52	3,238.52	3,268.52	15.08	111.36	-76.72	1,077.85	-9,145.29	9,107.51	8,981.11	126.40	72.051		
3,400.00	3,367.20	3,337.20	3,367.20	15.53	114.80	-76.81	1,077.85	-9,145.29	9,103.76	8,973.46	130.30	69.867		
3,500.00	3,465.89	3,435.89	3,465.89	15.99	118.25	-76.91	1,077.85	-9,145.29	9,100.04	8,965.84	134.20	67.810		
3,600.00	3,564.57	3,534.57	3,564.57	16.44	121.69	-77.01	1,077.85	-9,145.29	9,096.34	8,958.24	138.10	65.868		
3,700.00	3,663.25	3,633.25	3,663.25	16.90	125.13	-77.11	1,077.85	-9,145.29	9,092.67	8,950.67	142.00	64.033		
3,800.00	3,761.93	3,731.93	3,761.93	17.36	128.58	-77.21	1,077.85	-9,145.29	9,089.03	8,943.13	145.90	62.296		
3,900.00	3,860.62	3,830.62	3,860.62	17.82	132.02	-77.30	1,077.85	-9,145.29	9,085.41	8,935.61	149.80	60.650		
4,000.00	3,959.30	3,929.30	3,959.30	18.28	135.47	-77.40	1,077.85	-9,145.29	9,081.83	8,928.12	153.70	59.087		
4,100.00	4,057.98	4,027.98	4,057.98	18.74	138.91	-77.50	1,077.85	-9,145.29	9,078.27	8,920.66	157.61	57.601		
4,200.00	4,156.67	4,126.67	4,156.67	19.20	142.35	-77.60	1,077.85	-9,145.29	9,074.74	8,913.23	161.51	56.187		
4,300.00	4,255.35	4,225.35	4,255.35	19.66	145.80	-77.70	1,077.85	-9,145.29	9,071.23	8,905.82	165.41	54.840		
4,400.00	4,354.03	4,324.03	4,354.03	20.12	149.24	-77.80	1,077.85	-9,145.29	9,067.75	8,898.44	169.32	53.555		
4,500.00	4,452.71	4,422.71	4,452.71	20.58	152.69	-77.89	1,077.85	-9,145.29	9,064.30	8,891.08	173.22	52.328		
4,600.00	4,551.40	4,521.40	4,551.40	21.04	156.13	-77.99	1,077.85	-9,145.29	9,060.88	8,883.76	177.13	51.155		
4,700.00	4,650.08	4,620.08	4,650.08	21.50	159.58	-78.09	1,077.85	-9,145.29	9,057.49	8,876.46	181.03	50.033		
4,800.00	4,748.76	4,718.76	4,748.76	21.96	163.02	-78.19	1,077.85	-9,145.29	9,054.12	8,869.19	184.94	48.958		
4,900.00	4,847.44	4,817.44	4,847.44	22.42	166.46	-78.29	1,077.85	-9,145.29	9,050.78	8,861.94	188.84	47.928		
5,000.00	4,946.13	4,916.13	4,946.13	22.89	169.91	-78.39	1,077.85	-9,145.29	9,047.47	8,854.72	192.75	46.939		
5,100.00	5,044.81	5,014.81	5,044.81	23.35	173.35	-78.49	1,077.85	-9,145.29	9,044.19	8,847.53	196.65	45.990		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,113.49	5,143.49	23.81	176.80	-78.59	1,077.85	-9,145.29	9,040.93	8,840.37	200.56	45.078		
5,300.00	5,242.18	5,212.18	5,242.18	24.27	180.24	-78.69	1,077.85	-9,145.29	9,037.70	8,833.24	204.47	44.201		
5,400.00	5,340.86	5,310.86	5,340.86	24.74	183.69	-78.79	1,077.85	-9,145.29	9,034.50	8,826.13	208.37	43.357		
5,500.00	5,439.54	5,409.54	5,439.54	25.20	187.13	-78.89	1,077.85	-9,145.29	9,031.33	8,819.05	212.28	42.544		
5,600.00	5,538.22	5,508.22	5,538.22	25.66	190.58	-78.99	1,077.85	-9,145.29	9,028.19	8,812.00	216.19	41.761		
5,700.00	5,636.91	5,606.91	5,636.91	26.13	194.02	-79.08	1,077.85	-9,145.29	9,025.07	8,804.97	220.10	41.005		
5,800.00	5,735.59	5,705.59	5,735.59	26.59	197.46	-79.18	1,077.85	-9,145.29	9,021.98	8,797.98	224.00	40.276		
5,900.00	5,834.27	5,804.27	5,834.27	27.06	200.91	-79.28	1,077.85	-9,145.29	9,018.92	8,791.01	227.91	39.572		
6,000.00	5,932.95	5,902.95	5,932.95	27.52	204.35	-79.38	1,077.85	-9,145.29	9,015.89	8,784.07	231.82	38.892		
6,100.00	6,031.64	6,001.64	6,031.64	27.98	207.80	-79.48	1,077.85	-9,145.29	9,012.88	8,777.15	235.73	38.234		
6,200.00	6,130.32	6,100.32	6,130.32	28.45	211.24	-79.58	1,077.85	-9,145.29	9,009.91	8,770.27	239.64	37.598		
6,300.00	6,229.00	6,201.00	6,229.00	28.91	214.76	-79.68	1,077.85	-9,145.29	9,006.96	8,763.34	243.62	36.972		
6,400.00	6,327.69	6,302.31	6,327.69	29.38	218.29	-79.78	1,077.85	-9,145.29	9,004.04	8,756.42	247.62	36.363		
6,500.00	6,426.37	6,403.63	6,426.37	29.84	221.83	-79.88	1,077.85	-9,145.29	9,001.14	8,749.53	251.62	35.773		
6,600.00	6,525.05	6,504.95	6,525.05	30.31	225.37	-79.98	1,077.85	-9,145.29	8,998.28	8,742.66	255.62	35.202		
6,700.00	6,623.18	6,606.82	6,623.18	30.77	228.92	-39.90	1,077.85	-9,145.29	8,987.68	8,728.05	259.64	34.616		
6,800.00	6,718.58	6,688.58	6,718.58	31.22	231.78	-23.51	1,077.85	-9,145.29	8,961.72	8,698.79	262.93	34.084		
6,900.00	6,808.91	6,778.91	6,808.91	31.66	234.93	-16.03	1,077.85	-9,145.29	8,921.03	8,654.53	266.50	33.475		
7,000.00	6,891.95	6,861.95	6,891.95	32.07	237.83	-11.85	1,077.85	-9,145.29	8,866.60	8,596.84	269.76	32.868		
7,100.00	6,965.65	6,935.65	6,965.65	32.51	240.40	-9.07	1,077.85	-9,145.29	8,799.76	8,527.12	272.65	32.275		
7,200.00	7,028.20	7,001.80	7,028.20	33.02	242.71	-6.87	1,077.85	-9,145.29	8,722.16	8,446.96	275.21	31.693		
7,300.00	7,078.04	7,048.04	7,078.04	33.68	244.32	-4.60	1,077.85	-9,145.29	8,635.70	8,358.70	277.01	31.175		
7,400.00	7,113.97	7,083.97	7,113.97	34.52	245.58	-1.16	1,077.85	-9,145.29	8,542.51	8,264.13	278.38	30.687		
7,500.00	7,135.09	7,105.09	7,135.09	35.53	246.32	8.72	1,077.85	-9,145.29	8,444.87	8,165.70	279.17	30.250		
7,600.00	7,140.96	7,110.96	7,140.96	36.68	246.52	95.62	1,077.85	-9,145.29	8,345.20	8,065.81	279.39	29.870		
7,700.00	7,140.53	7,110.53	7,140.53	37.99	246.51	95.56	1,077.85	-9,145.29	8,245.30	7,965.93	279.37	29.514		
7,800.00	7,140.09	7,110.09	7,140.09	39.45	246.49	95.49	1,077.85	-9,145.29	8,145.40	7,866.05	279.34	29.159		
7,900.00	7,139.66	7,109.66	7,139.66	41.06	246.48	95.42	1,077.85	-9,145.29	8,045.50	7,766.18	279.32	28.803		
8,000.00	7,139.23	7,109.23	7,139.23	42.80	246.46	95.36	1,077.85	-9,145.29	7,945.61	7,666.30	279.31	28.448		
8,100.00	7,138.79	7,108.79	7,138.79	44.65	246.44	95.29	1,077.85	-9,145.29	7,845.72	7,566.43	279.29	28.092		
8,200.00	7,138.36	7,108.36	7,138.36	46.60	246.43	95.22	1,077.85	-9,145.29	7,745.83	7,466.56	279.27	27.736		
8,300.00	7,137.93	7,107.93	7,137.93	48.65	246.41	95.15	1,077.85	-9,145.29	7,645.95	7,366.69	279.26	27.379		
8,400.00	7,137.49	7,107.49	7,137.49	50.77	246.40	95.09	1,077.85	-9,145.29	7,546.06	7,266.82	279.25	27.023		
8,500.00	7,137.06	7,107.06	7,137.06	52.95	246.38	95.02	1,077.85	-9,145.29	7,446.18	7,166.95	279.24	26.666		
8,600.00	7,136.62	7,106.62	7,136.62	55.20	246.37	94.95	1,077.85	-9,145.29	7,346.31	7,067.08	279.23	26.310		
8,700.00	7,136.19	7,106.19	7,136.19	57.51	246.35	94.89	1,077.85	-9,145.29	7,246.44	6,967.22	279.22	25.953		
8,800.00	7,135.76	7,105.76	7,135.76	59.85	246.34	94.82	1,077.85	-9,145.29	7,146.57	6,867.35	279.21	25.595		
8,900.00	7,135.32	7,105.32	7,135.32	62.24	246.32	94.75	1,077.85	-9,145.29	7,046.70	6,767.49	279.21	25.238		
9,000.00	7,134.89	7,104.89	7,134.89	64.67	246.31	94.68	1,077.85	-9,145.29	6,946.84	6,667.64	279.21	24.881		
9,100.00	7,134.45	7,104.45	7,134.45	67.13	246.29	94.62	1,077.85	-9,145.29	6,846.98	6,567.78	279.21	24.523		
9,200.00	7,134.02	7,104.02	7,134.02	69.62	246.28	94.55	1,077.85	-9,145.29	6,747.13	6,467.92	279.21	24.165		
9,300.00	7,133.59	7,103.59	7,133.59	72.14	246.26	94.48	1,077.85	-9,145.29	6,647.28	6,368.07	279.21	23.807		
9,400.00	7,133.15	7,103.15	7,133.15	74.68	246.25	94.42	1,077.85	-9,145.29	6,547.44	6,268.22	279.22	23.449		
9,500.00	7,132.72	7,102.72	7,132.72	77.24	246.23	94.35	1,077.85	-9,145.29	6,447.60	6,168.37	279.22	23.091		
9,600.00	7,132.29	7,102.29	7,132.29	79.83	246.22	94.28	1,077.85	-9,145.29	6,347.76	6,068.53	279.24	22.733		
9,700.00	7,131.85	7,101.85	7,131.85	82.42	246.20	94.21	1,077.85	-9,145.29	6,247.94	5,968.69	279.25	22.374		
9,800.00	7,131.42	7,101.42	7,131.42	85.04	246.19	94.15	1,077.85	-9,145.29	6,148.11	5,868.85	279.26	22.015		
9,900.00	7,130.98	7,100.98	7,130.98	87.67	246.17	94.08	1,077.85	-9,145.29	6,048.29	5,769.01	279.28	21.656		
10,000.00	7,130.55	7,100.55	7,130.55	90.31	246.16	94.01	1,077.85	-9,145.29	5,948.48	5,669.18	279.31	21.297		
10,100.00	7,130.12	7,100.12	7,130.12	92.97	246.14	93.94	1,077.85	-9,145.29	5,848.68	5,569.35	279.33	20.938		
10,200.00	7,129.68	7,100.32	7,129.68	95.63	246.15	93.88	1,077.85	-9,145.29	5,748.88	5,469.50	279.38	20.577		
10,300.00	7,129.25	7,100.75	7,129.25	98.31	246.16	93.81	1,077.85	-9,145.29	5,649.09	5,369.64	279.45	20.215		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 17-11(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	7,101.18	7,128.82	101.00	246.18	93.74	1,077.85	-9,145.29	5,549.31	5,269.79	279.51	19.854		
10,500.00	7,128.38	7,101.62	7,128.38	103.69	246.19	93.67	1,077.85	-9,145.29	5,449.53	5,169.95	279.58	19.492		
10,600.00	7,127.95	7,102.05	7,127.95	106.39	246.21	93.61	1,077.85	-9,145.29	5,349.76	5,070.10	279.66	19.130		
10,700.00	7,127.51	7,102.49	7,127.51	109.10	246.22	93.54	1,077.85	-9,145.29	5,250.00	4,970.26	279.74	18.767		
10,800.00	7,127.08	7,102.92	7,127.08	111.82	246.24	93.47	1,077.85	-9,145.29	5,150.25	4,870.43	279.83	18.405		
10,900.00	7,126.65	7,103.35	7,126.65	114.54	246.25	93.40	1,077.85	-9,145.29	5,050.51	4,770.60	279.92	18.043		
11,000.00	7,126.21	7,103.79	7,126.21	117.27	246.27	93.34	1,077.85	-9,145.29	4,950.79	4,670.77	280.02	17.680		
11,100.00	7,125.78	7,104.22	7,125.78	120.01	246.29	93.27	1,077.85	-9,145.29	4,851.07	4,570.95	280.12	17.318		
11,200.00	7,125.35	7,104.65	7,125.35	122.75	246.30	93.20	1,077.85	-9,145.29	4,751.36	4,471.13	280.23	16.955		
11,300.00	7,124.91	7,105.09	7,124.91	125.49	246.32	93.14	1,077.85	-9,145.29	4,651.67	4,371.31	280.35	16.592		
11,400.00	7,124.48	7,105.52	7,124.48	128.24	246.33	93.07	1,077.85	-9,145.29	4,551.99	4,271.51	280.48	16.229		
11,500.00	7,124.04	7,105.96	7,124.04	131.00	246.35	93.00	1,077.85	-9,145.29	4,452.32	4,171.70	280.62	15.866		
11,600.00	7,123.61	7,106.39	7,123.61	133.75	246.36	92.93	1,077.85	-9,145.29	4,352.67	4,071.90	280.77	15.503		
11,700.00	7,123.18	7,106.82	7,123.18	136.52	246.38	92.87	1,077.85	-9,145.29	4,253.04	3,972.11	280.93	15.139		
11,800.00	7,122.74	7,107.26	7,122.74	139.28	246.39	92.80	1,077.85	-9,145.29	4,153.42	3,872.32	281.11	14.775		
11,900.00	7,122.31	7,107.69	7,122.31	142.05	246.41	92.73	1,077.85	-9,145.29	4,053.82	3,772.53	281.29	14.411		
12,000.00	7,121.88	7,108.12	7,121.88	144.82	246.42	92.66	1,077.85	-9,145.29	3,954.25	3,672.75	281.50	14.047		
12,100.00	7,121.44	7,108.56	7,121.44	147.59	246.44	92.60	1,077.85	-9,145.29	3,854.69	3,572.97	281.72	13.683		
12,200.00	7,121.01	7,108.99	7,121.01	150.37	246.45	92.53	1,077.85	-9,145.29	3,755.16	3,473.20	281.96	13.318		
12,300.00	7,120.57	7,109.43	7,120.57	153.15	246.47	92.46	1,077.85	-9,145.29	3,655.65	3,373.43	282.22	12.953		
12,400.00	7,120.14	7,109.86	7,120.14	155.93	246.48	92.39	1,077.85	-9,145.29	3,556.17	3,273.67	282.50	12.588		
12,500.00	7,119.71	7,089.71	7,119.71	158.72	245.78	92.32	1,077.85	-9,145.29	3,456.72	3,174.63	282.09	12.254		
12,600.00	7,119.27	7,089.27	7,119.27	161.50	245.76	92.26	1,077.85	-9,145.29	3,357.31	3,074.90	282.40	11.888		
12,700.00	7,118.84	7,088.84	7,118.84	164.29	245.75	92.19	1,077.85	-9,145.29	3,257.93	2,975.18	282.75	11.522		
12,800.00	7,118.41	7,088.41	7,118.41	167.08	245.73	92.12	1,077.85	-9,145.29	3,158.58	2,875.46	283.13	11.156		
12,900.00	7,117.97	7,087.97	7,117.97	169.88	245.72	92.05	1,077.85	-9,145.29	3,059.29	2,775.73	283.55	10.789		
13,000.00	7,117.54	7,087.54	7,117.54	172.67	245.70	91.99	1,077.85	-9,145.29	2,960.03	2,676.01	284.02	10.422		
13,100.00	7,117.10	7,087.10	7,117.10	175.47	245.69	91.92	1,077.85	-9,145.29	2,860.83	2,576.29	284.55	10.054		
13,200.00	7,116.67	7,086.67	7,116.67	178.27	245.67	91.85	1,077.85	-9,145.29	2,761.69	2,476.56	285.13	9.686		
13,300.00	7,116.24	7,086.24	7,116.24	181.07	245.66	91.78	1,077.85	-9,145.29	2,662.61	2,376.83	285.78	9.317		
13,400.00	7,115.80	7,085.80	7,115.80	183.87	245.64	91.72	1,077.85	-9,145.29	2,563.61	2,277.09	286.52	8.947		
13,500.00	7,115.37	7,085.37	7,115.37	186.67	245.63	91.65	1,077.85	-9,145.29	2,464.68	2,177.34	287.34	8.578		
13,600.00	7,114.93	7,084.93	7,114.93	189.47	245.61	91.58	1,077.85	-9,145.29	2,365.85	2,077.58	288.27	8.207		
13,700.00	7,114.50	7,084.50	7,114.50	192.28	245.60	91.51	1,077.85	-9,145.29	2,267.11	1,977.80	289.32	7.836		
13,800.00	7,114.07	7,084.07	7,114.07	195.09	245.58	91.45	1,077.85	-9,145.29	2,168.50	1,877.99	290.50	7.465		
13,900.00	7,113.63	7,083.63	7,113.63	197.89	245.57	91.38	1,077.85	-9,145.29	2,070.01	1,778.16	291.85	7.093		
14,000.00	7,113.20	7,083.20	7,113.20	200.70	245.55	91.31	1,077.85	-9,145.29	1,971.68	1,678.29	293.38	6.720		
14,100.00	7,112.77	7,082.77	7,112.77	203.51	245.54	91.24	1,077.85	-9,145.29	1,873.52	1,578.38	295.14	6.348		
14,200.00	7,112.33	7,082.33	7,112.33	206.32	245.52	91.18	1,077.85	-9,145.29	1,775.57	1,478.42	297.15	5.975		
14,300.00	7,111.90	7,081.90	7,111.90	209.13	245.51	91.11	1,077.85	-9,145.29	1,677.86	1,378.40	299.46	5.603		
14,400.00	7,111.46	7,081.46	7,111.46	211.95	245.49	91.04	1,077.85	-9,145.29	1,580.44	1,278.30	302.14	5.231		
14,500.00	7,111.03	7,081.03	7,111.03	214.76	245.48	90.97	1,077.85	-9,145.29	1,483.36	1,178.11	305.25	4.859		
14,600.00	7,110.60	7,080.60	7,110.60	217.58	245.46	90.90	1,077.85	-9,145.29	1,386.69	1,077.80	308.89	4.489		
14,700.00	7,110.16	7,080.16	7,110.16	220.39	245.45	90.84	1,077.85	-9,145.29	1,290.54	977.38	313.16	4.121		
14,800.00	7,109.73	7,079.73	7,109.73	223.21	245.43	90.77	1,077.85	-9,145.29	1,195.01	876.80	318.21	3.755		
14,900.00	7,109.30	7,079.30	7,109.30	226.03	245.42	90.70	1,077.85	-9,145.29	1,100.28	776.04	324.24	3.393		
14,969.16	7,109.00	7,079.00	7,109.00	227.97	245.40	90.66	1,077.85	-9,145.29	1,035.34	706.25	329.09	3.146 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	14.13	1.13	3.28	3.28	3.15	2,124.25	116.80	2,127.46					
100.00	100.00	123.50	110.50	3.28	3.30	3.14	2,123.98	116.43	2,127.20	2,120.62	6.58	323.280		
200.00	200.00	231.78	218.78	3.34	3.37	3.14	2,123.19	116.29	2,126.45	2,119.74	6.71	316.955		
300.00	300.00	329.50	316.49	3.44	3.49	3.14	2,122.33	116.27	2,125.58	2,118.64	6.94	306.392		
400.00	400.00	420.87	407.86	3.60	3.65	3.12	2,121.83	115.73	2,125.00	2,117.75	7.25	293.163		
479.29	479.29	492.31	479.29	3.76	3.79	3.11	2,121.73	115.11	2,124.85	2,117.30	7.55	281.462		
500.00	500.00	511.26	498.24	3.81	3.83	3.10	2,121.75	114.94	2,124.86	2,117.22	7.64	278.276		
600.00	600.00	603.76	590.74	4.05	4.05	3.08	2,122.04	114.05	2,125.12	2,117.03	8.09	262.541		
700.00	699.98	694.73	681.71	4.32	4.29	12.23	2,122.65	113.62	2,124.06	2,115.46	8.60	246.848		
800.00	799.84	813.89	800.86	4.62	4.63	12.28	2,123.17	113.67	2,119.39	2,110.15	9.25	229.190		
900.00	899.45	897.06	884.03	4.94	4.89	12.37	2,123.55	113.84	2,111.32	2,101.49	9.83	214.865		
1,000.00	998.70	1,015.56	1,002.53	5.28	5.27	12.51	2,123.88	114.17	2,099.71	2,089.16	10.55	198.956		
1,100.00	1,097.50	1,110.22	1,097.19	5.64	5.59	12.65	2,123.84	114.63	2,084.62	2,073.38	11.23	185.564		
1,200.00	1,196.18	1,204.17	1,191.14	6.00	5.92	12.77	2,123.93	115.37	2,068.97	2,057.04	11.93	173.460		
1,300.00	1,294.87	1,316.18	1,303.15	6.38	6.33	12.90	2,123.80	116.05	2,053.11	2,040.40	12.71	161.582		
1,400.00	1,393.55	1,406.43	1,393.40	6.77	6.66	12.99	2,123.72	116.14	2,037.24	2,023.81	13.43	151.749		
1,500.00	1,492.23	1,516.34	1,503.30	7.17	7.07	13.12	2,123.41	116.37	2,021.20	2,006.97	14.23	142.046		
1,600.00	1,590.91	1,619.74	1,606.70	7.58	7.47	13.23	2,122.69	116.52	2,004.77	1,989.74	15.02	133.448		
1,700.00	1,689.60	1,718.86	1,705.81	8.00	7.85	13.33	2,121.94	116.17	1,988.24	1,972.43	15.81	125.744		
1,800.00	1,788.28	1,819.05	1,806.00	8.42	8.24	13.42	2,121.07	115.39	1,971.58	1,954.96	16.61	118.670		
1,900.00	1,886.96	1,908.90	1,895.84	8.84	8.60	13.50	2,120.56	114.62	1,955.21	1,937.82	17.39	112.453		
2,000.00	1,985.64	2,016.11	2,003.05	9.27	9.02	13.60	2,119.81	113.81	1,938.72	1,920.49	18.23	106.355		
2,100.00	2,084.33	2,105.65	2,092.58	9.71	9.38	13.67	2,119.29	112.80	1,922.34	1,903.32	19.01	101.102		
2,200.00	2,183.01	2,198.68	2,185.61	10.15	9.75	13.75	2,119.12	111.69	1,906.33	1,886.51	19.82	96.198		
2,300.00	2,281.69	2,282.43	2,269.36	10.59	10.09	13.82	2,119.39	110.96	1,890.86	1,870.27	20.59	91.832		
2,400.00	2,380.38	2,371.80	2,358.72	11.03	10.45	13.90	2,120.29	110.14	1,876.06	1,854.67	21.39	87.715		
2,500.00	2,479.06	2,460.15	2,447.04	11.47	10.81	13.96	2,121.65	108.84	1,861.75	1,839.56	22.19	83.914		
2,600.00	2,577.74	2,548.87	2,535.74	11.92	11.18	14.03	2,123.55	107.52	1,848.03	1,825.04	22.99	80.388		
2,700.00	2,676.42	2,650.73	2,637.55	12.36	11.60	14.10	2,126.11	105.91	1,834.68	1,810.84	23.84	76.948		
2,800.00	2,775.11	2,754.00	2,740.78	12.81	12.02	14.17	2,128.16	104.31	1,820.81	1,796.10	24.70	73.702		
2,900.00	2,873.79	2,855.64	2,842.39	13.26	12.44	14.23	2,130.29	102.36	1,807.02	1,781.45	25.56	70.687		
3,000.00	2,972.47	2,960.60	2,947.30	13.72	12.88	14.28	2,132.10	99.94	1,792.83	1,766.39	26.44	67.818		
3,100.00	3,071.15	3,054.35	3,041.02	14.17	13.27	14.34	2,133.64	98.02	1,778.59	1,751.31	27.27	65.219		
3,200.00	3,169.84	3,152.20	3,138.83	14.62	13.67	14.40	2,135.63	96.17	1,764.74	1,736.62	28.12	62.753		
3,300.00	3,268.52	3,246.46	3,233.07	15.08	14.07	14.47	2,137.40	94.65	1,750.77	1,721.81	28.96	60.451		
3,400.00	3,367.20	3,330.97	3,317.53	15.53	14.42	14.53	2,139.60	93.33	1,737.52	1,707.75	29.77	58.367		
3,500.00	3,465.89	3,424.09	3,410.59	15.99	14.81	14.61	2,142.71	92.23	1,725.03	1,694.42	30.61	56.359		
3,600.00	3,564.57	3,535.32	3,521.78	16.44	15.28	14.74	2,145.71	91.83	1,711.96	1,680.45	31.51	54.328		
3,700.00	3,663.25	3,640.56	3,626.99	16.90	15.72	14.86	2,148.50	91.28	1,698.90	1,666.50	32.39	52.444		
3,800.00	3,761.93	3,753.75	3,740.15	17.36	16.19	14.98	2,150.22	90.25	1,684.62	1,651.32	33.30	50.585		
3,900.00	3,860.62	3,855.45	3,841.84	17.82	16.61	15.09	2,151.69	89.12	1,670.30	1,636.12	34.17	48.875		
4,000.00	3,959.30	3,968.43	3,954.78	18.28	17.09	15.16	2,152.78	88.62	1,655.40	1,620.32	35.08	47.189		
4,100.00	4,057.98	4,073.03	4,059.35	18.74	17.53	15.22	2,153.08	88.86	1,639.78	1,603.82	35.96	45.600		
4,200.00	4,156.67	4,165.32	4,151.60	19.20	17.92	15.27	2,153.37	81.37	1,624.20	1,587.40	36.81	44.127		
4,300.00	4,255.35	4,259.28	4,245.54	19.66	18.31	15.35	2,154.06	79.51	1,609.10	1,571.44	37.66	42.728		
4,400.00	4,354.03	4,350.82	4,337.07	20.12	18.70	15.43	2,154.91	78.04	1,594.24	1,555.74	38.51	41.403		
4,500.00	4,452.71	4,442.38	4,428.61	20.58	19.08	15.54	2,156.26	77.20	1,579.98	1,540.63	39.35	40.150		
4,600.00	4,551.40	4,535.48	4,521.69	21.04	19.48	15.64	2,157.92	76.12	1,566.02	1,525.81	40.20	38.952		
4,700.00	4,650.08	4,630.70	4,616.87	21.50	19.88	15.73	2,160.19	74.58	1,552.59	1,511.53	41.06	37.810		
4,800.00	4,748.76	4,741.85	4,727.98	21.96	20.35	15.83	2,162.31	72.57	1,538.67	1,496.70	41.97	36.663		
4,900.00	4,847.44	4,851.02	4,837.12	22.42	20.81	15.92	2,163.76	70.11	1,524.15	1,481.29	42.86	35.558		
5,000.00	4,946.13	4,950.89	4,936.95	22.89	21.23	15.98	2,164.52	67.52	1,509.04	1,465.30	43.74	34.503		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,044.81	5,048.49	5,034.50	23.35	21.65	16.04	2,165.63	64.71	1,494.25	1,449.64	44.60	33.500		
5,200.00	5,143.49	5,147.14	5,133.13	23.81	22.06	16.12	2,166.45	62.54	1,479.25	1,433.78	45.48	32.529		
5,300.00	5,242.18	5,240.35	5,226.32	24.27	22.46	16.24	2,167.46	61.33	1,464.62	1,418.28	46.33	31.610		
5,400.00	5,340.86	5,337.09	5,323.04	24.74	22.87	16.36	2,168.76	60.09	1,450.24	1,403.04	47.20	30.725		
5,500.00	5,439.54	5,435.05	5,421.00	25.20	23.28	16.51	2,170.07	59.53	1,435.94	1,387.87	48.07	29.871		
5,600.00	5,538.22	5,529.88	5,515.82	25.66	23.69	16.67	2,171.41	59.29	1,421.78	1,372.85	48.93	29.055		
5,700.00	5,636.91	5,623.27	5,609.18	26.13	24.08	16.85	2,173.15	59.50	1,408.13	1,358.33	49.80	28.278		
5,800.00	5,735.59	5,731.71	5,717.61	26.59	24.54	17.09	2,174.86	60.43	1,394.30	1,343.61	50.69	27.505		
5,900.00	5,834.27	5,841.59	5,827.48	27.06	25.00	17.32	2,175.71	60.95	1,379.65	1,328.06	51.59	26.743		
6,000.00	5,932.95	5,950.41	5,936.30	27.52	25.46	17.54	2,175.93	60.86	1,364.39	1,311.91	52.48	26.000		
6,100.00	6,031.64	6,057.84	6,043.73	27.98	25.92	17.75	2,175.28	60.44	1,348.30	1,294.94	53.36	25.268		
6,200.00	6,130.32	6,158.95	6,144.83	28.45	26.35	17.95	2,174.32	59.90	1,331.87	1,277.64	54.23	24.558		
6,300.00	6,229.00	6,256.52	6,242.40	28.91	26.76	18.15	2,173.32	59.37	1,315.39	1,260.29	55.10	23.871		
6,400.00	6,327.69	6,352.32	6,338.19	29.38	27.17	18.33	2,172.57	58.50	1,299.10	1,243.13	55.97	23.210		
6,500.00	6,426.37	6,443.99	6,429.85	29.84	27.56	18.49	2,172.19	57.28	1,283.12	1,226.28	56.84	22.575		
6,600.00	6,525.05	6,538.67	6,524.52	30.31	27.96	18.65	2,172.46	55.96	1,267.82	1,210.11	57.71	21.969		
6,700.00	6,623.18	6,642.85	6,628.69	30.77	28.40	60.57	2,172.42	54.72	1,253.90	1,195.30	58.59	21.400		
6,800.00	6,718.58	6,741.45	6,727.28	31.22	28.82	79.05	2,172.12	53.13	1,243.58	1,184.11	59.47	20.910		
6,900.00	6,808.91	6,833.45	6,819.27	31.66	29.21	88.62	2,171.69	51.67	1,238.23	1,177.89	60.34	20.520		
6,933.69	6,837.81	6,862.53	6,848.35	31.80	29.34	90.91	2,171.55	51.21	1,237.83	1,177.19	60.64	20.413 CC, ES		
7,000.00	6,891.95	6,916.59	6,902.39	32.07	29.57	94.55	2,171.29	50.35	1,239.49	1,178.28	61.21	20.249		
7,100.00	6,965.65	6,988.35	6,974.16	32.51	29.87	98.30	2,170.96	49.53	1,249.07	1,186.97	62.10	20.115 SF		
7,200.00	7,028.20	7,051.55	7,037.35	33.02	30.14	100.40	2,170.64	49.15	1,268.29	1,205.28	63.02	20.127		
7,300.00	7,078.04	7,102.31	7,088.11	33.68	30.36	100.78	2,170.29	49.02	1,297.92	1,233.95	63.97	20.288		
7,400.00	7,113.97	7,143.70	7,129.50	34.52	30.53	99.48	2,169.85	48.98	1,338.00	1,273.05	64.95	20.600		
7,500.00	7,135.09	7,168.07	7,153.86	35.53	30.64	96.00	2,169.51	48.96	1,387.84	1,321.94	65.90	21.061		
7,600.00	7,140.96	7,174.94	7,160.74	36.68	30.67	90.80	2,169.40	48.95	1,446.02	1,379.27	66.75	21.664		
7,700.00	7,140.53	7,174.60	7,160.39	37.99	30.66	90.78	2,169.40	48.95	1,509.59	1,442.05	67.55	22.349		
7,800.00	7,140.09	7,174.25	7,160.04	39.45	30.66	90.77	2,169.41	48.95	1,576.95	1,508.63	68.32	23.082		
7,900.00	7,139.66	7,173.90	7,159.70	41.06	30.66	90.75	2,169.42	48.95	1,647.62	1,578.57	69.06	23.859		
8,000.00	7,139.23	7,173.56	7,159.35	42.80	30.66	90.73	2,169.42	48.95	1,721.21	1,651.46	69.75	24.677		
8,100.00	7,138.79	7,173.21	7,159.00	44.65	30.66	90.71	2,169.43	48.95	1,797.35	1,726.95	70.40	25.532		
8,200.00	7,138.36	7,172.87	7,158.66	46.60	30.66	90.70	2,169.43	48.96	1,875.73	1,804.73	71.00	26.420		
8,300.00	7,137.93	7,172.52	7,158.31	48.65	30.66	90.68	2,169.44	48.96	1,956.08	1,884.53	71.55	27.339		
8,400.00	7,137.49	7,172.17	7,157.97	50.77	30.65	90.66	2,169.44	48.96	2,038.17	1,966.11	72.06	28.285		
8,500.00	7,137.06	7,171.83	7,157.62	52.95	30.65	90.64	2,169.45	48.96	2,121.80	2,049.27	72.53	29.254		
8,600.00	7,136.62	7,171.48	7,157.27	55.20	30.65	90.63	2,169.45	48.96	2,206.79	2,133.83	72.96	30.246		
8,700.00	7,136.19	7,171.14	7,156.93	57.51	30.65	90.61	2,169.46	48.96	2,292.99	2,219.63	73.36	31.256		
8,800.00	7,135.76	7,170.79	7,156.58	59.85	30.65	90.59	2,169.47	48.96	2,380.27	2,306.55	73.73	32.284		
8,900.00	7,135.32	7,170.44	7,156.24	62.24	30.65	90.57	2,169.47	48.96	2,468.52	2,394.45	74.07	33.327		
9,000.00	7,134.89	7,170.10	7,155.89	64.67	30.65	90.56	2,169.48	48.96	2,557.63	2,483.25	74.38	34.384		
9,100.00	7,134.45	7,169.75	7,155.54	67.13	30.64	90.54	2,169.48	48.96	2,647.52	2,572.85	74.68	35.453		
9,200.00	7,134.02	7,169.41	7,155.20	69.62	30.64	90.52	2,169.49	48.96	2,738.12	2,663.17	74.95	36.534		
9,300.00	7,133.59	7,169.06	7,154.85	72.14	30.64	90.50	2,169.49	48.96	2,829.34	2,754.14	75.20	37.624		
9,400.00	7,133.15	7,168.71	7,154.51	74.68	30.64	90.49	2,169.50	48.96	2,921.14	2,845.70	75.44	38.722		
9,500.00	7,132.72	7,168.37	7,154.16	77.24	30.64	90.47	2,169.50	48.96	3,013.46	2,937.80	75.66	39.829		
9,600.00	7,132.29	7,168.02	7,153.82	79.83	30.64	90.45	2,169.51	48.96	3,106.26	3,030.39	75.87	40.943		
9,700.00	7,131.85	7,167.68	7,153.47	82.42	30.63	90.43	2,169.51	48.96	3,199.49	3,123.43	76.06	42.064		
9,800.00	7,131.42	7,167.33	7,153.13	85.04	30.63	90.42	2,169.52	48.96	3,293.12	3,216.87	76.25	43.190		
9,900.00	7,130.98	7,166.99	7,152.78	87.67	30.63	90.40	2,169.52	48.96	3,387.11	3,310.69	76.42	44.321		
10,000.00	7,130.55	7,166.64	7,152.43	90.31	30.63	90.38	2,169.53	48.96	3,481.44	3,404.85	76.59	45.457		
10,100.00	7,130.12	7,166.30	7,152.09	92.97	30.63	90.37	2,169.54	48.96	3,576.07	3,499.33	76.74	46.597		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MONTERA 10-34 (PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,129.68	7,165.95	7,151.74	95.63	30.63	90.35	2,169.54	48.96	3,670.99	3,594.10	76.89	47.741		
10,300.00	7,129.25	7,165.61	7,151.40	98.31	30.63	90.33	2,169.55	48.96	3,766.18	3,689.14	77.04	48.889		
10,400.00	7,128.82	7,165.26	7,151.05	101.00	30.62	90.31	2,169.55	48.96	3,861.60	3,784.43	77.17	50.039		
10,500.00	7,128.38	7,164.91	7,150.71	103.69	30.62	90.30	2,169.56	48.96	3,957.25	3,879.95	77.30	51.192		
10,600.00	7,127.95	7,164.57	7,150.36	106.39	30.62	90.28	2,169.56	48.96	4,053.12	3,975.69	77.43	52.347		
10,700.00	7,127.51	7,164.22	7,150.02	109.10	30.62	90.26	2,169.57	48.96	4,149.17	4,071.62	77.55	53.504		
10,800.00	7,127.08	7,163.88	7,149.67	111.82	30.62	90.24	2,169.57	48.96	4,245.41	4,167.75	77.66	54.664		
10,900.00	7,126.65	7,163.53	7,149.33	114.54	30.62	90.23	2,169.58	48.96	4,341.82	4,264.05	77.78	55.824		
11,000.00	7,126.21	7,163.19	7,148.98	117.27	30.62	90.21	2,169.58	48.96	4,438.39	4,360.50	77.88	56.986		
11,100.00	7,125.78	7,162.84	7,148.64	120.01	30.61	90.19	2,169.59	48.96	4,535.11	4,457.12	77.99	58.150		
11,200.00	7,125.35	7,162.50	7,148.29	122.75	30.61	90.17	2,169.59	48.96	4,631.96	4,553.87	78.09	59.314		
11,300.00	7,124.91	7,162.15	7,147.95	125.49	30.61	90.16	2,169.60	48.96	4,728.95	4,650.76	78.19	60.479		
11,400.00	7,124.48	7,161.81	7,147.60	128.24	30.61	90.14	2,169.60	48.96	4,826.06	4,747.77	78.29	61.645		
11,500.00	7,124.04	7,161.46	7,147.26	131.00	30.61	90.12	2,169.61	48.96	4,923.29	4,844.90	78.38	62.811		
11,600.00	7,123.61	7,161.12	7,146.91	133.75	30.61	90.11	2,169.61	48.96	5,020.62	4,942.15	78.47	63.977		
11,700.00	7,123.18	7,160.77	7,146.57	136.52	30.61	90.09	2,169.62	48.96	5,118.06	5,039.49	78.57	65.144		
11,800.00	7,122.74	7,160.43	7,146.22	139.28	30.60	90.07	2,169.62	48.97	5,215.59	5,136.94	78.65	66.311		
11,900.00	7,122.31	7,160.08	7,145.88	142.05	30.60	90.05	2,169.63	48.97	5,313.22	5,234.48	78.74	67.478		
12,000.00	7,121.88	7,159.74	7,145.53	144.82	30.60	90.04	2,169.63	48.97	5,410.93	5,332.11	78.83	68.644		
12,100.00	7,121.44	7,159.40	7,145.19	147.59	30.60	90.02	2,169.64	48.97	5,508.73	5,429.82	78.91	69.811		
12,200.00	7,121.01	7,159.05	7,144.84	150.37	30.60	90.00	2,169.64	48.97	5,606.60	5,527.61	78.99	70.977		
12,300.00	7,120.57	7,158.71	7,144.50	153.15	30.60	89.98	2,169.65	48.97	5,704.55	5,625.47	79.07	72.142		
12,400.00	7,120.14	7,158.36	7,144.16	155.93	30.60	89.97	2,169.65	48.97	5,802.56	5,723.41	79.15	73.307		
12,500.00	7,119.71	7,158.02	7,143.81	158.72	30.59	89.95	2,169.66	48.97	5,900.64	5,821.41	79.23	74.472		
12,600.00	7,119.27	7,157.67	7,143.47	161.50	30.59	89.93	2,169.66	48.97	5,998.79	5,919.48	79.31	75.635		
12,700.00	7,118.84	7,157.33	7,143.12	164.29	30.59	89.91	2,169.67	48.97	6,097.00	6,017.61	79.39	76.798		
12,800.00	7,118.41	7,156.98	7,142.78	167.08	30.59	89.90	2,169.67	48.97	6,195.26	6,115.79	79.47	77.960		
12,900.00	7,117.97	7,156.64	7,142.43	169.88	30.59	89.88	2,169.68	48.97	6,293.58	6,214.04	79.54	79.122		
13,000.00	7,117.54	7,156.29	7,142.09	172.67	30.59	89.86	2,169.68	48.97	6,391.95	6,312.33	79.62	80.282		
13,100.00	7,117.10	7,155.95	7,141.74	175.47	30.59	89.85	2,169.69	48.97	6,490.37	6,410.68	79.69	81.441		
13,200.00	7,116.67	7,155.61	7,141.40	178.27	30.58	89.83	2,169.69	48.97	6,588.84	6,509.07	79.77	82.599		
13,300.00	7,116.24	7,155.26	7,141.06	181.07	30.58	89.81	2,169.70	48.97	6,687.35	6,607.51	79.84	83.755		
13,400.00	7,115.80	7,154.92	7,140.71	183.87	30.58	89.79	2,169.70	48.97	6,785.91	6,705.99	79.92	84.911		
13,500.00	7,115.37	7,154.57	7,140.37	186.67	30.58	89.78	2,169.71	48.97	6,884.51	6,804.52	79.99	86.065		
13,600.00	7,114.93	7,154.23	7,140.02	189.47	30.58	89.76	2,169.71	48.97	6,983.15	6,903.08	80.07	87.218		
13,700.00	7,114.50	7,153.89	7,139.68	192.28	30.58	89.74	2,169.72	48.97	7,081.82	7,001.68	80.14	88.369		
13,800.00	7,114.07	7,153.54	7,139.34	195.09	30.58	89.72	2,169.72	48.97	7,180.54	7,100.32	80.21	89.519		
13,900.00	7,113.63	7,153.20	7,138.99	197.89	30.57	89.71	2,169.73	48.97	7,279.28	7,199.00	80.29	90.668		
14,000.00	7,113.20	7,152.85	7,138.65	200.70	30.57	89.69	2,169.73	48.97	7,378.07	7,297.71	80.36	91.815		
14,100.00	7,112.77	7,152.51	7,138.30	203.51	30.57	89.67	2,169.74	48.97	7,476.88	7,396.45	80.43	92.960		
14,200.00	7,112.33	7,152.17	7,137.96	206.32	30.57	89.66	2,169.74	48.97	7,575.73	7,495.22	80.50	94.104		
14,300.00	7,111.90	7,151.82	7,137.62	209.13	30.57	89.64	2,169.75	48.97	7,674.60	7,594.02	80.58	95.246		
14,400.00	7,111.46	7,151.48	7,137.27	211.95	30.57	89.62	2,169.75	48.97	7,773.51	7,692.86	80.65	96.386		
14,500.00	7,111.03	7,151.13	7,136.93	214.76	30.56	89.60	2,169.76	48.97	7,872.44	7,791.72	80.72	97.525		
14,600.00	7,110.60	7,150.79	7,136.59	217.58	30.56	89.59	2,169.76	48.97	7,971.40	7,890.60	80.80	98.662		
14,700.00	7,110.16	7,150.45	7,136.24	220.39	30.56	89.57	2,169.76	48.97	8,070.38	7,989.51	80.87	99.797		
14,800.00	7,109.73	7,150.10	7,135.90	223.21	30.56	89.55	2,169.77	48.97	8,169.39	8,088.45	80.94	100.930		
14,900.00	7,109.30	7,149.76	7,135.55	226.03	30.56	89.53	2,169.77	48.97	8,268.42	8,187.41	81.01	102.061		
14,969.16	7,109.00	7,149.52	7,135.32	227.97	30.56	89.52	2,169.78	48.97	8,336.93	8,255.86	81.07	102.842		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-166.31	-4,299.87	-1,047.09	4,425.93					
100.00	100.00	40.00	100.00	3.28	3.35	-166.31	-4,299.87	-1,047.09	4,425.53	4,418.89	6.64	666.675		
200.00	200.00	140.00	200.00	3.34	4.54	-166.31	-4,299.87	-1,047.09	4,425.53	4,417.65	7.88	561.683		
300.00	300.00	240.00	300.00	3.44	7.40	-166.31	-4,299.87	-1,047.09	4,425.53	4,414.68	10.84	408.090		
400.00	400.00	340.00	400.00	3.60	10.64	-166.31	-4,299.87	-1,047.09	4,425.53	4,411.28	14.25	310.665		
500.00	500.00	440.00	500.00	3.81	14.00	-166.31	-4,299.87	-1,047.09	4,425.53	4,407.72	17.81	248.479		
600.00	600.00	540.00	600.00	4.05	17.42	-166.31	-4,299.87	-1,047.09	4,425.53	4,404.06	21.46	206.185 CC		
700.00	699.98	639.98	699.98	4.32	20.86	-157.16	-4,299.87	-1,047.09	4,427.14	4,401.96	25.17	175.862 ES		
800.00	799.84	739.84	799.84	4.62	24.30	-157.15	-4,299.87	-1,047.09	4,431.96	4,403.04	28.92	153.237		
900.00	899.45	839.45	899.45	4.94	27.75	-157.13	-4,299.87	-1,047.09	4,440.00	4,407.30	32.69	135.805		
1,000.00	998.70	938.70	998.70	5.28	31.20	-157.10	-4,299.87	-1,047.09	4,451.24	4,414.76	36.48	122.025		
1,100.00	1,097.50	1,037.50	1,097.50	5.64	34.63	-157.11	-4,299.87	-1,047.09	4,465.48	4,425.21	40.27	110.894		
1,200.00	1,196.18	1,136.18	1,196.18	6.00	38.06	-157.19	-4,299.87	-1,047.09	4,480.42	4,436.36	44.06	101.681		
1,300.00	1,294.87	1,234.87	1,294.87	6.38	41.49	-157.27	-4,299.87	-1,047.09	4,495.36	4,447.49	47.87	93.901		
1,400.00	1,393.55	1,333.55	1,393.55	6.77	44.93	-157.35	-4,299.87	-1,047.09	4,510.32	4,458.62	51.69	87.249		
1,500.00	1,492.23	1,432.23	1,492.23	7.17	48.37	-157.43	-4,299.87	-1,047.09	4,525.28	4,469.76	55.53	81.498		
1,600.00	1,590.91	1,530.91	1,590.91	7.58	51.80	-157.50	-4,299.87	-1,047.09	4,540.25	4,480.89	59.37	76.479		
1,700.00	1,689.60	1,629.60	1,689.60	8.00	55.24	-157.58	-4,299.87	-1,047.09	4,555.23	4,492.02	63.21	72.062		
1,800.00	1,788.28	1,728.28	1,788.28	8.42	58.68	-157.66	-4,299.87	-1,047.09	4,570.22	4,503.16	67.07	68.146		
1,900.00	1,886.96	1,826.96	1,886.96	8.84	62.12	-157.74	-4,299.87	-1,047.09	4,585.22	4,514.29	70.92	64.651		
2,000.00	1,985.64	1,925.64	1,985.64	9.27	65.56	-157.81	-4,299.87	-1,047.09	4,600.22	4,525.44	74.78	61.513		
2,100.00	2,084.33	2,024.33	2,084.33	9.71	69.00	-157.89	-4,299.87	-1,047.09	4,615.23	4,536.58	78.65	58.680		
2,200.00	2,183.01	2,123.01	2,183.01	10.15	72.44	-157.96	-4,299.87	-1,047.09	4,630.25	4,547.73	82.52	56.111		
2,300.00	2,281.69	2,221.69	2,281.69	10.59	75.88	-158.04	-4,299.87	-1,047.09	4,645.28	4,558.89	86.39	53.770		
2,400.00	2,380.38	2,320.38	2,380.38	11.03	79.33	-158.11	-4,299.87	-1,047.09	4,660.31	4,570.05	90.27	51.629		
2,500.00	2,479.06	2,419.06	2,479.06	11.47	82.77	-158.19	-4,299.87	-1,047.09	4,675.36	4,581.21	94.14	49.663		
2,600.00	2,577.74	2,517.74	2,577.74	11.92	86.21	-158.26	-4,299.87	-1,047.09	4,690.41	4,592.39	98.02	47.851		
2,700.00	2,676.42	2,616.42	2,676.42	12.36	89.65	-158.33	-4,299.87	-1,047.09	4,705.46	4,603.56	101.90	46.177		
2,800.00	2,775.11	2,715.11	2,775.11	12.81	93.10	-158.40	-4,299.87	-1,047.09	4,720.53	4,614.75	105.78	44.625		
2,900.00	2,873.79	2,813.79	2,873.79	13.26	96.54	-158.48	-4,299.87	-1,047.09	4,735.60	4,625.94	109.67	43.182		
3,000.00	2,972.47	2,912.47	2,972.47	13.72	99.98	-158.55	-4,299.87	-1,047.09	4,750.68	4,637.13	113.55	41.838		
3,100.00	3,071.15	3,011.15	3,071.15	14.17	103.43	-158.62	-4,299.87	-1,047.09	4,765.77	4,648.33	117.44	40.582		
3,200.00	3,169.84	3,109.84	3,169.84	14.62	106.87	-158.69	-4,299.87	-1,047.09	4,780.86	4,659.54	121.32	39.406		
3,300.00	3,268.52	3,208.52	3,268.52	15.08	110.31	-158.76	-4,299.87	-1,047.09	4,795.96	4,670.75	125.21	38.303		
3,400.00	3,367.20	3,307.20	3,367.20	15.53	113.76	-158.83	-4,299.87	-1,047.09	4,811.07	4,681.97	129.10	37.267		
3,500.00	3,465.89	3,405.89	3,465.89	15.99	117.20	-158.90	-4,299.87	-1,047.09	4,826.19	4,693.20	132.99	36.291		
3,600.00	3,564.57	3,504.57	3,564.57	16.44	120.64	-158.97	-4,299.87	-1,047.09	4,841.31	4,704.43	136.88	35.370		
3,700.00	3,663.25	3,603.25	3,663.25	16.90	124.09	-159.04	-4,299.87	-1,047.09	4,856.44	4,715.67	140.77	34.500		
3,800.00	3,761.93	3,701.93	3,761.93	17.36	127.53	-159.10	-4,299.87	-1,047.09	4,871.57	4,726.91	144.66	33.676		
3,900.00	3,860.62	3,800.62	3,860.62	17.82	130.98	-159.17	-4,299.87	-1,047.09	4,886.72	4,738.16	148.55	32.896		
4,000.00	3,959.30	3,900.70	3,959.30	18.28	134.47	-159.24	-4,299.87	-1,047.09	4,901.86	4,749.37	152.49	32.145		
4,100.00	4,057.98	4,002.02	4,057.98	18.74	138.00	-159.31	-4,299.87	-1,047.09	4,917.02	4,760.54	156.48	31.423		
4,200.00	4,156.67	4,103.34	4,156.67	19.20	141.54	-159.37	-4,299.87	-1,047.09	4,932.18	4,771.72	160.46	30.737		
4,300.00	4,255.35	4,204.65	4,255.35	19.66	145.08	-159.44	-4,299.87	-1,047.09	4,947.35	4,782.90	164.45	30.085		
4,400.00	4,354.03	4,305.97	4,354.03	20.12	148.61	-159.50	-4,299.87	-1,047.09	4,962.52	4,794.09	168.43	29.463		
4,500.00	4,452.71	4,407.29	4,452.71	20.58	152.15	-159.57	-4,299.87	-1,047.09	4,977.71	4,805.29	172.42	28.870		
4,600.00	4,551.40	4,508.60	4,551.40	21.04	155.68	-159.63	-4,299.87	-1,047.09	4,992.89	4,816.49	176.41	28.303		
4,700.00	4,650.08	4,609.92	4,650.08	21.50	159.22	-159.70	-4,299.87	-1,047.09	5,008.09	4,827.69	180.39	27.762		
4,800.00	4,748.76	4,688.76	4,748.76	21.96	161.97	-159.76	-4,299.87	-1,047.09	5,023.29	4,839.69	183.60	27.361		
4,900.00	4,847.44	4,787.44	4,847.44	22.42	165.42	-159.82	-4,299.87	-1,047.09	5,038.49	4,851.00	187.49	26.873		
5,000.00	4,946.13	4,886.13	4,946.13	22.89	168.86	-159.89	-4,299.87	-1,047.09	5,053.70	4,862.32	191.39	26.406		
5,100.00	5,044.81	4,984.81	5,044.81	23.35	172.31	-159.95	-4,299.87	-1,047.09	5,068.92	4,873.64	195.28	25.957		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,083.49	5,143.49	23.81	175.75	-160.01	-4,299.87	-1,047.09	5,084.14	4,884.96	199.18	25.525		
5,300.00	5,242.18	5,182.18	5,242.18	24.27	179.19	-160.08	-4,299.87	-1,047.09	5,099.37	4,896.30	203.08	25.111		
5,400.00	5,340.86	5,280.86	5,340.86	24.74	182.64	-160.14	-4,299.87	-1,047.09	5,114.61	4,907.64	206.97	24.711		
5,500.00	5,439.54	5,379.54	5,439.54	25.20	186.08	-160.20	-4,299.87	-1,047.09	5,129.85	4,918.98	210.87	24.327		
5,600.00	5,538.22	5,478.22	5,538.22	25.66	189.53	-160.26	-4,299.87	-1,047.09	5,145.10	4,930.33	214.77	23.957		
5,700.00	5,636.91	5,576.91	5,636.91	26.13	192.97	-160.32	-4,299.87	-1,047.09	5,160.35	4,941.68	218.66	23.599		
5,800.00	5,735.59	5,675.59	5,735.59	26.59	196.42	-160.38	-4,299.87	-1,047.09	5,175.61	4,953.05	222.56	23.255		
5,900.00	5,834.27	5,774.27	5,834.27	27.06	199.86	-160.44	-4,299.87	-1,047.09	5,190.87	4,964.41	226.46	22.922		
6,000.00	5,932.95	5,872.95	5,932.95	27.52	203.31	-160.50	-4,299.87	-1,047.09	5,206.14	4,975.78	230.36	22.600		
6,100.00	6,031.64	5,971.64	6,031.64	27.98	206.75	-160.56	-4,299.87	-1,047.09	5,221.41	4,987.16	234.26	22.289		
6,200.00	6,130.32	6,070.32	6,130.32	28.45	210.20	-160.62	-4,299.87	-1,047.09	5,236.69	4,998.54	238.15	21.989		
6,300.00	6,229.00	6,169.00	6,229.00	28.91	213.64	-160.68	-4,299.87	-1,047.09	5,251.98	5,009.93	242.05	21.698		
6,400.00	6,327.69	6,267.69	6,327.69	29.38	217.08	-160.73	-4,299.87	-1,047.09	5,267.27	5,021.32	245.95	21.416		
6,500.00	6,426.37	6,366.37	6,426.37	29.84	220.53	-160.79	-4,299.87	-1,047.09	5,282.57	5,032.72	249.85	21.143		
6,600.00	6,525.05	6,465.05	6,525.05	30.31	223.97	-160.85	-4,299.87	-1,047.09	5,297.87	5,044.12	253.75	20.879		
6,700.00	6,623.18	6,563.18	6,623.18	30.77	227.40	-119.65	-4,299.87	-1,047.09	5,311.52	5,053.89	257.63	20.617		
6,800.00	6,718.58	6,658.58	6,718.58	31.22	230.73	-102.68	-4,299.87	-1,047.09	5,321.73	5,060.32	261.42	20.357		
6,900.00	6,808.91	6,748.91	6,808.91	31.66	233.88	-95.14	-4,299.87	-1,047.09	5,328.48	5,063.45	265.03	20.105		
7,000.00	6,891.95	6,831.95	6,891.95	32.07	236.78	-91.38	-4,299.87	-1,047.09	5,331.93	5,063.52	268.41	19.865		
7,100.00	6,965.65	6,905.65	6,965.65	32.51	239.35	-89.50	-4,299.87	-1,047.09	5,332.37	5,060.87	271.50	19.640		
7,200.00	7,028.20	6,968.20	7,028.20	33.02	241.54	-88.71	-4,299.87	-1,047.09	5,330.23	5,055.94	274.29	19.433		
7,300.00	7,078.04	7,018.04	7,078.04	33.68	243.28	-88.59	-4,299.87	-1,047.09	5,325.97	5,049.21	276.76	19.244		
7,400.00	7,113.97	7,053.97	7,113.97	34.52	244.53	-88.87	-4,299.87	-1,047.09	5,320.05	5,041.17	278.89	19.076		
7,500.00	7,135.09	7,075.09	7,135.09	35.53	245.27	-89.40	-4,299.87	-1,047.09	5,312.92	5,032.27	280.65	18.931		
7,600.00	7,140.96	7,080.96	7,140.96	36.68	245.47	-90.02	-4,299.87	-1,047.09	5,304.93	5,022.93	282.00	18.812		
7,700.00	7,140.53	7,080.53	7,140.53	37.99	245.46	-90.02	-4,299.87	-1,047.09	5,297.77	5,014.49	283.28	18.701		
7,800.00	7,140.09	7,080.09	7,140.09	39.45	245.44	-90.01	-4,299.87	-1,047.09	5,292.48	5,007.77	284.71	18.589		
7,900.00	7,139.66	7,079.66	7,139.66	41.06	245.43	-90.01	-4,299.87	-1,047.09	5,289.08	5,002.80	286.28	18.475		
8,000.00	7,139.23	7,079.23	7,139.23	42.80	245.41	-90.00	-4,299.87	-1,047.09	5,287.57	4,999.60	287.97	18.362		
8,029.85	7,139.10	7,079.10	7,139.10	43.35	245.41	-90.00	-4,299.87	-1,047.09	5,287.49	4,998.98	288.51	18.327		
8,100.00	7,138.79	7,078.79	7,138.79	44.65	245.40	-90.00	-4,299.87	-1,047.09	5,287.95	4,998.19	289.76	18.249		
8,200.00	7,138.36	7,078.36	7,138.36	46.60	245.38	-89.99	-4,299.87	-1,047.09	5,290.23	4,998.59	291.63	18.140		
8,300.00	7,137.93	7,077.93	7,137.93	48.65	245.37	-89.99	-4,299.87	-1,047.09	5,294.38	5,000.81	293.58	18.034		
8,400.00	7,137.49	7,077.49	7,137.49	50.77	245.35	-89.98	-4,299.87	-1,047.09	5,300.43	5,004.84	295.58	17.932		
8,500.00	7,137.06	7,077.06	7,137.06	52.95	245.34	-89.98	-4,299.87	-1,047.09	5,308.35	5,010.71	297.64	17.835		
8,600.00	7,136.62	7,076.62	7,136.62	55.20	245.32	-89.97	-4,299.87	-1,047.09	5,318.14	5,018.41	299.72	17.743		
8,700.00	7,136.19	7,076.19	7,136.19	57.51	245.31	-89.97	-4,299.87	-1,047.09	5,329.79	5,027.95	301.84	17.658		
8,800.00	7,135.76	7,075.76	7,135.76	59.85	245.29	-89.96	-4,299.87	-1,047.09	5,343.28	5,039.31	303.97	17.578		
8,900.00	7,135.32	7,075.32	7,135.32	62.24	245.28	-89.96	-4,299.87	-1,047.09	5,358.61	5,052.49	306.12	17.505		
9,000.00	7,134.89	7,074.89	7,134.89	64.67	245.26	-89.95	-4,299.87	-1,047.09	5,375.75	5,067.49	308.27	17.439		
9,100.00	7,134.45	7,074.45	7,134.45	67.13	245.25	-89.95	-4,299.87	-1,047.09	5,394.69	5,084.28	310.41	17.379		
9,200.00	7,134.02	7,074.02	7,134.02	69.62	245.23	-89.95	-4,299.87	-1,047.09	5,415.42	5,102.87	312.55	17.326		
9,300.00	7,133.59	7,073.59	7,133.59	72.14	245.22	-89.94	-4,299.87	-1,047.09	5,437.90	5,123.22	314.68	17.281		
9,400.00	7,133.15	7,073.15	7,133.15	74.68	245.20	-89.94	-4,299.87	-1,047.09	5,462.12	5,145.33	316.79	17.242		
9,500.00	7,132.72	7,072.72	7,132.72	77.24	245.19	-89.93	-4,299.87	-1,047.09	5,488.06	5,169.18	318.88	17.210		
9,600.00	7,132.29	7,072.29	7,132.29	79.83	245.17	-89.93	-4,299.87	-1,047.09	5,515.69	5,194.74	320.95	17.186		
9,700.00	7,131.85	7,071.85	7,131.85	82.42	245.16	-89.92	-4,299.87	-1,047.09	5,544.99	5,222.00	322.99	17.168		
9,800.00	7,131.42	7,071.42	7,131.42	85.04	245.14	-89.92	-4,299.87	-1,047.09	5,575.92	5,250.92	325.00	17.157		
9,900.00	7,130.98	7,070.98	7,130.98	87.67	245.12	-89.91	-4,299.87	-1,047.09	5,608.47	5,281.49	326.98	17.152 SF		
10,000.00	7,130.55	7,070.55	7,130.55	90.31	245.11	-89.91	-4,299.87	-1,047.09	5,642.60	5,313.67	328.93	17.155		
10,100.00	7,130.12	7,070.12	7,130.12	92.97	245.09	-89.90	-4,299.87	-1,047.09	5,678.29	5,347.45	330.84	17.163		
10,200.00	7,129.68	7,069.68	7,129.68	95.63	245.08	-89.90	-4,299.87	-1,047.09	5,715.50	5,382.79	332.71	17.178		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - RUTT-ADAMS HEIRS 2-22 - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,129.25	7,069.25	7,129.25	98.31	245.06	-89.89	-4,299.87	-1,047.09	5,754.22	5,419.67	334.55	17.200		
10,400.00	7,128.82	7,068.82	7,128.82	101.00	245.05	-89.89	-4,299.87	-1,047.09	5,794.40	5,458.05	336.35	17.227		
10,500.00	7,128.38	7,068.38	7,128.38	103.69	245.03	-89.88	-4,299.87	-1,047.09	5,836.01	5,497.90	338.11	17.261		
10,600.00	7,127.95	7,067.95	7,127.95	106.39	245.02	-89.88	-4,299.87	-1,047.09	5,879.04	5,539.21	339.83	17.300		
10,700.00	7,127.51	7,067.51	7,127.51	109.10	245.00	-89.87	-4,299.87	-1,047.09	5,923.44	5,581.93	341.51	17.345		
10,800.00	7,127.08	7,067.08	7,127.08	111.82	244.99	-89.87	-4,299.87	-1,047.09	5,969.18	5,626.04	343.14	17.396		
10,900.00	7,126.65	7,066.65	7,126.65	114.54	244.97	-89.87	-4,299.87	-1,047.09	6,016.24	5,671.50	344.74	17.451		
11,000.00	7,126.21	7,066.21	7,126.21	117.27	244.96	-89.86	-4,299.87	-1,047.09	6,064.58	5,718.28	346.30	17.513		
11,100.00	7,125.78	7,065.78	7,125.78	120.01	244.94	-89.86	-4,299.87	-1,047.09	6,114.18	5,766.36	347.81	17.579		
11,200.00	7,125.35	7,065.35	7,125.35	122.75	244.93	-89.85	-4,299.87	-1,047.09	6,165.00	5,815.71	349.29	17.650		
11,300.00	7,124.91	7,064.91	7,124.91	125.49	244.91	-89.85	-4,299.87	-1,047.09	6,217.01	5,866.28	350.72	17.726		
11,400.00	7,124.48	7,064.48	7,124.48	128.24	244.90	-89.84	-4,299.87	-1,047.09	6,270.18	5,918.06	352.12	17.807		
11,500.00	7,124.04	7,064.04	7,124.04	131.00	244.88	-89.84	-4,299.87	-1,047.09	6,324.49	5,971.02	353.48	17.892		
11,600.00	7,123.61	7,063.61	7,123.61	133.75	244.87	-89.83	-4,299.87	-1,047.09	6,379.91	6,025.11	354.80	17.982		
11,700.00	7,123.18	7,063.18	7,123.18	136.52	244.85	-89.83	-4,299.87	-1,047.09	6,436.40	6,080.33	356.08	18.076		
11,800.00	7,122.74	7,062.74	7,122.74	139.28	244.84	-89.82	-4,299.87	-1,047.09	6,493.94	6,136.62	357.32	18.174		
11,900.00	7,122.31	7,062.31	7,122.31	142.05	244.82	-89.82	-4,299.87	-1,047.09	6,552.50	6,193.98	358.53	18.276		
12,000.00	7,121.88	7,061.88	7,121.88	144.82	244.81	-89.81	-4,299.87	-1,047.09	6,612.06	6,252.36	359.70	18.382		
12,100.00	7,121.44	7,061.44	7,121.44	147.59	244.79	-89.81	-4,299.87	-1,047.09	6,672.58	6,311.75	360.83	18.492		
12,200.00	7,121.01	7,061.01	7,121.01	150.37	244.78	-89.80	-4,299.87	-1,047.09	6,734.04	6,372.11	361.93	18.606		
12,300.00	7,120.57	7,060.57	7,120.57	153.15	244.76	-89.80	-4,299.87	-1,047.09	6,796.42	6,433.42	363.00	18.723		
12,400.00	7,120.14	7,060.14	7,120.14	155.93	244.75	-89.79	-4,299.87	-1,047.09	6,859.69	6,495.66	364.03	18.844		
12,500.00	7,119.71	7,059.71	7,119.71	158.72	244.73	-89.79	-4,299.87	-1,047.09	6,923.83	6,558.79	365.04	18.967		
12,600.00	7,119.27	7,059.27	7,119.27	161.50	244.72	-89.79	-4,299.87	-1,047.09	6,988.80	6,622.80	366.01	19.095		
12,700.00	7,118.84	7,058.84	7,118.84	164.29	244.70	-89.78	-4,299.87	-1,047.09	7,054.60	6,687.65	366.95	19.225		
12,800.00	7,118.41	7,058.41	7,118.41	167.08	244.69	-89.78	-4,299.87	-1,047.09	7,121.19	6,753.33	367.86	19.358		
12,900.00	7,117.97	7,057.97	7,117.97	169.88	244.67	-89.77	-4,299.87	-1,047.09	7,188.56	6,819.82	368.75	19.495		
13,000.00	7,117.54	7,057.54	7,117.54	172.67	244.66	-89.77	-4,299.87	-1,047.09	7,256.68	6,887.08	369.60	19.634		
13,100.00	7,117.10	7,057.10	7,117.10	175.47	244.64	-89.76	-4,299.87	-1,047.09	7,325.53	6,955.10	370.43	19.776		
13,200.00	7,116.67	7,056.67	7,116.67	178.27	244.63	-89.76	-4,299.87	-1,047.09	7,395.10	7,023.86	371.23	19.920		
13,300.00	7,116.24	7,056.24	7,116.24	181.07	244.61	-89.75	-4,299.87	-1,047.09	7,465.35	7,093.34	372.01	20.067		
13,400.00	7,115.80	7,055.80	7,115.80	183.87	244.60	-89.75	-4,299.87	-1,047.09	7,536.28	7,163.51	372.76	20.217		
13,500.00	7,115.37	7,055.37	7,115.37	186.67	244.58	-89.74	-4,299.87	-1,047.09	7,607.86	7,234.36	373.49	20.369		
13,600.00	7,114.93	7,054.93	7,114.93	189.47	244.56	-89.74	-4,299.87	-1,047.09	7,680.07	7,305.87	374.20	20.524		
13,700.00	7,114.50	7,054.50	7,114.50	192.28	244.55	-89.73	-4,299.87	-1,047.09	7,752.90	7,378.02	374.88	20.681		
13,800.00	7,114.07	7,054.07	7,114.07	195.09	244.53	-89.73	-4,299.87	-1,047.09	7,826.33	7,450.79	375.55	20.840		
13,900.00	7,113.63	7,053.63	7,113.63	197.89	244.52	-89.72	-4,299.87	-1,047.09	7,900.35	7,524.16	376.19	21.001		
14,000.00	7,113.20	7,053.20	7,113.20	200.70	244.50	-89.72	-4,299.87	-1,047.09	7,974.93	7,598.12	376.81	21.164		
14,100.00	7,112.77	7,052.77	7,112.77	203.51	244.49	-89.71	-4,299.87	-1,047.09	8,050.06	7,672.65	377.41	21.330		
14,200.00	7,112.33	7,052.33	7,112.33	206.32	244.47	-89.71	-4,299.87	-1,047.09	8,125.73	7,747.74	377.99	21.497		
14,300.00	7,111.90	7,051.90	7,111.90	209.13	244.46	-89.71	-4,299.87	-1,047.09	8,201.92	7,823.37	378.56	21.666		
14,400.00	7,111.46	7,051.46	7,111.46	211.95	244.44	-89.70	-4,299.87	-1,047.09	8,278.62	7,899.52	379.10	21.837		
14,500.00	7,111.03	7,051.03	7,111.03	214.76	244.43	-89.70	-4,299.87	-1,047.09	8,355.81	7,976.18	379.63	22.010		
14,600.00	7,110.60	7,050.60	7,110.60	217.58	244.41	-89.69	-4,299.87	-1,047.09	8,433.48	8,053.33	380.14	22.185		
14,700.00	7,110.16	7,050.16	7,110.16	220.39	244.40	-89.69	-4,299.87	-1,047.09	8,511.61	8,130.97	380.64	22.361		
14,800.00	7,109.73	7,049.73	7,109.73	223.21	244.38	-89.68	-4,299.87	-1,047.09	8,590.20	8,209.08	381.12	22.539		
14,900.00	7,109.30	7,049.30	7,109.30	226.03	244.37	-89.68	-4,299.87	-1,047.09	8,669.23	8,287.64	381.59	22.719		
14,969.16	7,109.00	7,049.00	7,109.00	227.97	244.36	-89.67	-4,299.87	-1,047.09	8,724.14	8,342.24	381.90	22.844		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-46.84	1,090.75	-1,163.12	1,594.55					
100.00	100.00	105.00	100.00	3.28	3.80	-46.84	1,090.75	-1,163.12	1,594.55	1,587.46	7.09	225.049		
200.00	200.00	205.00	200.00	3.34	6.33	-46.84	1,090.75	-1,163.12	1,594.55	1,584.88	9.66	164.989		
300.00	300.00	305.00	300.00	3.44	9.49	-46.84	1,090.75	-1,163.12	1,594.55	1,581.62	12.93	123.302		
400.00	400.00	405.00	400.00	3.60	12.82	-46.84	1,090.75	-1,163.12	1,594.55	1,578.13	16.42	97.092		
500.00	500.00	505.00	500.00	3.81	16.22	-46.84	1,090.75	-1,163.12	1,594.55	1,574.52	20.03	79.627		
600.00	600.00	605.00	600.00	4.05	19.65	-46.84	1,090.75	-1,163.12	1,594.55	1,570.85	23.70	67.289		
700.00	699.98	705.02	699.98	4.32	23.10	-37.74	1,090.75	-1,163.12	1,593.17	1,565.75	27.42	58.105		
800.00	799.84	805.16	799.84	4.62	26.57	-37.91	1,090.75	-1,163.12	1,589.03	1,557.85	31.18	50.960		
900.00	899.45	905.55	899.45	4.94	30.05	-38.19	1,090.75	-1,163.12	1,582.16	1,547.18	34.98	45.228		
1,000.00	998.70	1,006.30	998.70	5.28	33.55	-38.58	1,090.75	-1,163.12	1,572.58	1,533.76	38.82	40.511		
1,100.00	1,097.50	1,107.50	1,097.50	5.64	37.06	-39.03	1,090.75	-1,163.12	1,560.49	1,517.80	42.69	36.554		
1,200.00	1,196.18	1,208.82	1,196.18	6.00	40.59	-39.41	1,090.75	-1,163.12	1,547.89	1,501.32	46.58	33.232		
1,300.00	1,294.87	1,289.87	1,294.87	6.38	43.41	-39.79	1,090.75	-1,163.12	1,535.36	1,485.59	49.78	30.846		
1,400.00	1,393.55	1,388.55	1,393.55	6.77	46.84	-40.18	1,090.75	-1,163.12	1,522.90	1,469.30	53.60	28.413		
1,500.00	1,492.23	1,487.23	1,492.23	7.17	50.28	-40.57	1,090.75	-1,163.12	1,510.51	1,453.08	57.43	26.301		
1,600.00	1,590.91	1,585.91	1,590.91	7.58	53.72	-40.97	1,090.75	-1,163.12	1,498.18	1,436.91	61.27	24.452		
1,700.00	1,689.60	1,684.60	1,689.60	8.00	57.16	-41.38	1,090.75	-1,163.12	1,485.94	1,420.82	65.12	22.819		
1,800.00	1,788.28	1,783.28	1,788.28	8.42	60.60	-41.79	1,090.75	-1,163.12	1,473.77	1,404.79	68.97	21.367		
1,900.00	1,886.96	1,881.96	1,886.96	8.84	64.04	-42.21	1,090.75	-1,163.12	1,461.67	1,388.84	72.83	20.069		
2,000.00	1,985.64	1,980.64	1,985.64	9.27	67.48	-42.64	1,090.75	-1,163.12	1,449.66	1,372.96	76.70	18.901		
2,100.00	2,084.33	2,079.33	2,084.33	9.71	70.92	-43.07	1,090.75	-1,163.12	1,437.73	1,357.16	80.56	17.846		
2,200.00	2,183.01	2,178.01	2,183.01	10.15	74.36	-43.51	1,090.75	-1,163.12	1,425.88	1,341.44	84.44	16.887		
2,300.00	2,281.69	2,276.69	2,281.69	10.59	77.80	-43.96	1,090.75	-1,163.12	1,414.12	1,325.81	88.31	16.013		
2,400.00	2,380.38	2,375.38	2,380.38	11.03	81.25	-44.42	1,090.75	-1,163.12	1,402.44	1,310.25	92.19	15.213		
2,500.00	2,479.06	2,474.06	2,479.06	11.47	84.69	-44.88	1,090.75	-1,163.12	1,390.86	1,294.79	96.07	14.478		
2,600.00	2,577.74	2,572.74	2,577.74	11.92	88.13	-45.35	1,090.75	-1,163.12	1,379.36	1,279.42	99.95	13.801		
2,700.00	2,676.42	2,671.42	2,676.42	12.36	91.57	-45.83	1,090.75	-1,163.12	1,367.97	1,264.13	103.83	13.175		
2,800.00	2,775.11	2,770.11	2,775.11	12.81	95.02	-46.32	1,090.75	-1,163.12	1,356.67	1,248.95	107.72	12.595		
2,900.00	2,873.79	2,868.79	2,873.79	13.26	98.46	-46.81	1,090.75	-1,163.12	1,345.47	1,233.86	111.61	12.055		
3,000.00	2,972.47	2,967.47	2,972.47	13.72	101.90	-47.31	1,090.75	-1,163.12	1,334.37	1,218.87	115.50	11.553		
3,100.00	3,071.15	3,066.15	3,071.15	14.17	105.35	-47.83	1,090.75	-1,163.12	1,323.37	1,203.99	119.39	11.085		
3,200.00	3,169.84	3,164.84	3,169.84	14.62	108.79	-48.34	1,090.75	-1,163.12	1,312.49	1,189.21	123.28	10.647		
3,300.00	3,268.52	3,263.52	3,268.52	15.08	112.23	-48.87	1,090.75	-1,163.12	1,301.71	1,174.54	127.17	10.236		
3,400.00	3,367.20	3,362.20	3,367.20	15.53	115.68	-49.41	1,090.75	-1,163.12	1,291.05	1,159.98	131.06	9.850		
3,500.00	3,465.89	3,460.89	3,465.89	15.99	119.12	-49.95	1,090.75	-1,163.12	1,280.50	1,145.54	134.96	9.488		
3,600.00	3,564.57	3,559.57	3,564.57	16.44	122.56	-50.51	1,090.75	-1,163.12	1,270.07	1,131.21	138.86	9.147		
3,700.00	3,663.25	3,658.25	3,663.25	16.90	126.01	-51.07	1,090.75	-1,163.12	1,259.76	1,117.01	142.75	8.825		
3,800.00	3,761.93	3,756.93	3,761.93	17.36	129.45	-51.64	1,090.75	-1,163.12	1,249.58	1,102.93	146.65	8.521		
3,900.00	3,860.62	3,855.62	3,860.62	17.82	132.89	-52.23	1,090.75	-1,163.12	1,239.52	1,088.97	150.55	8.233		
4,000.00	3,959.30	3,954.30	3,959.30	18.28	136.34	-52.82	1,090.75	-1,163.12	1,229.60	1,075.15	154.45	7.961		
4,100.00	4,057.98	4,052.98	4,057.98	18.74	139.78	-53.42	1,090.75	-1,163.12	1,219.81	1,061.45	158.35	7.703		
4,200.00	4,156.67	4,151.67	4,156.67	19.20	143.23	-54.03	1,090.75	-1,163.12	1,210.15	1,047.90	162.25	7.458		
4,300.00	4,255.35	4,250.35	4,255.35	19.66	146.67	-54.65	1,090.75	-1,163.12	1,200.64	1,034.48	166.16	7.226		
4,400.00	4,354.03	4,349.03	4,354.03	20.12	150.12	-55.28	1,090.75	-1,163.12	1,191.27	1,021.21	170.06	7.005		
4,500.00	4,452.71	4,447.71	4,452.71	20.58	153.56	-55.91	1,090.75	-1,163.12	1,182.04	1,008.08	173.96	6.795		
4,600.00	4,551.40	4,546.40	4,551.40	21.04	157.00	-56.56	1,090.75	-1,163.12	1,172.97	995.10	177.87	6.595		
4,700.00	4,650.08	4,645.08	4,650.08	21.50	160.45	-57.22	1,090.75	-1,163.12	1,164.05	982.28	181.77	6.404		
4,800.00	4,748.76	4,743.76	4,748.76	21.96	163.89	-57.89	1,090.75	-1,163.12	1,155.29	969.61	185.68	6.222		
4,900.00	4,847.44	4,842.44	4,847.44	22.42	167.34	-58.57	1,090.75	-1,163.12	1,146.69	957.10	189.59	6.048		
5,000.00	4,946.13	4,941.13	4,946.13	22.89	170.78	-59.26	1,090.75	-1,163.12	1,138.25	944.76	193.49	5.883		
5,100.00	5,044.81	5,039.81	5,044.81	23.35	174.23	-59.95	1,090.75	-1,163.12	1,129.99	932.59	197.40	5.724		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,143.49	5,138.49	5,143.49	23.81	177.67	-60.66	1,090.75	-1,163.12	1,121.89	920.58	201.31	5.573		
5,300.00	5,242.18	5,237.18	5,242.18	24.27	181.11	-61.38	1,090.75	-1,163.12	1,113.98	908.76	205.22	5.428		
5,400.00	5,340.86	5,335.86	5,340.86	24.74	184.56	-62.11	1,090.75	-1,163.12	1,106.24	897.11	209.13	5.290		
5,500.00	5,439.54	5,434.54	5,439.54	25.20	188.00	-62.85	1,090.75	-1,163.12	1,098.68	885.65	213.04	5.157		
5,600.00	5,538.22	5,533.22	5,538.22	25.66	191.45	-63.59	1,090.75	-1,163.12	1,091.32	874.37	216.95	5.030		
5,700.00	5,636.91	5,631.91	5,636.91	26.13	194.89	-64.35	1,090.75	-1,163.12	1,084.14	863.28	220.86	4.909		
5,800.00	5,735.59	5,730.59	5,735.59	26.59	198.34	-65.12	1,090.75	-1,163.12	1,077.16	852.39	224.77	4.792		
5,900.00	5,834.27	5,829.27	5,834.27	27.06	201.78	-65.90	1,090.75	-1,163.12	1,070.38	841.70	228.68	4.681		
6,000.00	5,932.95	5,927.95	5,932.95	27.52	205.23	-66.68	1,090.75	-1,163.12	1,063.80	831.21	232.60	4.574		
6,100.00	6,031.64	6,026.64	6,031.64	27.98	208.67	-67.48	1,090.75	-1,163.12	1,057.43	820.92	236.51	4.471		
6,200.00	6,130.32	6,125.32	6,130.32	28.45	212.12	-68.28	1,090.75	-1,163.12	1,051.27	810.85	240.42	4.373		
6,300.00	6,229.00	6,224.00	6,229.00	28.91	215.56	-69.10	1,090.75	-1,163.12	1,045.32	800.99	244.34	4.278		
6,400.00	6,327.69	6,322.69	6,327.69	29.38	219.00	-69.92	1,090.75	-1,163.12	1,039.59	791.34	248.25	4.188		
6,500.00	6,426.37	6,421.37	6,426.37	29.84	222.45	-70.75	1,090.75	-1,163.12	1,034.09	781.92	252.17	4.101		
6,600.00	6,525.05	6,520.05	6,525.05	30.31	225.89	-71.59	1,090.75	-1,163.12	1,028.80	772.72	256.08	4.017		
6,700.00	6,623.18	6,618.18	6,623.18	30.77	229.32	-32.02	1,090.75	-1,163.12	1,016.13	756.15	259.97	3.909		
6,800.00	6,718.58	6,713.58	6,718.58	31.22	232.65	-15.81	1,090.75	-1,163.12	988.51	724.77	263.75	3.748		
6,900.00	6,808.91	6,803.91	6,808.91	31.66	235.80	-8.17	1,090.75	-1,163.12	946.55	679.25	267.31	3.541		
7,000.00	6,891.95	6,886.95	6,891.95	32.07	238.70	-3.38	1,090.75	-1,163.12	891.20	620.63	270.56	3.294		
7,100.00	6,965.65	6,960.65	6,965.65	32.51	241.27	0.67	1,090.75	-1,163.12	823.77	550.33	273.44	3.013		
7,200.00	7,028.20	7,023.20	7,028.20	33.02	243.46	5.36	1,090.75	-1,163.12	745.91	470.06	275.85	2.704		
7,300.00	7,078.04	7,073.04	7,078.04	33.68	245.20	12.59	1,090.75	-1,163.12	659.59	381.84	277.75	2.375		
7,400.00	7,113.97	7,108.97	7,113.97	34.52	246.45	26.71	1,090.75	-1,163.12	567.04	287.96	279.08	2.032		
7,500.00	7,135.09	7,130.09	7,135.09	35.53	247.19	56.57	1,090.75	-1,163.12	470.84	191.01	279.83	1.683		
7,600.00	7,140.96	7,135.96	7,140.96	36.68	247.39	90.86	1,090.75	-1,163.12	374.00	93.98	280.02	1.336 Level 3		
7,700.00	7,140.53	7,135.53	7,140.53	37.99	247.38	90.62	1,090.75	-1,163.12	279.32	-0.80	280.12	0.997 Level 1		
7,800.00	7,140.09	7,135.09	7,140.09	39.45	247.36	90.38	1,090.75	-1,163.12	190.18	-90.77	280.95	0.677 Level 1		
7,900.00	7,139.66	7,134.66	7,139.66	41.06	247.35	90.14	1,090.75	-1,163.12	119.64	-165.45	285.08	0.420 Level 1		
7,959.27	7,139.40	7,134.40	7,139.40	42.09	247.34	90.00	1,090.75	-1,163.12	103.92	-185.24	289.17	0.359 Level 1, CC, ES, SF		
8,000.00	7,139.23	7,134.23	7,139.23	42.80	247.33	89.90	1,090.75	-1,163.12	111.62	-178.15	289.77	0.385 Level 1		
8,100.00	7,138.79	7,133.79	7,138.79	44.65	247.32	89.66	1,090.75	-1,163.12	174.94	-111.57	286.50	0.611 Level 1		
8,200.00	7,138.36	7,133.36	7,138.36	46.60	247.30	89.42	1,090.75	-1,163.12	262.20	-22.11	284.31	0.922 Level 1		
8,300.00	7,137.93	7,132.93	7,137.93	48.65	247.29	89.19	1,090.75	-1,163.12	356.22	72.99	283.23	1.258 Level 3		
8,400.00	7,137.49	7,132.49	7,137.49	50.77	247.27	88.95	1,090.75	-1,163.12	452.81	170.18	282.63	1.602		
8,500.00	7,137.06	7,132.06	7,137.06	52.95	247.26	88.71	1,090.75	-1,163.12	550.62	268.35	282.27	1.951		
8,600.00	7,136.62	7,131.62	7,136.62	55.20	247.24	88.47	1,090.75	-1,163.12	649.09	367.07	282.03	2.302		
8,700.00	7,136.19	7,131.19	7,136.19	57.51	247.23	88.23	1,090.75	-1,163.12	747.97	466.12	281.86	2.654		
8,800.00	7,135.76	7,130.76	7,135.76	59.85	247.21	87.99	1,090.75	-1,163.12	847.12	565.39	281.73	3.007		
8,900.00	7,135.32	7,130.32	7,135.32	62.24	247.20	87.75	1,090.75	-1,163.12	946.44	664.80	281.64	3.361		
9,000.00	7,134.89	7,129.89	7,134.89	64.67	247.18	87.51	1,090.75	-1,163.12	1,045.89	764.33	281.56	3.715		
9,100.00	7,134.45	7,129.45	7,134.45	67.13	247.17	87.27	1,090.75	-1,163.12	1,145.44	863.93	281.51	4.069		
9,200.00	7,134.02	7,129.02	7,134.02	69.62	247.15	87.04	1,090.75	-1,163.12	1,245.06	963.60	281.46	4.424		
9,300.00	7,133.59	7,128.59	7,133.59	72.14	247.14	86.80	1,090.75	-1,163.12	1,344.74	1,063.31	281.43	4.778		
9,400.00	7,133.15	7,128.15	7,133.15	74.68	247.12	86.56	1,090.75	-1,163.12	1,444.46	1,163.05	281.40	5.133		
9,500.00	7,132.72	7,127.72	7,132.72	77.24	247.11	86.32	1,090.75	-1,163.12	1,544.21	1,262.83	281.38	5.488		
9,600.00	7,132.29	7,127.29	7,132.29	79.83	247.09	86.08	1,090.75	-1,163.12	1,644.00	1,362.63	281.37	5.843		
9,700.00	7,131.85	7,126.85	7,131.85	82.42	247.08	85.84	1,090.75	-1,163.12	1,743.81	1,462.45	281.36	6.198		
9,800.00	7,131.42	7,126.42	7,131.42	85.04	247.06	85.61	1,090.75	-1,163.12	1,843.64	1,562.29	281.35	6.553		
9,900.00	7,130.98	7,125.98	7,130.98	87.67	247.04	85.37	1,090.75	-1,163.12	1,943.49	1,662.14	281.35	6.908		
10,000.00	7,130.55	7,125.55	7,130.55	90.31	247.03	85.13	1,090.75	-1,163.12	2,043.35	1,762.01	281.35	7.263		
10,100.00	7,130.12	7,125.12	7,130.12	92.97	247.01	84.89	1,090.75	-1,163.12	2,143.23	1,861.88	281.35	7.618		
10,200.00	7,129.68	7,124.68	7,129.68	95.63	247.00	84.66	1,090.75	-1,163.12	2,243.11	1,961.76	281.35	7.973		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH													Offset Site Error: 0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error: 3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.00	7,129.25	7,124.25	7,129.25	98.31	246.98	84.42	1,090.75	-1,163.12	2,343.01	2,061.65	281.36	8.327	
10,400.00	7,128.82	7,123.82	7,128.82	101.00	246.97	84.18	1,090.75	-1,163.12	2,442.92	2,161.54	281.37	8.682	
10,500.00	7,128.38	7,123.38	7,128.38	103.69	246.95	83.95	1,090.75	-1,163.12	2,542.83	2,261.44	281.38	9.037	
10,600.00	7,127.95	7,122.95	7,127.95	106.39	246.94	83.71	1,090.75	-1,163.12	2,642.75	2,361.35	281.40	9.392	
10,700.00	7,127.51	7,122.51	7,127.51	109.10	246.92	83.47	1,090.75	-1,163.12	2,742.67	2,461.26	281.41	9.746	
10,800.00	7,127.08	7,122.08	7,127.08	111.82	246.91	83.24	1,090.75	-1,163.12	2,842.60	2,561.17	281.43	10.101	
10,900.00	7,126.65	7,121.65	7,126.65	114.54	246.89	83.00	1,090.75	-1,163.12	2,942.54	2,661.09	281.45	10.455	
11,000.00	7,126.21	7,121.21	7,126.21	117.27	246.88	82.77	1,090.75	-1,163.12	3,042.47	2,761.01	281.47	10.809	
11,100.00	7,125.78	7,120.78	7,125.78	120.01	246.86	82.53	1,090.75	-1,163.12	3,142.42	2,860.93	281.49	11.164	
11,200.00	7,125.35	7,120.35	7,125.35	122.75	246.85	82.30	1,090.75	-1,163.12	3,242.36	2,960.85	281.51	11.518	
11,300.00	7,124.91	7,119.91	7,124.91	125.49	246.83	82.06	1,090.75	-1,163.12	3,342.31	3,060.77	281.54	11.872	
11,400.00	7,124.48	7,119.48	7,124.48	128.24	246.82	81.83	1,090.75	-1,163.12	3,442.26	3,160.70	281.56	12.226	
11,500.00	7,124.04	7,119.04	7,124.04	131.00	246.80	81.59	1,090.75	-1,163.12	3,542.22	3,260.63	281.59	12.579	
11,600.00	7,123.61	7,118.61	7,123.61	133.75	246.79	81.36	1,090.75	-1,163.12	3,642.18	3,360.56	281.62	12.933	
11,700.00	7,123.18	7,118.18	7,123.18	136.52	246.77	81.13	1,090.75	-1,163.12	3,742.14	3,460.49	281.65	13.286	
11,800.00	7,122.74	7,117.74	7,122.74	139.28	246.76	80.89	1,090.75	-1,163.12	3,842.10	3,560.42	281.68	13.640	
11,900.00	7,122.31	7,117.31	7,122.31	142.05	246.74	80.66	1,090.75	-1,163.12	3,942.06	3,660.35	281.71	13.993	
12,000.00	7,121.88	7,116.88	7,121.88	144.82	246.73	80.43	1,090.75	-1,163.12	4,042.03	3,760.28	281.75	14.346	
12,100.00	7,121.44	7,116.44	7,121.44	147.59	246.71	80.19	1,090.75	-1,163.12	4,141.99	3,860.21	281.78	14.699	
12,200.00	7,121.01	7,116.01	7,121.01	150.37	246.70	79.96	1,090.75	-1,163.12	4,241.96	3,960.14	281.82	15.052	
12,300.00	7,120.57	7,115.57	7,120.57	153.15	246.68	79.73	1,090.75	-1,163.12	4,341.93	4,060.08	281.85	15.405	
12,400.00	7,120.14	7,115.14	7,120.14	155.93	246.67	79.50	1,090.75	-1,163.12	4,441.90	4,160.01	281.89	15.757	
12,500.00	7,119.71	7,114.71	7,119.71	158.72	246.65	79.27	1,090.75	-1,163.12	4,541.87	4,259.94	281.93	16.110	
12,600.00	7,119.27	7,114.27	7,119.27	161.50	246.64	79.04	1,090.75	-1,163.12	4,641.85	4,359.88	281.97	16.462	
12,700.00	7,118.84	7,113.84	7,118.84	164.29	246.62	78.81	1,090.75	-1,163.12	4,741.82	4,459.81	282.01	16.814	
12,800.00	7,118.41	7,113.41	7,118.41	167.08	246.61	78.58	1,090.75	-1,163.12	4,841.80	4,559.74	282.05	17.166	
12,900.00	7,117.97	7,112.97	7,117.97	169.88	246.59	78.35	1,090.75	-1,163.12	4,941.77	4,659.68	282.10	17.518	
13,000.00	7,117.54	7,112.54	7,117.54	172.67	246.58	78.12	1,090.75	-1,163.12	5,041.75	4,759.61	282.14	17.870	
13,100.00	7,117.10	7,112.10	7,117.10	175.47	246.56	77.89	1,090.75	-1,163.12	5,141.73	4,859.54	282.19	18.221	
13,200.00	7,116.67	7,111.67	7,116.67	178.27	246.55	77.66	1,090.75	-1,163.12	5,241.71	4,959.47	282.23	18.572	
13,300.00	7,116.24	7,111.24	7,116.24	181.07	246.53	77.43	1,090.75	-1,163.12	5,341.69	5,059.41	282.28	18.923	
13,400.00	7,115.80	7,110.80	7,115.80	183.87	246.51	77.21	1,090.75	-1,163.12	5,441.67	5,159.34	282.33	19.274	
13,500.00	7,115.37	7,110.37	7,115.37	186.67	246.50	76.98	1,090.75	-1,163.12	5,541.65	5,259.27	282.38	19.625	
13,600.00	7,114.93	7,109.93	7,114.93	189.47	246.48	76.75	1,090.75	-1,163.12	5,641.63	5,359.20	282.43	19.975	
13,700.00	7,114.50	7,109.50	7,114.50	192.28	246.47	76.53	1,090.75	-1,163.12	5,741.61	5,459.13	282.48	20.326	
13,800.00	7,114.07	7,109.07	7,114.07	195.09	246.45	76.30	1,090.75	-1,163.12	5,841.60	5,559.06	282.53	20.676	
13,900.00	7,113.63	7,108.63	7,113.63	197.89	246.44	76.07	1,090.75	-1,163.12	5,941.58	5,659.00	282.58	21.026	
14,000.00	7,113.20	7,108.20	7,113.20	200.70	246.42	75.85	1,090.75	-1,163.12	6,041.56	5,758.93	282.64	21.376	
14,100.00	7,112.77	7,107.77	7,112.77	203.51	246.41	75.62	1,090.75	-1,163.12	6,141.55	5,858.86	282.69	21.725	
14,200.00	7,112.33	7,107.33	7,112.33	206.32	246.39	75.40	1,090.75	-1,163.12	6,241.53	5,958.78	282.75	22.074	
14,300.00	7,111.90	7,106.90	7,111.90	209.13	246.38	75.18	1,090.75	-1,163.12	6,341.52	6,058.71	282.81	22.424	
14,400.00	7,111.46	7,106.46	7,111.46	211.95	246.36	74.95	1,090.75	-1,163.12	6,441.50	6,158.64	282.86	22.772	
14,500.00	7,111.03	7,106.03	7,111.03	214.76	246.35	74.73	1,090.75	-1,163.12	6,541.49	6,258.57	282.92	23.121	
14,600.00	7,110.60	7,105.60	7,110.60	217.58	246.33	74.51	1,090.75	-1,163.12	6,641.48	6,358.50	282.98	23.470	
14,700.00	7,110.16	7,105.16	7,110.16	220.39	246.32	74.29	1,090.75	-1,163.12	6,741.46	6,458.42	283.04	23.818	
14,800.00	7,109.73	7,104.73	7,109.73	223.21	246.30	74.06	1,090.75	-1,163.12	6,841.45	6,558.35	283.10	24.166	
14,900.00	7,109.30	7,104.30	7,109.30	226.03	246.29	73.84	1,090.75	-1,163.12	6,941.44	6,658.28	283.16	24.514	
14,969.16	7,109.00	7,104.00	7,109.00	227.97	246.28	73.69	1,090.75	-1,163.12	7,010.59	6,727.39	283.21	24.754	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-100.94	-213.46	-1,104.77	1,125.36					
100.00	100.00	81.00	100.00	3.28	3.57	-100.94	-213.46	-1,104.77	1,125.20	1,118.35	6.86	164.108		
200.00	200.00	181.00	200.00	3.34	5.63	-100.94	-213.46	-1,104.77	1,125.20	1,116.24	8.96	125.512		
300.00	300.00	281.00	300.00	3.44	8.71	-100.94	-213.46	-1,104.77	1,125.20	1,113.05	12.15	92.604		
400.00	400.00	381.00	400.00	3.60	12.01	-100.94	-213.46	-1,104.77	1,125.20	1,109.59	15.62	72.059		
500.00	500.00	481.00	500.00	3.81	15.40	-100.94	-213.46	-1,104.77	1,125.20	1,106.00	19.21	58.587		
600.00	600.00	581.00	600.00	4.05	18.83	-100.94	-213.46	-1,104.77	1,125.20	1,102.33	22.87	49.197 CC		
700.00	699.98	680.98	699.98	4.32	22.27	-91.87	-213.46	-1,104.77	1,125.26	1,098.67	26.59	42.323		
800.00	799.84	780.84	799.84	4.62	25.72	-92.14	-213.46	-1,104.77	1,125.44	1,095.10	30.34	37.098		
900.00	899.45	880.45	899.45	4.94	29.18	-92.57	-213.46	-1,104.77	1,125.80	1,091.69	34.11	33.009		
1,000.00	998.70	979.70	998.70	5.28	32.62	-93.17	-213.46	-1,104.77	1,126.42	1,088.53	37.89	29.730		
1,100.00	1,097.50	1,078.50	1,097.50	5.64	36.05	-93.93	-213.46	-1,104.77	1,127.38	1,085.71	41.67	27.052		
1,200.00	1,196.18	1,177.18	1,196.18	6.00	39.49	-94.74	-213.46	-1,104.77	1,128.62	1,083.15	45.48	24.818		
1,300.00	1,294.87	1,275.87	1,294.87	6.38	42.92	-95.55	-213.46	-1,104.77	1,130.09	1,080.80	49.29	22.926		
1,400.00	1,393.55	1,374.55	1,393.55	6.77	46.36	-96.35	-213.46	-1,104.77	1,131.79	1,078.67	53.12	21.305		
1,500.00	1,492.23	1,473.23	1,492.23	7.17	49.79	-97.16	-213.46	-1,104.77	1,133.72	1,076.76	56.96	19.903		
1,600.00	1,590.91	1,571.91	1,590.91	7.58	53.23	-97.96	-213.46	-1,104.77	1,135.88	1,075.07	60.81	18.679		
1,700.00	1,689.60	1,670.60	1,689.60	8.00	56.67	-98.75	-213.46	-1,104.77	1,138.26	1,073.59	64.67	17.602		
1,800.00	1,788.28	1,769.28	1,788.28	8.42	60.11	-99.54	-213.46	-1,104.77	1,140.86	1,072.34	68.53	16.648		
1,900.00	1,886.96	1,867.96	1,886.96	8.84	63.55	-100.33	-213.46	-1,104.77	1,143.69	1,071.30	72.39	15.798		
2,000.00	1,985.64	1,966.64	1,985.64	9.27	66.99	-101.12	-213.46	-1,104.77	1,146.74	1,070.48	76.27	15.036		
2,100.00	2,084.33	2,065.33	2,084.33	9.71	70.43	-101.90	-213.46	-1,104.77	1,150.01	1,069.87	80.14	14.350		
2,200.00	2,183.01	2,164.01	2,183.01	10.15	73.87	-102.68	-213.46	-1,104.77	1,153.50	1,069.48	84.02	13.729		
2,300.00	2,281.69	2,262.69	2,281.69	10.59	77.31	-103.45	-213.46	-1,104.77	1,157.20	1,069.30	87.90	13.165		
2,400.00	2,380.38	2,361.38	2,380.38	11.03	80.76	-104.21	-213.46	-1,104.77	1,161.12	1,069.33	91.78	12.651		
2,500.00	2,479.06	2,460.06	2,479.06	11.47	84.20	-104.98	-213.46	-1,104.77	1,165.25	1,069.58	95.67	12.180		
2,600.00	2,577.74	2,558.74	2,577.74	11.92	87.64	-105.73	-213.46	-1,104.77	1,169.58	1,070.03	99.56	11.748		
2,700.00	2,676.42	2,657.42	2,676.42	12.36	91.08	-106.48	-213.46	-1,104.77	1,174.13	1,070.68	103.45	11.350		
2,800.00	2,775.11	2,756.11	2,775.11	12.81	94.53	-107.23	-213.46	-1,104.77	1,178.87	1,071.54	107.34	10.983		
2,900.00	2,873.79	2,854.79	2,873.79	13.26	97.97	-107.97	-213.46	-1,104.77	1,183.82	1,072.60	111.23	10.643		
3,000.00	2,972.47	2,953.47	2,972.47	13.72	101.41	-108.70	-213.46	-1,104.77	1,188.97	1,073.85	115.12	10.328		
3,100.00	3,071.15	3,052.15	3,071.15	14.17	104.86	-109.43	-213.46	-1,104.77	1,194.32	1,075.30	119.02	10.035		
3,200.00	3,169.84	3,150.84	3,169.84	14.62	108.30	-110.15	-213.46	-1,104.77	1,199.86	1,076.95	122.91	9.762		
3,300.00	3,268.52	3,249.52	3,268.52	15.08	111.74	-110.86	-213.46	-1,104.77	1,205.60	1,078.79	126.81	9.507		
3,400.00	3,367.20	3,348.20	3,367.20	15.53	115.19	-111.57	-213.46	-1,104.77	1,211.52	1,080.81	130.70	9.269		
3,500.00	3,465.89	3,446.89	3,465.89	15.99	118.63	-112.27	-213.46	-1,104.77	1,217.62	1,083.02	134.60	9.046		
3,600.00	3,564.57	3,545.57	3,564.57	16.44	122.07	-112.96	-213.46	-1,104.77	1,223.92	1,085.42	138.50	8.837		
3,700.00	3,663.25	3,644.25	3,663.25	16.90	125.52	-113.65	-213.46	-1,104.77	1,230.39	1,087.99	142.40	8.640		
3,800.00	3,761.93	3,742.93	3,761.93	17.36	128.96	-114.33	-213.46	-1,104.77	1,237.04	1,090.74	146.30	8.456		
3,900.00	3,860.62	3,841.62	3,860.62	17.82	132.41	-115.00	-213.46	-1,104.77	1,243.86	1,093.67	150.20	8.282		
4,000.00	3,959.30	3,940.30	3,959.30	18.28	135.85	-115.66	-213.46	-1,104.77	1,250.86	1,096.76	154.10	8.117		
4,100.00	4,057.98	4,038.98	4,057.98	18.74	139.29	-116.32	-213.46	-1,104.77	1,258.02	1,100.03	157.99	7.962		
4,200.00	4,156.67	4,137.67	4,156.67	19.20	142.74	-116.97	-213.46	-1,104.77	1,265.35	1,103.46	161.89	7.816		
4,300.00	4,255.35	4,236.35	4,255.35	19.66	146.18	-117.61	-213.46	-1,104.77	1,272.85	1,107.06	165.79	7.677		
4,400.00	4,354.03	4,335.03	4,354.03	20.12	149.63	-118.25	-213.46	-1,104.77	1,280.51	1,110.81	169.69	7.546		
4,500.00	4,452.71	4,433.71	4,452.71	20.58	153.07	-118.87	-213.46	-1,104.77	1,288.32	1,114.72	173.59	7.421		
4,600.00	4,551.40	4,532.40	4,551.40	21.04	156.52	-119.49	-213.46	-1,104.77	1,296.29	1,118.79	177.50	7.303		
4,700.00	4,650.08	4,631.08	4,650.08	21.50	159.96	-120.11	-213.46	-1,104.77	1,304.41	1,123.01	181.40	7.191		
4,800.00	4,748.76	4,729.76	4,748.76	21.96	163.40	-120.71	-213.46	-1,104.77	1,312.68	1,127.38	185.30	7.084		
4,900.00	4,847.44	4,828.44	4,847.44	22.42	166.85	-121.31	-213.46	-1,104.77	1,321.09	1,131.89	189.20	6.983		
5,000.00	4,946.13	4,927.13	4,946.13	22.89	170.29	-121.90	-213.46	-1,104.77	1,329.65	1,136.55	193.10	6.886		
5,100.00	5,044.81	5,025.81	5,044.81	23.35	173.74	-122.48	-213.46	-1,104.77	1,338.35	1,141.35	197.00	6.794		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,143.49	5,124.49	5,143.49	23.81	177.18	-123.06	-213.46	-1,104.77	1,347.19	1,146.29	200.90	6.706		
5,300.00	5,242.18	5,223.18	5,242.18	24.27	180.63	-123.62	-213.46	-1,104.77	1,356.16	1,151.36	204.80	6.622		
5,400.00	5,340.86	5,321.86	5,340.86	24.74	184.07	-124.18	-213.46	-1,104.77	1,365.27	1,156.57	208.70	6.542		
5,500.00	5,439.54	5,420.54	5,439.54	25.20	187.51	-124.74	-213.46	-1,104.77	1,374.51	1,161.90	212.60	6.465		
5,600.00	5,538.22	5,519.22	5,538.22	25.66	190.96	-125.28	-213.46	-1,104.77	1,383.87	1,167.37	216.50	6.392		
5,700.00	5,636.91	5,617.91	5,636.91	26.13	194.40	-125.82	-213.46	-1,104.77	1,393.36	1,172.95	220.40	6.322		
5,800.00	5,735.59	5,716.59	5,735.59	26.59	197.85	-126.35	-213.46	-1,104.77	1,402.97	1,178.66	224.30	6.255		
5,900.00	5,834.27	5,815.27	5,834.27	27.06	201.29	-126.87	-213.46	-1,104.77	1,412.70	1,184.50	228.20	6.190		
6,000.00	5,932.95	5,913.95	5,932.95	27.52	204.74	-127.39	-213.46	-1,104.77	1,422.55	1,190.44	232.11	6.129		
6,100.00	6,031.64	6,012.64	6,031.64	27.98	208.18	-127.90	-213.46	-1,104.77	1,432.51	1,196.51	236.01	6.070		
6,200.00	6,130.32	6,111.32	6,130.32	28.45	211.63	-128.40	-213.46	-1,104.77	1,442.59	1,202.68	239.91	6.013		
6,300.00	6,229.00	6,210.00	6,229.00	28.91	215.07	-128.90	-213.46	-1,104.77	1,452.77	1,208.97	243.81	5.959		
6,400.00	6,327.69	6,308.69	6,327.69	29.38	218.52	-129.39	-213.46	-1,104.77	1,463.07	1,215.36	247.71	5.906		
6,500.00	6,426.37	6,407.37	6,426.37	29.84	221.96	-129.87	-213.46	-1,104.77	1,473.47	1,221.86	251.61	5.856		
6,600.00	6,525.05	6,506.05	6,525.05	30.31	225.41	-130.35	-213.46	-1,104.77	1,483.97	1,228.46	255.51	5.808		
6,700.00	6,623.18	6,604.18	6,623.18	30.77	228.83	-90.54	-213.46	-1,104.77	1,489.36	1,229.97	259.39	5.742		
6,800.00	6,718.58	6,700.42	6,718.58	31.22	232.19	-75.58	-213.46	-1,104.77	1,484.61	1,221.40	263.20	5.641		
6,900.00	6,808.91	6,789.91	6,808.91	31.66	235.31	-70.64	-213.46	-1,104.77	1,470.49	1,203.72	266.78	5.512		
7,000.00	6,891.95	6,872.95	6,891.95	32.07	238.21	-70.08	-213.46	-1,104.77	1,448.24	1,178.11	270.14	5.361		
7,100.00	6,965.65	6,946.65	6,965.65	32.51	240.78	-71.94	-213.46	-1,104.77	1,419.48	1,146.28	273.20	5.196		
7,200.00	7,028.20	7,009.20	7,028.20	33.02	242.97	-75.26	-213.46	-1,104.77	1,386.17	1,110.21	275.96	5.023		
7,300.00	7,078.04	7,059.04	7,078.04	33.68	244.71	-79.33	-213.46	-1,104.77	1,350.45	1,072.07	278.38	4.851		
7,400.00	7,113.97	7,105.03	7,113.97	34.52	246.31	-83.53	-213.46	-1,104.77	1,314.57	1,033.73	280.83	4.681		
7,500.00	7,135.09	7,116.09	7,135.09	35.53	246.70	-87.33	-213.46	-1,104.77	1,280.61	998.38	282.23	4.537		
7,600.00	7,140.96	7,121.96	7,140.96	36.68	246.90	-90.07	-213.46	-1,104.77	1,250.38	966.79	283.59	4.409		
7,700.00	7,140.53	7,121.53	7,140.53	37.99	246.89	-90.05	-213.46	-1,104.77	1,226.47	941.61	284.87	4.305		
7,800.00	7,140.09	7,121.09	7,140.09	39.45	246.87	-90.03	-213.46	-1,104.77	1,210.38	924.11	286.27	4.228		
7,900.00	7,139.66	7,120.66	7,139.66	41.06	246.86	-90.01	-213.46	-1,104.77	1,202.41	914.67	287.75	4.179		
7,946.09	7,139.46	7,120.46	7,139.46	41.86	246.85	-90.00	-213.46	-1,104.77	1,201.53	913.08	288.45	4.165 ES		
8,000.00	7,139.23	7,120.23	7,139.23	42.80	246.84	-89.99	-213.46	-1,104.77	1,202.74	913.51	289.23	4.158 SF		
8,100.00	7,138.79	7,119.79	7,138.79	44.65	246.83	-89.97	-213.46	-1,104.77	1,211.35	920.68	290.67	4.167		
8,200.00	7,138.36	7,119.36	7,138.36	46.60	246.81	-89.95	-213.46	-1,104.77	1,228.07	936.06	292.01	4.206		
8,300.00	7,137.93	7,118.93	7,137.93	48.65	246.80	-89.93	-213.46	-1,104.77	1,252.57	959.35	293.21	4.272		
8,400.00	7,137.49	7,118.49	7,137.49	50.77	246.78	-89.91	-213.46	-1,104.77	1,284.41	990.15	294.26	4.365		
8,500.00	7,137.06	7,118.06	7,137.06	52.95	246.77	-89.89	-213.46	-1,104.77	1,323.06	1,027.92	295.14	4.483		
8,600.00	7,136.62	7,117.62	7,136.62	55.20	246.75	-89.86	-213.46	-1,104.77	1,367.94	1,072.08	295.86	4.624		
8,700.00	7,136.19	7,117.19	7,136.19	57.51	246.74	-89.84	-213.46	-1,104.77	1,418.47	1,122.03	296.43	4.785		
8,800.00	7,135.76	7,116.76	7,135.76	59.85	246.72	-89.82	-213.46	-1,104.77	1,474.05	1,177.18	296.87	4.965		
8,900.00	7,135.32	7,116.32	7,135.32	62.24	246.71	-89.80	-213.46	-1,104.77	1,534.14	1,236.94	297.20	5.162		
9,000.00	7,134.89	7,115.89	7,134.89	64.67	246.69	-89.78	-213.46	-1,104.77	1,598.24	1,300.81	297.43	5.373		
9,100.00	7,134.45	7,115.45	7,134.45	67.13	246.68	-89.76	-213.46	-1,104.77	1,665.88	1,368.30	297.58	5.598		
9,200.00	7,134.02	7,115.02	7,134.02	69.62	246.66	-89.74	-213.46	-1,104.77	1,736.64	1,438.98	297.67	5.834		
9,300.00	7,133.59	7,114.59	7,133.59	72.14	246.65	-89.72	-213.46	-1,104.77	1,810.17	1,512.46	297.70	6.080		
9,400.00	7,133.15	7,114.15	7,133.15	74.68	246.63	-89.70	-213.46	-1,104.77	1,886.13	1,588.43	297.70	6.336		
9,500.00	7,132.72	7,113.72	7,132.72	77.24	246.62	-89.68	-213.46	-1,104.77	1,964.25	1,666.58	297.66	6.599		
9,600.00	7,132.29	7,113.29	7,132.29	79.83	246.60	-89.66	-213.46	-1,104.77	2,044.27	1,746.66	297.61	6.869		
9,700.00	7,131.85	7,112.85	7,131.85	82.42	246.59	-89.64	-213.46	-1,104.77	2,125.99	1,828.46	297.53	7.145		
9,800.00	7,131.42	7,112.42	7,131.42	85.04	246.57	-89.62	-213.46	-1,104.77	2,209.21	1,911.77	297.44	7.427		
9,900.00	7,130.98	7,111.98	7,130.98	87.67	246.56	-89.60	-213.46	-1,104.77	2,293.77	1,996.43	297.34	7.714		
10,000.00	7,130.55	7,111.55	7,130.55	90.31	246.54	-89.58	-213.46	-1,104.77	2,379.52	2,082.29	297.23	8.006		
10,100.00	7,130.12	7,111.12	7,130.12	92.97	246.53	-89.55	-213.46	-1,104.77	2,466.36	2,169.23	297.13	8.301		
10,200.00	7,129.68	7,110.68	7,129.68	95.63	246.51	-89.53	-213.46	-1,104.77	2,554.15	2,257.14	297.01	8.599		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
10,300.00	7,129.25	7,110.25	7,129.25	98.31	246.50	-89.51	-213.46	-1,104.77	2,642.81	2,345.91	296.90	8.901	
10,400.00	7,128.82	7,109.82	7,128.82	101.00	246.48	-89.49	-213.46	-1,104.77	2,732.26	2,435.46	296.79	9.206	
10,500.00	7,128.38	7,109.38	7,128.38	103.69	246.47	-89.47	-213.46	-1,104.77	2,822.41	2,525.73	296.68	9.513	
10,600.00	7,127.95	7,108.95	7,127.95	106.39	246.45	-89.45	-213.46	-1,104.77	2,913.21	2,616.63	296.58	9.823	
10,700.00	7,127.51	7,108.51	7,127.51	109.10	246.44	-89.43	-213.46	-1,104.77	3,004.59	2,708.11	296.48	10.134	
10,800.00	7,127.08	7,108.08	7,127.08	111.82	246.42	-89.41	-213.46	-1,104.77	3,096.50	2,800.13	296.37	10.448	
10,900.00	7,126.65	7,107.65	7,126.65	114.54	246.40	-89.39	-213.46	-1,104.77	3,188.90	2,892.62	296.28	10.763	
11,000.00	7,126.21	7,107.21	7,126.21	117.27	246.39	-89.37	-213.46	-1,104.77	3,281.75	2,985.56	296.18	11.080	
11,100.00	7,125.78	7,106.78	7,125.78	120.01	246.37	-89.35	-213.46	-1,104.77	3,375.00	3,078.91	296.10	11.398	
11,200.00	7,125.35	7,106.35	7,125.35	122.75	246.36	-89.33	-213.46	-1,104.77	3,468.63	3,172.62	296.01	11.718	
11,300.00	7,124.91	7,105.91	7,124.91	125.49	246.34	-89.31	-213.46	-1,104.77	3,562.61	3,266.68	295.93	12.039	
11,400.00	7,124.48	7,105.48	7,124.48	128.24	246.33	-89.29	-213.46	-1,104.77	3,656.90	3,361.05	295.85	12.361	
11,500.00	7,124.04	7,105.04	7,124.04	131.00	246.31	-89.26	-213.46	-1,104.77	3,751.49	3,455.72	295.77	12.684	
11,600.00	7,123.61	7,104.61	7,123.61	133.75	246.30	-89.24	-213.46	-1,104.77	3,846.36	3,550.65	295.70	13.007	
11,700.00	7,123.18	7,104.18	7,123.18	136.52	246.28	-89.22	-213.46	-1,104.77	3,941.48	3,645.84	295.64	13.332	
11,800.00	7,122.74	7,103.74	7,122.74	139.28	246.27	-89.20	-213.46	-1,104.77	4,036.83	3,741.26	295.57	13.658	
11,900.00	7,122.31	7,103.31	7,122.31	142.05	246.25	-89.18	-213.46	-1,104.77	4,132.41	3,836.89	295.51	13.984	
12,000.00	7,121.88	7,102.88	7,121.88	144.82	246.24	-89.16	-213.46	-1,104.77	4,228.18	3,932.73	295.46	14.311	
12,100.00	7,121.44	7,102.44	7,121.44	147.59	246.22	-89.14	-213.46	-1,104.77	4,324.15	4,028.75	295.40	14.638	
12,200.00	7,121.01	7,102.01	7,121.01	150.37	246.21	-89.12	-213.46	-1,104.77	4,420.30	4,124.95	295.35	14.966	
12,300.00	7,120.57	7,101.57	7,120.57	153.15	246.19	-89.10	-213.46	-1,104.77	4,516.62	4,221.31	295.31	15.295	
12,400.00	7,120.14	7,101.14	7,120.14	155.93	246.18	-89.08	-213.46	-1,104.77	4,613.09	4,317.83	295.26	15.624	
12,500.00	7,119.71	7,100.71	7,119.71	158.72	246.16	-89.06	-213.46	-1,104.77	4,709.71	4,414.49	295.22	15.953	
12,600.00	7,119.27	7,100.27	7,119.27	161.50	246.15	-89.04	-213.46	-1,104.77	4,806.47	4,511.29	295.18	16.283	
12,700.00	7,118.84	7,100.16	7,118.84	164.29	246.14	-89.02	-213.46	-1,104.77	4,903.36	4,608.20	295.16	16.613	
12,800.00	7,118.41	7,100.60	7,118.41	167.08	246.16	-89.00	-213.46	-1,104.77	5,000.37	4,705.21	295.16	16.941	
12,900.00	7,117.97	7,101.03	7,117.97	169.88	246.17	-88.98	-213.46	-1,104.77	5,097.49	4,802.34	295.16	17.270	
13,000.00	7,117.54	7,101.46	7,117.54	172.67	246.19	-88.95	-213.46	-1,104.77	5,194.73	4,899.57	295.16	17.600	
13,100.00	7,117.10	7,101.90	7,117.10	175.47	246.20	-88.93	-213.46	-1,104.77	5,292.07	4,996.90	295.16	17.929	
13,200.00	7,116.67	7,102.33	7,116.67	178.27	246.22	-88.91	-213.46	-1,104.77	5,389.50	5,094.33	295.17	18.259	
13,300.00	7,116.24	7,102.76	7,116.24	181.07	246.23	-88.89	-213.46	-1,104.77	5,487.03	5,191.85	295.18	18.589	
13,400.00	7,115.80	7,103.20	7,115.80	183.87	246.25	-88.87	-213.46	-1,104.77	5,584.64	5,289.45	295.19	18.919	
13,500.00	7,115.37	7,103.63	7,115.37	186.67	246.26	-88.85	-213.46	-1,104.77	5,682.34	5,387.13	295.21	19.249	
13,600.00	7,114.93	7,104.07	7,114.93	189.47	246.28	-88.83	-213.46	-1,104.77	5,780.12	5,484.89	295.23	19.579	
13,700.00	7,114.50	7,104.50	7,114.50	192.28	246.29	-88.81	-213.46	-1,104.77	5,877.97	5,582.72	295.24	19.909	
13,800.00	7,114.07	7,104.93	7,114.07	195.09	246.31	-88.79	-213.46	-1,104.77	5,975.89	5,680.63	295.27	20.239	
13,900.00	7,113.63	7,105.37	7,113.63	197.89	246.33	-88.77	-213.46	-1,104.77	6,073.88	5,778.59	295.29	20.569	
14,000.00	7,113.20	7,105.80	7,113.20	200.70	246.34	-88.75	-213.46	-1,104.77	6,171.94	5,876.62	295.31	20.900	
14,100.00	7,112.77	7,106.23	7,112.77	203.51	246.36	-88.73	-213.46	-1,104.77	6,270.05	5,974.71	295.34	21.230	
14,200.00	7,112.33	7,106.67	7,112.33	206.32	246.37	-88.71	-213.46	-1,104.77	6,368.23	6,072.86	295.37	21.560	
14,300.00	7,111.90	7,107.10	7,111.90	209.13	246.39	-88.69	-213.46	-1,104.77	6,466.46	6,171.06	295.40	21.891	
14,400.00	7,111.46	7,107.54	7,111.46	211.95	246.40	-88.67	-213.46	-1,104.77	6,564.74	6,269.31	295.43	22.221	
14,500.00	7,111.03	7,107.97	7,111.03	214.76	246.42	-88.64	-213.46	-1,104.77	6,663.08	6,367.61	295.47	22.551	
14,600.00	7,110.60	7,108.40	7,110.60	217.58	246.43	-88.62	-213.46	-1,104.77	6,761.46	6,465.96	295.50	22.881	
14,700.00	7,110.16	7,108.84	7,110.16	220.39	246.45	-88.60	-213.46	-1,104.77	6,859.89	6,564.35	295.54	23.211	
14,800.00	7,109.73	7,109.27	7,109.73	223.21	246.46	-88.58	-213.46	-1,104.77	6,958.37	6,662.79	295.58	23.542	
14,900.00	7,109.30	7,109.70	7,109.30	226.03	246.48	-88.56	-213.46	-1,104.77	7,056.88	6,761.27	295.62	23.872	
14,969.16	7,109.00	7,090.00	7,109.00	227.97	245.79	-88.55	-213.46	-1,104.77	7,125.05	6,830.10	294.95	24.157	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-72.49	467.81	-1,483.00	1,555.08					
100.00	100.00	88.00	100.00	3.28	3.62	-72.49	467.81	-1,483.00	1,555.03	1,548.13	6.91	225.153		
200.00	200.00	188.00	200.00	3.34	5.83	-72.49	467.81	-1,483.00	1,555.03	1,545.87	9.17	169.667		
300.00	300.00	288.00	300.00	3.44	8.93	-72.49	467.81	-1,483.00	1,555.03	1,542.65	12.38	125.634		
400.00	400.00	388.00	400.00	3.60	12.25	-72.49	467.81	-1,483.00	1,555.03	1,539.18	15.85	98.107		
500.00	500.00	488.00	500.00	3.81	15.64	-72.49	467.81	-1,483.00	1,555.03	1,535.59	19.44	79.973		
600.00	600.00	588.00	600.00	4.05	19.07	-72.49	467.81	-1,483.00	1,555.03	1,531.92	23.11	67.282		
700.00	699.98	687.98	699.98	4.32	22.51	-63.41	467.81	-1,483.00	1,554.25	1,527.42	26.83	57.931		
800.00	799.84	787.84	799.84	4.62	25.97	-63.63	467.81	-1,483.00	1,551.91	1,521.33	30.58	50.750		
900.00	899.45	887.45	899.45	4.94	29.42	-63.99	467.81	-1,483.00	1,548.05	1,513.70	34.35	45.067		
1,000.00	998.70	986.70	998.70	5.28	32.86	-64.49	467.81	-1,483.00	1,542.73	1,504.59	38.13	40.458		
1,100.00	1,097.50	1,085.50	1,097.50	5.64	36.30	-65.08	467.81	-1,483.00	1,536.09	1,494.17	41.92	36.645		
1,200.00	1,196.18	1,184.18	1,196.18	6.00	39.73	-65.62	467.81	-1,483.00	1,529.26	1,483.55	45.72	33.450		
1,300.00	1,294.87	1,282.87	1,294.87	6.38	43.16	-66.17	467.81	-1,483.00	1,522.58	1,473.05	49.53	30.740		
1,400.00	1,393.55	1,381.55	1,393.55	6.77	46.60	-66.72	467.81	-1,483.00	1,516.05	1,462.69	53.36	28.413		
1,500.00	1,492.23	1,480.23	1,492.23	7.17	50.04	-67.28	467.81	-1,483.00	1,509.65	1,452.46	57.20	26.395		
1,600.00	1,590.91	1,578.91	1,590.91	7.58	53.48	-67.84	467.81	-1,483.00	1,503.41	1,442.37	61.04	24.630		
1,700.00	1,689.60	1,677.60	1,689.60	8.00	56.91	-68.41	467.81	-1,483.00	1,497.31	1,432.42	64.89	23.073		
1,800.00	1,788.28	1,776.28	1,788.28	8.42	60.35	-68.98	467.81	-1,483.00	1,491.37	1,422.61	68.75	21.692		
1,900.00	1,886.96	1,874.96	1,886.96	8.84	63.79	-69.56	467.81	-1,483.00	1,485.57	1,412.96	72.62	20.457		
2,000.00	1,985.64	1,973.64	1,985.64	9.27	67.23	-70.14	467.81	-1,483.00	1,479.94	1,403.45	76.49	19.349		
2,100.00	2,084.33	2,072.33	2,084.33	9.71	70.68	-70.72	467.81	-1,483.00	1,474.45	1,394.09	80.36	18.348		
2,200.00	2,183.01	2,171.01	2,183.01	10.15	74.12	-71.31	467.81	-1,483.00	1,469.13	1,384.89	84.24	17.440		
2,300.00	2,281.69	2,269.69	2,281.69	10.59	77.56	-71.90	467.81	-1,483.00	1,463.96	1,375.84	88.12	16.614		
2,400.00	2,380.38	2,368.38	2,380.38	11.03	81.00	-72.50	467.81	-1,483.00	1,458.96	1,366.95	92.00	15.858		
2,500.00	2,479.06	2,467.06	2,479.06	11.47	84.44	-73.10	467.81	-1,483.00	1,454.11	1,358.23	95.89	15.165		
2,600.00	2,577.74	2,565.74	2,577.74	11.92	87.89	-73.70	467.81	-1,483.00	1,449.44	1,349.66	99.77	14.527		
2,700.00	2,676.42	2,664.42	2,676.42	12.36	91.33	-74.31	467.81	-1,483.00	1,444.92	1,341.26	103.66	13.939		
2,800.00	2,775.11	2,763.11	2,775.11	12.81	94.77	-74.92	467.81	-1,483.00	1,440.58	1,333.02	107.56	13.394		
2,900.00	2,873.79	2,861.79	2,873.79	13.26	98.21	-75.54	467.81	-1,483.00	1,436.40	1,324.96	111.45	12.888		
3,000.00	2,972.47	2,960.47	2,972.47	13.72	101.66	-76.16	467.81	-1,483.00	1,432.40	1,317.06	115.34	12.419		
3,100.00	3,071.15	3,059.15	3,071.15	14.17	105.10	-76.78	467.81	-1,483.00	1,428.57	1,309.33	119.24	11.981		
3,200.00	3,169.84	3,157.84	3,169.84	14.62	108.54	-77.41	467.81	-1,483.00	1,424.91	1,301.77	123.14	11.572		
3,300.00	3,268.52	3,256.52	3,268.52	15.08	111.99	-78.03	467.81	-1,483.00	1,421.42	1,294.39	127.04	11.189		
3,400.00	3,367.20	3,355.20	3,367.20	15.53	115.43	-78.67	467.81	-1,483.00	1,418.11	1,287.18	130.93	10.831		
3,500.00	3,465.89	3,453.89	3,465.89	15.99	118.88	-79.30	467.81	-1,483.00	1,414.98	1,280.15	134.84	10.494		
3,600.00	3,564.57	3,552.57	3,564.57	16.44	122.32	-79.94	467.81	-1,483.00	1,412.03	1,273.29	138.74	10.178		
3,700.00	3,663.25	3,651.25	3,663.25	16.90	125.76	-80.58	467.81	-1,483.00	1,409.26	1,266.62	142.64	9.880		
3,800.00	3,761.93	3,749.93	3,761.93	17.36	129.21	-81.22	467.81	-1,483.00	1,406.66	1,260.12	146.54	9.599		
3,900.00	3,860.62	3,848.62	3,860.62	17.82	132.65	-81.86	467.81	-1,483.00	1,404.25	1,253.81	150.44	9.334		
4,000.00	3,959.30	3,947.30	3,959.30	18.28	136.09	-82.51	467.81	-1,483.00	1,402.02	1,247.67	154.35	9.083		
4,100.00	4,057.98	4,045.98	4,057.98	18.74	139.54	-83.16	467.81	-1,483.00	1,399.98	1,241.72	158.25	8.846		
4,200.00	4,156.67	4,144.67	4,156.67	19.20	142.98	-83.81	467.81	-1,483.00	1,398.12	1,235.96	162.16	8.622		
4,300.00	4,255.35	4,243.35	4,255.35	19.66	146.43	-84.46	467.81	-1,483.00	1,396.44	1,230.38	166.06	8.409		
4,400.00	4,354.03	4,342.03	4,354.03	20.12	149.87	-85.11	467.81	-1,483.00	1,394.95	1,224.98	169.97	8.207		
4,500.00	4,452.71	4,440.71	4,452.71	20.58	153.32	-85.76	467.81	-1,483.00	1,393.65	1,219.77	173.88	8.015		
4,600.00	4,551.40	4,539.40	4,551.40	21.04	156.76	-86.42	467.81	-1,483.00	1,392.53	1,214.74	177.78	7.833		
4,700.00	4,650.08	4,638.08	4,650.08	21.50	160.20	-87.07	467.81	-1,483.00	1,391.60	1,209.91	181.69	7.659		
4,800.00	4,748.76	4,736.76	4,748.76	21.96	163.65	-87.73	467.81	-1,483.00	1,390.86	1,205.26	185.60	7.494		
4,900.00	4,847.44	4,835.44	4,847.44	22.42	167.09	-88.39	467.81	-1,483.00	1,390.30	1,200.79	189.51	7.336		
5,000.00	4,946.13	4,934.13	4,946.13	22.89	170.54	-89.05	467.81	-1,483.00	1,389.93	1,196.52	193.41	7.186		
5,100.00	5,044.81	5,032.81	5,044.81	23.35	173.98	-89.70	467.81	-1,483.00	1,389.75	1,192.43	197.32	7.043		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,144.88	5,089.09	5,077.09	5,089.09	23.56	175.53	-90.00	467.81	-1,483.00	1,389.74	1,190.66	199.08	6.981		
5,200.00	5,143.49	5,131.49	5,143.49	23.81	177.43	-90.36	467.81	-1,483.00	1,389.76	1,188.53	201.23	6.906		
5,300.00	5,242.18	5,230.18	5,242.18	24.27	180.87	-91.02	467.81	-1,483.00	1,389.96	1,184.82	205.14	6.776		
5,400.00	5,340.86	5,328.86	5,340.86	24.74	184.31	-91.68	467.81	-1,483.00	1,390.35	1,181.30	209.05	6.651		
5,500.00	5,439.54	5,427.54	5,439.54	25.20	187.76	-92.34	467.81	-1,483.00	1,390.92	1,177.97	212.96	6.531		
5,600.00	5,538.22	5,526.22	5,538.22	25.66	191.20	-92.99	467.81	-1,483.00	1,391.68	1,174.82	216.87	6.417		
5,700.00	5,636.91	5,624.91	5,636.91	26.13	194.65	-93.65	467.81	-1,483.00	1,392.63	1,171.86	220.77	6.308		
5,800.00	5,735.59	5,723.59	5,735.59	26.59	198.09	-94.30	467.81	-1,483.00	1,393.77	1,169.09	224.68	6.203		
5,900.00	5,834.27	5,822.27	5,834.27	27.06	201.54	-94.96	467.81	-1,483.00	1,395.09	1,166.50	228.59	6.103		
6,000.00	5,932.95	5,920.95	5,932.95	27.52	204.98	-95.61	467.81	-1,483.00	1,396.60	1,164.10	232.50	6.007		
6,100.00	6,031.64	6,019.64	6,031.64	27.98	208.43	-96.26	467.81	-1,483.00	1,398.30	1,161.89	236.41	5.915		
6,200.00	6,130.32	6,118.32	6,130.32	28.45	211.87	-96.91	467.81	-1,483.00	1,400.18	1,159.86	240.32	5.826		
6,300.00	6,229.00	6,217.00	6,229.00	28.91	215.32	-97.56	467.81	-1,483.00	1,402.24	1,158.01	244.23	5.742		
6,400.00	6,327.69	6,315.69	6,327.69	29.38	218.76	-98.20	467.81	-1,483.00	1,404.49	1,156.35	248.14	5.660		
6,500.00	6,426.37	6,414.37	6,426.37	29.84	222.20	-98.85	467.81	-1,483.00	1,406.92	1,154.87	252.05	5.582		
6,600.00	6,525.05	6,513.05	6,525.05	30.31	225.65	-99.49	467.81	-1,483.00	1,409.53	1,153.58	255.96	5.507		
6,700.00	6,623.18	6,611.18	6,623.18	30.77	229.07	-60.21	467.81	-1,483.00	1,404.88	1,145.04	259.84	5.407		
6,800.00	6,718.58	6,706.58	6,718.58	31.22	232.40	-45.32	467.81	-1,483.00	1,385.69	1,122.06	263.63	5.256		
6,900.00	6,808.91	6,803.09	6,808.91	31.66	235.77	-40.19	467.81	-1,483.00	1,352.63	1,085.20	267.43	5.058		
7,000.00	6,891.95	6,879.95	6,891.95	32.07	238.46	-39.46	467.81	-1,483.00	1,306.79	1,036.26	270.53	4.831		
7,100.00	6,965.65	6,953.65	6,965.65	32.51	241.03	-41.68	467.81	-1,483.00	1,249.59	976.09	273.50	4.569		
7,200.00	7,028.20	7,016.20	7,028.20	33.02	243.21	-46.62	467.81	-1,483.00	1,182.83	906.74	276.09	4.284		
7,300.00	7,078.04	7,066.04	7,078.04	33.68	244.95	-54.52	467.81	-1,483.00	1,108.57	830.30	278.27	3.984		
7,400.00	7,113.97	7,101.97	7,113.97	34.52	246.21	-65.45	467.81	-1,483.00	1,029.14	749.12	280.02	3.675		
7,500.00	7,135.09	7,123.09	7,135.09	35.53	246.94	-78.52	467.81	-1,483.00	947.09	665.71	281.38	3.366		
7,600.00	7,140.96	7,128.96	7,140.96	36.68	247.15	-90.34	467.81	-1,483.00	865.08	582.72	282.36	3.064		
7,700.00	7,140.53	7,128.53	7,140.53	37.99	247.13	-90.29	467.81	-1,483.00	786.29	502.92	283.37	2.775		
7,800.00	7,140.09	7,128.09	7,140.09	39.45	247.12	-90.25	467.81	-1,483.00	712.85	428.11	284.74	2.503		
7,900.00	7,139.66	7,127.66	7,139.66	41.06	247.10	-90.20	467.81	-1,483.00	646.57	360.04	286.53	2.257		
8,000.00	7,139.23	7,127.23	7,139.23	42.80	247.09	-90.15	467.81	-1,483.00	589.87	301.13	288.74	2.043		
8,100.00	7,138.79	7,126.79	7,138.79	44.65	247.07	-90.10	467.81	-1,483.00	545.75	254.53	291.22	1.874		
8,200.00	7,138.36	7,126.36	7,138.36	46.60	247.06	-90.05	467.81	-1,483.00	517.44	223.81	293.63	1.762		
8,300.00	7,137.93	7,125.93	7,137.93	48.65	247.04	-90.00	467.81	-1,483.00	507.58	212.11	295.47	1.718		
8,300.52	7,137.92	7,125.92	7,137.92	48.66	247.04	-90.00	467.81	-1,483.00	507.58	212.10	295.48	1.718 CC, ES, SF		
8,400.00	7,137.49	7,125.49	7,137.49	50.77	247.03	-89.95	467.81	-1,483.00	517.24	220.88	296.36	1.745		
8,500.00	7,137.06	7,125.06	7,137.06	52.95	247.01	-89.90	467.81	-1,483.00	545.37	249.11	296.26	1.841		
8,600.00	7,136.62	7,124.62	7,136.62	55.20	247.00	-89.85	467.81	-1,483.00	589.34	293.90	295.44	1.995		
8,700.00	7,136.19	7,124.19	7,136.19	57.51	246.98	-89.80	467.81	-1,483.00	645.92	351.66	294.26	2.195		
8,800.00	7,135.76	7,123.76	7,135.76	59.85	246.97	-89.76	467.81	-1,483.00	712.12	419.14	292.98	2.431		
8,900.00	7,135.32	7,123.32	7,135.32	62.24	246.95	-89.71	467.81	-1,483.00	785.50	493.74	291.76	2.692		
9,000.00	7,134.89	7,122.89	7,134.89	64.67	246.94	-89.66	467.81	-1,483.00	864.23	573.58	290.65	2.973		
9,100.00	7,134.45	7,122.45	7,134.45	67.13	246.92	-89.61	467.81	-1,483.00	946.99	657.30	289.69	3.269		
9,200.00	7,134.02	7,122.02	7,134.02	69.62	246.91	-89.56	467.81	-1,483.00	1,032.80	743.95	288.86	3.576		
9,300.00	7,133.59	7,121.59	7,133.59	72.14	246.89	-89.51	467.81	-1,483.00	1,120.97	832.83	288.14	3.890		
9,400.00	7,133.15	7,121.15	7,133.15	74.68	246.88	-89.46	467.81	-1,483.00	1,210.98	923.45	287.53	4.212		
9,500.00	7,132.72	7,120.72	7,132.72	77.24	246.86	-89.41	467.81	-1,483.00	1,302.44	1,015.43	287.01	4.538		
9,600.00	7,132.29	7,120.29	7,132.29	79.83	246.85	-89.36	467.81	-1,483.00	1,395.08	1,108.52	286.56	4.868		
9,700.00	7,131.85	7,119.85	7,131.85	82.42	246.83	-89.31	467.81	-1,483.00	1,488.67	1,202.50	286.17	5.202		
9,800.00	7,131.42	7,119.42	7,131.42	85.04	246.82	-89.27	467.81	-1,483.00	1,583.04	1,297.22	285.83	5.538		
9,900.00	7,130.98	7,118.98	7,130.98	87.67	246.80	-89.22	467.81	-1,483.00	1,678.07	1,392.54	285.53	5.877		
10,000.00	7,130.55	7,118.55	7,130.55	90.31	246.79	-89.17	467.81	-1,483.00	1,773.64	1,488.37	285.27	6.217		
10,100.00	7,130.12	7,118.12	7,130.12	92.97	246.77	-89.12	467.81	-1,483.00	1,869.68	1,584.63	285.05	6.559		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH													Offset Site Error: 0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error: 3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,200.00	7,129.68	7,117.68	7,129.68	95.63	246.76	-89.07	467.81	-1,483.00	1,966.11	1,681.26	284.85	6.902	
10,300.00	7,129.25	7,117.25	7,129.25	98.31	246.74	-89.02	467.81	-1,483.00	2,062.88	1,778.21	284.67	7.247	
10,400.00	7,128.82	7,116.82	7,128.82	101.00	246.72	-88.97	467.81	-1,483.00	2,159.95	1,875.43	284.51	7.592	
10,500.00	7,128.38	7,116.38	7,128.38	103.69	246.71	-88.92	467.81	-1,483.00	2,257.27	1,972.89	284.37	7.938	
10,600.00	7,127.95	7,115.95	7,127.95	106.39	246.69	-88.87	467.81	-1,483.00	2,354.81	2,070.56	284.25	8.284	
10,700.00	7,127.51	7,115.51	7,127.51	109.10	246.68	-88.83	467.81	-1,483.00	2,452.55	2,168.41	284.14	8.631	
10,800.00	7,127.08	7,115.08	7,127.08	111.82	246.66	-88.78	467.81	-1,483.00	2,550.47	2,266.43	284.05	8.979	
10,900.00	7,126.65	7,114.65	7,126.65	114.54	246.65	-88.73	467.81	-1,483.00	2,648.55	2,364.59	283.96	9.327	
11,000.00	7,126.21	7,114.21	7,126.21	117.27	246.63	-88.68	467.81	-1,483.00	2,746.76	2,462.88	283.88	9.676	
11,100.00	7,125.78	7,113.78	7,125.78	120.01	246.62	-88.63	467.81	-1,483.00	2,845.10	2,561.28	283.82	10.024	
11,200.00	7,125.35	7,113.35	7,125.35	122.75	246.60	-88.58	467.81	-1,483.00	2,943.54	2,659.79	283.76	10.373	
11,300.00	7,124.91	7,112.91	7,124.91	125.49	246.59	-88.53	467.81	-1,483.00	3,042.09	2,758.39	283.70	10.723	
11,400.00	7,124.48	7,112.48	7,124.48	128.24	246.57	-88.48	467.81	-1,483.00	3,140.74	2,857.08	283.66	11.072	
11,500.00	7,124.04	7,112.04	7,124.04	131.00	246.56	-88.43	467.81	-1,483.00	3,239.46	2,955.84	283.62	11.422	
11,600.00	7,123.61	7,111.61	7,123.61	133.75	246.54	-88.38	467.81	-1,483.00	3,338.26	3,054.68	283.59	11.772	
11,700.00	7,123.18	7,111.18	7,123.18	136.52	246.53	-88.34	467.81	-1,483.00	3,437.13	3,153.57	283.56	12.121	
11,800.00	7,122.74	7,110.74	7,122.74	139.28	246.51	-88.29	467.81	-1,483.00	3,536.06	3,252.53	283.53	12.471	
11,900.00	7,122.31	7,110.31	7,122.31	142.05	246.50	-88.24	467.81	-1,483.00	3,635.06	3,351.54	283.51	12.821	
12,000.00	7,121.88	7,109.88	7,121.88	144.82	246.48	-88.19	467.81	-1,483.00	3,734.10	3,450.60	283.50	13.172	
12,100.00	7,121.44	7,109.44	7,121.44	147.59	246.47	-88.14	467.81	-1,483.00	3,833.20	3,549.71	283.49	13.522	
12,200.00	7,121.01	7,109.01	7,121.01	150.37	246.45	-88.09	467.81	-1,483.00	3,932.34	3,648.86	283.48	13.872	
12,300.00	7,120.57	7,108.57	7,120.57	153.15	246.44	-88.04	467.81	-1,483.00	4,031.52	3,748.05	283.48	14.222	
12,400.00	7,120.14	7,108.14	7,120.14	155.93	246.42	-87.99	467.81	-1,483.00	4,130.74	3,847.27	283.47	14.572	
12,500.00	7,119.71	7,107.71	7,119.71	158.72	246.41	-87.94	467.81	-1,483.00	4,230.00	3,946.53	283.48	14.922	
12,600.00	7,119.27	7,107.27	7,119.27	161.50	246.39	-87.90	467.81	-1,483.00	4,329.30	4,045.82	283.48	15.272	
12,700.00	7,118.84	7,106.84	7,118.84	164.29	246.38	-87.85	467.81	-1,483.00	4,428.62	4,145.13	283.49	15.622	
12,800.00	7,118.41	7,106.41	7,118.41	167.08	246.36	-87.80	467.81	-1,483.00	4,527.98	4,244.48	283.50	15.972	
12,900.00	7,117.97	7,105.97	7,117.97	169.88	246.35	-87.75	467.81	-1,483.00	4,627.36	4,343.85	283.51	16.322	
13,000.00	7,117.54	7,105.54	7,117.54	172.67	246.33	-87.70	467.81	-1,483.00	4,726.77	4,443.24	283.53	16.671	
13,100.00	7,117.10	7,105.10	7,117.10	175.47	246.32	-87.65	467.81	-1,483.00	4,826.20	4,542.66	283.54	17.021	
13,200.00	7,116.67	7,104.67	7,116.67	178.27	246.30	-87.60	467.81	-1,483.00	4,925.65	4,642.09	283.56	17.371	
13,300.00	7,116.24	7,104.24	7,116.24	181.07	246.29	-87.55	467.81	-1,483.00	5,025.13	4,741.55	283.58	17.720	
13,400.00	7,115.80	7,103.80	7,115.80	183.87	246.27	-87.50	467.81	-1,483.00	5,124.63	4,841.02	283.61	18.069	
13,500.00	7,115.37	7,103.37	7,115.37	186.67	246.26	-87.46	467.81	-1,483.00	5,224.15	4,940.51	283.63	18.419	
13,600.00	7,114.93	7,102.93	7,114.93	189.47	246.24	-87.41	467.81	-1,483.00	5,323.68	5,040.02	283.66	18.768	
13,700.00	7,114.50	7,102.50	7,114.50	192.28	246.23	-87.36	467.81	-1,483.00	5,423.23	5,139.54	283.69	19.117	
13,800.00	7,114.07	7,102.07	7,114.07	195.09	246.21	-87.31	467.81	-1,483.00	5,522.80	5,239.08	283.72	19.466	
13,900.00	7,113.63	7,101.63	7,113.63	197.89	246.19	-87.26	467.81	-1,483.00	5,622.38	5,338.63	283.75	19.814	
14,000.00	7,113.20	7,101.20	7,113.20	200.70	246.18	-87.21	467.81	-1,483.00	5,721.98	5,438.19	283.79	20.163	
14,100.00	7,112.77	7,100.77	7,112.77	203.51	246.16	-87.16	467.81	-1,483.00	5,821.59	5,537.77	283.82	20.511	
14,200.00	7,112.33	7,100.33	7,112.33	206.32	246.15	-87.11	467.81	-1,483.00	5,921.22	5,637.36	283.86	20.859	
14,300.00	7,111.90	7,100.10	7,111.90	209.13	246.14	-87.06	467.81	-1,483.00	6,020.86	5,736.95	283.91	21.207	
14,400.00	7,111.46	7,100.54	7,111.46	211.95	246.16	-87.02	467.81	-1,483.00	6,120.50	5,836.53	283.98	21.553	
14,500.00	7,111.03	7,100.97	7,111.03	214.76	246.17	-86.97	467.81	-1,483.00	6,220.16	5,936.11	284.05	21.898	
14,600.00	7,110.60	7,101.40	7,110.60	217.58	246.19	-86.92	467.81	-1,483.00	6,319.84	6,035.71	284.12	22.243	
14,700.00	7,110.16	7,101.84	7,110.16	220.39	246.20	-86.87	467.81	-1,483.00	6,419.52	6,135.32	284.20	22.588	
14,800.00	7,109.73	7,102.27	7,109.73	223.21	246.22	-86.82	467.81	-1,483.00	6,519.21	6,234.93	284.28	22.933	
14,900.00	7,109.30	7,102.70	7,109.30	226.03	246.23	-86.77	467.81	-1,483.00	6,618.91	6,334.55	284.35	23.277	
14,969.16	7,109.00	7,103.00	7,109.00	227.97	246.24	-86.74	467.81	-1,483.00	6,687.87	6,403.46	284.41	23.515	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-78.94	975.75	-4,990.97	5,085.69				
100.00	100.00	51.00	100.00	3.28	3.40	-78.94	975.75	-4,990.97	5,085.45	5,078.77	6.68	760.910	
200.00	200.00	151.00	200.00	3.34	4.82	-78.94	975.75	-4,990.97	5,085.45	5,077.30	8.15	623.777	
300.00	300.00	251.00	300.00	3.44	7.75	-78.94	975.75	-4,990.97	5,085.45	5,074.26	11.19	454.441	
400.00	400.00	351.00	400.00	3.60	11.01	-78.94	975.75	-4,990.97	5,085.45	5,070.84	14.61	348.050	
500.00	500.00	451.00	500.00	3.81	14.38	-78.94	975.75	-4,990.97	5,085.45	5,067.27	18.18	279.666	
600.00	600.00	551.00	600.00	4.05	17.79	-78.94	975.75	-4,990.97	5,085.45	5,063.61	21.84	232.839	
700.00	699.98	650.98	699.98	4.32	21.24	-69.82	975.75	-4,990.97	5,084.85	5,059.30	25.55	198.997	
800.00	799.84	750.84	799.84	4.62	24.69	-69.91	975.75	-4,990.97	5,083.05	5,053.75	29.30	173.492	
900.00	899.45	850.45	899.45	4.94	28.14	-70.06	975.75	-4,990.97	5,080.05	5,046.99	33.07	153.633	
1,000.00	998.70	949.70	998.70	5.28	31.58	-70.26	975.75	-4,990.97	5,075.89	5,039.04	36.85	137.760	
1,100.00	1,097.50	1,048.50	1,097.50	5.64	35.01	-70.49	975.75	-4,990.97	5,070.65	5,030.02	40.63	124.797	
1,200.00	1,196.18	1,147.18	1,196.18	6.00	38.44	-70.66	975.75	-4,990.97	5,065.21	5,020.78	44.43	114.004	
1,300.00	1,294.87	1,245.87	1,294.87	6.38	41.88	-70.83	975.75	-4,990.97	5,059.81	5,011.56	48.24	104.879	
1,400.00	1,393.55	1,344.55	1,393.55	6.77	45.31	-71.00	975.75	-4,990.97	5,054.45	5,002.38	52.07	97.069	
1,500.00	1,492.23	1,443.23	1,492.23	7.17	48.75	-71.17	975.75	-4,990.97	5,049.15	4,993.24	55.91	90.312	
1,600.00	1,590.91	1,541.91	1,590.91	7.58	52.19	-71.34	975.75	-4,990.97	5,043.89	4,984.13	59.75	84.411	
1,700.00	1,689.60	1,640.60	1,689.60	8.00	55.62	-71.52	975.75	-4,990.97	5,038.67	4,975.07	63.61	79.216	
1,800.00	1,788.28	1,739.28	1,788.28	8.42	59.06	-71.69	975.75	-4,990.97	5,033.51	4,966.04	67.47	74.608	
1,900.00	1,886.96	1,837.96	1,886.96	8.84	62.50	-71.86	975.75	-4,990.97	5,028.39	4,957.06	71.33	70.494	
2,000.00	1,985.64	1,936.64	1,985.64	9.27	65.94	-72.03	975.75	-4,990.97	5,023.31	4,948.11	75.20	66.800	
2,100.00	2,084.33	2,035.33	2,084.33	9.71	69.39	-72.21	975.75	-4,990.97	5,018.29	4,939.21	79.07	63.464	
2,200.00	2,183.01	2,134.01	2,183.01	10.15	72.83	-72.38	975.75	-4,990.97	5,013.31	4,930.36	82.95	60.438	
2,300.00	2,281.69	2,232.69	2,281.69	10.59	76.27	-72.56	975.75	-4,990.97	5,008.38	4,921.55	86.83	57.681	
2,400.00	2,380.38	2,331.38	2,380.38	11.03	79.71	-72.73	975.75	-4,990.97	5,003.49	4,912.78	90.71	55.159	
2,500.00	2,479.06	2,430.06	2,479.06	11.47	83.15	-72.91	975.75	-4,990.97	4,998.65	4,904.06	94.60	52.842	
2,600.00	2,577.74	2,528.74	2,577.74	11.92	86.60	-73.08	975.75	-4,990.97	4,993.86	4,895.38	98.48	50.708	
2,700.00	2,676.42	2,627.42	2,676.42	12.36	90.04	-73.26	975.75	-4,990.97	4,989.12	4,886.75	102.37	48.736	
2,800.00	2,775.11	2,726.11	2,775.11	12.81	93.48	-73.43	975.75	-4,990.97	4,984.43	4,878.17	106.26	46.907	
2,900.00	2,873.79	2,824.79	2,873.79	13.26	96.92	-73.61	975.75	-4,990.97	4,979.78	4,869.63	110.15	45.208	
3,000.00	2,972.47	2,923.47	2,972.47	13.72	100.37	-73.79	975.75	-4,990.97	4,975.19	4,861.14	114.05	43.624	
3,100.00	3,071.15	3,022.15	3,071.15	14.17	103.81	-73.96	975.75	-4,990.97	4,970.64	4,852.70	117.94	42.145	
3,200.00	3,169.84	3,120.84	3,169.84	14.62	107.25	-74.14	975.75	-4,990.97	4,966.14	4,844.30	121.84	40.761	
3,300.00	3,268.52	3,219.52	3,268.52	15.08	110.70	-74.32	975.75	-4,990.97	4,961.69	4,835.95	125.73	39.462	
3,400.00	3,367.20	3,318.20	3,367.20	15.53	114.14	-74.50	975.75	-4,990.97	4,957.29	4,827.65	129.63	38.241	
3,500.00	3,465.89	3,416.89	3,465.89	15.99	117.58	-74.67	975.75	-4,990.97	4,952.93	4,819.40	133.53	37.092	
3,600.00	3,564.57	3,515.57	3,564.57	16.44	121.03	-74.85	975.75	-4,990.97	4,948.63	4,811.20	137.43	36.009	
3,700.00	3,663.25	3,614.25	3,663.25	16.90	124.47	-75.03	975.75	-4,990.97	4,944.37	4,803.04	141.33	34.985	
3,800.00	3,761.93	3,712.93	3,761.93	17.36	127.92	-75.21	975.75	-4,990.97	4,940.17	4,794.94	145.23	34.016	
3,900.00	3,860.62	3,811.62	3,860.62	17.82	131.36	-75.39	975.75	-4,990.97	4,936.01	4,786.88	149.13	33.098	
4,000.00	3,959.30	3,910.30	3,959.30	18.28	134.80	-75.57	975.75	-4,990.97	4,931.90	4,778.87	153.03	32.228	
4,100.00	4,057.98	4,008.98	4,057.98	18.74	138.25	-75.75	975.75	-4,990.97	4,927.84	4,770.91	156.94	31.400	
4,200.00	4,156.67	4,107.67	4,156.67	19.20	141.69	-75.93	975.75	-4,990.97	4,923.84	4,763.00	160.84	30.613	
4,300.00	4,255.35	4,206.35	4,255.35	19.66	145.14	-76.11	975.75	-4,990.97	4,919.88	4,755.14	164.74	29.864	
4,400.00	4,354.03	4,305.03	4,354.03	20.12	148.58	-76.29	975.75	-4,990.97	4,915.97	4,747.32	168.65	29.150	
4,500.00	4,452.71	4,403.71	4,452.71	20.58	152.02	-76.47	975.75	-4,990.97	4,912.11	4,739.56	172.55	28.468	
4,600.00	4,551.40	4,502.40	4,551.40	21.04	155.47	-76.65	975.75	-4,990.97	4,908.31	4,731.85	176.46	27.816	
4,700.00	4,650.08	4,601.08	4,650.08	21.50	158.91	-76.83	975.75	-4,990.97	4,904.55	4,724.19	180.36	27.193	
4,800.00	4,748.76	4,700.24	4,748.76	21.96	162.37	-77.02	975.75	-4,990.97	4,900.84	4,716.56	184.28	26.594	
4,900.00	4,847.44	4,801.56	4,847.44	22.42	165.91	-77.20	975.75	-4,990.97	4,897.19	4,708.91	188.28	26.010	
5,000.00	4,946.13	4,902.87	4,946.13	22.89	169.45	-77.38	975.75	-4,990.97	4,893.58	4,701.30	192.28	25.450	
5,100.00	5,044.81	5,004.19	5,044.81	23.35	172.98	-77.56	975.75	-4,990.97	4,890.03	4,693.75	196.28	24.914	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,105.51	5,143.49	23.81	176.52	-77.75	975.75	-4,990.97	4,886.53	4,686.25	200.28	24.399		
5,300.00	5,242.18	5,206.82	5,242.18	24.27	180.05	-77.93	975.75	-4,990.97	4,883.07	4,678.80	204.28	23.904		
5,400.00	5,340.86	5,308.14	5,340.86	24.74	183.59	-78.11	975.75	-4,990.97	4,879.67	4,671.40	208.28	23.429		
5,500.00	5,439.54	5,409.46	5,439.54	25.20	187.13	-78.30	975.75	-4,990.97	4,876.32	4,664.05	212.28	22.972		
5,600.00	5,538.22	5,489.22	5,538.22	25.66	189.91	-78.48	975.75	-4,990.97	4,873.03	4,657.50	215.52	22.610		
5,700.00	5,636.91	5,587.91	5,636.91	26.13	193.36	-78.66	975.75	-4,990.97	4,869.78	4,650.35	219.43	22.193		
5,800.00	5,735.59	5,686.59	5,735.59	26.59	196.80	-78.85	975.75	-4,990.97	4,866.58	4,643.25	223.34	21.790		
5,900.00	5,834.27	5,785.27	5,834.27	27.06	200.25	-79.03	975.75	-4,990.97	4,863.44	4,636.19	227.25	21.401		
6,000.00	5,932.95	5,883.95	5,932.95	27.52	203.69	-79.22	975.75	-4,990.97	4,860.35	4,629.19	231.16	21.026		
6,100.00	6,031.64	5,982.64	6,031.64	27.98	207.13	-79.40	975.75	-4,990.97	4,857.31	4,622.25	235.07	20.664		
6,200.00	6,130.32	6,081.32	6,130.32	28.45	210.58	-79.59	975.75	-4,990.97	4,854.32	4,615.35	238.97	20.313		
6,300.00	6,229.00	6,180.00	6,229.00	28.91	214.02	-79.77	975.75	-4,990.97	4,851.39	4,608.50	242.88	19.974		
6,400.00	6,327.69	6,278.69	6,327.69	29.38	217.47	-79.96	975.75	-4,990.97	4,848.50	4,601.71	246.79	19.646		
6,500.00	6,426.37	6,377.37	6,426.37	29.84	220.91	-80.15	975.75	-4,990.97	4,845.67	4,594.97	250.70	19.328		
6,600.00	6,525.05	6,476.05	6,525.05	30.31	224.36	-80.33	975.75	-4,990.97	4,842.90	4,588.28	254.61	19.021		
6,700.00	6,623.18	6,574.18	6,623.18	30.77	227.78	-80.54	975.75	-4,990.97	4,832.41	4,573.91	258.50	18.694		
6,800.00	6,718.58	6,669.58	6,718.58	31.22	231.11	-80.76	975.75	-4,990.97	4,806.57	4,544.29	262.27	18.327		
6,900.00	6,808.91	6,759.91	6,808.91	31.66	234.27	-81.00	975.75	-4,990.97	4,766.00	4,500.16	265.84	17.928		
7,000.00	6,891.95	6,842.95	6,891.95	32.07	237.17	-81.26	975.75	-4,990.97	4,711.69	4,442.59	269.10	17.509		
7,100.00	6,965.65	6,916.65	6,965.65	32.51	239.74	-81.52	975.75	-4,990.97	4,644.97	4,372.98	271.99	17.078		
7,200.00	7,028.20	6,979.20	7,028.20	33.02	241.92	-81.83	975.75	-4,990.97	4,567.47	4,293.04	274.43	16.644		
7,300.00	7,078.04	7,029.04	7,078.04	33.68	243.66	-82.19	975.75	-4,990.97	4,481.08	4,204.72	276.36	16.215		
7,400.00	7,113.97	7,064.97	7,113.97	34.52	244.92	-82.67	975.75	-4,990.97	4,387.92	4,110.18	277.74	15.799		
7,500.00	7,135.09	7,086.09	7,135.09	35.53	245.65	-83.26	975.75	-4,990.97	4,290.28	4,011.74	278.54	15.403		
7,600.00	7,140.96	7,108.04	7,140.96	36.68	246.42	-83.95	975.75	-4,990.97	4,190.57	3,911.25	279.32	15.003		
7,700.00	7,140.53	7,108.47	7,140.53	37.99	246.43	-84.73	975.75	-4,990.97	4,090.61	3,811.28	279.33	14.644		
7,800.00	7,140.09	7,108.91	7,140.09	39.45	246.45	-85.60	975.75	-4,990.97	3,990.66	3,711.32	279.34	14.286		
7,900.00	7,139.66	7,109.34	7,139.66	41.06	246.46	-86.55	975.75	-4,990.97	3,890.71	3,611.35	279.35	13.928		
8,000.00	7,139.23	7,109.77	7,139.23	42.80	246.48	-87.58	975.75	-4,990.97	3,790.76	3,511.39	279.37	13.569		
8,100.00	7,138.79	7,089.79	7,138.79	44.65	245.78	-88.68	975.75	-4,990.97	3,690.81	3,412.14	278.67	13.244		
8,200.00	7,138.36	7,089.36	7,138.36	46.60	245.77	-89.84	975.75	-4,990.97	3,590.87	3,312.21	278.66	12.886		
8,300.00	7,137.93	7,088.93	7,137.93	48.65	245.75	-91.06	975.75	-4,990.97	3,490.93	3,212.28	278.64	12.528		
8,400.00	7,137.49	7,088.49	7,137.49	50.77	245.74	-92.34	975.75	-4,990.97	3,390.99	3,112.36	278.63	12.170		
8,500.00	7,137.06	7,088.06	7,137.06	52.95	245.72	-93.67	975.75	-4,990.97	3,291.06	3,012.44	278.62	11.812		
8,600.00	7,136.62	7,087.62	7,136.62	55.20	245.71	-95.05	975.75	-4,990.97	3,191.13	2,912.52	278.61	11.454		
8,700.00	7,136.19	7,087.19	7,136.19	57.51	245.69	-96.47	975.75	-4,990.97	3,091.20	2,812.61	278.60	11.096		
8,800.00	7,135.76	7,086.76	7,135.76	59.85	245.68	-97.93	975.75	-4,990.97	2,991.29	2,712.70	278.59	10.737		
8,900.00	7,135.32	7,086.32	7,135.32	62.24	245.66	-99.43	975.75	-4,990.97	2,891.37	2,612.79	278.58	10.379		
9,000.00	7,134.89	7,085.89	7,134.89	64.67	245.65	-100.96	975.75	-4,990.97	2,791.46	2,512.89	278.57	10.021		
9,100.00	7,134.45	7,085.45	7,134.45	67.13	245.63	-102.52	975.75	-4,990.97	2,691.56	2,412.99	278.57	9.662		
9,200.00	7,134.02	7,085.02	7,134.02	69.62	245.61	-104.11	975.75	-4,990.97	2,591.67	2,313.10	278.57	9.304		
9,300.00	7,133.59	7,084.59	7,133.59	72.14	245.60	-105.72	975.75	-4,990.97	2,491.78	2,213.22	278.56	8.945		
9,400.00	7,133.15	7,084.15	7,133.15	74.68	245.58	-107.35	975.75	-4,990.97	2,391.91	2,113.34	278.56	8.587		
9,500.00	7,132.72	7,083.72	7,132.72	77.24	245.57	-109.00	975.75	-4,990.97	2,292.05	2,013.48	278.57	8.228		
9,600.00	7,132.29	7,083.29	7,132.29	79.83	245.55	-110.67	975.75	-4,990.97	2,192.19	1,913.62	278.58	7.869		
9,700.00	7,131.85	7,082.85	7,131.85	82.42	245.54	-112.36	975.75	-4,990.97	2,092.35	1,813.77	278.59	7.511		
9,800.00	7,131.42	7,082.42	7,131.42	85.04	245.52	-114.07	975.75	-4,990.97	1,992.53	1,713.93	278.60	7.152		
9,900.00	7,130.98	7,081.98	7,130.98	87.67	245.51	-115.80	975.75	-4,990.97	1,892.73	1,614.11	278.62	6.793		
10,000.00	7,130.55	7,081.55	7,130.55	90.31	245.49	-117.55	975.75	-4,990.97	1,792.95	1,514.29	278.65	6.434		
10,100.00	7,130.12	7,081.12	7,130.12	92.97	245.48	-119.32	975.75	-4,990.97	1,693.19	1,414.50	278.70	6.075		
10,200.00	7,129.68	7,080.68	7,129.68	95.63	245.46	-121.11	975.75	-4,990.97	1,593.47	1,314.71	278.75	5.716		
10,300.00	7,129.25	7,080.25	7,129.25	98.31	245.45	-122.91	975.75	-4,990.97	1,493.78	1,214.95	278.83	5.357		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	7,079.82	7,128.82	101.00	245.43	92.84	975.75	-4,990.97	1,394.13	1,115.21	278.93	4.998		
10,500.00	7,128.38	7,079.38	7,128.38	103.69	245.42	92.64	975.75	-4,990.97	1,294.54	1,015.48	279.06	4.639		
10,600.00	7,127.95	7,078.95	7,127.95	106.39	245.40	92.43	975.75	-4,990.97	1,195.02	915.78	279.25	4.279		
10,700.00	7,127.51	7,078.51	7,127.51	109.10	245.39	92.23	975.75	-4,990.97	1,095.59	816.08	279.50	3.920		
10,800.00	7,127.08	7,078.08	7,127.08	111.82	245.37	92.02	975.75	-4,990.97	996.27	716.40	279.86	3.560		
10,900.00	7,126.65	7,077.65	7,126.65	114.54	245.36	91.82	975.75	-4,990.97	897.10	616.72	280.38	3.200		
11,000.00	7,126.21	7,077.21	7,126.21	117.27	245.34	91.61	975.75	-4,990.97	798.13	516.99	281.14	2.839		
11,100.00	7,125.78	7,076.78	7,125.78	120.01	245.33	91.41	975.75	-4,990.97	699.46	417.17	282.29	2.478		
11,200.00	7,125.35	7,076.35	7,125.35	122.75	245.31	91.20	975.75	-4,990.97	601.23	317.15	284.09	2.116		
11,300.00	7,124.91	7,075.91	7,124.91	125.49	245.30	91.00	975.75	-4,990.97	503.70	216.68	287.03	1.755		
11,400.00	7,124.48	7,075.48	7,124.48	128.24	245.28	90.80	975.75	-4,990.97	407.37	115.28	292.08	1.395	Level 3	
11,500.00	7,124.04	7,075.04	7,124.04	131.00	245.27	90.59	975.75	-4,990.97	313.34	11.99	301.34	1.040	Level 2	
11,600.00	7,123.61	7,074.61	7,123.61	133.75	245.25	90.39	975.75	-4,990.97	224.52	-94.95	319.47	0.703	Level 1	
11,700.00	7,123.18	7,074.18	7,123.18	136.52	245.24	90.18	975.75	-4,990.97	150.47	-204.08	354.56	0.424	Level 1	
11,788.85	7,122.79	7,073.79	7,122.79	138.97	245.22	90.00	975.75	-4,990.97	121.44	-262.67	384.12	0.316	Level 1, CC, ES, SF	
11,800.00	7,122.74	7,073.74	7,122.74	139.28	245.22	89.98	975.75	-4,990.97	121.95	-262.33	384.29	0.317	Level 1	
11,900.00	7,122.31	7,073.31	7,122.31	142.05	245.21	89.77	975.75	-4,990.97	164.63	-190.75	355.38	0.463	Level 1	
12,000.00	7,121.88	7,072.88	7,121.88	144.82	245.19	89.57	975.75	-4,990.97	243.58	-83.19	326.78	0.745	Level 1	
12,100.00	7,121.44	7,072.44	7,121.44	147.59	245.18	89.36	975.75	-4,990.97	334.01	22.86	311.16	1.073	Level 2	
12,200.00	7,121.01	7,072.01	7,121.01	150.37	245.16	89.16	975.75	-4,990.97	428.71	126.35	302.36	1.418	Level 3	
12,300.00	7,120.57	7,071.57	7,120.57	153.15	245.15	88.95	975.75	-4,990.97	525.38	228.37	297.01	1.769		
12,400.00	7,120.14	7,071.14	7,120.14	155.93	245.13	88.75	975.75	-4,990.97	623.10	329.58	293.52	2.123		
12,500.00	7,119.71	7,070.71	7,119.71	158.72	245.12	88.54	975.75	-4,990.97	721.44	430.33	291.11	2.478		
12,600.00	7,119.27	7,070.27	7,119.27	161.50	245.10	88.34	975.75	-4,990.97	820.19	530.79	289.39	2.834		
12,700.00	7,118.84	7,069.84	7,118.84	164.29	245.09	88.14	975.75	-4,990.97	919.20	631.09	288.11	3.190		
12,800.00	7,118.41	7,069.41	7,118.41	167.08	245.07	87.93	975.75	-4,990.97	1,018.41	731.27	287.14	3.547		
12,900.00	7,117.97	7,068.97	7,117.97	169.88	245.05	87.73	975.75	-4,990.97	1,117.76	831.38	286.38	3.903		
13,000.00	7,117.54	7,068.54	7,117.54	172.67	245.04	87.52	975.75	-4,990.97	1,217.22	931.43	285.78	4.259		
13,100.00	7,117.10	7,068.10	7,117.10	175.47	245.02	87.32	975.75	-4,990.97	1,316.75	1,031.45	285.30	4.615		
13,200.00	7,116.67	7,067.67	7,116.67	178.27	245.01	87.11	975.75	-4,990.97	1,416.36	1,131.45	284.91	4.971		
13,300.00	7,116.24	7,067.24	7,116.24	181.07	244.99	86.91	975.75	-4,990.97	1,516.01	1,231.42	284.59	5.327		
13,400.00	7,115.80	7,066.80	7,115.80	183.87	244.98	86.71	975.75	-4,990.97	1,615.71	1,331.39	284.32	5.683		
13,500.00	7,115.37	7,066.37	7,115.37	186.67	244.96	86.50	975.75	-4,990.97	1,715.44	1,431.34	284.10	6.038		
13,600.00	7,114.93	7,065.93	7,114.93	189.47	244.95	86.30	975.75	-4,990.97	1,815.20	1,531.29	283.91	6.394		
13,700.00	7,114.50	7,065.50	7,114.50	192.28	244.93	86.09	975.75	-4,990.97	1,914.99	1,631.23	283.76	6.749		
13,800.00	7,114.07	7,065.07	7,114.07	195.09	244.92	85.89	975.75	-4,990.97	2,014.80	1,731.17	283.63	7.104		
13,900.00	7,113.63	7,064.63	7,113.63	197.89	244.90	85.69	975.75	-4,990.97	2,114.62	1,831.10	283.52	7.458		
14,000.00	7,113.20	7,064.20	7,113.20	200.70	244.89	85.48	975.75	-4,990.97	2,214.46	1,931.03	283.43	7.813		
14,100.00	7,112.77	7,063.77	7,112.77	203.51	244.87	85.28	975.75	-4,990.97	2,314.32	2,030.96	283.36	8.167		
14,200.00	7,112.33	7,063.33	7,112.33	206.32	244.86	85.08	975.75	-4,990.97	2,414.19	2,130.89	283.30	8.522		
14,300.00	7,111.90	7,062.90	7,111.90	209.13	244.84	84.87	975.75	-4,990.97	2,514.06	2,230.81	283.25	8.876		
14,400.00	7,111.46	7,062.46	7,111.46	211.95	244.83	84.67	975.75	-4,990.97	2,613.95	2,330.74	283.21	9.230		
14,500.00	7,111.03	7,062.03	7,111.03	214.76	244.81	84.47	975.75	-4,990.97	2,713.85	2,430.66	283.18	9.583		
14,600.00	7,110.60	7,061.60	7,110.60	217.58	244.80	84.27	975.75	-4,990.97	2,813.75	2,530.59	283.16	9.937		
14,700.00	7,110.16	7,061.16	7,110.16	220.39	244.78	84.06	975.75	-4,990.97	2,913.66	2,630.51	283.15	10.290		
14,800.00	7,109.73	7,060.73	7,109.73	223.21	244.77	83.86	975.75	-4,990.97	3,013.57	2,730.43	283.14	10.643		
14,900.00	7,109.30	7,060.30	7,109.30	226.03	244.75	83.66	975.75	-4,990.97	3,113.49	2,830.35	283.14	10.996		
14,969.16	7,109.00	7,060.00	7,109.00	227.97	244.74	83.52	975.75	-4,990.97	3,182.60	2,899.46	283.15	11.240		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-78.99	996.53	-5,120.85	5,217.12				
100.00	100.00	53.00	100.00	3.28	3.41	-78.99	996.53	-5,120.85	5,216.91	5,210.22	6.69	779.494	
200.00	200.00	153.00	200.00	3.34	4.87	-78.99	996.53	-5,120.85	5,216.91	5,208.71	8.20	635.896	
300.00	300.00	253.00	300.00	3.44	7.81	-78.99	996.53	-5,120.85	5,216.91	5,205.66	11.25	463.565	
400.00	400.00	353.00	400.00	3.60	11.07	-78.99	996.53	-5,120.85	5,216.91	5,202.23	14.68	355.425	
500.00	500.00	453.00	500.00	3.81	14.45	-78.99	996.53	-5,120.85	5,216.91	5,198.66	18.25	285.826	
600.00	600.00	553.00	600.00	4.05	17.86	-78.99	996.53	-5,120.85	5,216.91	5,195.00	21.91	238.109	
700.00	699.98	652.98	699.98	4.32	21.30	-69.87	996.53	-5,120.85	5,216.31	5,190.69	25.62	203.593	
800.00	799.84	752.84	799.84	4.62	24.75	-69.95	996.53	-5,120.85	5,214.51	5,185.14	29.37	177.560	
900.00	899.45	852.45	899.45	4.94	28.21	-70.10	996.53	-5,120.85	5,211.52	5,178.39	33.14	157.279	
1,000.00	998.70	951.70	998.70	5.28	31.65	-70.30	996.53	-5,120.85	5,207.37	5,170.45	36.92	141.062	
1,100.00	1,097.50	1,050.50	1,097.50	5.64	35.08	-70.53	996.53	-5,120.85	5,202.14	5,161.44	40.70	127.815	
1,200.00	1,196.18	1,149.18	1,196.18	6.00	38.51	-70.69	996.53	-5,120.85	5,196.70	5,152.20	44.50	116.781	
1,300.00	1,294.87	1,247.87	1,294.87	6.38	41.95	-70.86	996.53	-5,120.85	5,191.31	5,143.00	48.31	107.450	
1,400.00	1,393.55	1,346.55	1,393.55	6.77	45.38	-71.03	996.53	-5,120.85	5,185.97	5,133.83	52.14	99.461	
1,500.00	1,492.23	1,445.23	1,492.23	7.17	48.82	-71.19	996.53	-5,120.85	5,180.67	5,124.69	55.98	92.549	
1,600.00	1,590.91	1,543.91	1,590.91	7.58	52.26	-71.36	996.53	-5,120.85	5,175.41	5,115.59	59.82	86.512	
1,700.00	1,689.60	1,642.60	1,689.60	8.00	55.69	-71.53	996.53	-5,120.85	5,170.20	5,106.53	63.68	81.195	
1,800.00	1,788.28	1,741.28	1,788.28	8.42	59.13	-71.70	996.53	-5,120.85	5,165.04	5,097.50	67.54	76.479	
1,900.00	1,886.96	1,839.96	1,886.96	8.84	62.57	-71.86	996.53	-5,120.85	5,159.92	5,088.52	71.40	72.268	
2,000.00	1,985.64	1,938.64	1,985.64	9.27	66.01	-72.03	996.53	-5,120.85	5,154.85	5,079.58	75.27	68.485	
2,100.00	2,084.33	2,037.33	2,084.33	9.71	69.46	-72.20	996.53	-5,120.85	5,149.82	5,070.68	79.14	65.070	
2,200.00	2,183.01	2,136.01	2,183.01	10.15	72.90	-72.37	996.53	-5,120.85	5,144.84	5,061.82	83.02	61.972	
2,300.00	2,281.69	2,234.69	2,281.69	10.59	76.34	-72.54	996.53	-5,120.85	5,139.90	5,053.00	86.90	59.148	
2,400.00	2,380.38	2,333.38	2,380.38	11.03	79.78	-72.71	996.53	-5,120.85	5,135.01	5,044.23	90.78	56.565	
2,500.00	2,479.06	2,432.06	2,479.06	11.47	83.22	-72.88	996.53	-5,120.85	5,130.17	5,035.51	94.67	54.193	
2,600.00	2,577.74	2,530.74	2,577.74	11.92	86.66	-73.05	996.53	-5,120.85	5,125.37	5,026.82	98.55	52.007	
2,700.00	2,676.42	2,629.42	2,676.42	12.36	90.11	-73.22	996.53	-5,120.85	5,120.62	5,018.18	102.44	49.986	
2,800.00	2,775.11	2,728.11	2,775.11	12.81	93.55	-73.40	996.53	-5,120.85	5,115.92	5,009.59	106.33	48.113	
2,900.00	2,873.79	2,826.79	2,873.79	13.26	96.99	-73.57	996.53	-5,120.85	5,111.27	5,001.04	110.22	46.372	
3,000.00	2,972.47	2,925.47	2,972.47	13.72	100.44	-73.74	996.53	-5,120.85	5,106.66	4,992.54	114.12	44.750	
3,100.00	3,071.15	3,024.15	3,071.15	14.17	103.88	-73.91	996.53	-5,120.85	5,102.09	4,984.08	118.01	43.234	
3,200.00	3,169.84	3,122.84	3,169.84	14.62	107.32	-74.08	996.53	-5,120.85	5,097.58	4,975.67	121.91	41.816	
3,300.00	3,268.52	3,221.52	3,268.52	15.08	110.77	-74.26	996.53	-5,120.85	5,093.11	4,967.31	125.80	40.485	
3,400.00	3,367.20	3,320.20	3,367.20	15.53	114.21	-74.43	996.53	-5,120.85	5,088.69	4,958.99	129.70	39.234	
3,500.00	3,465.89	3,418.89	3,465.89	15.99	117.65	-74.60	996.53	-5,120.85	5,084.32	4,950.72	133.60	38.057	
3,600.00	3,564.57	3,517.57	3,564.57	16.44	121.10	-74.78	996.53	-5,120.85	5,080.00	4,942.50	137.50	36.946	
3,700.00	3,663.25	3,616.25	3,663.25	16.90	124.54	-74.95	996.53	-5,120.85	5,075.72	4,934.32	141.40	35.897	
3,800.00	3,761.93	3,714.93	3,761.93	17.36	127.99	-75.13	996.53	-5,120.85	5,071.49	4,926.19	145.30	34.904	
3,900.00	3,860.62	3,813.62	3,860.62	17.82	131.43	-75.30	996.53	-5,120.85	5,067.31	4,918.11	149.20	33.963	
4,000.00	3,959.30	3,912.30	3,959.30	18.28	134.87	-75.48	996.53	-5,120.85	5,063.18	4,910.08	153.10	33.070	
4,100.00	4,057.98	4,010.98	4,057.98	18.74	138.32	-75.65	996.53	-5,120.85	5,059.09	4,902.09	157.01	32.222	
4,200.00	4,156.67	4,109.67	4,156.67	19.20	141.76	-75.83	996.53	-5,120.85	5,055.06	4,894.15	160.91	31.416	
4,300.00	4,255.35	4,208.35	4,255.35	19.66	145.21	-76.00	996.53	-5,120.85	5,051.07	4,886.26	164.81	30.647	
4,400.00	4,354.03	4,307.03	4,354.03	20.12	148.65	-76.18	996.53	-5,120.85	5,047.13	4,878.42	168.72	29.915	
4,500.00	4,452.71	4,405.71	4,452.71	20.58	152.09	-76.35	996.53	-5,120.85	5,043.25	4,870.62	172.62	29.216	
4,600.00	4,551.40	4,504.40	4,551.40	21.04	155.54	-76.53	996.53	-5,120.85	5,039.41	4,862.88	176.53	28.548	
4,700.00	4,650.08	4,603.08	4,650.08	21.50	158.98	-76.71	996.53	-5,120.85	5,035.61	4,855.18	180.43	27.909	
4,800.00	4,748.76	4,701.76	4,748.76	21.96	162.43	-76.88	996.53	-5,120.85	5,031.87	4,847.54	184.34	27.297	
4,900.00	4,847.44	4,800.44	4,847.44	22.42	165.87	-77.06	996.53	-5,120.85	5,028.18	4,839.94	188.24	26.711	
5,000.00	4,946.13	4,900.87	4,946.13	22.89	169.38	-77.24	996.53	-5,120.85	5,024.54	4,832.33	192.21	26.141	
5,100.00	5,044.81	5,002.19	5,044.81	23.35	172.91	-77.42	996.53	-5,120.85	5,020.94	4,824.73	196.21	25.590	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,103.51	5,143.49	23.81	176.45	-77.59	996.53	-5,120.85	5,017.40	4,817.19	200.21	25.061		
5,300.00	5,242.18	5,204.82	5,242.18	24.27	179.99	-77.77	996.53	-5,120.85	5,013.90	4,809.70	204.21	24.553		
5,400.00	5,340.86	5,306.14	5,340.86	24.74	183.52	-77.95	996.53	-5,120.85	5,010.46	4,802.25	208.20	24.065		
5,500.00	5,439.54	5,407.46	5,439.54	25.20	187.06	-78.13	996.53	-5,120.85	5,007.06	4,794.86	212.20	23.595		
5,600.00	5,538.22	5,508.78	5,538.22	25.66	190.59	-78.31	996.53	-5,120.85	5,003.72	4,787.51	216.20	23.143		
5,700.00	5,636.91	5,589.91	5,636.91	26.13	193.43	-78.49	996.53	-5,120.85	5,000.42	4,780.92	219.50	22.781		
5,800.00	5,735.59	5,688.59	5,735.59	26.59	196.87	-78.67	996.53	-5,120.85	4,997.18	4,773.77	223.41	22.368		
5,900.00	5,834.27	5,787.27	5,834.27	27.06	200.32	-78.85	996.53	-5,120.85	4,993.98	4,766.67	227.32	21.969		
6,000.00	5,932.95	5,885.95	5,932.95	27.52	203.76	-79.03	996.53	-5,120.85	4,990.84	4,759.61	231.23	21.584		
6,100.00	6,031.64	5,984.64	6,031.64	27.98	207.20	-79.21	996.53	-5,120.85	4,987.75	4,752.61	235.13	21.212		
6,200.00	6,130.32	6,083.32	6,130.32	28.45	210.65	-79.39	996.53	-5,120.85	4,984.70	4,745.66	239.04	20.853		
6,300.00	6,229.00	6,182.00	6,229.00	28.91	214.09	-79.57	996.53	-5,120.85	4,981.71	4,738.76	242.95	20.505		
6,400.00	6,327.69	6,280.69	6,327.69	29.38	217.54	-79.75	996.53	-5,120.85	4,978.77	4,731.91	246.86	20.168		
6,500.00	6,426.37	6,379.37	6,426.37	29.84	220.98	-79.93	996.53	-5,120.85	4,975.88	4,725.11	250.77	19.842		
6,600.00	6,525.05	6,478.05	6,525.05	30.31	224.43	-80.11	996.53	-5,120.85	4,973.04	4,718.36	254.68	19.527		
6,700.00	6,623.18	6,576.18	6,623.18	30.77	227.85	-80.11	996.53	-5,120.85	4,969.49	4,713.92	258.57	19.192		
6,800.00	6,718.58	6,671.58	6,718.58	31.22	231.18	-23.81	996.53	-5,120.85	4,936.59	4,674.25	262.34	18.817		
6,900.00	6,808.91	6,761.91	6,808.91	31.66	234.34	-16.43	996.53	-5,120.85	4,895.97	4,630.06	265.91	18.412		
7,000.00	6,891.95	6,844.95	6,891.95	32.07	237.23	-12.37	996.53	-5,120.85	4,841.61	4,572.44	269.17	17.987		
7,100.00	6,965.65	6,918.65	6,965.65	32.51	239.81	-9.75	996.53	-5,120.85	4,774.85	4,502.79	272.06	17.551		
7,200.00	7,028.20	6,981.20	7,028.20	33.02	241.99	-7.78	996.53	-5,120.85	4,697.31	4,422.82	274.49	17.113		
7,300.00	7,078.04	7,031.04	7,078.04	33.68	243.73	-5.88	996.53	-5,120.85	4,610.90	4,334.47	276.42	16.681		
7,400.00	7,113.97	7,066.97	7,113.97	34.52	244.98	-3.17	996.53	-5,120.85	4,517.72	4,239.93	277.80	16.263		
7,500.00	7,135.09	7,088.09	7,135.09	35.53	245.72	4.46	996.53	-5,120.85	4,420.09	4,141.49	278.60	15.865		
7,600.00	7,140.96	7,106.04	7,140.96	36.68	246.35	97.28	996.53	-5,120.85	4,320.38	4,041.15	279.24	15.472		
7,700.00	7,140.53	7,106.47	7,140.53	37.99	246.36	97.11	996.53	-5,120.85	4,220.44	3,941.20	279.25	15.114		
7,800.00	7,140.09	7,106.91	7,140.09	39.45	246.38	96.94	996.53	-5,120.85	4,120.51	3,841.25	279.26	14.755		
7,900.00	7,139.66	7,107.34	7,139.66	41.06	246.39	96.77	996.53	-5,120.85	4,020.57	3,741.30	279.27	14.397		
8,000.00	7,139.23	7,107.77	7,139.23	42.80	246.41	96.61	996.53	-5,120.85	3,920.64	3,641.36	279.28	14.038		
8,100.00	7,138.79	7,108.21	7,138.79	44.65	246.42	96.44	996.53	-5,120.85	3,820.71	3,541.42	279.30	13.680		
8,200.00	7,138.36	7,108.64	7,138.36	46.60	246.44	96.27	996.53	-5,120.85	3,720.79	3,441.48	279.31	13.321		
8,300.00	7,137.93	7,109.08	7,137.93	48.65	246.45	96.11	996.53	-5,120.85	3,620.87	3,341.55	279.32	12.963		
8,400.00	7,137.49	7,109.51	7,137.49	50.77	246.47	95.94	996.53	-5,120.85	3,520.96	3,241.62	279.34	12.604		
8,500.00	7,137.06	7,109.94	7,137.06	52.95	246.48	95.77	996.53	-5,120.85	3,421.05	3,141.69	279.36	12.246		
8,600.00	7,136.62	7,089.62	7,136.62	55.20	245.78	95.60	996.53	-5,120.85	3,321.14	3,042.49	278.65	11.919		
8,700.00	7,136.19	7,089.19	7,136.19	57.51	245.76	95.43	996.53	-5,120.85	3,221.24	2,942.60	278.64	11.560		
8,800.00	7,135.76	7,088.76	7,135.76	59.85	245.75	95.27	996.53	-5,120.85	3,121.35	2,842.72	278.63	11.202		
8,900.00	7,135.32	7,088.32	7,135.32	62.24	245.73	95.10	996.53	-5,120.85	3,021.47	2,742.84	278.63	10.844		
9,000.00	7,134.89	7,087.89	7,134.89	64.67	245.72	94.93	996.53	-5,120.85	2,921.59	2,642.97	278.62	10.486		
9,100.00	7,134.45	7,087.45	7,134.45	67.13	245.70	94.76	996.53	-5,120.85	2,821.72	2,543.11	278.62	10.128		
9,200.00	7,134.02	7,087.02	7,134.02	69.62	245.68	94.59	996.53	-5,120.85	2,721.86	2,443.25	278.61	9.769		
9,300.00	7,133.59	7,086.59	7,133.59	72.14	245.67	94.43	996.53	-5,120.85	2,622.01	2,343.40	278.62	9.411		
9,400.00	7,133.15	7,086.15	7,133.15	74.68	245.65	94.26	996.53	-5,120.85	2,522.18	2,243.56	278.62	9.052		
9,500.00	7,132.72	7,085.72	7,132.72	77.24	245.64	94.09	996.53	-5,120.85	2,422.36	2,143.73	278.63	8.694		
9,600.00	7,132.29	7,085.29	7,132.29	79.83	245.62	93.92	996.53	-5,120.85	2,322.55	2,043.91	278.64	8.335		
9,700.00	7,131.85	7,084.85	7,131.85	82.42	245.61	93.75	996.53	-5,120.85	2,222.76	1,944.10	278.66	7.977		
9,800.00	7,131.42	7,084.42	7,131.42	85.04	245.59	93.58	996.53	-5,120.85	2,122.99	1,844.31	278.68	7.618		
9,900.00	7,130.98	7,083.98	7,130.98	87.67	245.58	93.41	996.53	-5,120.85	2,023.24	1,744.53	278.71	7.259		
10,000.00	7,130.55	7,083.55	7,130.55	90.31	245.56	93.25	996.53	-5,120.85	1,923.52	1,644.76	278.76	6.900		
10,100.00	7,130.12	7,083.12	7,130.12	92.97	245.55	93.08	996.53	-5,120.85	1,823.83	1,545.01	278.81	6.541		
10,200.00	7,129.68	7,082.68	7,129.68	95.63	245.53	92.91	996.53	-5,120.85	1,724.17	1,445.28	278.88	6.182		
10,300.00	7,129.25	7,082.25	7,129.25	98.31	245.52	92.74	996.53	-5,120.85	1,624.55	1,345.58	278.98	5.823		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 16-1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	7,081.82	7,128.82	101.00	245.50	92.57	996.53	-5,120.85	1,524.99	1,245.89	279.10	5.464		
10,500.00	7,128.38	7,081.38	7,128.38	103.69	245.49	92.40	996.53	-5,120.85	1,425.49	1,146.22	279.27	5.104		
10,600.00	7,127.95	7,080.95	7,127.95	106.39	245.47	92.23	996.53	-5,120.85	1,326.06	1,046.58	279.48	4.745		
10,700.00	7,127.51	7,080.51	7,127.51	109.10	245.46	92.06	996.53	-5,120.85	1,226.73	946.95	279.77	4.385		
10,800.00	7,127.08	7,080.08	7,127.08	111.82	245.44	91.89	996.53	-5,120.85	1,127.51	847.35	280.16	4.025		
10,900.00	7,126.65	7,079.65	7,126.65	114.54	245.43	91.72	996.53	-5,120.85	1,028.44	747.75	280.69	3.664		
11,000.00	7,126.21	7,079.21	7,126.21	117.27	245.41	91.55	996.53	-5,120.85	929.57	648.13	281.44	3.303		
11,100.00	7,125.78	7,078.78	7,125.78	120.01	245.40	91.39	996.53	-5,120.85	830.98	548.48	282.50	2.941		
11,200.00	7,125.35	7,078.35	7,125.35	122.75	245.38	91.22	996.53	-5,120.85	732.76	448.71	284.05	2.580		
11,300.00	7,124.91	7,077.91	7,124.91	125.49	245.37	91.05	996.53	-5,120.85	635.10	348.72	286.38	2.218		
11,400.00	7,124.48	7,077.48	7,124.48	128.24	245.35	90.88	996.53	-5,120.85	538.31	248.31	290.00	1.856		
11,500.00	7,124.04	7,077.04	7,124.04	131.00	245.34	90.71	996.53	-5,120.85	442.93	147.10	295.83	1.497	Level 3	
11,600.00	7,123.61	7,076.61	7,123.61	133.75	245.32	90.54	996.53	-5,120.85	350.15	44.47	305.68	1.145	Level 2	
11,700.00	7,123.18	7,076.18	7,123.18	136.52	245.31	90.37	996.53	-5,120.85	262.71	-60.34	323.05	0.813	Level 1	
11,800.00	7,122.74	7,075.74	7,122.74	139.28	245.29	90.20	996.53	-5,120.85	188.24	-164.87	353.10	0.533	Level 1	
11,900.00	7,122.31	7,075.31	7,122.31	142.05	245.28	90.03	996.53	-5,120.85	147.81	-237.91	385.72	0.383	Level 1	
11,917.93	7,122.23	7,075.23	7,122.23	142.55	245.27	90.00	996.53	-5,120.85	146.71	-241.03	387.74	0.378	Level 1, CC, ES, SF	
12,000.00	7,121.88	7,074.88	7,121.88	144.82	245.26	89.86	996.53	-5,120.85	168.11	-206.74	374.85	0.448	Level 1	
12,100.00	7,121.44	7,074.44	7,121.44	147.59	245.25	89.69	996.53	-5,120.85	233.82	-111.09	344.91	0.678	Level 1	
12,200.00	7,121.01	7,074.01	7,121.01	150.37	245.23	89.52	996.53	-5,120.85	317.94	-6.65	324.59	0.980	Level 1	
12,300.00	7,120.57	7,073.57	7,120.57	153.15	245.22	89.35	996.53	-5,120.85	409.27	96.89	312.38	1.310	Level 3	
12,400.00	7,120.14	7,073.14	7,120.14	155.93	245.20	89.18	996.53	-5,120.85	503.90	199.16	304.74	1.654		
12,500.00	7,119.71	7,072.71	7,119.71	158.72	245.19	89.01	996.53	-5,120.85	600.27	300.58	299.69	2.003		
12,600.00	7,119.27	7,072.27	7,119.27	161.50	245.17	88.84	996.53	-5,120.85	697.66	401.48	296.18	2.356		
12,700.00	7,118.84	7,071.84	7,118.84	164.29	245.15	88.68	996.53	-5,120.85	795.70	502.05	293.65	2.710		
12,800.00	7,118.41	7,071.41	7,118.41	167.08	245.14	88.51	996.53	-5,120.85	894.18	602.41	291.77	3.065		
12,900.00	7,117.97	7,070.97	7,117.97	169.88	245.12	88.34	996.53	-5,120.85	992.96	702.63	290.33	3.420		
13,000.00	7,117.54	7,070.54	7,117.54	172.67	245.11	88.17	996.53	-5,120.85	1,091.96	802.76	289.20	3.776		
13,100.00	7,117.10	7,070.10	7,117.10	175.47	245.09	88.00	996.53	-5,120.85	1,191.13	902.82	288.31	4.131		
13,200.00	7,116.67	7,069.67	7,116.67	178.27	245.08	87.83	996.53	-5,120.85	1,290.42	1,002.84	287.58	4.487		
13,300.00	7,116.24	7,069.24	7,116.24	181.07	245.06	87.66	996.53	-5,120.85	1,389.82	1,102.83	286.99	4.843		
13,400.00	7,115.80	7,068.80	7,115.80	183.87	245.05	87.49	996.53	-5,120.85	1,489.30	1,202.80	286.50	5.198		
13,500.00	7,115.37	7,068.37	7,115.37	186.67	245.03	87.32	996.53	-5,120.85	1,588.84	1,302.75	286.09	5.554		
13,600.00	7,114.93	7,067.93	7,114.93	189.47	245.02	87.15	996.53	-5,120.85	1,688.44	1,402.69	285.75	5.909		
13,700.00	7,114.50	7,067.50	7,114.50	192.28	245.00	86.98	996.53	-5,120.85	1,788.08	1,502.63	285.46	6.264		
13,800.00	7,114.07	7,067.07	7,114.07	195.09	244.99	86.82	996.53	-5,120.85	1,887.76	1,602.55	285.21	6.619		
13,900.00	7,113.63	7,066.63	7,113.63	197.89	244.97	86.65	996.53	-5,120.85	1,987.47	1,702.47	285.00	6.974		
14,000.00	7,113.20	7,066.20	7,113.20	200.70	244.96	86.48	996.53	-5,120.85	2,087.21	1,802.39	284.82	7.328		
14,100.00	7,112.77	7,065.77	7,112.77	203.51	244.94	86.31	996.53	-5,120.85	2,186.97	1,902.31	284.67	7.683		
14,200.00	7,112.33	7,065.33	7,112.33	206.32	244.93	86.14	996.53	-5,120.85	2,286.76	2,002.22	284.54	8.037		
14,300.00	7,111.90	7,064.90	7,111.90	209.13	244.91	85.97	996.53	-5,120.85	2,386.56	2,102.13	284.43	8.391		
14,400.00	7,111.46	7,064.46	7,111.46	211.95	244.90	85.80	996.53	-5,120.85	2,486.38	2,202.04	284.33	8.745		
14,500.00	7,111.03	7,064.03	7,111.03	214.76	244.88	85.63	996.53	-5,120.85	2,586.21	2,301.96	284.25	9.098		
14,600.00	7,110.60	7,063.60	7,110.60	217.58	244.87	85.47	996.53	-5,120.85	2,686.05	2,401.87	284.19	9.452		
14,700.00	7,110.16	7,063.16	7,110.16	220.39	244.85	85.30	996.53	-5,120.85	2,785.91	2,501.78	284.13	9.805		
14,800.00	7,109.73	7,062.73	7,109.73	223.21	244.84	85.13	996.53	-5,120.85	2,885.77	2,601.69	284.09	10.158		
14,900.00	7,109.30	7,062.30	7,109.30	226.03	244.82	84.96	996.53	-5,120.85	2,985.65	2,701.59	284.05	10.511		
14,969.16	7,109.00	7,062.00	7,109.00	227.97	244.81	84.85	996.53	-5,120.85	3,054.73	2,770.69	284.03	10.755		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-95.52	-475.30	-4,918.11	4,941.32				
100.00	100.00	46.00	100.00	3.28	3.38	-95.52	-475.30	-4,918.11	4,941.02	4,934.36	6.66	741.720	
200.00	200.00	146.00	200.00	3.34	4.69	-95.52	-475.30	-4,918.11	4,941.02	4,933.00	8.03	615.598	
300.00	300.00	246.00	300.00	3.44	7.59	-95.52	-475.30	-4,918.11	4,941.02	4,929.99	11.03	447.848	
400.00	400.00	346.00	400.00	3.60	10.84	-95.52	-475.30	-4,918.11	4,941.02	4,926.58	14.44	342.063	
500.00	500.00	446.00	500.00	3.81	14.21	-95.52	-475.30	-4,918.11	4,941.02	4,923.01	18.01	274.286	
600.00	600.00	546.00	600.00	4.05	17.62	-95.52	-475.30	-4,918.11	4,941.02	4,919.35	21.67	228.017	
700.00	699.98	645.98	699.98	4.32	21.06	-86.39	-475.30	-4,918.11	4,940.91	4,915.53	25.38	194.679	
800.00	799.84	745.84	799.84	4.62	24.51	-86.46	-475.30	-4,918.11	4,940.59	4,911.46	29.13	169.633	
900.00	899.45	845.45	899.45	4.94	27.96	-86.57	-475.30	-4,918.11	4,940.05	4,907.16	32.89	150.189	
1,000.00	998.70	944.70	998.70	5.28	31.41	-86.72	-475.30	-4,918.11	4,939.34	4,902.66	36.67	134.690	
1,100.00	1,097.50	1,043.50	1,097.50	5.64	34.84	-86.91	-475.30	-4,918.11	4,938.47	4,898.01	40.46	122.067	
1,200.00	1,196.18	1,142.18	1,196.18	6.00	38.27	-87.10	-475.30	-4,918.11	4,937.61	4,893.36	44.26	111.566	
1,300.00	1,294.87	1,240.87	1,294.87	6.38	41.70	-87.28	-475.30	-4,918.11	4,936.81	4,888.74	48.07	102.694	
1,400.00	1,393.55	1,339.55	1,393.55	6.77	45.14	-87.47	-475.30	-4,918.11	4,936.06	4,884.16	51.90	95.104	
1,500.00	1,492.23	1,438.23	1,492.23	7.17	48.57	-87.65	-475.30	-4,918.11	4,935.36	4,879.62	55.74	88.542	
1,600.00	1,590.91	1,536.91	1,590.91	7.58	52.01	-87.84	-475.30	-4,918.11	4,934.72	4,875.13	59.59	82.814	
1,700.00	1,689.60	1,635.60	1,689.60	8.00	55.45	-88.02	-475.30	-4,918.11	4,934.12	4,870.68	63.44	77.773	
1,800.00	1,788.28	1,734.28	1,788.28	8.42	58.89	-88.21	-475.30	-4,918.11	4,933.59	4,866.28	67.30	73.304	
1,900.00	1,886.96	1,832.96	1,886.96	8.84	62.33	-88.39	-475.30	-4,918.11	4,933.10	4,861.93	71.17	69.315	
2,000.00	1,985.64	1,931.64	1,985.64	9.27	65.77	-88.58	-475.30	-4,918.11	4,932.67	4,857.63	75.04	65.733	
2,100.00	2,084.33	2,030.33	2,084.33	9.71	69.21	-88.76	-475.30	-4,918.11	4,932.29	4,853.37	78.92	62.501	
2,200.00	2,183.01	2,129.01	2,183.01	10.15	72.65	-88.95	-475.30	-4,918.11	4,931.96	4,849.17	82.79	59.569	
2,300.00	2,281.69	2,227.69	2,281.69	10.59	76.09	-89.14	-475.30	-4,918.11	4,931.69	4,845.01	86.67	56.899	
2,400.00	2,380.38	2,326.38	2,380.38	11.03	79.54	-89.32	-475.30	-4,918.11	4,931.47	4,840.91	90.56	54.456	
2,500.00	2,479.06	2,425.06	2,479.06	11.47	82.98	-89.51	-475.30	-4,918.11	4,931.30	4,836.85	94.45	52.213	
2,600.00	2,577.74	2,523.74	2,577.74	11.92	86.42	-89.69	-475.30	-4,918.11	4,931.18	4,832.85	98.33	50.148	
2,700.00	2,676.42	2,622.42	2,676.42	12.36	89.86	-89.88	-475.30	-4,918.11	4,931.12	4,828.90	102.22	48.239	
2,765.95	2,741.50	2,687.50	2,741.50	12.66	92.13	-90.00	-475.30	-4,918.11	4,931.11	4,826.32	104.79	47.057	
2,800.00	2,775.11	2,721.11	2,775.11	12.81	93.31	-90.06	-475.30	-4,918.11	4,931.11	4,825.00	106.12	46.469	
2,900.00	2,873.79	2,819.79	2,873.79	13.26	96.75	-90.25	-475.30	-4,918.11	4,931.16	4,821.15	110.01	44.825	
3,000.00	2,972.47	2,918.47	2,972.47	13.72	100.19	-90.43	-475.30	-4,918.11	4,931.26	4,817.35	113.90	43.293	
3,100.00	3,071.15	3,017.15	3,071.15	14.17	103.64	-90.62	-475.30	-4,918.11	4,931.41	4,813.61	117.80	41.863	
3,200.00	3,169.84	3,115.84	3,169.84	14.62	107.08	-90.81	-475.30	-4,918.11	4,931.61	4,809.91	121.70	40.524	
3,300.00	3,268.52	3,214.52	3,268.52	15.08	110.52	-90.99	-475.30	-4,918.11	4,931.87	4,806.27	125.59	39.268	
3,400.00	3,367.20	3,313.20	3,367.20	15.53	113.97	-91.18	-475.30	-4,918.11	4,932.18	4,802.68	129.49	38.088	
3,500.00	3,465.89	3,411.89	3,465.89	15.99	117.41	-91.36	-475.30	-4,918.11	4,932.54	4,799.15	133.39	36.977	
3,600.00	3,564.57	3,510.57	3,564.57	16.44	120.85	-91.55	-475.30	-4,918.11	4,932.96	4,795.66	137.29	35.930	
3,700.00	3,663.25	3,609.25	3,663.25	16.90	124.30	-91.73	-475.30	-4,918.11	4,933.42	4,792.23	141.20	34.940	
3,800.00	3,761.93	3,707.93	3,761.93	17.36	127.74	-91.92	-475.30	-4,918.11	4,933.95	4,788.85	145.10	34.004	
3,900.00	3,860.62	3,806.62	3,860.62	17.82	131.18	-92.10	-475.30	-4,918.11	4,934.52	4,785.52	149.00	33.118	
4,000.00	3,959.30	3,905.30	3,959.30	18.28	134.63	-92.29	-475.30	-4,918.11	4,935.15	4,782.25	152.90	32.276	
4,100.00	4,057.98	4,003.98	4,057.98	18.74	138.07	-92.47	-475.30	-4,918.11	4,935.83	4,779.02	156.81	31.477	
4,200.00	4,156.67	4,102.67	4,156.67	19.20	141.52	-92.66	-475.30	-4,918.11	4,936.56	4,775.85	160.71	30.711	
4,300.00	4,255.35	4,201.35	4,255.35	19.66	144.96	-92.84	-475.30	-4,918.11	4,937.35	4,772.74	164.61	29.993	
4,400.00	4,354.03	4,300.03	4,354.03	20.12	148.41	-93.03	-475.30	-4,918.11	4,938.19	4,769.67	168.52	29.303	
4,500.00	4,452.71	4,401.29	4,452.71	20.58	151.94	-93.21	-475.30	-4,918.11	4,939.08	4,766.57	172.51	28.630	
4,600.00	4,551.40	4,502.60	4,551.40	21.04	155.48	-93.40	-475.30	-4,918.11	4,940.03	4,763.52	176.51	27.987	
4,700.00	4,650.08	4,603.92	4,650.08	21.50	159.01	-93.58	-475.30	-4,918.11	4,941.03	4,760.52	180.51	27.373	
4,800.00	4,748.76	4,705.24	4,748.76	21.96	162.55	-93.77	-475.30	-4,918.11	4,942.08	4,757.57	184.51	26.785	
4,900.00	4,847.44	4,806.56	4,847.44	22.42	166.08	-93.95	-475.30	-4,918.11	4,943.18	4,754.67	188.51	26.223	
5,000.00	4,946.13	4,907.87	4,946.13	22.89	169.62	-94.14	-475.30	-4,918.11	4,944.34	4,751.83	192.51	25.684	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,044.81	5,009.19	5,044.81	23.35	173.16	-94.32	-475.30	-4,918.11	4,945.55	4,749.04	196.50	25.168		
5,200.00	5,143.49	5,089.49	5,143.49	23.81	175.96	-94.51	-475.30	-4,918.11	4,946.81	4,747.04	199.77	24.762		
5,300.00	5,242.18	5,188.18	5,242.18	24.27	179.40	-94.69	-475.30	-4,918.11	4,948.12	4,744.44	203.68	24.294		
5,400.00	5,340.86	5,286.86	5,340.86	24.74	182.85	-94.87	-475.30	-4,918.11	4,949.49	4,741.90	207.59	23.843		
5,500.00	5,439.54	5,385.54	5,439.54	25.20	186.29	-95.06	-475.30	-4,918.11	4,950.91	4,739.41	211.49	23.409		
5,600.00	5,538.22	5,484.22	5,538.22	25.66	189.74	-95.24	-475.30	-4,918.11	4,952.38	4,736.98	215.40	22.991		
5,700.00	5,636.91	5,582.91	5,636.91	26.13	193.18	-95.43	-475.30	-4,918.11	4,953.90	4,734.59	219.31	22.589		
5,800.00	5,735.59	5,681.59	5,735.59	26.59	196.63	-95.61	-475.30	-4,918.11	4,955.48	4,732.26	223.22	22.200		
5,900.00	5,834.27	5,780.27	5,834.27	27.06	200.07	-95.79	-475.30	-4,918.11	4,957.11	4,729.98	227.13	21.825		
6,000.00	5,932.95	5,878.95	5,932.95	27.52	203.52	-95.98	-475.30	-4,918.11	4,958.79	4,727.75	231.04	21.463		
6,100.00	6,031.64	5,977.64	6,031.64	27.98	206.96	-96.16	-475.30	-4,918.11	4,960.52	4,725.58	234.94	21.114		
6,200.00	6,130.32	6,076.32	6,130.32	28.45	210.40	-96.34	-475.30	-4,918.11	4,962.31	4,723.45	238.85	20.775		
6,300.00	6,229.00	6,175.00	6,229.00	28.91	213.85	-96.53	-475.30	-4,918.11	4,964.14	4,721.38	242.76	20.449		
6,400.00	6,327.69	6,273.69	6,327.69	29.38	217.29	-96.71	-475.30	-4,918.11	4,966.03	4,719.36	246.67	20.132		
6,500.00	6,426.37	6,372.37	6,426.37	29.84	220.74	-96.89	-475.30	-4,918.11	4,967.97	4,717.39	250.58	19.826		
6,600.00	6,525.05	6,471.05	6,525.05	30.31	224.18	-97.08	-475.30	-4,918.11	4,969.97	4,715.48	254.49	19.529		
6,700.00	6,623.18	6,569.18	6,623.18	30.77	227.61	-57.27	-475.30	-4,918.11	4,964.47	4,706.09	258.38	19.214		
6,800.00	6,718.58	6,664.58	6,718.58	31.22	230.94	-41.64	-475.30	-4,918.11	4,944.00	4,681.84	262.16	18.858		
6,900.00	6,808.91	6,754.91	6,808.91	31.66	234.09	-35.49	-475.30	-4,918.11	4,909.11	4,643.36	265.75	18.473		
7,000.00	6,891.95	6,837.95	6,891.95	32.07	236.99	-33.38	-475.30	-4,918.11	4,860.70	4,591.66	269.05	18.066		
7,100.00	6,965.65	6,911.65	6,965.65	32.51	239.56	-33.74	-475.30	-4,918.11	4,800.01	4,528.02	271.99	17.648		
7,200.00	7,028.20	6,974.20	7,028.20	33.02	241.75	-36.33	-475.30	-4,918.11	4,728.56	4,454.04	274.52	17.225		
7,300.00	7,078.04	7,024.04	7,078.04	33.68	243.49	-41.71	-475.30	-4,918.11	4,648.14	4,371.56	276.58	16.806		
7,400.00	7,113.97	7,059.97	7,113.97	34.52	244.74	-51.40	-475.30	-4,918.11	4,560.74	4,282.61	278.13	16.398		
7,500.00	7,135.09	7,081.09	7,135.09	35.53	245.48	-68.16	-475.30	-4,918.11	4,468.52	4,189.37	279.15	16.007		
7,600.00	7,140.96	7,086.96	7,140.96	36.68	245.68	-90.78	-475.30	-4,918.11	4,373.73	4,094.10	279.63	15.641		
7,700.00	7,140.53	7,086.53	7,140.53	37.99	245.67	-90.76	-475.30	-4,918.11	4,278.58	3,998.68	279.90	15.286		
7,800.00	7,140.09	7,086.09	7,140.09	39.45	245.65	-90.74	-475.30	-4,918.11	4,183.66	3,903.45	280.21	14.931		
7,900.00	7,139.66	7,085.66	7,139.66	41.06	245.64	-90.72	-475.30	-4,918.11	4,088.98	3,808.42	280.56	14.574		
8,000.00	7,139.23	7,085.23	7,139.23	42.80	245.62	-90.70	-475.30	-4,918.11	3,994.57	3,713.60	280.97	14.217		
8,100.00	7,138.79	7,084.79	7,138.79	44.65	245.61	-90.68	-475.30	-4,918.11	3,900.43	3,619.00	281.43	13.860		
8,200.00	7,138.36	7,084.36	7,138.36	46.60	245.59	-90.67	-475.30	-4,918.11	3,806.59	3,524.64	281.94	13.501		
8,300.00	7,137.93	7,083.93	7,137.93	48.65	245.58	-90.65	-475.30	-4,918.11	3,713.07	3,430.55	282.52	13.143		
8,400.00	7,137.49	7,083.49	7,137.49	50.77	245.56	-90.63	-475.30	-4,918.11	3,619.89	3,336.73	283.16	12.784		
8,500.00	7,137.06	7,083.06	7,137.06	52.95	245.55	-90.61	-475.30	-4,918.11	3,527.09	3,243.21	283.88	12.425		
8,600.00	7,136.62	7,082.62	7,136.62	55.20	245.53	-90.59	-475.30	-4,918.11	3,434.70	3,150.02	284.68	12.065		
8,700.00	7,136.19	7,082.19	7,136.19	57.51	245.52	-90.57	-475.30	-4,918.11	3,342.74	3,057.18	285.56	11.706		
8,800.00	7,135.76	7,081.76	7,135.76	59.85	245.50	-90.55	-475.30	-4,918.11	3,251.26	2,964.72	286.54	11.347		
8,900.00	7,135.32	7,081.32	7,135.32	62.24	245.49	-90.54	-475.30	-4,918.11	3,160.29	2,872.67	287.62	10.988		
9,000.00	7,134.89	7,080.89	7,134.89	64.67	245.47	-90.52	-475.30	-4,918.11	3,069.89	2,781.08	288.81	10.630		
9,100.00	7,134.45	7,080.45	7,134.45	67.13	245.46	-90.50	-475.30	-4,918.11	2,980.09	2,689.98	290.11	10.272		
9,200.00	7,134.02	7,080.02	7,134.02	69.62	245.44	-90.48	-475.30	-4,918.11	2,890.97	2,599.43	291.55	9.916		
9,300.00	7,133.59	7,079.59	7,133.59	72.14	245.43	-90.46	-475.30	-4,918.11	2,802.58	2,509.47	293.12	9.561		
9,400.00	7,133.15	7,079.15	7,133.15	74.68	245.41	-90.44	-475.30	-4,918.11	2,715.00	2,420.17	294.83	9.209		
9,500.00	7,132.72	7,078.72	7,132.72	77.24	245.40	-90.42	-475.30	-4,918.11	2,628.31	2,331.60	296.70	8.858		
9,600.00	7,132.29	7,078.29	7,132.29	79.83	245.38	-90.40	-475.30	-4,918.11	2,542.59	2,243.84	298.75	8.511		
9,700.00	7,131.85	7,077.85	7,131.85	82.42	245.36	-90.39	-475.30	-4,918.11	2,457.95	2,156.98	300.97	8.167		
9,800.00	7,131.42	7,077.42	7,131.42	85.04	245.35	-90.37	-475.30	-4,918.11	2,374.51	2,071.12	303.38	7.827		
9,900.00	7,130.98	7,076.98	7,130.98	87.67	245.33	-90.35	-475.30	-4,918.11	2,292.39	1,986.38	306.00	7.491		
10,000.00	7,130.55	7,076.55	7,130.55	90.31	245.32	-90.33	-475.30	-4,918.11	2,211.74	1,902.90	308.84	7.161		
10,100.00	7,130.12	7,076.12	7,130.12	92.97	245.30	-90.31	-475.30	-4,918.11	2,132.73	1,820.82	311.91	6.838		
10,200.00	7,129.68	7,075.68	7,129.68	95.63	245.29	-90.29	-475.30	-4,918.11	2,055.55	1,740.34	315.21	6.521		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,129.25	7,075.25	7,129.25	98.31	245.27	-90.27	-475.30	-4,918.11	1,980.42	1,661.65	318.77	6.213		
10,400.00	7,128.82	7,074.82	7,128.82	101.00	245.26	-90.26	-475.30	-4,918.11	1,907.57	1,584.99	322.57	5.914		
10,500.00	7,128.38	7,074.38	7,128.38	103.69	245.24	-90.24	-475.30	-4,918.11	1,837.27	1,510.64	326.64	5.625		
10,600.00	7,127.95	7,073.95	7,127.95	106.39	245.23	-90.22	-475.30	-4,918.11	1,769.84	1,438.89	330.95	5.348		
10,700.00	7,127.51	7,073.51	7,127.51	109.10	245.21	-90.20	-475.30	-4,918.11	1,705.60	1,370.10	335.50	5.084		
10,800.00	7,127.08	7,073.08	7,127.08	111.82	245.20	-90.18	-475.30	-4,918.11	1,644.94	1,304.68	340.27	4.834		
10,900.00	7,126.65	7,072.65	7,126.65	114.54	245.18	-90.16	-475.30	-4,918.11	1,588.27	1,243.06	345.21	4.601		
11,000.00	7,126.21	7,072.21	7,126.21	117.27	245.17	-90.14	-475.30	-4,918.11	1,536.02	1,185.74	350.28	4.385		
11,100.00	7,125.78	7,071.78	7,125.78	120.01	245.15	-90.12	-475.30	-4,918.11	1,488.66	1,133.25	355.41	4.189		
11,200.00	7,125.35	7,071.35	7,125.35	122.75	245.14	-90.11	-475.30	-4,918.11	1,446.67	1,086.16	360.51	4.013		
11,300.00	7,124.91	7,070.91	7,124.91	125.49	245.12	-90.09	-475.30	-4,918.11	1,410.54	1,045.06	365.47	3.860		
11,400.00	7,124.48	7,070.48	7,124.48	128.24	245.11	-90.07	-475.30	-4,918.11	1,380.71	1,010.53	370.18	3.730		
11,500.00	7,124.04	7,070.04	7,124.04	131.00	245.09	-90.05	-475.30	-4,918.11	1,357.61	983.10	374.51	3.625		
11,600.00	7,123.61	7,069.61	7,123.61	133.75	245.08	-90.03	-475.30	-4,918.11	1,341.59	963.25	378.34	3.546		
11,700.00	7,123.18	7,069.18	7,123.18	136.52	245.06	-90.01	-475.30	-4,918.11	1,332.90	951.33	381.56	3.493		
11,766.24	7,122.89	7,068.89	7,122.89	138.35	245.05	-90.00	-475.30	-4,918.11	1,331.25	947.93	383.32	3.473 CC		
11,800.00	7,122.74	7,068.74	7,122.74	139.28	245.05	-89.99	-475.30	-4,918.11	1,331.68	947.58	384.10	3.467 ES, SF		
11,900.00	7,122.31	7,068.31	7,122.31	142.05	245.03	-89.98	-475.30	-4,918.11	1,337.95	952.07	385.89	3.467		
12,000.00	7,121.88	7,067.88	7,121.88	144.82	245.02	-89.96	-475.30	-4,918.11	1,351.62	964.69	386.93	3.493		
12,100.00	7,121.44	7,067.44	7,121.44	147.59	245.00	-89.94	-475.30	-4,918.11	1,372.45	985.21	387.24	3.544		
12,200.00	7,121.01	7,067.01	7,121.01	150.37	244.99	-89.92	-475.30	-4,918.11	1,400.13	1,013.24	386.89	3.619		
12,300.00	7,120.57	7,066.57	7,120.57	153.15	244.97	-89.90	-475.30	-4,918.11	1,434.27	1,048.31	385.96	3.716		
12,400.00	7,120.14	7,066.14	7,120.14	155.93	244.96	-89.88	-475.30	-4,918.11	1,474.40	1,089.87	384.53	3.834		
12,500.00	7,119.71	7,065.71	7,119.71	158.72	244.94	-89.86	-475.30	-4,918.11	1,520.07	1,137.36	382.71	3.972		
12,600.00	7,119.27	7,065.27	7,119.27	161.50	244.93	-89.84	-475.30	-4,918.11	1,570.79	1,190.20	380.59	4.127		
12,700.00	7,118.84	7,064.84	7,118.84	164.29	244.91	-89.83	-475.30	-4,918.11	1,626.07	1,247.83	378.25	4.299		
12,800.00	7,118.41	7,064.41	7,118.41	167.08	244.90	-89.81	-475.30	-4,918.11	1,685.49	1,309.72	375.77	4.485		
12,900.00	7,117.97	7,063.97	7,117.97	169.88	244.88	-89.79	-475.30	-4,918.11	1,748.60	1,375.39	373.21	4.685		
13,000.00	7,117.54	7,063.54	7,117.54	172.67	244.87	-89.77	-475.30	-4,918.11	1,815.04	1,444.42	370.62	4.897		
13,100.00	7,117.10	7,063.10	7,117.10	175.47	244.85	-89.75	-475.30	-4,918.11	1,884.44	1,516.40	368.04	5.120		
13,200.00	7,116.67	7,062.67	7,116.67	178.27	244.83	-89.73	-475.30	-4,918.11	1,956.49	1,590.99	365.50	5.353		
13,300.00	7,116.24	7,062.24	7,116.24	181.07	244.82	-89.71	-475.30	-4,918.11	2,030.91	1,667.89	363.01	5.595		
13,400.00	7,115.80	7,061.80	7,115.80	183.87	244.80	-89.69	-475.30	-4,918.11	2,107.45	1,746.84	360.61	5.844		
13,500.00	7,115.37	7,061.37	7,115.37	186.67	244.79	-89.68	-475.30	-4,918.11	2,185.88	1,827.59	358.29	6.101		
13,600.00	7,114.93	7,060.93	7,114.93	189.47	244.77	-89.66	-475.30	-4,918.11	2,266.02	1,909.96	356.06	6.364		
13,700.00	7,114.50	7,060.50	7,114.50	192.28	244.76	-89.64	-475.30	-4,918.11	2,347.67	1,993.75	353.92	6.633		
13,800.00	7,114.07	7,060.07	7,114.07	195.09	244.74	-89.62	-475.30	-4,918.11	2,430.70	2,078.82	351.89	6.908		
13,900.00	7,113.63	7,059.63	7,113.63	197.89	244.73	-89.60	-475.30	-4,918.11	2,514.97	2,165.03	349.94	7.187		
14,000.00	7,113.20	7,059.20	7,113.20	200.70	244.71	-89.58	-475.30	-4,918.11	2,600.35	2,252.26	348.09	7.470		
14,100.00	7,112.77	7,058.77	7,112.77	203.51	244.70	-89.56	-475.30	-4,918.11	2,686.73	2,340.41	346.33	7.758		
14,200.00	7,112.33	7,058.33	7,112.33	206.32	244.68	-89.55	-475.30	-4,918.11	2,774.04	2,429.38	344.65	8.049		
14,300.00	7,111.90	7,057.90	7,111.90	209.13	244.67	-89.53	-475.30	-4,918.11	2,862.17	2,519.11	343.06	8.343		
14,400.00	7,111.46	7,057.46	7,111.46	211.95	244.65	-89.51	-475.30	-4,918.11	2,951.06	2,609.51	341.55	8.640		
14,500.00	7,111.03	7,057.03	7,111.03	214.76	244.64	-89.49	-475.30	-4,918.11	3,040.64	2,700.53	340.11	8.940		
14,600.00	7,110.60	7,056.60	7,110.60	217.58	244.62	-89.47	-475.30	-4,918.11	3,130.85	2,792.11	338.75	9.242		
14,700.00	7,110.16	7,056.16	7,110.16	220.39	244.61	-89.45	-475.30	-4,918.11	3,221.64	2,884.20	337.45	9.547		
14,800.00	7,109.73	7,055.73	7,109.73	223.21	244.59	-89.43	-475.30	-4,918.11	3,312.96	2,976.75	336.21	9.854		
14,900.00	7,109.30	7,055.30	7,109.30	226.03	244.58	-89.41	-475.30	-4,918.11	3,404.77	3,069.73	335.04	10.162		
14,969.16	7,109.00	7,055.00	7,109.00	227.97	244.57	-89.40	-475.30	-4,918.11	3,468.53	3,134.27	334.26	10.377		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-112.57	-3,182.84	-7,655.87	8,291.32					
100.00	100.00	43.00	100.00	3.28	3.36	-112.57	-3,182.84	-7,655.87	8,291.13	8,284.48	6.65	1,246.879		
200.00	200.00	143.00	200.00	3.34	4.62	-112.57	-3,182.84	-7,655.87	8,291.13	8,283.18	7.95	1,042.632		
300.00	300.00	243.00	300.00	3.44	7.49	-112.57	-3,182.84	-7,655.87	8,291.13	8,280.19	10.94	757.976		
400.00	400.00	343.00	400.00	3.60	10.74	-112.57	-3,182.84	-7,655.87	8,291.13	8,276.78	14.34	577.980		
500.00	500.00	443.00	500.00	3.81	14.11	-112.57	-3,182.84	-7,655.87	8,291.13	8,273.22	17.91	462.874		
600.00	600.00	543.00	600.00	4.05	17.52	-112.57	-3,182.84	-7,655.87	8,291.13	8,269.56	21.57	384.441		
700.00	699.98	642.98	699.98	4.32	20.96	-103.43	-3,182.84	-7,655.87	8,291.53	8,266.26	25.28	328.033		
800.00	799.84	742.84	799.84	4.62	24.41	-103.44	-3,182.84	-7,655.87	8,292.75	8,263.73	29.02	285.740		
900.00	899.45	842.45	899.45	4.94	27.86	-103.46	-3,182.84	-7,655.87	8,294.79	8,262.00	32.79	252.970		
1,000.00	998.70	941.70	998.70	5.28	31.30	-103.48	-3,182.84	-7,655.87	8,297.65	8,261.08	36.57	226.899		
1,100.00	1,097.50	1,040.50	1,097.50	5.64	34.73	-103.54	-3,182.84	-7,655.87	8,301.29	8,260.94	40.36	205.703		
1,200.00	1,196.18	1,139.18	1,196.18	6.00	38.16	-103.65	-3,182.84	-7,655.87	8,305.14	8,260.99	44.16	188.084		
1,300.00	1,294.87	1,237.87	1,294.87	6.38	41.60	-103.76	-3,182.84	-7,655.87	8,309.02	8,261.05	47.97	173.203		
1,400.00	1,393.55	1,336.55	1,393.55	6.77	45.03	-103.86	-3,182.84	-7,655.87	8,312.93	8,261.13	51.80	160.478		
1,500.00	1,492.23	1,435.23	1,492.23	7.17	48.47	-103.97	-3,182.84	-7,655.87	8,316.87	8,261.23	55.64	149.476		
1,600.00	1,590.91	1,533.91	1,590.91	7.58	51.91	-104.08	-3,182.84	-7,655.87	8,320.84	8,261.35	59.49	139.875		
1,700.00	1,689.60	1,632.60	1,689.60	8.00	55.35	-104.18	-3,182.84	-7,655.87	8,324.84	8,261.50	63.34	131.426		
1,800.00	1,788.28	1,731.28	1,788.28	8.42	58.79	-104.29	-3,182.84	-7,655.87	8,328.87	8,261.67	67.20	123.935		
1,900.00	1,886.96	1,829.96	1,886.96	8.84	62.23	-104.40	-3,182.84	-7,655.87	8,332.93	8,261.86	71.07	117.250		
2,000.00	1,985.64	1,928.64	1,985.64	9.27	65.67	-104.50	-3,182.84	-7,655.87	8,337.01	8,262.07	74.94	111.249		
2,100.00	2,084.33	2,027.33	2,084.33	9.71	69.11	-104.61	-3,182.84	-7,655.87	8,341.13	8,262.31	78.81	105.832		
2,200.00	2,183.01	2,126.01	2,183.01	10.15	72.55	-104.71	-3,182.84	-7,655.87	8,345.28	8,262.58	82.69	100.919		
2,300.00	2,281.69	2,224.69	2,281.69	10.59	75.99	-104.82	-3,182.84	-7,655.87	8,349.45	8,262.88	86.57	96.443		
2,400.00	2,380.38	2,323.38	2,380.38	11.03	79.43	-104.93	-3,182.84	-7,655.87	8,353.65	8,263.20	90.46	92.349		
2,500.00	2,479.06	2,422.06	2,479.06	11.47	82.87	-105.03	-3,182.84	-7,655.87	8,357.89	8,263.54	94.34	88.590		
2,600.00	2,577.74	2,520.74	2,577.74	11.92	86.32	-105.14	-3,182.84	-7,655.87	8,362.15	8,263.92	98.23	85.127		
2,700.00	2,676.42	2,619.42	2,676.42	12.36	89.76	-105.24	-3,182.84	-7,655.87	8,366.44	8,264.32	102.12	81.926		
2,800.00	2,775.11	2,718.11	2,775.11	12.81	93.20	-105.35	-3,182.84	-7,655.87	8,370.76	8,264.75	106.01	78.960		
2,900.00	2,873.79	2,816.79	2,873.79	13.26	96.64	-105.45	-3,182.84	-7,655.87	8,375.11	8,265.21	109.91	76.203		
3,000.00	2,972.47	2,915.47	2,972.47	13.72	100.09	-105.56	-3,182.84	-7,655.87	8,379.49	8,265.69	113.80	73.633		
3,100.00	3,071.15	3,014.15	3,071.15	14.17	103.53	-105.67	-3,182.84	-7,655.87	8,383.90	8,266.20	117.70	71.234		
3,200.00	3,169.84	3,112.84	3,169.84	14.62	106.97	-105.77	-3,182.84	-7,655.87	8,388.34	8,266.74	121.59	68.988		
3,300.00	3,268.52	3,211.52	3,268.52	15.08	110.42	-105.88	-3,182.84	-7,655.87	8,392.80	8,267.31	125.49	66.881		
3,400.00	3,367.20	3,310.20	3,367.20	15.53	113.86	-105.98	-3,182.84	-7,655.87	8,397.30	8,267.91	129.39	64.900		
3,500.00	3,465.89	3,408.89	3,465.89	15.99	117.30	-106.09	-3,182.84	-7,655.87	8,401.82	8,268.53	133.29	63.036		
3,600.00	3,564.57	3,507.57	3,564.57	16.44	120.75	-106.19	-3,182.84	-7,655.87	8,406.37	8,269.18	137.19	61.277		
3,700.00	3,663.25	3,606.25	3,663.25	16.90	124.19	-106.29	-3,182.84	-7,655.87	8,410.95	8,269.86	141.09	59.615		
3,800.00	3,761.93	3,704.93	3,761.93	17.36	127.64	-106.40	-3,182.84	-7,655.87	8,415.56	8,270.57	144.99	58.043		
3,900.00	3,860.62	3,803.62	3,860.62	17.82	131.08	-106.50	-3,182.84	-7,655.87	8,420.20	8,271.31	148.89	56.553		
4,000.00	3,959.30	3,902.30	3,959.30	18.28	134.52	-106.61	-3,182.84	-7,655.87	8,424.86	8,272.07	152.79	55.139		
4,100.00	4,057.98	4,000.98	4,057.98	18.74	137.97	-106.71	-3,182.84	-7,655.87	8,429.56	8,272.86	156.70	53.796		
4,200.00	4,156.67	4,100.34	4,156.67	19.20	141.44	-106.82	-3,182.84	-7,655.87	8,434.28	8,273.66	160.62	52.510		
4,300.00	4,255.35	4,201.65	4,255.35	19.66	144.97	-106.92	-3,182.84	-7,655.87	8,439.03	8,274.42	164.62	51.264		
4,400.00	4,354.03	4,302.97	4,354.03	20.12	148.51	-107.02	-3,182.84	-7,655.87	8,443.81	8,275.20	168.61	50.078		
4,500.00	4,452.71	4,404.29	4,452.71	20.58	152.04	-107.13	-3,182.84	-7,655.87	8,448.62	8,276.01	172.61	48.946		
4,600.00	4,551.40	4,505.60	4,551.40	21.04	155.58	-107.23	-3,182.84	-7,655.87	8,453.46	8,276.85	176.61	47.866		
4,700.00	4,650.08	4,606.92	4,650.08	21.50	159.12	-107.33	-3,182.84	-7,655.87	8,458.32	8,277.72	180.60	46.834		
4,800.00	4,748.76	4,708.24	4,748.76	21.96	162.65	-107.44	-3,182.84	-7,655.87	8,463.21	8,278.61	184.60	45.846		
4,900.00	4,847.44	4,809.56	4,847.44	22.42	166.19	-107.54	-3,182.84	-7,655.87	8,468.13	8,279.54	188.60	44.900		
5,000.00	4,946.13	4,889.13	4,946.13	22.89	169.77	-107.64	-3,182.84	-7,655.87	8,473.08	8,281.25	191.84	44.168		
5,100.00	5,044.81	4,987.81	5,044.81	23.35	172.41	-107.75	-3,182.84	-7,655.87	8,478.06	8,282.32	195.74	43.312		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,086.49	5,143.49	23.81	175.85	-107.85	-3,182.84	-7,655.87	8,483.06	8,283.41	199.65	42.490		
5,300.00	5,242.18	5,185.18	5,242.18	24.27	179.30	-107.95	-3,182.84	-7,655.87	8,488.10	8,284.54	203.56	41.699		
5,400.00	5,340.86	5,283.86	5,340.86	24.74	182.74	-108.05	-3,182.84	-7,655.87	8,493.16	8,285.69	207.46	40.938		
5,500.00	5,439.54	5,382.54	5,439.54	25.20	186.19	-108.16	-3,182.84	-7,655.87	8,498.24	8,286.87	211.37	40.206		
5,600.00	5,538.22	5,481.22	5,538.22	25.66	189.63	-108.26	-3,182.84	-7,655.87	8,503.36	8,288.08	215.28	39.500		
5,700.00	5,636.91	5,579.91	5,636.91	26.13	193.08	-108.36	-3,182.84	-7,655.87	8,508.50	8,289.32	219.18	38.819		
5,800.00	5,735.59	5,678.59	5,735.59	26.59	196.52	-108.46	-3,182.84	-7,655.87	8,513.67	8,290.58	223.09	38.162		
5,900.00	5,834.27	5,777.27	5,834.27	27.06	199.97	-108.57	-3,182.84	-7,655.87	8,518.87	8,291.87	227.00	37.528		
6,000.00	5,932.95	5,875.95	5,932.95	27.52	203.41	-108.67	-3,182.84	-7,655.87	8,524.10	8,293.19	230.91	36.916		
6,100.00	6,031.64	5,974.64	6,031.64	27.98	206.86	-108.77	-3,182.84	-7,655.87	8,529.35	8,294.54	234.81	36.324		
6,200.00	6,130.32	6,073.32	6,130.32	28.45	210.30	-108.87	-3,182.84	-7,655.87	8,534.63	8,295.91	238.72	35.751		
6,300.00	6,229.00	6,172.00	6,229.00	28.91	213.74	-108.97	-3,182.84	-7,655.87	8,539.94	8,297.31	242.63	35.197		
6,400.00	6,327.69	6,270.69	6,327.69	29.38	217.19	-109.07	-3,182.84	-7,655.87	8,545.28	8,298.74	246.54	34.661		
6,500.00	6,426.37	6,369.37	6,426.37	29.84	220.63	-109.17	-3,182.84	-7,655.87	8,550.64	8,300.19	250.45	34.142		
6,600.00	6,525.05	6,468.05	6,525.05	30.31	224.08	-109.28	-3,182.84	-7,655.87	8,556.03	8,301.68	254.35	33.638		
6,700.00	6,623.73	6,566.73	6,623.73	30.77	227.50	-69.33	-3,182.84	-7,655.87	8,554.47	8,296.23	258.24	33.125		
6,800.00	6,718.58	6,661.58	6,718.58	31.22	230.83	-53.78	-3,182.84	-7,655.87	8,539.00	8,276.97	262.03	32.587		
6,900.00	6,808.91	6,751.91	6,808.91	31.66	233.99	-47.91	-3,182.84	-7,655.87	8,510.06	8,244.43	265.63	32.037		
7,000.00	6,891.95	6,834.95	6,891.95	32.07	236.89	-46.27	-3,182.84	-7,655.87	8,468.42	8,199.46	268.96	31.486		
7,100.00	6,965.65	6,908.65	6,965.65	32.51	239.46	-47.28	-3,182.84	-7,655.87	8,415.17	8,143.22	271.95	30.943		
7,200.00	7,028.20	6,971.20	7,028.20	33.02	241.64	-50.56	-3,182.84	-7,655.87	8,351.68	8,077.13	274.56	30.419		
7,300.00	7,078.04	7,021.04	7,078.04	33.68	243.38	-56.29	-3,182.84	-7,655.87	8,279.58	8,002.85	276.73	29.919		
7,400.00	7,113.97	7,056.97	7,113.97	34.52	244.64	-64.97	-3,182.84	-7,655.87	8,200.67	7,922.23	278.43	29.453		
7,500.00	7,135.09	7,078.09	7,135.09	35.53	245.37	-77.01	-3,182.84	-7,655.87	8,116.91	7,837.27	279.64	29.026		
7,600.00	7,140.96	7,083.96	7,140.96	36.68	245.58	-90.44	-3,182.84	-7,655.87	8,030.38	7,750.05	280.34	28.646		
7,700.00	7,140.53	7,083.53	7,140.53	37.99	245.56	-90.43	-3,182.84	-7,655.87	7,943.42	7,662.56	280.85	28.283		
7,800.00	7,140.09	7,083.09	7,140.09	39.45	245.55	-90.43	-3,182.84	-7,655.87	7,856.76	7,575.32	281.44	27.916		
7,900.00	7,139.66	7,082.66	7,139.66	41.06	245.53	-90.42	-3,182.84	-7,655.87	7,770.42	7,488.33	282.09	27.546		
8,000.00	7,139.23	7,082.23	7,139.23	42.80	245.52	-90.42	-3,182.84	-7,655.87	7,684.42	7,401.60	282.82	27.171		
8,100.00	7,138.79	7,081.79	7,138.79	44.65	245.50	-90.41	-3,182.84	-7,655.87	7,598.76	7,315.15	283.61	26.793		
8,200.00	7,138.36	7,081.36	7,138.36	46.60	245.49	-90.40	-3,182.84	-7,655.87	7,513.45	7,228.98	284.47	26.412		
8,300.00	7,137.93	7,080.93	7,137.93	48.65	245.47	-90.40	-3,182.84	-7,655.87	7,428.51	7,143.10	285.41	26.028		
8,400.00	7,137.49	7,080.49	7,137.49	50.77	245.46	-90.39	-3,182.84	-7,655.87	7,343.95	7,057.53	286.41	25.641		
8,500.00	7,137.06	7,080.06	7,137.06	52.95	245.44	-90.38	-3,182.84	-7,655.87	7,259.78	6,972.29	287.49	25.252		
8,600.00	7,136.62	7,079.62	7,136.62	55.20	245.43	-90.38	-3,182.84	-7,655.87	7,176.01	6,887.38	288.64	24.862		
8,700.00	7,136.19	7,079.19	7,136.19	57.51	245.41	-90.37	-3,182.84	-7,655.87	7,092.67	6,802.81	289.85	24.470		
8,800.00	7,135.76	7,078.76	7,135.76	59.85	245.40	-90.37	-3,182.84	-7,655.87	7,009.76	6,718.62	291.14	24.077		
8,900.00	7,135.32	7,078.32	7,135.32	62.24	245.38	-90.36	-3,182.84	-7,655.87	6,927.31	6,634.80	292.50	23.683		
9,000.00	7,134.89	7,077.89	7,134.89	64.67	245.37	-90.35	-3,182.84	-7,655.87	6,845.32	6,551.38	293.94	23.288		
9,100.00	7,134.45	7,077.45	7,134.45	67.13	245.35	-90.35	-3,182.84	-7,655.87	6,763.81	6,468.38	295.44	22.894		
9,200.00	7,134.02	7,077.02	7,134.02	69.62	245.34	-90.34	-3,182.84	-7,655.87	6,682.81	6,385.80	297.01	22.500		
9,300.00	7,133.59	7,076.59	7,133.59	72.14	245.32	-90.33	-3,182.84	-7,655.87	6,602.33	6,303.68	298.65	22.107		
9,400.00	7,133.15	7,076.15	7,133.15	74.68	245.31	-90.33	-3,182.84	-7,655.87	6,522.39	6,222.02	300.37	21.715		
9,500.00	7,132.72	7,075.72	7,132.72	77.24	245.29	-90.32	-3,182.84	-7,655.87	6,443.01	6,140.86	302.15	21.324		
9,600.00	7,132.29	7,075.29	7,132.29	79.83	245.28	-90.31	-3,182.84	-7,655.87	6,364.21	6,060.21	304.01	20.935		
9,700.00	7,131.85	7,074.85	7,131.85	82.42	245.26	-90.31	-3,182.84	-7,655.87	6,286.02	5,980.08	305.93	20.547		
9,800.00	7,131.42	7,074.42	7,131.42	85.04	245.24	-90.30	-3,182.84	-7,655.87	6,208.44	5,900.52	307.93	20.162		
9,900.00	7,130.98	7,073.98	7,130.98	87.67	245.23	-90.30	-3,182.84	-7,655.87	6,131.52	5,821.53	309.99	19.780		
10,000.00	7,130.55	7,073.55	7,130.55	90.31	245.21	-90.29	-3,182.84	-7,655.87	6,055.28	5,743.15	312.13	19.400		
10,100.00	7,130.12	7,073.12	7,130.12	92.97	245.20	-90.28	-3,182.84	-7,655.87	5,979.73	5,665.39	314.34	19.023		
10,200.00	7,129.68	7,072.68	7,129.68	95.63	245.18	-90.28	-3,182.84	-7,655.87	5,904.91	5,588.29	316.62	18.650		
10,300.00	7,129.25	7,072.25	7,129.25	98.31	245.17	-90.27	-3,182.84	-7,655.87	5,830.85	5,511.88	318.97	18.280		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,128.82	7,071.82	7,128.82	101.00	245.15	-90.26	-3,182.84	-7,655.87	5,757.57	5,436.17	321.39	17.914		
10,500.00	7,128.38	7,071.38	7,128.38	103.69	245.14	-90.26	-3,182.84	-7,655.87	5,685.10	5,361.21	323.89	17.553		
10,600.00	7,127.95	7,070.95	7,127.95	106.39	245.12	-90.25	-3,182.84	-7,655.87	5,613.48	5,287.03	326.46	17.195		
10,700.00	7,127.51	7,070.51	7,127.51	109.10	245.11	-90.25	-3,182.84	-7,655.87	5,542.74	5,213.65	329.09	16.842		
10,800.00	7,127.08	7,070.08	7,127.08	111.82	245.09	-90.24	-3,182.84	-7,655.87	5,472.91	5,141.11	331.80	16.494		
10,900.00	7,126.65	7,069.65	7,126.65	114.54	245.08	-90.23	-3,182.84	-7,655.87	5,404.03	5,069.45	334.59	16.151		
11,000.00	7,126.21	7,069.21	7,126.21	117.27	245.06	-90.23	-3,182.84	-7,655.87	5,336.14	4,998.70	337.44	15.814		
11,100.00	7,125.78	7,068.78	7,125.78	120.01	245.05	-90.22	-3,182.84	-7,655.87	5,269.27	4,928.91	340.36	15.481		
11,200.00	7,125.35	7,068.35	7,125.35	122.75	245.03	-90.21	-3,182.84	-7,655.87	5,203.46	4,860.10	343.36	15.155		
11,300.00	7,124.91	7,067.91	7,124.91	125.49	245.02	-90.21	-3,182.84	-7,655.87	5,138.75	4,792.33	346.42	14.834		
11,400.00	7,124.48	7,067.48	7,124.48	128.24	245.00	-90.20	-3,182.84	-7,655.87	5,075.19	4,725.64	349.55	14.519		
11,500.00	7,124.04	7,067.04	7,124.04	131.00	244.99	-90.20	-3,182.84	-7,655.87	5,012.82	4,660.07	352.75	14.211		
11,600.00	7,123.61	7,066.61	7,123.61	133.75	244.97	-90.19	-3,182.84	-7,655.87	4,951.68	4,595.67	356.01	13.909		
11,700.00	7,123.18	7,066.18	7,123.18	136.52	244.96	-90.18	-3,182.84	-7,655.87	4,891.82	4,532.49	359.34	13.613		
11,800.00	7,122.74	7,065.74	7,122.74	139.28	244.94	-90.18	-3,182.84	-7,655.87	4,833.30	4,470.57	362.73	13.325		
11,900.00	7,122.31	7,065.31	7,122.31	142.05	244.93	-90.17	-3,182.84	-7,655.87	4,776.14	4,409.96	366.18	13.043		
12,000.00	7,121.88	7,064.88	7,121.88	144.82	244.91	-90.16	-3,182.84	-7,655.87	4,720.42	4,350.73	369.69	12.769		
12,100.00	7,121.44	7,064.44	7,121.44	147.59	244.90	-90.16	-3,182.84	-7,655.87	4,666.17	4,292.92	373.25	12.502		
12,200.00	7,121.01	7,064.01	7,121.01	150.37	244.88	-90.15	-3,182.84	-7,655.87	4,613.45	4,236.59	376.86	12.242		
12,300.00	7,120.57	7,063.57	7,120.57	153.15	244.87	-90.14	-3,182.84	-7,655.87	4,562.31	4,181.80	380.51	11.990		
12,400.00	7,120.14	7,063.14	7,120.14	155.93	244.85	-90.14	-3,182.84	-7,655.87	4,512.82	4,128.60	384.21	11.746		
12,500.00	7,119.71	7,062.71	7,119.71	158.72	244.84	-90.13	-3,182.84	-7,655.87	4,465.01	4,077.06	387.95	11.509		
12,600.00	7,119.27	7,062.27	7,119.27	161.50	244.82	-90.13	-3,182.84	-7,655.87	4,418.95	4,027.23	391.71	11.281		
12,700.00	7,118.84	7,061.84	7,118.84	164.29	244.81	-90.12	-3,182.84	-7,655.87	4,374.69	3,979.18	395.51	11.061		
12,800.00	7,118.41	7,061.41	7,118.41	167.08	244.79	-90.11	-3,182.84	-7,655.87	4,332.28	3,932.96	399.32	10.849		
12,900.00	7,117.97	7,060.97	7,117.97	169.88	244.78	-90.11	-3,182.84	-7,655.87	4,291.79	3,888.65	403.14	10.646		
13,000.00	7,117.54	7,060.54	7,117.54	172.67	244.76	-90.10	-3,182.84	-7,655.87	4,253.26	3,846.29	406.97	10.451		
13,100.00	7,117.10	7,060.10	7,117.10	175.47	244.75	-90.09	-3,182.84	-7,655.87	4,216.76	3,805.95	410.80	10.265		
13,200.00	7,116.67	7,059.67	7,116.67	178.27	244.73	-90.09	-3,182.84	-7,655.87	4,182.32	3,767.70	414.62	10.087		
13,300.00	7,116.24	7,059.24	7,116.24	181.07	244.71	-90.08	-3,182.84	-7,655.87	4,150.01	3,731.59	418.42	9.918		
13,400.00	7,115.80	7,058.80	7,115.80	183.87	244.70	-90.08	-3,182.84	-7,655.87	4,119.88	3,697.68	422.20	9.758		
13,500.00	7,115.37	7,058.37	7,115.37	186.67	244.68	-90.07	-3,182.84	-7,655.87	4,091.97	3,666.03	425.93	9.607		
13,600.00	7,114.93	7,057.93	7,114.93	189.47	244.67	-90.06	-3,182.84	-7,655.87	4,066.32	3,636.70	429.63	9.465		
13,700.00	7,114.50	7,057.50	7,114.50	192.28	244.65	-90.06	-3,182.84	-7,655.87	4,042.99	3,609.73	433.26	9.331		
13,800.00	7,114.07	7,057.07	7,114.07	195.09	244.64	-90.05	-3,182.84	-7,655.87	4,022.01	3,585.17	436.84	9.207		
13,900.00	7,113.63	7,056.63	7,113.63	197.89	244.62	-90.04	-3,182.84	-7,655.87	4,003.42	3,563.08	440.34	9.092		
14,000.00	7,113.20	7,056.20	7,113.20	200.70	244.61	-90.04	-3,182.84	-7,655.87	3,987.24	3,543.49	443.75	8.985		
14,100.00	7,112.77	7,055.77	7,112.77	203.51	244.59	-90.03	-3,182.84	-7,655.87	3,973.53	3,526.45	447.08	8.888		
14,200.00	7,112.33	7,055.33	7,112.33	206.32	244.58	-90.02	-3,182.84	-7,655.87	3,962.28	3,511.98	450.30	8.799		
14,300.00	7,111.90	7,054.90	7,111.90	209.13	244.56	-90.02	-3,182.84	-7,655.87	3,953.54	3,500.12	453.42	8.719		
14,400.00	7,111.46	7,054.46	7,111.46	211.95	244.55	-90.01	-3,182.84	-7,655.87	3,947.31	3,490.89	456.42	8.648		
14,500.00	7,111.03	7,054.03	7,111.03	214.76	244.53	-90.01	-3,182.84	-7,655.87	3,943.61	3,484.31	459.29	8.586		
14,596.08	7,110.61	7,053.61	7,110.61	217.47	244.52	-90.00	-3,182.84	-7,655.87	3,942.44	3,480.50	461.94	8.535 CC		
14,600.00	7,110.60	7,053.60	7,110.60	217.58	244.52	-90.00	-3,182.84	-7,655.87	3,942.44	3,480.40	462.04	8.533		
14,700.00	7,110.16	7,053.16	7,110.16	220.39	244.50	-89.99	-3,182.84	-7,655.87	3,943.81	3,479.15	464.65	8.488 ES		
14,800.00	7,109.73	7,052.73	7,109.73	223.21	244.49	-89.99	-3,182.84	-7,655.87	3,947.71	3,480.58	467.12	8.451		
14,900.00	7,109.30	7,052.30	7,109.30	226.03	244.47	-89.98	-3,182.84	-7,655.87	3,954.13	3,484.68	469.45	8.423		
14,969.16	7,109.00	7,052.00	7,109.00	227.97	244.46	-89.98	-3,182.84	-7,655.87	3,960.05	3,489.08	470.97	8.408 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-104.54	-1,690.98	-6,520.25	6,736.10					
100.00	100.00	56.00	100.00	3.28	3.42	-104.54	-1,690.98	-6,520.25	6,735.95	6,729.25	6.71	1,004.276		
200.00	200.00	156.00	200.00	3.34	4.94	-104.54	-1,690.98	-6,520.25	6,735.95	6,727.67	8.28	813.334		
300.00	300.00	256.00	300.00	3.44	7.90	-104.54	-1,690.98	-6,520.25	6,735.95	6,724.61	11.35	593.526		
400.00	400.00	356.00	400.00	3.60	11.17	-104.54	-1,690.98	-6,520.25	6,735.95	6,721.18	14.78	455.809		
500.00	500.00	456.00	500.00	3.81	14.55	-104.54	-1,690.98	-6,520.25	6,735.95	6,717.60	18.35	367.001		
600.00	600.00	556.00	600.00	4.05	17.97	-104.54	-1,690.98	-6,520.25	6,735.95	6,713.94	22.01	306.003		
700.00	699.98	655.98	699.98	4.32	21.41	-95.40	-1,690.98	-6,520.25	6,736.12	6,710.39	25.72	261.853		
800.00	799.84	755.84	799.84	4.62	24.86	-95.43	-1,690.98	-6,520.25	6,736.61	6,707.14	29.47	228.581		
900.00	899.45	855.45	899.45	4.94	28.31	-95.49	-1,690.98	-6,520.25	6,737.45	6,704.21	33.24	202.694		
1,000.00	998.70	954.70	998.70	5.28	31.75	-95.57	-1,690.98	-6,520.25	6,738.63	6,701.61	37.02	182.028		
1,100.00	1,097.50	1,053.50	1,097.50	5.64	35.19	-95.68	-1,690.98	-6,520.25	6,740.16	6,699.35	40.81	165.177		
1,200.00	1,196.18	1,152.18	1,196.18	6.00	38.62	-95.82	-1,690.98	-6,520.25	6,741.80	6,697.20	44.61	151.138		
1,300.00	1,294.87	1,250.87	1,294.87	6.38	42.05	-95.95	-1,690.98	-6,520.25	6,743.48	6,695.06	48.42	139.261		
1,400.00	1,393.55	1,349.55	1,393.55	6.77	45.49	-96.09	-1,690.98	-6,520.25	6,745.20	6,692.95	52.25	129.090		
1,500.00	1,492.23	1,448.23	1,492.23	7.17	48.92	-96.22	-1,690.98	-6,520.25	6,746.96	6,690.87	56.09	120.286		
1,600.00	1,590.91	1,546.91	1,590.91	7.58	52.36	-96.35	-1,690.98	-6,520.25	6,748.75	6,688.81	59.94	112.594		
1,700.00	1,689.60	1,645.60	1,689.60	8.00	55.80	-96.49	-1,690.98	-6,520.25	6,750.59	6,686.79	63.79	105.818		
1,800.00	1,788.28	1,744.28	1,788.28	8.42	59.24	-96.62	-1,690.98	-6,520.25	6,752.46	6,684.80	67.66	99.807		
1,900.00	1,886.96	1,842.96	1,886.96	8.84	62.68	-96.76	-1,690.98	-6,520.25	6,754.37	6,682.84	71.52	94.438		
2,000.00	1,985.64	1,941.64	1,985.64	9.27	66.12	-96.89	-1,690.98	-6,520.25	6,756.31	6,680.92	75.39	89.615		
2,100.00	2,084.33	2,040.33	2,084.33	9.71	69.56	-97.03	-1,690.98	-6,520.25	6,758.30	6,679.03	79.27	85.259		
2,200.00	2,183.01	2,139.01	2,183.01	10.15	73.00	-97.16	-1,690.98	-6,520.25	6,760.33	6,677.18	83.15	81.306		
2,300.00	2,281.69	2,237.69	2,281.69	10.59	76.44	-97.30	-1,690.98	-6,520.25	6,762.39	6,675.36	87.03	77.704		
2,400.00	2,380.38	2,336.38	2,380.38	11.03	79.88	-97.43	-1,690.98	-6,520.25	6,764.49	6,673.58	90.91	74.407		
2,500.00	2,479.06	2,435.06	2,479.06	11.47	83.33	-97.56	-1,690.98	-6,520.25	6,766.63	6,671.83	94.80	71.379		
2,600.00	2,577.74	2,533.74	2,577.74	11.92	86.77	-97.70	-1,690.98	-6,520.25	6,768.80	6,670.12	98.69	68.589		
2,700.00	2,676.42	2,632.42	2,676.42	12.36	90.21	-97.83	-1,690.98	-6,520.25	6,771.02	6,668.44	102.58	66.009		
2,800.00	2,775.11	2,731.11	2,775.11	12.81	93.66	-97.97	-1,690.98	-6,520.25	6,773.27	6,666.80	106.47	63.618		
2,900.00	2,873.79	2,829.79	2,873.79	13.26	97.10	-98.10	-1,690.98	-6,520.25	6,775.56	6,665.20	110.36	61.394		
3,000.00	2,972.47	2,928.47	2,972.47	13.72	100.54	-98.23	-1,690.98	-6,520.25	6,777.89	6,663.63	114.26	59.322		
3,100.00	3,071.15	3,027.15	3,071.15	14.17	103.98	-98.37	-1,690.98	-6,520.25	6,780.25	6,662.10	118.15	57.386		
3,200.00	3,169.84	3,125.84	3,169.84	14.62	107.43	-98.50	-1,690.98	-6,520.25	6,782.66	6,660.61	122.05	55.573		
3,300.00	3,268.52	3,224.52	3,268.52	15.08	110.87	-98.63	-1,690.98	-6,520.25	6,785.10	6,659.15	125.95	53.873		
3,400.00	3,367.20	3,323.20	3,367.20	15.53	114.31	-98.77	-1,690.98	-6,520.25	6,787.58	6,657.73	129.85	52.274		
3,500.00	3,465.89	3,421.89	3,465.89	15.99	117.76	-98.90	-1,690.98	-6,520.25	6,790.09	6,656.35	133.75	50.769		
3,600.00	3,564.57	3,520.57	3,564.57	16.44	121.20	-99.03	-1,690.98	-6,520.25	6,792.65	6,655.00	137.65	49.349		
3,700.00	3,663.25	3,619.25	3,663.25	16.90	124.65	-99.17	-1,690.98	-6,520.25	6,795.24	6,653.69	141.55	48.007		
3,800.00	3,761.93	3,717.93	3,761.93	17.36	128.09	-99.30	-1,690.98	-6,520.25	6,797.87	6,652.42	145.45	46.737		
3,900.00	3,860.62	3,816.62	3,860.62	17.82	131.53	-99.43	-1,690.98	-6,520.25	6,800.54	6,651.19	149.35	45.534		
4,000.00	3,959.30	3,915.30	3,959.30	18.28	134.98	-99.56	-1,690.98	-6,520.25	6,803.24	6,649.99	153.25	44.392		
4,100.00	4,057.98	4,013.98	4,057.98	18.74	138.42	-99.70	-1,690.98	-6,520.25	6,805.98	6,648.83	157.16	43.307		
4,200.00	4,156.67	4,112.67	4,156.67	19.20	141.87	-99.83	-1,690.98	-6,520.25	6,808.76	6,647.70	161.06	42.274		
4,300.00	4,255.35	4,211.35	4,255.35	19.66	145.31	-99.96	-1,690.98	-6,520.25	6,811.58	6,646.61	164.97	41.291		
4,400.00	4,354.03	4,310.03	4,354.03	20.12	148.75	-100.09	-1,690.98	-6,520.25	6,814.43	6,645.56	168.87	40.353		
4,500.00	4,452.71	4,408.71	4,452.71	20.58	152.20	-100.23	-1,690.98	-6,520.25	6,817.32	6,644.55	172.77	39.458		
4,600.00	4,551.40	4,507.40	4,551.40	21.04	155.64	-100.36	-1,690.98	-6,520.25	6,820.25	6,643.57	176.68	38.602		
4,700.00	4,650.08	4,606.08	4,650.08	21.50	159.09	-100.49	-1,690.98	-6,520.25	6,823.21	6,642.63	180.59	37.784		
4,800.00	4,748.76	4,704.76	4,748.76	21.96	162.53	-100.62	-1,690.98	-6,520.25	6,826.22	6,641.72	184.49	37.000		
4,900.00	4,847.44	4,803.44	4,847.44	22.42	165.98	-100.75	-1,690.98	-6,520.25	6,829.26	6,640.86	188.40	36.249		
5,000.00	4,946.13	4,902.13	4,946.13	22.89	169.42	-100.89	-1,690.98	-6,520.25	6,832.33	6,640.03	192.30	35.529		
5,100.00	5,044.81	5,000.81	5,044.81	23.35	172.86	-101.02	-1,690.98	-6,520.25	6,835.44	6,639.23	196.21	34.837		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,143.49	5,100.51	5,143.49	23.81	176.34	-101.15	-1,690.98	-6,520.25	6,838.59	6,638.44	200.15	34.167		
5,300.00	5,242.18	5,201.82	5,242.18	24.27	179.88	-101.28	-1,690.98	-6,520.25	6,841.78	6,637.63	204.15	33.513		
5,400.00	5,340.86	5,303.14	5,340.86	24.74	183.42	-101.41	-1,690.98	-6,520.25	6,845.00	6,636.85	208.15	32.885		
5,500.00	5,439.54	5,404.46	5,439.54	25.20	186.95	-101.54	-1,690.98	-6,520.25	6,848.26	6,636.11	212.15	32.280		
5,600.00	5,538.22	5,505.78	5,538.22	25.66	190.49	-101.67	-1,690.98	-6,520.25	6,851.56	6,635.41	216.15	31.698		
5,700.00	5,636.91	5,607.09	5,636.91	26.13	194.03	-101.80	-1,690.98	-6,520.25	6,854.89	6,634.74	220.15	31.137		
5,800.00	5,735.59	5,708.41	5,735.59	26.59	197.56	-101.93	-1,690.98	-6,520.25	6,858.26	6,634.11	224.15	30.597		
5,900.00	5,834.27	5,809.73	5,834.27	27.06	201.10	-102.06	-1,690.98	-6,520.25	6,861.67	6,633.52	228.15	30.075		
6,000.00	5,932.95	5,888.95	5,932.95	27.52	203.86	-102.19	-1,690.98	-6,520.25	6,865.11	6,633.73	231.38	29.670		
6,100.00	6,031.64	5,987.64	6,031.64	27.98	207.31	-102.32	-1,690.98	-6,520.25	6,868.59	6,633.30	235.29	29.192		
6,200.00	6,130.32	6,086.32	6,130.32	28.45	210.75	-102.46	-1,690.98	-6,520.25	6,872.11	6,632.91	239.20	28.730		
6,300.00	6,229.00	6,185.00	6,229.00	28.91	214.20	-102.59	-1,690.98	-6,520.25	6,875.66	6,632.55	243.11	28.283		
6,400.00	6,327.69	6,283.69	6,327.69	29.38	217.64	-102.71	-1,690.98	-6,520.25	6,879.25	6,632.23	247.01	27.850		
6,500.00	6,426.37	6,382.37	6,426.37	29.84	221.09	-102.84	-1,690.98	-6,520.25	6,882.87	6,631.95	250.92	27.430		
6,600.00	6,525.05	6,481.05	6,525.05	30.31	224.53	-102.97	-1,690.98	-6,520.25	6,886.53	6,631.70	254.83	27.024		
6,700.00	6,623.18	6,579.18	6,623.18	30.77	227.96	-63.11	-1,690.98	-6,520.25	6,882.91	6,624.19	258.72	26.603		
6,800.00	6,718.58	6,674.58	6,718.58	31.22	231.29	-47.53	-1,690.98	-6,520.25	6,864.75	6,602.24	262.51	26.151		
6,900.00	6,808.91	6,764.91	6,808.91	31.66	234.44	-41.54	-1,690.98	-6,520.25	6,832.54	6,566.44	266.10	25.677		
7,000.00	6,891.95	6,847.95	6,891.95	32.07	237.34	-39.71	-1,690.98	-6,520.25	6,787.13	6,517.72	269.41	25.192		
7,100.00	6,965.65	6,921.65	6,965.65	32.51	239.91	-40.47	-1,690.98	-6,520.25	6,729.68	6,457.30	272.38	24.707		
7,200.00	7,028.20	6,984.20	7,028.20	33.02	242.10	-43.55	-1,690.98	-6,520.25	6,661.66	6,386.72	274.94	24.229		
7,300.00	7,078.04	7,034.04	7,078.04	33.68	243.84	-49.33	-1,690.98	-6,520.25	6,584.78	6,307.73	277.05	23.767		
7,400.00	7,113.97	7,069.97	7,113.97	34.52	245.09	-58.80	-1,690.98	-6,520.25	6,500.96	6,222.28	278.68	23.328		
7,500.00	7,135.09	7,108.91	7,135.09	35.53	246.45	-73.23	-1,690.98	-6,520.25	6,412.27	6,131.87	280.40	22.868		
7,600.00	7,140.96	7,103.04	7,140.96	36.68	246.24	-90.58	-1,690.98	-6,520.25	6,320.89	6,040.33	280.56	22.529		
7,700.00	7,140.53	7,103.47	7,140.53	37.99	246.26	-90.57	-1,690.98	-6,520.25	6,229.11	5,948.13	280.98	22.170		
7,800.00	7,140.09	7,103.91	7,140.09	39.45	246.27	-90.56	-1,690.98	-6,520.25	6,137.58	5,856.14	281.44	21.808		
7,900.00	7,139.66	7,104.34	7,139.66	41.06	246.29	-90.55	-1,690.98	-6,520.25	6,046.32	5,764.37	281.96	21.444		
8,000.00	7,139.23	7,104.77	7,139.23	42.80	246.30	-90.54	-1,690.98	-6,520.25	5,955.35	5,672.82	282.53	21.079		
8,100.00	7,138.79	7,105.21	7,138.79	44.65	246.32	-90.53	-1,690.98	-6,520.25	5,864.66	5,581.50	283.16	20.711		
8,200.00	7,138.36	7,105.64	7,138.36	46.60	246.33	-90.52	-1,690.98	-6,520.25	5,774.29	5,490.43	283.85	20.342		
8,300.00	7,137.93	7,106.08	7,137.93	48.65	246.35	-90.51	-1,690.98	-6,520.25	5,684.23	5,399.62	284.61	19.972		
8,400.00	7,137.49	7,106.51	7,137.49	50.77	246.37	-90.50	-1,690.98	-6,520.25	5,594.52	5,309.08	285.43	19.600		
8,500.00	7,137.06	7,106.94	7,137.06	52.95	246.38	-90.49	-1,690.98	-6,520.25	5,505.15	5,218.83	286.32	19.227		
8,600.00	7,136.62	7,107.38	7,136.62	55.20	246.40	-90.48	-1,690.98	-6,520.25	5,416.17	5,128.88	287.28	18.853		
8,700.00	7,136.19	7,107.81	7,136.19	57.51	246.41	-90.47	-1,690.98	-6,520.25	5,327.57	5,039.25	288.32	18.478		
8,800.00	7,135.76	7,108.24	7,135.76	59.85	246.43	-90.46	-1,690.98	-6,520.25	5,239.38	4,949.96	289.42	18.103		
8,900.00	7,135.32	7,108.68	7,135.32	62.24	246.44	-90.45	-1,690.98	-6,520.25	5,151.62	4,861.01	290.61	17.727		
9,000.00	7,134.89	7,109.11	7,134.89	64.67	246.46	-90.44	-1,690.98	-6,520.25	5,064.32	4,772.45	291.87	17.351		
9,100.00	7,134.45	7,109.55	7,134.45	67.13	246.47	-90.43	-1,690.98	-6,520.25	4,977.49	4,684.28	293.21	16.976		
9,200.00	7,134.02	7,109.98	7,134.02	69.62	246.49	-90.42	-1,690.98	-6,520.25	4,891.17	4,596.53	294.64	16.601		
9,300.00	7,133.59	7,089.59	7,133.59	72.14	245.77	-90.41	-1,690.98	-6,520.25	4,805.38	4,509.96	295.42	16.266		
9,400.00	7,133.15	7,089.15	7,133.15	74.68	245.76	-90.40	-1,690.98	-6,520.25	4,720.14	4,423.15	296.99	15.893		
9,500.00	7,132.72	7,088.72	7,132.72	77.24	245.74	-90.39	-1,690.98	-6,520.25	4,635.50	4,336.85	298.65	15.522		
9,600.00	7,132.29	7,088.29	7,132.29	79.83	245.73	-90.38	-1,690.98	-6,520.25	4,551.48	4,251.08	300.40	15.152		
9,700.00	7,131.85	7,087.85	7,131.85	82.42	245.71	-90.37	-1,690.98	-6,520.25	4,468.12	4,165.88	302.24	14.783		
9,800.00	7,131.42	7,087.42	7,131.42	85.04	245.70	-90.36	-1,690.98	-6,520.25	4,385.45	4,081.27	304.18	14.417		
9,900.00	7,130.98	7,086.98	7,130.98	87.67	245.68	-90.35	-1,690.98	-6,520.25	4,303.52	3,997.30	306.23	14.053		
10,000.00	7,130.55	7,086.55	7,130.55	90.31	245.67	-90.34	-1,690.98	-6,520.25	4,222.37	3,914.00	308.37	13.693		
10,100.00	7,130.12	7,086.12	7,130.12	92.97	245.65	-90.33	-1,690.98	-6,520.25	4,142.05	3,831.43	310.62	13.335		
10,200.00	7,129.68	7,085.68	7,129.68	95.63	245.64	-90.32	-1,690.98	-6,520.25	4,062.59	3,749.62	312.97	12.981		
10,300.00	7,129.25	7,085.25	7,129.25	98.31	245.62	-90.31	-1,690.98	-6,520.25	3,984.06	3,668.63	315.43	12.630		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	7,084.82	7,128.82	101.00	245.61	-90.30	-1,690.98	-6,520.25	3,906.52	3,588.51	318.01	12.284		
10,500.00	7,128.38	7,084.38	7,128.38	103.69	245.59	-90.29	-1,690.98	-6,520.25	3,830.01	3,509.32	320.69	11.943		
10,600.00	7,127.95	7,083.95	7,127.95	106.39	245.58	-90.28	-1,690.98	-6,520.25	3,754.61	3,431.11	323.50	11.606		
10,700.00	7,127.51	7,083.51	7,127.51	109.10	245.56	-90.27	-1,690.98	-6,520.25	3,680.38	3,353.96	326.42	11.275		
10,800.00	7,127.08	7,083.08	7,127.08	111.82	245.55	-90.26	-1,690.98	-6,520.25	3,607.40	3,277.94	329.45	10.950		
10,900.00	7,126.65	7,082.65	7,126.65	114.54	245.53	-90.25	-1,690.98	-6,520.25	3,535.73	3,203.12	332.61	10.630		
11,000.00	7,126.21	7,082.21	7,126.21	117.27	245.52	-90.24	-1,690.98	-6,520.25	3,465.48	3,129.59	335.89	10.317		
11,100.00	7,125.78	7,081.78	7,125.78	120.01	245.50	-90.23	-1,690.98	-6,520.25	3,396.71	3,057.43	339.28	10.011		
11,200.00	7,125.35	7,081.35	7,125.35	122.75	245.49	-90.22	-1,690.98	-6,520.25	3,329.52	2,986.73	342.80	9.713		
11,300.00	7,124.91	7,080.91	7,124.91	125.49	245.47	-90.21	-1,690.98	-6,520.25	3,264.02	2,917.60	346.43	9.422		
11,400.00	7,124.48	7,080.48	7,124.48	128.24	245.46	-90.20	-1,690.98	-6,520.25	3,200.30	2,850.14	350.17	9.139		
11,500.00	7,124.04	7,080.04	7,124.04	131.00	245.44	-90.19	-1,690.98	-6,520.25	3,138.48	2,784.46	354.02	8.865		
11,600.00	7,123.61	7,079.61	7,123.61	133.75	245.43	-90.18	-1,690.98	-6,520.25	3,078.66	2,720.69	357.97	8.600		
11,700.00	7,123.18	7,079.18	7,123.18	136.52	245.41	-90.17	-1,690.98	-6,520.25	3,020.97	2,658.95	362.02	8.345		
11,800.00	7,122.74	7,078.74	7,122.74	139.28	245.40	-90.16	-1,690.98	-6,520.25	2,965.53	2,599.37	366.16	8.099		
11,900.00	7,122.31	7,078.31	7,122.31	142.05	245.38	-90.15	-1,690.98	-6,520.25	2,912.47	2,542.10	370.37	7.864		
12,000.00	7,121.88	7,077.88	7,121.88	144.82	245.37	-90.14	-1,690.98	-6,520.25	2,861.92	2,487.27	374.64	7.639		
12,100.00	7,121.44	7,077.44	7,121.44	147.59	245.35	-90.13	-1,690.98	-6,520.25	2,814.01	2,435.05	378.96	7.426		
12,200.00	7,121.01	7,077.01	7,121.01	150.37	245.34	-90.12	-1,690.98	-6,520.25	2,768.90	2,385.58	383.31	7.224		
12,300.00	7,120.57	7,076.57	7,120.57	153.15	245.32	-90.11	-1,690.98	-6,520.25	2,726.70	2,339.03	387.67	7.034		
12,400.00	7,120.14	7,076.14	7,120.14	155.93	245.30	-90.10	-1,690.98	-6,520.25	2,687.56	2,295.55	392.01	6.856		
12,500.00	7,119.71	7,075.71	7,119.71	158.72	245.29	-90.09	-1,690.98	-6,520.25	2,651.62	2,255.30	396.32	6.691		
12,600.00	7,119.27	7,075.27	7,119.27	161.50	245.27	-90.08	-1,690.98	-6,520.25	2,619.01	2,218.44	400.57	6.538		
12,700.00	7,118.84	7,074.84	7,118.84	164.29	245.26	-90.07	-1,690.98	-6,520.25	2,589.84	2,185.12	404.72	6.399		
12,800.00	7,118.41	7,074.41	7,118.41	167.08	245.24	-90.06	-1,690.98	-6,520.25	2,564.25	2,155.49	408.76	6.273		
12,900.00	7,117.97	7,073.97	7,117.97	169.88	245.23	-90.05	-1,690.98	-6,520.25	2,542.34	2,129.69	412.65	6.161		
13,000.00	7,117.54	7,073.54	7,117.54	172.67	245.21	-90.04	-1,690.98	-6,520.25	2,524.20	2,107.84	416.36	6.062		
13,100.00	7,117.10	7,073.10	7,117.10	175.47	245.20	-90.03	-1,690.98	-6,520.25	2,509.92	2,090.04	419.88	5.978		
13,200.00	7,116.67	7,072.67	7,116.67	178.27	245.18	-90.02	-1,690.98	-6,520.25	2,499.56	2,076.39	423.17	5.907		
13,300.00	7,116.24	7,072.24	7,116.24	181.07	245.17	-90.01	-1,690.98	-6,520.25	2,493.17	2,066.96	426.21	5.850		
13,400.00	7,115.80	7,071.80	7,115.80	183.87	245.15	-90.00	-1,690.98	-6,520.25	2,490.78	2,061.80	428.98	5.806		
13,409.51	7,115.76	7,071.76	7,115.76	184.13	245.15	-90.00	-1,690.98	-6,520.25	2,490.76	2,061.53	429.23	5.803 CC		
13,500.00	7,115.37	7,071.37	7,115.37	186.67	245.14	-89.99	-1,690.98	-6,520.25	2,492.41	2,060.94	431.47	5.777 ES		
13,600.00	7,114.93	7,070.93	7,114.93	189.47	245.12	-89.98	-1,690.98	-6,520.25	2,498.04	2,064.37	433.66	5.760		
13,700.00	7,114.50	7,070.50	7,114.50	192.28	245.11	-89.97	-1,690.98	-6,520.25	2,507.64	2,072.09	435.56	5.757 SF		
13,800.00	7,114.07	7,070.07	7,114.07	195.09	245.09	-89.96	-1,690.98	-6,520.25	2,521.19	2,084.04	437.14	5.767		
13,900.00	7,113.63	7,069.63	7,113.63	197.89	245.08	-89.95	-1,690.98	-6,520.25	2,538.60	2,100.16	438.43	5.790		
14,000.00	7,113.20	7,069.20	7,113.20	200.70	245.06	-89.94	-1,690.98	-6,520.25	2,559.80	2,120.37	439.42	5.825		
14,100.00	7,112.77	7,068.77	7,112.77	203.51	245.05	-89.93	-1,690.98	-6,520.25	2,584.70	2,144.57	440.13	5.873		
14,200.00	7,112.33	7,068.33	7,112.33	206.32	245.03	-89.92	-1,690.98	-6,520.25	2,613.19	2,172.63	440.56	5.932		
14,300.00	7,111.90	7,067.90	7,111.90	209.13	245.02	-89.91	-1,690.98	-6,520.25	2,645.16	2,204.42	440.73	6.002		
14,400.00	7,111.46	7,067.46	7,111.46	211.95	245.00	-89.90	-1,690.98	-6,520.25	2,680.48	2,239.81	440.67	6.083		
14,500.00	7,111.03	7,067.03	7,111.03	214.76	244.99	-89.89	-1,690.98	-6,520.25	2,719.01	2,278.64	440.38	6.174		
14,600.00	7,110.60	7,066.60	7,110.60	217.58	244.97	-89.88	-1,690.98	-6,520.25	2,760.64	2,320.76	439.88	6.276		
14,700.00	7,110.16	7,066.16	7,110.16	220.39	244.96	-89.87	-1,690.98	-6,520.25	2,805.21	2,366.01	439.21	6.387		
14,800.00	7,109.73	7,065.73	7,109.73	223.21	244.94	-89.86	-1,690.98	-6,520.25	2,852.60	2,414.23	438.37	6.507		
14,900.00	7,109.30	7,065.30	7,109.30	226.03	244.93	-89.85	-1,690.98	-6,520.25	2,902.66	2,465.26	437.39	6.636		
14,969.16	7,109.00	7,065.00	7,109.00	227.97	244.92	-89.84	-1,690.98	-6,520.25	2,938.77	2,502.13	436.64	6.730		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-94.14	-554.38	-7,658.95	7,679.08					
100.00	100.00	110.47	149.46	3.28	3.29	-94.14	-553.99	-7,658.56	7,678.73	7,672.15	6.58	1,167.812		
200.00	200.00	182.34	221.34	3.34	3.33	-94.13	-553.49	-7,658.26	7,678.26	7,671.60	6.67	1,151.829		
278.82	278.82	239.83	278.82	3.42	3.38	-94.13	-553.12	-7,658.21	7,678.16	7,671.36	6.80	1,129.559		
300.00	300.00	255.38	294.37	3.44	3.40	-94.13	-553.04	-7,658.22	7,678.16	7,671.32	6.84	1,122.316		
400.00	400.00	330.22	369.22	3.60	3.49	-94.13	-552.84	-7,658.42	7,678.41	7,671.31	7.10	1,082.016		
500.00	500.00	410.78	449.77	3.81	3.63	-94.13	-552.91	-7,658.86	7,678.96	7,671.52	7.43	1,033.271		
600.00	600.00	519.50	558.49	4.05	3.85	-94.13	-553.18	-7,659.46	7,679.53	7,671.63	7.89	972.979		
700.00	699.98	608.94	647.92	4.32	4.06	-84.99	-553.82	-7,659.96	7,679.98	7,671.60	8.38	916.794		
800.00	799.84	697.29	736.27	4.62	4.29	-85.02	-554.71	-7,660.56	7,680.28	7,671.37	8.91	862.271		
900.00	899.45	798.64	837.61	4.94	4.59	-85.09	-555.74	-7,661.32	7,680.35	7,670.83	9.52	807.068		
1,000.00	998.70	902.79	941.75	5.28	4.91	-85.20	-556.76	-7,662.05	7,680.09	7,669.91	10.17	754.840		
1,100.00	1,097.50	1,006.96	1,045.92	5.64	5.25	-85.33	-557.64	-7,662.72	7,679.51	7,668.65	10.87	706.630		
1,200.00	1,196.18	1,107.92	1,146.88	6.00	5.59	-85.46	-558.19	-7,663.34	7,678.87	7,667.28	11.58	663.055		
1,300.00	1,294.87	1,203.65	1,242.61	6.38	5.93	-85.58	-558.55	-7,663.96	7,678.26	7,665.96	12.30	624.235		
1,400.00	1,393.55	1,317.55	1,356.50	6.77	6.34	-85.71	-558.82	-7,664.60	7,677.61	7,664.50	13.11	585.832		
1,500.00	1,492.23	1,403.89	1,442.84	7.17	6.66	-85.82	-559.09	-7,665.09	7,677.00	7,663.17	13.83	555.220		
1,600.00	1,590.91	1,503.32	1,542.26	7.58	7.04	-85.94	-559.48	-7,665.70	7,676.47	7,661.86	14.61	525.409		
1,700.00	1,689.60	1,594.74	1,633.68	8.00	7.38	-86.05	-559.81	-7,666.29	7,676.01	7,660.64	15.38	499.241		
1,800.00	1,788.28	1,701.80	1,740.74	8.42	7.80	-86.18	-560.00	-7,667.01	7,675.59	7,659.38	16.21	473.488		
1,900.00	1,886.96	1,797.24	1,836.18	8.84	8.17	-86.30	-560.11	-7,667.61	7,675.17	7,658.16	17.01	451.215		
2,000.00	1,985.64	1,899.35	1,938.28	9.27	8.57	-86.42	-560.32	-7,668.25	7,674.78	7,656.94	17.84	430.127		
2,100.00	2,084.33	1,989.21	2,028.15	9.71	8.93	-86.53	-560.53	-7,668.84	7,674.45	7,655.82	18.63	411.851		
2,200.00	2,183.01	2,126.60	2,165.53	10.15	9.48	-86.70	-560.60	-7,669.46	7,673.94	7,654.32	19.62	391.113		
2,300.00	2,281.69	2,231.12	2,270.05	10.59	9.90	-86.83	-560.99	-7,669.65	7,673.24	7,652.75	20.48	374.656		
2,400.00	2,380.38	2,340.32	2,379.25	11.03	10.34	-86.96	-561.67	-7,669.62	7,672.39	7,651.03	21.36	359.139		
2,500.00	2,479.06	2,436.80	2,475.73	11.47	10.74	-87.08	-562.16	-7,669.61	7,671.58	7,649.38	22.20	345.593		
2,600.00	2,577.74	2,552.58	2,591.50	11.92	11.21	-87.23	-562.60	-7,669.54	7,670.75	7,647.64	23.11	331.859		
2,700.00	2,676.42	2,681.00	2,719.92	12.36	11.73	-87.38	-562.81	-7,669.01	7,669.58	7,645.50	24.08	318.451		
2,800.00	2,775.11	2,780.40	2,819.32	12.81	12.14	-87.50	-562.63	-7,668.44	7,668.25	7,643.31	24.94	307.483		
2,900.00	2,873.79	2,843.45	2,882.37	13.26	12.40	-87.58	-562.32	-7,668.21	7,667.15	7,641.50	25.65	298.931		
3,000.00	2,972.47	2,900.01	2,938.93	13.72	12.63	-87.64	-561.84	-7,668.37	7,666.65	7,640.31	26.33	291.141		
3,038.71	3,010.68	2,921.26	2,960.18	13.89	12.72	-87.67	-561.62	-7,668.52	7,666.61	7,640.01	26.60	288.261		
3,100.00	3,071.15	2,957.99	2,996.91	14.17	12.87	-87.71	-561.22	-7,668.87	7,666.71	7,639.68	27.03	283.687		
3,200.00	3,169.84	3,027.04	3,065.94	14.62	13.15	-87.78	-560.39	-7,669.82	7,667.28	7,639.52	27.76	276.157		
3,300.00	3,268.52	3,100.01	3,138.89	15.08	13.46	-87.86	-559.39	-7,670.97	7,668.11	7,639.59	28.52	268.861		
3,400.00	3,367.20	3,166.92	3,205.79	15.53	13.73	-87.94	-558.35	-7,672.30	7,669.35	7,640.10	29.25	262.175		
3,500.00	3,465.89	3,230.67	3,269.51	15.99	14.00	-88.00	-557.25	-7,673.97	7,671.16	7,641.19	29.97	255.943		
3,600.00	3,564.57	3,307.72	3,346.51	16.44	14.32	-88.08	-555.79	-7,676.27	7,673.35	7,642.60	30.75	249.551		
3,700.00	3,663.25	3,418.71	3,457.41	16.90	14.79	-88.20	-553.20	-7,679.73	7,675.64	7,643.97	31.67	242.348		
3,800.00	3,761.93	3,550.16	3,588.76	17.36	15.34	-88.32	-549.60	-7,683.46	7,677.62	7,644.94	32.68	234.902		
3,900.00	3,860.62	3,657.46	3,695.99	17.82	15.79	-88.43	-546.90	-7,686.16	7,679.35	7,645.75	33.59	228.591		
4,000.00	3,959.30	3,757.27	3,795.74	18.28	16.21	-88.53	-544.75	-7,688.62	7,681.09	7,646.61	34.47	222.817		
4,100.00	4,057.98	3,857.66	3,896.10	18.74	16.63	-88.64	-542.81	-7,691.03	7,682.82	7,647.47	35.35	217.311		
4,200.00	4,156.67	3,957.69	3,996.08	19.20	17.06	-88.74	-541.14	-7,693.39	7,684.58	7,648.34	36.23	212.078		
4,300.00	4,255.35	4,073.60	4,111.95	19.66	17.54	-88.87	-539.54	-7,695.97	7,686.28	7,649.10	37.18	206.710		
4,400.00	4,354.03	4,170.65	4,208.97	20.12	17.95	-88.97	-538.10	-7,697.98	7,687.84	7,649.78	38.05	202.029		
4,500.00	4,452.71	4,270.74	4,309.02	20.58	18.37	-89.08	-536.93	-7,700.08	7,689.48	7,650.55	38.94	197.490		
4,600.00	4,551.40	4,372.38	4,410.65	21.04	18.80	-89.20	-536.02	-7,702.10	7,691.11	7,651.28	39.83	193.117		
4,700.00	4,650.08	4,483.02	4,521.26	21.50	19.27	-89.32	-535.42	-7,704.17	7,692.69	7,651.93	40.76	188.752		
4,800.00	4,748.76	4,623.95	4,662.18	21.96	19.86	-89.49	-534.90	-7,706.21	7,693.90	7,652.08	41.81	184.000		
4,900.00	4,847.44	4,720.47	4,758.69	22.42	20.27	-89.60	-534.61	-7,707.36	7,694.92	7,652.23	42.68	180.273		

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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	4,946.13	4,816.63	4,854.84	22.89	20.68	-89.71	-534.32	-7,708.56	7,696.02	7,652.47	43.55	176.702		
5,100.00	5,044.81	4,926.54	4,964.74	23.35	21.14	-89.84	-533.95	-7,709.84	7,697.07	7,652.58	44.48	173.039		
5,200.00	5,143.49	5,029.06	5,067.25	23.81	21.58	-89.96	-533.52	-7,710.98	7,698.08	7,652.70	45.38	169.641		
5,300.00	5,242.18	5,134.28	5,172.47	24.27	22.02	-90.08	-533.05	-7,712.04	7,699.02	7,652.73	46.29	166.331		
5,400.00	5,340.86	5,230.95	5,269.14	24.74	22.43	-90.20	-532.72	-7,713.01	7,700.01	7,652.85	47.16	163.273		
5,500.00	5,439.54	5,392.81	5,430.99	25.20	23.12	-90.38	-532.09	-7,714.21	7,700.86	7,652.55	48.31	159.407		
5,600.00	5,538.22	5,515.99	5,554.17	25.66	23.63	-90.53	-531.20	-7,714.28	7,700.91	7,651.62	49.29	156.229		
5,603.95	5,542.12	5,520.70	5,558.87	25.68	23.65	-90.53	-531.16	-7,714.27	7,700.91	7,651.58	49.33	156.108		
5,700.00	5,636.91	5,577.78	5,615.96	26.13	23.90	-90.60	-530.88	-7,714.40	7,701.16	7,651.14	50.02	153.967		
5,800.00	5,735.59	5,670.10	5,708.28	26.59	24.29	-90.71	-530.61	-7,714.79	7,701.71	7,650.84	50.87	151.390		
5,900.00	5,834.27	5,763.28	5,801.45	27.06	24.68	-90.82	-530.29	-7,715.20	7,702.30	7,650.57	51.73	148.887		
6,000.00	5,932.95	5,857.25	5,895.42	27.52	25.08	-90.93	-529.91	-7,715.72	7,703.03	7,650.43	52.60	146.459		
6,100.00	6,031.64	5,941.51	5,979.68	27.98	25.44	-91.02	-529.55	-7,716.24	7,703.86	7,650.44	53.42	144.221		
6,200.00	6,130.32	6,024.28	6,062.44	28.45	25.79	-91.12	-529.34	-7,716.98	7,705.00	7,650.77	54.23	142.074		
6,300.00	6,229.00	6,124.06	6,162.22	28.91	26.22	-91.24	-529.19	-7,717.82	7,706.15	7,651.03	55.12	139.804		
6,400.00	6,327.69	6,200.01	6,238.17	29.38	26.54	-91.33	-529.12	-7,718.67	7,707.60	7,651.69	55.91	137.863		
6,500.00	6,426.37	6,284.18	6,322.32	29.84	26.90	-91.43	-529.17	-7,719.79	7,709.32	7,652.59	56.73	135.897		
6,600.00	6,525.05	6,381.58	6,419.72	30.31	27.31	-91.55	-529.40	-7,721.10	7,711.13	7,653.52	57.61	133.854		
6,700.00	6,623.18	6,502.75	6,540.88	30.77	27.83	-91.66	-529.81	-7,722.55	7,705.16	7,646.57	58.59	131.510		
6,800.00	6,718.58	6,608.01	6,646.13	31.22	28.28	-91.77	-530.34	-7,723.53	7,683.66	7,624.17	59.49	129.163		
6,900.00	6,808.91	6,679.70	6,717.82	31.66	28.58	-91.83	-530.93	-7,724.21	7,647.48	7,587.26	60.22	127.001		
7,000.00	6,891.95	6,744.52	6,782.63	32.07	28.86	-91.89	-531.74	-7,724.91	7,597.64	7,536.76	60.88	124.793		
7,100.00	6,965.65	6,801.48	6,839.58	32.51	29.10	-91.95	-532.53	-7,725.65	7,535.36	7,473.88	61.48	122.574		
7,200.00	7,028.20	6,861.87	6,899.95	33.02	29.36	-92.02	-533.33	-7,726.53	7,462.05	7,400.01	62.04	120.271		
7,300.00	7,078.04	6,900.01	6,938.09	33.68	29.52	-92.07	-533.77	-7,727.12	7,379.45	7,316.97	62.47	118.125		
7,400.00	7,113.97	6,933.70	6,971.77	34.52	29.66	-92.09	-534.11	-7,727.68	7,289.58	7,226.74	62.84	116.008		
7,500.00	7,135.09	6,949.69	6,987.76	35.53	29.73	-92.09	-534.27	-7,727.97	7,194.63	7,131.54	63.09	114.046		
7,600.00	7,140.96	6,955.16	6,993.23	36.68	29.75	-92.09	-534.32	-7,728.08	7,096.88	7,033.62	63.25	112.196		
7,700.00	7,140.53	6,956.24	6,994.31	37.99	29.76	-92.09	-534.33	-7,728.10	6,998.59	6,935.19	63.40	110.394		
7,800.00	7,140.09	6,957.33	6,995.40	39.45	29.76	-92.09	-534.34	-7,728.12	6,900.35	6,836.80	63.55	108.578		
7,900.00	7,139.66	6,958.43	6,996.50	41.06	29.77	-92.09	-534.35	-7,728.14	6,802.16	6,738.44	63.72	106.746		
8,000.00	7,139.23	6,959.54	6,997.61	42.80	29.77	-92.09	-534.36	-7,728.16	6,704.03	6,640.12	63.91	104.900		
8,100.00	7,138.79	6,960.67	6,998.73	44.65	29.78	-92.09	-534.37	-7,728.18	6,605.95	6,541.83	64.11	103.038		
8,200.00	7,138.36	6,961.80	6,999.86	46.60	29.78	-92.09	-534.38	-7,728.21	6,507.93	6,443.59	64.33	101.162		
8,300.00	7,137.93	6,962.94	7,001.01	48.65	29.79	-92.09	-534.39	-7,728.23	6,409.96	6,345.39	64.57	99.271		
8,400.00	7,137.49	6,964.10	7,002.16	50.77	29.79	-92.09	-534.40	-7,728.25	6,312.07	6,247.24	64.83	97.365		
8,500.00	7,137.06	6,965.26	7,003.33	52.95	29.80	-92.09	-534.41	-7,728.28	6,214.24	6,149.13	65.11	95.445		
8,600.00	7,136.62	6,966.44	7,004.50	55.20	29.80	-92.09	-534.42	-7,728.30	6,116.48	6,051.07	65.41	93.512		
8,700.00	7,136.19	6,967.63	7,005.69	57.51	29.81	-92.09	-534.43	-7,728.32	6,018.79	5,953.06	65.73	91.564		
8,800.00	7,135.76	6,968.83	7,006.89	59.85	29.81	-92.09	-534.44	-7,728.35	5,921.18	5,855.10	66.08	89.604		
8,900.00	7,135.32	6,970.04	7,008.10	62.24	29.82	-92.09	-534.45	-7,728.37	5,823.65	5,757.19	66.46	87.632		
9,000.00	7,134.89	6,971.27	7,009.33	64.67	29.82	-92.09	-534.46	-7,728.40	5,726.21	5,659.35	66.86	85.647		
9,100.00	7,134.45	6,972.50	7,010.57	67.13	29.83	-92.09	-534.47	-7,728.42	5,628.85	5,561.56	67.29	83.651		
9,200.00	7,134.02	6,973.75	7,011.82	69.62	29.83	-92.09	-534.48	-7,728.45	5,531.59	5,463.84	67.75	81.645		
9,300.00	7,133.59	6,975.02	7,013.08	72.14	29.84	-92.09	-534.49	-7,728.47	5,434.43	5,366.18	68.25	79.630		
9,400.00	7,133.15	6,976.29	7,014.35	74.68	29.84	-92.09	-534.50	-7,728.50	5,337.37	5,268.59	68.77	77.606		
9,500.00	7,132.72	6,977.58	7,015.64	77.24	29.85	-92.09	-534.51	-7,728.53	5,240.42	5,171.08	69.34	75.575		
9,600.00	7,132.29	6,978.88	7,016.94	79.83	29.85	-92.09	-534.52	-7,728.55	5,143.59	5,073.65	69.94	73.538		
9,700.00	7,131.85	6,980.20	7,018.26	82.42	29.86	-92.09	-534.53	-7,728.58	5,046.88	4,976.29	70.59	71.495		
9,800.00	7,131.42	6,981.53	7,019.59	85.04	29.87	-92.09	-534.54	-7,728.61	4,950.30	4,879.03	71.28	69.450		
9,900.00	7,130.98	6,982.87	7,020.93	87.67	29.87	-92.09	-534.55	-7,728.64	4,853.87	4,781.85	72.01	67.402		
10,000.00	7,130.55	6,984.23	7,022.29	90.31	29.88	-92.09	-534.57	-7,728.67	4,757.57	4,684.78	72.80	65.354		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-3(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,100.00	7,130.12	6,985.60	7,023.66	92.97	29.88	-86.15	-534.58	-7,728.70	4,661.44	4,587.80	73.63	63.307		
10,200.00	7,129.68	6,986.99	7,025.05	95.63	29.89	-86.21	-534.59	-7,728.73	4,565.46	4,490.94	74.52	61.263		
10,300.00	7,129.25	6,988.39	7,026.45	98.31	29.89	-86.27	-534.60	-7,728.76	4,469.67	4,394.20	75.47	59.224		
10,400.00	7,128.82	6,989.80	7,027.86	101.00	29.90	-86.34	-534.61	-7,728.79	4,374.06	4,297.58	76.48	57.192		
10,500.00	7,128.38	6,991.24	7,029.29	103.69	29.91	-86.40	-534.62	-7,728.82	4,278.65	4,201.09	77.56	55.168		
10,600.00	7,127.95	6,992.68	7,030.74	106.39	29.91	-86.46	-534.63	-7,728.85	4,183.46	4,104.76	78.70	53.156		
10,700.00	7,127.51	6,994.15	7,032.20	109.10	29.92	-86.53	-534.64	-7,728.88	4,088.49	4,008.57	79.92	51.157		
10,800.00	7,127.08	6,995.63	7,033.68	111.82	29.93	-86.59	-534.66	-7,728.91	3,993.77	3,912.55	81.22	49.173		
10,900.00	7,126.65	6,997.12	7,035.18	114.54	29.93	-86.66	-534.67	-7,728.95	3,899.31	3,816.71	82.60	47.206		
11,000.00	7,126.21	6,998.64	7,036.69	117.27	29.94	-86.73	-534.68	-7,728.98	3,805.14	3,721.07	84.07	45.260		
11,100.00	7,125.78	7,000.20	7,038.26	120.01	29.95	-86.79	-534.69	-7,729.02	3,711.27	3,625.63	85.64	43.335		
11,200.00	7,125.35	7,002.11	7,040.16	122.75	29.95	-86.88	-534.71	-7,729.06	3,617.73	3,530.41	87.31	41.434		
11,300.00	7,124.91	7,004.01	7,042.07	125.49	29.96	-86.96	-534.72	-7,729.10	3,524.54	3,435.44	89.09	39.561		
11,400.00	7,124.48	7,005.92	7,043.97	128.24	29.97	-87.05	-534.73	-7,729.14	3,431.73	3,340.74	90.99	37.716		
11,500.00	7,124.04	7,007.83	7,045.88	131.00	29.98	-87.13	-534.75	-7,729.19	3,339.34	3,246.33	93.01	35.904		
11,600.00	7,123.61	7,009.74	7,047.80	133.75	29.99	-87.22	-534.76	-7,729.23	3,247.39	3,152.23	95.16	34.125		
11,700.00	7,123.18	7,011.66	7,049.71	136.52	29.99	-87.30	-534.78	-7,729.27	3,155.94	3,058.48	97.46	32.383		
11,800.00	7,122.74	7,013.57	7,051.62	139.28	30.00	-87.39	-534.79	-7,729.32	3,065.02	2,965.11	99.91	30.679		
11,900.00	7,122.31	7,015.49	7,053.54	142.05	30.01	-87.47	-534.80	-7,729.36	2,974.68	2,872.16	102.52	29.016		
12,000.00	7,121.88	7,017.41	7,055.46	144.82	30.02	-87.55	-534.82	-7,729.40	2,884.97	2,779.67	105.31	27.396		
12,100.00	7,121.44	7,019.33	7,057.38	147.59	30.03	-87.64	-534.83	-7,729.45	2,795.97	2,687.68	108.28	25.821		
12,200.00	7,121.01	7,021.26	7,059.31	150.37	30.03	-87.73	-534.84	-7,729.49	2,707.73	2,596.26	111.46	24.292		
12,300.00	7,120.57	7,023.18	7,061.23	153.15	30.04	-87.81	-534.85	-7,729.53	2,620.33	2,505.47	114.86	22.813		
12,400.00	7,120.14	7,025.11	7,063.16	155.93	30.05	-87.90	-534.87	-7,729.58	2,533.87	2,415.38	118.49	21.385		
12,500.00	7,119.71	7,027.04	7,065.09	158.72	30.06	-87.98	-534.88	-7,729.62	2,448.43	2,326.07	122.36	20.009		
12,600.00	7,119.27	7,028.97	7,067.02	161.50	30.07	-88.07	-534.89	-7,729.66	2,364.14	2,237.63	126.51	18.688		
12,700.00	7,118.84	7,030.91	7,068.96	164.29	30.08	-88.15	-534.90	-7,729.71	2,281.11	2,150.18	130.93	17.423		
12,800.00	7,118.41	7,032.85	7,070.89	167.08	30.08	-88.24	-534.92	-7,729.75	2,199.49	2,063.84	135.65	16.215		
12,900.00	7,117.97	7,034.78	7,072.83	169.88	30.09	-88.32	-534.93	-7,729.79	2,119.45	1,978.77	140.68	15.065		
13,000.00	7,117.54	7,036.73	7,074.77	172.67	30.10	-88.41	-534.94	-7,729.84	2,041.17	1,895.12	146.05	13.976		
13,100.00	7,117.10	7,038.67	7,076.71	175.47	30.11	-88.50	-534.95	-7,729.88	1,964.86	1,813.10	151.75	12.948		
13,200.00	7,116.67	7,040.61	7,078.66	178.27	30.12	-88.58	-534.96	-7,729.93	1,890.75	1,732.95	157.80	11.982		
13,300.00	7,116.24	7,042.56	7,080.60	181.07	30.13	-88.67	-534.97	-7,729.97	1,819.12	1,654.93	164.19	11.079		
13,400.00	7,115.80	7,044.51	7,082.55	183.87	30.13	-88.75	-534.99	-7,730.01	1,750.28	1,579.36	170.92	10.240		
13,500.00	7,115.37	7,046.46	7,084.50	186.67	30.14	-88.84	-535.00	-7,730.06	1,684.56	1,506.60	177.96	9.466		
13,600.00	7,114.93	7,048.41	7,086.46	189.47	30.15	-88.93	-535.01	-7,730.10	1,622.34	1,437.07	185.28	8.756		
13,700.00	7,114.50	7,050.37	7,088.41	192.28	30.16	-89.01	-535.02	-7,730.15	1,564.05	1,371.25	192.80	8.112		
13,800.00	7,114.07	7,052.33	7,090.37	195.09	30.17	-89.10	-535.03	-7,730.19	1,510.13	1,309.67	200.45	7.534		
13,900.00	7,113.63	7,054.28	7,092.33	197.89	30.18	-89.19	-535.04	-7,730.24	1,461.07	1,252.95	208.11	7.021		
14,000.00	7,113.20	7,056.25	7,094.29	200.70	30.18	-89.27	-535.05	-7,730.28	1,417.37	1,201.73	215.64	6.573		
14,100.00	7,112.77	7,058.21	7,096.25	203.51	30.19	-89.36	-535.06	-7,730.32	1,379.55	1,156.69	222.86	6.190		
14,200.00	7,112.33	7,060.18	7,098.21	206.32	30.20	-89.45	-535.07	-7,730.37	1,348.10	1,118.52	229.58	5.872		
14,300.00	7,111.90	7,062.14	7,100.18	209.13	30.21	-89.53	-535.08	-7,730.41	1,323.47	1,087.88	235.59	5.618		
14,400.00	7,111.46	7,064.11	7,102.15	211.95	30.22	-89.62	-535.09	-7,730.46	1,306.05	1,065.34	240.70	5.426		
14,500.00	7,111.03	7,066.08	7,104.12	214.76	30.23	-89.71	-535.10	-7,730.50	1,296.13	1,051.38	244.74	5.296		
14,579.11	7,110.69	7,067.65	7,105.68	216.99	30.23	-89.78	-535.11	-7,730.54	1,293.71	1,046.62	247.10	5.236 CC		
14,600.00	7,110.60	7,068.06	7,106.10	217.58	30.23	-89.80	-535.11	-7,730.55	1,293.88	1,046.29	247.59	5.226 ES		
14,700.00	7,110.16	7,070.03	7,108.07	220.39	30.24	-89.88	-535.12	-7,730.59	1,299.35	1,050.18	249.17	5.215 SF		
14,800.00	7,109.73	7,072.01	7,110.05	223.21	30.25	-89.97	-535.13	-7,730.64	1,312.43	1,062.93	249.50	5.260		
14,900.00	7,109.30	7,073.99	7,112.03	226.03	30.26	-90.06	-535.13	-7,730.68	1,332.90	1,084.27	248.63	5.361		
14,969.16	7,109.00	7,075.36	7,113.40	227.97	30.27	-90.12	-535.14	-7,730.72	1,351.21	1,103.82	247.40	5.462		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STOCKOVER 16-1(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	62.00	3.28	3.28	-114.75	-1,645.31	-3,568.73	3,930.24					
100.00	100.00	38.00	100.00	3.28	3.35	-114.75	-1,645.31	-3,568.73	3,929.75	3,923.12	6.63	592.622		
200.00	200.00	138.00	200.00	3.34	4.49	-114.75	-1,645.31	-3,568.73	3,929.75	3,921.92	7.83	501.817		
300.00	300.00	238.00	300.00	3.44	7.34	-114.75	-1,645.31	-3,568.73	3,929.75	3,918.96	10.78	364.474		
400.00	400.00	338.00	400.00	3.60	10.58	-114.75	-1,645.31	-3,568.73	3,929.75	3,915.57	14.18	277.154		
500.00	500.00	438.00	500.00	3.81	13.94	-114.75	-1,645.31	-3,568.73	3,929.75	3,912.00	17.74	221.487		
600.00	600.00	538.00	600.00	4.05	17.35	-114.75	-1,645.31	-3,568.73	3,929.75	3,908.35	21.40	183.674		
700.00	699.98	637.98	699.98	4.32	20.79	-105.62	-1,645.31	-3,568.73	3,930.22	3,905.11	25.10	156.556		
800.00	799.84	737.84	799.84	4.62	24.24	-105.66	-1,645.31	-3,568.73	3,931.63	3,902.78	28.85	136.282		
900.00	899.45	837.45	899.45	4.94	27.68	-105.74	-1,645.31	-3,568.73	3,934.00	3,901.38	32.62	120.614		
1,000.00	998.70	936.70	998.70	5.28	31.13	-105.84	-1,645.31	-3,568.73	3,937.34	3,900.94	36.40	108.179		
1,100.00	1,097.50	1,035.50	1,097.50	5.64	34.56	-106.01	-1,645.31	-3,568.73	3,941.62	3,901.43	40.18	98.092		
1,200.00	1,196.18	1,134.18	1,196.18	6.00	37.99	-106.23	-1,645.31	-3,568.73	3,946.16	3,902.18	43.98	89.719		
1,300.00	1,294.87	1,232.87	1,294.87	6.38	41.42	-106.45	-1,645.31	-3,568.73	3,950.77	3,902.97	47.80	82.653		
1,400.00	1,393.55	1,331.55	1,393.55	6.77	44.86	-106.67	-1,645.31	-3,568.73	3,955.44	3,903.81	51.63	76.615		
1,500.00	1,492.23	1,430.23	1,492.23	7.17	48.30	-106.89	-1,645.31	-3,568.73	3,960.17	3,904.70	55.47	71.398		
1,600.00	1,590.91	1,528.91	1,590.91	7.58	51.73	-107.12	-1,645.31	-3,568.73	3,964.96	3,905.64	59.31	66.847		
1,700.00	1,689.60	1,627.60	1,689.60	8.00	55.17	-107.34	-1,645.31	-3,568.73	3,969.81	3,906.64	63.17	62.845		
1,800.00	1,788.28	1,726.28	1,788.28	8.42	58.61	-107.56	-1,645.31	-3,568.73	3,974.71	3,907.69	67.03	59.298		
1,900.00	1,886.96	1,824.96	1,886.96	8.84	62.05	-107.78	-1,645.31	-3,568.73	3,979.68	3,908.79	70.89	56.135		
2,000.00	1,985.64	1,923.64	1,985.64	9.27	65.49	-107.99	-1,645.31	-3,568.73	3,984.71	3,909.95	74.77	53.296		
2,100.00	2,084.33	2,022.33	2,084.33	9.71	68.93	-108.21	-1,645.31	-3,568.73	3,989.80	3,911.16	78.64	50.735		
2,200.00	2,183.01	2,121.01	2,183.01	10.15	72.37	-108.43	-1,645.31	-3,568.73	3,994.94	3,912.43	82.52	48.413		
2,300.00	2,281.69	2,219.69	2,281.69	10.59	75.82	-108.65	-1,645.31	-3,568.73	4,000.15	3,913.75	86.40	46.299		
2,400.00	2,380.38	2,318.38	2,380.38	11.03	79.26	-108.86	-1,645.31	-3,568.73	4,005.41	3,915.13	90.28	44.366		
2,500.00	2,479.06	2,417.06	2,479.06	11.47	82.70	-109.08	-1,645.31	-3,568.73	4,010.74	3,916.57	94.17	42.592		
2,600.00	2,577.74	2,515.74	2,577.74	11.92	86.14	-109.30	-1,645.31	-3,568.73	4,016.12	3,918.06	98.05	40.958		
2,700.00	2,676.42	2,614.42	2,676.42	12.36	89.58	-109.51	-1,645.31	-3,568.73	4,021.55	3,919.61	101.94	39.449		
2,800.00	2,775.11	2,713.11	2,775.11	12.81	93.03	-109.73	-1,645.31	-3,568.73	4,027.05	3,921.22	105.83	38.050		
2,900.00	2,873.79	2,811.79	2,873.79	13.26	96.47	-109.94	-1,645.31	-3,568.73	4,032.60	3,922.88	109.73	36.751		
3,000.00	2,972.47	2,910.47	2,972.47	13.72	99.91	-110.15	-1,645.31	-3,568.73	4,038.21	3,924.59	113.62	35.541		
3,100.00	3,071.15	3,009.15	3,071.15	14.17	103.36	-110.37	-1,645.31	-3,568.73	4,043.88	3,926.37	117.52	34.412		
3,200.00	3,169.84	3,107.84	3,169.84	14.62	106.80	-110.58	-1,645.31	-3,568.73	4,049.61	3,928.19	121.41	33.354		
3,300.00	3,268.52	3,206.52	3,268.52	15.08	110.24	-110.79	-1,645.31	-3,568.73	4,055.39	3,930.08	125.31	32.363		
3,400.00	3,367.20	3,305.20	3,367.20	15.53	113.69	-111.00	-1,645.31	-3,568.73	4,061.22	3,932.02	129.21	31.432		
3,500.00	3,465.89	3,403.89	3,465.89	15.99	117.13	-111.21	-1,645.31	-3,568.73	4,067.12	3,934.01	133.10	30.556		
3,600.00	3,564.57	3,502.57	3,564.57	16.44	120.57	-111.42	-1,645.31	-3,568.73	4,073.06	3,936.06	137.00	29.730		
3,700.00	3,663.25	3,601.25	3,663.25	16.90	124.02	-111.63	-1,645.31	-3,568.73	4,079.07	3,938.16	140.90	28.950		
3,800.00	3,761.93	3,700.07	3,761.93	17.36	127.47	-111.84	-1,645.31	-3,568.73	4,085.13	3,940.32	144.81	28.211		
3,900.00	3,860.62	3,801.38	3,860.62	17.82	131.00	-112.05	-1,645.31	-3,568.73	4,091.24	3,942.44	148.80	27.495		
4,000.00	3,959.30	3,902.70	3,959.30	18.28	134.54	-112.25	-1,645.31	-3,568.73	4,097.41	3,944.62	152.79	26.817		
4,100.00	4,057.98	4,004.02	4,057.98	18.74	138.07	-112.46	-1,645.31	-3,568.73	4,103.63	3,946.85	156.79	26.173		
4,200.00	4,156.67	4,105.34	4,156.67	19.20	141.61	-112.67	-1,645.31	-3,568.73	4,109.91	3,949.13	160.78	25.562		
4,300.00	4,255.35	4,206.65	4,255.35	19.66	145.15	-112.87	-1,645.31	-3,568.73	4,116.24	3,951.47	164.78	24.981		
4,400.00	4,354.03	4,307.97	4,354.03	20.12	148.68	-113.08	-1,645.31	-3,568.73	4,122.63	3,953.86	168.77	24.427		
4,500.00	4,452.71	4,409.29	4,452.71	20.58	152.22	-113.28	-1,645.31	-3,568.73	4,129.07	3,956.30	172.77	23.900		
4,600.00	4,551.40	4,489.40	4,551.40	21.04	155.01	-113.48	-1,645.31	-3,568.73	4,135.56	3,959.54	176.02	23.495		
4,700.00	4,650.08	4,588.08	4,650.08	21.50	158.46	-113.69	-1,645.31	-3,568.73	4,142.10	3,962.18	179.92	23.021		
4,800.00	4,748.76	4,686.76	4,748.76	21.96	161.90	-113.89	-1,645.31	-3,568.73	4,148.70	3,964.87	183.83	22.568		
4,900.00	4,847.44	4,785.44	4,847.44	22.42	165.35	-114.09	-1,645.31	-3,568.73	4,155.35	3,967.62	187.73	22.134		
5,000.00	4,946.13	4,884.13	4,946.13	22.89	168.79	-114.29	-1,645.31	-3,568.73	4,162.05	3,970.42	191.64	21.718		
5,100.00	5,044.81	4,982.81	5,044.81	23.35	172.24	-114.49	-1,645.31	-3,568.73	4,168.81	3,973.27	195.54	21.319		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	5,143.49	5,081.49	5,143.49	23.81	175.68	-114.69	-1,645.31	-3,568.73	4,175.62	3,976.17	199.45	20.936	
5,300.00	5,242.18	5,180.18	5,242.18	24.27	179.12	-114.89	-1,645.31	-3,568.73	4,182.47	3,979.12	203.35	20.568	
5,400.00	5,340.86	5,278.86	5,340.86	24.74	182.57	-115.09	-1,645.31	-3,568.73	4,189.38	3,982.13	207.26	20.213	
5,500.00	5,439.54	5,377.54	5,439.54	25.20	186.01	-115.29	-1,645.31	-3,568.73	4,196.34	3,985.18	211.16	19.873	
5,600.00	5,538.22	5,476.22	5,538.22	25.66	189.46	-115.48	-1,645.31	-3,568.73	4,203.35	3,988.29	215.07	19.544	
5,700.00	5,636.91	5,574.91	5,636.91	26.13	192.90	-115.68	-1,645.31	-3,568.73	4,210.42	3,991.44	218.97	19.228	
5,800.00	5,735.59	5,673.59	5,735.59	26.59	196.35	-115.88	-1,645.31	-3,568.73	4,217.53	3,994.65	222.88	18.923	
5,900.00	5,834.27	5,772.27	5,834.27	27.06	199.79	-116.07	-1,645.31	-3,568.73	4,224.69	3,997.90	226.79	18.629	
6,000.00	5,932.95	5,870.95	5,932.95	27.52	203.24	-116.27	-1,645.31	-3,568.73	4,231.90	4,001.21	230.69	18.344	
6,100.00	6,031.64	5,969.64	6,031.64	27.98	206.68	-116.46	-1,645.31	-3,568.73	4,239.16	4,004.56	234.60	18.070	
6,200.00	6,130.32	6,068.32	6,130.32	28.45	210.13	-116.65	-1,645.31	-3,568.73	4,246.47	4,007.97	238.50	17.805	
6,300.00	6,229.00	6,167.00	6,229.00	28.91	213.57	-116.85	-1,645.31	-3,568.73	4,253.83	4,011.42	242.41	17.548	
6,400.00	6,327.69	6,265.69	6,327.69	29.38	217.01	-117.04	-1,645.31	-3,568.73	4,261.24	4,014.92	246.32	17.300	
6,500.00	6,426.37	6,364.37	6,426.37	29.84	220.46	-117.23	-1,645.31	-3,568.73	4,268.69	4,018.47	250.22	17.060	
6,600.00	6,525.05	6,463.05	6,525.05	30.31	223.90	-117.42	-1,645.31	-3,568.73	4,276.20	4,022.07	254.13	16.827	
6,700.00	6,623.18	6,561.18	6,623.18	30.77	227.33	-77.48	-1,645.31	-3,568.73	4,277.34	4,019.33	258.02	16.578	
6,800.00	6,718.58	6,656.58	6,718.58	31.22	230.66	-62.08	-1,645.31	-3,568.73	4,265.75	4,003.94	261.81	16.293	
6,900.00	6,808.91	6,746.91	6,808.91	31.66	233.81	-56.50	-1,645.31	-3,568.73	4,241.86	3,976.45	265.41	15.982	
7,000.00	6,891.95	6,829.95	6,891.95	32.07	236.71	-55.23	-1,645.31	-3,568.73	4,206.46	3,937.70	268.76	15.651	
7,100.00	6,965.65	6,903.65	6,965.65	32.51	239.28	-56.61	-1,645.31	-3,568.73	4,160.63	3,888.84	271.79	15.308	
7,200.00	7,028.20	6,966.20	7,028.20	33.02	241.47	-60.08	-1,645.31	-3,568.73	4,105.72	3,831.26	274.46	14.959	
7,300.00	7,078.04	7,016.04	7,078.04	33.68	243.21	-65.48	-1,645.31	-3,568.73	4,043.29	3,766.55	276.74	14.611	
7,400.00	7,113.97	7,051.97	7,113.97	34.52	244.46	-72.70	-1,645.31	-3,568.73	3,975.06	3,696.46	278.60	14.268	
7,500.00	7,135.09	7,073.09	7,135.09	35.53	245.20	-81.48	-1,645.31	-3,568.73	3,902.84	3,622.82	280.02	13.938	
7,600.00	7,140.96	7,078.96	7,140.96	36.68	245.40	-90.28	-1,645.31	-3,568.73	3,828.50	3,547.51	280.99	13.625	
7,700.00	7,140.53	7,078.53	7,140.53	37.99	245.39	-90.27	-1,645.31	-3,568.73	3,754.44	3,472.59	281.84	13.321	
7,800.00	7,140.09	7,078.09	7,140.09	39.45	245.37	-90.26	-1,645.31	-3,568.73	3,681.60	3,398.77	282.83	13.017	
7,900.00	7,139.66	7,077.66	7,139.66	41.06	245.36	-90.25	-1,645.31	-3,568.73	3,610.06	3,326.11	283.95	12.714	
8,000.00	7,139.23	7,077.23	7,139.23	42.80	245.34	-90.24	-1,645.31	-3,568.73	3,539.90	3,254.69	285.22	12.411	
8,100.00	7,138.79	7,076.79	7,138.79	44.65	245.33	-90.23	-1,645.31	-3,568.73	3,471.21	3,184.59	286.62	12.111	
8,200.00	7,138.36	7,076.36	7,138.36	46.60	245.31	-90.22	-1,645.31	-3,568.73	3,404.07	3,115.90	288.17	11.813	
8,300.00	7,137.93	7,075.93	7,137.93	48.65	245.30	-90.21	-1,645.31	-3,568.73	3,338.57	3,048.71	289.86	11.518	
8,400.00	7,137.49	7,075.49	7,137.49	50.77	245.28	-90.20	-1,645.31	-3,568.73	3,274.82	2,983.13	291.69	11.227	
8,500.00	7,137.06	7,075.06	7,137.06	52.95	245.27	-90.19	-1,645.31	-3,568.73	3,212.91	2,919.26	293.66	10.941	
8,600.00	7,136.62	7,074.62	7,136.62	55.20	245.25	-90.18	-1,645.31	-3,568.73	3,152.97	2,857.20	295.76	10.660	
8,700.00	7,136.19	7,074.19	7,136.19	57.51	245.24	-90.17	-1,645.31	-3,568.73	3,095.09	2,797.09	298.00	10.386	
8,800.00	7,135.76	7,073.76	7,135.76	59.85	245.22	-90.16	-1,645.31	-3,568.73	3,039.40	2,739.04	300.36	10.119	
8,900.00	7,135.32	7,073.32	7,135.32	62.24	245.21	-90.15	-1,645.31	-3,568.73	2,986.02	2,683.18	302.84	9.860	
9,000.00	7,134.89	7,072.89	7,134.89	64.67	245.19	-90.14	-1,645.31	-3,568.73	2,935.08	2,629.65	305.43	9.610	
9,100.00	7,134.45	7,072.45	7,134.45	67.13	245.18	-90.13	-1,645.31	-3,568.73	2,886.71	2,578.59	308.12	9.369	
9,200.00	7,134.02	7,072.02	7,134.02	69.62	245.16	-90.12	-1,645.31	-3,568.73	2,841.03	2,530.13	310.90	9.138	
9,300.00	7,133.59	7,071.59	7,133.59	72.14	245.15	-90.11	-1,645.31	-3,568.73	2,798.18	2,484.42	313.76	8.918	
9,400.00	7,133.15	7,071.15	7,133.15	74.68	245.13	-90.10	-1,645.31	-3,568.73	2,758.30	2,441.60	316.69	8.710	
9,500.00	7,132.72	7,070.72	7,132.72	77.24	245.12	-90.09	-1,645.31	-3,568.73	2,721.50	2,401.83	319.67	8.513	
9,600.00	7,132.29	7,070.29	7,132.29	79.83	245.10	-90.08	-1,645.31	-3,568.73	2,687.93	2,365.24	322.69	8.330	
9,700.00	7,131.85	7,069.85	7,131.85	82.42	245.09	-90.07	-1,645.31	-3,568.73	2,657.69	2,331.96	325.73	8.159	
9,800.00	7,131.42	7,069.42	7,131.42	85.04	245.07	-90.06	-1,645.31	-3,568.73	2,630.91	2,302.15	328.76	8.002	
9,900.00	7,130.98	7,068.98	7,130.98	87.67	245.06	-90.05	-1,645.31	-3,568.73	2,607.69	2,275.91	331.78	7.860	
10,000.00	7,130.55	7,068.55	7,130.55	90.31	245.04	-90.04	-1,645.31	-3,568.73	2,588.13	2,253.37	334.76	7.731	
10,100.00	7,130.12	7,068.12	7,130.12	92.97	245.02	-90.03	-1,645.31	-3,568.73	2,572.31	2,234.62	337.69	7.617	
10,200.00	7,129.68	7,067.68	7,129.68	95.63	245.01	-90.03	-1,645.31	-3,568.73	2,560.31	2,219.77	340.54	7.518	
10,300.00	7,129.25	7,067.25	7,129.25	98.31	244.99	-90.02	-1,645.31	-3,568.73	2,552.16	2,208.87	343.30	7.434	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,400.00	7,128.82	7,066.82	7,128.82	101.00	244.98	-90.01	-1,645.31	-3,568.73	2,547.92	2,201.98	345.95	7.365		
10,458.15	7,128.56	7,066.56	7,128.56	102.56	244.97	-90.00	-1,645.31	-3,568.73	2,547.26	2,199.83	347.43	7.332 CC		
10,500.00	7,128.38	7,066.38	7,128.38	103.69	244.96	-90.00	-1,645.31	-3,568.73	2,547.60	2,199.14	348.47	7.311 ES		
10,600.00	7,127.95	7,065.95	7,127.95	106.39	244.95	-89.99	-1,645.31	-3,568.73	2,551.21	2,200.36	350.85	7.272		
10,700.00	7,127.51	7,065.51	7,127.51	109.10	244.93	-89.98	-1,645.31	-3,568.73	2,558.72	2,205.63	353.08	7.247		
10,800.00	7,127.08	7,065.08	7,127.08	111.82	244.92	-89.97	-1,645.31	-3,568.73	2,570.10	2,214.94	355.15	7.237 SF		
10,900.00	7,126.65	7,064.65	7,126.65	114.54	244.90	-89.96	-1,645.31	-3,568.73	2,585.30	2,228.24	357.06	7.240		
11,000.00	7,126.21	7,064.21	7,126.21	117.27	244.89	-89.95	-1,645.31	-3,568.73	2,604.25	2,245.45	358.80	7.258		
11,100.00	7,125.78	7,063.78	7,125.78	120.01	244.87	-89.94	-1,645.31	-3,568.73	2,626.88	2,266.51	360.37	7.289		
11,200.00	7,125.35	7,063.35	7,125.35	122.75	244.86	-89.93	-1,645.31	-3,568.73	2,653.09	2,291.32	361.76	7.334		
11,300.00	7,124.91	7,062.91	7,124.91	125.49	244.84	-89.92	-1,645.31	-3,568.73	2,682.77	2,319.77	362.99	7.391		
11,400.00	7,124.48	7,062.48	7,124.48	128.24	244.83	-89.91	-1,645.31	-3,568.73	2,715.81	2,351.74	364.06	7.460		
11,500.00	7,124.04	7,062.04	7,124.04	131.00	244.81	-89.90	-1,645.31	-3,568.73	2,752.08	2,387.11	364.98	7.540		
11,600.00	7,123.61	7,061.61	7,123.61	133.75	244.80	-89.89	-1,645.31	-3,568.73	2,791.47	2,425.73	365.74	7.632		
11,700.00	7,123.18	7,061.18	7,123.18	136.52	244.78	-89.88	-1,645.31	-3,568.73	2,833.85	2,467.48	366.37	7.735		
11,800.00	7,122.74	7,060.74	7,122.74	139.28	244.77	-89.87	-1,645.31	-3,568.73	2,879.07	2,512.20	366.87	7.848		
11,900.00	7,122.31	7,060.31	7,122.31	142.05	244.75	-89.86	-1,645.31	-3,568.73	2,927.02	2,559.77	367.25	7.970		
12,000.00	7,121.88	7,059.88	7,121.88	144.82	244.74	-89.85	-1,645.31	-3,568.73	2,977.55	2,610.03	367.51	8.102		
12,100.00	7,121.44	7,059.44	7,121.44	147.59	244.72	-89.84	-1,645.31	-3,568.73	3,030.54	2,662.86	367.68	8.242		
12,200.00	7,121.01	7,059.01	7,121.01	150.37	244.71	-89.83	-1,645.31	-3,568.73	3,085.86	2,718.10	367.76	8.391		
12,300.00	7,120.57	7,058.57	7,120.57	153.15	244.69	-89.82	-1,645.31	-3,568.73	3,143.39	2,775.64	367.75	8.548		
12,400.00	7,120.14	7,058.14	7,120.14	155.93	244.68	-89.81	-1,645.31	-3,568.73	3,203.01	2,835.34	367.67	8.712		
12,500.00	7,119.71	7,057.71	7,119.71	158.72	244.66	-89.80	-1,645.31	-3,568.73	3,264.60	2,897.07	367.52	8.883		
12,600.00	7,119.27	7,057.27	7,119.27	161.50	244.65	-89.79	-1,645.31	-3,568.73	3,328.06	2,960.74	367.32	9.060		
12,700.00	7,118.84	7,056.84	7,118.84	164.29	244.63	-89.78	-1,645.31	-3,568.73	3,393.28	3,026.21	367.07	9.244		
12,800.00	7,118.41	7,056.41	7,118.41	167.08	244.62	-89.77	-1,645.31	-3,568.73	3,460.16	3,093.39	366.77	9.434		
12,900.00	7,117.97	7,055.97	7,117.97	169.88	244.60	-89.76	-1,645.31	-3,568.73	3,528.60	3,162.17	366.43	9.630		
13,000.00	7,117.54	7,055.54	7,117.54	172.67	244.59	-89.75	-1,645.31	-3,568.73	3,598.53	3,232.46	366.07	9.830		
13,100.00	7,117.10	7,055.10	7,117.10	175.47	244.57	-89.74	-1,645.31	-3,568.73	3,669.85	3,304.18	365.67	10.036		
13,200.00	7,116.67	7,054.67	7,116.67	178.27	244.56	-89.73	-1,645.31	-3,568.73	3,742.48	3,377.22	365.25	10.246		
13,300.00	7,116.24	7,054.24	7,116.24	181.07	244.54	-89.72	-1,645.31	-3,568.73	3,816.35	3,451.53	364.81	10.461		
13,400.00	7,115.80	7,053.80	7,115.80	183.87	244.53	-89.71	-1,645.31	-3,568.73	3,891.38	3,527.02	364.36	10.680		
13,500.00	7,115.37	7,053.37	7,115.37	186.67	244.51	-89.70	-1,645.31	-3,568.73	3,967.52	3,603.62	363.90	10.903		
13,600.00	7,114.93	7,052.93	7,114.93	189.47	244.49	-89.69	-1,645.31	-3,568.73	4,044.70	3,681.27	363.42	11.130		
13,700.00	7,114.50	7,052.50	7,114.50	192.28	244.48	-89.68	-1,645.31	-3,568.73	4,122.85	3,759.92	362.94	11.360		
13,800.00	7,114.07	7,052.07	7,114.07	195.09	244.46	-89.67	-1,645.31	-3,568.73	4,201.94	3,839.49	362.45	11.593		
13,900.00	7,113.63	7,051.63	7,113.63	197.89	244.45	-89.66	-1,645.31	-3,568.73	4,281.90	3,919.93	361.96	11.830		
14,000.00	7,113.20	7,051.20	7,113.20	200.70	244.43	-89.65	-1,645.31	-3,568.73	4,362.68	4,001.21	361.47	12.069		
14,100.00	7,112.77	7,050.77	7,112.77	203.51	244.42	-89.64	-1,645.31	-3,568.73	4,444.25	4,083.27	360.98	12.312		
14,200.00	7,112.33	7,050.33	7,112.33	206.32	244.40	-89.63	-1,645.31	-3,568.73	4,526.56	4,166.07	360.49	12.557		
14,300.00	7,111.90	7,049.90	7,111.90	209.13	244.39	-89.63	-1,645.31	-3,568.73	4,609.56	4,249.56	360.00	12.804		
14,400.00	7,111.46	7,049.46	7,111.46	211.95	244.37	-89.62	-1,645.31	-3,568.73	4,693.23	4,333.71	359.52	13.054		
14,500.00	7,111.03	7,049.03	7,111.03	214.76	244.36	-89.61	-1,645.31	-3,568.73	4,777.53	4,418.49	359.04	13.306		
14,600.00	7,110.60	7,048.60	7,110.60	217.58	244.34	-89.60	-1,645.31	-3,568.73	4,862.42	4,503.85	358.57	13.561		
14,700.00	7,110.16	7,048.16	7,110.16	220.39	244.33	-89.59	-1,645.31	-3,568.73	4,947.88	4,589.78	358.10	13.817		
14,800.00	7,109.73	7,047.73	7,109.73	223.21	244.31	-89.58	-1,645.31	-3,568.73	5,033.87	4,676.23	357.63	14.075		
14,900.00	7,109.30	7,047.30	7,109.30	226.03	244.30	-89.57	-1,645.31	-3,568.73	5,120.37	4,763.19	357.18	14.336		
14,969.16	7,109.00	7,047.00	7,109.00	227.97	244.29	-89.56	-1,645.31	-3,568.73	5,180.48	4,823.61	356.87	14.517		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
0.00	0.00	0.00	60.65	3.28	3.28	-92.72	-433.77	-9,145.64	9,156.12					
100.00	100.00	186.36	212.34	3.28	3.34	-92.71	-432.32	-9,144.06	9,154.97	9,148.34	6.62	1,382.276		
200.00	200.00	289.53	315.50	3.34	3.45	-92.70	-431.82	-9,142.75	9,153.67	9,146.88	6.79	1,348.579		
300.00	300.00	369.28	395.24	3.44	3.58	-92.70	-431.65	-9,141.84	9,152.52	9,145.50	7.02	1,303.999		
400.00	400.00	465.35	491.31	3.60	3.76	-92.70	-431.41	-9,140.87	9,151.50	9,144.14	7.36	1,242.713		
500.00	500.00	547.77	573.73	3.81	3.95	-92.70	-431.19	-9,140.12	9,150.58	9,142.83	7.75	1,179.985		
600.00	600.00	623.87	649.83	4.05	4.14	-92.70	-431.31	-9,139.59	9,149.90	9,141.71	8.19	1,117.428		
700.00	699.98	738.94	764.90	4.32	4.47	-83.58	-431.46	-9,139.02	9,149.23	9,140.45	8.78	1,041.771		
800.00	799.84	850.05	876.00	4.62	4.81	-83.64	-431.31	-9,138.17	9,147.88	9,138.45	9.42	970.916		
900.00	899.45	930.73	956.67	4.94	5.08	-83.72	-431.19	-9,137.57	9,146.17	9,136.17	10.00	914.395		
1,000.00	998.70	984.00	1,009.95	5.28	5.26	-83.80	-431.24	-9,137.28	9,144.37	9,133.85	10.52	869.389		
1,100.00	1,097.50	984.00	1,009.95	5.64	5.26	-83.81	-431.24	-9,137.28	9,143.11	9,132.23	10.87	840.991		
1,200.00	1,196.18	1,049.16	1,075.10	6.00	5.47	-83.88	-431.25	-9,137.56	9,142.04	9,130.58	11.46	797.983		
1,251.28	1,246.79	1,063.54	1,089.48	6.20	5.52	-83.89	-431.21	-9,137.78	9,141.93	9,130.24	11.70	781.389		
1,300.00	1,294.87	1,112.00	1,137.93	6.38	5.68	-83.94	-431.01	-9,138.95	9,142.26	9,130.21	12.05	758.639		
1,400.00	1,393.55	1,112.00	1,137.93	6.77	5.68	-83.94	-431.01	-9,138.95	9,142.82	9,130.37	12.44	734.725		
1,500.00	1,492.23	1,112.00	1,137.93	7.17	5.68	-83.94	-431.01	-9,138.95	9,144.47	9,131.62	12.85	711.891		
1,600.00	1,590.91	1,112.00	1,137.93	7.58	5.68	-83.94	-431.01	-9,138.95	9,147.21	9,133.96	13.25	690.172		
1,700.00	1,689.60	1,180.00	1,205.87	8.00	5.91	-84.01	-430.69	-9,141.81	9,150.03	9,136.14	13.89	658.533		
1,800.00	1,788.28	1,241.00	1,266.74	8.42	6.12	-84.07	-430.50	-9,145.66	9,154.38	9,139.86	14.52	630.416		
1,900.00	1,886.96	1,241.00	1,266.74	8.84	6.12	-84.07	-430.50	-9,145.66	9,159.01	9,144.06	14.94	612.949		
2,000.00	1,985.64	1,241.00	1,266.74	9.27	6.12	-84.07	-430.50	-9,145.66	9,164.72	9,149.35	15.37	596.417		
2,100.00	2,084.33	1,241.00	1,266.74	9.71	6.12	-84.07	-430.50	-9,145.66	9,171.52	9,155.73	15.79	580.777		
2,200.00	2,183.01	1,299.53	1,325.07	10.15	6.33	-84.12	-430.35	-9,150.55	9,178.61	9,162.19	16.43	558.757		
2,300.00	2,281.69	1,322.72	1,348.15	10.59	6.41	-84.14	-430.29	-9,152.83	9,186.83	9,169.89	16.94	542.380		
2,400.00	2,380.38	1,369.00	1,394.14	11.03	6.58	-84.19	-430.18	-9,157.93	9,196.00	9,178.46	17.53	524.458		
2,500.00	2,479.06	1,369.00	1,394.14	11.47	6.58	-84.19	-430.18	-9,157.93	9,205.75	9,187.79	17.96	512.506		
2,600.00	2,577.74	1,369.00	1,394.14	11.92	6.58	-84.19	-430.18	-9,157.93	9,216.58	9,198.19	18.39	501.189		
2,700.00	2,676.42	1,419.26	1,444.00	12.36	6.77	-84.24	-430.18	-9,164.26	9,227.94	9,208.94	19.00	485.571		
2,800.00	2,775.11	1,444.29	1,468.79	12.81	6.86	-84.26	-430.29	-9,167.71	9,240.24	9,220.72	19.53	473.248		
2,900.00	2,873.79	1,498.00	1,521.90	13.26	7.07	-84.31	-430.74	-9,175.74	9,253.52	9,233.36	20.16	459.043		
3,000.00	2,972.47	1,498.00	1,521.90	13.72	7.07	-84.31	-430.74	-9,175.74	9,267.24	9,246.66	20.58	450.275		
3,100.00	3,071.15	1,498.00	1,521.90	14.17	7.07	-84.31	-430.74	-9,175.74	9,282.02	9,261.02	21.00	441.956		
3,200.00	3,169.84	1,498.00	1,521.90	14.62	7.07	-84.31	-430.74	-9,175.74	9,297.86	9,276.44	21.42	434.061		
3,300.00	3,268.52	1,564.55	1,587.48	15.08	7.34	-84.38	-431.55	-9,186.98	9,313.74	9,291.64	22.10	421.345		
3,400.00	3,367.20	1,626.00	1,647.80	15.53	7.60	-84.44	-432.42	-9,198.67	9,331.18	9,308.41	22.77	409.771		
3,500.00	3,465.89	1,626.00	1,647.80	15.99	7.60	-84.44	-432.42	-9,198.67	9,348.81	9,325.62	23.18	403.238		
3,600.00	3,564.57	1,626.00	1,647.80	16.44	7.60	-84.44	-432.42	-9,198.67	9,367.47	9,343.87	23.59	397.029		
3,700.00	3,663.25	1,626.00	1,647.80	16.90	7.60	-84.44	-432.42	-9,198.67	9,387.16	9,363.16	24.00	391.128		
3,800.00	3,761.93	1,677.08	1,697.74	17.36	7.84	-84.49	-433.26	-9,209.38	9,407.25	9,382.63	24.62	382.071		
3,900.00	3,860.62	1,698.65	1,718.77	17.82	7.94	-84.51	-433.67	-9,214.18	9,428.34	9,403.23	25.12	375.393		
4,000.00	3,959.30	1,754.00	1,772.54	18.28	8.19	-84.57	-434.83	-9,227.25	9,450.50	9,424.74	25.76	366.910		
4,100.00	4,057.98	1,754.00	1,772.54	18.74	8.19	-84.57	-434.83	-9,227.25	9,472.94	9,446.78	26.15	362.226		
4,200.00	4,156.67	1,754.00	1,772.54	19.20	8.19	-84.57	-434.83	-9,227.25	9,496.37	9,469.83	26.54	357.772		
4,300.00	4,255.35	1,754.00	1,772.54	19.66	8.19	-84.57	-434.83	-9,227.25	9,520.80	9,493.87	26.93	353.535		
4,400.00	4,354.03	1,821.71	1,838.00	20.12	8.54	-84.64	-436.23	-9,244.49	9,545.40	9,517.77	27.63	345.529		
4,500.00	4,452.71	1,883.00	1,896.99	20.58	8.86	-84.70	-437.24	-9,261.09	9,571.17	9,542.88	28.29	338.291		
4,600.00	4,551.40	1,883.00	1,896.99	21.04	8.86	-84.70	-437.24	-9,261.09	9,597.25	9,568.58	28.67	334.736		
4,700.00	4,650.08	1,883.00	1,896.99	21.50	8.86	-84.70	-437.24	-9,261.09	9,624.30	9,595.26	29.05	331.355		
4,800.00	4,748.76	1,938.10	1,949.81	21.96	9.18	-84.75	-438.06	-9,276.76	9,651.82	9,622.14	29.68	325.162		
4,900.00	4,847.44	1,968.60	1,978.96	22.42	9.35	-84.78	-438.55	-9,285.70	9,680.10	9,649.90	30.20	320.529		
5,000.00	4,946.13	2,011.00	2,019.39	22.89	9.60	-84.82	-439.25	-9,298.46	9,709.04	9,678.27	30.77	315.485		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,044.81	2,011.00	2,019.39	23.35	9.60	-84.82	-439.25	-9,298.46	9,738.64	9,707.51	31.14	312.783		
5,200.00	5,143.49	2,080.43	2,085.40	23.81	10.03	-84.88	-440.42	-9,319.93	9,768.64	9,736.79	31.85	306.732		
5,300.00	5,242.18	5,300.00	2,190.72	24.27	32.04	-84.98	-442.11	-9,354.83	9,799.12	9,751.70	47.42	206.653		
5,400.00	5,340.86	2,432.75	2,420.74	24.74	12.37	-85.19	-445.55	-9,427.83	9,828.02	9,793.60	34.42	285.514		
5,500.00	5,439.54	2,479.38	2,465.22	25.20	12.69	-85.24	-446.24	-9,441.81	9,857.05	9,822.02	35.03	281.365		
5,600.00	5,538.22	2,525.00	2,508.67	25.66	13.01	-85.28	-446.84	-9,455.71	9,886.57	9,850.93	35.64	277.423		
5,700.00	5,636.91	2,585.93	2,566.61	26.13	13.45	-85.33	-447.42	-9,474.55	9,916.50	9,880.17	36.33	272.973		
5,800.00	5,735.59	2,653.00	2,630.30	26.59	13.94	-85.38	-447.69	-9,495.57	9,946.78	9,909.72	37.05	268.449		
5,900.00	5,834.27	2,653.00	2,630.30	27.06	13.94	-85.38	-447.69	-9,495.57	9,977.61	9,940.21	37.40	266.780		
7,200.00	7,028.20	6,880.46	6,732.49	33.02	39.18	-21.19	-470.32	-10,302.33	9,991.07	9,927.89	63.19	158.120		
7,300.00	7,078.04	6,921.06	6,773.06	33.68	39.32	-23.04	-471.11	-10,303.45	9,907.91	9,844.30	63.60	155.773		
7,400.00	7,113.97	6,949.98	6,801.97	34.52	39.43	-27.76	-471.73	-10,304.27	9,817.35	9,753.43	63.92	153.585		
7,500.00	7,135.09	6,968.00	6,819.97	35.53	39.49	-40.17	-472.14	-10,304.79	9,721.57	9,657.43	64.14	151.567		
7,600.00	7,140.96	6,974.67	6,826.63	36.68	39.51	-76.56	-472.30	-10,304.99	9,622.91	9,558.64	64.27	149.730		
7,700.00	7,140.53	6,976.62	6,828.59	37.99	39.52	-76.65	-472.34	-10,305.04	9,523.67	9,459.30	64.36	147.973		
7,800.00	7,140.09	6,978.59	6,830.55	39.45	39.53	-76.75	-472.39	-10,305.10	9,424.43	9,359.98	64.46	146.207		
7,900.00	7,139.66	6,980.56	6,832.52	41.06	39.53	-76.84	-472.44	-10,305.16	9,325.22	9,260.66	64.57	144.431		
8,000.00	7,139.23	6,982.54	6,834.50	42.80	39.54	-76.93	-472.49	-10,305.22	9,226.02	9,161.35	64.68	142.646		
8,100.00	7,138.79	6,984.53	6,836.49	44.65	39.55	-77.03	-472.53	-10,305.28	9,126.84	9,062.04	64.80	140.852		
8,200.00	7,138.36	6,986.52	6,838.48	46.60	39.56	-77.13	-472.58	-10,305.34	9,027.68	8,962.75	64.92	139.048		
8,300.00	7,137.93	6,988.53	6,840.49	48.65	39.56	-77.22	-472.63	-10,305.40	8,928.53	8,863.47	65.06	137.235		
8,400.00	7,137.49	6,990.54	6,842.50	50.77	39.57	-77.32	-472.68	-10,305.46	8,829.41	8,764.20	65.20	135.413		
8,500.00	7,137.06	6,992.57	6,844.52	52.95	39.58	-77.41	-472.73	-10,305.52	8,730.30	8,664.94	65.36	133.581		
8,600.00	7,136.62	6,994.60	6,846.55	55.20	39.58	-77.51	-472.78	-10,305.58	8,631.21	8,565.70	65.52	131.741		
8,700.00	7,136.19	6,996.64	6,848.59	57.51	39.59	-77.61	-472.83	-10,305.64	8,532.15	8,466.46	65.69	129.891		
8,800.00	7,135.76	6,998.69	6,850.63	59.85	39.60	-77.71	-472.88	-10,305.70	8,433.10	8,367.23	65.87	128.033		
8,900.00	7,135.32	7,000.74	6,852.69	62.24	39.61	-77.81	-472.93	-10,305.76	8,334.08	8,268.02	66.06	126.165		
9,000.00	7,134.89	7,002.81	6,854.75	64.67	39.61	-77.91	-472.98	-10,305.82	8,235.08	8,168.82	66.26	124.289		
9,100.00	7,134.45	7,004.88	6,856.83	67.13	39.62	-78.01	-473.04	-10,305.89	8,136.10	8,069.63	66.47	122.405		
9,200.00	7,134.02	7,006.97	6,858.91	69.62	39.63	-78.11	-473.09	-10,305.95	8,037.15	7,970.46	66.69	120.513		
9,300.00	7,133.59	7,009.06	6,861.00	72.14	39.64	-78.21	-473.14	-10,306.01	7,938.22	7,871.30	66.93	118.612		
9,400.00	7,133.15	7,011.16	6,863.10	74.68	39.64	-78.31	-473.20	-10,306.08	7,839.32	7,772.15	67.17	116.703		
9,500.00	7,132.72	7,013.27	6,865.21	77.24	39.65	-78.41	-473.25	-10,306.14	7,740.45	7,673.02	67.43	114.787		
9,600.00	7,132.29	7,015.39	6,867.33	79.83	39.66	-78.51	-473.30	-10,306.21	7,641.61	7,573.90	67.71	112.863		
9,700.00	7,131.85	7,019.00	6,870.93	82.42	39.67	-78.69	-473.40	-10,306.32	7,542.80	7,474.80	68.00	110.924		
9,800.00	7,131.42	7,020.12	6,872.05	85.04	39.68	-78.74	-473.43	-10,306.35	7,444.01	7,375.71	68.30	108.992		
9,900.00	7,130.98	7,023.74	6,875.67	87.67	39.69	-78.92	-473.52	-10,306.46	7,345.26	7,276.64	68.62	107.040		
10,000.00	7,130.55	7,027.35	6,879.28	90.31	39.70	-79.09	-473.61	-10,306.57	7,246.54	7,177.58	68.96	105.083		
10,100.00	7,130.12	7,030.94	6,882.86	92.97	39.72	-79.27	-473.70	-10,306.68	7,147.86	7,078.54	69.32	103.120		
10,200.00	7,129.68	7,034.51	6,886.43	95.63	39.73	-79.44	-473.79	-10,306.79	7,049.21	6,979.52	69.69	101.152		
10,300.00	7,129.25	7,038.06	6,889.98	98.31	39.74	-79.61	-473.88	-10,306.89	6,950.60	6,880.52	70.08	99.180		
10,400.00	7,128.82	7,041.60	6,893.51	101.00	39.75	-79.79	-473.96	-10,307.00	6,852.03	6,781.54	70.49	97.204		
10,500.00	7,128.38	7,045.12	6,897.03	103.69	39.77	-79.96	-474.04	-10,307.11	6,753.50	6,682.58	70.92	95.224		
10,600.00	7,127.95	7,048.62	6,900.52	106.39	39.78	-80.13	-474.13	-10,307.21	6,655.01	6,583.63	71.37	93.241		
10,700.00	7,127.51	7,052.10	6,904.00	109.10	39.79	-80.30	-474.21	-10,307.32	6,556.56	6,484.72	71.85	91.256		
10,800.00	7,127.08	7,055.56	6,907.47	111.82	39.80	-80.47	-474.28	-10,307.42	6,458.17	6,385.82	72.34	89.269		
10,900.00	7,126.65	7,059.01	6,910.91	114.54	39.82	-80.64	-474.36	-10,307.52	6,359.82	6,286.95	72.87	87.281		
11,000.00	7,126.21	7,062.44	6,914.34	117.27	39.83	-80.80	-474.44	-10,307.63	6,261.52	6,188.10	73.41	85.292		
11,100.00	7,125.78	7,065.85	6,917.75	120.01	39.84	-80.97	-474.51	-10,307.73	6,163.27	6,089.29	73.99	83.303		
11,200.00	7,125.35	7,069.24	6,921.14	122.75	39.85	-81.14	-474.58	-10,307.83	6,065.08	5,990.49	74.59	81.315		
11,300.00	7,124.91	7,072.62	6,924.52	125.49	39.87	-81.30	-474.65	-10,307.93	5,966.95	5,891.73	75.22	79.328		
11,400.00	7,124.48	7,075.98	6,927.88	128.24	39.88	-81.47	-474.72	-10,308.03	5,868.88	5,793.00	75.88	77.344		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	Centre +E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
11,500.00	7,124.04	7,079.33	6,931.22	131.00	39.89	-81.63	-474.79	-10,308.13	5,770.88	5,694.30	76.58	75.362		
11,600.00	7,123.61	7,082.66	6,934.55	133.75	39.90	-81.80	-474.85	-10,308.23	5,672.94	5,595.64	77.30	73.385		
11,700.00	7,123.18	7,085.97	6,937.86	136.52	39.91	-81.96	-474.92	-10,308.32	5,575.08	5,497.01	78.07	71.413		
11,800.00	7,122.74	7,089.27	6,941.15	139.28	39.93	-82.12	-474.98	-10,308.42	5,477.29	5,398.41	78.87	69.446		
11,900.00	7,122.31	7,092.55	6,944.43	142.05	39.94	-82.28	-475.04	-10,308.52	5,379.58	5,299.86	79.71	67.486		
12,000.00	7,121.88	7,095.81	6,947.69	144.82	39.95	-82.44	-475.10	-10,308.61	5,281.95	5,201.35	80.60	65.533		
12,100.00	7,121.44	7,099.06	6,950.94	147.59	39.96	-82.60	-475.16	-10,308.71	5,184.41	5,102.89	81.53	63.590		
12,200.00	7,121.01	7,102.29	6,954.17	150.37	39.97	-82.76	-475.22	-10,308.80	5,086.97	5,004.47	82.51	61.656		
12,300.00	7,120.57	7,105.51	6,957.38	153.15	39.98	-82.92	-475.28	-10,308.90	4,989.63	4,906.10	83.53	59.733		
12,400.00	7,120.14	7,108.71	6,960.58	155.93	40.00	-83.08	-475.33	-10,308.99	4,892.39	4,807.78	84.61	57.821		
12,500.00	7,119.71	7,111.90	6,963.76	158.72	40.01	-83.24	-475.38	-10,309.08	4,795.27	4,709.52	85.75	55.923		
12,600.00	7,119.27	7,115.07	6,966.93	161.50	40.02	-83.39	-475.44	-10,309.18	4,698.26	4,611.32	86.94	54.039		
12,700.00	7,118.84	7,118.22	6,970.09	164.29	40.03	-83.55	-475.49	-10,309.27	4,601.38	4,513.18	88.20	52.171		
12,800.00	7,118.41	7,121.36	6,973.23	167.08	40.04	-83.71	-475.54	-10,309.36	4,504.63	4,415.11	89.52	50.319		
12,900.00	7,117.97	7,124.49	6,976.35	169.88	40.05	-83.86	-475.59	-10,309.45	4,408.03	4,317.12	90.92	48.485		
13,000.00	7,117.54	7,127.60	6,979.46	172.67	40.06	-84.01	-475.63	-10,309.54	4,311.58	4,219.20	92.38	46.670		
13,100.00	7,117.10	7,130.69	6,982.55	175.47	40.08	-84.17	-475.68	-10,309.63	4,215.30	4,121.36	93.93	44.875		
13,200.00	7,116.67	7,133.77	6,985.63	178.27	40.09	-84.32	-475.73	-10,309.72	4,119.19	4,023.62	95.57	43.102		
13,300.00	7,116.24	7,136.84	6,988.70	181.07	40.10	-84.47	-475.77	-10,309.80	4,023.27	3,925.97	97.29	41.352		
13,400.00	7,115.80	7,139.89	6,991.75	183.87	40.11	-84.62	-475.81	-10,309.89	3,927.54	3,828.43	99.12	39.626		
13,500.00	7,115.37	7,142.93	6,994.78	186.67	40.12	-84.77	-475.85	-10,309.98	3,832.04	3,731.00	101.04	37.925		
13,600.00	7,114.93	7,145.95	6,997.80	189.47	40.13	-84.92	-475.89	-10,310.06	3,736.77	3,633.69	103.08	36.252		
13,700.00	7,114.50	7,149.13	7,000.97	192.28	40.14	-85.08	-475.94	-10,310.16	3,641.75	3,536.51	105.24	34.606		
13,800.00	7,114.07	7,152.34	7,004.19	195.09	40.15	-85.24	-475.98	-10,310.25	3,547.00	3,439.48	107.52	32.989		
13,900.00	7,113.63	7,155.51	7,007.35	197.89	40.17	-85.40	-476.02	-10,310.34	3,452.55	3,342.61	109.94	31.403		
14,000.00	7,113.20	7,158.62	7,010.47	200.70	40.18	-85.55	-476.06	-10,310.42	3,358.41	3,245.90	112.51	29.850		
14,100.00	7,112.77	7,161.69	7,013.53	203.51	40.19	-85.71	-476.10	-10,310.51	3,264.62	3,149.39	115.24	28.329		
14,200.00	7,112.33	7,164.71	7,016.56	206.32	40.20	-85.86	-476.14	-10,310.59	3,171.21	3,053.08	118.14	26.844		
14,300.00	7,111.90	7,167.69	7,019.53	209.13	40.21	-86.01	-476.17	-10,310.67	3,078.21	2,956.99	121.22	25.394		
14,400.00	7,111.46	7,170.63	7,022.47	211.95	40.22	-86.15	-476.21	-10,310.75	2,985.66	2,861.16	124.50	23.981		
14,500.00	7,111.03	7,173.52	7,025.35	214.76	40.23	-86.30	-476.24	-10,310.83	2,893.61	2,765.61	128.00	22.607		
14,600.00	7,110.60	7,176.36	7,028.20	217.58	40.24	-86.44	-476.28	-10,310.91	2,802.09	2,670.36	131.73	21.272		
14,700.00	7,110.16	7,179.17	7,031.01	220.39	40.25	-86.58	-476.31	-10,310.98	2,711.18	2,575.46	135.71	19.977		
14,800.00	7,109.73	7,181.94	7,033.77	223.21	40.26	-86.72	-476.35	-10,311.06	2,620.92	2,480.95	139.97	18.725		
14,900.00	7,109.30	7,184.66	7,036.50	226.03	40.27	-86.85	-476.38	-10,311.13	2,531.39	2,386.87	144.52	17.516		
14,969.16	7,109.00	7,186.53	7,038.36	227.97	40.28	-86.95	-476.40	-10,311.18	2,469.94	2,322.09	147.85	16.705 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-92.37	-379.37	-9,148.62	9,156.56				
100.00	100.00	61.00	100.00	3.28	3.45	-92.37	-379.37	-9,148.62	9,156.48	9,149.75	6.73	1,359.897	
200.00	200.00	161.00	200.00	3.34	5.08	-92.37	-379.37	-9,148.62	9,156.48	9,148.07	8.41	1,088.262	
300.00	300.00	261.00	300.00	3.44	8.06	-92.37	-379.37	-9,148.62	9,156.48	9,144.97	11.51	795.649	
400.00	400.00	361.00	400.00	3.60	11.34	-92.37	-379.37	-9,148.62	9,156.48	9,141.53	14.94	612.679	
500.00	500.00	461.00	500.00	3.81	14.72	-92.37	-379.37	-9,148.62	9,156.48	9,137.95	18.52	494.299	
600.00	600.00	561.00	600.00	4.05	18.14	-92.37	-379.37	-9,148.62	9,156.48	9,134.29	22.18	412.745	
700.00	699.98	660.98	699.98	4.32	21.58	-83.24	-379.37	-9,148.62	9,156.27	9,130.38	25.90	353.561	
800.00	799.84	760.84	799.84	4.62	25.03	-83.28	-379.37	-9,148.62	9,155.66	9,126.01	29.64	308.851	
900.00	899.45	860.45	899.45	4.94	28.48	-83.36	-379.37	-9,148.62	9,154.64	9,121.23	33.41	273.989	
1,000.00	998.70	959.70	998.70	5.28	31.93	-83.46	-379.37	-9,148.62	9,153.23	9,116.04	37.19	246.104	
1,100.00	1,097.50	1,058.50	1,097.50	5.64	35.36	-83.58	-379.37	-9,148.62	9,151.47	9,110.49	40.98	223.326	
1,200.00	1,196.18	1,157.18	1,196.18	6.00	38.79	-83.68	-379.37	-9,148.62	9,149.65	9,104.87	44.78	204.330	
1,300.00	1,294.87	1,255.87	1,294.87	6.38	42.22	-83.78	-379.37	-9,148.62	9,147.86	9,099.27	48.59	188.249	
1,400.00	1,393.55	1,354.55	1,393.55	6.77	45.66	-83.88	-379.37	-9,148.62	9,146.10	9,093.67	52.42	174.468	
1,500.00	1,492.23	1,453.23	1,492.23	7.17	49.10	-83.98	-379.37	-9,148.62	9,144.36	9,088.10	56.26	162.534	
1,600.00	1,590.91	1,551.91	1,590.91	7.58	52.53	-84.08	-379.37	-9,148.62	9,142.66	9,082.55	60.11	152.102	
1,700.00	1,689.60	1,650.60	1,689.60	8.00	55.97	-84.18	-379.37	-9,148.62	9,140.98	9,077.02	63.96	142.910	
1,800.00	1,788.28	1,749.28	1,788.28	8.42	59.41	-84.28	-379.37	-9,148.62	9,139.33	9,071.51	67.82	134.751	
1,900.00	1,886.96	1,847.96	1,886.96	8.84	62.85	-84.37	-379.37	-9,148.62	9,137.71	9,066.02	71.69	127.461	
2,000.00	1,985.64	1,946.64	1,985.64	9.27	66.29	-84.47	-379.37	-9,148.62	9,136.12	9,060.56	75.56	120.911	
2,100.00	2,084.33	2,045.33	2,084.33	9.71	69.73	-84.57	-379.37	-9,148.62	9,134.55	9,055.12	79.44	114.994	
2,200.00	2,183.01	2,144.01	2,183.01	10.15	73.18	-84.67	-379.37	-9,148.62	9,133.02	9,049.70	83.31	109.623	
2,300.00	2,281.69	2,242.69	2,281.69	10.59	76.62	-84.77	-379.37	-9,148.62	9,131.51	9,044.32	87.19	104.726	
2,400.00	2,380.38	2,341.38	2,380.38	11.03	80.06	-84.87	-379.37	-9,148.62	9,130.03	9,038.95	91.08	100.244	
2,500.00	2,479.06	2,440.06	2,479.06	11.47	83.50	-84.97	-379.37	-9,148.62	9,128.58	9,033.62	94.96	96.127	
2,600.00	2,577.74	2,538.74	2,577.74	11.92	86.94	-85.07	-379.37	-9,148.62	9,127.16	9,028.31	98.85	92.332	
2,700.00	2,676.42	2,637.42	2,676.42	12.36	90.39	-85.17	-379.37	-9,148.62	9,125.76	9,023.02	102.74	88.822	
2,800.00	2,775.11	2,736.11	2,775.11	12.81	93.83	-85.27	-379.37	-9,148.62	9,124.40	9,017.77	106.63	85.568	
2,900.00	2,873.79	2,834.79	2,873.79	13.26	97.27	-85.37	-379.37	-9,148.62	9,123.06	9,012.54	110.53	82.542	
3,000.00	2,972.47	2,933.47	2,972.47	13.72	100.72	-85.47	-379.37	-9,148.62	9,121.75	9,007.33	114.42	79.721	
3,100.00	3,071.15	3,032.15	3,071.15	14.17	104.16	-85.57	-379.37	-9,148.62	9,120.48	9,002.16	118.32	77.086	
3,200.00	3,169.84	3,130.84	3,169.84	14.62	107.60	-85.67	-379.37	-9,148.62	9,119.22	8,997.01	122.21	74.618	
3,300.00	3,268.52	3,229.52	3,268.52	15.08	111.05	-85.77	-379.37	-9,148.62	9,118.00	8,991.89	126.11	72.302	
3,400.00	3,367.20	3,328.20	3,367.20	15.53	114.49	-85.87	-379.37	-9,148.62	9,116.81	8,986.80	130.01	70.124	
3,500.00	3,465.89	3,426.89	3,465.89	15.99	117.93	-85.97	-379.37	-9,148.62	9,115.64	8,981.73	133.91	68.074	
3,600.00	3,564.57	3,525.57	3,564.57	16.44	121.38	-86.07	-379.37	-9,148.62	9,114.50	8,976.70	137.81	66.139	
3,700.00	3,663.25	3,624.25	3,663.25	16.90	124.82	-86.17	-379.37	-9,148.62	9,113.40	8,971.69	141.71	64.310	
3,800.00	3,761.93	3,722.93	3,761.93	17.36	128.26	-86.27	-379.37	-9,148.62	9,112.32	8,966.71	145.61	62.580	
3,900.00	3,860.62	3,821.62	3,860.62	17.82	131.71	-86.37	-379.37	-9,148.62	9,111.27	8,961.75	149.51	60.939	
4,000.00	3,959.30	3,920.30	3,959.30	18.28	135.15	-86.47	-379.37	-9,148.62	9,110.24	8,956.83	153.42	59.382	
4,100.00	4,057.98	4,018.98	4,057.98	18.74	138.60	-86.57	-379.37	-9,148.62	9,109.25	8,951.93	157.32	57.903	
4,200.00	4,156.67	4,117.67	4,156.67	19.20	142.04	-86.67	-379.37	-9,148.62	9,108.28	8,947.06	161.22	56.495	
4,300.00	4,255.35	4,216.35	4,255.35	19.66	145.48	-86.77	-379.37	-9,148.62	9,107.35	8,942.22	165.13	55.153	
4,400.00	4,354.03	4,315.03	4,354.03	20.12	148.93	-86.87	-379.37	-9,148.62	9,106.44	8,937.41	169.03	53.874	
4,500.00	4,452.71	4,413.71	4,452.71	20.58	152.37	-86.98	-379.37	-9,148.62	9,105.56	8,932.62	172.94	52.652	
4,600.00	4,551.40	4,512.40	4,551.40	21.04	155.82	-87.08	-379.37	-9,148.62	9,104.71	8,927.87	176.84	51.485	
4,700.00	4,650.08	4,611.08	4,650.08	21.50	159.26	-87.18	-379.37	-9,148.62	9,103.89	8,923.14	180.75	50.368	
4,800.00	4,748.76	4,709.76	4,748.76	21.96	162.71	-87.28	-379.37	-9,148.62	9,103.09	8,918.44	184.65	49.298	
4,900.00	4,847.44	4,808.44	4,847.44	22.42	166.15	-87.38	-379.37	-9,148.62	9,102.33	8,913.77	188.56	48.273	
5,000.00	4,946.13	4,907.13	4,946.13	22.89	169.59	-87.48	-379.37	-9,148.62	9,101.59	8,909.12	192.47	47.289	
5,100.00	5,044.81	5,005.81	5,044.81	23.35	173.04	-87.58	-379.37	-9,148.62	9,100.89	8,904.51	196.37	46.344	

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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 Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	5,143.49	5,104.49	5,143.49	23.81	176.48	-87.68	-379.37	-9,148.62	9,100.21	8,899.92	200.28	45.437		
5,300.00	5,242.18	5,203.18	5,242.18	24.27	179.93	-87.78	-379.37	-9,148.62	9,099.56	8,895.37	204.19	44.564		
5,400.00	5,340.86	5,301.86	5,340.86	24.74	183.37	-87.88	-379.37	-9,148.62	9,098.94	8,890.84	208.10	43.724		
5,500.00	5,439.54	5,400.54	5,439.54	25.20	186.82	-87.98	-379.37	-9,148.62	9,098.34	8,886.34	212.01	42.916		
5,600.00	5,538.22	5,500.78	5,538.22	25.66	190.32	-88.08	-379.37	-9,148.62	9,097.78	8,881.81	215.97	42.126		
5,700.00	5,636.91	5,602.09	5,636.91	26.13	193.85	-88.18	-379.37	-9,148.62	9,097.24	8,877.28	219.97	41.357		
5,800.00	5,735.59	5,703.41	5,735.59	26.59	197.39	-88.28	-379.37	-9,148.62	9,096.74	8,872.77	223.97	40.616		
5,900.00	5,834.27	5,804.73	5,834.27	27.06	200.92	-88.38	-379.37	-9,148.62	9,096.26	8,868.29	227.97	39.901		
6,000.00	5,932.95	5,906.05	5,932.95	27.52	204.46	-88.48	-379.37	-9,148.62	9,095.81	8,863.84	231.97	39.211		
6,100.00	6,031.64	6,007.36	6,031.64	27.98	208.00	-88.58	-379.37	-9,148.62	9,095.39	8,859.42	235.97	38.545		
6,200.00	6,130.32	6,108.68	6,130.32	28.45	211.53	-88.68	-379.37	-9,148.62	9,095.00	8,855.03	239.97	37.900		
6,300.00	6,229.00	6,210.00	6,229.00	28.91	215.07	-88.78	-379.37	-9,148.62	9,094.64	8,850.67	243.97	37.277		
6,400.00	6,327.69	6,288.69	6,327.69	29.38	217.82	-88.88	-379.37	-9,148.62	9,094.30	8,847.12	247.18	36.792		
6,500.00	6,426.37	6,387.37	6,426.37	29.84	221.26	-88.98	-379.37	-9,148.62	9,094.00	8,842.91	251.09	36.218		
6,600.00	6,525.05	6,486.05	6,525.05	30.31	224.71	-89.08	-379.37	-9,148.62	9,093.72	8,838.72	255.00	35.661		
6,700.00	6,623.18	6,584.18	6,623.18	30.77	228.13	-49.14	-379.37	-9,148.62	9,085.74	8,826.85	258.89	35.095		
6,800.00	6,718.58	6,679.58	6,718.58	31.22	231.46	-33.14	-379.37	-9,148.62	9,062.41	8,799.74	262.67	34.501		
6,900.00	6,808.91	6,769.91	6,808.91	31.66	234.62	-26.36	-379.37	-9,148.62	9,024.31	8,758.06	266.24	33.895		
7,000.00	6,891.95	6,852.95	6,891.95	32.07	237.51	-23.30	-379.37	-9,148.62	8,972.38	8,702.85	269.52	33.290		
7,100.00	6,965.65	6,926.65	6,965.65	32.51	240.09	-22.27	-379.37	-9,148.62	8,907.90	8,635.47	272.44	32.697		
7,200.00	7,028.20	6,989.20	7,028.20	33.02	242.27	-22.86	-379.37	-9,148.62	8,832.47	8,557.56	274.91	32.128		
7,300.00	7,078.04	7,039.04	7,078.04	33.68	244.01	-25.43	-379.37	-9,148.62	8,747.93	8,471.04	276.89	31.593		
7,400.00	7,113.97	7,074.97	7,113.97	34.52	245.26	-31.68	-379.37	-9,148.62	8,656.36	8,378.02	278.33	31.101		
7,500.00	7,135.09	7,103.91	7,135.09	35.53	246.27	-48.26	-379.37	-9,148.62	8,560.00	8,280.52	279.48	30.628		
7,600.00	7,140.96	7,101.96	7,140.96	36.68	246.21	-91.91	-379.37	-9,148.62	8,461.23	8,181.71	279.52	30.271		
7,700.00	7,140.53	7,101.53	7,140.53	37.99	246.19	-91.89	-379.37	-9,148.62	8,362.07	8,082.48	279.59	29.908		
7,800.00	7,140.09	7,101.09	7,140.09	39.45	246.18	-91.87	-379.37	-9,148.62	8,262.94	7,983.26	279.67	29.545		
7,900.00	7,139.66	7,100.66	7,139.66	41.06	246.16	-91.85	-379.37	-9,148.62	8,163.82	7,884.06	279.76	29.182		
8,000.00	7,139.23	7,100.23	7,139.23	42.80	246.15	-91.82	-379.37	-9,148.62	8,064.73	7,784.87	279.86	28.817		
8,100.00	7,138.79	7,100.21	7,138.79	44.65	246.15	-91.80	-379.37	-9,148.62	7,965.65	7,685.68	279.98	28.451		
8,200.00	7,138.36	7,100.64	7,138.36	46.60	246.16	-91.78	-379.37	-9,148.62	7,866.61	7,586.48	280.12	28.083		
8,300.00	7,137.93	7,101.08	7,137.93	48.65	246.18	-91.75	-379.37	-9,148.62	7,767.58	7,487.31	280.28	27.714		
8,400.00	7,137.49	7,101.51	7,137.49	50.77	246.19	-91.73	-379.37	-9,148.62	7,668.58	7,388.14	280.44	27.345		
8,500.00	7,137.06	7,101.94	7,137.06	52.95	246.21	-91.71	-379.37	-9,148.62	7,569.61	7,289.00	280.61	26.975		
8,600.00	7,136.62	7,102.38	7,136.62	55.20	246.22	-91.69	-379.37	-9,148.62	7,470.67	7,189.86	280.80	26.605		
8,700.00	7,136.19	7,102.81	7,136.19	57.51	246.24	-91.66	-379.37	-9,148.62	7,371.75	7,090.75	281.00	26.234		
8,800.00	7,135.76	7,103.24	7,135.76	59.85	246.25	-91.64	-379.37	-9,148.62	7,272.86	6,991.65	281.21	25.863		
8,900.00	7,135.32	7,103.68	7,135.32	62.24	246.27	-91.62	-379.37	-9,148.62	7,174.01	6,892.58	281.43	25.491		
9,000.00	7,134.89	7,104.11	7,134.89	64.67	246.28	-91.60	-379.37	-9,148.62	7,075.18	6,793.52	281.66	25.119		
9,100.00	7,134.45	7,104.55	7,134.45	67.13	246.30	-91.57	-379.37	-9,148.62	6,976.39	6,694.48	281.91	24.747		
9,200.00	7,134.02	7,104.98	7,134.02	69.62	246.31	-91.55	-379.37	-9,148.62	6,877.64	6,595.46	282.18	24.373		
9,300.00	7,133.59	7,105.41	7,133.59	72.14	246.33	-91.53	-379.37	-9,148.62	6,778.92	6,496.46	282.46	24.000		
9,400.00	7,133.15	7,105.85	7,133.15	74.68	246.34	-91.50	-379.37	-9,148.62	6,680.24	6,397.48	282.75	23.626		
9,500.00	7,132.72	7,106.28	7,132.72	77.24	246.36	-91.48	-379.37	-9,148.62	6,581.59	6,298.53	283.07	23.251		
9,600.00	7,132.29	7,106.71	7,132.29	79.83	246.37	-91.46	-379.37	-9,148.62	6,482.99	6,199.60	283.40	22.876		
9,700.00	7,131.85	7,107.15	7,131.85	82.42	246.39	-91.44	-379.37	-9,148.62	6,384.44	6,100.69	283.75	22.501		
9,800.00	7,131.42	7,107.58	7,131.42	85.04	246.40	-91.41	-379.37	-9,148.62	6,285.93	6,001.81	284.12	22.125		
9,900.00	7,130.98	7,108.02	7,130.98	87.67	246.42	-91.39	-379.37	-9,148.62	6,187.47	5,902.96	284.51	21.748		
10,000.00	7,130.55	7,108.45	7,130.55	90.31	246.43	-91.37	-379.37	-9,148.62	6,089.05	5,804.13	284.92	21.371		
10,100.00	7,130.12	7,108.88	7,130.12	92.97	246.45	-91.34	-379.37	-9,148.62	5,990.69	5,705.34	285.35	20.994		
10,200.00	7,129.68	7,109.32	7,129.68	95.63	246.46	-91.32	-379.37	-9,148.62	5,892.39	5,606.57	285.82	20.616		
10,300.00	7,129.25	7,109.75	7,129.25	98.31	246.48	-91.30	-379.37	-9,148.62	5,794.14	5,507.84	286.30	20.238		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-08(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,128.82	7,089.82	7,128.82	101.00	245.78	-91.28	-379.37	-9,148.62	5,695.95	5,409.85	286.11	19.909		
10,500.00	7,128.38	7,089.38	7,128.38	103.69	245.77	-91.25	-379.37	-9,148.62	5,597.83	5,311.22	286.62	19.531		
10,600.00	7,127.95	7,088.95	7,127.95	106.39	245.75	-91.23	-379.37	-9,148.62	5,499.78	5,212.62	287.16	19.152		
10,700.00	7,127.51	7,088.51	7,127.51	109.10	245.74	-91.21	-379.37	-9,148.62	5,401.80	5,114.06	287.74	18.773		
10,800.00	7,127.08	7,088.08	7,127.08	111.82	245.72	-91.18	-379.37	-9,148.62	5,303.89	5,015.54	288.35	18.394		
10,900.00	7,126.65	7,087.65	7,126.65	114.54	245.71	-91.16	-379.37	-9,148.62	5,206.06	4,917.07	288.99	18.015		
11,000.00	7,126.21	7,087.21	7,126.21	117.27	245.69	-91.14	-379.37	-9,148.62	5,108.32	4,818.64	289.68	17.635		
11,100.00	7,125.78	7,086.78	7,125.78	120.01	245.68	-91.12	-379.37	-9,148.62	5,010.66	4,720.26	290.40	17.254		
11,200.00	7,125.35	7,086.35	7,125.35	122.75	245.66	-91.09	-379.37	-9,148.62	4,913.10	4,621.93	291.17	16.874		
11,300.00	7,124.91	7,085.91	7,124.91	125.49	245.65	-91.07	-379.37	-9,148.62	4,815.64	4,523.66	291.98	16.493		
11,400.00	7,124.48	7,085.48	7,124.48	128.24	245.63	-91.05	-379.37	-9,148.62	4,718.29	4,425.44	292.84	16.112		
11,500.00	7,124.04	7,085.04	7,124.04	131.00	245.62	-91.02	-379.37	-9,148.62	4,621.04	4,327.29	293.75	15.731		
11,600.00	7,123.61	7,084.61	7,123.61	133.75	245.60	-91.00	-379.37	-9,148.62	4,523.92	4,229.20	294.72	15.350		
11,700.00	7,123.18	7,084.18	7,123.18	136.52	245.59	-90.98	-379.37	-9,148.62	4,426.93	4,131.18	295.74	14.969		
11,800.00	7,122.74	7,083.74	7,122.74	139.28	245.57	-90.96	-379.37	-9,148.62	4,330.07	4,033.24	296.83	14.588		
11,900.00	7,122.31	7,083.31	7,122.31	142.05	245.56	-90.93	-379.37	-9,148.62	4,233.36	3,935.38	297.98	14.207		
12,000.00	7,121.88	7,082.88	7,121.88	144.82	245.54	-90.91	-379.37	-9,148.62	4,136.81	3,837.60	299.21	13.826		
12,100.00	7,121.44	7,082.44	7,121.44	147.59	245.52	-90.89	-379.37	-9,148.62	4,040.42	3,739.92	300.50	13.445		
12,200.00	7,121.01	7,082.01	7,121.01	150.37	245.51	-90.87	-379.37	-9,148.62	3,944.22	3,642.33	301.88	13.065		
12,300.00	7,120.57	7,081.57	7,120.57	153.15	245.49	-90.84	-379.37	-9,148.62	3,848.20	3,544.86	303.34	12.686		
12,400.00	7,120.14	7,081.14	7,120.14	155.93	245.48	-90.82	-379.37	-9,148.62	3,752.40	3,447.50	304.90	12.307		
12,500.00	7,119.71	7,080.71	7,119.71	158.72	245.46	-90.80	-379.37	-9,148.62	3,656.82	3,350.27	306.55	11.929		
12,600.00	7,119.27	7,080.27	7,119.27	161.50	245.45	-90.77	-379.37	-9,148.62	3,561.48	3,253.17	308.31	11.552		
12,700.00	7,118.84	7,079.84	7,118.84	164.29	245.43	-90.75	-379.37	-9,148.62	3,466.41	3,156.22	310.18	11.175		
12,800.00	7,118.41	7,079.41	7,118.41	167.08	245.42	-90.73	-379.37	-9,148.62	3,371.62	3,059.44	312.18	10.800		
12,900.00	7,117.97	7,078.97	7,117.97	169.88	245.40	-90.71	-379.37	-9,148.62	3,277.14	2,962.83	314.30	10.427		
13,000.00	7,117.54	7,078.54	7,117.54	172.67	245.39	-90.68	-379.37	-9,148.62	3,182.99	2,866.42	316.57	10.055		
13,100.00	7,117.10	7,078.10	7,117.10	175.47	245.37	-90.66	-379.37	-9,148.62	3,089.22	2,770.23	318.99	9.684		
13,200.00	7,116.67	7,077.67	7,116.67	178.27	245.36	-90.64	-379.37	-9,148.62	2,995.85	2,674.27	321.58	9.316		
13,300.00	7,116.24	7,077.24	7,116.24	181.07	245.34	-90.61	-379.37	-9,148.62	2,902.91	2,578.57	324.35	8.950		
13,400.00	7,115.80	7,076.80	7,115.80	183.87	245.33	-90.59	-379.37	-9,148.62	2,810.47	2,483.16	327.31	8.587		
13,500.00	7,115.37	7,076.37	7,115.37	186.67	245.31	-90.57	-379.37	-9,148.62	2,718.56	2,388.08	330.48	8.226		
13,600.00	7,114.93	7,075.93	7,114.93	189.47	245.30	-90.55	-379.37	-9,148.62	2,627.24	2,293.36	333.88	7.869		
13,700.00	7,114.50	7,075.50	7,114.50	192.28	245.28	-90.52	-379.37	-9,148.62	2,536.57	2,199.05	337.53	7.515		
13,800.00	7,114.07	7,075.07	7,114.07	195.09	245.27	-90.50	-379.37	-9,148.62	2,446.63	2,105.19	341.45	7.166		
13,900.00	7,113.63	7,074.63	7,113.63	197.89	245.25	-90.48	-379.37	-9,148.62	2,357.51	2,011.85	345.66	6.820		
14,000.00	7,113.20	7,074.20	7,113.20	200.70	245.24	-90.45	-379.37	-9,148.62	2,269.29	1,919.10	350.19	6.480		
14,100.00	7,112.77	7,073.77	7,112.77	203.51	245.22	-90.43	-379.37	-9,148.62	2,182.08	1,827.01	355.07	6.146		
14,200.00	7,112.33	7,073.33	7,112.33	206.32	245.21	-90.41	-379.37	-9,148.62	2,096.02	1,735.70	360.32	5.817		
14,300.00	7,111.90	7,072.90	7,111.90	209.13	245.19	-90.39	-379.37	-9,148.62	2,011.25	1,645.27	365.98	5.496		
14,400.00	7,111.46	7,072.46	7,111.46	211.95	245.18	-90.36	-379.37	-9,148.62	1,927.94	1,555.87	372.07	5.182		
14,500.00	7,111.03	7,072.03	7,111.03	214.76	245.16	-90.34	-379.37	-9,148.62	1,846.28	1,467.65	378.63	4.876		
14,600.00	7,110.60	7,071.60	7,110.60	217.58	245.15	-90.32	-379.37	-9,148.62	1,766.51	1,380.84	385.68	4.580		
14,700.00	7,110.16	7,071.16	7,110.16	220.39	245.13	-90.29	-379.37	-9,148.62	1,688.90	1,295.66	393.24	4.295		
14,800.00	7,109.73	7,070.73	7,109.73	223.21	245.12	-90.27	-379.37	-9,148.62	1,613.76	1,212.42	401.34	4.021		
14,900.00	7,109.30	7,070.30	7,109.30	226.03	245.10	-90.25	-379.37	-9,148.62	1,541.44	1,131.48	409.95	3.760		
14,969.16	7,109.00	7,070.00	7,109.00	227.97	245.09	-90.23	-379.37	-9,148.62	1,493.29	1,077.07	416.21	3.588 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	-92.56	-408.52	-9,145.85	9,155.00					
100.00	100.00	110.30	136.30	3.28	3.29	-92.56	-408.80	-9,145.49	9,154.69	9,148.11	6.58	1,391.936		
200.00	200.00	185.48	211.48	3.34	3.34	-92.56	-408.72	-9,145.29	9,154.43	9,147.76	6.67	1,372.009		
243.56	243.56	217.56	243.56	3.38	3.36	-92.56	-408.67	-9,145.28	9,154.40	9,147.66	6.74	1,358.228		
300.00	300.00	259.33	285.33	3.44	3.41	-92.56	-408.67	-9,145.31	9,154.45	9,147.60	6.85	1,336.279		
400.00	400.00	346.27	372.26	3.60	3.52	-92.56	-408.76	-9,145.51	9,154.68	9,147.55	7.13	1,284.526		
500.00	500.00	434.65	460.65	3.81	3.68	-92.56	-408.88	-9,145.83	9,155.05	9,147.56	7.49	1,222.957		
600.00	600.00	607.50	633.49	4.05	4.07	-92.56	-409.35	-9,146.14	9,155.36	9,147.24	8.12	1,127.882		
700.00	699.98	678.44	704.44	4.32	4.26	-83.43	-409.71	-9,145.94	9,154.91	9,146.34	8.58	1,067.455		
800.00	799.84	727.00	752.99	4.62	4.40	-83.46	-409.94	-9,145.98	9,154.48	9,145.48	9.01	1,016.161		
900.00	899.45	767.51	793.51	4.94	4.51	-83.48	-409.99	-9,146.26	9,154.28	9,144.83	9.44	969.274		
908.73	908.13	770.38	796.37	4.97	4.52	-83.48	-409.98	-9,146.30	9,154.27	9,144.79	9.48	965.471		
1,000.00	998.70	800.28	826.26	5.28	4.61	-83.50	-409.82	-9,146.77	9,154.42	9,144.54	9.88	926.647		
1,100.00	1,097.50	856.00	881.96	5.64	4.78	-83.55	-409.10	-9,148.20	9,155.01	9,144.61	10.40	879.951		
1,200.00	1,196.18	856.00	881.96	6.00	4.78	-83.55	-409.10	-9,148.20	9,156.10	9,145.33	10.77	849.816		
1,300.00	1,294.87	856.00	881.96	6.38	4.78	-83.55	-409.10	-9,148.20	9,158.28	9,147.12	11.16	820.839		
1,400.00	1,393.55	912.81	938.71	6.77	4.97	-83.59	-407.85	-9,150.56	9,160.85	9,149.12	11.73	781.014		
1,500.00	1,492.23	937.59	963.44	7.17	5.05	-83.61	-407.15	-9,151.94	9,164.46	9,152.25	12.21	750.521		
1,600.00	1,590.91	984.00	1,009.72	7.58	5.20	-83.65	-405.59	-9,155.06	9,169.00	9,156.23	12.77	717.925		
1,700.00	1,689.60	984.00	1,009.72	8.00	5.20	-83.65	-405.59	-9,155.06	9,174.16	9,160.97	13.18	695.819		
1,800.00	1,788.28	984.00	1,009.72	8.42	5.20	-83.65	-405.59	-9,155.06	9,180.40	9,166.80	13.60	674.929		
1,900.00	1,886.96	1,045.00	1,070.45	8.84	5.41	-83.69	-402.78	-9,160.16	9,187.03	9,172.79	14.23	645.516		
2,000.00	1,985.64	1,112.00	1,136.95	9.27	5.65	-83.73	-398.44	-9,166.98	9,194.90	9,180.01	14.89	617.463		
2,100.00	2,084.33	1,112.00	1,136.95	9.71	5.65	-83.73	-398.44	-9,166.98	9,203.01	9,187.69	15.32	600.861		
2,200.00	2,183.01	1,112.00	1,136.95	10.15	5.65	-83.73	-398.44	-9,166.98	9,212.19	9,196.45	15.74	585.185		
2,300.00	2,281.69	1,183.09	1,207.30	10.59	5.92	-83.76	-392.49	-9,175.30	9,221.82	9,205.38	16.43	561.152		
2,400.00	2,380.38	1,241.00	1,264.44	11.03	6.15	-83.78	-386.68	-9,182.66	9,232.19	9,215.10	17.08	540.417		
2,500.00	2,479.06	1,295.80	1,318.36	11.47	6.38	-83.79	-380.16	-9,189.93	9,243.02	9,225.28	17.73	521.232		
2,600.00	2,577.74	1,369.00	1,390.11	11.92	6.70	-83.80	-369.59	-9,199.83	9,254.06	9,235.60	18.46	501.190		
2,700.00	2,676.42	1,421.84	1,441.70	12.36	6.94	-83.79	-360.85	-9,207.24	9,265.52	9,246.39	19.13	484.408		
2,800.00	2,775.11	1,468.03	1,486.64	12.81	7.16	-83.79	-352.63	-9,214.02	9,277.55	9,257.78	19.76	469.420		
2,900.00	2,873.79	1,498.00	1,515.73	13.26	7.31	-83.78	-347.02	-9,218.58	9,290.17	9,269.85	20.33	457.023		
3,000.00	2,972.47	1,554.53	1,570.43	13.72	7.60	-83.76	-335.96	-9,227.53	9,303.35	9,282.32	21.03	442.368		
3,100.00	3,071.15	1,626.00	1,639.33	14.17	7.98	-83.74	-321.23	-9,239.53	9,317.27	9,295.46	21.81	427.162		
3,200.00	3,169.84	1,626.00	1,639.33	14.62	7.98	-83.74	-321.23	-9,239.53	9,331.60	9,309.36	22.23	419.681		
3,300.00	3,268.52	1,690.33	1,701.02	15.08	8.35	-83.71	-306.98	-9,250.93	9,346.54	9,323.53	23.01	406.271		
3,400.00	3,367.20	1,754.00	1,761.70	15.53	8.72	-83.67	-291.68	-9,262.66	9,362.04	9,338.26	23.78	393.762		
3,500.00	3,465.89	1,754.00	1,761.70	15.99	8.72	-83.67	-291.68	-9,262.66	9,378.15	9,353.96	24.19	387.632		
3,600.00	3,564.57	1,805.28	1,810.28	16.44	9.05	-83.64	-278.65	-9,272.62	9,394.84	9,369.92	24.92	377.043		
3,700.00	3,663.25	1,834.94	1,838.26	16.90	9.25	-83.62	-270.89	-9,278.67	9,412.33	9,386.82	25.51	368.966		
3,800.00	3,761.93	1,883.00	1,883.40	17.36	9.56	-83.58	-257.97	-9,288.93	9,430.61	9,404.39	26.21	359.746		
3,900.00	3,860.62	3,900.00	1,965.85	17.82	24.86	-83.51	-233.68	-9,307.76	9,449.09	9,409.43	39.67	238.212		
4,000.00	3,959.30	2,125.25	2,110.64	18.28	11.29	-83.39	-191.43	-9,340.13	9,467.12	9,438.48	28.64	330.555		
4,100.00	4,057.98	2,198.76	2,179.87	18.74	11.83	-83.33	-172.09	-9,355.49	9,485.16	9,455.61	29.55	320.999		
4,200.00	4,156.67	2,268.00	2,245.18	19.20	12.35	-83.29	-154.36	-9,370.15	9,503.51	9,473.08	30.43	312.305		
4,300.00	4,255.35	2,405.12	2,374.89	19.66	13.36	-83.20	-120.60	-9,399.09	9,521.81	9,490.04	31.78	299.633		
4,400.00	4,354.03	2,466.65	2,433.07	20.12	13.83	-83.17	-105.39	-9,412.09	9,540.14	9,507.52	32.62	292.496		
4,500.00	4,452.71	2,540.11	2,502.28	20.58	14.39	-83.12	-86.47	-9,427.86	9,558.79	9,525.25	33.54	284.994		
4,600.00	4,551.40	2,669.83	2,624.33	21.04	15.41	-83.03	-52.39	-9,455.59	9,577.38	9,542.49	34.89	274.535		
4,700.00	4,650.08	2,704.02	2,656.41	21.50	15.69	-83.00	-43.18	-9,463.02	9,596.20	9,560.66	35.55	269.963		
4,800.00	4,748.76	2,749.00	2,698.50	21.96	16.06	-82.96	-30.83	-9,472.98	9,615.57	9,579.28	36.28	265.019		
4,900.00	4,847.44	2,831.98	2,775.91	22.42	16.74	-82.90	-7.58	-9,491.77	9,635.43	9,598.12	37.31	258.254		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	4,946.13	5,000.00	2,954.58	22.89	34.54	-82.76	43.43	-9,533.50	9,654.44	9,601.24	53.20	181.468		
5,100.00	5,044.81	3,103.49	3,030.83	23.35	18.96	-82.70	64.74	-9,550.89	9,673.21	9,633.04	40.17	240.826		
5,200.00	5,143.49	3,167.00	3,090.36	23.81	19.48	-82.65	81.85	-9,564.94	9,692.56	9,651.51	41.05	236.136		
5,300.00	5,242.18	5,300.00	3,274.38	24.27	36.73	-82.53	132.12	-9,607.56	9,711.86	9,655.38	56.48	171.953		
5,400.00	5,340.86	3,501.01	3,405.37	24.74	22.18	-82.44	166.80	-9,636.37	9,729.93	9,685.58	44.35	219.379		
5,500.00	5,439.54	3,573.74	3,474.27	25.20	22.76	-82.40	184.47	-9,651.54	9,748.12	9,702.82	45.29	215.231		
5,600.00	5,538.22	5,641.89	5,487.99	25.66	34.01	-82.78	440.46	-9,878.90	9,761.65	9,705.22	56.43	172.981		
5,700.00	5,636.91	5,768.82	5,614.92	26.13	34.37	-82.91	439.67	-9,879.31	9,759.96	9,702.66	57.30	170.332		
5,800.00	5,735.59	5,878.72	5,724.81	26.59	34.68	-83.02	438.00	-9,879.44	9,758.12	9,700.01	58.11	167.913		
5,900.00	5,834.27	5,991.35	5,837.41	27.06	34.99	-83.14	435.95	-9,879.41	9,756.19	9,697.25	58.93	165.544		
6,000.00	5,932.95	6,146.95	5,992.98	27.52	35.43	-83.30	432.86	-9,878.73	9,753.88	9,694.00	59.87	162.905		
6,100.00	6,031.64	6,262.29	6,108.30	27.98	35.76	-83.42	430.70	-9,877.84	9,751.27	9,690.57	60.71	160.632		
6,200.00	6,130.32	6,350.17	6,196.16	28.45	36.01	-83.52	429.23	-9,877.15	9,748.69	9,687.22	61.47	158.601		
6,300.00	6,229.00	6,501.06	6,347.03	28.91	36.45	-83.67	427.08	-9,875.72	9,745.99	9,683.58	62.41	156.166		
6,400.00	6,327.69	6,590.95	6,436.91	29.38	36.72	-83.76	426.20	-9,874.62	9,743.01	9,679.82	63.18	154.205		
6,500.00	6,426.37	6,672.34	6,518.30	29.84	36.97	-83.84	425.70	-9,873.73	9,740.17	9,676.24	63.93	152.348		
6,600.00	6,525.05	6,747.38	6,593.33	30.31	37.20	-83.92	425.18	-9,873.09	9,737.59	9,672.92	64.67	150.576		
6,700.00	6,623.18	6,837.45	6,683.40	30.77	37.48	-83.89	424.58	-9,872.48	9,727.45	9,662.00	65.45	148.626		
6,800.00	6,718.58	6,920.66	6,766.60	31.22	37.74	-83.67	424.27	-9,871.98	9,701.97	9,635.78	66.19	146.576		
6,900.00	6,808.91	6,989.18	6,835.12	31.66	37.96	-83.67	424.16	-9,871.71	9,661.90	9,595.04	66.86	144.515		
7,000.00	6,891.95	7,201.02	7,046.95	32.07	38.63	-83.67	423.70	-9,869.51	9,607.40	9,539.50	67.91	141.475		
7,100.00	6,965.65	7,263.27	7,109.18	32.51	38.83	-83.67	422.97	-9,868.50	9,540.21	9,471.76	68.46	139.365		
7,200.00	7,028.20	7,309.12	7,155.03	33.02	38.97	-83.67	422.24	-9,867.79	9,462.38	9,393.49	68.89	137.355		
7,300.00	7,078.04	7,343.89	7,189.78	33.68	39.08	-83.67	421.67	-9,867.32	9,375.82	9,306.60	69.22	135.440		
7,400.00	7,113.97	7,368.80	7,214.69	34.52	39.16	-83.67	421.27	-9,867.01	9,282.59	9,213.13	69.46	133.637		
7,500.00	7,135.09	7,383.18	7,229.07	35.53	39.20	-83.67	421.04	-9,866.84	9,184.94	9,115.33	69.60	131.964		
7,600.00	7,140.96	7,386.64	7,232.53	36.68	39.21	-83.67	420.98	-9,866.80	9,085.23	9,015.57	69.65	130.432		
7,700.00	7,140.53	7,385.56	7,231.45	37.99	39.21	-83.67	421.00	-9,866.82	8,985.28	8,915.61	69.67	128.961		
7,800.00	7,140.09	7,384.47	7,230.36	39.45	39.21	-83.67	421.02	-9,866.83	8,885.33	8,815.64	69.70	127.487		
7,900.00	7,139.66	7,383.38	7,229.26	41.06	39.20	-83.67	421.03	-9,866.84	8,785.39	8,715.67	69.72	126.011		
8,000.00	7,139.23	7,382.28	7,228.16	42.80	39.20	-83.67	421.05	-9,866.85	8,685.45	8,615.70	69.74	124.533		
8,100.00	7,138.79	7,381.17	7,227.06	44.65	39.20	-83.67	421.07	-9,866.87	8,585.50	8,515.73	69.77	123.053		
8,200.00	7,138.36	7,380.06	7,225.94	46.60	39.19	-83.67	421.09	-9,866.88	8,485.56	8,415.76	69.80	121.572		
8,300.00	7,137.93	7,378.94	7,224.82	48.65	39.19	-83.67	421.10	-9,866.89	8,385.62	8,315.79	69.83	120.088		
8,400.00	7,137.49	7,377.81	7,223.69	50.77	39.18	-83.67	421.12	-9,866.90	8,285.68	8,215.82	69.86	118.602		
8,500.00	7,137.06	7,376.67	7,222.56	52.95	39.18	-83.67	421.14	-9,866.92	8,185.75	8,115.85	69.89	117.115		
8,600.00	7,136.62	7,375.53	7,221.42	55.20	39.18	-83.67	421.16	-9,866.93	8,085.81	8,015.88	69.93	115.626		
8,700.00	7,136.19	7,374.38	7,220.27	57.51	39.17	-83.67	421.18	-9,866.94	7,985.87	7,915.91	69.97	114.135		
8,800.00	7,135.76	7,373.22	7,219.11	59.85	39.17	-83.67	421.20	-9,866.96	7,885.94	7,815.93	70.01	112.643		
8,900.00	7,135.32	7,372.06	7,217.95	62.24	39.17	-83.67	421.22	-9,866.97	7,786.01	7,715.96	70.05	111.149		
9,000.00	7,134.89	7,370.89	7,216.77	64.67	39.16	-83.67	421.23	-9,866.98	7,686.08	7,615.98	70.09	109.654		
9,100.00	7,134.45	7,369.71	7,215.60	67.13	39.16	-83.67	421.25	-9,867.00	7,586.15	7,516.01	70.14	108.158		
9,200.00	7,134.02	7,368.52	7,214.41	69.62	39.16	-83.67	421.27	-9,867.01	7,486.22	7,416.03	70.19	106.660		
9,300.00	7,133.59	7,367.33	7,213.21	72.14	39.15	-83.67	421.29	-9,867.03	7,386.30	7,316.06	70.24	105.160		
9,400.00	7,133.15	7,366.12	7,212.01	74.68	39.15	-83.67	421.31	-9,867.04	7,286.37	7,216.08	70.29	103.660		
9,500.00	7,132.72	7,364.91	7,210.80	77.24	39.14	-83.67	421.33	-9,867.06	7,186.45	7,116.10	70.35	102.158		
9,600.00	7,132.29	7,363.70	7,209.58	79.83	39.14	-83.67	421.35	-9,867.07	7,086.53	7,016.13	70.40	100.655		
9,700.00	7,131.85	7,362.47	7,208.36	82.42	39.14	-83.67	421.37	-9,867.09	6,986.61	6,916.15	70.46	99.152		
9,800.00	7,131.42	7,361.24	7,207.13	85.04	39.13	-83.67	421.39	-9,867.10	6,886.70	6,816.17	70.53	97.647		
9,900.00	7,130.98	7,359.99	7,205.88	87.67	39.13	-83.67	421.41	-9,867.12	6,786.78	6,716.19	70.59	96.141		
10,000.00	7,130.55	7,358.74	7,204.63	90.31	39.13	-83.67	421.43	-9,867.13	6,686.87	6,616.21	70.66	94.634		
10,100.00	7,130.12	7,357.48	7,203.38	92.97	39.12	-83.67	421.45	-9,867.15	6,586.96	6,516.23	70.73	93.126		

CC - Min centre to center 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

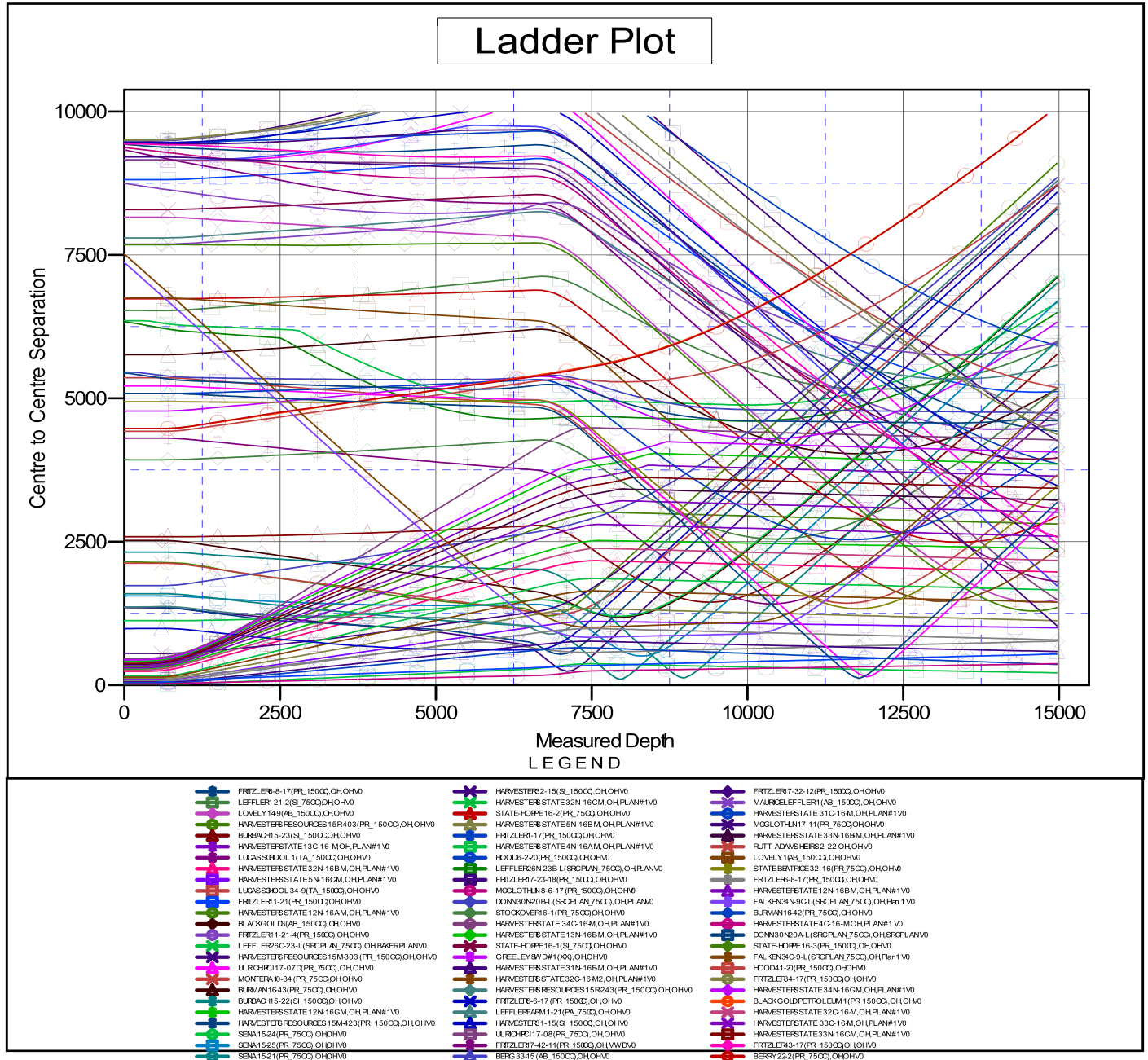
Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I17-17D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical 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	7,129.68	7,356.22	7,202.11	95.63	39.12	-110.87	421.47	-9,867.16	6,487.06	6,416.25	70.81	91.618		
10,300.00	7,129.25	7,354.94	7,200.83	98.31	39.11	-110.62	421.49	-9,867.18	6,387.15	6,316.27	70.88	90.108		
10,400.00	7,128.82	7,353.66	7,199.55	101.00	39.11	-110.38	421.51	-9,867.19	6,287.25	6,216.29	70.96	88.598		
10,500.00	7,128.38	7,352.37	7,198.26	103.69	39.11	-110.14	421.53	-9,867.21	6,187.35	6,116.30	71.05	87.088		
10,600.00	7,127.95	7,351.06	7,196.96	106.39	39.10	-109.89	421.56	-9,867.23	6,087.46	6,016.32	71.13	85.576		
10,700.00	7,127.51	7,349.75	7,195.65	109.10	39.10	-109.64	421.58	-9,867.24	5,987.56	5,916.34	71.23	84.064		
10,800.00	7,127.08	7,348.44	7,194.33	111.82	39.09	-109.38	421.60	-9,867.26	5,887.68	5,816.35	71.32	82.552		
10,900.00	7,126.65	7,347.11	7,193.00	114.54	39.09	-109.13	421.62	-9,867.28	5,787.79	5,716.37	71.42	81.039		
11,000.00	7,126.21	7,345.77	7,191.66	117.27	39.08	-108.87	421.64	-9,867.29	5,687.91	5,616.38	71.52	79.525		
11,100.00	7,125.78	7,344.43	7,190.32	120.01	39.08	-108.61	421.66	-9,867.31	5,588.03	5,516.40	71.63	78.011		
11,200.00	7,125.35	7,343.07	7,188.96	122.75	39.08	-108.35	421.69	-9,867.33	5,488.16	5,416.41	71.74	76.496		
11,300.00	7,124.91	7,341.71	7,187.60	125.49	39.07	-108.08	421.71	-9,867.35	5,388.29	5,316.42	71.86	74.981		
11,400.00	7,124.48	7,340.33	7,186.23	128.24	39.07	-107.81	421.73	-9,867.36	5,288.42	5,216.44	71.98	73.466		
11,500.00	7,124.04	7,338.95	7,184.84	131.00	39.06	-107.54	421.75	-9,867.38	5,188.56	5,116.45	72.11	71.950		
11,600.00	7,123.61	7,337.55	7,183.45	133.75	39.06	-107.27	421.77	-9,867.40	5,088.71	5,016.46	72.25	70.434		
11,700.00	7,123.18	7,336.15	7,182.05	136.52	39.05	-106.99	421.80	-9,867.42	4,988.85	4,916.47	72.39	68.917		
11,800.00	7,122.74	7,334.74	7,180.64	139.28	39.05	-106.71	421.82	-9,867.44	4,889.01	4,816.47	72.54	67.400		
11,900.00	7,122.31	7,333.32	7,179.21	142.05	39.05	-106.43	421.84	-9,867.46	4,789.17	4,716.48	72.69	65.883		
12,000.00	7,121.88	7,331.88	7,177.78	144.82	39.04	-106.14	421.87	-9,867.48	4,689.34	4,616.48	72.85	64.366		
12,100.00	7,121.44	7,330.44	7,176.34	147.59	39.04	-105.85	421.89	-9,867.50	4,589.51	4,516.49	73.03	62.848		
12,200.00	7,121.01	7,328.99	7,174.89	150.37	39.03	-105.56	421.91	-9,867.52	4,489.70	4,416.49	73.21	61.330		
12,300.00	7,120.57	7,327.52	7,173.42	153.15	39.03	-105.27	421.94	-9,867.54	4,389.88	4,316.49	73.40	59.811		
12,400.00	7,120.14	7,326.05	7,171.95	155.93	39.02	-104.97	421.96	-9,867.56	4,290.08	4,216.49	73.60	58.293		
12,500.00	7,119.71	7,324.57	7,170.46	158.72	39.02	-104.67	421.99	-9,867.58	4,190.29	4,116.48	73.81	56.774		
12,600.00	7,119.27	7,323.07	7,168.97	161.50	39.01	-104.36	422.01	-9,867.60	4,090.50	4,016.47	74.03	55.254		
12,700.00	7,118.84	7,321.56	7,167.46	164.29	39.01	-104.06	422.03	-9,867.62	3,990.73	3,916.46	74.27	53.734		
12,800.00	7,118.41	7,320.05	7,165.95	167.08	39.00	-103.75	422.06	-9,867.64	3,890.97	3,816.45	74.52	52.214		
12,900.00	7,117.97	7,318.52	7,164.42	169.88	39.00	-103.43	422.08	-9,867.66	3,791.22	3,716.43	74.79	50.694		
13,000.00	7,117.54	7,316.98	7,162.88	172.67	38.99	-103.12	422.11	-9,867.68	3,691.48	3,616.41	75.07	49.173		
13,100.00	7,117.10	7,315.43	7,161.33	175.47	38.99	-102.80	422.13	-9,867.70	3,591.75	3,516.38	75.37	47.652		
13,200.00	7,116.67	7,313.87	7,159.77	178.27	38.98	-102.48	422.16	-9,867.73	3,492.04	3,416.34	75.70	46.131		
13,300.00	7,116.24	7,312.29	7,158.20	181.07	38.98	-102.15	422.18	-9,867.75	3,392.35	3,316.30	76.05	44.609		
13,400.00	7,115.80	7,310.71	7,156.61	183.87	38.97	-101.82	422.21	-9,867.77	3,292.67	3,216.25	76.42	43.086		
13,500.00	7,115.37	7,309.11	7,155.01	186.67	38.97	-101.49	422.24	-9,867.79	3,193.02	3,116.20	76.82	41.564		
13,600.00	7,114.93	7,307.50	7,153.41	189.47	38.96	-101.15	422.26	-9,867.82	3,093.38	3,016.13	77.26	40.041		
13,700.00	7,114.50	7,305.88	7,151.78	192.28	38.96	-100.81	422.29	-9,867.84	2,993.77	2,916.05	77.72	38.518		
13,800.00	7,114.07	7,304.25	7,150.15	195.09	38.95	-100.47	422.31	-9,867.86	2,894.18	2,815.95	78.23	36.994		
13,900.00	7,113.63	7,302.60	7,148.51	197.89	38.95	-100.12	422.34	-9,867.89	2,794.63	2,715.84	78.79	35.471		
14,000.00	7,113.20	7,300.94	7,146.85	200.70	38.94	-99.78	422.37	-9,867.91	2,695.10	2,615.71	79.39	33.948		
14,100.00	7,112.77	7,299.27	7,145.18	203.51	38.94	-99.42	422.40	-9,867.94	2,595.61	2,515.56	80.05	32.424		
14,200.00	7,112.33	7,297.59	7,143.50	206.32	38.93	-99.07	422.42	-9,867.96	2,496.16	2,415.38	80.78	30.902		
14,300.00	7,111.90	7,295.89	7,141.80	209.13	38.93	-98.71	422.45	-9,867.99	2,396.75	2,315.17	81.58	29.380		
14,400.00	7,111.46	7,294.18	7,140.09	211.95	38.92	-98.34	422.48	-9,868.01	2,297.39	2,214.93	82.46	27.860		
14,500.00	7,111.03	7,292.46	7,138.37	214.76	38.92	-97.97	422.51	-9,868.04	2,198.09	2,114.65	83.45	26.341		
14,600.00	7,110.60	7,290.73	7,136.63	217.58	38.91	-97.60	422.53	-9,868.07	2,098.86	2,014.31	84.55	24.825		
14,700.00	7,110.16	7,288.98	7,134.88	220.39	38.91	-97.23	422.56	-9,868.09	1,999.70	1,913.92	85.78	23.313		
14,800.00	7,109.73	7,287.21	7,133.12	223.21	38.90	-96.85	422.59	-9,868.12	1,900.62	1,813.46	87.16	21.805		
14,900.00	7,109.30	7,285.43	7,131.34	226.03	38.90	-96.47	422.62	-9,868.15	1,801.65	1,712.91	88.74	20.303		
14,969.16	7,109.00	7,284.35	7,130.25	227.97	38.89	-96.24	422.63	-9,868.16	1,733.26	1,643.32	89.95	19.269 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-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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-16C-M
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.48°



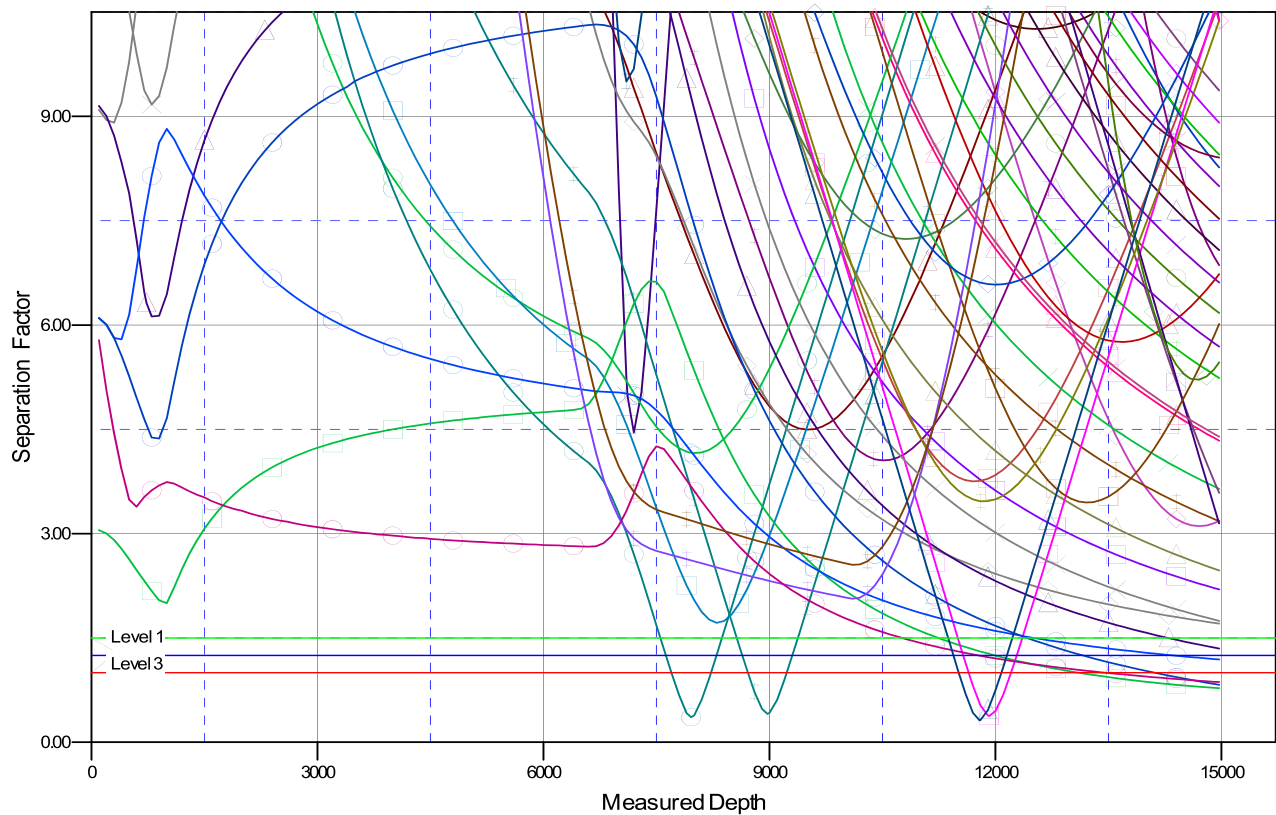
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 4N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
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-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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-16C-M
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.48°

Separation Factor Plot



LEGEND

FRITZLER8-8-17(PR_150CQ,OH,OHV0)	HARVESTER2-15(SL_150CQ,OH,OHV0)	FRITZLER7-32-12(PR_150CQ,OH,OHV0)
LEIFLER21-2(SL_75CQ,OH,OHV0)	HARVESTER STATE32N-16BM,OH,PLAN#1V0	MAURZLEFFLER1(AB_150CQ,OH,OHV0)
LOVELY149(AB_150CQ,OH,OHV0)	STATE-HOPE16-2(PR_75CQ,OH,OHV0)	HARVESTERSTATE31C-16M,OH,PLAN#1V0
HARVESTERRESOURCES15R403(PR_150CQ,OH,OHV0)	HARVESTERSTATE5N-16BM,OH,PLAN#1V0	MOGLOTHUN17-11(PR_75CQ,OH,OHV0)
BURBACH15-23(SL_150CQ,OH,OHV0)	FRITZLER1-17(PR_150CQ,OH,OHV0)	HARVESTERSTATE33N-16BM,OH,PLAN#1V0
HARVESTERSTATE13C-16-M,OH,PLAN#1V0	HARVESTERSTATE4N-16AM,OH,PLAN#1V0	RUTT-ADAMSHERS2-22,OH,OHV0
LUCASBCHOOL1(TA_150CQ,OH,OHV0)	HOOD6-220(PR_150CQ,OH,OHV0)	LOVELY1(AB_150CQ,OH,OHV0)
HARVESTERSTATE32N-16BM,OH,PLAN#1V0	LEIFLER20N-23B-L(SRCPLAN_75CQ,OH,RANV0)	STATEBATROCE32-16(PR_75CQ,OH,OHV0)
HARVESTERSTATE5N-16CM,OH,PLAN#1V0	FRITZLER7-23-16(PR_150CQ,OH,OHV0)	FRITZLER8-8-17(PR_150CQ,OH,OHV0)
LUCASBCHOOL34-9(TA_150CQ,OH,OHV0)	MOGLOTHUN8-6-17(PR_150CQ,OH,OHV0)	HARVESTERSTATE12N-16BM,OH,PLAN#1V0
FRITZLER1-21(PR_150CQ,OH,OHV0)	DONN3ON20B-L(SRCPLAN_75CQ,OH,PLAN0)	FALKEN3N-9C-L(SRCPLAN_75CQ,OH,Plan1V0)
HARVESTERSTATE12N-16AM,OH,PLAN#1V0	STOCKOVER6-1(PR_75CQ,OH,OHV0)	BURMAN16-42(PR_75CQ,OH,OHV0)
BLACKGOLD(AB_150CQ,OH,OHV0)	HARVESTERSTATE34C-16M,OH,PLAN#1V0	HARVESTERSTATE4C-16-M,OH,PLAN#1V0
FRITZLER1-21-4(PR_150CQ,OH,OHV0)	HARVESTERSTATE13N-16BM,OH,PLAN#1V0	DONN3ON20A-L(SRCPLAN_75CQ,OH,SRCPLANV0)
LEIFLER20C-23-L(SRCPLAN_75CQ,OH,BKRPANV0)	STATE-HOPE16-1(SL_75CQ,OH,OHV0)	HARVESTERSTATE32C-16M,OH,PLAN#1V0
HARVESTERRESOURCES15M423(PR_150CQ,OH,OHV0)	GREELY3N(OW100),OH,OHV0	FALKEN3C-9-L(SRCPLAN_75CQ,OH,Plan1V0)
ULRICH17-07(PR_75CQ,OH,OHV0)	HARVESTERSTATE31N-16BM,OH,PLAN#1V0	HOOD41-2(PR_150CQ,OH,OHV0)
MONTERA10-34(PR_75CQ,OH,OHV0)	HARVESTERSTATE32C-16M,OH,PLAN#1V0	FRITZLER84-17(PR_150CQ,OH,OHV0)
BURMAN16-43(PR_75CQ,OH,OHV0)	HARVESTERRESOURCES15R243(PR_150CQ,OH,OHV0)	HARVESTERSTATE34N-16CM,OH,PLAN#1V0
BURBACH15-22(SL_150CQ,OH,OHV0)	FRITZLER6-17(PR_150CQ,OH,OHV0)	BLACKGOLDPETROLEUM1(PR_150CQ,OH,OHV0)
HARVESTERSTATE12N-16CM,OH,PLAN#1V0	LEIFLERFARM1-21(PA_75CQ,OH,OHV0)	HARVESTERSTATE32C-16M,OH,PLAN#1V0
HARVESTERRESOURCES15M423(PR_150CQ,OH,OHV0)	HARVESTER1-15(SL_150CQ,OH,OHV0)	HARVESTERSTATE33C-16M,OH,PLAN#1V0
SENA15-24(PR_75CQ,OH,OHV0)	ULRICH17-08(PR_75CQ,OH,OHV0)	HARVESTERSTATE33N-16CM,OH,PLAN#1V0
SENA15-25(PR_75CQ,OH,OHV0)	FRITZLER7-42-11(PR_150CQ,OH,MVDV0)	FRITZLER83-17(PR_150CQ,OH,OHV0)
SENA15-21(PR_75CQ,OH,OHV0)	BERG33-15(AB_150CQ,OH,OHV0)	BERRY23-2(PR_75CQ,OH,OHV0)