



SRC ENERGY

**SECTION 15, T6N, R66W
HARVESTERS STATE 7-15 PAD
HARVESTERS STATE 32N-16B-M**

**OH
PLAN #1**

Anticollision Report

03 October, 2017





Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	14,871.85	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	6,600.00	6,481.64	785.96	728.02	13.564	CC, ES
BERG 33-15 (AB_150CC) - OH - OH	6,700.00	6,584.50	793.10	734.23	13.472	SF
BERRY 22-2(PR_75CC) - OH - OH	6,878.69	6,767.84	3,381.75	3,322.01	56.601	CC
BERRY 22-2(PR_75CC) - OH - OH	6,900.00	6,786.10	3,381.87	3,321.95	56.440	ES
BERRY 22-2(PR_75CC) - OH - OH	9,000.00	7,000.01	4,271.46	4,184.59	49.169	SF
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	6,874.22	6,851.76	3,399.72	3,339.65	56.597	CC
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	6,900.00	6,876.68	3,399.88	3,339.59	56.396	ES
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	9,000.00	7,229.17	4,284.80	4,197.01	48.806	SF
BLACKGOLD 3(AB_150CC) - OH - OH	0.00	23.85	2,738.16			
BLACKGOLD 3(AB_150CC) - OH - OH	305.75	334.22	2,738.21	2,731.26	393.975	ES
BLACKGOLD 3(AB_150CC) - OH - OH	9,800.00	7,082.73	3,849.20	3,743.48	36.410	SF
BURBACH 15-22(SI_150CC) - OH - OH	8,862.14	7,039.63	2,005.43	1,698.63	6.537	CC
BURBACH 15-22(SI_150CC) - OH - OH	8,900.00	7,039.48	2,005.79	1,698.14	6.520	ES
BURBACH 15-22(SI_150CC) - OH - OH	9,100.00	7,038.69	2,019.49	1,707.57	6.474	SF
BURBACH 15-23(SI_150CC) - OH - OH	9,243.00	7,023.13	675.16	359.35	2.138	CC, ES, SF
BURMAN 16-42(PR_75CC) - OH - OH	11,513.96	7,003.20	475.53	99.07	1.263	Level 3, CC, ES, SF
BURMAN 16-43(PR_75CC) - OH - OH	11,532.00	7,000.13	1,976.37	1,599.51	5.244	CC
BURMAN 16-43(PR_75CC) - OH - OH	11,600.00	7,000.14	1,977.54	1,598.74	5.221	ES
BURMAN 16-43(PR_75CC) - OH - OH	11,800.00	7,000.92	1,994.46	1,610.81	5.199	SF
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	9,836.22	7,280.55	2,501.32	2,378.34	20.338	CC
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	14,871.88	12,344.20	2,632.92	2,224.06	6.440	ES, SF
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	9,770.03	7,327.38	2,697.03	2,576.19	22.318	CC
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	14,871.88	12,387.90	2,774.53	2,367.08	6.810	ES, SF
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	6,864.18	16,054.84	3,162.78	2,878.41	11.122	CC
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	10,100.00	19,118.26	3,207.03	2,770.32	7.344	ES
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	10,300.00	19,118.26	3,219.94	2,779.42	7.309	SF
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	6,794.61	15,957.28	2,985.87	2,702.00	10.519	CC
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	10,100.00	19,018.34	3,002.35	2,566.07	6.882	ES
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	10,300.00	19,018.34	3,016.10	2,576.47	6.861	SF
FRITZLER 11-21-4(PR_150CC) - OH - OH	13,799.58	7,084.94	2,460.47	2,229.40	10.648	CC
FRITZLER 11-21-4(PR_150CC) - OH - OH	13,900.00	7,088.51	2,462.52	2,228.44	10.520	ES
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,200.00	7,099.34	2,492.81	2,251.75	10.341	SF
FRITZLER 11-21(PR_150CC) - OH - OH	14,400.59	6,970.85	3,125.46	2,669.11	6.849	CC
FRITZLER 11-21(PR_150CC) - OH - OH	14,500.00	6,970.46	3,127.04	2,667.88	6.810	ES
FRITZLER 11-21(PR_150CC) - OH - OH	14,800.00	6,969.28	3,150.88	2,684.57	6.757	SF
FRITZLER 1-17(PR_150CC) - OH - OH	14,871.88	6,984.00	1,975.04	1,526.46	4.403	CC, ES, SF
FRITZLER 17-23-18(PR_150CC) - OH - OH	14,871.88	7,306.68	3,091.14	2,956.55	22.967	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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	14,871.88	7,400.74	1,483.45	1,387.01	15.383	CC, ES, SF
FRITZLER 17-42-11(PR_150CC) - OH - MWD	14,871.88	7,378.54	226.67	0.67	1.003	Level 2, CC, ES, SF
FRITZLER 34-17(PR_150CC) - OH - OH	14,871.88	7,065.09	2,804.29	2,618.51	15.094	CC, ES, SF
FRITZLER 43-17(PR_150CC) - OH - OH	14,871.88	7,174.02	962.00	811.73	6.402	CC, ES, SF
FRITZLER 6-6-17 (PR_150CC) - OH - OH	14,871.88	7,036.23	1,904.38	1,730.32	10.941	CC, ES, SF
FRITZLER 6-8-17(PR_150CC) - OH - OH	14,871.88	7,114.93	2,822.21	2,597.46	12.557	CC, ES, SF
FRITZLER 8-8-17(PR_150CC) - OH - OH	14,871.88	7,037.26	2,460.19	2,200.30	9.466	CC, ES, SF
GREELEY SWD #1(XX) - OH - OH	10,101.16	7,009.24	2,195.89	1,857.94	6.498	CC
GREELEY SWD #1(XX) - OH - OH	10,200.00	7,009.63	2,198.11	1,857.40	6.452	ES
GREELEY SWD #1(XX) - OH - OH	10,400.00	6,989.58	2,216.13	1,871.11	6.423	SF
HARVESTER 31-15(SI_150CC) - OH - OH	0.00	0.00	1,202.46			
HARVESTER 31-15(SI_150CC) - OH - OH	6,800.00	6,734.50	2,090.80	2,031.68	35.368	SF
HARVESTER 32-15(SI_150CC) - OH - OH	334.61	316.29	523.17	516.20	75.062	CC, ES
HARVESTER 32-15(SI_150CC) - OH - OH	6,600.00	6,520.86	1,114.61	1,057.04	19.359	SF
HARVESTER STATE 30C-16-M - OH - PLAN #1	200.00	202.00	299.83	293.15	44.914	CC, ES
HARVESTER STATE 30C-16-M - OH - PLAN #1	14,871.88	15,216.01	2,738.52	2,282.91	6.011	SF
HARVESTER STATE 30N-16B-M - OH - PLAN #1	300.00	302.00	280.16	273.27	40.647	CC, ES
HARVESTER STATE 30N-16B-M - OH - PLAN #1	14,871.88	14,942.37	2,512.65	2,055.85	5.501	SF
HARVESTER STATE 31C-16-M - OH - PLAN #1	300.00	301.00	200.01	193.12	29.024	CC, ES
HARVESTER STATE 31C-16-M - OH - PLAN #1	14,871.88	14,993.90	1,642.60	1,188.87	3.620	SF
HARVESTER STATE 33C-16-M - OH - PLAN #1	200.00	200.00	99.83	93.16	14.958	CC, ES
HARVESTER STATE 33C-16-M - OH - PLAN #1	14,871.88	15,244.84	1,051.88	602.26	2.339	SF
HARVESTER STATE 34C-16-M - OH - PLAN #1	200.00	199.00	220.05	213.37	32.974	CC, ES
HARVESTER STATE 34C-16-M - OH - PLAN #1	14,871.88	15,764.01	2,307.09	1,852.57	5.076	SF
HARVESTER STATE 5C-16-M - OH - PLAN #1	300.00	301.00	159.93	153.04	23.208	CC, ES
HARVESTER STATE 5C-16-M - OH - PLAN #1	14,871.88	14,994.81	1,206.04	754.07	2.668	SF
HARVESTER STATE 12N-16B-M - OH - PLAN #1	200.00	200.00	60.12	53.45	9.008	CC, ES
HARVESTER STATE 12N-16B-M - OH - PLAN #1	14,871.88	14,970.85	619.39	163.55	1.359	Level 3, SF
HARVESTER STATE 13C-16-M - OH - PLAN #1	200.00	199.00	159.94	153.27	23.968	CC, ES
HARVESTER STATE 13C-16-M - OH - PLAN #1	14,871.88	15,415.45	1,678.45	1,225.38	3.705	SF
HARVESTER STATE 33N-16C-M - OH - PLAN #1	200.00	199.00	139.91	133.23	20.965	CC, ES
HARVESTER STATE 33N-16C-M - OH - PLAN #1	14,871.88	15,255.24	1,459.76	1,004.41	3.206	SF
HARVESTER STATE 4C-16-M - OH - PLAN #1	300.00	302.00	260.12	255.62	57.719	CC, ES
HARVESTER STATE 4C-16-M - OH - PLAN #1	14,871.88	15,116.21	2,335.29	1,880.23	5.132	SF
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,064.42	9,613.91	346.31	278.06	5.075	CC
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,100.00	9,617.00	349.10	274.78	4.697	ES
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,200.00	9,624.34	384.75	297.69	4.420	SF
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	6,960.18	9,657.54	564.15	488.81	7.488	CC
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,000.00	9,659.98	566.78	487.66	7.163	ES
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,100.00	9,664.59	595.65	508.86	6.863	SF
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,783.45	9,590.00	955.06	868.57	11.043	CC
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,800.00	9,590.00	955.41	868.21	10.956	ES
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,900.00	9,590.00	972.61	881.63	10.690	SF
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,765.61	9,695.45	1,293.40	1,203.41	14.372	CC, ES
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,900.00	9,713.42	1,314.19	1,220.69	14.055	SF
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	200.00	200.00	80.15	73.48	12.010	CC, ES
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	14,871.88	14,904.04	836.18	382.77	1.844	SF
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	200.00	200.00	40.07	33.40	6.005	CC
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	14,871.88	14,990.58	415.08	-34.98	0.922	Level 1, ES, SF
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	200.00	199.00	179.97	173.30	26.969	CC, ES
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	14,871.88	15,318.50	1,879.37	1,423.24	4.120	SF
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	300.00	301.00	179.98	173.09	26.117	CC, ES
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	14,871.88	14,817.75	1,417.40	962.13	3.113	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 32N-16B-M
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Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
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Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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						
HARVESTERS STATE 32C-16-M - OH - PLAN #1	200.00	200.00	20.04	13.36	3.002	CC
HARVESTERS STATE 32C-16-M - OH - PLAN #1	14,871.88	15,080.17	262.58	-123.30	0.680	Level 1, ES, SF
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	300.00	301.00	99.82	92.93	14.486	CC, ES
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	14,871.88	15,007.46	559.16	122.31	1.280	Level 3, SF
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	300.00	301.00	80.16	73.26	11.632	CC
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	14,871.88	14,913.32	318.65	-130.77	0.709	Level 1, ES, SF
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	200.00	200.00	119.86	113.18	17.958	CC, ES
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	14,871.88	15,127.51	1,251.38	795.44	2.745	SF
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	200.00	199.00	200.01	193.34	29.972	CC, ES
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	14,871.88	15,464.22	2,090.66	1,634.93	4.587	SF
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	300.00	301.00	220.04	213.15	31.932	CC, ES
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	14,871.88	14,732.12	1,856.73	1,401.01	4.074	SF
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	300.00	301.00	240.09	233.20	34.840	CC, ES
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	14,871.88	14,969.16	1,974.91	1,519.25	4.334	SF
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	300.00	301.00	119.87	112.97	17.394	CC, ES
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	14,871.88	14,809.42	852.68	396.39	1.869	SF
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	300.00	301.00	139.90	133.01	20.301	CC, ES
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	14,860.64	14,879.65	974.95	519.87	2.142	SF
HOOD 41-20(PR_150CC) - OH - OH	14,871.88	6,976.00	3,255.57	2,794.65	7.063	CC, ES, SF
HOOD 6-2-20(PR_150CC) - OH - OH	14,871.88	7,375.29	4,032.28	3,785.87	16.364	CC, ES, SF
LEFFLER 1 21-2(SI_75CC) - OH - OH	11,744.99	6,964.83	3,102.89	2,932.99	18.264	CC
LEFFLER 1 21-2(SI_75CC) - OH - OH	11,800.00	6,967.27	3,103.37	2,931.89	18.097	ES
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,600.00	7,005.68	3,218.23	3,028.87	16.996	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	9,694.91	7,719.92	2,781.78	2,660.27	22.893	CC
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	9,800.00	7,652.02	2,782.61	2,659.10	22.530	ES
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	11,200.00	7,124.51	3,006.01	2,853.34	19.689	SF
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	9,701.13	7,579.12	2,494.98	2,373.34	20.511	CC
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	9,800.00	7,535.02	2,495.98	2,372.15	20.156	ES
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	11,000.00	7,100.00	2,691.38	2,543.05	18.145	SF
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,084.09	6,978.03	3,316.13	2,896.64	7.905	CC
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,200.00	6,977.57	3,318.15	2,895.40	7.849	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,600.00	6,976.00	3,356.02	2,923.69	7.763	SF
LOVELY 1(AB_150CC) - OH - OH	13,041.33	7,025.20	3,482.78	3,062.85	8.294	CC
LOVELY 1(AB_150CC) - OH - OH	13,100.00	7,024.97	3,483.27	3,061.79	8.264	ES
LOVELY 1(AB_150CC) - OH - OH	13,600.00	7,023.00	3,527.30	3,094.68	8.153	SF
LOVELY 14-9(AB_150CC) - OH - OH	14,538.08	7,022.31	3,429.78	2,967.75	7.423	CC
LOVELY 14-9(AB_150CC) - OH - OH	14,600.00	7,022.07	3,430.34	2,966.67	7.398	ES
LOVELY 14-9(AB_150CC) - OH - OH	14,871.88	7,021.00	3,445.99	2,975.98	7.332	SF
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,312.71	7,055.93	3,511.08	3,165.79	10.168	CC
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,400.00	7,055.58	3,512.17	3,164.64	10.106	ES
LUCAS SCHOOL 1(TA_150CC) - OH - OH	11,000.00	7,053.22	3,577.72	3,216.50	9.905	SF
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,528.26	7,011.15	3,492.01	3,114.88	9.259	CC
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,600.00	7,010.86	3,492.75	3,113.74	9.215	ES
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	12,100.00	7,008.90	3,538.51	3,148.02	9.062	SF
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,099.03	4,452.00	4,012.15	3,747.47	15.158	CC
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,200.00	4,452.00	4,013.42	3,746.40	15.030	ES
MAURICE LEFFLER 1(AB_150CC) - OH - OH	14,100.00	4,452.00	4,135.13	3,849.58	14.481	SF
MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH	14,871.88	7,240.93	1,124.11	869.99	4.424	CC, ES, SF
MCGLOTHLIN 17-11(PR_75CC) - OH - OH	14,871.88	7,007.00	2,508.55	2,053.25	5.510	CC, ES, SF
MONTERA 10-34 (PR_75CC) - OH - OH	319.83	350.09	2,365.34	2,358.35	338.146	CC, ES
MONTERA 10-34 (PR_75CC) - OH - OH	9,100.00	7,104.36	4,145.37	4,058.36	47.642	SF
RUTT-ADAMS HEIRS 2-22 - OH - OH	7,783.69	7,004.87	3,128.24	2,845.94	11.081	CC
RUTT-ADAMS HEIRS 2-22 - OH - OH	7,800.00	7,004.80	3,128.28	2,845.71	11.071	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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
RUTT-ADAMS HEIRS 2-22 - OH - OH	8,500.00	7,002.05	3,209.20	2,912.49	10.816	SF
SENA 15-21(PR_75CC) - OH - OH	300.00	304.00	1,766.19	1,753.29	136.922	CC
SENA 15-21(PR_75CC) - OH - OH	500.00	504.16	1,770.60	1,750.62	88.637	ES
SENA 15-21(PR_75CC) - OH - OH	8,200.00	7,058.23	2,289.15	1,997.75	7.856	SF
SENA 15-24(PR_75CC) - OH - OH	7,808.20	7,045.77	958.50	674.36	3.373	CC, ES, SF
SENA 15-25(PR_75CC) - OH - OH	300.00	289.00	1,641.53	1,629.12	132.275	CC
SENA 15-25(PR_75CC) - OH - OH	8,200.00	7,051.23	1,642.93	1,351.08	5.629	ES
SENA 15-25(PR_75CC) - OH - OH	8,300.00	7,050.84	1,647.13	1,353.40	5.608	SF
STATE 1(AB_150CC) - OH - OH	11,684.64	7,000.53	2,179.22	1,798.11	5.718	CC
STATE 1(AB_150CC) - OH - OH	11,700.00	7,000.47	2,179.27	1,797.77	5.712	ES
STATE 1(AB_150CC) - OH - OH	11,900.00	7,000.32	2,189.83	1,803.77	5.672	SF
STATE BEATRICE 16-1(AB_150CC) - OH - OH	11,814.35	7,002.02	2,201.06	1,816.29	5.720	CC
STATE BEATRICE 16-1(AB_150CC) - OH - OH	11,900.00	7,001.68	2,202.72	1,815.83	5.693	ES
STATE BEATRICE 16-1(AB_150CC) - OH - OH	12,100.00	7,000.90	2,219.52	1,828.49	5.676	SF
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,623.57	7,004.23	727.63	348.09	1.917	CC, ES, SF
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,383.24	6,981.92	1,957.60	1,501.35	4.291	CC
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,400.00	6,981.86	1,957.68	1,500.93	4.286	ES
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,600.00	6,981.07	1,969.57	1,508.09	4.268	SF
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,235.54	7,000.57	475.00	50.47	1.119	Level 2, CC, ES, SF
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,434.99	7,005.69	691.03	445.41	2.813	CC, ES, SF
STOCKOVER 16-1(PR_75CC) - OH - OH	10,283.72	7,006.96	453.30	110.50	1.322	Level 3, CC
STOCKOVER 16-1(PR_75CC) - OH - OH	10,300.00	7,007.03	453.59	110.27	1.321	Level 3, ES, SF
ULRICH PC I 17-07D(PR_75CC) - OH - OH	14,871.88	7,134.28	2,278.18	2,157.53	18.884	CC, ES, SF
ULRICH PC I 17-08(PR_75CC) - OH - OH	14,871.88	7,002.00	1,303.43	905.29	3.274	CC, ES, SF
ULRICH PC I17-17D(PR_75CC) - OH - OH	14,871.88	7,239.31	2,377.45	2,181.53	12.135	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 Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
				Reference	Offset		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.00	0.00	0.00	37.00	3.28	3.28	166.48	-1,460.14	351.03	1,502.20					
100.00	100.00	59.94	96.94	3.28	3.28	166.48	-1,460.20	351.04	1,501.81	1,495.24	6.57	228.682		
200.00	200.00	158.37	195.37	3.34	3.31	166.49	-1,460.51	351.02	1,502.11	1,495.46	6.65	225.886		
300.00	300.00	260.75	297.75	3.44	3.40	166.50	-1,460.83	350.81	1,502.36	1,495.51	6.85	219.418		
400.00	399.98	361.55	398.55	3.60	3.54	-23.39	-1,460.94	350.73	1,500.85	1,493.71	7.14	210.289		
500.00	499.84	461.09	498.09	3.79	3.72	-23.50	-1,461.05	350.76	1,496.16	1,488.65	7.51	199.222		
600.00	599.45	557.03	594.03	4.02	3.93	-23.70	-1,461.20	350.89	1,488.36	1,480.40	7.95	187.120		
700.00	698.70	653.36	690.36	4.29	4.18	-23.97	-1,461.69	350.99	1,477.71	1,469.24	8.47	174.561		
800.00	797.70	754.62	791.62	4.59	4.46	-24.19	-1,462.28	350.84	1,465.30	1,456.26	9.04	162.027		
900.00	896.69	856.71	893.70	4.92	4.77	-24.40	-1,462.72	350.29	1,452.67	1,443.01	9.67	150.263		
1,000.00	995.68	957.50	994.49	5.27	5.09	-24.62	-1,463.00	349.77	1,439.92	1,429.59	10.33	139.444		
1,100.00	1,094.68	1,054.90	1,091.89	5.64	5.41	-24.82	-1,463.27	349.09	1,427.13	1,416.13	11.01	129.674		
1,200.00	1,193.67	1,152.33	1,189.32	6.03	5.75	-25.03	-1,463.72	348.52	1,414.57	1,402.86	11.71	120.788		
1,300.00	1,292.67	1,251.56	1,288.54	6.42	6.11	-25.24	-1,464.20	347.86	1,402.03	1,389.59	12.44	112.662		
1,400.00	1,391.66	1,352.04	1,389.02	6.83	6.47	-25.46	-1,464.70	347.05	1,389.49	1,376.29	13.20	105.264		
1,500.00	1,490.66	1,454.30	1,491.28	7.25	6.85	-25.68	-1,465.01	346.25	1,376.78	1,362.81	13.98	98.507		
1,600.00	1,589.65	1,555.75	1,592.72	7.67	7.24	-25.91	-1,465.06	345.50	1,363.87	1,349.11	14.76	92.386		
1,700.00	1,688.64	1,653.79	1,690.75	8.10	7.62	-26.13	-1,465.12	344.43	1,350.90	1,335.35	15.55	86.884		
1,800.00	1,787.64	1,750.32	1,787.28	8.53	7.99	-26.35	-1,465.33	343.52	1,338.13	1,321.79	16.34	81.901		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
1,900.00	1,886.63	1,848.72	1,885.68	8.97	8.38	-26.57	-1,465.69	342.58	1,325.51	1,308.37	17.14	77.320		
2,000.00	1,985.63	1,947.02	1,983.97	9.41	8.77	-26.80	-1,466.05	341.59	1,312.92	1,294.96	17.95	73.124		
2,100.00	2,084.62	2,044.97	2,081.91	9.85	9.16	-27.02	-1,466.60	340.43	1,300.47	1,281.69	18.77	69.279		
2,200.00	2,183.61	2,143.54	2,180.47	10.30	9.55	-27.26	-1,467.13	339.40	1,288.05	1,268.46	19.60	65.732		
2,300.00	2,282.61	2,241.24	2,278.17	10.75	9.95	-27.51	-1,467.65	338.73	1,275.76	1,255.34	20.42	62.471		
2,400.00	2,381.60	2,342.14	2,379.07	11.20	10.36	-27.76	-1,468.27	337.90	1,263.54	1,242.28	21.26	59.426		
2,500.00	2,480.60	2,444.72	2,481.64	11.66	10.78	-28.03	-1,468.60	336.90	1,251.02	1,228.90	22.11	56.576		
2,600.00	2,579.59	2,544.50	2,581.42	12.11	11.18	-28.30	-1,468.72	336.18	1,238.40	1,215.45	22.96	53.948		
2,700.00	2,678.58	2,642.60	2,679.52	12.57	11.59	-28.59	-1,468.73	335.65	1,225.78	1,201.98	23.80	51.510		
2,800.00	2,777.58	2,739.50	2,776.41	13.02	11.99	-28.87	-1,468.94	335.15	1,213.39	1,188.75	24.64	49.249		
2,900.00	2,876.57	2,838.78	2,875.69	13.48	12.40	-29.17	-1,469.23	334.62	1,201.08	1,175.59	25.49	47.123		
3,000.00	2,975.57	2,937.64	2,974.55	13.94	12.81	-29.48	-1,469.43	334.19	1,188.76	1,162.42	26.34	45.131		
3,100.00	3,074.56	3,034.60	3,071.51	14.40	13.21	-29.79	-1,469.77	333.73	1,176.61	1,149.42	27.19	43.275		
3,200.00	3,173.55	3,133.17	3,170.07	14.87	13.62	-30.10	-1,470.28	333.24	1,164.64	1,136.59	28.04	41.528		
3,300.00	3,272.55	3,235.97	3,272.87	15.33	14.05	-30.45	-1,470.55	333.04	1,152.56	1,123.65	28.91	39.861		
3,400.00	3,371.54	3,340.75	3,377.66	15.79	14.48	-30.80	-1,470.42	332.48	1,140.06	1,110.27	29.79	38.270		
3,500.00	3,470.54	3,440.89	3,477.79	16.26	14.90	-31.15	-1,469.94	331.84	1,127.22	1,096.57	30.65	36.773		
3,600.00	3,569.53	3,536.53	3,573.43	16.72	15.30	-31.49	-1,469.72	331.10	1,114.61	1,083.10	31.51	35.376		
3,700.00	3,668.53	3,631.01	3,667.91	17.19	15.70	-31.82	-1,469.81	330.41	1,102.35	1,069.99	32.36	34.065		
3,800.00	3,767.52	3,724.92	3,761.81	17.65	16.09	-32.14	-1,470.46	329.64	1,090.65	1,057.44	33.21	32.839		
3,900.00	3,866.51	3,824.23	3,861.11	18.12	16.51	-32.48	-1,471.38	328.85	1,079.21	1,045.13	34.08	31.666		
4,000.00	3,965.51	3,926.25	3,963.13	18.59	16.94	-32.85	-1,472.04	328.14	1,067.60	1,032.64	34.96	30.539		
4,100.00	4,064.50	4,025.89	4,062.77	19.05	17.36	-33.22	-1,472.56	327.40	1,055.89	1,020.06	35.83	29.470		
4,200.00	4,163.50	4,125.53	4,162.40	19.52	17.78	-33.59	-1,473.06	326.59	1,044.19	1,007.49	36.70	28.450		
4,300.00	4,262.49	4,228.97	4,265.84	19.99	18.21	-34.00	-1,473.35	325.92	1,032.39	994.80	37.58	27.468		
4,400.00	4,361.48	4,334.86	4,371.73	20.46	18.66	-34.45	-1,472.78	325.03	1,019.82	981.34	38.47	26.508		
4,500.00	4,460.48	4,432.25	4,469.11	20.92	19.07	-34.87	-1,472.20	324.24	1,007.26	967.92	39.34	25.603		
4,600.00	4,559.47	4,535.49	4,572.34	21.39	19.50	-35.31	-1,471.55	323.21	994.67	954.44	40.22	24.728		
4,700.00	4,658.47	4,636.68	4,673.52	21.86	19.93	-35.78	-1,470.24	322.14	981.49	940.39	41.10	23.879		
4,800.00	4,757.46	4,731.61	4,768.44	22.33	20.33	-36.28	-1,468.98	322.19	968.83	926.86	41.97	23.081		
4,900.00	4,856.45	4,830.58	4,867.40	22.80	20.74	-36.76	-1,467.89	321.38	956.08	913.23	42.85	22.311		
5,000.00	4,955.45	4,918.94	4,955.75	23.27	21.12	-37.16	-1,467.94	320.22	944.19	900.47	43.71	21.599		
5,100.00	5,054.44	5,013.47	5,050.28	23.74	21.52	-37.62	-1,468.44	319.92	933.22	888.64	44.59	20.931		
5,200.00	5,153.44	5,123.62	5,160.42	24.21	21.98	-38.25	-1,467.99	320.19	921.77	876.28	45.49	20.263		
5,300.00	5,252.43	5,224.48	5,261.27	24.68	22.40	-38.88	-1,466.63	320.78	909.75	863.38	46.38	19.617		
5,400.00	5,351.42	5,320.46	5,357.24	25.15	22.80	-39.52	-1,465.17	321.67	897.87	850.61	47.26	18.999		
5,500.00	5,450.42	5,411.48	5,448.25	25.62	23.19	-40.15	-1,464.28	322.91	886.79	838.65	48.13	18.423		
5,600.00	5,549.41	5,507.89	5,544.65	26.09	23.59	-40.79	-1,464.19	323.89	876.41	827.39	49.02	17.879		
5,700.00	5,648.41	5,612.74	5,649.50	26.56	24.03	-41.49	-1,463.96	324.70	865.92	816.00	49.92	17.347		
5,800.00	5,747.40	5,707.92	5,744.66	27.03	24.43	-42.18	-1,463.46	325.91	855.54	804.73	50.80	16.840		
5,900.00	5,846.40	5,814.38	5,851.12	27.51	24.88	-42.91	-1,462.98	326.43	844.95	793.25	51.71	16.342		
6,000.00	5,945.39	5,907.33	5,944.07	27.98	25.27	-43.56	-1,462.67	326.74	834.49	781.90	52.59	15.868		
6,100.00	6,044.38	5,999.87	6,036.60	28.45	25.66	-44.28	-1,462.40	326.06	824.80	771.32	53.47	15.424		
6,200.00	6,143.38	6,093.63	6,130.34	28.92	26.06	-45.04	-1,462.49	330.02	815.96	761.60	54.36	15.010		
6,300.00	6,242.37	6,200.88	6,237.57	29.39	26.51	-45.89	-1,462.79	331.73	807.14	751.86	55.27	14.602		
6,400.00	6,341.37	6,296.70	6,333.38	29.86	26.91	-46.69	-1,462.60	333.29	798.11	741.94	56.17	14.210		
6,500.00	6,440.36	6,392.84	6,429.50	30.34	27.32	-47.52	-1,462.61	335.18	789.62	732.56	57.06	13.838		
6,584.62	6,523.80	6,468.10	6,504.75	30.73	27.64	-84.07	-1,463.31	336.56	786.24	728.43	57.81	13.600		
6,600.00	6,538.90	6,481.64	6,518.28	30.80	27.70	-88.18	-1,463.53	336.83	785.96	728.02	57.94	13.564 CC, ES		
6,700.00	6,634.88	6,584.50	6,621.11	31.25	28.13	-106.23	-1,465.41	338.44	793.10	734.23	58.87	13.472 SF		
6,800.00	6,725.92	6,688.92	6,725.52	31.68	28.58	-114.86	-1,466.54	338.60	810.21	750.43	59.79	13.552		
6,900.00	6,809.79	6,764.82	6,801.42	32.07	28.90	-119.09	-1,467.10	338.54	839.25	778.62	60.63	13.843		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
7,000.00	6,884.42	6,839.36	6,875.96	32.43	29.22	-121.25	-1,467.93	338.78	881.41	819.97	61.44	14.346	
7,100.00	6,947.98	6,902.77	6,939.36	32.77	29.49	-121.33	-1,468.63	338.99	936.00	873.81	62.19	15.050	
7,200.00	6,998.89	6,953.49	6,990.08	33.18	29.70	-119.03	-1,469.19	339.15	1,002.02	939.16	62.87	15.939	
7,300.00	7,035.91	6,990.27	7,026.85	33.76	29.86	-113.54	-1,469.60	339.27	1,077.78	1,014.33	63.44	16.988	
7,400.00	7,058.12	7,012.21	7,048.79	34.61	29.95	-103.58	-1,469.84	339.34	1,161.04	1,097.14	63.90	18.170	
7,500.00	7,064.98	7,018.77	7,055.35	35.68	29.98	-88.54	-1,469.91	339.37	1,249.27	1,185.04	64.23	19.451	
7,600.00	7,064.59	7,018.06	7,054.65	36.95	29.98	-88.46	-1,469.91	339.36	1,339.79	1,275.30	64.48	20.778	
7,700.00	7,064.20	7,017.36	7,053.94	38.40	29.97	-88.39	-1,469.90	339.36	1,431.56	1,366.85	64.71	22.121	
7,800.00	7,063.80	7,016.65	7,053.23	40.00	29.97	-88.32	-1,469.89	339.36	1,524.38	1,459.45	64.93	23.479	
7,900.00	7,063.41	7,015.94	7,052.52	41.75	29.97	-88.24	-1,469.88	339.36	1,618.05	1,552.93	65.12	24.848	
8,000.00	7,063.02	7,015.23	7,051.81	43.62	29.97	-88.17	-1,469.87	339.35	1,712.43	1,647.14	65.29	26.226	
8,100.00	7,062.62	7,014.52	7,051.11	45.59	29.96	-88.09	-1,469.87	339.35	1,807.42	1,741.96	65.46	27.613	
8,200.00	7,062.23	7,013.82	7,050.40	47.65	29.96	-88.02	-1,469.86	339.35	1,902.92	1,837.32	65.60	29.006	
8,300.00	7,061.84	7,013.11	7,049.69	49.79	29.96	-87.95	-1,469.85	339.35	1,998.86	1,933.12	65.74	30.405	
8,400.00	7,061.45	7,012.40	7,048.98	52.00	29.95	-87.87	-1,469.84	339.34	2,095.18	2,029.31	65.87	31.809	
8,500.00	7,061.05	7,011.69	7,048.27	54.27	29.95	-87.80	-1,469.83	339.34	2,191.83	2,125.85	65.99	33.216	
8,600.00	7,060.66	7,010.98	7,047.57	56.60	29.95	-87.73	-1,469.83	339.34	2,288.77	2,222.67	66.10	34.627	
8,700.00	7,060.27	7,010.28	7,046.86	58.97	29.94	-87.65	-1,469.82	339.34	2,385.96	2,319.76	66.20	36.041	
8,800.00	7,059.87	7,009.57	7,046.15	61.38	29.94	-87.58	-1,469.81	339.34	2,483.37	2,417.07	66.30	37.457	
8,900.00	7,059.48	7,008.86	7,045.44	63.83	29.94	-87.50	-1,469.80	339.33	2,580.98	2,514.59	66.39	38.874	
9,000.00	7,059.09	7,008.15	7,044.73	66.32	29.94	-87.43	-1,469.80	339.33	2,678.77	2,612.29	66.48	40.293	
9,100.00	7,058.69	7,007.44	7,044.03	68.83	29.93	-87.36	-1,469.79	339.33	2,776.72	2,710.15	66.57	41.714	
9,200.00	7,058.30	7,006.74	7,043.32	71.37	29.93	-87.28	-1,469.78	339.33	2,874.80	2,808.15	66.65	43.135	
9,300.00	7,057.91	7,006.03	7,042.61	73.93	29.93	-87.21	-1,469.77	339.32	2,973.01	2,906.29	66.73	44.556	
9,400.00	7,057.51	7,005.32	7,041.90	76.51	29.92	-87.14	-1,469.76	339.32	3,071.34	3,004.54	66.80	45.978	
9,500.00	7,057.12	7,004.61	7,041.19	79.11	29.92	-87.06	-1,469.76	339.32	3,169.78	3,102.90	66.87	47.400	
9,600.00	7,056.73	7,003.90	7,040.49	81.73	29.92	-86.99	-1,469.75	339.32	3,268.30	3,201.36	66.94	48.822	
9,700.00	7,056.33	7,003.19	7,039.78	84.37	29.91	-86.92	-1,469.74	339.32	3,366.92	3,299.91	67.01	50.243	
9,800.00	7,055.94	7,002.49	7,039.07	87.01	29.91	-86.84	-1,469.73	339.31	3,465.61	3,398.53	67.08	51.664	
9,900.00	7,055.55	7,001.78	7,038.36	89.68	29.91	-86.77	-1,469.72	339.31	3,564.38	3,497.23	67.15	53.085	
10,000.00	7,055.15	7,001.07	7,037.65	92.35	29.90	-86.69	-1,469.72	339.31	3,663.21	3,596.00	67.21	54.504	
10,100.00	7,054.76	7,000.36	7,036.95	95.03	29.90	-86.62	-1,469.71	339.31	3,762.11	3,694.83	67.27	55.923	
10,200.00	7,054.37	6,999.65	7,036.24	97.73	29.90	-86.55	-1,469.70	339.30	3,861.06	3,793.72	67.34	57.341	
10,300.00	7,053.98	6,998.95	7,035.53	100.43	29.90	-86.47	-1,469.69	339.30	3,960.06	3,892.66	67.40	58.757	
10,400.00	7,053.58	6,998.24	7,034.82	103.14	29.89	-86.40	-1,469.69	339.30	4,059.11	3,991.66	67.46	60.172	
10,500.00	7,053.19	6,997.53	7,034.11	105.86	29.89	-86.33	-1,469.68	339.30	4,158.21	4,090.69	67.52	61.586	
10,600.00	7,052.80	6,996.82	7,033.41	108.59	29.89	-86.25	-1,469.67	339.29	4,257.35	4,189.77	67.58	62.999	
10,700.00	7,052.40	6,996.11	7,032.70	111.32	29.88	-86.18	-1,469.66	339.29	4,356.53	4,288.89	67.64	64.410	
10,800.00	7,052.01	6,995.41	7,031.99	114.06	29.88	-86.11	-1,469.65	339.29	4,455.75	4,388.05	67.70	65.819	
10,900.00	7,051.62	6,994.70	7,031.28	116.80	29.88	-86.03	-1,469.65	339.29	4,555.00	4,487.24	67.76	67.227	
11,000.00	7,051.22	6,993.99	7,030.57	119.55	29.87	-85.96	-1,469.64	339.29	4,654.28	4,586.46	67.81	68.632	
11,100.00	7,050.83	6,993.28	7,029.87	122.31	29.87	-85.88	-1,469.63	339.28	4,753.59	4,685.72	67.87	70.036	
11,200.00	7,050.44	6,992.57	7,029.16	125.07	29.87	-85.81	-1,469.62	339.28	4,852.93	4,785.00	67.93	71.438	
11,300.00	7,050.04	6,991.87	7,028.45	127.83	29.87	-85.74	-1,469.62	339.28	4,952.30	4,884.31	67.99	72.838	
11,400.00	7,049.65	6,991.16	7,027.74	130.60	29.86	-85.66	-1,469.61	339.28	5,051.69	4,983.64	68.05	74.235	
11,500.00	7,049.26	6,990.45	7,027.03	133.37	29.86	-85.59	-1,469.60	339.27	5,151.10	5,083.00	68.11	75.631	
11,600.00	7,048.86	6,989.74	7,026.33	136.15	29.86	-85.52	-1,469.59	339.27	5,250.54	5,182.37	68.17	77.024	
11,700.00	7,048.47	6,989.03	7,025.62	138.93	29.85	-85.44	-1,469.58	339.27	5,350.00	5,281.77	68.23	78.415	
11,800.00	7,048.08	6,988.32	7,024.91	141.71	29.85	-85.37	-1,469.58	339.27	5,449.48	5,381.19	68.29	79.804	
11,900.00	7,047.68	6,987.62	7,024.20	144.49	29.85	-85.30	-1,469.57	339.26	5,548.97	5,480.63	68.35	81.190	
12,000.00	7,047.29	6,986.91	7,023.49	147.28	29.84	-85.22	-1,469.56	339.26	5,648.49	5,580.08	68.41	82.573	
12,100.00	7,046.90	6,986.20	7,022.79	150.07	29.84	-85.15	-1,469.55	339.26	5,748.02	5,679.55	68.47	83.954	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
12,200.00	7,046.51	6,985.49	7,022.08	152.87	29.84	-85.08	-1,469.54	339.26	5,847.57	5,779.04	68.53	85.333		
12,300.00	7,046.11	6,984.78	7,021.37	155.66	29.84	-85.00	-1,469.54	339.26	5,947.13	5,878.54	68.59	86.709		
12,400.00	7,045.72	6,984.08	7,020.66	158.46	29.83	-84.93	-1,469.53	339.25	6,046.70	5,978.06	68.65	88.082		
12,500.00	7,045.33	6,983.37	7,019.95	161.26	29.83	-84.86	-1,469.52	339.25	6,146.29	6,077.58	68.71	89.452		
12,600.00	7,044.93	6,982.66	7,019.24	164.06	29.83	-84.78	-1,469.51	339.25	6,245.90	6,177.12	68.77	90.820		
12,700.00	7,044.54	6,981.95	7,018.54	166.86	29.82	-84.71	-1,469.51	339.25	6,345.51	6,276.68	68.84	92.184		
12,800.00	7,044.15	6,981.24	7,017.83	169.67	29.82	-84.64	-1,469.50	339.24	6,445.14	6,376.24	68.90	93.546		
12,900.00	7,043.75	6,980.54	7,017.12	172.48	29.82	-84.56	-1,469.49	339.24	6,544.78	6,475.82	68.96	94.905		
13,000.00	7,043.36	6,979.83	7,016.41	175.28	29.81	-84.49	-1,469.48	339.24	6,644.43	6,575.40	69.03	96.261		
13,100.00	7,042.97	6,979.12	7,015.70	178.09	29.81	-84.42	-1,469.47	339.24	6,744.09	6,675.00	69.09	97.614		
13,200.00	7,042.57	6,978.41	7,015.00	180.91	29.81	-84.34	-1,469.47	339.23	6,843.76	6,774.60	69.15	98.963		
13,300.00	7,042.18	6,977.70	7,014.29	183.72	29.81	-84.27	-1,469.46	339.23	6,943.44	6,874.22	69.22	100.310		
13,400.00	7,041.79	6,977.00	7,013.58	186.53	29.80	-84.20	-1,469.45	339.23	7,043.12	6,973.84	69.29	101.653		
13,500.00	7,041.39	6,976.29	7,012.87	189.35	29.80	-84.12	-1,469.44	339.23	7,142.82	7,073.47	69.35	102.994		
13,600.00	7,041.00	6,975.58	7,012.16	192.17	29.80	-84.05	-1,469.44	339.23	7,242.52	7,173.11	69.42	104.331		
13,700.00	7,040.61	6,974.87	7,011.46	194.99	29.79	-83.98	-1,469.43	339.22	7,342.24	7,272.75	69.49	105.664		
13,800.00	7,040.21	6,974.16	7,010.75	197.81	29.79	-83.90	-1,469.42	339.22	7,441.96	7,372.40	69.55	106.995		
13,900.00	7,039.82	6,973.46	7,010.04	200.63	29.79	-83.83	-1,469.41	339.22	7,541.69	7,472.06	69.62	108.322		
14,000.00	7,039.43	6,972.75	7,009.33	203.45	29.78	-83.76	-1,469.40	339.22	7,641.42	7,571.73	69.69	109.645		
14,100.00	7,039.03	6,972.04	7,008.62	206.27	29.78	-83.69	-1,469.40	339.21	7,741.16	7,671.40	69.76	110.966		
14,200.00	7,038.64	6,971.33	7,007.92	209.09	29.78	-83.61	-1,469.39	339.21	7,840.91	7,771.08	69.83	112.282		
14,300.00	7,038.25	6,970.62	7,007.21	211.92	29.78	-83.54	-1,469.38	339.21	7,940.67	7,870.76	69.90	113.596		
14,400.00	7,037.86	6,969.91	7,006.50	214.74	29.77	-83.47	-1,469.37	339.21	8,040.43	7,970.45	69.97	114.906		
14,500.00	7,037.46	6,969.21	7,005.79	217.57	29.77	-83.39	-1,469.36	339.20	8,140.19	8,070.15	70.05	116.212		
14,600.00	7,037.07	6,968.50	7,005.08	220.40	29.77	-83.32	-1,469.36	339.20	8,239.96	8,169.85	70.12	117.515		
14,700.00	7,036.68	6,967.79	7,004.38	223.23	29.76	-83.25	-1,469.35	339.20	8,339.74	8,269.55	70.19	118.814		
14,800.00	7,036.28	6,967.08	7,003.67	226.05	29.76	-83.17	-1,469.34	339.20	8,439.52	8,369.26	70.27	120.109		
14,871.88	7,036.00	6,966.57	7,003.16	228.09	29.76	-83.12	-1,469.34	339.20	8,511.25	8,440.93	70.32	121.038		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	69.00	3.28	3.28	172.58	-4,199.34	546.64	4,235.33					
100.00	100.00	30.35	99.35	3.28	3.28	172.58	-4,199.35	546.62	4,234.77	4,228.21	6.57	645.020		
200.00	200.00	125.89	194.89	3.34	3.30	172.59	-4,199.42	546.41	4,234.82	4,228.19	6.63	638.439		
300.00	300.00	216.38	285.38	3.44	3.36	172.59	-4,199.68	546.14	4,235.06	4,228.26	6.80	622.673		
400.00	399.98	311.37	380.37	3.60	3.47	-17.27	-4,200.08	546.06	4,233.81	4,226.75	7.06	599.559		
500.00	499.84	413.75	482.74	3.79	3.63	-17.32	-4,200.52	546.10	4,229.24	4,221.82	7.42	570.110		
600.00	599.45	512.08	581.08	4.02	3.83	-17.40	-4,200.94	546.10	4,221.34	4,213.49	7.85	537.664		
700.00	698.70	614.78	683.77	4.29	4.08	-17.52	-4,201.39	545.85	4,210.11	4,201.74	8.37	503.294		
800.00	797.70	717.62	786.61	4.59	4.35	-17.57	-4,201.75	545.36	4,196.89	4,187.96	8.94	469.624		
900.00	896.69	809.96	878.95	4.92	4.62	-17.62	-4,202.17	544.65	4,183.75	4,174.23	9.52	439.370		
1,000.00	995.68	909.77	978.75	5.27	4.93	-17.66	-4,202.71	543.60	4,170.64	4,160.47	10.17	410.124		
1,100.00	1,094.68	991.14	1,060.11	5.64	5.20	-17.69	-4,203.37	542.46	4,157.76	4,146.97	10.79	385.361		
1,200.00	1,193.67	1,079.84	1,148.80	6.03	5.50	-17.72	-4,204.44	540.97	4,145.23	4,133.77	11.46	361.764		
1,300.00	1,292.67	1,175.05	1,243.98	6.42	5.84	-17.76	-4,205.77	539.28	4,132.88	4,120.71	12.17	339.562		
1,400.00	1,391.66	1,282.61	1,351.51	6.83	6.22	-17.79	-4,207.25	537.23	4,120.49	4,107.55	12.95	318.269		
1,500.00	1,490.66	1,388.42	1,457.29	7.25	6.61	-17.82	-4,208.50	534.99	4,107.89	4,094.15	13.73	299.132		
1,600.00	1,589.65	1,487.20	1,556.04	7.67	6.99	-17.85	-4,209.59	532.96	4,095.21	4,080.70	14.51	282.300		
1,700.00	1,688.64	1,579.29	1,648.11	8.10	7.34	-17.88	-4,210.67	531.17	4,082.62	4,067.35	15.27	267.418		
1,800.00	1,787.64	1,686.54	1,765.33	8.53	7.79	-17.92	-4,211.96	528.96	4,069.98	4,053.85	16.13	252.331		
1,900.00	1,886.63	1,783.58	1,852.35	8.97	8.13	-17.95	-4,212.77	527.41	4,057.18	4,040.30	16.89	240.241		
2,000.00	1,985.63	1,876.87	1,945.62	9.41	8.50	-17.98	-4,213.86	525.90	4,044.64	4,026.96	17.68	228.814		
2,100.00	2,084.62	1,969.68	2,038.41	9.85	8.87	-18.02	-4,215.08	524.30	4,032.23	4,013.76	18.47	218.318		
2,200.00	2,183.61	2,060.00	2,128.71	10.30	9.23	-18.05	-4,216.46	522.62	4,020.00	4,000.74	19.26	208.737		
2,300.00	2,282.61	2,156.06	2,224.73	10.75	9.61	-18.08	-4,218.12	520.79	4,007.97	3,987.89	20.07	199.656		
2,400.00	2,381.60	2,286.65	2,355.29	11.20	10.14	-18.12	-4,220.02	518.31	3,995.71	3,974.68	21.03	190.042		
2,500.00	2,480.60	2,445.47	2,514.09	11.66	10.79	-18.19	-4,220.30	515.84	3,982.23	3,960.15	22.08	180.336		
2,600.00	2,579.59	2,570.22	2,638.81	12.11	11.30	-18.24	-4,218.88	514.00	3,967.41	3,944.40	23.01	172.407		
2,700.00	2,678.58	2,670.16	2,738.73	12.57	11.71	-18.29	-4,217.58	512.43	3,952.46	3,928.61	23.85	165.701		
2,800.00	2,777.58	2,765.48	2,834.03	13.02	12.10	-18.33	-4,216.37	510.80	3,937.54	3,912.86	24.68	159.543		
2,900.00	2,876.57	2,861.96	2,930.48	13.48	12.50	-18.37	-4,215.27	509.06	3,922.72	3,897.20	25.51	153.747		
3,000.00	2,975.57	2,956.36	3,024.87	13.94	12.89	-18.41	-4,214.25	507.31	3,907.95	3,881.61	26.34	148.349		
3,100.00	3,074.56	3,055.73	3,124.22	14.40	13.30	-18.45	-4,213.31	505.37	3,893.31	3,866.11	27.19	143.177		
3,200.00	3,173.55	3,162.05	3,230.50	14.87	13.74	-18.49	-4,212.16	503.22	3,878.52	3,850.45	28.07	138.181		
3,300.00	3,272.55	3,255.15	3,323.58	15.33	14.13	-18.53	-4,211.05	501.42	3,863.64	3,834.74	28.90	133.699		
3,400.00	3,371.54	3,341.96	3,410.36	15.79	14.49	-18.56	-4,210.30	499.68	3,849.07	3,819.36	29.71	129.568		
3,500.00	3,470.54	3,431.70	3,500.08	16.26	14.87	-18.59	-4,209.82	497.59	3,834.78	3,804.25	30.53	125.615		
3,600.00	3,569.53	3,524.44	3,592.79	16.72	15.26	-18.62	-4,209.53	495.15	3,820.67	3,789.30	31.36	121.825		
3,700.00	3,668.53	3,617.64	3,685.96	17.19	15.65	-18.65	-4,209.41	492.76	3,806.73	3,774.53	32.20	118.227		
3,800.00	3,767.52	3,715.43	3,783.73	17.65	16.06	-18.69	-4,209.26	490.72	3,792.86	3,759.81	33.05	114.752		
3,900.00	3,866.51	3,807.48	3,875.76	18.12	16.45	-18.72	-4,209.25	488.82	3,779.12	3,745.24	33.89	111.522		
4,000.00	3,965.51	3,909.91	3,978.17	18.59	16.88	-18.76	-4,209.25	486.85	3,765.42	3,730.66	34.76	108.327		
4,100.00	4,064.50	4,010.87	4,079.11	19.05	17.30	-18.81	-4,209.15	485.14	3,751.66	3,716.03	35.63	105.302		
4,200.00	4,163.50	4,110.57	4,178.81	19.52	17.72	-18.86	-4,208.96	483.82	3,737.87	3,701.38	36.49	102.431		
4,300.00	4,262.49	4,219.91	4,288.14	19.99	18.18	-18.94	-4,208.38	483.74	3,723.94	3,686.55	37.39	99.598		
4,400.00	4,361.48	4,346.88	4,415.10	20.46	18.71	-19.05	-4,206.95	484.67	3,709.58	3,671.23	38.35	96.730		
4,500.00	4,460.48	4,460.53	4,528.73	20.92	19.18	-19.15	-4,204.77	485.47	3,694.40	3,655.14	39.26	94.095		
4,600.00	4,559.47	4,544.23	4,612.41	21.39	19.53	-19.22	-4,203.20	486.20	3,679.33	3,639.26	40.07	91.813		
4,700.00	4,658.47	4,618.57	4,686.74	21.86	19.84	-19.29	-4,202.28	486.62	3,664.85	3,624.00	40.85	89.706		
4,800.00	4,757.46	4,688.80	4,756.97	22.33	20.14	-19.34	-4,201.96	486.96	3,651.11	3,609.49	41.62	87.727		
4,900.00	4,856.45	4,783.93	4,852.10	22.80	20.54	-19.42	-4,201.99	487.45	3,637.87	3,595.40	42.47	85.654		
5,000.00	4,955.45	4,882.77	4,950.94	23.27	20.95	-19.50	-4,202.04	487.87	3,624.63	3,581.29	43.34	83.637		
5,100.00	5,054.44	4,980.91	5,049.08	23.74	21.36	-19.58	-4,202.14	488.11	3,611.42	3,567.22	44.20	81.703		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,083.09	5,151.25	24.21	21.79	-19.67	-4,202.17	488.62	3,598.19	3,553.11	45.08	79.817	
5,300.00	5,252.43	5,192.51	5,260.68	24.68	22.25	-19.76	-4,201.97	489.35	3,584.79	3,538.80	45.98	77.956	
5,400.00	5,351.42	5,327.54	5,395.69	25.15	22.82	-19.89	-4,200.74	490.45	3,570.71	3,523.73	46.97	76.015	
5,500.00	5,450.42	5,500.00	5,542.01	25.62	23.55	-20.06	-4,197.22	493.60	3,555.36	3,507.26	48.10	73.909	
5,600.00	5,549.41	5,574.49	5,642.45	26.09	23.86	-20.20	-4,193.66	496.67	3,539.13	3,490.26	48.87	72.420	
5,700.00	5,648.41	5,643.91	5,711.82	26.56	24.16	-20.29	-4,191.79	498.40	3,523.65	3,474.00	49.65	70.974	
5,800.00	5,747.40	5,715.89	5,783.78	27.03	24.46	-20.37	-4,190.55	499.66	3,508.98	3,458.55	50.43	69.579	
5,900.00	5,846.40	5,795.41	5,863.29	27.51	24.80	-20.45	-4,189.80	500.39	3,494.95	3,443.71	51.24	68.210	
6,000.00	5,945.39	5,887.86	5,955.74	27.98	25.19	-20.54	-4,189.38	500.72	3,481.31	3,429.22	52.09	66.836	
6,100.00	6,044.38	6,001.81	6,069.69	28.45	25.67	-20.63	-4,188.80	500.84	3,467.57	3,414.57	53.01	65.417	
6,200.00	6,143.38	6,094.31	6,162.18	28.92	26.06	-20.71	-4,188.23	500.73	3,453.69	3,399.84	53.86	64.127	
6,300.00	6,242.37	6,205.85	6,273.73	29.39	26.54	-20.80	-4,187.46	500.50	3,439.74	3,384.97	54.77	62.805	
6,400.00	6,341.37	6,314.19	6,382.06	29.86	27.00	-20.89	-4,186.36	500.21	3,425.46	3,369.79	55.67	61.532	
6,500.00	6,440.36	6,401.46	6,469.32	30.34	27.37	-20.97	-4,185.54	500.02	3,411.26	3,354.76	56.51	60.371	
6,600.00	6,538.90	6,497.72	6,565.58	30.80	27.78	-21.56	-4,184.82	499.60	3,398.45	3,341.08	57.37	59.236	
6,700.00	6,634.88	6,594.37	6,662.22	31.25	28.19	-21.56	-4,184.14	499.09	3,388.97	3,330.74	58.23	58.199	
6,800.00	6,725.92	6,697.01	6,764.86	31.68	28.62	-21.56	-4,183.11	499.15	3,383.24	3,324.15	59.10	57.250	
6,878.69	6,792.62	6,767.84	6,835.68	31.98	28.92	-21.56	-4,182.19	499.28	3,381.75	3,322.01	59.75	56.601 CC	
6,900.00	6,809.79	6,786.10	6,853.94	32.07	29.00	-21.56	-4,181.96	499.25	3,381.87	3,321.95	59.92	56.440 ES	
7,000.00	6,884.42	6,859.96	6,927.80	32.43	29.31	-21.56	-4,181.02	499.02	3,385.66	3,324.93	60.73	55.754	
7,100.00	6,947.98	6,921.83	6,989.66	32.77	29.58	-21.56	-4,180.25	498.90	3,395.27	3,333.70	61.56	55.153	
7,200.00	6,998.89	6,970.51	7,038.34	33.18	29.78	-21.56	-4,179.57	499.14	3,411.05	3,348.59	62.47	54.607	
7,300.00	7,035.91	7,004.69	7,072.51	33.76	29.93	-21.56	-4,179.05	499.53	3,433.14	3,369.68	63.46	54.100	
7,400.00	7,058.12	7,018.71	7,086.53	34.61	29.99	-21.56	-4,178.85	499.72	3,461.32	3,396.80	64.52	53.646	
7,500.00	7,064.98	7,022.66	7,090.47	35.68	30.01	-21.56	-4,178.79	499.78	3,494.99	3,429.34	65.65	53.234	
7,600.00	7,064.59	7,021.34	7,089.16	36.95	30.00	-21.56	-4,178.81	499.76	3,532.28	3,465.41	66.87	52.826	
7,700.00	7,064.20	7,020.04	7,087.85	38.40	29.99	-21.56	-4,178.83	499.74	3,571.98	3,503.80	68.18	52.391	
7,800.00	7,063.80	7,018.74	7,086.56	40.00	29.99	-21.56	-4,178.85	499.72	3,614.02	3,544.45	69.57	51.950	
7,900.00	7,063.41	7,017.45	7,085.26	41.75	29.98	-21.56	-4,178.86	499.70	3,658.30	3,587.29	71.01	51.518	
8,000.00	7,063.02	7,016.16	7,083.97	43.62	29.98	-21.56	-4,178.88	499.68	3,704.75	3,632.26	72.49	51.108	
8,100.00	7,062.62	7,014.88	7,082.69	45.59	29.97	-21.56	-4,178.90	499.67	3,753.30	3,679.31	73.99	50.729	
8,200.00	7,062.23	7,013.60	7,081.42	47.65	29.97	-21.56	-4,178.92	499.65	3,803.85	3,728.35	75.49	50.386	
8,300.00	7,061.84	7,012.33	7,080.14	49.79	29.96	-21.56	-4,178.94	499.63	3,856.33	3,779.33	77.00	50.084	
8,400.00	7,061.45	7,011.06	7,078.88	52.00	29.96	-21.56	-4,178.95	499.61	3,910.67	3,832.18	78.49	49.824	
8,500.00	7,061.05	7,009.80	7,077.62	54.27	29.95	-21.56	-4,178.97	499.60	3,966.78	3,886.82	79.96	49.608	
8,600.00	7,060.66	7,008.55	7,076.37	56.60	29.95	-21.56	-4,178.99	499.58	4,024.59	3,943.18	81.41	49.436	
8,700.00	7,060.27	7,000.01	7,067.83	58.97	29.91	-21.56	-4,179.12	499.46	4,084.04	4,001.24	82.80	49.322	
8,800.00	7,059.87	7,000.01	7,067.83	61.38	29.91	-21.56	-4,179.12	499.46	4,145.05	4,060.85	84.20	49.231	
8,900.00	7,059.48	7,000.01	7,067.83	63.83	29.91	-21.56	-4,179.12	499.46	4,207.54	4,121.99	85.55	49.181	
9,000.00	7,059.09	7,000.01	7,067.83	66.32	29.91	-21.56	-4,179.12	499.46	4,271.46	4,184.59	86.87	49.169 SF	
9,100.00	7,058.69	7,000.01	7,067.83	68.83	29.91	-21.56	-4,179.12	499.46	4,336.74	4,248.59	88.16	49.194	
9,200.00	7,058.30	7,000.01	7,067.83	71.37	29.91	-21.56	-4,179.12	499.46	4,403.33	4,313.93	89.40	49.253	
9,300.00	7,057.91	7,000.01	7,067.83	73.93	29.91	-21.56	-4,179.12	499.46	4,471.16	4,380.56	90.61	49.346	
9,400.00	7,057.51	7,000.01	7,067.83	76.51	29.91	-21.56	-4,179.12	499.46	4,540.19	4,448.41	91.78	49.470	
9,500.00	7,057.12	7,000.01	7,067.83	79.11	29.91	-21.56	-4,179.12	499.46	4,610.34	4,517.44	92.91	49.624	
9,600.00	7,056.73	7,000.01	7,067.83	81.73	29.91	-21.56	-4,179.12	499.46	4,681.59	4,587.59	94.00	49.805	
9,700.00	7,056.33	7,000.01	7,067.83	84.37	29.91	-21.56	-4,179.12	499.46	4,753.86	4,658.81	95.05	50.012	
9,800.00	7,055.94	7,000.01	7,067.83	87.01	29.91	-21.56	-4,179.12	499.46	4,827.13	4,731.06	96.07	50.244	
9,900.00	7,055.55	7,000.01	7,067.83	89.68	29.91	-21.56	-4,179.12	499.46	4,901.34	4,804.29	97.06	50.499	
10,000.00	7,055.15	7,000.01	7,067.83	92.35	29.91	-21.56	-4,179.12	499.46	4,976.46	4,878.45	98.01	50.776	
10,100.00	7,054.76	7,000.01	7,067.83	95.03	29.91	-21.56	-4,179.12	499.46	5,052.44	4,953.51	98.92	51.074	
10,200.00	7,054.37	6,989.56	7,057.38	97.73	29.87	-21.56	-4,179.29	499.33	5,129.23	5,029.46	99.77	51.411	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,053.98	6,988.53	7,056.35	100.43	29.86	-89.76	-4,179.30	499.32	5,206.81	5,106.19	100.62	51.748		
10,400.00	7,053.58	6,987.52	7,055.34	103.14	29.86	-89.74	-4,179.32	499.31	5,285.15	5,183.71	101.44	52.102		
10,500.00	7,053.19	6,986.53	7,054.35	105.86	29.85	-89.73	-4,179.33	499.30	5,364.21	5,261.98	102.23	52.472		
10,600.00	7,052.80	6,985.56	7,053.38	108.59	29.85	-89.71	-4,179.35	499.29	5,443.96	5,340.97	102.99	52.857		
10,700.00	7,052.40	6,984.60	7,052.43	111.32	29.84	-89.69	-4,179.36	499.28	5,524.37	5,420.64	103.73	53.257		
10,800.00	7,052.01	6,983.67	7,051.49	114.06	29.84	-89.68	-4,179.38	499.27	5,605.41	5,500.96	104.44	53.670		
10,900.00	7,051.62	6,982.76	7,050.58	116.80	29.84	-89.66	-4,179.39	499.26	5,687.05	5,581.92	105.13	54.097		
11,000.00	7,051.22	6,981.86	7,049.68	119.55	29.83	-89.64	-4,179.40	499.25	5,769.27	5,663.47	105.79	54.535		
11,100.00	7,050.83	6,980.98	7,048.80	122.31	29.83	-89.63	-4,179.42	499.24	5,852.04	5,745.61	106.43	54.985		
11,200.00	7,050.44	6,980.12	7,047.94	125.07	29.83	-89.61	-4,179.43	499.23	5,935.34	5,828.29	107.05	55.445		
11,300.00	7,050.04	6,979.27	7,047.09	127.83	29.82	-89.60	-4,179.44	499.22	6,019.15	5,911.50	107.65	55.916		
11,400.00	7,049.65	6,978.44	7,046.26	130.60	29.82	-89.58	-4,179.46	499.21	6,103.45	5,995.22	108.22	56.396		
11,500.00	7,049.26	6,977.62	7,045.45	133.37	29.81	-89.57	-4,179.47	499.20	6,188.21	6,079.43	108.78	56.886		
11,600.00	7,048.86	6,976.82	7,044.64	136.15	29.81	-89.56	-4,179.48	499.20	6,273.43	6,164.11	109.32	57.384		
11,700.00	7,048.47	6,976.03	7,043.86	138.93	29.81	-89.54	-4,179.49	499.19	6,359.07	6,249.23	109.85	57.891		
11,800.00	7,048.08	6,975.26	7,043.08	141.71	29.80	-89.53	-4,179.50	499.18	6,445.13	6,334.78	110.35	58.405		
11,900.00	7,047.68	6,974.50	7,042.33	144.49	29.80	-89.51	-4,179.51	499.17	6,531.59	6,420.75	110.84	58.927		
12,000.00	7,047.29	6,973.76	7,041.58	147.28	29.80	-89.50	-4,179.53	499.17	6,618.42	6,507.11	111.32	59.456		
12,100.00	7,046.90	6,973.02	7,040.85	150.07	29.80	-89.49	-4,179.54	499.16	6,705.63	6,593.85	111.78	59.992		
12,200.00	7,046.51	6,972.30	7,040.13	152.87	29.79	-89.48	-4,179.55	499.15	6,793.18	6,680.96	112.22	60.534		
12,300.00	7,046.11	6,971.60	7,039.42	155.66	29.79	-89.46	-4,179.56	499.15	6,881.08	6,768.42	112.65	61.082		
12,400.00	7,045.72	6,970.90	7,038.72	158.46	29.79	-89.45	-4,179.57	499.14	6,969.30	6,856.23	113.07	61.636		
12,500.00	7,045.33	6,970.22	7,038.04	161.26	29.78	-89.44	-4,179.58	499.14	7,057.83	6,944.35	113.48	62.196		
12,600.00	7,044.93	6,969.54	7,037.37	164.06	29.78	-89.43	-4,179.59	499.13	7,146.67	7,032.80	113.87	62.761		
12,700.00	7,044.54	6,968.88	7,036.71	166.86	29.78	-89.42	-4,179.60	499.12	7,235.80	7,121.54	114.26	63.330		
12,800.00	7,044.15	6,968.23	7,036.06	169.67	29.78	-89.40	-4,179.61	499.12	7,325.21	7,210.58	114.63	63.905		
12,900.00	7,043.75	6,967.59	7,035.42	172.48	29.77	-89.39	-4,179.62	499.11	7,414.89	7,299.90	114.99	64.484		
13,000.00	7,043.36	6,966.96	7,034.79	175.28	29.77	-89.38	-4,179.63	499.11	7,504.83	7,389.49	115.34	65.067		
13,100.00	7,042.97	6,966.34	7,034.17	178.09	29.77	-89.37	-4,179.63	499.10	7,595.02	7,479.34	115.68	65.654		
13,200.00	7,042.57	6,965.73	7,033.56	180.91	29.76	-89.36	-4,179.64	499.10	7,685.45	7,569.44	116.01	66.246		
13,300.00	7,042.18	6,965.13	7,032.96	183.72	29.76	-89.35	-4,179.65	499.09	7,776.12	7,659.78	116.34	66.841		
13,400.00	7,041.79	6,964.54	7,032.37	186.53	29.76	-89.34	-4,179.66	499.09	7,867.02	7,750.36	116.65	67.440		
13,500.00	7,041.39	6,963.96	7,031.79	189.35	29.76	-89.33	-4,179.67	499.08	7,958.13	7,841.17	116.96	68.042		
13,600.00	7,041.00	6,963.39	7,031.21	192.17	29.75	-89.32	-4,179.68	499.08	8,049.45	7,932.19	117.26	68.647		
13,700.00	7,040.61	6,962.82	7,030.65	194.99	29.75	-89.31	-4,179.69	499.08	8,140.98	8,023.43	117.55	69.256		
13,800.00	7,040.21	6,962.27	7,030.09	197.81	29.75	-89.30	-4,179.69	499.07	8,232.71	8,114.87	117.83	69.867		
13,900.00	7,039.82	6,961.72	7,029.55	200.63	29.75	-89.29	-4,179.70	499.07	8,324.62	8,206.51	118.11	70.481		
14,000.00	7,039.43	6,961.18	7,029.01	203.45	29.75	-89.28	-4,179.71	499.06	8,416.72	8,298.34	118.38	71.099		
14,100.00	7,039.03	6,960.65	7,028.48	206.27	29.74	-89.27	-4,179.72	499.06	8,509.00	8,390.35	118.64	71.718		
14,200.00	7,038.64	6,960.13	7,027.96	209.09	29.74	-89.26	-4,179.73	499.06	8,601.45	8,482.55	118.90	72.340		
14,300.00	7,038.25	6,959.61	7,027.44	211.92	29.74	-89.25	-4,179.73	499.05	8,694.07	8,574.91	119.15	72.965		
14,400.00	7,037.86	6,959.11	7,026.93	214.74	29.74	-89.24	-4,179.74	499.05	8,786.84	8,667.44	119.40	73.592		
14,500.00	7,037.46	6,958.61	7,026.43	217.57	29.73	-89.24	-4,179.75	499.04	8,879.78	8,760.14	119.64	74.221		
14,600.00	7,037.07	6,958.11	7,025.94	220.40	29.73	-89.23	-4,179.75	499.04	8,972.87	8,852.99	119.88	74.852		
14,700.00	7,036.68	6,957.63	7,025.45	223.23	29.73	-89.22	-4,179.76	499.04	9,066.10	8,946.00	120.11	75.484		
14,800.00	7,036.28	6,957.15	7,024.97	226.05	29.73	-89.21	-4,179.77	499.04	9,159.48	9,039.15	120.33	76.119		
14,871.88	7,036.00	6,956.81	7,024.63	228.09	29.73	-89.20	-4,179.77	499.03	9,226.69	9,106.20	120.49	76.577		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	21.20	-1.80	3.28	3.28	172.58	-4,199.35	546.63	4,234.78				
100.00	100.00	114.21	91.21	3.28	3.29	172.59	-4,199.49	546.53	4,234.91	4,228.33	6.58	643.971	
200.00	200.00	213.21	190.21	3.34	3.35	172.59	-4,199.73	546.42	4,235.14	4,228.45	6.69	632.980	
300.00	300.00	319.37	296.37	3.44	3.48	172.59	-4,199.91	546.21	4,235.29	4,228.36	6.92	611.871	
400.00	399.98	419.62	396.62	3.60	3.64	-17.27	-4,200.05	545.86	4,233.71	4,226.47	7.24	584.971	
500.00	499.84	521.74	498.74	3.79	3.85	-17.32	-4,200.13	545.55	4,228.75	4,221.11	7.64	553.613	
600.00	599.45	619.72	596.71	4.02	4.09	-17.40	-4,200.24	545.19	4,220.49	4,212.38	8.11	520.630	
700.00	698.70	720.66	697.65	4.29	4.36	-17.51	-4,200.30	544.89	4,208.88	4,200.24	8.65	486.779	
800.00	797.70	816.29	793.29	4.59	4.64	-17.57	-4,200.40	544.69	4,195.46	4,186.24	9.22	454.976	
900.00	896.69	916.60	893.59	4.92	4.96	-17.63	-4,200.53	544.37	4,182.04	4,172.20	9.85	424.598	
1,000.00	995.68	1,014.17	991.17	5.27	5.28	-17.68	-4,200.67	544.09	4,168.65	4,158.14	10.51	396.820	
1,100.00	1,094.68	1,115.86	1,092.85	5.64	5.63	-17.74	-4,200.77	543.81	4,155.22	4,144.02	11.20	370.856	
1,200.00	1,193.67	1,210.10	1,187.10	6.03	5.96	-17.79	-4,200.91	543.46	4,141.83	4,129.93	11.90	347.973	
1,300.00	1,292.67	1,301.00	1,277.99	6.42	6.29	-17.84	-4,201.20	543.07	4,128.60	4,116.00	12.61	327.428	
1,400.00	1,391.66	1,402.37	1,379.36	6.83	6.66	-17.89	-4,201.60	542.57	4,115.45	4,102.08	13.37	307.812	
1,500.00	1,490.66	1,509.24	1,486.23	7.25	7.07	-17.95	-4,201.91	541.92	4,102.18	4,088.01	14.17	289.589	
1,600.00	1,589.65	1,605.76	1,582.75	7.67	7.44	-18.00	-4,202.15	541.27	4,088.86	4,073.92	14.94	273.770	
1,700.00	1,688.64	1,704.27	1,681.26	8.10	7.82	-18.05	-4,202.41	540.65	4,075.56	4,059.84	15.72	259.212	
1,800.00	1,787.64	1,798.79	1,775.77	8.53	8.19	-18.10	-4,202.73	540.00	4,062.34	4,045.83	16.50	246.137	
1,900.00	1,886.63	1,892.43	1,869.40	8.97	8.56	-18.14	-4,203.18	539.24	4,049.23	4,031.94	17.29	234.192	
2,000.00	1,985.63	1,990.28	1,967.25	9.41	8.95	-18.19	-4,203.77	538.23	4,036.22	4,018.12	18.10	223.011	
2,100.00	2,084.62	2,098.60	2,075.56	9.85	9.38	-18.24	-4,204.34	536.92	4,023.12	4,004.16	18.95	212.271	
2,200.00	2,183.61	2,202.76	2,179.71	10.30	9.80	-18.29	-4,204.71	535.57	4,009.83	3,990.03	19.80	202.558	
2,300.00	2,282.61	2,315.67	2,292.61	10.75	10.26	-18.34	-4,204.84	534.06	3,996.31	3,975.63	20.68	193.277	
2,400.00	2,381.60	2,420.76	2,397.69	11.20	10.69	-18.39	-4,204.67	532.75	3,982.53	3,961.00	21.53	184.968	
2,500.00	2,480.60	2,519.29	2,496.21	11.66	11.09	-18.44	-4,204.44	531.71	3,968.71	3,946.34	22.36	177.460	
2,600.00	2,579.59	2,620.98	2,597.91	12.11	11.51	-18.49	-4,204.12	530.83	3,954.84	3,931.63	23.21	170.381	
2,700.00	2,678.58	2,718.36	2,695.28	12.57	11.91	-18.54	-4,203.79	529.99	3,940.96	3,916.91	24.05	163.892	
2,800.00	2,777.58	2,811.33	2,788.25	13.02	12.29	-18.59	-4,203.60	529.22	3,927.20	3,902.34	24.87	157.931	
2,900.00	2,876.57	2,912.62	2,889.53	13.48	12.71	-18.65	-4,203.37	528.47	3,913.45	3,887.73	25.72	152.152	
3,000.00	2,975.57	2,996.57	2,973.48	13.94	13.06	-18.70	-4,203.32	528.00	3,899.90	3,873.38	26.51	147.101	
3,100.00	3,074.56	3,088.20	3,065.11	14.40	13.44	-18.76	-4,203.53	527.57	3,886.63	3,859.30	27.33	142.191	
3,200.00	3,173.55	3,190.35	3,167.25	14.87	13.86	-18.82	-4,203.84	527.03	3,873.44	3,845.25	28.20	137.369	
3,300.00	3,272.55	3,279.69	3,256.59	15.33	14.24	-18.87	-4,204.16	526.52	3,860.31	3,831.29	29.01	133.049	
3,400.00	3,371.54	3,370.02	3,346.92	15.79	14.61	-18.92	-4,204.74	525.97	3,847.44	3,817.60	29.84	128.950	
3,500.00	3,470.54	3,509.89	3,486.79	16.26	15.20	-19.01	-4,205.22	525.18	3,834.36	3,803.51	30.84	124.313	
3,600.00	3,569.53	3,629.27	3,606.16	16.72	15.70	-19.09	-4,204.41	525.01	3,820.28	3,788.50	31.77	120.231	
3,700.00	3,668.53	3,739.24	3,716.13	17.19	16.15	-19.17	-4,203.21	524.77	3,805.80	3,773.13	32.67	116.489	
3,800.00	3,767.52	3,838.99	3,815.87	17.65	16.57	-19.24	-4,201.89	524.58	3,791.10	3,757.57	33.53	113.060	
3,900.00	3,866.51	3,927.46	3,904.33	18.12	16.94	-19.30	-4,200.93	524.29	3,776.61	3,742.26	34.35	109.934	
4,000.00	3,965.51	4,019.20	3,996.07	18.59	17.32	-19.36	-4,200.16	523.91	3,762.35	3,727.16	35.19	106.922	
4,100.00	4,064.50	4,111.24	4,088.10	19.05	17.71	-19.42	-4,199.55	523.39	3,748.26	3,712.23	36.02	104.048	
4,200.00	4,163.50	4,193.18	4,170.04	19.52	18.06	-19.47	-4,199.30	522.89	3,734.50	3,697.68	36.83	101.411	
4,300.00	4,262.49	4,293.66	4,270.52	19.99	18.48	-19.54	-4,199.22	522.31	3,720.98	3,683.28	37.69	98.715	
4,400.00	4,361.48	4,387.81	4,364.67	20.46	18.88	-19.60	-4,199.15	521.81	3,707.48	3,668.94	38.54	96.196	
4,500.00	4,460.48	4,487.46	4,464.32	20.92	19.30	-19.67	-4,199.14	521.35	3,694.05	3,654.64	39.41	93.739	
4,600.00	4,559.47	4,589.17	4,566.03	21.39	19.73	-19.74	-4,199.08	520.89	3,680.58	3,640.30	40.28	91.369	
4,700.00	4,658.47	4,681.53	4,658.39	21.86	20.12	-19.80	-4,199.06	520.41	3,667.15	3,626.02	41.12	89.171	
4,800.00	4,757.46	4,771.07	4,747.93	22.33	20.50	-19.86	-4,199.24	520.07	3,653.95	3,611.99	41.96	87.087	
4,900.00	4,856.45	4,867.37	4,844.23	22.80	20.90	-19.93	-4,199.56	520.10	3,640.96	3,598.14	42.82	85.039	
5,000.00	4,955.45	4,966.62	4,943.47	23.27	21.32	-20.01	-4,199.89	520.12	3,627.97	3,584.29	43.68	83.051	
5,100.00	5,054.44	5,063.26	5,040.12	23.74	21.73	-20.08	-4,200.23	520.15	3,615.01	3,570.47	44.54	81.158	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,159.82	5,136.68	24.21	22.14	-20.16	-4,200.64	520.20	3,602.15	3,556.74	45.40	79.337		
5,300.00	5,252.43	5,261.27	5,238.13	24.68	22.56	-20.24	-4,201.10	520.28	3,589.31	3,543.03	46.28	77.555		
5,400.00	5,351.42	5,362.86	5,339.71	25.15	22.99	-20.32	-4,201.48	520.18	3,576.36	3,529.21	47.16	75.836		
5,500.00	5,450.42	5,459.25	5,436.10	25.62	23.40	-20.39	-4,201.83	520.13	3,563.43	3,515.41	48.02	74.207		
5,600.00	5,549.41	5,593.95	5,570.80	26.09	23.97	-20.50	-4,201.92	520.21	3,550.30	3,501.29	49.01	72.438		
5,700.00	5,648.41	5,697.88	5,674.72	26.56	24.41	-20.59	-4,201.13	520.49	3,536.33	3,486.44	49.90	70.872		
5,800.00	5,747.40	5,779.07	5,755.92	27.03	24.75	-20.66	-4,200.70	520.57	3,522.58	3,471.87	50.71	69.467		
5,900.00	5,846.40	5,868.18	5,845.02	27.51	25.13	-20.73	-4,200.65	520.50	3,509.26	3,457.71	51.55	68.079		
6,000.00	5,945.39	5,967.82	5,944.66	27.98	25.55	-20.81	-4,200.75	520.32	3,496.08	3,443.66	52.42	66.694		
6,100.00	6,044.38	6,065.31	6,042.15	28.45	25.97	-20.89	-4,200.85	519.90	3,482.86	3,429.57	53.29	65.361		
6,200.00	6,143.38	6,163.40	6,140.24	28.92	26.38	-20.96	-4,201.04	519.41	3,469.72	3,415.56	54.16	64.070		
6,300.00	6,242.37	6,276.49	6,253.33	29.39	26.86	-21.04	-4,201.12	518.67	3,456.45	3,401.38	55.07	62.761		
6,400.00	6,341.37	6,387.75	6,364.58	29.86	27.34	-21.12	-4,200.73	517.66	3,442.71	3,386.73	55.98	61.494		
6,500.00	6,440.36	6,486.04	6,462.87	30.34	27.76	-21.19	-4,200.24	516.64	3,428.82	3,371.97	56.85	60.309		
6,600.00	6,538.90	6,595.29	6,572.11	30.80	28.22	-61.79	-4,199.61	515.41	3,416.08	3,358.32	57.76	59.142		
6,700.00	6,634.88	6,690.29	6,667.10	31.25	28.63	-79.52	-4,198.94	514.10	3,406.53	3,347.92	58.61	58.117		
6,800.00	6,725.92	6,780.53	6,757.32	31.68	29.01	-87.56	-4,198.37	512.70	3,400.97	3,341.53	59.44	57.215		
6,874.22	6,788.98	6,851.76	6,828.53	31.97	29.31	-91.16	-4,197.96	511.25	3,399.72	3,339.65	60.07	56.597 CC		
6,900.00	6,809.79	6,876.68	6,853.45	32.07	29.42	-92.14	-4,197.80	510.63	3,399.88	3,339.59	60.29	56.396 ES		
7,000.00	6,884.42	6,962.28	6,939.01	32.43	29.78	-94.88	-4,197.11	508.20	3,403.68	3,342.55	61.13	55.684		
7,100.00	6,947.98	7,035.85	7,012.54	32.77	30.10	-96.35	-4,196.39	505.93	3,413.06	3,351.06	61.99	55.054		
7,200.00	6,998.89	7,097.58	7,074.23	33.18	30.36	-96.74	-4,195.74	503.67	3,428.44	3,365.50	62.94	54.475		
7,300.00	7,035.91	7,138.51	7,115.12	33.76	30.54	-95.99	-4,195.30	502.03	3,450.06	3,386.11	63.95	53.949		
7,400.00	7,058.12	7,164.54	7,141.13	34.61	30.65	-94.18	-4,195.01	500.99	3,477.82	3,412.77	65.05	53.462		
7,500.00	7,064.98	7,175.36	7,151.94	35.68	30.69	-91.43	-4,194.90	500.56	3,511.24	3,445.03	66.21	53.035		
7,600.00	7,064.59	7,178.94	7,155.52	36.95	30.71	-91.50	-4,194.86	500.42	3,548.39	3,480.95	67.44	52.618		
7,700.00	7,064.20	7,182.53	7,159.11	38.40	30.72	-91.56	-4,194.82	500.28	3,587.93	3,519.16	68.77	52.175		
7,800.00	7,063.80	7,186.12	7,162.69	40.00	30.74	-91.62	-4,194.78	500.13	3,629.80	3,559.62	70.18	51.725		
7,900.00	7,063.41	7,189.71	7,166.28	41.75	30.75	-91.68	-4,194.74	499.99	3,673.90	3,602.26	71.64	51.284		
8,000.00	7,063.02	7,193.29	7,169.86	43.62	30.77	-91.75	-4,194.70	499.85	3,720.17	3,647.03	73.14	50.864		
8,100.00	7,062.62	7,196.88	7,173.45	45.59	30.79	-91.81	-4,194.66	499.70	3,768.53	3,693.87	74.66	50.475		
8,200.00	7,062.23	7,200.47	7,177.03	47.65	30.80	-91.87	-4,194.62	499.56	3,818.88	3,742.69	76.19	50.122		
8,300.00	7,061.84	7,204.06	7,180.62	49.79	30.82	-91.94	-4,194.58	499.42	3,871.16	3,793.44	77.72	49.810		
8,400.00	7,061.45	7,207.65	7,184.20	52.00	30.83	-92.00	-4,194.55	499.27	3,925.29	3,846.06	79.24	49.540		
8,500.00	7,061.05	7,211.23	7,187.79	54.27	30.85	-92.06	-4,194.51	499.13	3,981.20	3,900.46	80.73	49.313		
8,600.00	7,060.66	7,214.82	7,191.37	56.60	30.86	-92.12	-4,194.47	498.99	4,038.80	3,956.59	82.21	49.129		
8,700.00	7,060.27	7,218.41	7,194.96	58.97	30.88	-92.19	-4,194.43	498.85	4,098.03	4,014.37	83.65	48.988		
8,800.00	7,059.87	7,222.00	7,198.54	61.38	30.89	-92.25	-4,194.39	498.70	4,158.82	4,073.75	85.07	48.888		
8,900.00	7,059.48	7,225.59	7,202.13	63.83	30.91	-92.31	-4,194.35	498.56	4,221.10	4,134.65	86.45	48.828		
9,000.00	7,059.09	7,229.17	7,205.71	66.32	30.92	-92.37	-4,194.31	498.42	4,284.80	4,197.01	87.79	48.806 SF		
9,100.00	7,058.69	7,232.76	7,209.29	68.83	30.94	-92.44	-4,194.27	498.27	4,349.87	4,260.77	89.10	48.820		
9,200.00	7,058.30	7,236.35	7,212.88	71.37	30.95	-92.50	-4,194.23	498.13	4,416.24	4,325.87	90.37	48.869		
9,300.00	7,057.91	7,239.94	7,216.46	73.93	30.97	-92.56	-4,194.19	497.99	4,483.86	4,392.26	91.60	48.951		
9,400.00	7,057.51	7,243.52	7,220.05	76.51	30.99	-92.62	-4,194.15	497.84	4,552.66	4,459.87	92.79	49.064		
9,500.00	7,057.12	7,247.11	7,223.63	79.11	31.00	-92.69	-4,194.12	497.70	4,622.60	4,528.66	93.94	49.205		
9,600.00	7,056.73	7,250.70	7,227.22	81.73	31.02	-92.75	-4,194.08	497.56	4,693.63	4,598.57	95.06	49.375		
9,700.00	7,056.33	7,254.29	7,230.80	84.37	31.03	-92.81	-4,194.04	497.41	4,765.70	4,669.56	96.14	49.570		
9,800.00	7,055.94	7,257.88	7,234.39	87.01	31.05	-92.87	-4,194.00	497.27	4,838.75	4,741.57	97.18	49.789		
9,900.00	7,055.55	7,261.46	7,237.97	89.68	31.06	-92.94	-4,193.96	497.13	4,912.76	4,814.56	98.19	50.031		
10,000.00	7,055.15	7,265.05	7,241.56	92.35	31.08	-93.00	-4,193.92	496.98	4,987.66	4,888.49	99.17	50.295		
10,100.00	7,054.76	7,268.64	7,245.14	95.03	31.09	-93.06	-4,193.88	496.84	5,063.43	4,963.32	100.11	50.580		
10,200.00	7,054.37	7,272.23	7,248.73	97.73	31.11	-93.13	-4,193.84	496.70	5,140.03	5,039.01	101.02	50.883		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,053.98	7,275.82	7,252.31	100.43	31.12	-93.19	-4,193.80	496.55	5,217.42	5,115.52	101.89	51.204		
10,400.00	7,053.58	7,279.40	7,255.90	103.14	31.14	-93.25	-4,193.76	496.41	5,295.56	5,192.82	102.74	51.542		
10,500.00	7,053.19	7,282.99	7,259.48	105.86	31.15	-93.31	-4,193.73	496.27	5,374.42	5,270.86	103.56	51.896		
10,600.00	7,052.80	7,286.58	7,263.07	108.59	31.17	-93.38	-4,193.69	496.13	5,453.98	5,349.63	104.35	52.266		
10,700.00	7,052.40	7,290.17	7,266.65	111.32	31.18	-93.44	-4,193.65	495.98	5,534.20	5,429.08	105.12	52.649		
10,800.00	7,052.01	7,293.75	7,270.24	114.06	31.20	-93.50	-4,193.61	495.84	5,615.04	5,509.19	105.85	53.046		
10,900.00	7,051.62	7,297.34	7,273.82	116.80	31.22	-93.56	-4,193.57	495.70	5,696.50	5,589.93	106.57	53.455		
11,000.00	7,051.22	7,300.93	7,277.41	119.55	31.23	-93.63	-4,193.53	495.55	5,778.53	5,671.28	107.26	53.876		
11,100.00	7,050.83	7,304.52	7,280.99	122.31	31.25	-93.69	-4,193.49	495.41	5,861.12	5,753.20	107.92	54.308		
11,200.00	7,050.44	7,308.11	7,284.57	125.07	31.26	-93.75	-4,193.45	495.27	5,944.25	5,835.68	108.57	54.752		
11,300.00	7,050.04	7,311.69	7,288.16	127.83	31.28	-93.81	-4,193.41	495.12	6,027.88	5,918.69	109.19	55.205		
11,400.00	7,049.65	7,315.28	7,291.74	130.60	31.29	-93.88	-4,193.37	494.98	6,112.00	6,002.21	109.80	55.667		
11,500.00	7,049.26	7,318.87	7,295.33	133.37	31.31	-93.94	-4,193.34	494.84	6,196.60	6,086.22	110.38	56.139		
11,600.00	7,048.86	7,322.46	7,298.91	136.15	31.32	-94.00	-4,193.30	494.69	6,281.64	6,170.70	110.95	56.619		
11,700.00	7,048.47	7,326.05	7,302.50	138.93	31.34	-94.06	-4,193.26	494.55	6,367.12	6,255.62	111.49	57.108		
11,800.00	7,048.08	7,329.63	7,306.08	141.71	31.35	-94.13	-4,193.22	494.41	6,453.01	6,340.99	112.02	57.603		
11,900.00	7,047.68	7,333.22	7,309.67	144.49	31.37	-94.19	-4,193.18	494.26	6,539.30	6,426.76	112.54	58.107		
12,000.00	7,047.29	7,336.81	7,313.25	147.28	31.38	-94.25	-4,193.14	494.12	6,625.98	6,512.94	113.04	58.617		
12,100.00	7,046.90	7,340.40	7,316.84	150.07	31.40	-94.31	-4,193.10	493.98	6,713.02	6,599.50	113.52	59.133		
12,200.00	7,046.51	7,343.98	7,320.42	152.87	31.41	-94.38	-4,193.06	493.84	6,800.42	6,686.42	113.99	59.656		
12,300.00	7,046.11	7,347.57	7,324.01	155.66	31.43	-94.44	-4,193.02	493.69	6,888.16	6,773.71	114.45	60.185		
12,400.00	7,045.72	7,351.16	7,327.59	158.46	31.45	-94.50	-4,192.98	493.55	6,976.22	6,861.33	114.89	60.719		
12,500.00	7,045.33	7,354.75	7,331.18	161.26	31.46	-94.56	-4,192.95	493.41	7,064.61	6,949.28	115.32	61.259		
12,600.00	7,044.93	7,358.34	7,334.76	164.06	31.48	-94.63	-4,192.91	493.26	7,153.29	7,037.55	115.74	61.804		
12,700.00	7,044.54	7,361.92	7,338.35	166.86	31.49	-94.69	-4,192.87	493.12	7,242.27	7,126.12	116.15	62.353		
12,800.00	7,044.15	7,365.51	7,341.93	169.67	31.51	-94.75	-4,192.83	492.98	7,331.53	7,214.99	116.54	62.908		
12,900.00	7,043.75	7,369.10	7,345.52	172.48	31.52	-94.81	-4,192.79	492.83	7,421.07	7,304.14	116.93	63.466		
13,000.00	7,043.36	7,372.69	7,349.10	175.28	31.54	-94.87	-4,192.75	492.69	7,510.86	7,393.56	117.30	64.029		
13,100.00	7,042.97	7,376.27	7,352.69	178.09	31.55	-94.94	-4,192.71	492.55	7,600.91	7,483.25	117.67	64.596		
13,200.00	7,042.57	7,379.86	7,356.27	180.91	31.57	-95.00	-4,192.67	492.40	7,691.21	7,573.18	118.03	65.166		
13,300.00	7,042.18	7,383.45	7,359.86	183.72	31.58	-95.06	-4,192.63	492.26	7,781.74	7,663.37	118.37	65.740		
13,400.00	7,041.79	7,387.04	7,363.44	186.53	31.60	-95.12	-4,192.59	492.12	7,872.50	7,753.79	118.71	66.317		
13,500.00	7,041.39	7,390.63	7,367.02	189.35	31.61	-95.19	-4,192.55	491.97	7,963.47	7,844.43	119.04	66.898		
13,600.00	7,041.00	7,394.21	7,370.61	192.17	31.63	-95.25	-4,192.52	491.83	8,054.66	7,935.30	119.36	67.482		
13,700.00	7,040.61	7,397.80	7,374.19	194.99	31.65	-95.31	-4,192.48	491.69	8,146.06	8,026.38	119.67	68.068		
13,800.00	7,040.21	7,401.39	7,377.78	197.81	31.66	-95.37	-4,192.44	491.54	8,237.65	8,117.67	119.98	68.658		
13,900.00	7,039.82	7,404.98	7,381.36	200.63	31.68	-95.44	-4,192.40	491.40	8,329.43	8,209.15	120.28	69.250		
14,000.00	7,039.43	7,408.57	7,384.95	203.45	31.69	-95.50	-4,192.36	491.26	8,421.40	8,300.83	120.57	69.845		
14,100.00	7,039.03	7,412.15	7,388.53	206.27	31.71	-95.56	-4,192.32	491.12	8,513.55	8,392.69	120.86	70.442		
14,200.00	7,038.64	7,415.74	7,392.12	209.09	31.72	-95.62	-4,192.28	490.97	8,605.88	8,484.74	121.14	71.041		
14,300.00	7,038.25	7,419.33	7,395.70	211.92	31.74	-95.68	-4,192.24	490.83	8,698.37	8,576.96	121.41	71.643		
14,400.00	7,037.86	7,422.92	7,399.29	214.74	31.75	-95.75	-4,192.20	490.69	8,791.02	8,669.34	121.68	72.247		
14,500.00	7,037.46	7,426.50	7,402.87	217.57	31.77	-95.81	-4,192.16	490.54	8,883.84	8,761.89	121.94	72.853		
14,600.00	7,037.07	7,430.09	7,406.46	220.40	31.79	-95.87	-4,192.12	490.40	8,976.85	8,854.78	122.20	73.460		
14,700.00	7,036.68	7,433.68	7,410.05	223.23	31.81	-95.93	-4,192.08	490.26	9,069.98	8,947.67	122.46	74.067		
14,800.00	7,036.28	7,437.27	7,413.64	226.05	31.83	-95.99	-4,192.04	490.12	9,163.25	9,040.71	122.71	74.674		
14,871.88	7,036.00	7,440.00	7,416.00	228.09	31.85	-96.00	-4,192.00	490.00	9,230.38	9,107.68	122.70	75.225		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	23.85	-0.15	3.28	3.28	-24.94	2,482.76	-1,154.73	2,738.16					
100.00	100.00	121.84	97.84	3.28	3.29	-24.95	2,482.69	-1,154.93	2,738.18	2,731.60	6.58	416.194		
200.00	200.00	219.70	195.70	3.34	3.36	-24.95	2,482.86	-1,155.01	2,738.37	2,731.67	6.70	408.933		
300.00	300.00	329.22	305.21	3.44	3.49	-24.94	2,482.85	-1,154.66	2,738.21	2,731.28	6.94	394.818		
305.75	305.75	334.22	310.22	3.45	3.50	145.21	2,482.85	-1,154.64	2,738.21	2,731.26	6.95	393.975 ES		
400.00	399.98	420.90	396.90	3.60	3.64	145.22	2,482.94	-1,154.54	2,739.67	2,732.44	7.24	378.471		
500.00	499.84	529.22	505.22	3.79	3.87	145.24	2,482.87	-1,154.48	2,743.89	2,736.24	7.65	358.531		
600.00	599.45	636.07	612.07	4.02	4.13	145.27	2,482.71	-1,154.21	2,750.82	2,742.68	8.15	337.708		
700.00	698.70	741.16	717.16	4.29	4.41	145.32	2,482.15	-1,153.61	2,760.13	2,751.43	8.70	317.181		
800.00	797.70	838.12	814.11	4.59	4.70	145.48	2,481.85	-1,153.12	2,771.33	2,762.04	9.29	298.386		
900.00	896.69	945.22	921.20	4.92	5.04	145.67	2,481.20	-1,152.30	2,782.16	2,772.21	9.95	279.710		
1,000.00	995.68	1,036.72	1,012.70	5.27	5.35	145.83	2,480.72	-1,151.73	2,793.15	2,782.56	10.59	263.738		
1,100.00	1,094.68	1,132.08	1,108.06	5.64	5.67	145.99	2,480.42	-1,151.23	2,804.41	2,793.13	11.28	248.712		
1,200.00	1,193.67	1,234.25	1,210.23	6.03	6.04	146.16	2,480.04	-1,150.70	2,815.64	2,803.63	12.01	234.452		
1,300.00	1,292.67	1,331.64	1,307.62	6.42	6.39	146.32	2,479.61	-1,150.26	2,826.86	2,814.11	12.75	221.783		
1,400.00	1,391.66	1,426.64	1,402.61	6.83	6.74	146.49	2,479.44	-1,149.64	2,838.25	2,824.76	13.49	210.402		
1,500.00	1,490.66	1,529.25	1,505.23	7.25	7.13	146.66	2,479.23	-1,149.03	2,849.67	2,835.39	14.28	199.601		
1,600.00	1,589.65	1,633.11	1,609.08	7.67	7.53	146.82	2,478.66	-1,148.64	2,860.89	2,845.81	15.08	189.692		
1,700.00	1,688.64	1,726.68	1,702.65	8.10	7.89	146.96	2,477.97	-1,148.83	2,872.18	2,856.32	15.86	181.150		
1,800.00	1,787.64	1,823.02	1,798.99	8.53	8.27	147.10	2,477.50	-1,149.09	2,883.74	2,867.09	16.65	173.217		
1,900.00	1,886.63	1,933.55	1,909.52	8.97	8.70	147.26	2,476.56	-1,149.23	2,894.91	2,877.40	17.51	165.351		
2,000.00	1,985.63	2,023.58	1,999.53	9.41	9.06	147.38	2,475.80	-1,149.70	2,906.27	2,887.98	18.29	158.917		
2,100.00	2,084.62	2,127.38	2,103.33	9.85	9.48	147.52	2,475.00	-1,150.17	2,917.70	2,898.57	19.13	152.504		
2,200.00	2,183.61	2,231.77	2,207.72	10.30	9.90	147.67	2,474.00	-1,150.43	2,928.88	2,908.90	19.98	146.562		
2,300.00	2,282.61	2,326.45	2,302.39	10.75	10.28	147.79	2,473.11	-1,150.80	2,940.16	2,919.37	20.80	141.365		
2,400.00	2,381.60	2,426.78	2,402.72	11.20	10.69	147.92	2,472.07	-1,151.47	2,951.47	2,929.83	21.64	136.384		
2,500.00	2,480.60	2,522.92	2,498.85	11.66	11.08	148.04	2,471.03	-1,152.34	2,962.83	2,940.37	22.47	131.867		
2,600.00	2,579.59	2,617.51	2,593.43	12.11	11.47	148.15	2,470.09	-1,153.27	2,974.32	2,951.03	23.29	127.700		
2,700.00	2,678.58	2,707.09	2,683.01	12.57	11.84	148.27	2,469.48	-1,154.05	2,986.07	2,961.98	24.09	123.934		
2,800.00	2,777.58	2,794.05	2,769.96	13.02	12.19	148.37	2,469.20	-1,154.87	2,998.20	2,973.32	24.89	120.478		
2,900.00	2,876.57	2,896.47	2,872.37	13.48	12.61	148.50	2,469.02	-1,155.93	3,010.50	2,984.75	25.75	116.916		
3,000.00	2,975.57	2,994.92	2,970.82	13.94	13.02	148.61	2,468.68	-1,157.20	3,022.75	2,996.15	26.60	113.649		
3,100.00	3,074.56	3,093.54	3,069.42	14.40	13.43	148.72	2,468.24	-1,158.77	3,035.03	3,007.58	27.45	110.575		
3,200.00	3,173.55	3,185.63	3,161.49	14.87	13.81	148.82	2,467.91	-1,160.32	3,047.44	3,019.17	28.27	107.799		
3,300.00	3,272.55	3,278.48	3,254.32	15.33	14.20	148.91	2,467.64	-1,162.32	3,060.08	3,030.98	29.10	105.170		
3,400.00	3,371.54	3,374.85	3,350.67	15.79	14.60	149.00	2,467.41	-1,164.69	3,072.88	3,042.94	29.94	102.631		
3,500.00	3,470.54	3,479.27	3,455.06	16.26	15.04	149.10	2,467.14	-1,167.21	3,085.66	3,054.83	30.83	100.102		
3,600.00	3,569.53	3,575.01	3,550.77	16.72	15.44	149.19	2,466.86	-1,169.36	3,098.35	3,066.68	31.67	97.835		
3,700.00	3,668.53	3,717.99	3,693.71	17.19	16.04	149.32	2,465.73	-1,172.55	3,110.66	3,077.92	32.74	95.015		
3,800.00	3,767.52	3,823.41	3,799.09	17.65	16.48	149.41	2,463.94	-1,174.76	3,122.02	3,088.38	33.63	92.828		
3,900.00	3,866.51	3,924.14	3,899.79	18.12	16.90	149.49	2,462.06	-1,176.77	3,133.19	3,098.68	34.50	90.805		
4,000.00	3,965.51	4,022.89	3,998.50	18.59	17.32	149.58	2,460.19	-1,178.85	3,144.37	3,109.01	35.37	88.903		
4,100.00	4,064.50	4,124.43	4,099.99	19.05	17.75	149.66	2,458.19	-1,181.05	3,155.53	3,119.28	36.25	87.057		
4,200.00	4,163.50	4,225.71	4,201.23	19.52	18.17	149.74	2,456.15	-1,183.20	3,166.62	3,129.50	37.12	85.298		
4,300.00	4,262.49	4,326.51	4,301.98	19.99	18.60	149.82	2,454.07	-1,185.28	3,177.66	3,139.65	38.00	83.622		
4,400.00	4,361.48	4,425.03	4,400.46	20.46	19.01	149.90	2,452.04	-1,187.32	3,188.70	3,149.84	38.87	82.044		
4,500.00	4,460.48	4,526.03	4,501.42	20.92	19.44	149.98	2,449.90	-1,189.52	3,199.73	3,159.99	39.74	80.508		
4,600.00	4,559.47	4,625.82	4,601.15	21.39	19.86	150.06	2,447.72	-1,191.72	3,210.72	3,170.11	40.62	79.049		
4,700.00	4,658.47	4,728.14	4,703.43	21.86	20.30	150.14	2,445.50	-1,194.00	3,221.75	3,180.24	41.50	77.628		
4,800.00	4,757.46	4,842.01	4,817.23	22.33	20.78	150.22	2,442.61	-1,196.38	3,232.37	3,189.92	42.44	76.156		
4,900.00	4,856.45	4,940.64	4,915.81	22.80	21.20	150.29	2,439.93	-1,198.36	3,242.81	3,199.50	43.31	74.869		
5,000.00	4,955.45	5,034.35	5,009.47	23.27	21.59	150.37	2,437.55	-1,200.20	3,253.40	3,209.25	44.16	73.675		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,054.44	5,128.12	5,103.20	23.74	21.99	150.44	2,435.35	-1,201.91	3,264.15	3,219.15	45.00	72.530		
5,200.00	5,153.44	5,219.51	5,194.56	24.21	22.38	150.51	2,433.44	-1,203.58	3,275.13	3,229.29	45.84	71.449		
5,300.00	5,252.43	5,312.20	5,287.21	24.68	22.77	150.59	2,431.72	-1,205.21	3,286.32	3,239.64	46.68	70.403		
5,400.00	5,351.42	5,401.68	5,376.67	25.15	23.15	150.67	2,430.44	-1,206.40	3,297.78	3,250.28	47.50	69.423		
5,500.00	5,450.42	5,500.91	5,475.89	25.62	23.57	150.77	2,429.26	-1,207.48	3,309.38	3,261.01	48.37	68.412		
5,600.00	5,549.41	5,591.89	5,566.86	26.09	23.96	150.85	2,428.25	-1,208.60	3,321.12	3,271.92	49.20	67.496		
5,700.00	5,648.41	5,676.52	5,651.49	26.56	24.32	150.93	2,427.63	-1,209.57	3,333.20	3,283.19	50.00	66.661		
5,800.00	5,747.40	5,803.13	5,778.09	27.03	24.85	151.07	2,427.00	-1,209.99	3,345.27	3,294.26	51.01	65.578		
5,900.00	5,846.40	5,902.47	5,877.42	27.51	25.28	151.19	2,426.12	-1,209.78	3,356.79	3,304.91	51.89	64.696		
6,000.00	5,945.39	6,022.71	5,997.66	27.98	25.79	151.34	2,425.02	-1,208.93	3,368.17	3,315.31	52.86	63.715		
6,100.00	6,044.38	6,172.01	6,146.89	28.45	26.42	151.54	2,421.92	-1,205.91	3,377.87	3,323.89	53.98	62.579		
6,200.00	6,143.38	6,339.94	6,314.64	28.92	27.14	151.79	2,416.29	-1,200.82	3,386.15	3,330.99	55.17	61.381		
6,300.00	6,242.37	6,420.63	6,395.23	29.39	27.48	151.89	2,412.76	-1,198.73	3,393.74	3,337.78	55.96	60.647		
6,400.00	6,341.37	6,474.78	6,449.34	29.86	27.71	151.96	2,410.84	-1,197.92	3,402.43	3,345.80	56.63	60.086		
6,500.00	6,440.36	6,534.04	6,508.58	30.34	27.96	152.02	2,409.38	-1,197.56	3,412.40	3,355.10	57.31	59.545		
6,600.00	6,538.90	6,600.00	6,574.53	30.80	28.24	112.07	2,408.39	-1,197.47	3,421.53	3,363.51	58.02	58.977		
6,700.00	6,634.88	6,683.21	6,657.74	31.25	28.60	95.53	2,407.65	-1,197.64	3,426.57	3,367.77	58.80	58.279		
6,800.00	6,725.92	6,763.14	6,737.66	31.68	28.94	89.06	2,407.10	-1,198.04	3,427.29	3,367.74	59.55	57.556		
6,900.00	6,809.79	6,829.00	6,803.53	32.07	29.22	86.28	2,406.82	-1,198.63	3,424.20	3,363.98	60.23	56.855		
7,000.00	6,884.42	6,881.21	6,855.73	32.43	29.44	85.23	2,406.92	-1,199.29	3,418.10	3,357.24	60.87	56.156		
7,100.00	6,947.98	6,940.22	6,914.73	32.77	29.69	85.38	2,407.31	-1,200.17	3,409.54	3,347.91	61.63	55.325		
7,200.00	6,998.89	6,995.90	6,970.40	33.18	29.93	86.25	2,407.66	-1,200.94	3,398.95	3,336.45	62.50	54.380		
7,300.00	7,035.91	7,033.03	7,007.53	33.76	30.08	87.33	2,407.88	-1,201.42	3,387.21	3,323.76	63.45	53.382		
7,400.00	7,058.12	7,055.57	7,030.07	34.61	30.18	88.49	2,408.02	-1,201.71	3,375.10	3,310.59	64.51	52.316		
7,500.00	7,064.98	7,063.39	7,037.88	35.68	30.21	89.56	2,408.07	-1,201.81	3,363.22	3,297.55	65.67	51.214		
7,600.00	7,064.59	7,064.23	7,038.73	36.95	30.22	89.58	2,408.07	-1,201.82	3,353.16	3,286.20	66.96	50.079		
7,700.00	7,064.20	7,065.08	7,039.57	38.40	30.22	89.59	2,408.08	-1,201.83	3,346.06	3,277.65	68.40	48.916		
7,800.00	7,063.80	7,065.92	7,040.42	40.00	30.22	89.60	2,408.08	-1,201.84	3,341.93	3,271.94	69.99	47.750		
7,887.98	7,063.46	7,066.66	7,041.16	41.54	30.23	89.62	2,408.09	-1,201.85	3,340.77	3,269.29	71.49	46.734		
7,900.00	7,063.41	7,066.77	7,041.26	41.75	30.23	89.62	2,408.09	-1,201.85	3,340.79	3,269.10	71.69	46.602		
8,000.00	7,063.02	7,067.61	7,042.10	43.62	30.23	89.63	2,408.10	-1,201.86	3,342.65	3,269.17	73.48	45.490		
8,100.00	7,062.62	7,068.45	7,042.95	45.59	30.23	89.65	2,408.10	-1,201.87	3,347.49	3,272.15	75.35	44.428		
8,200.00	7,062.23	7,069.30	7,043.79	47.65	30.24	89.66	2,408.11	-1,201.88	3,353.31	3,278.04	77.27	43.425		
8,300.00	7,061.84	7,070.14	7,044.63	49.79	30.24	89.68	2,408.11	-1,201.89	3,366.08	3,286.86	79.22	42.489		
8,400.00	7,061.45	7,070.98	7,045.47	52.00	30.24	89.69	2,408.12	-1,201.90	3,379.78	3,298.58	81.20	41.623		
8,500.00	7,061.05	7,071.82	7,046.32	54.27	30.25	89.71	2,408.12	-1,201.92	3,396.37	3,313.18	83.18	40.831		
8,600.00	7,060.66	7,072.66	7,047.16	56.60	30.25	89.72	2,408.13	-1,201.93	3,415.80	3,330.64	85.16	40.111		
8,700.00	7,060.27	7,073.50	7,048.00	58.97	30.26	89.73	2,408.13	-1,201.94	3,438.03	3,350.92	87.12	39.464		
8,800.00	7,059.87	7,074.34	7,048.84	61.38	30.26	89.75	2,408.14	-1,201.95	3,463.02	3,373.96	89.05	38.888		
8,900.00	7,059.48	7,075.18	7,049.68	63.83	30.26	89.76	2,408.15	-1,201.96	3,490.68	3,399.73	90.95	38.380		
9,000.00	7,059.09	7,076.02	7,050.52	66.32	30.27	89.78	2,408.15	-1,201.97	3,520.97	3,428.17	92.81	37.938		
9,100.00	7,058.69	7,076.86	7,051.36	68.83	30.27	89.79	2,408.16	-1,201.98	3,553.82	3,459.20	94.62	37.559		
9,200.00	7,058.30	7,077.70	7,052.20	71.37	30.27	89.81	2,408.16	-1,201.99	3,589.15	3,492.78	96.38	37.240		
9,300.00	7,057.91	7,078.54	7,053.03	73.93	30.28	89.82	2,408.17	-1,202.00	3,626.90	3,528.82	98.08	36.978		
9,400.00	7,057.51	7,079.38	7,053.87	76.51	30.28	89.84	2,408.17	-1,202.01	3,666.99	3,567.26	99.73	36.769		
9,500.00	7,057.12	7,080.22	7,054.71	79.11	30.28	89.85	2,408.18	-1,202.02	3,709.34	3,608.02	101.32	36.611		
9,600.00	7,056.73	7,081.05	7,055.55	81.73	30.29	89.86	2,408.19	-1,202.03	3,753.87	3,651.03	102.85	36.500		
9,700.00	7,056.33	7,081.89	7,056.39	84.37	30.29	89.88	2,408.19	-1,202.04	3,800.52	3,696.21	104.31	36.434		
9,800.00	7,055.94	7,082.73	7,057.22	87.01	30.29	89.89	2,408.20	-1,202.05	3,849.20	3,743.48	105.72	36.410 SF		
9,900.00	7,055.55	7,083.56	7,058.06	89.68	30.30	89.91	2,408.20	-1,202.07	3,899.83	3,792.77	107.06	36.426		
10,000.00	7,055.15	7,084.40	7,058.89	92.35	30.30	89.92	2,408.21	-1,202.08	3,952.35	3,844.00	108.35	36.479		
10,100.00	7,054.76	7,085.24	7,059.73	95.03	30.31	89.94	2,408.21	-1,202.09	4,006.67	3,897.10	109.57	36.566		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,054.37	7,086.07	7,060.57	97.73	30.31	89.95	2,408.22	-1,202.10	4,062.73	3,951.99	110.74	36.687		
10,300.00	7,053.98	7,086.91	7,061.40	100.43	30.31	89.96	2,408.23	-1,202.11	4,120.46	4,008.60	111.85	36.838		
10,400.00	7,053.58	7,087.74	7,062.23	103.14	30.32	89.98	2,408.23	-1,202.12	4,179.78	4,066.86	112.91	37.018		
10,500.00	7,053.19	7,088.58	7,063.07	105.86	30.32	89.99	2,408.24	-1,202.13	4,240.63	4,126.71	113.92	37.225		
10,600.00	7,052.80	7,089.41	7,063.90	108.59	30.32	90.01	2,408.24	-1,202.14	4,302.94	4,188.06	114.88	37.457		
10,700.00	7,052.40	7,090.24	7,064.74	111.32	30.33	90.02	2,408.25	-1,202.15	4,366.65	4,250.87	115.78	37.714		
10,800.00	7,052.01	7,091.08	7,065.57	114.06	30.33	90.04	2,408.25	-1,202.16	4,431.70	4,315.06	116.65	37.993		
10,900.00	7,051.62	7,091.91	7,066.40	116.80	30.33	90.05	2,408.26	-1,202.17	4,498.04	4,380.58	117.46	38.293		
11,000.00	7,051.22	7,092.74	7,067.23	119.55	30.34	90.06	2,408.27	-1,202.18	4,565.60	4,447.36	118.24	38.614		
11,100.00	7,050.83	7,093.57	7,068.07	122.31	30.34	90.08	2,408.27	-1,202.19	4,634.34	4,515.36	118.97	38.953		
11,200.00	7,050.44	7,094.41	7,068.90	125.07	30.34	90.09	2,408.28	-1,202.20	4,704.19	4,584.52	119.67	39.310		
11,300.00	7,050.04	7,095.24	7,069.73	127.83	30.35	90.11	2,408.28	-1,202.21	4,775.12	4,654.79	120.33	39.683		
11,400.00	7,049.65	7,096.07	7,070.56	130.60	30.35	90.12	2,408.29	-1,202.22	4,847.08	4,726.12	120.96	40.073		
11,500.00	7,049.26	7,096.90	7,071.39	133.37	30.35	90.14	2,408.29	-1,202.23	4,920.01	4,798.46	121.55	40.477		
11,600.00	7,048.86	7,097.73	7,072.22	136.15	30.36	90.15	2,408.30	-1,202.25	4,993.88	4,871.77	122.11	40.896		
11,700.00	7,048.47	7,098.56	7,073.05	138.93	30.36	90.16	2,408.31	-1,202.26	5,068.65	4,946.00	122.65	41.328		
11,800.00	7,048.08	7,099.39	7,073.88	141.71	30.37	90.18	2,408.31	-1,202.27	5,144.27	5,021.12	123.15	41.772		
11,900.00	7,047.68	7,100.22	7,074.71	144.49	30.37	90.19	2,408.32	-1,202.28	5,220.72	5,097.09	123.63	42.228		
12,000.00	7,047.29	7,101.05	7,075.54	147.28	30.37	90.21	2,408.32	-1,202.29	5,297.95	5,173.86	124.08	42.696		
12,100.00	7,046.90	7,101.88	7,076.37	150.07	30.38	90.22	2,408.33	-1,202.30	5,375.93	5,251.41	124.52	43.175		
12,200.00	7,046.51	7,102.70	7,077.19	152.87	30.38	90.24	2,408.33	-1,202.31	5,454.62	5,329.70	124.93	43.663		
12,300.00	7,046.11	7,103.53	7,078.02	155.66	30.38	90.25	2,408.34	-1,202.32	5,534.01	5,408.70	125.31	44.161		
12,400.00	7,045.72	7,104.36	7,078.85	158.46	30.39	90.26	2,408.35	-1,202.33	5,614.05	5,488.37	125.68	44.669		
12,500.00	7,045.33	7,105.19	7,079.68	161.26	30.39	90.28	2,408.35	-1,202.34	5,694.73	5,568.70	126.03	45.185		
12,600.00	7,044.93	7,106.01	7,080.50	164.06	30.39	90.29	2,408.36	-1,202.35	5,776.01	5,649.64	126.36	45.709		
12,700.00	7,044.54	7,106.84	7,081.33	166.86	30.40	90.31	2,408.36	-1,202.36	5,857.87	5,731.19	126.68	46.241		
12,800.00	7,044.15	7,106.20	7,080.69	169.67	30.39	90.30	2,408.36	-1,202.35	5,940.28	5,813.31	126.97	46.784		
12,900.00	7,043.75	7,106.84	7,081.33	172.48	30.40	90.31	2,408.36	-1,202.36	6,023.23	5,895.97	127.26	47.331		
13,000.00	7,043.36	7,107.48	7,081.97	175.28	30.40	90.32	2,408.37	-1,202.37	6,106.69	5,979.16	127.53	47.885		
13,100.00	7,042.97	7,108.11	7,082.60	178.09	30.40	90.33	2,408.37	-1,202.38	6,190.63	6,062.85	127.79	48.445		
13,200.00	7,042.57	7,108.74	7,083.23	180.91	30.40	90.34	2,408.38	-1,202.38	6,275.05	6,147.02	128.03	49.011		
13,300.00	7,042.18	7,109.37	7,083.86	183.72	30.41	90.35	2,408.38	-1,202.39	6,359.92	6,231.66	128.27	49.583		
13,400.00	7,041.79	7,109.99	7,084.48	186.53	30.41	90.36	2,408.39	-1,202.40	6,445.23	6,316.74	128.49	50.161		
13,500.00	7,041.39	7,110.60	7,085.09	189.35	30.41	90.37	2,408.39	-1,202.41	6,530.95	6,402.24	128.70	50.744		
13,600.00	7,041.00	7,111.21	7,085.70	192.17	30.42	90.38	2,408.39	-1,202.41	6,617.07	6,488.16	128.91	51.333		
13,700.00	7,040.61	7,111.82	7,086.31	194.99	30.42	90.39	2,408.40	-1,202.42	6,703.58	6,574.48	129.10	51.926		
13,800.00	7,040.21	7,112.42	7,086.91	197.81	30.42	90.40	2,408.40	-1,202.43	6,790.45	6,661.17	129.28	52.523		
13,900.00	7,039.82	7,113.01	7,087.51	200.63	30.42	90.41	2,408.41	-1,202.44	6,877.69	6,748.22	129.46	53.125		
14,000.00	7,039.43	7,113.61	7,088.10	203.45	30.43	90.42	2,408.41	-1,202.44	6,965.26	6,835.63	129.63	53.731		
14,100.00	7,039.03	7,114.20	7,088.69	206.27	30.43	90.43	2,408.42	-1,202.45	7,053.17	6,923.38	129.79	54.342		
14,200.00	7,038.64	7,114.78	7,089.27	209.09	30.43	90.44	2,408.42	-1,202.46	7,141.40	7,011.45	129.95	54.956		
14,300.00	7,038.25	7,115.36	7,089.85	211.92	30.43	90.45	2,408.42	-1,202.46	7,229.93	7,099.83	130.10	55.573		
14,400.00	7,037.86	7,115.94	7,090.43	214.74	30.44	90.46	2,408.43	-1,202.47	7,318.76	7,188.52	130.24	56.195		
14,500.00	7,037.46	7,116.51	7,091.00	217.57	30.44	90.47	2,408.43	-1,202.48	7,407.87	7,277.49	130.38	56.819		
14,600.00	7,037.07	7,117.07	7,091.56	220.40	30.44	90.48	2,408.44	-1,202.48	7,497.25	7,366.75	130.51	57.447		
14,700.00	7,036.68	7,117.64	7,092.13	223.23	30.44	90.49	2,408.44	-1,202.49	7,586.91	7,456.27	130.63	58.078		
14,800.00	7,036.28	7,118.20	7,092.69	226.05	30.44	90.50	2,408.45	-1,202.50	7,676.81	7,546.06	130.75	58.712		
14,871.88	7,036.00	7,118.60	7,093.09	228.09	30.45	90.51	2,408.45	-1,202.50	7,741.59	7,610.75	130.84	59.169		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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 Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	20.00	3.28	3.28	-63.81	1,064.96	-2,165.22	2,413.03					
100.00	100.00	80.00	100.00	3.28	3.56	-63.81	1,064.96	-2,165.22	2,412.95	2,406.10	6.85	352.277		
200.00	200.00	180.00	200.00	3.34	5.60	-63.81	1,064.96	-2,165.22	2,412.95	2,404.01	8.94	270.009		
300.00	300.00	280.00	300.00	3.44	8.67	-63.81	1,064.96	-2,165.22	2,412.95	2,400.83	12.12	199.116		
400.00	399.98	379.98	399.98	3.60	11.98	106.37	1,064.96	-2,165.22	2,413.44	2,397.87	15.57	154.979		
500.00	499.84	479.84	499.84	3.79	15.36	106.46	1,064.96	-2,165.22	2,414.92	2,395.78	19.14	126.146		
600.00	599.45	579.45	599.45	4.02	18.77	106.61	1,064.96	-2,165.22	2,417.41	2,394.63	22.79	106.088		
700.00	698.70	678.70	698.70	4.29	22.19	106.82	1,064.96	-2,165.22	2,420.94	2,394.47	26.48	91.437		
800.00	797.70	777.70	797.70	4.59	25.61	107.13	1,064.96	-2,165.22	2,425.11	2,394.91	30.20	80.296		
900.00	896.69	876.69	896.69	4.92	29.05	107.45	1,064.96	-2,165.22	2,429.35	2,395.39	33.96	71.531		
1,000.00	995.68	975.68	995.68	5.27	32.48	107.76	1,064.96	-2,165.22	2,433.67	2,395.92	37.75	64.469		
1,100.00	1,094.68	1,074.68	1,094.68	5.64	35.92	108.07	1,064.96	-2,165.22	2,438.06	2,396.50	41.56	58.666		
1,200.00	1,193.67	1,173.67	1,193.67	6.03	39.36	108.39	1,064.96	-2,165.22	2,442.53	2,397.14	45.38	53.819		
1,300.00	1,292.67	1,272.67	1,292.67	6.42	42.81	108.70	1,064.96	-2,165.22	2,447.07	2,397.85	49.22	49.713		
1,400.00	1,391.66	1,371.66	1,391.66	6.83	46.26	109.01	1,064.96	-2,165.22	2,451.68	2,398.61	53.08	46.193		
1,500.00	1,490.66	1,470.66	1,490.66	7.25	49.70	109.32	1,064.96	-2,165.22	2,456.37	2,399.43	56.94	43.143		
1,600.00	1,589.65	1,569.65	1,589.65	7.67	53.15	109.63	1,064.96	-2,165.22	2,461.13	2,400.32	60.80	40.477		
1,700.00	1,688.64	1,668.64	1,688.64	8.10	56.60	109.93	1,064.96	-2,165.22	2,465.96	2,401.28	64.68	38.126		
1,800.00	1,787.64	1,767.64	1,787.64	8.53	60.05	110.24	1,064.96	-2,165.22	2,470.86	2,402.30	68.56	36.040		
1,900.00	1,886.63	1,866.63	1,886.63	8.97	63.50	110.54	1,064.96	-2,165.22	2,475.84	2,403.39	72.44	34.176		
2,000.00	1,985.63	1,965.63	1,985.63	9.41	66.96	110.85	1,064.96	-2,165.22	2,480.88	2,404.55	76.33	32.501		
2,100.00	2,084.62	2,064.62	2,084.62	9.85	70.41	111.15	1,064.96	-2,165.22	2,485.99	2,405.77	80.22	30.988		
2,200.00	2,183.61	2,163.61	2,183.61	10.30	73.86	111.45	1,064.96	-2,165.22	2,491.18	2,407.06	84.12	29.615		
2,300.00	2,282.61	2,262.61	2,282.61	10.75	77.31	111.75	1,064.96	-2,165.22	2,496.43	2,408.42	88.02	28.363		
2,400.00	2,381.60	2,361.60	2,381.60	11.20	80.76	112.05	1,064.96	-2,165.22	2,501.76	2,409.84	91.92	27.218		
2,500.00	2,480.60	2,460.60	2,480.60	11.66	84.22	112.34	1,064.96	-2,165.22	2,507.15	2,411.33	95.82	26.166		
2,600.00	2,579.59	2,559.59	2,579.59	12.11	87.67	112.64	1,064.96	-2,165.22	2,512.61	2,412.89	99.72	25.196		
2,700.00	2,678.58	2,658.58	2,678.58	12.57	91.12	112.94	1,064.96	-2,165.22	2,518.13	2,414.51	103.63	24.300		
2,800.00	2,777.58	2,757.58	2,777.58	13.02	94.58	113.23	1,064.96	-2,165.22	2,523.73	2,416.20	107.53	23.469		
2,900.00	2,876.57	2,856.57	2,876.57	13.48	98.03	113.52	1,064.96	-2,165.22	2,529.39	2,417.95	111.44	22.697		
3,000.00	2,975.57	2,955.57	2,975.57	13.94	101.49	113.81	1,064.96	-2,165.22	2,535.12	2,419.77	115.35	21.978		
3,100.00	3,074.56	3,054.56	3,074.56	14.40	104.94	114.10	1,064.96	-2,165.22	2,540.91	2,421.65	119.26	21.306		
3,200.00	3,173.55	3,153.55	3,173.55	14.87	108.39	114.39	1,064.96	-2,165.22	2,546.77	2,423.60	123.17	20.677		
3,300.00	3,272.55	3,252.55	3,272.55	15.33	111.85	114.68	1,064.96	-2,165.22	2,552.69	2,425.61	127.08	20.088		
3,400.00	3,371.54	3,351.54	3,371.54	15.79	115.30	114.96	1,064.96	-2,165.22	2,558.68	2,427.69	130.99	19.533		
3,500.00	3,470.54	3,450.54	3,470.54	16.26	118.76	115.25	1,064.96	-2,165.22	2,564.73	2,429.83	134.90	19.012		
3,600.00	3,569.53	3,549.53	3,569.53	16.72	122.21	115.53	1,064.96	-2,165.22	2,570.85	2,432.03	138.81	18.520		
3,700.00	3,668.53	3,648.53	3,668.53	17.19	125.67	115.81	1,064.96	-2,165.22	2,577.03	2,434.30	142.73	18.056		
3,800.00	3,767.52	3,747.52	3,767.52	17.65	129.12	116.09	1,064.96	-2,165.22	2,583.27	2,436.63	146.64	17.616		
3,900.00	3,866.51	3,846.51	3,866.51	18.12	132.58	116.37	1,064.96	-2,165.22	2,589.57	2,439.02	150.55	17.200		
4,000.00	3,965.51	3,945.51	3,965.51	18.59	136.03	116.65	1,064.96	-2,165.22	2,595.94	2,441.47	154.47	16.806		
4,100.00	4,064.50	4,044.50	4,064.50	19.05	139.49	116.92	1,064.96	-2,165.22	2,602.37	2,443.98	158.38	16.431		
4,200.00	4,163.50	4,143.50	4,163.50	19.52	142.94	117.20	1,064.96	-2,165.22	2,608.86	2,446.56	162.30	16.075		
4,300.00	4,262.49	4,242.49	4,262.49	19.99	146.40	117.47	1,064.96	-2,165.22	2,615.40	2,449.19	166.21	15.735		
4,400.00	4,361.48	4,341.48	4,361.48	20.46	149.85	117.74	1,064.96	-2,165.22	2,622.01	2,451.89	170.13	15.412		
4,500.00	4,460.48	4,440.48	4,460.48	20.92	153.31	118.01	1,064.96	-2,165.22	2,628.68	2,454.64	174.04	15.104		
4,600.00	4,559.47	4,539.47	4,559.47	21.39	156.76	118.28	1,064.96	-2,165.22	2,635.41	2,457.45	177.96	14.809		
4,700.00	4,658.47	4,638.47	4,658.47	21.86	160.22	118.55	1,064.96	-2,165.22	2,642.19	2,460.32	181.87	14.528		
4,800.00	4,757.46	4,737.46	4,757.46	22.33	163.67	118.82	1,064.96	-2,165.22	2,649.04	2,463.25	185.79	14.258		
4,900.00	4,856.45	4,836.45	4,856.45	22.80	167.13	119.08	1,064.96	-2,165.22	2,655.94	2,466.24	189.70	14.001		
5,000.00	4,955.45	4,935.45	4,955.45	23.27	170.58	119.35	1,064.96	-2,165.22	2,662.90	2,469.28	193.62	13.753		
5,100.00	5,054.44	5,034.44	5,054.44	23.74	174.04	119.61	1,064.96	-2,165.22	2,669.91	2,472.38	197.53	13.516		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,153.44	5,133.44	5,153.44	24.21	177.49	119.87	1,064.96	-2,165.22	2,676.99	2,475.54	201.45	13.289		
5,300.00	5,252.43	5,232.43	5,252.43	24.68	180.95	120.13	1,064.96	-2,165.22	2,684.11	2,478.75	205.36	13.070		
5,400.00	5,351.42	5,331.42	5,351.42	25.15	184.40	120.39	1,064.96	-2,165.22	2,691.30	2,482.02	209.28	12.860		
5,500.00	5,450.42	5,430.42	5,450.42	25.62	187.86	120.65	1,064.96	-2,165.22	2,698.54	2,485.34	213.20	12.658		
5,600.00	5,549.41	5,529.41	5,549.41	26.09	191.31	120.90	1,064.96	-2,165.22	2,705.83	2,488.72	217.11	12.463		
5,700.00	5,648.41	5,628.41	5,648.41	26.56	194.77	121.16	1,064.96	-2,165.22	2,713.18	2,492.15	221.03	12.275		
5,800.00	5,747.40	5,727.40	5,747.40	27.03	198.23	121.41	1,064.96	-2,165.22	2,720.58	2,495.64	224.94	12.095		
5,900.00	5,846.40	5,826.40	5,846.40	27.51	201.68	121.66	1,064.96	-2,165.22	2,728.03	2,499.17	228.86	11.920		
6,000.00	5,945.39	5,925.39	5,945.39	27.98	205.14	121.91	1,064.96	-2,165.22	2,735.54	2,502.77	232.77	11.752		
6,100.00	6,044.38	6,024.38	6,044.38	28.45	208.59	122.16	1,064.96	-2,165.22	2,743.10	2,506.41	236.69	11.589		
6,200.00	6,143.38	6,123.38	6,143.38	28.92	212.05	122.41	1,064.96	-2,165.22	2,750.71	2,510.11	240.60	11.433		
6,300.00	6,242.37	6,222.37	6,242.37	29.39	215.50	122.66	1,064.96	-2,165.22	2,758.37	2,513.86	244.52	11.281		
6,400.00	6,341.37	6,321.37	6,341.37	29.86	218.96	122.90	1,064.96	-2,165.22	2,766.09	2,517.65	248.43	11.134		
6,500.00	6,440.36	6,420.36	6,440.36	30.34	222.41	123.14	1,064.96	-2,165.22	2,773.85	2,521.50	252.35	10.992		
6,600.00	6,538.90	6,518.90	6,538.90	30.80	225.85	83.92	1,064.96	-2,165.22	2,777.10	2,520.85	256.25	10.838		
6,700.00	6,634.88	6,614.88	6,634.88	31.25	229.20	68.46	1,064.96	-2,165.22	2,769.23	2,509.18	260.05	10.649		
6,800.00	6,725.92	6,705.92	6,725.92	31.68	232.38	63.45	1,064.96	-2,165.22	2,750.66	2,487.01	263.65	10.433		
6,900.00	6,809.79	6,789.79	6,809.79	32.07	235.31	62.68	1,064.96	-2,165.22	2,722.25	2,455.26	266.99	10.196		
7,000.00	6,884.42	6,864.42	6,884.42	32.43	237.91	64.36	1,064.96	-2,165.22	2,685.16	2,415.14	270.02	9.944		
7,100.00	6,947.98	6,927.98	6,947.98	32.77	240.13	67.75	1,064.96	-2,165.22	2,640.80	2,368.10	272.70	9.684		
7,200.00	6,998.89	6,978.89	6,998.89	33.18	241.91	72.45	1,064.96	-2,165.22	2,590.81	2,315.79	275.02	9.421		
7,300.00	7,035.91	7,015.91	7,035.91	33.76	243.20	78.08	1,064.96	-2,165.22	2,536.90	2,259.93	276.97	9.160		
7,400.00	7,058.12	7,038.12	7,058.12	34.61	243.98	84.19	1,064.96	-2,165.22	2,480.82	2,202.28	278.54	8.906		
7,500.00	7,064.98	7,044.98	7,064.98	35.68	244.22	90.15	1,064.96	-2,165.22	2,424.29	2,144.55	279.73	8.666		
7,600.00	7,064.59	7,044.59	7,064.59	36.95	244.20	90.14	1,064.96	-2,165.22	2,369.54	2,088.70	280.84	8.437		
7,700.00	7,064.20	7,044.20	7,064.20	38.40	244.19	90.13	1,064.96	-2,165.22	2,317.82	2,035.68	282.15	8.215		
7,800.00	7,063.80	7,043.80	7,063.80	40.00	244.18	90.12	1,064.96	-2,165.22	2,269.34	1,985.70	283.64	8.001		
7,900.00	7,063.41	7,043.41	7,063.41	41.75	244.16	90.11	1,064.96	-2,165.22	2,224.29	1,938.97	285.32	7.796		
8,000.00	7,063.02	7,043.02	7,063.02	43.62	244.15	90.10	1,064.96	-2,165.22	2,182.90	1,895.73	287.16	7.602		
8,100.00	7,062.62	7,042.62	7,062.62	45.59	244.14	90.09	1,064.96	-2,165.22	2,145.37	1,856.20	289.16	7.419		
8,200.00	7,062.23	7,042.23	7,062.23	47.65	244.12	90.07	1,064.96	-2,165.22	2,111.91	1,820.62	291.30	7.250		
8,300.00	7,061.84	7,041.84	7,061.84	49.79	244.11	90.06	1,064.96	-2,165.22	2,082.73	1,789.19	293.54	7.095		
8,400.00	7,061.45	7,041.45	7,061.45	52.00	244.09	90.05	1,064.96	-2,165.22	2,057.99	1,762.13	295.86	6.956		
8,500.00	7,061.05	7,041.05	7,061.05	54.27	244.08	90.04	1,064.96	-2,165.22	2,037.87	1,739.63	298.24	6.833		
8,600.00	7,060.66	7,040.66	7,060.66	56.60	244.07	90.03	1,064.96	-2,165.22	2,022.49	1,721.86	300.63	6.727		
8,700.00	7,060.27	7,040.27	7,060.27	58.97	244.05	90.02	1,064.96	-2,165.22	2,011.98	1,708.95	303.02	6.640		
8,800.00	7,059.87	7,039.87	7,059.87	61.38	244.04	90.01	1,064.96	-2,165.22	2,006.39	1,701.03	305.37	6.570		
8,862.14	7,059.63	7,039.63	7,059.63	62.90	244.03	90.00	1,064.96	-2,165.22	2,005.43	1,698.63	306.80	6.537 CC		
8,900.00	7,059.48	7,039.48	7,059.48	63.83	244.03	90.00	1,064.96	-2,165.22	2,005.79	1,698.14	307.65	6.520 ES		
9,000.00	7,059.09	7,039.09	7,059.09	66.32	244.01	89.98	1,064.96	-2,165.22	2,010.16	1,700.32	309.84	6.488		
9,100.00	7,058.69	7,038.69	7,058.69	68.83	244.00	89.97	1,064.96	-2,165.22	2,019.49	1,707.57	311.92	6.474 SF		
9,200.00	7,058.30	7,038.30	7,058.30	71.37	243.98	89.96	1,064.96	-2,165.22	2,033.69	1,719.83	313.86	6.480		
9,300.00	7,057.91	7,037.91	7,057.91	73.93	243.97	89.95	1,064.96	-2,165.22	2,052.67	1,737.01	315.66	6.503		
9,400.00	7,057.51	7,037.51	7,057.51	76.51	243.96	89.94	1,064.96	-2,165.22	2,076.30	1,759.00	317.31	6.544		
9,500.00	7,057.12	7,037.12	7,057.12	79.11	243.94	89.93	1,064.96	-2,165.22	2,104.43	1,785.63	318.80	6.601		
9,600.00	7,056.73	7,036.73	7,056.73	81.73	243.93	89.92	1,064.96	-2,165.22	2,136.86	1,816.73	320.13	6.675		
9,700.00	7,056.33	7,036.33	7,056.33	84.37	243.92	89.91	1,064.96	-2,165.22	2,173.42	1,852.11	321.31	6.764		
9,800.00	7,055.94	7,035.94	7,055.94	87.01	243.90	89.89	1,064.96	-2,165.22	2,213.89	1,891.56	322.34	6.868		
9,900.00	7,055.55	7,035.55	7,055.55	89.68	243.89	89.88	1,064.96	-2,165.22	2,258.07	1,934.85	323.22	6.986		
10,000.00	7,055.15	7,035.15	7,055.15	92.35	243.87	89.87	1,064.96	-2,165.22	2,305.74	1,981.77	323.98	7.117		
10,100.00	7,054.76	7,034.76	7,054.76	95.03	243.86	89.86	1,064.96	-2,165.22	2,356.70	2,032.09	324.61	7.260		
10,200.00	7,054.37	7,034.37	7,054.37	97.73	243.85	89.85	1,064.96	-2,165.22	2,410.72	2,085.60	325.12	7.415		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,053.98	7,033.98	7,053.98	100.43	243.83	89.84	1,064.96	-2,165.22	2,467.62	2,142.08	325.54	7.580		
10,400.00	7,053.58	7,033.58	7,053.58	103.14	243.82	89.83	1,064.96	-2,165.22	2,527.20	2,201.33	325.87	7.755		
10,500.00	7,053.19	7,033.19	7,053.19	105.86	243.81	89.82	1,064.96	-2,165.22	2,589.26	2,263.15	326.11	7.940		
10,600.00	7,052.80	7,032.80	7,052.80	108.59	243.79	89.80	1,064.96	-2,165.22	2,653.65	2,327.36	326.29	8.133		
10,700.00	7,052.40	7,032.40	7,052.40	111.32	243.78	89.79	1,064.96	-2,165.22	2,720.19	2,393.79	326.40	8.334		
10,800.00	7,052.01	7,032.01	7,052.01	114.06	243.76	89.78	1,064.96	-2,165.22	2,788.73	2,462.27	326.46	8.542		
10,900.00	7,051.62	7,031.62	7,051.62	116.80	243.75	89.77	1,064.96	-2,165.22	2,859.12	2,532.65	326.47	8.758		
11,000.00	7,051.22	7,031.22	7,051.22	119.55	243.74	89.76	1,064.96	-2,165.22	2,931.23	2,604.79	326.44	8.979		
11,100.00	7,050.83	7,030.83	7,050.83	122.31	243.72	89.75	1,064.96	-2,165.22	3,004.94	2,678.57	326.37	9.207		
11,200.00	7,050.44	7,030.44	7,050.44	125.07	243.71	89.74	1,064.96	-2,165.22	3,080.14	2,753.86	326.28	9.440		
11,300.00	7,050.04	7,030.04	7,050.04	127.83	243.70	89.73	1,064.96	-2,165.22	3,156.71	2,830.55	326.16	9.678		
11,400.00	7,049.65	7,029.65	7,049.65	130.60	243.68	89.71	1,064.96	-2,165.22	3,234.56	2,908.54	326.02	9.921		
11,500.00	7,049.26	7,029.26	7,049.26	133.37	243.67	89.70	1,064.96	-2,165.22	3,313.60	2,987.73	325.86	10.169		
11,600.00	7,048.86	7,028.86	7,048.86	136.15	243.65	89.69	1,064.96	-2,165.22	3,393.74	3,068.05	325.69	10.420		
11,700.00	7,048.47	7,028.47	7,048.47	138.93	243.64	89.68	1,064.96	-2,165.22	3,474.92	3,149.41	325.51	10.675		
11,800.00	7,048.08	7,028.08	7,048.08	141.71	243.63	89.67	1,064.96	-2,165.22	3,557.05	3,231.73	325.32	10.934		
11,900.00	7,047.68	7,027.68	7,047.68	144.49	243.61	89.66	1,064.96	-2,165.22	3,640.08	3,314.96	325.12	11.196		
12,000.00	7,047.29	7,027.29	7,047.29	147.28	243.60	89.65	1,064.96	-2,165.22	3,723.94	3,399.02	324.92	11.461		
12,100.00	7,046.90	7,026.90	7,046.90	150.07	243.59	89.64	1,064.96	-2,165.22	3,808.58	3,483.87	324.71	11.729		
12,200.00	7,046.51	7,026.51	7,046.51	152.87	243.57	89.63	1,064.96	-2,165.22	3,893.95	3,569.45	324.50	12.000		
12,300.00	7,046.11	7,026.11	7,046.11	155.66	243.56	89.61	1,064.96	-2,165.22	3,980.00	3,655.71	324.29	12.273		
12,400.00	7,045.72	7,025.72	7,045.72	158.46	243.54	89.60	1,064.96	-2,165.22	4,066.69	3,742.61	324.08	12.548		
12,500.00	7,045.33	7,025.33	7,045.33	161.26	243.53	89.59	1,064.96	-2,165.22	4,153.98	3,830.11	323.87	12.826		
12,600.00	7,044.93	7,024.93	7,044.93	164.06	243.52	89.58	1,064.96	-2,165.22	4,241.83	3,918.17	323.66	13.106		
12,700.00	7,044.54	7,024.54	7,044.54	166.86	243.50	89.57	1,064.96	-2,165.22	4,330.21	4,006.75	323.46	13.387		
12,800.00	7,044.15	7,024.15	7,044.15	169.67	243.49	89.56	1,064.96	-2,165.22	4,419.08	4,095.82	323.25	13.671		
12,900.00	7,043.75	7,023.75	7,043.75	172.48	243.48	89.55	1,064.96	-2,165.22	4,508.41	4,185.36	323.05	13.956		
13,000.00	7,043.36	7,023.36	7,043.36	175.28	243.46	89.54	1,064.96	-2,165.22	4,598.19	4,275.34	322.85	14.243		
13,100.00	7,042.97	7,022.97	7,042.97	178.09	243.45	89.52	1,064.96	-2,165.22	4,688.38	4,365.73	322.65	14.531		
13,200.00	7,042.57	7,022.57	7,042.57	180.91	243.44	89.51	1,064.96	-2,165.22	4,778.96	4,456.50	322.46	14.820		
13,300.00	7,042.18	7,022.18	7,042.18	183.72	243.42	89.50	1,064.96	-2,165.22	4,869.91	4,547.64	322.27	15.111		
13,400.00	7,041.79	7,021.79	7,041.79	186.53	243.41	89.49	1,064.96	-2,165.22	4,961.21	4,639.12	322.09	15.403		
13,500.00	7,041.39	7,021.39	7,041.39	189.35	243.39	89.48	1,064.96	-2,165.22	5,052.84	4,730.93	321.90	15.697		
13,600.00	7,041.00	7,021.00	7,041.00	192.17	243.38	89.47	1,064.96	-2,165.22	5,144.77	4,823.05	321.73	15.991		
13,700.00	7,040.61	7,020.61	7,040.61	194.99	243.37	89.46	1,064.96	-2,165.22	5,237.01	4,915.45	321.55	16.287		
13,800.00	7,040.21	7,020.21	7,040.21	197.81	243.35	89.45	1,064.96	-2,165.22	5,329.52	5,008.14	321.38	16.583		
13,900.00	7,039.82	7,019.82	7,039.82	200.63	243.34	89.43	1,064.96	-2,165.22	5,422.30	5,101.08	321.22	16.880		
14,000.00	7,039.43	7,019.43	7,039.43	203.45	243.33	89.42	1,064.96	-2,165.22	5,515.34	5,194.28	321.06	17.179		
14,100.00	7,039.03	7,019.03	7,039.03	206.27	243.31	89.41	1,064.96	-2,165.22	5,608.61	5,287.71	320.90	17.478		
14,200.00	7,038.64	7,018.64	7,038.64	209.09	243.30	89.40	1,064.96	-2,165.22	5,702.11	5,381.36	320.75	17.778		
14,300.00	7,038.25	7,018.25	7,038.25	211.92	243.28	89.39	1,064.96	-2,165.22	5,795.83	5,475.23	320.60	18.078		
14,400.00	7,037.86	7,017.86	7,037.86	214.74	243.27	89.38	1,064.96	-2,165.22	5,889.75	5,569.30	320.45	18.379		
14,500.00	7,037.46	7,017.46	7,037.46	217.57	243.26	89.37	1,064.96	-2,165.22	5,983.87	5,663.56	320.31	18.681		
14,600.00	7,037.07	7,017.07	7,037.07	220.40	243.24	89.36	1,064.96	-2,165.22	6,078.18	5,758.00	320.17	18.984		
14,700.00	7,036.68	7,016.68	7,036.68	223.23	243.23	89.34	1,064.96	-2,165.22	6,172.67	5,852.62	320.04	19.287		
14,800.00	7,036.28	7,016.28	7,036.28	226.05	243.22	89.33	1,064.96	-2,165.22	6,267.32	5,947.41	319.91	19.591		
14,871.88	7,036.00	7,016.00	7,036.00	228.09	243.21	89.32	1,064.96	-2,165.22	6,335.47	6,015.65	319.82	19.809		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	35.00	3.28	3.28	-96.04	-268.36	-2,535.27	2,549.67					
100.00	100.00	65.00	100.00	3.28	3.47	-96.04	-268.36	-2,535.27	2,549.43	2,542.68	6.76	377.391		
200.00	200.00	165.00	200.00	3.34	5.18	-96.04	-268.36	-2,535.27	2,549.43	2,540.91	8.52	299.186		
300.00	300.00	265.00	300.00	3.44	8.19	-96.04	-268.36	-2,535.27	2,549.43	2,537.80	11.64	219.100		
400.00	399.98	364.98	399.98	3.60	11.47	74.16	-268.36	-2,535.27	2,548.96	2,533.89	15.07	169.142		
500.00	499.84	464.84	499.84	3.79	14.85	74.30	-268.36	-2,535.27	2,547.53	2,528.90	18.63	136.725		
600.00	599.45	564.45	599.45	4.02	18.26	74.53	-268.36	-2,535.27	2,545.18	2,522.91	22.27	114.281		
700.00	698.70	663.70	698.70	4.29	21.67	74.85	-268.36	-2,535.27	2,541.94	2,515.98	25.96	97.924		
800.00	797.70	762.70	797.70	4.59	25.10	75.16	-268.36	-2,535.27	2,538.25	2,508.57	29.68	85.513		
900.00	896.69	861.69	896.69	4.92	28.53	75.47	-268.36	-2,535.27	2,534.63	2,501.19	33.44	75.792		
1,000.00	995.68	960.68	995.68	5.27	31.96	75.78	-268.36	-2,535.27	2,531.08	2,493.85	37.23	67.986		
1,100.00	1,094.68	1,059.68	1,094.68	5.64	35.40	76.09	-268.36	-2,535.27	2,527.61	2,486.57	41.04	61.591		
1,200.00	1,193.67	1,158.67	1,193.67	6.03	38.84	76.40	-268.36	-2,535.27	2,524.21	2,479.35	44.87	56.262		
1,300.00	1,292.67	1,257.67	1,292.67	6.42	42.29	76.70	-268.36	-2,535.27	2,520.89	2,472.18	48.71	51.757		
1,400.00	1,391.66	1,356.66	1,391.66	6.83	45.73	77.01	-268.36	-2,535.27	2,517.64	2,465.08	52.56	47.901		
1,500.00	1,490.66	1,455.66	1,490.66	7.25	49.18	77.33	-268.36	-2,535.27	2,514.47	2,458.05	56.42	44.566		
1,600.00	1,589.65	1,554.65	1,589.65	7.67	52.63	77.64	-268.36	-2,535.27	2,511.38	2,451.08	60.29	41.654		
1,700.00	1,688.64	1,653.64	1,688.64	8.10	56.08	77.95	-268.36	-2,535.27	2,508.36	2,444.19	64.17	39.090		
1,800.00	1,787.64	1,752.64	1,787.64	8.53	59.53	78.26	-268.36	-2,535.27	2,505.41	2,437.36	68.05	36.816		
1,900.00	1,886.63	1,851.63	1,886.63	8.97	62.98	78.58	-268.36	-2,535.27	2,502.54	2,430.60	71.94	34.786		
2,000.00	1,985.63	1,950.63	1,985.63	9.41	66.43	78.89	-268.36	-2,535.27	2,499.75	2,423.92	75.83	32.964		
2,100.00	2,084.62	2,049.62	2,084.62	9.85	69.88	79.21	-268.36	-2,535.27	2,497.04	2,417.31	79.73	31.319		
2,200.00	2,183.61	2,148.61	2,183.61	10.30	73.34	79.52	-268.36	-2,535.27	2,494.40	2,410.78	83.63	29.828		
2,300.00	2,282.61	2,247.61	2,282.61	10.75	76.79	79.84	-268.36	-2,535.27	2,491.84	2,404.32	87.53	28.469		
2,400.00	2,381.60	2,346.60	2,381.60	11.20	80.24	80.16	-268.36	-2,535.27	2,489.36	2,397.93	91.43	27.226		
2,500.00	2,480.60	2,445.60	2,480.60	11.66	83.69	80.48	-268.36	-2,535.27	2,486.96	2,391.62	95.34	26.085		
2,600.00	2,579.59	2,544.59	2,579.59	12.11	87.15	80.80	-268.36	-2,535.27	2,484.64	2,385.39	99.25	25.035		
2,700.00	2,678.58	2,643.58	2,678.58	12.57	90.60	81.11	-268.36	-2,535.27	2,482.39	2,379.23	103.16	24.064		
2,800.00	2,777.58	2,742.58	2,777.58	13.02	94.06	81.43	-268.36	-2,535.27	2,480.22	2,373.15	107.07	23.164		
2,900.00	2,876.57	2,841.57	2,876.57	13.48	97.51	81.75	-268.36	-2,535.27	2,478.13	2,367.15	110.98	22.329		
3,000.00	2,975.57	2,940.57	2,975.57	13.94	100.96	82.08	-268.36	-2,535.27	2,476.12	2,361.23	114.90	21.551		
3,100.00	3,074.56	3,039.56	3,074.56	14.40	104.42	82.40	-268.36	-2,535.27	2,474.19	2,355.38	118.81	20.824		
3,200.00	3,173.55	3,138.55	3,173.55	14.87	107.87	82.72	-268.36	-2,535.27	2,472.34	2,349.61	122.73	20.145		
3,300.00	3,272.55	3,237.55	3,272.55	15.33	111.33	83.04	-268.36	-2,535.27	2,470.57	2,343.92	126.65	19.508		
3,400.00	3,371.54	3,336.54	3,371.54	15.79	114.78	83.36	-268.36	-2,535.27	2,468.88	2,338.31	130.57	18.909		
3,500.00	3,470.54	3,435.54	3,470.54	16.26	118.23	83.69	-268.36	-2,535.27	2,467.27	2,332.78	134.48	18.346		
3,600.00	3,569.53	3,534.53	3,569.53	16.72	121.69	84.01	-268.36	-2,535.27	2,465.74	2,327.33	138.40	17.815		
3,700.00	3,668.53	3,633.53	3,668.53	17.19	125.14	84.33	-268.36	-2,535.27	2,464.28	2,321.96	142.32	17.315		
3,800.00	3,767.52	3,732.52	3,767.52	17.65	128.60	84.66	-268.36	-2,535.27	2,462.91	2,316.67	146.25	16.841		
3,900.00	3,866.51	3,831.51	3,866.51	18.12	132.05	84.98	-268.36	-2,535.27	2,461.62	2,311.46	150.17	16.393		
4,000.00	3,965.51	3,930.51	3,965.51	18.59	135.51	85.31	-268.36	-2,535.27	2,460.41	2,306.33	154.09	15.967		
4,100.00	4,064.50	4,029.50	4,064.50	19.05	138.96	85.63	-268.36	-2,535.27	2,459.29	2,301.27	158.01	15.564		
4,200.00	4,163.50	4,128.50	4,163.50	19.52	142.42	85.96	-268.36	-2,535.27	2,458.24	2,296.30	161.93	15.180		
4,300.00	4,262.49	4,227.49	4,262.49	19.99	145.87	86.28	-268.36	-2,535.27	2,457.27	2,291.41	165.86	14.816		
4,400.00	4,361.48	4,326.48	4,361.48	20.46	149.33	86.61	-268.36	-2,535.27	2,456.39	2,286.60	169.78	14.468		
4,500.00	4,460.48	4,425.48	4,460.48	20.92	152.78	86.94	-268.36	-2,535.27	2,455.58	2,281.88	173.71	14.136		
4,600.00	4,559.47	4,524.47	4,559.47	21.39	156.24	87.26	-268.36	-2,535.27	2,454.86	2,277.23	177.63	13.820		
4,700.00	4,658.47	4,623.47	4,658.47	21.86	159.69	87.59	-268.36	-2,535.27	2,454.22	2,272.66	181.55	13.518		
4,800.00	4,757.46	4,722.46	4,757.46	22.33	163.15	87.92	-268.36	-2,535.27	2,453.66	2,268.18	185.48	13.229		
4,900.00	4,856.45	4,821.45	4,856.45	22.80	166.60	88.24	-268.36	-2,535.27	2,453.18	2,263.77	189.40	12.952		
5,000.00	4,955.45	4,920.45	4,955.45	23.27	170.06	88.57	-268.36	-2,535.27	2,452.78	2,259.45	193.33	12.687		
5,100.00	5,054.44	5,019.44	5,054.44	23.74	173.51	88.90	-268.36	-2,535.27	2,452.46	2,255.21	197.25	12.433		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,153.44	5,118.44	5,153.44	24.21	176.97	89.22	-268.36	-2,535.27	2,452.23	2,251.05	201.18	12.189	
5,300.00	5,252.43	5,217.43	5,252.43	24.68	180.43	89.55	-268.36	-2,535.27	2,452.08	2,246.97	205.11	11.955	
5,400.00	5,351.42	5,316.42	5,351.42	25.15	183.88	89.88	-268.36	-2,535.27	2,452.01	2,242.97	209.03	11.730	
5,437.00	5,388.05	5,353.05	5,388.05	25.33	185.16	90.00	-268.36	-2,535.27	2,452.00	2,241.52	210.48	11.649	
5,500.00	5,450.42	5,415.42	5,450.42	25.62	187.34	90.21	-268.36	-2,535.27	2,452.02	2,239.06	212.96	11.514	
5,600.00	5,549.41	5,514.41	5,549.41	26.09	190.79	90.53	-268.36	-2,535.27	2,452.11	2,235.23	216.88	11.306	
5,700.00	5,648.41	5,613.41	5,648.41	26.56	194.25	90.86	-268.36	-2,535.27	2,452.28	2,231.47	220.81	11.106	
5,800.00	5,747.40	5,712.40	5,747.40	27.03	197.70	91.19	-268.36	-2,535.27	2,452.54	2,227.80	224.74	10.913	
5,900.00	5,846.40	5,811.40	5,846.40	27.51	201.16	91.51	-268.36	-2,535.27	2,452.88	2,224.21	228.66	10.727	
6,000.00	5,945.39	5,910.39	5,945.39	27.98	204.61	91.84	-268.36	-2,535.27	2,453.29	2,220.71	232.59	10.548	
6,100.00	6,044.38	6,009.38	6,044.38	28.45	208.07	92.17	-268.36	-2,535.27	2,453.79	2,217.28	236.51	10.375	
6,200.00	6,143.38	6,108.38	6,143.38	28.92	211.52	92.50	-268.36	-2,535.27	2,454.38	2,213.93	240.44	10.208	
6,300.00	6,242.37	6,207.37	6,242.37	29.39	214.98	92.82	-268.36	-2,535.27	2,455.04	2,210.67	244.37	10.047	
6,400.00	6,341.37	6,306.37	6,341.37	29.86	218.43	93.15	-268.36	-2,535.27	2,455.78	2,207.49	248.29	9.891	
6,500.00	6,440.36	6,405.36	6,440.36	30.34	221.89	93.47	-268.36	-2,535.27	2,456.61	2,204.39	252.22	9.740	
6,600.00	6,538.90	6,503.90	6,538.90	30.80	225.33	93.80	-268.36	-2,535.27	2,457.50	2,201.36	256.13	9.571	
6,700.00	6,634.88	6,600.12	6,634.88	31.25	228.69	94.12	-268.36	-2,535.27	2,458.44	2,198.40	259.99	9.393	
6,800.00	6,725.92	6,691.44	6,725.92	31.68	232.09	94.44	-268.36	-2,535.27	2,459.42	2,195.42	263.88	9.208	
6,900.00	6,809.79	6,774.79	6,809.79	32.07	234.79	94.75	-268.36	-2,535.27	2,460.44	2,192.40	267.74	9.018	
7,000.00	6,884.42	6,849.42	6,884.42	32.43	237.39	95.05	-268.36	-2,535.27	2,461.50	2,189.40	271.56	8.814	
7,100.00	6,947.98	6,912.98	6,947.98	32.77	239.61	95.34	-268.36	-2,535.27	2,462.60	2,186.40	275.33	8.596	
7,200.00	6,998.89	6,963.89	6,998.89	33.18	241.39	95.62	-268.36	-2,535.27	2,463.74	2,183.40	279.05	8.364	
7,300.00	7,035.91	7,000.91	7,035.91	33.76	242.68	95.89	-268.36	-2,535.27	2,464.91	2,180.40	282.71	8.118	
7,400.00	7,058.12	7,023.12	7,058.12	34.61	243.45	96.15	-268.36	-2,535.27	2,466.10	2,177.40	286.29	7.858	
7,500.00	7,064.98	7,029.98	7,064.98	35.68	243.69	96.40	-268.36	-2,535.27	2,467.30	2,174.40	289.79	7.584	
7,600.00	7,064.59	7,029.59	7,064.59	36.95	243.68	96.65	-268.36	-2,535.27	2,468.50	2,171.40	293.21	7.296	
7,700.00	7,064.20	7,029.20	7,064.20	38.40	243.67	96.90	-268.36	-2,535.27	2,469.70	2,168.40	296.55	6.994	
7,800.00	7,063.80	7,028.80	7,063.80	40.00	243.65	97.15	-268.36	-2,535.27	2,470.90	2,165.40	299.81	6.678	
7,900.00	7,063.41	7,028.41	7,063.41	41.75	243.64	97.40	-268.36	-2,535.27	2,472.10	2,162.40	302.99	6.348	
8,000.00	7,063.02	7,028.02	7,063.02	43.62	243.63	97.65	-268.36	-2,535.27	2,473.30	2,159.40	306.09	6.004	
8,100.00	7,062.62	7,027.62	7,062.62	45.59	243.61	97.90	-268.36	-2,535.27	2,474.50	2,156.40	309.11	5.646	
8,200.00	7,062.23	7,027.23	7,062.23	47.65	243.60	98.15	-268.36	-2,535.27	2,475.70	2,153.40	312.07	5.274	
8,300.00	7,061.84	7,026.84	7,061.84	49.79	243.58	98.40	-268.36	-2,535.27	2,476.90	2,150.40	314.97	4.888	
8,400.00	7,061.45	7,026.45	7,061.45	52.00	243.57	98.65	-268.36	-2,535.27	2,478.10	2,147.40	317.81	4.488	
8,500.00	7,061.05	7,026.05	7,061.05	54.27	243.56	98.90	-268.36	-2,535.27	2,479.30	2,144.40	320.59	4.074	
8,600.00	7,060.66	7,025.66	7,060.66	56.60	243.54	99.15	-268.36	-2,535.27	2,480.50	2,141.40	323.31	3.646	
8,700.00	7,060.27	7,025.27	7,060.27	58.97	243.53	99.40	-268.36	-2,535.27	2,481.70	2,138.40	325.97	3.204	
8,800.00	7,059.87	7,024.87	7,059.87	61.38	243.52	99.65	-268.36	-2,535.27	2,482.90	2,135.40	328.57	2.748	
8,900.00	7,059.48	7,024.48	7,059.48	63.83	243.50	99.90	-268.36	-2,535.27	2,484.10	2,132.40	331.11	2.278	
9,000.00	7,059.09	7,024.09	7,059.09	66.32	243.49	100.15	-268.36	-2,535.27	2,485.30	2,129.40	333.59	1.794	
9,100.00	7,058.69	7,023.69	7,058.69	68.83	243.47	100.40	-268.36	-2,535.27	2,486.50	2,126.40	336.01	1.296	
9,200.00	7,058.30	7,023.30	7,058.30	71.37	243.46	100.65	-268.36	-2,535.27	2,487.70	2,123.40	338.37	0.784	
9,243.00	7,058.13	7,023.13	7,058.13	72.47	243.45	100.90	-268.36	-2,535.27	2,488.90	2,120.40	340.67	0.268	2.138 CC, ES, SF
9,300.00	7,057.91	7,022.91	7,057.91	73.93	243.45	101.15	-268.36	-2,535.27	2,489.90	2,117.40	342.91	0.219	
9,400.00	7,057.51	7,022.51	7,057.51	76.51	243.43	101.40	-268.36	-2,535.27	2,491.00	2,114.40	345.09	0.184	
9,500.00	7,057.12	7,022.12	7,057.12	79.11	243.42	101.65	-268.36	-2,535.27	2,492.10	2,111.40	347.21	0.280	
9,600.00	7,056.73	7,021.73	7,056.73	81.73	243.41	101.90	-268.36	-2,535.27	2,493.20	2,108.40	349.27	0.420	
9,700.00	7,056.33	7,021.33	7,056.33	84.37	243.39	102.15	-268.36	-2,535.27	2,494.30	2,105.40	351.27	0.600	
9,800.00	7,055.94	7,020.94	7,055.94	87.01	243.38	102.40	-268.36	-2,535.27	2,495.40	2,102.40	353.21	0.810	
9,900.00	7,055.55	7,020.55	7,055.55	89.68	243.36	102.65	-268.36	-2,535.27	2,496.50	2,100.00	355.09	1.047	
10,000.00	7,055.15	7,020.15	7,055.15	92.35	243.35	102.90	-268.36	-2,535.27	2,497.60	2,097.60	356.91	1.304	
10,100.00	7,054.76	7,019.76	7,054.76	95.03	243.34	103.15	-268.36	-2,535.27	2,498.70	2,095.20	358.67	1.577	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH)													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,054.37	7,019.37	7,054.37	97.73	243.32	89.68	-268.36	-2,535.27	1,171.18	868.06	303.12	3.864		
10,300.00	7,053.98	7,018.98	7,053.98	100.43	243.31	89.65	-268.36	-2,535.27	1,254.22	952.79	301.43	4.161		
10,400.00	7,053.58	7,018.58	7,053.58	103.14	243.30	89.61	-268.36	-2,535.27	1,339.57	1,039.67	299.91	4.467		
10,500.00	7,053.19	7,018.19	7,053.19	105.86	243.28	89.58	-268.36	-2,535.27	1,426.83	1,128.29	298.54	4.779		
10,600.00	7,052.80	7,017.80	7,052.80	108.59	243.27	89.55	-268.36	-2,535.27	1,515.67	1,218.35	297.32	5.098		
10,700.00	7,052.40	7,017.40	7,052.40	111.32	243.25	89.51	-268.36	-2,535.27	1,605.82	1,309.59	296.22	5.421		
10,800.00	7,052.01	7,017.01	7,052.01	114.06	243.24	89.48	-268.36	-2,535.27	1,697.07	1,401.83	295.24	5.748		
10,900.00	7,051.62	7,016.62	7,051.62	116.80	243.23	89.45	-268.36	-2,535.27	1,789.25	1,494.90	294.35	6.079		
11,000.00	7,051.22	7,016.22	7,051.22	119.55	243.21	89.41	-268.36	-2,535.27	1,882.24	1,588.68	293.56	6.412		
11,100.00	7,050.83	7,015.83	7,050.83	122.31	243.20	89.38	-268.36	-2,535.27	1,975.91	1,683.07	292.84	6.747		
11,200.00	7,050.44	7,015.44	7,050.44	125.07	243.19	89.35	-268.36	-2,535.27	2,070.17	1,777.98	292.19	7.085		
11,300.00	7,050.04	7,015.04	7,050.04	127.83	243.17	89.31	-268.36	-2,535.27	2,164.95	1,873.35	291.60	7.424		
11,400.00	7,049.65	7,014.65	7,049.65	130.60	243.16	89.28	-268.36	-2,535.27	2,260.18	1,969.11	291.07	7.765		
11,500.00	7,049.26	7,014.26	7,049.26	133.37	243.14	89.25	-268.36	-2,535.27	2,355.80	2,065.22	290.58	8.107		
11,600.00	7,048.86	7,013.86	7,048.86	136.15	243.13	89.21	-268.36	-2,535.27	2,451.77	2,161.63	290.14	8.450		
11,700.00	7,048.47	7,013.47	7,048.47	138.93	243.12	89.18	-268.36	-2,535.27	2,548.05	2,258.32	289.73	8.794		
11,800.00	7,048.08	7,013.08	7,048.08	141.71	243.10	89.15	-268.36	-2,535.27	2,644.61	2,355.25	289.36	9.139		
11,900.00	7,047.68	7,012.68	7,047.68	144.49	243.09	89.11	-268.36	-2,535.27	2,741.42	2,452.39	289.02	9.485		
12,000.00	7,047.29	7,012.29	7,047.29	147.28	243.08	89.08	-268.36	-2,535.27	2,838.44	2,549.73	288.71	9.831		
12,100.00	7,046.90	7,011.90	7,046.90	150.07	243.06	89.05	-268.36	-2,535.27	2,935.67	2,647.24	288.43	10.178		
12,200.00	7,046.51	7,011.51	7,046.51	152.87	243.05	89.01	-268.36	-2,535.27	3,033.07	2,744.91	288.16	10.526		
12,300.00	7,046.11	7,011.11	7,046.11	155.66	243.04	88.98	-268.36	-2,535.27	3,130.64	2,842.72	287.92	10.873		
12,400.00	7,045.72	7,010.72	7,045.72	158.46	243.02	88.95	-268.36	-2,535.27	3,228.36	2,940.66	287.70	11.221		
12,500.00	7,045.33	7,010.33	7,045.33	161.26	243.01	88.91	-268.36	-2,535.27	3,326.21	3,038.72	287.49	11.570		
12,600.00	7,044.93	7,009.93	7,044.93	164.06	242.99	88.88	-268.36	-2,535.27	3,424.19	3,136.89	287.30	11.918		
12,700.00	7,044.54	7,009.54	7,044.54	166.86	242.98	88.85	-268.36	-2,535.27	3,522.28	3,235.16	287.13	12.267		
12,800.00	7,044.15	7,009.15	7,044.15	169.67	242.97	88.81	-268.36	-2,535.27	3,620.48	3,333.52	286.96	12.616		
12,900.00	7,043.75	7,008.75	7,043.75	172.48	242.95	88.78	-268.36	-2,535.27	3,718.77	3,431.96	286.81	12.966		
13,000.00	7,043.36	7,008.36	7,043.36	175.28	242.94	88.75	-268.36	-2,535.27	3,817.15	3,530.47	286.68	13.315		
13,100.00	7,042.97	7,007.97	7,042.97	178.09	242.93	88.71	-268.36	-2,535.27	3,915.61	3,629.06	286.55	13.665		
13,200.00	7,042.57	7,007.57	7,042.57	180.91	242.91	88.68	-268.36	-2,535.27	4,014.15	3,727.72	286.43	14.014		
13,300.00	7,042.18	7,007.18	7,042.18	183.72	242.90	88.65	-268.36	-2,535.27	4,112.76	3,826.44	286.32	14.364		
13,400.00	7,041.79	7,006.79	7,041.79	186.53	242.88	88.61	-268.36	-2,535.27	4,211.44	3,925.21	286.23	14.714		
13,500.00	7,041.39	7,006.39	7,041.39	189.35	242.87	88.58	-268.36	-2,535.27	4,310.17	4,024.04	286.13	15.063		
13,600.00	7,041.00	7,006.00	7,041.00	192.17	242.86	88.55	-268.36	-2,535.27	4,408.96	4,122.91	286.05	15.413		
13,700.00	7,040.61	7,005.61	7,040.61	194.99	242.84	88.51	-268.36	-2,535.27	4,507.81	4,221.84	285.97	15.763		
13,800.00	7,040.21	7,005.21	7,040.21	197.81	242.83	88.48	-268.36	-2,535.27	4,606.71	4,320.80	285.90	16.113		
13,900.00	7,039.82	7,004.82	7,039.82	200.63	242.82	88.45	-268.36	-2,535.27	4,705.65	4,419.81	285.84	16.462		
14,000.00	7,039.43	7,004.43	7,039.43	203.45	242.80	88.41	-268.36	-2,535.27	4,804.63	4,518.85	285.78	16.812		
14,100.00	7,039.03	7,004.03	7,039.03	206.27	242.79	88.38	-268.36	-2,535.27	4,903.66	4,617.93	285.73	17.162		
14,200.00	7,038.64	7,003.64	7,038.64	209.09	242.77	88.35	-268.36	-2,535.27	5,002.73	4,717.04	285.68	17.511		
14,300.00	7,038.25	7,003.25	7,038.25	211.92	242.76	88.31	-268.36	-2,535.27	5,101.83	4,816.19	285.64	17.861		
14,400.00	7,037.86	7,002.86	7,037.86	214.74	242.75	88.28	-268.36	-2,535.27	5,200.97	4,915.36	285.61	18.210		
14,500.00	7,037.46	7,002.46	7,037.46	217.57	242.73	88.25	-268.36	-2,535.27	5,300.13	5,014.56	285.57	18.560		
14,600.00	7,037.07	7,002.07	7,037.07	220.40	242.72	88.21	-268.36	-2,535.27	5,399.33	5,113.79	285.55	18.909		
14,700.00	7,036.68	7,001.68	7,036.68	223.23	242.71	88.18	-268.36	-2,535.27	5,498.56	5,213.04	285.52	19.258		
14,800.00	7,036.28	7,001.28	7,036.28	226.05	242.69	88.15	-268.36	-2,535.27	5,597.82	5,312.32	285.50	19.607		
14,871.88	7,036.00	7,001.00	7,036.00	228.09	242.68	88.12	-268.36	-2,535.27	5,669.18	5,383.69	285.49	19.858		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	46.00	3.28	3.28	-106.68	-1,437.45	-4,796.80	5,007.76					
100.00	100.00	54.00	100.00	3.28	3.41	-106.68	-1,437.45	-4,796.80	5,007.54	5,000.85	6.70	747.677		
200.00	200.00	154.00	200.00	3.34	4.89	-106.68	-1,437.45	-4,796.80	5,007.54	4,999.31	8.23	608.459		
300.00	300.00	254.00	300.00	3.44	7.84	-106.68	-1,437.45	-4,796.80	5,007.54	4,996.26	11.29	443.712		
400.00	399.98	353.98	399.98	3.60	11.11	63.50	-1,437.45	-4,796.80	5,006.76	4,992.06	14.70	340.537		
500.00	499.84	453.84	499.84	3.79	14.47	63.60	-1,437.45	-4,796.80	5,004.43	4,986.17	18.26	274.084		
600.00	599.45	553.45	599.45	4.02	17.88	63.76	-1,437.45	-4,796.80	5,000.55	4,978.66	21.89	228.394		
700.00	698.70	652.70	698.70	4.29	21.29	63.98	-1,437.45	-4,796.80	4,995.15	4,969.57	25.58	195.280		
800.00	797.70	751.70	797.70	4.59	24.71	64.13	-1,437.45	-4,796.80	4,988.92	4,959.61	29.30	170.262		
900.00	896.69	850.69	896.69	4.92	28.14	64.27	-1,437.45	-4,796.80	4,982.71	4,949.65	33.06	150.726		
1,000.00	995.68	949.68	995.68	5.27	31.58	64.42	-1,437.45	-4,796.80	4,976.53	4,939.69	36.84	135.076		
1,100.00	1,094.68	1,048.68	1,094.68	5.64	35.02	64.57	-1,437.45	-4,796.80	4,970.39	4,929.74	40.65	122.277		
1,200.00	1,193.67	1,147.67	1,193.67	6.03	38.46	64.71	-1,437.45	-4,796.80	4,964.28	4,919.81	44.47	111.626		
1,300.00	1,292.67	1,246.67	1,292.67	6.42	41.90	64.86	-1,437.45	-4,796.80	4,958.20	4,909.89	48.31	102.632		
1,400.00	1,391.66	1,345.66	1,391.66	6.83	45.35	65.01	-1,437.45	-4,796.80	4,952.16	4,900.00	52.16	94.942		
1,500.00	1,490.66	1,444.66	1,490.66	7.25	48.80	65.15	-1,437.45	-4,796.80	4,946.15	4,890.13	56.02	88.294		
1,600.00	1,589.65	1,543.65	1,589.65	7.67	52.25	65.30	-1,437.45	-4,796.80	4,940.17	4,880.28	59.89	82.492		
1,700.00	1,688.64	1,642.64	1,688.64	8.10	55.70	65.45	-1,437.45	-4,796.80	4,934.22	4,870.46	63.76	77.386		
1,800.00	1,787.64	1,741.64	1,787.64	8.53	59.15	65.60	-1,437.45	-4,796.80	4,928.31	4,860.67	67.64	72.860		
1,900.00	1,886.63	1,840.63	1,886.63	8.97	62.60	65.75	-1,437.45	-4,796.80	4,922.44	4,850.91	71.53	68.821		
2,000.00	1,985.63	1,939.63	1,985.63	9.41	66.05	65.89	-1,437.45	-4,796.80	4,916.59	4,841.18	75.41	65.194		
2,100.00	2,084.62	2,038.62	2,084.62	9.85	69.50	66.04	-1,437.45	-4,796.80	4,910.78	4,831.47	79.31	61.921		
2,200.00	2,183.61	2,137.61	2,183.61	10.30	72.95	66.19	-1,437.45	-4,796.80	4,905.00	4,821.80	83.20	58.952		
2,300.00	2,282.61	2,236.61	2,282.61	10.75	76.41	66.34	-1,437.45	-4,796.80	4,899.26	4,812.16	87.10	56.247		
2,400.00	2,381.60	2,335.60	2,381.60	11.20	79.86	66.49	-1,437.45	-4,796.80	4,893.55	4,802.55	91.00	53.773		
2,500.00	2,480.60	2,434.60	2,480.60	11.66	83.31	66.65	-1,437.45	-4,796.80	4,887.88	4,792.97	94.91	51.502		
2,600.00	2,579.59	2,533.59	2,579.59	12.11	86.76	66.80	-1,437.45	-4,796.80	4,882.24	4,783.43	98.81	49.409		
2,700.00	2,678.58	2,632.58	2,678.58	12.57	90.22	66.95	-1,437.45	-4,796.80	4,876.64	4,773.92	102.72	47.475		
2,800.00	2,777.58	2,731.58	2,777.58	13.02	93.67	67.10	-1,437.45	-4,796.80	4,871.07	4,764.44	106.63	45.683		
2,900.00	2,876.57	2,830.57	2,876.57	13.48	97.13	67.25	-1,437.45	-4,796.80	4,865.53	4,754.99	110.54	44.017		
3,000.00	2,975.57	2,929.57	2,975.57	13.94	100.58	67.40	-1,437.45	-4,796.80	4,860.03	4,745.58	114.45	42.464		
3,100.00	3,074.56	3,028.56	3,074.56	14.40	104.03	67.56	-1,437.45	-4,796.80	4,854.56	4,736.20	118.36	41.014		
3,200.00	3,173.55	3,127.55	3,173.55	14.87	107.49	67.71	-1,437.45	-4,796.80	4,849.13	4,726.86	122.28	39.657		
3,300.00	3,272.55	3,226.55	3,272.55	15.33	110.94	67.86	-1,437.45	-4,796.80	4,843.74	4,717.55	126.19	38.384		
3,400.00	3,371.54	3,325.54	3,371.54	15.79	114.40	68.02	-1,437.45	-4,796.80	4,838.38	4,708.27	130.11	37.188		
3,500.00	3,470.54	3,424.54	3,470.54	16.26	117.85	68.17	-1,437.45	-4,796.80	4,833.05	4,699.03	134.02	36.061		
3,600.00	3,569.53	3,523.53	3,569.53	16.72	121.31	68.33	-1,437.45	-4,796.80	4,827.77	4,689.83	137.94	34.999		
3,700.00	3,668.53	3,622.53	3,668.53	17.19	124.76	68.48	-1,437.45	-4,796.80	4,822.51	4,680.65	141.86	33.995		
3,800.00	3,767.52	3,721.52	3,767.52	17.65	128.21	68.64	-1,437.45	-4,796.80	4,817.30	4,671.52	145.78	33.046		
3,900.00	3,866.51	3,820.51	3,866.51	18.12	131.67	68.79	-1,437.45	-4,796.80	4,812.11	4,662.42	149.70	32.146		
4,000.00	3,965.51	3,919.51	3,965.51	18.59	135.12	68.95	-1,437.45	-4,796.80	4,806.97	4,653.35	153.62	31.292		
4,100.00	4,064.50	4,018.50	4,064.50	19.05	138.58	69.10	-1,437.45	-4,796.80	4,801.86	4,644.32	157.54	30.481		
4,200.00	4,163.50	4,117.50	4,163.50	19.52	142.03	69.26	-1,437.45	-4,796.80	4,796.79	4,635.33	161.46	29.709		
4,300.00	4,262.49	4,216.49	4,262.49	19.99	145.49	69.42	-1,437.45	-4,796.80	4,791.75	4,626.37	165.38	28.974		
4,400.00	4,361.48	4,315.48	4,361.48	20.46	148.94	69.57	-1,437.45	-4,796.80	4,786.75	4,617.45	169.30	28.274		
4,500.00	4,460.48	4,414.48	4,460.48	20.92	152.40	69.73	-1,437.45	-4,796.80	4,781.79	4,608.57	173.22	27.605		
4,600.00	4,559.47	4,513.47	4,559.47	21.39	155.85	69.89	-1,437.45	-4,796.80	4,776.86	4,599.72	177.15	26.966		
4,700.00	4,658.47	4,612.47	4,658.47	21.86	159.31	70.05	-1,437.45	-4,796.80	4,771.97	4,590.90	181.07	26.355		
4,800.00	4,757.46	4,711.46	4,757.46	22.33	162.76	70.21	-1,437.45	-4,796.80	4,767.12	4,582.13	184.99	25.769		
4,900.00	4,856.45	4,810.45	4,856.45	22.80	166.22	70.36	-1,437.45	-4,796.80	4,762.30	4,573.39	188.92	25.209		
5,000.00	4,955.45	4,909.45	4,955.45	23.27	169.68	70.52	-1,437.45	-4,796.80	4,757.53	4,564.69	192.84	24.671		
5,100.00	5,054.44	5,008.44	5,054.44	23.74	173.13	70.68	-1,437.45	-4,796.80	4,752.78	4,556.02	196.76	24.155		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,107.44	5,153.44	24.21	176.59	70.84	-1,437.45	-4,796.80	4,748.08	4,547.39	200.69	23.659		
5,300.00	5,252.43	5,206.43	5,252.43	24.68	180.04	71.00	-1,437.45	-4,796.80	4,743.41	4,538.80	204.61	23.182		
5,400.00	5,351.42	5,305.42	5,351.42	25.15	183.50	71.16	-1,437.45	-4,796.80	4,738.79	4,530.25	208.54	22.724		
5,500.00	5,450.42	5,404.42	5,450.42	25.62	186.95	71.32	-1,437.45	-4,796.80	4,734.20	4,521.73	212.46	22.282		
5,600.00	5,549.41	5,503.41	5,549.41	26.09	190.41	71.48	-1,437.45	-4,796.80	4,729.64	4,513.25	216.39	21.857		
5,700.00	5,648.41	5,602.41	5,648.41	26.56	193.86	71.65	-1,437.45	-4,796.80	4,725.13	4,504.81	220.32	21.447		
5,800.00	5,747.40	5,701.40	5,747.40	27.03	197.32	71.81	-1,437.45	-4,796.80	4,720.65	4,496.41	224.24	21.052		
5,900.00	5,846.40	5,800.40	5,846.40	27.51	200.77	71.97	-1,437.45	-4,796.80	4,716.21	4,488.04	228.17	20.670		
6,000.00	5,945.39	5,900.61	5,945.39	27.98	204.27	72.13	-1,437.45	-4,796.80	4,711.81	4,479.68	232.14	20.298		
6,100.00	6,044.38	6,001.62	6,044.38	28.45	207.80	72.29	-1,437.45	-4,796.80	4,707.45	4,471.32	236.13	19.935		
6,200.00	6,143.38	6,102.62	6,143.38	28.92	211.32	72.46	-1,437.45	-4,796.80	4,703.13	4,463.00	240.13	19.586		
6,300.00	6,242.37	6,203.63	6,242.37	29.39	214.85	72.62	-1,437.45	-4,796.80	4,698.84	4,454.71	244.13	19.247		
6,400.00	6,341.37	6,304.63	6,341.37	29.86	218.37	72.78	-1,437.45	-4,796.80	4,694.60	4,446.47	248.13	18.920		
6,500.00	6,440.36	6,405.64	6,440.36	30.34	221.90	72.95	-1,437.45	-4,796.80	4,690.39	4,438.27	252.12	18.604		
6,600.00	6,538.90	6,507.10	6,538.90	30.80	225.44	73.59	-1,437.45	-4,796.80	4,679.98	4,423.85	256.13	18.272		
6,700.00	6,634.88	6,588.88	6,634.88	31.25	228.30	16.96	-1,437.45	-4,796.80	4,654.37	4,394.94	259.43	17.941		
6,800.00	6,725.92	6,679.92	6,725.92	31.68	231.47	9.63	-1,437.45	-4,796.80	4,614.09	4,351.08	263.01	17.543		
6,900.00	6,809.79	6,763.79	6,809.79	32.07	234.40	5.32	-1,437.45	-4,796.80	4,560.13	4,293.83	266.30	17.124		
7,000.00	6,884.42	6,838.42	6,884.42	32.43	237.01	2.04	-1,437.45	-4,796.80	4,493.80	4,224.58	269.22	16.692		
7,100.00	6,947.98	6,901.98	6,947.98	32.77	239.23	-1.22	-1,437.45	-4,796.80	4,416.73	4,145.05	271.68	16.257		
7,200.00	6,998.89	6,952.89	6,998.89	33.18	241.00	-5.49	-1,437.45	-4,796.80	4,330.81	4,057.18	273.63	15.827		
7,300.00	7,035.91	6,989.91	7,035.91	33.76	242.29	-13.10	-1,437.45	-4,796.80	4,238.17	3,963.14	275.03	15.410		
7,400.00	7,058.12	7,012.12	7,058.12	34.61	243.07	-32.87	-1,437.45	-4,796.80	4,141.10	3,865.24	275.86	15.012		
7,500.00	7,064.98	7,018.98	7,064.98	35.68	243.31	-91.90	-1,437.45	-4,796.80	4,042.00	3,765.90	276.10	14.640		
7,600.00	7,064.59	7,018.59	7,064.59	36.95	243.30	-91.85	-1,437.45	-4,796.80	3,942.71	3,666.65	276.07	14.282		
7,700.00	7,064.20	7,018.20	7,064.20	38.40	243.28	-91.81	-1,437.45	-4,796.80	3,843.46	3,567.42	276.04	13.923		
7,800.00	7,063.80	7,017.80	7,063.80	40.00	243.27	-91.76	-1,437.45	-4,796.80	3,744.25	3,468.23	276.03	13.565		
7,900.00	7,063.41	7,017.41	7,063.41	41.75	243.25	-91.71	-1,437.45	-4,796.80	3,645.09	3,369.07	276.01	13.206		
8,000.00	7,063.02	7,017.02	7,063.02	43.62	243.24	-91.66	-1,437.45	-4,796.80	3,545.97	3,269.96	276.01	12.847		
8,100.00	7,062.62	7,016.62	7,062.62	45.59	243.23	-91.62	-1,437.45	-4,796.80	3,446.90	3,170.88	276.01	12.488		
8,200.00	7,062.23	7,016.23	7,062.23	47.65	243.21	-91.57	-1,437.45	-4,796.80	3,347.88	3,071.86	276.03	12.129		
8,300.00	7,061.84	7,015.84	7,061.84	49.79	243.20	-91.52	-1,437.45	-4,796.80	3,248.93	2,972.88	276.05	11.769		
8,400.00	7,061.45	7,015.45	7,061.45	52.00	243.19	-91.47	-1,437.45	-4,796.80	3,150.04	2,873.95	276.09	11.410		
8,500.00	7,061.05	7,015.05	7,061.05	54.27	243.17	-91.43	-1,437.45	-4,796.80	3,051.22	2,775.08	276.14	11.049		
8,600.00	7,060.66	7,014.66	7,060.66	56.60	243.16	-91.38	-1,437.45	-4,796.80	2,952.49	2,676.27	276.21	10.689		
8,700.00	7,060.27	7,014.27	7,060.27	58.97	243.15	-91.33	-1,437.45	-4,796.80	2,853.84	2,577.53	276.31	10.329		
8,800.00	7,059.87	7,013.87	7,059.87	61.38	243.13	-91.29	-1,437.45	-4,796.80	2,755.29	2,478.86	276.42	9.968		
8,900.00	7,059.48	7,013.48	7,059.48	63.83	243.12	-91.24	-1,437.45	-4,796.80	2,656.84	2,380.27	276.57	9.606		
9,000.00	7,059.09	7,013.09	7,059.09	66.32	243.10	-91.19	-1,437.45	-4,796.80	2,558.52	2,281.77	276.75	9.245		
9,100.00	7,058.69	7,012.69	7,058.69	68.83	243.09	-91.14	-1,437.45	-4,796.80	2,460.34	2,183.36	276.98	8.883		
9,200.00	7,058.30	7,012.30	7,058.30	71.37	243.08	-91.10	-1,437.45	-4,796.80	2,362.30	2,085.05	277.25	8.521		
9,300.00	7,057.91	7,011.91	7,057.91	73.93	243.06	-91.05	-1,437.45	-4,796.80	2,264.44	1,986.86	277.58	8.158		
9,400.00	7,057.51	7,011.51	7,057.51	76.51	243.05	-91.00	-1,437.45	-4,796.80	2,166.77	1,888.79	277.98	7.795		
9,500.00	7,057.12	7,011.12	7,057.12	79.11	243.04	-90.95	-1,437.45	-4,796.80	2,069.33	1,790.87	278.46	7.431		
9,600.00	7,056.73	7,010.73	7,056.73	81.73	243.02	-90.91	-1,437.45	-4,796.80	1,972.14	1,693.10	279.04	7.068		
9,700.00	7,056.33	7,010.33	7,056.33	84.37	243.01	-90.86	-1,437.45	-4,796.80	1,875.24	1,595.50	279.74	6.703		
9,800.00	7,055.94	7,009.94	7,055.94	87.01	242.99	-90.81	-1,437.45	-4,796.80	1,778.69	1,498.11	280.59	6.339		
9,900.00	7,055.55	7,009.55	7,055.55	89.68	242.98	-90.76	-1,437.45	-4,796.80	1,682.55	1,400.94	281.61	5.975		
10,000.00	7,055.15	7,009.15	7,055.15	92.35	242.97	-90.72	-1,437.45	-4,796.80	1,586.88	1,304.03	282.84	5.610		
10,100.00	7,054.76	7,008.76	7,054.76	95.03	242.95	-90.67	-1,437.45	-4,796.80	1,491.77	1,207.43	284.34	5.246		
10,200.00	7,054.37	7,008.37	7,054.37	97.73	242.94	-90.62	-1,437.45	-4,796.80	1,397.35	1,111.20	286.15	4.883		
10,300.00	7,053.98	7,007.98	7,053.98	100.43	242.93	-90.58	-1,437.45	-4,796.80	1,303.77	1,015.42	288.35	4.521		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	7,007.58	7,053.58	103.14	242.91	-90.53	-1,437.45	-4,796.80	1,211.21	920.18	291.03	4.162		
10,500.00	7,053.19	7,007.19	7,053.19	105.86	242.90	-90.48	-1,437.45	-4,796.80	1,119.93	825.63	294.29	3.806		
10,600.00	7,052.80	7,006.80	7,052.80	108.59	242.88	-90.43	-1,437.45	-4,796.80	1,030.26	731.99	298.27	3.454		
10,700.00	7,052.40	7,006.40	7,052.40	111.32	242.87	-90.39	-1,437.45	-4,796.80	942.68	639.54	303.14	3.110		
10,800.00	7,052.01	7,006.01	7,052.01	114.06	242.86	-90.34	-1,437.45	-4,796.80	857.82	548.75	309.08	2.775		
10,900.00	7,051.62	7,005.62	7,051.62	116.80	242.84	-90.29	-1,437.45	-4,796.80	776.58	460.28	316.30	2.455		
11,000.00	7,051.22	7,005.22	7,051.22	119.55	242.83	-90.24	-1,437.45	-4,796.80	700.20	375.21	324.99	2.155		
11,100.00	7,050.83	7,004.83	7,050.83	122.31	242.82	-90.20	-1,437.45	-4,796.80	630.47	295.26	335.20	1.881		
11,200.00	7,050.44	7,004.44	7,050.44	125.07	242.80	-90.15	-1,437.45	-4,796.80	569.82	223.13	346.69	1.644		
11,300.00	7,050.04	7,004.04	7,050.04	127.83	242.79	-90.10	-1,437.45	-4,796.80	521.45	162.88	358.57	1.454	Level 3	
11,400.00	7,049.65	7,003.65	7,049.65	130.60	242.77	-90.05	-1,437.45	-4,796.80	489.00	119.92	369.07	1.325	Level 3	
11,500.00	7,049.26	7,003.26	7,049.26	133.37	242.76	-90.01	-1,437.45	-4,796.80	475.74	99.83	375.91	1.266	Level 3	
11,513.96	7,049.20	7,003.20	7,049.20	133.76	242.76	-90.00	-1,437.45	-4,796.80	475.53	99.07	376.46	1.263	Level 3, CC, ES, SF	
11,600.00	7,048.86	7,002.86	7,048.86	136.15	242.75	-89.96	-1,437.45	-4,796.80	483.25	105.77	377.48	1.280	Level 3	
11,700.00	7,048.47	7,002.47	7,048.47	138.93	242.73	-89.91	-1,437.45	-4,796.80	510.63	136.58	374.05	1.365	Level 3	
11,800.00	7,048.08	7,002.08	7,048.08	141.71	242.72	-89.86	-1,437.45	-4,796.80	554.93	187.59	367.34	1.511		
11,900.00	7,047.68	7,001.68	7,047.68	144.49	242.71	-89.82	-1,437.45	-4,796.80	612.50	253.22	359.28	1.705		
12,000.00	7,047.29	7,001.29	7,047.29	147.28	242.69	-89.77	-1,437.45	-4,796.80	679.97	328.77	351.20	1.936		
12,100.00	7,046.90	7,000.90	7,046.90	150.07	242.68	-89.72	-1,437.45	-4,796.80	754.69	410.93	343.77	2.195		
12,200.00	7,046.51	7,000.51	7,046.51	152.87	242.66	-89.68	-1,437.45	-4,796.80	834.73	497.53	337.20	2.475		
12,300.00	7,046.11	7,000.11	7,046.11	155.66	242.65	-89.63	-1,437.45	-4,796.80	918.68	587.17	331.51	2.771		
12,400.00	7,045.72	7,000.28	7,045.72	158.46	242.66	-89.58	-1,437.45	-4,796.80	1,005.57	678.93	326.65	3.078		
12,500.00	7,045.33	7,000.67	7,045.33	161.26	242.67	-89.53	-1,437.45	-4,796.80	1,094.71	772.23	322.48	3.395		
12,600.00	7,044.93	7,001.07	7,044.93	164.06	242.68	-89.49	-1,437.45	-4,796.80	1,185.58	866.68	318.90	3.718		
12,700.00	7,044.54	7,001.46	7,044.54	166.86	242.70	-89.44	-1,437.45	-4,796.80	1,277.81	962.00	315.81	4.046		
12,800.00	7,044.15	7,001.85	7,044.15	169.67	242.71	-89.39	-1,437.45	-4,796.80	1,371.13	1,058.00	313.13	4.379		
12,900.00	7,043.75	7,002.25	7,043.75	172.48	242.73	-89.34	-1,437.45	-4,796.80	1,465.33	1,154.53	310.80	4.715		
13,000.00	7,043.36	7,002.64	7,043.36	175.28	242.74	-89.30	-1,437.45	-4,796.80	1,560.26	1,251.49	308.76	5.053		
13,100.00	7,042.97	7,003.03	7,042.97	178.09	242.75	-89.25	-1,437.45	-4,796.80	1,655.78	1,348.81	306.97	5.394		
13,200.00	7,042.57	7,003.43	7,042.57	180.91	242.77	-89.20	-1,437.45	-4,796.80	1,751.80	1,446.42	305.39	5.736		
13,300.00	7,042.18	7,003.82	7,042.18	183.72	242.78	-89.15	-1,437.45	-4,796.80	1,848.25	1,544.26	303.98	6.080		
13,400.00	7,041.79	7,004.21	7,041.79	186.53	242.79	-89.11	-1,437.45	-4,796.80	1,945.05	1,642.32	302.73	6.425		
13,500.00	7,041.39	7,004.61	7,041.39	189.35	242.81	-89.06	-1,437.45	-4,796.80	2,042.16	1,740.55	301.61	6.771		
13,600.00	7,041.00	7,005.00	7,041.00	192.17	242.82	-89.01	-1,437.45	-4,796.80	2,139.54	1,838.93	300.61	7.117		
13,700.00	7,040.61	7,005.39	7,040.61	194.99	242.84	-88.96	-1,437.45	-4,796.80	2,237.14	1,937.44	299.70	7.465		
13,800.00	7,040.21	7,005.79	7,040.21	197.81	242.85	-88.92	-1,437.45	-4,796.80	2,334.96	2,036.07	298.89	7.812		
13,900.00	7,039.82	7,006.18	7,039.82	200.63	242.86	-88.87	-1,437.45	-4,796.80	2,432.94	2,134.79	298.15	8.160		
14,000.00	7,039.43	7,006.57	7,039.43	203.45	242.88	-88.82	-1,437.45	-4,796.80	2,531.09	2,233.61	297.48	8.508		
14,100.00	7,039.03	7,006.97	7,039.03	206.27	242.89	-88.78	-1,437.45	-4,796.80	2,629.38	2,332.50	296.87	8.857		
14,200.00	7,038.64	7,007.36	7,038.64	209.09	242.90	-88.73	-1,437.45	-4,796.80	2,727.79	2,431.47	296.32	9.206		
14,300.00	7,038.25	7,007.75	7,038.25	211.92	242.92	-88.68	-1,437.45	-4,796.80	2,826.31	2,530.49	295.81	9.554		
14,400.00	7,037.86	7,008.14	7,037.86	214.74	242.93	-88.63	-1,437.45	-4,796.80	2,924.93	2,629.58	295.35	9.903		
14,500.00	7,037.46	7,008.54	7,037.46	217.57	242.95	-88.59	-1,437.45	-4,796.80	3,023.64	2,728.71	294.93	10.252		
14,600.00	7,037.07	7,008.93	7,037.07	220.40	242.96	-88.54	-1,437.45	-4,796.80	3,122.44	2,827.89	294.54	10.601		
14,700.00	7,036.68	7,009.32	7,036.68	223.23	242.97	-88.49	-1,437.45	-4,796.80	3,221.31	2,927.12	294.19	10.950		
14,800.00	7,036.28	7,009.72	7,036.28	226.05	242.99	-88.44	-1,437.45	-4,796.80	3,320.24	3,026.38	293.86	11.299		
14,871.88	7,036.00	7,010.00	7,036.00	228.09	243.00	-88.41	-1,437.45	-4,796.80	3,391.40	3,097.75	293.65	11.549		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	49.00	3.28	3.28	-121.46	-2,938.38	-4,802.65	5,630.45					
100.00	100.00	51.00	100.00	3.28	3.40	-121.46	-2,938.38	-4,802.65	5,630.23	5,623.55	6.68	842.423		
200.00	200.00	151.00	200.00	3.34	4.82	-121.46	-2,938.38	-4,802.65	5,630.23	5,622.08	8.15	690.599		
300.00	300.00	251.00	300.00	3.44	7.75	-121.46	-2,938.38	-4,802.65	5,630.23	5,619.04	11.19	503.123		
400.00	399.98	350.98	399.98	3.60	11.01	48.72	-2,938.38	-4,802.65	5,629.08	5,614.48	14.60	385.482		
500.00	499.84	450.84	499.84	3.79	14.37	48.81	-2,938.38	-4,802.65	5,625.63	5,607.47	18.16	309.820		
600.00	599.45	550.45	599.45	4.02	17.78	48.97	-2,938.38	-4,802.65	5,619.89	5,598.09	21.79	257.876		
700.00	698.70	649.70	698.70	4.29	21.19	49.18	-2,938.38	-4,802.65	5,611.87	5,586.39	25.48	220.271		
800.00	797.70	748.70	797.70	4.59	24.61	49.30	-2,938.38	-4,802.65	5,602.58	5,573.39	29.20	191.890		
900.00	896.69	847.69	896.69	4.92	28.04	49.41	-2,938.38	-4,802.65	5,593.32	5,560.37	32.95	169.755		
1,000.00	995.68	946.68	995.68	5.27	31.47	49.52	-2,938.38	-4,802.65	5,584.07	5,547.34	36.73	152.034		
1,100.00	1,094.68	1,045.68	1,094.68	5.64	34.91	49.63	-2,938.38	-4,802.65	5,574.84	5,534.31	40.53	137.547		
1,200.00	1,193.67	1,144.67	1,193.67	6.03	38.36	49.74	-2,938.38	-4,802.65	5,565.63	5,521.28	44.35	125.496		
1,300.00	1,292.67	1,243.67	1,292.67	6.42	41.80	49.85	-2,938.38	-4,802.65	5,556.44	5,508.26	48.18	115.322		
1,400.00	1,391.66	1,342.66	1,391.66	6.83	45.25	49.96	-2,938.38	-4,802.65	5,547.28	5,495.25	52.03	106.624		
1,500.00	1,490.66	1,441.66	1,490.66	7.25	48.69	50.07	-2,938.38	-4,802.65	5,538.13	5,482.25	55.88	99.107		
1,600.00	1,589.65	1,540.65	1,589.65	7.67	52.14	50.19	-2,938.38	-4,802.65	5,529.01	5,469.27	59.74	92.548		
1,700.00	1,688.64	1,639.64	1,688.64	8.10	55.59	50.30	-2,938.38	-4,802.65	5,519.91	5,456.30	63.61	86.776		
1,800.00	1,787.64	1,738.64	1,787.64	8.53	59.04	50.41	-2,938.38	-4,802.65	5,510.83	5,443.34	67.49	81.660		
1,900.00	1,886.63	1,837.63	1,886.63	8.97	62.49	50.52	-2,938.38	-4,802.65	5,501.77	5,430.40	71.36	77.094		
2,000.00	1,985.63	1,936.63	1,985.63	9.41	65.94	50.64	-2,938.38	-4,802.65	5,492.73	5,417.48	75.25	72.995		
2,100.00	2,084.62	2,035.62	2,084.62	9.85	69.40	50.75	-2,938.38	-4,802.65	5,483.71	5,404.58	79.14	69.295		
2,200.00	2,183.61	2,134.61	2,183.61	10.30	72.85	50.86	-2,938.38	-4,802.65	5,474.72	5,391.69	83.03	65.940		
2,300.00	2,282.61	2,233.61	2,282.61	10.75	76.30	50.98	-2,938.38	-4,802.65	5,465.74	5,378.82	86.92	62.883		
2,400.00	2,381.60	2,332.60	2,381.60	11.20	79.75	51.09	-2,938.38	-4,802.65	5,456.79	5,365.98	90.81	60.087		
2,500.00	2,480.60	2,431.60	2,480.60	11.66	83.21	51.21	-2,938.38	-4,802.65	5,447.86	5,353.15	94.71	57.520		
2,600.00	2,579.59	2,530.59	2,579.59	12.11	86.66	51.32	-2,938.38	-4,802.65	5,438.95	5,340.34	98.61	55.155		
2,700.00	2,678.58	2,629.58	2,678.58	12.57	90.11	51.44	-2,938.38	-4,802.65	5,430.07	5,327.56	102.51	52.969		
2,800.00	2,777.58	2,728.58	2,777.58	13.02	93.57	51.55	-2,938.38	-4,802.65	5,421.21	5,314.79	106.42	50.943		
2,900.00	2,876.57	2,827.57	2,876.57	13.48	97.02	51.67	-2,938.38	-4,802.65	5,412.37	5,302.05	110.32	49.060		
3,000.00	2,975.57	2,926.57	2,975.57	13.94	100.47	51.79	-2,938.38	-4,802.65	5,403.55	5,289.32	114.23	47.305		
3,100.00	3,074.56	3,025.56	3,074.56	14.40	103.93	51.91	-2,938.38	-4,802.65	5,394.76	5,276.62	118.14	45.666		
3,200.00	3,173.55	3,124.55	3,173.55	14.87	107.38	52.02	-2,938.38	-4,802.65	5,385.98	5,263.94	122.04	44.132		
3,300.00	3,272.55	3,223.55	3,272.55	15.33	110.84	52.14	-2,938.38	-4,802.65	5,377.23	5,251.28	125.95	42.693		
3,400.00	3,371.54	3,322.54	3,371.54	15.79	114.29	52.26	-2,938.38	-4,802.65	5,368.51	5,238.65	129.86	41.340		
3,500.00	3,470.54	3,421.54	3,470.54	16.26	117.75	52.38	-2,938.38	-4,802.65	5,359.81	5,226.03	133.77	40.066		
3,600.00	3,569.53	3,520.53	3,569.53	16.72	121.20	52.50	-2,938.38	-4,802.65	5,351.13	5,213.44	137.69	38.865		
3,700.00	3,668.53	3,619.53	3,668.53	17.19	124.66	52.62	-2,938.38	-4,802.65	5,342.47	5,200.87	141.60	37.730		
3,800.00	3,767.52	3,718.52	3,767.52	17.65	128.11	52.74	-2,938.38	-4,802.65	5,333.84	5,188.32	145.51	36.656		
3,900.00	3,866.51	3,817.51	3,866.51	18.12	131.57	52.86	-2,938.38	-4,802.65	5,325.23	5,175.80	149.43	35.638		
4,000.00	3,965.51	3,916.51	3,965.51	18.59	135.02	52.98	-2,938.38	-4,802.65	5,316.64	5,163.30	153.34	34.672		
4,100.00	4,064.50	4,015.50	4,064.50	19.05	138.47	53.10	-2,938.38	-4,802.65	5,308.08	5,150.82	157.25	33.755		
4,200.00	4,163.50	4,114.50	4,163.50	19.52	141.93	53.22	-2,938.38	-4,802.65	5,299.54	5,138.37	161.17	32.882		
4,300.00	4,262.49	4,213.49	4,262.49	19.99	145.38	53.34	-2,938.38	-4,802.65	5,291.03	5,125.94	165.09	32.050		
4,400.00	4,361.48	4,312.48	4,361.48	20.46	148.84	53.47	-2,938.38	-4,802.65	5,282.54	5,113.54	169.00	31.257		
4,500.00	4,460.48	4,411.48	4,460.48	20.92	152.29	53.59	-2,938.38	-4,802.65	5,274.07	5,101.15	172.92	30.500		
4,600.00	4,559.47	4,510.47	4,559.47	21.39	155.75	53.71	-2,938.38	-4,802.65	5,265.63	5,088.80	176.84	29.777		
4,700.00	4,658.47	4,609.47	4,658.47	21.86	159.21	53.84	-2,938.38	-4,802.65	5,257.22	5,076.46	180.76	29.085		
4,800.00	4,757.46	4,708.46	4,757.46	22.33	162.66	53.96	-2,938.38	-4,802.65	5,248.82	5,064.15	184.67	28.422		
4,900.00	4,856.45	4,807.45	4,856.45	22.80	166.12	54.08	-2,938.38	-4,802.65	5,240.46	5,051.87	188.59	27.787		
5,000.00	4,955.45	4,906.45	4,955.45	23.27	169.57	54.21	-2,938.38	-4,802.65	5,232.12	5,039.60	192.51	27.178		
5,100.00	5,054.44	5,005.44	5,054.44	23.74	173.03	54.33	-2,938.38	-4,802.65	5,223.80	5,027.37	196.43	26.594		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,104.44	5,153.44	24.21	176.48	54.46	-2,938.38	-4,802.65	5,215.51	5,015.16	200.35	26.032		
5,300.00	5,252.43	5,203.43	5,252.43	24.68	179.94	54.58	-2,938.38	-4,802.65	5,207.24	5,002.97	204.27	25.492		
5,400.00	5,351.42	5,302.42	5,351.42	25.15	183.39	54.71	-2,938.38	-4,802.65	5,199.00	4,990.81	208.19	24.972		
5,500.00	5,450.42	5,401.42	5,450.42	25.62	186.85	54.84	-2,938.38	-4,802.65	5,190.78	4,978.67	212.11	24.472		
5,600.00	5,549.41	5,500.41	5,549.41	26.09	190.30	54.96	-2,938.38	-4,802.65	5,182.59	4,966.56	216.03	23.990		
5,700.00	5,648.41	5,600.59	5,648.41	26.56	193.80	55.09	-2,938.38	-4,802.65	5,174.43	4,954.43	219.99	23.521		
5,800.00	5,747.40	5,701.60	5,747.40	27.03	197.32	55.22	-2,938.38	-4,802.65	5,166.29	4,942.30	223.99	23.065		
5,900.00	5,846.40	5,802.61	5,846.40	27.51	200.85	55.35	-2,938.38	-4,802.65	5,158.18	4,930.20	227.98	22.626		
6,000.00	5,945.39	5,903.61	5,945.39	27.98	204.38	55.48	-2,938.38	-4,802.65	5,150.09	4,918.12	231.97	22.202		
6,100.00	6,044.38	6,004.62	6,044.38	28.45	207.90	55.61	-2,938.38	-4,802.65	5,142.03	4,906.07	235.96	21.792		
6,200.00	6,143.38	6,105.62	6,143.38	28.92	211.43	55.73	-2,938.38	-4,802.65	5,134.00	4,894.04	239.95	21.396		
6,300.00	6,242.37	6,206.63	6,242.37	29.39	214.95	55.86	-2,938.38	-4,802.65	5,125.99	4,882.04	243.95	21.013		
6,400.00	6,341.37	6,307.63	6,341.37	29.86	218.48	55.99	-2,938.38	-4,802.65	5,118.01	4,870.07	247.94	20.642		
6,500.00	6,440.36	6,408.64	6,440.36	30.34	222.00	56.13	-2,938.38	-4,802.65	5,110.05	4,858.12	251.93	20.283		
6,600.00	6,538.90	6,489.90	6,538.90	30.80	224.84	16.35	-2,938.38	-4,802.65	5,096.39	4,841.16	255.23	19.968		
6,700.00	6,634.88	6,585.88	6,634.88	31.25	228.19	-1.17	-2,938.38	-4,802.65	5,068.80	4,809.79	259.01	19.570		
6,800.00	6,725.92	6,676.92	6,725.92	31.68	231.37	-9.94	-2,938.38	-4,802.65	5,027.87	4,765.29	262.58	19.148		
6,900.00	6,809.79	6,760.79	6,809.79	32.07	234.30	-16.40	-2,938.38	-4,802.65	4,974.64	4,708.79	265.85	18.712		
7,000.00	6,884.42	6,835.42	6,884.42	32.43	236.90	-22.78	-2,938.38	-4,802.65	4,910.45	4,641.70	268.75	18.272		
7,100.00	6,947.98	6,901.02	6,947.98	32.77	239.19	-30.40	-2,938.38	-4,802.65	4,836.95	4,565.68	271.27	17.831		
7,200.00	6,998.89	6,949.89	6,998.89	33.18	240.90	-40.53	-2,938.38	-4,802.65	4,756.03	4,482.87	273.15	17.412		
7,300.00	7,035.91	6,986.91	7,035.91	33.76	242.19	-54.40	-2,938.38	-4,802.65	4,669.78	4,395.19	274.58	17.007		
7,400.00	7,058.12	7,009.12	7,058.12	34.61	242.97	-72.13	-2,938.38	-4,802.65	4,580.44	4,304.96	275.48	16.627		
7,500.00	7,064.98	7,015.98	7,064.98	35.68	243.21	-90.46	-2,938.38	-4,802.65	4,490.30	4,214.46	275.84	16.279		
7,600.00	7,064.59	7,015.59	7,064.59	36.95	243.19	-90.45	-2,938.38	-4,802.65	4,400.73	4,124.74	275.99	15.945		
7,700.00	7,064.20	7,015.20	7,064.20	38.40	243.18	-90.44	-2,938.38	-4,802.65	4,311.62	4,035.39	276.22	15.609		
7,800.00	7,063.80	7,014.80	7,063.80	40.00	243.16	-90.43	-2,938.38	-4,802.65	4,222.99	3,946.46	276.53	15.271		
7,900.00	7,063.41	7,014.41	7,063.41	41.75	243.15	-90.41	-2,938.38	-4,802.65	4,134.88	3,857.96	276.93	14.931		
8,000.00	7,063.02	7,014.02	7,063.02	43.62	243.14	-90.40	-2,938.38	-4,802.65	4,047.33	3,769.91	277.41	14.589		
8,100.00	7,062.62	7,013.62	7,062.62	45.59	243.12	-90.39	-2,938.38	-4,802.65	3,960.36	3,682.36	278.01	14.246		
8,200.00	7,062.23	7,013.23	7,062.23	47.65	243.11	-90.38	-2,938.38	-4,802.65	3,874.03	3,595.32	278.70	13.900		
8,300.00	7,061.84	7,012.84	7,061.84	49.79	243.10	-90.37	-2,938.38	-4,802.65	3,788.36	3,508.84	279.52	13.553		
8,400.00	7,061.45	7,012.45	7,061.45	52.00	243.08	-90.36	-2,938.38	-4,802.65	3,703.42	3,422.96	280.46	13.205		
8,500.00	7,061.05	7,012.05	7,061.05	54.27	243.07	-90.35	-2,938.38	-4,802.65	3,619.24	3,337.72	281.53	12.856		
8,600.00	7,060.66	7,011.66	7,060.66	56.60	243.05	-90.33	-2,938.38	-4,802.65	3,535.89	3,253.16	282.73	12.506		
8,700.00	7,060.27	7,011.27	7,060.27	58.97	243.04	-90.32	-2,938.38	-4,802.65	3,453.42	3,169.35	284.07	12.157		
8,800.00	7,059.87	7,010.87	7,059.87	61.38	243.03	-90.31	-2,938.38	-4,802.65	3,371.91	3,086.34	285.56	11.808		
8,900.00	7,059.48	7,010.48	7,059.48	63.83	243.01	-90.30	-2,938.38	-4,802.65	3,291.41	3,004.20	287.21	11.460		
9,000.00	7,059.09	7,010.09	7,059.09	66.32	243.00	-90.29	-2,938.38	-4,802.65	3,212.00	2,922.99	289.01	11.114		
9,100.00	7,058.69	7,009.69	7,058.69	68.83	242.99	-90.28	-2,938.38	-4,802.65	3,133.78	2,842.80	290.97	10.770		
9,200.00	7,058.30	7,009.30	7,058.30	71.37	242.97	-90.27	-2,938.38	-4,802.65	3,056.82	2,763.72	293.10	10.429		
9,300.00	7,057.91	7,008.91	7,057.91	73.93	242.96	-90.25	-2,938.38	-4,802.65	2,981.24	2,685.84	295.40	10.092		
9,400.00	7,057.51	7,008.51	7,057.51	76.51	242.94	-90.24	-2,938.38	-4,802.65	2,907.13	2,609.25	297.87	9.760		
9,500.00	7,057.12	7,008.12	7,057.12	79.11	242.93	-90.23	-2,938.38	-4,802.65	2,834.61	2,534.09	300.52	9.432		
9,600.00	7,056.73	7,007.73	7,056.73	81.73	242.92	-90.22	-2,938.38	-4,802.65	2,763.80	2,460.46	303.34	9.111		
9,700.00	7,056.33	7,007.33	7,056.33	84.37	242.90	-90.21	-2,938.38	-4,802.65	2,694.85	2,388.51	306.34	8.797		
9,800.00	7,055.94	7,006.94	7,055.94	87.01	242.89	-90.20	-2,938.38	-4,802.65	2,627.89	2,318.38	309.51	8.490		
9,900.00	7,055.55	7,006.55	7,055.55	89.68	242.88	-90.19	-2,938.38	-4,802.65	2,563.09	2,250.23	312.86	8.192		
10,000.00	7,055.15	7,006.15	7,055.15	92.35	242.86	-90.17	-2,938.38	-4,802.65	2,500.60	2,184.23	316.38	7.904		
10,100.00	7,054.76	7,005.76	7,054.76	95.03	242.85	-90.16	-2,938.38	-4,802.65	2,440.62	2,120.57	320.05	7.626		
10,200.00	7,054.37	7,005.37	7,054.37	97.73	242.83	-90.15	-2,938.38	-4,802.65	2,383.32	2,059.45	323.88	7.359		
10,300.00	7,053.98	7,004.98	7,053.98	100.43	242.82	-90.14	-2,938.38	-4,802.65	2,328.91	2,001.07	327.84	7.104		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	7,004.58	7,053.58	103.14	242.81	-90.13	-2,938.38	-4,802.65	2,277.59	1,945.67	331.92	6.862		
10,500.00	7,053.19	7,004.19	7,053.19	105.86	242.79	-90.12	-2,938.38	-4,802.65	2,229.58	1,893.48	336.11	6.634		
10,600.00	7,052.80	7,003.80	7,052.80	108.59	242.78	-90.11	-2,938.38	-4,802.65	2,185.10	1,844.73	340.36	6.420		
10,700.00	7,052.40	7,003.40	7,052.40	111.32	242.77	-90.09	-2,938.38	-4,802.65	2,144.35	1,799.69	344.66	6.222		
10,800.00	7,052.01	7,003.01	7,052.01	114.06	242.75	-90.08	-2,938.38	-4,802.65	2,107.57	1,758.60	348.97	6.039		
10,900.00	7,051.62	7,002.62	7,051.62	116.80	242.74	-90.07	-2,938.38	-4,802.65	2,074.96	1,721.72	353.24	5.874		
11,000.00	7,051.22	7,002.22	7,051.22	119.55	242.72	-90.06	-2,938.38	-4,802.65	2,046.72	1,689.27	357.45	5.726		
11,100.00	7,050.83	7,001.83	7,050.83	122.31	242.71	-90.05	-2,938.38	-4,802.65	2,023.03	1,661.49	361.54	5.596		
11,200.00	7,050.44	7,001.44	7,050.44	125.07	242.70	-90.04	-2,938.38	-4,802.65	2,004.06	1,638.59	365.47	5.484		
11,300.00	7,050.04	7,001.04	7,050.04	127.83	242.68	-90.03	-2,938.38	-4,802.65	1,989.94	1,620.74	369.20	5.390		
11,400.00	7,049.65	7,000.65	7,049.65	130.60	242.67	-90.02	-2,938.38	-4,802.65	1,980.77	1,608.09	372.68	5.315		
11,500.00	7,049.26	7,000.26	7,049.26	133.37	242.66	-90.00	-2,938.38	-4,802.65	1,976.63	1,600.74	375.89	5.259		
11,532.00	7,049.13	7,000.13	7,049.13	134.26	242.65	-90.00	-2,938.38	-4,802.65	1,976.37	1,599.51	376.85	5.244 CC		
11,600.00	7,048.86	7,000.14	7,048.86	136.15	242.65	-89.99	-2,938.38	-4,802.65	1,977.54	1,598.74	378.80	5.221 ES		
11,700.00	7,048.47	7,000.53	7,048.47	138.93	242.67	-89.98	-2,938.38	-4,802.65	1,983.50	1,602.10	381.39	5.201		
11,800.00	7,048.08	7,000.92	7,048.08	141.71	242.68	-89.97	-2,938.38	-4,802.65	1,994.46	1,610.81	383.64	5.199 SF		
11,900.00	7,047.68	7,001.32	7,047.68	144.49	242.69	-89.96	-2,938.38	-4,802.65	2,010.34	1,624.80	385.53	5.214		
12,000.00	7,047.29	7,001.71	7,047.29	147.28	242.71	-89.95	-2,938.38	-4,802.65	2,031.02	1,643.94	387.08	5.247		
12,100.00	7,046.90	7,002.10	7,046.90	150.07	242.72	-89.94	-2,938.38	-4,802.65	2,056.37	1,668.09	388.28	5.296		
12,200.00	7,046.51	7,002.50	7,046.51	152.87	242.73	-89.92	-2,938.38	-4,802.65	2,086.20	1,697.05	389.15	5.361		
12,300.00	7,046.11	7,002.89	7,046.11	155.66	242.75	-89.91	-2,938.38	-4,802.65	2,120.34	1,730.62	389.72	5.441		
12,400.00	7,045.72	7,003.28	7,045.72	158.46	242.76	-89.90	-2,938.38	-4,802.65	2,158.57	1,768.57	390.01	5.535		
12,500.00	7,045.33	7,003.67	7,045.33	161.26	242.78	-89.89	-2,938.38	-4,802.65	2,200.69	1,810.65	390.04	5.642		
12,600.00	7,044.93	7,004.07	7,044.93	164.06	242.79	-89.88	-2,938.38	-4,802.65	2,246.47	1,856.63	389.84	5.763		
12,700.00	7,044.54	7,004.46	7,044.54	166.86	242.80	-89.87	-2,938.38	-4,802.65	2,295.70	1,906.25	389.44	5.895		
12,800.00	7,044.15	7,004.85	7,044.15	169.67	242.82	-89.86	-2,938.38	-4,802.65	2,348.15	1,959.28	388.88	6.038		
12,900.00	7,043.75	7,005.25	7,043.75	172.48	242.83	-89.84	-2,938.38	-4,802.65	2,403.63	2,015.46	388.16	6.192		
13,000.00	7,043.36	7,005.64	7,043.36	175.28	242.84	-89.83	-2,938.38	-4,802.65	2,461.91	2,074.58	387.33	6.356		
13,100.00	7,042.97	7,006.03	7,042.97	178.09	242.86	-89.82	-2,938.38	-4,802.65	2,522.82	2,136.42	386.39	6.529		
13,200.00	7,042.57	7,006.43	7,042.57	180.91	242.87	-89.81	-2,938.38	-4,802.65	2,586.16	2,200.78	385.38	6.711		
13,300.00	7,042.18	7,006.82	7,042.18	183.72	242.89	-89.80	-2,938.38	-4,802.65	2,651.75	2,267.45	384.30	6.900		
13,400.00	7,041.79	7,007.21	7,041.79	186.53	242.90	-89.79	-2,938.38	-4,802.65	2,719.45	2,336.27	383.18	7.097		
13,500.00	7,041.39	7,007.61	7,041.39	189.35	242.91	-89.78	-2,938.38	-4,802.65	2,789.08	2,407.06	382.02	7.301		
13,600.00	7,041.00	7,008.00	7,041.00	192.17	242.93	-89.76	-2,938.38	-4,802.65	2,860.52	2,479.68	380.84	7.511		
13,700.00	7,040.61	7,008.39	7,040.61	194.99	242.94	-89.75	-2,938.38	-4,802.65	2,933.63	2,553.98	379.65	7.727		
13,800.00	7,040.21	7,008.79	7,040.21	197.81	242.95	-89.74	-2,938.38	-4,802.65	3,008.28	2,629.83	378.45	7.949		
13,900.00	7,039.82	7,009.18	7,039.82	200.63	242.97	-89.73	-2,938.38	-4,802.65	3,084.37	2,707.12	377.26	8.176		
14,000.00	7,039.43	7,009.57	7,039.43	203.45	242.98	-89.72	-2,938.38	-4,802.65	3,161.80	2,785.72	376.07	8.407		
14,100.00	7,039.03	7,009.97	7,039.03	206.27	243.00	-89.71	-2,938.38	-4,802.65	3,240.45	2,865.56	374.90	8.644		
14,200.00	7,038.64	6,989.64	7,038.64	209.09	242.29	-89.70	-2,938.38	-4,802.65	3,320.26	2,947.24	373.02	8.901		
14,300.00	7,038.25	6,989.25	7,038.25	211.92	242.27	-89.68	-2,938.38	-4,802.65	3,401.14	3,029.28	371.86	9.146		
14,400.00	7,037.86	6,988.86	7,037.86	214.74	242.26	-89.67	-2,938.38	-4,802.65	3,483.00	3,112.29	370.71	9.395		
14,500.00	7,037.46	6,988.46	7,037.46	217.57	242.24	-89.66	-2,938.38	-4,802.65	3,565.80	3,196.20	369.59	9.648		
14,600.00	7,037.07	6,988.07	7,037.07	220.40	242.23	-89.65	-2,938.38	-4,802.65	3,649.45	3,280.95	368.50	9.903		
14,700.00	7,036.68	6,987.68	7,036.68	223.23	242.22	-89.64	-2,938.38	-4,802.65	3,733.91	3,366.48	367.43	10.162		
14,800.00	7,036.28	6,987.28	7,036.28	226.05	242.20	-89.63	-2,938.38	-4,802.65	3,819.12	3,452.73	366.39	10.424		
14,871.88	7,036.00	6,987.00	7,036.00	228.09	242.19	-89.62	-2,938.38	-4,802.65	3,880.81	3,515.14	365.66	10.613		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
0.00	0.00	25.00	67.00	3.28	3.28	-141.51	-4,109.50	-3,267.29	5,250.49					
100.00	100.00	900.28	937.08	3.28	5.15	-141.69	-4,061.27	-3,208.45	5,242.97	5,234.51	8.46	619.693		
200.00	200.00	1,001.06	1,034.41	3.34	5.57	-141.73	-4,051.06	-3,195.98	5,227.01	5,218.15	8.86	590.183		
300.00	300.00	1,097.59	1,131.74	3.44	6.00	-141.77	-4,040.84	-3,183.52	5,211.05	5,201.74	9.31	559.962		
400.00	399.98	1,196.01	1,228.84	3.60	6.45	28.52	-4,030.65	-3,171.09	5,193.57	5,183.75	9.82	528.810		
500.00	499.84	1,293.88	1,325.40	3.79	6.91	28.71	-4,020.52	-3,158.72	5,173.09	5,162.71	10.39	498.059		
600.00	599.45	1,391.08	1,421.29	4.02	7.38	28.95	-4,010.46	-3,146.44	5,149.62	5,138.63	11.00	468.332		
700.00	698.70	1,487.49	1,516.41	4.29	7.85	29.25	-4,000.48	-3,134.26	5,123.20	5,111.56	11.64	440.096		
800.00	797.70	1,583.41	1,611.04	4.59	8.33	29.31	-3,990.54	-3,122.14	5,095.12	5,082.80	12.31	413.779		
900.00	896.69	1,679.33	1,705.66	4.92	8.81	29.35	-3,980.61	-3,110.02	5,067.03	5,054.02	13.01	389.530		
1,000.00	995.68	1,775.24	1,800.29	5.27	9.30	29.39	-3,970.68	-3,097.91	5,038.95	5,025.22	13.73	367.048		
1,100.00	1,094.68	1,871.16	1,894.92	5.64	9.79	29.43	-3,960.75	-3,085.79	5,010.87	4,996.40	14.47	346.290		
1,200.00	1,193.67	1,967.07	1,989.55	6.03	10.29	29.47	-3,950.82	-3,073.67	4,982.79	4,967.56	15.23	327.168		
1,300.00	1,292.67	2,062.99	2,084.17	6.42	10.79	29.51	-3,940.89	-3,061.55	4,954.71	4,938.71	16.01	309.569		
1,400.00	1,391.66	2,158.90	2,178.80	6.83	11.29	29.55	-3,930.96	-3,049.44	4,926.64	4,909.84	16.79	293.372		
1,500.00	1,490.66	2,254.82	2,273.43	7.25	11.79	29.59	-3,921.03	-3,037.32	4,898.57	4,880.97	17.59	278.453		
1,600.00	1,589.65	2,350.73	2,368.06	7.67	12.30	29.64	-3,911.10	-3,025.20	4,870.50	4,852.10	18.40	264.697		
1,700.00	1,688.64	2,446.65	2,462.68	8.10	12.80	29.68	-3,901.17	-3,013.08	4,842.43	4,823.22	19.22	251.993		
1,800.00	1,787.64	2,542.57	2,557.31	8.53	13.31	29.72	-3,891.24	-3,000.97	4,814.37	4,794.33	20.04	240.241		
1,900.00	1,886.63	2,638.48	2,651.94	8.97	13.82	29.77	-3,881.31	-2,988.85	4,786.31	4,765.44	20.87	229.351		
2,000.00	1,985.63	2,734.40	2,746.56	9.41	14.33	29.81	-3,871.38	-2,976.73	4,758.25	4,736.55	21.70	219.241		
2,100.00	2,084.62	2,830.31	2,841.19	9.85	14.85	29.86	-3,861.44	-2,964.61	4,730.19	4,707.65	22.54	209.836		
2,200.00	2,183.61	2,926.23	2,935.82	10.30	15.36	29.90	-3,851.51	-2,952.49	4,702.14	4,678.76	23.39	201.071		
2,300.00	2,282.61	3,022.87	3,030.45	10.75	15.90	29.95	-3,841.58	-2,940.38	4,674.09	4,649.83	24.26	192.682		
2,400.00	2,381.60	3,119.95	3,125.07	11.20	16.46	30.00	-3,831.65	-2,928.26	4,646.04	4,620.90	25.14	184.770		
2,500.00	2,480.60	3,213.97	3,219.70	11.66	16.90	30.05	-3,821.72	-2,916.14	4,618.00	4,592.07	25.93	178.062		
2,600.00	2,579.59	3,309.89	3,314.33	12.11	17.42	30.09	-3,811.79	-2,904.02	4,589.96	4,563.17	26.79	171.331		
2,700.00	2,678.58	3,405.81	3,408.96	12.57	17.94	30.14	-3,801.86	-2,891.91	4,561.92	4,534.27	27.65	165.002		
2,800.00	2,777.58	3,501.72	3,503.58	13.02	18.46	30.19	-3,791.93	-2,879.79	4,533.89	4,505.38	28.51	159.043		
2,900.00	2,876.57	3,602.36	3,598.21	13.48	19.00	30.24	-3,782.00	-2,867.67	4,505.85	4,476.46	29.39	153.311		
3,000.00	2,975.57	3,693.55	3,692.84	13.94	19.49	30.29	-3,772.07	-2,855.55	4,477.83	4,447.59	30.23	148.115		
3,100.00	3,074.56	3,789.47	3,787.46	14.40	20.01	30.35	-3,762.14	-2,843.43	4,449.80	4,418.70	31.10	143.095		
3,200.00	3,173.55	3,885.38	3,882.09	14.87	20.53	30.40	-3,752.21	-2,831.32	4,421.78	4,389.82	31.96	138.340		
3,300.00	3,272.55	3,981.30	3,976.72	15.33	21.05	30.45	-3,742.28	-2,819.20	4,393.76	4,360.93	32.83	133.832		
3,400.00	3,371.54	4,077.21	4,071.35	15.79	21.57	30.50	-3,732.34	-2,807.08	4,365.75	4,332.05	33.70	129.550		
3,500.00	3,470.54	4,173.13	4,165.97	16.26	22.09	30.56	-3,722.41	-2,794.96	4,337.73	4,303.17	34.57	125.480		
3,600.00	3,569.53	4,269.04	4,260.60	16.72	22.61	30.61	-3,712.48	-2,782.85	4,309.73	4,274.29	35.44	121.607		
3,700.00	3,668.53	4,364.96	4,355.23	17.19	23.13	30.67	-3,702.55	-2,770.73	4,281.72	4,245.41	36.31	117.916		
3,800.00	3,767.52	4,460.88	4,449.86	17.65	23.66	30.72	-3,692.62	-2,758.61	4,253.72	4,216.54	37.18	114.396		
3,900.00	3,866.51	4,556.79	4,544.48	18.12	24.18	30.78	-3,682.69	-2,746.49	4,225.73	4,187.67	38.06	111.035		
4,000.00	3,965.51	4,652.71	4,639.11	18.59	24.70	30.84	-3,672.76	-2,734.37	4,197.73	4,158.80	38.93	107.823		
4,100.00	4,064.50	4,748.62	4,733.74	19.05	25.22	30.90	-3,662.83	-2,722.26	4,169.74	4,129.94	39.81	104.751		
4,200.00	4,163.50	4,844.54	4,828.37	19.52	25.74	30.96	-3,652.90	-2,710.14	4,141.76	4,101.08	40.68	101.808		
4,300.00	4,262.49	4,940.45	4,922.99	19.99	26.27	31.02	-3,642.97	-2,698.02	4,113.78	4,072.22	41.56	98.989		
4,400.00	4,361.48	5,036.37	5,017.62	20.46	26.79	31.08	-3,633.04	-2,685.90	4,085.80	4,043.37	42.43	96.285		
4,500.00	4,460.48	5,132.28	5,112.25	20.92	27.31	31.14	-3,623.11	-2,673.79	4,057.83	4,014.52	43.31	93.689		
4,600.00	4,559.47	5,228.20	5,206.87	21.39	27.83	31.20	-3,613.18	-2,661.67	4,029.86	3,985.67	44.19	91.195		
4,700.00	4,658.47	5,325.91	5,301.50	21.86	28.37	31.27	-3,603.24	-2,649.55	4,001.90	3,956.82	45.08	88.782		
4,800.00	4,757.46	5,429.99	5,396.13	22.33	28.94	31.33	-3,593.31	-2,637.43	3,973.94	3,927.95	45.99	86.405		
4,900.00	4,856.45	5,515.95	5,490.76	22.80	29.40	31.40	-3,583.38	-2,625.32	3,945.99	3,899.16	46.83	84.271		
5,000.00	4,955.45	5,611.86	5,585.38	23.27	29.93	31.46	-3,573.45	-2,613.20	3,918.04	3,870.34	47.70	82.131		
5,100.00	5,054.44	5,707.78	5,680.01	23.74	30.45	31.53	-3,563.52	-2,601.08	3,890.10	3,841.51	48.58	80.069		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,803.69	5,774.64	24.21	30.98	31.60	-3,553.59	-2,588.96	3,862.16	3,812.69	49.46	78.079		
5,300.00	5,252.43	5,900.39	5,869.27	24.68	31.50	31.67	-3,543.66	-2,576.84	3,834.22	3,783.87	50.35	76.153		
5,400.00	5,351.42	5,995.52	5,963.89	25.15	32.02	31.74	-3,533.73	-2,564.73	3,806.29	3,755.07	51.23	74.304		
5,500.00	5,450.42	6,091.44	6,058.52	25.62	32.55	31.81	-3,523.80	-2,552.61	3,778.37	3,726.26	52.11	72.512		
5,600.00	5,549.41	6,187.36	6,153.15	26.09	33.07	31.88	-3,513.87	-2,540.49	3,750.45	3,697.47	52.99	70.779		
5,700.00	5,648.41	6,260.38	6,225.19	26.56	33.47	31.94	-3,506.31	-2,531.27	3,722.61	3,668.80	53.81	69.184		
5,800.00	5,747.40	6,284.71	6,249.25	27.03	33.60	31.96	-3,503.79	-2,528.65	3,696.15	3,641.67	54.48	67.842		
5,900.00	5,846.40	6,300.00	6,264.41	27.51	33.68	31.98	-3,502.22	-2,527.49	3,671.74	3,616.63	55.11	66.622		
6,000.00	5,945.39	6,325.01	6,289.27	27.98	33.79	32.02	-3,499.66	-2,526.36	3,649.35	3,593.60	55.75	65.457		
6,100.00	6,044.38	6,350.00	6,314.12	28.45	33.90	32.08	-3,497.12	-2,526.23	3,629.08	3,572.71	56.37	64.381		
6,200.00	6,143.38	6,350.00	6,314.12	28.92	33.90	32.08	-3,497.12	-2,526.23	3,611.02	3,554.15	56.88	63.489		
6,300.00	6,242.37	6,400.00	6,363.79	29.39	34.08	32.23	-3,492.11	-2,528.89	3,595.02	3,537.49	57.53	62.485		
6,400.00	6,341.37	6,400.00	6,363.79	29.86	34.08	32.23	-3,492.11	-2,528.89	3,581.02	3,523.04	57.99	61.758		
6,500.00	6,440.36	6,425.01	6,388.52	30.34	34.16	32.32	-3,489.65	-2,531.69	3,569.38	3,510.87	58.50	61.014		
6,600.00	6,538.90	6,450.00	6,413.10	30.80	34.23	-7.86	-3,487.23	-2,535.46	3,555.77	3,496.78	58.98	60.283		
6,700.00	6,634.88	6,450.00	6,413.10	31.25	34.23	-25.84	-3,487.23	-2,535.46	3,534.20	3,474.90	59.31	59.592		
6,800.00	6,725.92	6,500.00	6,461.76	31.68	34.34	-34.93	-3,482.51	-2,545.90	3,504.87	3,445.05	59.81	58.597		
6,900.00	6,809.79	6,500.00	6,461.76	32.07	34.34	-41.41	-3,482.51	-2,545.90	3,468.18	3,408.13	60.05	57.757		
7,000.00	6,884.42	6,525.01	6,485.76	32.43	34.39	-47.22	-3,480.21	-2,552.55	3,425.29	3,364.91	60.38	56.726		
7,100.00	6,947.98	6,538.98	6,499.04	32.77	34.42	-53.00	-3,478.95	-2,556.68	3,376.94	3,316.26	60.68	55.655		
7,200.00	6,998.89	6,550.00	6,509.46	33.18	34.44	-59.04	-3,477.97	-2,560.14	3,324.24	3,263.23	61.01	54.483		
7,300.00	7,035.91	6,569.95	6,528.16	33.76	34.46	-65.55	-3,476.21	-2,566.86	3,268.38	3,206.87	61.51	53.139		
7,400.00	7,058.12	6,600.00	6,555.91	34.61	34.51	-72.53	-3,473.64	-2,578.09	3,210.98	3,148.78	62.20	51.622		
7,500.00	7,064.98	6,600.00	6,555.91	35.68	34.51	-78.78	-3,473.64	-2,578.09	3,152.95	3,090.01	62.94	50.095		
7,600.00	7,064.59	6,600.00	6,555.91	36.95	34.51	-78.78	-3,473.64	-2,578.09	3,096.50	3,032.61	63.89	48.467		
7,700.00	7,064.20	6,612.91	6,567.66	38.40	34.52	-79.03	-3,472.56	-2,583.32	3,042.19	2,977.08	65.11	46.723		
7,800.00	7,063.80	6,625.01	6,578.58	40.00	34.53	-79.26	-3,471.56	-2,588.44	2,990.10	2,923.55	66.54	44.935		
7,900.00	7,063.41	6,635.89	6,588.32	41.75	34.54	-79.47	-3,470.68	-2,593.21	2,940.31	2,872.13	68.18	43.126		
8,000.00	7,063.02	6,650.00	6,600.82	43.62	34.55	-79.74	-3,469.55	-2,599.65	2,892.94	2,822.91	70.03	41.310		
8,100.00	7,062.62	6,650.00	6,600.82	45.59	34.55	-79.74	-3,469.55	-2,599.65	2,848.17	2,776.14	72.03	39.539		
8,200.00	7,062.23	6,678.04	6,625.23	47.65	34.57	-80.27	-3,467.37	-2,613.27	2,805.81	2,731.53	74.29	37.770		
8,300.00	7,061.84	6,700.00	6,643.92	49.79	34.58	-80.68	-3,465.72	-2,624.68	2,766.24	2,689.56	76.68	36.075		
8,400.00	7,061.45	6,712.79	6,654.62	52.00	34.58	-80.91	-3,464.79	-2,631.63	2,729.40	2,650.20	79.20	34.460		
8,500.00	7,061.05	6,732.67	6,670.97	54.27	34.59	-81.27	-3,463.38	-2,642.84	2,695.40	2,613.53	81.87	32.924		
8,600.00	7,060.66	6,750.00	6,684.94	56.60	34.59	-81.58	-3,462.19	-2,653.03	2,664.28	2,579.64	84.64	31.478		
8,700.00	7,060.27	6,778.50	6,707.29	58.97	34.59	-82.07	-3,460.31	-2,670.60	2,636.04	2,548.53	87.51	30.123		
8,800.00	7,059.87	6,800.00	6,723.63	61.38	34.59	-82.44	-3,458.96	-2,684.52	2,610.74	2,520.29	90.45	28.865		
8,900.00	7,059.48	6,834.17	6,748.61	63.83	34.59	-82.99	-3,456.94	-2,707.75	2,588.32	2,494.88	93.44	27.700		
9,000.00	7,059.09	6,866.44	6,771.02	66.32	34.58	-83.49	-3,455.18	-2,730.88	2,568.79	2,472.31	96.48	26.625		
9,100.00	7,058.69	6,900.00	6,793.07	68.83	34.58	-83.99	-3,453.51	-2,756.12	2,552.05	2,452.51	99.54	25.639		
9,200.00	7,058.30	6,941.35	6,818.37	71.37	34.57	-84.56	-3,451.67	-2,788.77	2,538.00	2,435.38	102.62	24.732		
9,300.00	7,057.91	6,984.54	6,842.50	73.93	34.58	-85.11	-3,450.03	-2,824.54	2,526.52	2,420.80	105.72	23.897		
9,400.00	7,057.51	7,031.78	6,866.06	76.51	34.60	-85.64	-3,448.56	-2,865.45	2,517.45	2,408.61	108.84	23.130		
9,500.00	7,057.12	7,083.07	6,888.14	79.11	34.66	-86.15	-3,447.36	-2,911.72	2,510.59	2,398.60	111.99	22.417		
9,600.00	7,056.73	7,138.22	6,907.68	81.73	34.77	-86.60	-3,446.55	-2,963.26	2,505.76	2,390.57	115.18	21.755		
9,700.00	7,056.33	7,200.00	6,924.21	84.37	35.00	-86.98	-3,446.22	-3,022.76	2,502.76	2,384.31	118.45	21.129		
9,800.00	7,055.94	7,257.93	6,934.43	87.01	35.33	-87.22	-3,446.48	-3,079.77	2,501.42	2,379.66	121.76	20.544		
9,836.22	7,055.80	7,280.55	6,937.02	87.98	35.49	-87.28	-3,446.73	-3,102.23	2,501.32	2,378.34	122.98	20.338 CC		
9,900.00	7,055.55	7,320.74	6,939.64	89.68	35.81	-87.34	-3,447.37	-3,142.32	2,501.62	2,376.48	125.15	19.990		
10,000.00	7,055.15	7,406.58	6,939.75	92.35	36.71	-87.35	-3,449.32	-3,228.13	2,503.03	2,374.18	128.85	19.426		
10,100.00	7,054.76	7,506.56	6,939.33	95.03	38.06	-87.35	-3,451.65	-3,328.09	2,504.54	2,371.61	132.93	18.840		
10,200.00	7,054.37	7,606.55	6,938.92	97.73	39.69	-87.36	-3,453.97	-3,428.05	2,506.05	2,368.80	137.26	18.258		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,053.98	7,706.54	6,938.50	100.43	41.55	-87.36	-3,456.30	-3,528.01	2,507.57	2,365.77	141.80	17.684		
10,400.00	7,053.58	7,806.53	6,938.08	103.14	43.58	-87.36	-3,458.62	-3,627.98	2,509.08	2,362.55	146.53	17.124		
10,500.00	7,053.19	7,906.52	6,937.67	105.86	45.77	-87.36	-3,460.95	-3,727.94	2,510.59	2,359.18	151.41	16.581		
10,600.00	7,052.80	8,006.51	6,937.25	108.59	48.09	-87.36	-3,463.27	-3,827.90	2,512.11	2,355.67	156.44	16.058		
10,700.00	7,052.40	8,106.50	6,936.83	111.32	50.52	-87.36	-3,465.60	-3,927.86	2,513.62	2,352.03	161.59	15.556		
10,800.00	7,052.01	8,206.48	6,936.42	114.06	53.05	-87.36	-3,467.92	-4,027.82	2,515.13	2,348.29	166.84	15.075		
10,900.00	7,051.62	8,306.47	6,936.00	116.80	55.66	-87.36	-3,470.25	-4,127.78	2,516.65	2,344.47	172.18	14.616		
11,000.00	7,051.22	8,406.46	6,935.58	119.55	58.34	-87.36	-3,472.57	-4,227.74	2,518.16	2,340.56	177.60	14.179		
11,100.00	7,050.83	8,506.45	6,935.16	122.31	61.09	-87.37	-3,474.90	-4,327.70	2,519.67	2,336.58	183.09	13.762		
11,200.00	7,050.44	8,606.44	6,934.75	125.07	63.89	-87.37	-3,477.22	-4,427.66	2,521.19	2,332.54	188.65	13.365		
11,300.00	7,050.04	8,706.43	6,934.33	127.83	66.74	-87.37	-3,479.55	-4,527.62	2,522.70	2,328.45	194.25	12.987		
11,400.00	7,049.65	8,806.42	6,933.91	130.60	69.63	-87.37	-3,481.87	-4,627.58	2,524.21	2,324.31	199.90	12.627		
11,500.00	7,049.26	8,906.40	6,933.50	133.37	72.55	-87.37	-3,484.20	-4,727.54	2,525.73	2,320.13	205.60	12.285		
11,600.00	7,048.86	9,006.39	6,933.08	136.15	75.51	-87.37	-3,486.52	-4,827.50	2,527.24	2,315.91	211.33	11.959		
11,700.00	7,048.47	9,106.38	6,932.66	138.93	78.50	-87.37	-3,488.85	-4,927.46	2,528.75	2,311.66	217.09	11.648		
11,800.00	7,048.08	9,206.37	6,932.24	141.71	81.51	-87.37	-3,491.17	-5,027.42	2,530.27	2,307.38	222.88	11.353		
11,900.00	7,047.68	9,306.36	6,931.83	144.49	84.55	-87.37	-3,493.50	-5,127.38	2,531.78	2,303.08	228.70	11.070		
12,000.00	7,047.29	9,406.35	6,931.41	147.28	87.61	-87.37	-3,495.82	-5,227.35	2,533.29	2,298.75	234.54	10.801		
12,100.00	7,046.90	9,506.34	6,930.99	150.07	90.69	-87.38	-3,498.15	-5,327.31	2,534.80	2,294.40	240.40	10.544		
12,200.00	7,046.51	9,606.32	6,930.58	152.87	93.78	-87.38	-3,500.47	-5,427.27	2,536.32	2,290.03	246.29	10.298		
12,300.00	7,046.11	9,706.31	6,930.16	155.66	96.89	-87.38	-3,502.80	-5,527.23	2,537.83	2,285.64	252.19	10.063		
12,400.00	7,045.72	9,806.30	6,929.74	158.46	100.01	-87.38	-3,505.12	-5,627.19	2,539.34	2,281.24	258.10	9.838		
12,500.00	7,045.33	9,906.29	6,929.32	161.26	103.15	-87.38	-3,507.45	-5,727.15	2,540.86	2,276.82	264.04	9.623		
12,600.00	7,044.93	10,006.28	6,928.91	164.06	106.29	-87.38	-3,509.77	-5,827.11	2,542.37	2,272.39	269.98	9.417		
12,700.00	7,044.54	10,106.27	6,928.49	166.86	109.45	-87.38	-3,512.10	-5,927.07	2,543.88	2,267.95	275.94	9.219		
12,800.00	7,044.15	10,206.25	6,928.07	169.67	112.62	-87.38	-3,514.42	-6,027.03	2,545.40	2,263.49	281.91	9.029		
12,900.00	7,043.75	10,306.24	6,927.66	172.48	115.79	-87.38	-3,516.75	-6,126.99	2,546.91	2,259.02	287.89	8.847		
13,000.00	7,043.36	10,406.23	6,927.24	175.28	118.98	-87.38	-3,519.07	-6,226.95	2,548.42	2,254.55	293.88	8.672		
13,100.00	7,042.97	10,485.63	6,926.91	178.09	121.51	-87.39	-3,520.98	-6,306.33	2,550.08	2,250.91	299.18	8.524		
13,200.00	7,042.57	10,532.33	6,926.71	180.91	123.00	-87.39	-3,523.00	-6,352.98	2,553.52	2,250.23	303.28	8.420		
13,300.00	7,042.18	10,632.23	6,926.30	183.72	126.18	-87.39	-3,528.22	-6,452.74	2,557.92	2,248.65	309.28	8.271		
13,400.00	7,041.79	10,725.53	6,925.91	186.53	129.16	-87.39	-3,533.09	-6,545.92	2,562.34	2,247.30	315.03	8.134		
13,500.00	7,041.39	10,770.98	6,925.72	189.35	130.60	-87.40	-3,536.00	-6,591.27	2,568.00	2,249.06	318.94	8.052		
13,600.00	7,041.00	10,813.49	6,925.54	192.17	131.96	-87.40	-3,539.70	-6,633.62	2,575.89	2,253.31	322.59	7.985		
13,700.00	7,040.61	10,855.82	6,925.36	194.99	133.29	-87.40	-3,544.32	-6,675.70	2,585.99	2,259.93	326.06	7.931		
13,800.00	7,040.21	10,900.00	6,925.18	197.81	134.68	-87.41	-3,550.13	-6,719.49	2,598.29	2,268.83	329.45	7.887		
13,900.00	7,039.82	10,925.02	6,925.07	200.63	135.46	-87.41	-3,553.88	-6,744.23	2,612.86	2,281.12	331.73	7.876		
14,000.00	7,039.43	10,992.19	6,924.79	203.45	137.54	-87.42	-3,565.52	-6,810.38	2,629.44	2,293.45	335.99	7.826		
14,100.00	7,039.03	11,072.35	6,922.37	206.27	156.00	-87.47	-3,619.62	-7,386.45	2,639.27	2,277.40	361.88	7.293		
14,200.00	7,038.64	11,672.35	6,921.95	209.09	159.25	-87.47	-3,619.60	-7,486.45	2,638.45	2,270.50	367.95	7.171		
14,300.00	7,038.25	11,772.34	6,921.54	211.92	162.51	-87.47	-3,619.59	-7,586.44	2,637.63	2,263.60	374.03	7.052		
14,400.00	7,037.86	11,872.34	6,921.12	214.74	165.78	-87.46	-3,619.58	-7,686.44	2,636.80	2,256.69	380.12	6.937		
14,500.00	7,037.46	11,972.34	6,920.70	217.57	169.04	-87.46	-3,619.56	-7,786.43	2,635.98	2,249.78	386.20	6.825		
14,600.00	7,037.07	12,072.33	6,920.28	220.40	172.31	-87.46	-3,619.55	-7,886.43	2,635.16	2,242.87	392.29	6.717		
14,700.00	7,036.68	12,172.33	6,919.87	223.23	175.58	-87.46	-3,619.54	-7,986.43	2,634.33	2,235.95	398.38	6.613		
14,800.00	7,036.28	12,272.33	6,919.45	226.05	178.86	-87.46	-3,619.52	-8,086.42	2,633.51	2,229.03	404.48	6.511		
14,871.88	7,036.00	12,344.20	6,919.15	228.09	181.21	-87.46	-3,619.51	-8,158.30	2,632.92	2,224.06	408.86	6.440 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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	67.00	3.28	0.00	-141.65	-4,129.54	-3,267.30	5,266.19					
100.00	100.00	58.00	100.00	3.28	0.07	-141.65	-4,129.54	-3,267.30	5,265.77	5,262.41	3.36	1,568.487		
200.00	200.00	884.73	923.44	3.34	3.76	-141.86	-4,101.17	-3,220.29	5,264.33	5,257.17	7.16	735.134		
300.00	300.00	983.64	1,021.29	3.44	4.26	-141.92	-4,093.67	-3,207.86	5,250.59	5,242.88	7.71	681.357		
400.00	399.98	1,082.37	1,118.95	3.60	4.77	28.33	-4,086.18	-3,195.45	5,235.33	5,227.04	8.30	630.897		
500.00	499.84	1,180.65	1,216.15	3.79	5.27	28.48	-4,078.73	-3,183.10	5,217.05	5,208.12	8.93	584.072		
600.00	599.45	1,278.34	1,312.79	4.02	5.78	28.68	-4,071.32	-3,170.83	5,195.76	5,186.16	9.60	541.013		
700.00	698.70	1,375.35	1,408.75	4.29	6.29	28.93	-4,063.96	-3,158.64	5,171.49	5,161.19	10.31	501.781		
800.00	797.70	1,471.91	1,504.26	4.59	6.79	28.96	-4,056.64	-3,146.51	5,145.55	5,134.52	11.03	466.444		
900.00	896.69	1,568.47	1,599.78	4.92	7.30	28.98	-4,049.32	-3,134.37	5,119.61	5,107.83	11.77	434.796		
1,000.00	995.68	1,665.03	1,695.30	5.27	7.80	29.00	-4,042.00	-3,122.24	5,093.66	5,081.12	12.54	406.195		
1,100.00	1,094.68	1,761.59	1,790.81	5.64	8.31	29.02	-4,034.68	-3,110.11	5,067.71	5,054.39	13.32	380.365		
1,200.00	1,193.67	1,858.15	1,886.33	6.03	8.82	29.04	-4,027.35	-3,097.98	5,041.77	5,027.65	14.12	357.022		
1,300.00	1,292.67	1,954.71	1,981.84	6.42	9.33	29.06	-4,020.03	-3,085.84	5,015.82	5,000.89	14.93	335.896		
1,400.00	1,391.66	2,051.28	2,077.36	6.83	9.83	29.08	-4,012.71	-3,073.71	4,989.88	4,974.12	15.75	316.735		
1,500.00	1,490.66	2,147.84	2,172.87	7.25	10.34	29.10	-4,005.39	-3,061.58	4,963.93	4,947.35	16.58	299.313		
1,600.00	1,589.65	2,244.40	2,268.39	7.67	10.85	29.12	-3,998.07	-3,049.45	4,937.99	4,920.57	17.42	283.432		
1,700.00	1,688.64	2,340.96	2,363.91	8.10	11.36	29.14	-3,990.74	-3,037.31	4,912.05	4,893.78	18.27	268.914		
1,800.00	1,787.64	2,437.52	2,459.42	8.53	11.87	29.16	-3,983.42	-3,025.18	4,886.11	4,866.99	19.12	255.606		
1,900.00	1,886.63	2,534.08	2,554.94	8.97	12.38	29.18	-3,976.10	-3,013.05	4,860.16	4,840.19	19.97	243.373		
2,000.00	1,985.63	2,630.64	2,650.45	9.41	12.89	29.20	-3,968.78	-3,000.91	4,834.22	4,813.39	20.83	232.099		
2,100.00	2,084.62	2,727.20	2,745.97	9.85	13.40	29.22	-3,961.46	-2,988.78	4,808.28	4,786.59	21.69	221.681		
2,200.00	2,183.61	2,826.25	2,841.48	10.30	13.93	29.24	-3,954.13	-2,976.65	4,782.34	4,759.78	22.57	211.922		
2,300.00	2,282.61	2,929.69	2,937.00	10.75	14.47	29.27	-3,946.81	-2,964.52	4,756.40	4,732.94	23.47	202.691		
2,400.00	2,381.60	3,016.89	3,032.51	11.20	14.93	29.29	-3,939.49	-2,952.38	4,730.47	4,706.17	24.29	194.729		
2,500.00	2,480.60	3,113.45	3,128.03	11.66	15.44	29.31	-3,932.17	-2,940.25	4,704.53	4,679.36	25.16	186.950		
2,600.00	2,579.59	3,210.01	3,223.55	12.11	15.96	29.33	-3,924.85	-2,928.12	4,678.59	4,652.55	26.04	179.679		
2,700.00	2,678.58	3,306.57	3,319.06	12.57	16.47	29.36	-3,917.52	-2,915.98	4,652.65	4,625.74	26.91	172.869		
2,800.00	2,777.58	3,403.13	3,414.58	13.02	16.98	29.38	-3,910.20	-2,903.85	4,626.72	4,598.93	27.79	166.480		
2,900.00	2,876.57	3,500.31	3,510.09	13.48	17.49	29.40	-3,902.88	-2,891.72	4,600.78	4,572.11	28.67	160.458		
3,000.00	2,975.57	3,596.25	3,605.61	13.94	18.00	29.43	-3,895.56	-2,879.59	4,574.85	4,545.30	29.55	154.819		
3,100.00	3,074.56	3,692.81	3,701.12	14.40	18.51	29.45	-3,888.24	-2,867.45	4,548.92	4,518.48	30.43	149.485		
3,200.00	3,173.55	3,789.38	3,796.64	14.87	19.02	29.48	-3,880.91	-2,855.32	4,522.98	4,491.67	31.31	144.447		
3,300.00	3,272.55	3,885.94	3,892.16	15.33	19.53	29.50	-3,873.59	-2,843.19	4,497.05	4,464.86	32.20	139.681		
3,400.00	3,371.54	3,982.50	3,987.67	15.79	20.05	29.52	-3,866.27	-2,831.05	4,471.12	4,438.04	33.08	135.166		
3,500.00	3,470.54	4,079.06	4,083.19	16.26	20.56	29.55	-3,858.95	-2,818.92	4,445.19	4,411.23	33.96	130.883		
3,600.00	3,569.53	4,175.62	4,178.70	16.72	21.07	29.58	-3,851.63	-2,806.79	4,419.26	4,384.41	34.85	126.815		
3,700.00	3,668.53	4,272.18	4,274.22	17.19	21.58	29.60	-3,844.30	-2,794.66	4,393.33	4,357.60	35.73	122.946		
3,800.00	3,767.52	4,368.74	4,369.73	17.65	22.09	29.63	-3,836.98	-2,782.52	4,367.40	4,330.78	36.62	119.263		
3,900.00	3,866.51	4,465.30	4,465.25	18.12	22.60	29.65	-3,829.66	-2,770.39	4,341.48	4,303.97	37.51	115.751		
4,000.00	3,965.51	4,561.87	4,560.77	18.59	23.11	29.68	-3,822.34	-2,758.26	4,315.55	4,277.15	38.39	112.401		
4,100.00	4,064.50	4,658.43	4,656.28	19.05	23.63	29.71	-3,815.02	-2,746.13	4,289.62	4,250.34	39.28	109.201		
4,200.00	4,163.50	4,754.99	4,751.80	19.52	24.14	29.73	-3,807.69	-2,733.99	4,263.70	4,223.53	40.17	106.141		
4,300.00	4,262.49	4,851.55	4,847.31	19.99	24.65	29.76	-3,800.37	-2,721.86	4,237.78	4,196.72	41.06	103.212		
4,400.00	4,361.48	4,948.11	4,942.83	20.46	25.16	29.79	-3,793.05	-2,709.73	4,211.85	4,169.90	41.95	100.407		
4,500.00	4,460.48	5,044.67	5,038.34	20.92	25.67	29.82	-3,785.73	-2,697.59	4,185.93	4,143.09	42.84	97.717		
4,600.00	4,559.47	5,141.23	5,133.86	21.39	26.18	29.85	-3,778.41	-2,685.46	4,160.01	4,116.28	43.73	95.136		
4,700.00	4,658.47	5,237.79	5,229.37	21.86	26.70	29.88	-3,771.08	-2,673.33	4,134.09	4,089.47	44.62	92.658		
4,800.00	4,757.46	5,334.35	5,324.89	22.33	27.21	29.90	-3,763.76	-2,661.20	4,108.17	4,062.66	45.51	90.276		
4,900.00	4,856.45	5,430.92	5,420.41	22.80	27.72	29.93	-3,756.44	-2,649.06	4,082.25	4,035.86	46.40	87.984		
5,000.00	4,955.45	5,527.48	5,515.92	23.27	28.23	29.96	-3,749.12	-2,636.93	4,056.34	4,009.05	47.29	85.779		
5,100.00	5,054.44	5,625.98	5,611.44	23.74	28.75	30.00	-3,741.80	-2,624.80	4,030.42	3,982.23	48.19	83.639		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,153.44	5,729.42	5,706.95	24.21	29.30	30.03	-3,734.47	-2,612.66	4,004.51	3,955.39	49.11	81.539		
5,300.00	5,252.43	5,817.16	5,802.47	24.68	29.77	30.06	-3,727.15	-2,600.53	3,978.59	3,928.63	49.96	79.632		
5,400.00	5,351.42	5,913.72	5,897.98	25.15	30.28	30.09	-3,719.83	-2,588.40	3,952.68	3,901.83	50.85	77.726		
5,500.00	5,450.42	6,010.28	5,993.50	25.62	30.79	30.12	-3,712.51	-2,576.27	3,926.77	3,875.02	51.75	75.886		
5,600.00	5,549.41	6,106.84	6,089.02	26.09	31.30	30.15	-3,705.19	-2,564.13	3,900.86	3,848.22	52.64	74.108		
5,700.00	5,648.41	6,203.41	6,184.53	26.56	31.81	30.19	-3,697.86	-2,552.00	3,874.95	3,821.42	53.53	72.389		
5,800.00	5,747.40	6,299.97	6,280.05	27.03	32.33	30.22	-3,690.54	-2,539.87	3,849.04	3,794.62	54.42	70.726		
5,900.00	5,846.40	6,374.99	6,354.26	27.51	32.72	30.25	-3,684.85	-2,530.44	3,823.20	3,767.95	55.25	69.196		
6,000.00	5,945.39	6,400.00	6,379.05	27.98	32.85	30.26	-3,682.96	-2,527.79	3,798.69	3,742.77	55.92	67.927		
6,100.00	6,044.38	6,425.01	6,403.94	28.45	32.97	30.29	-3,681.09	-2,526.11	3,776.20	3,719.62	56.58	66.746		
6,200.00	6,143.38	6,439.18	6,418.06	28.92	33.03	30.31	-3,680.04	-2,525.60	3,755.67	3,698.50	57.17	65.691		
6,300.00	6,242.37	6,450.00	6,428.85	29.39	33.08	30.32	-3,679.24	-2,525.42	3,737.26	3,679.53	57.73	64.735		
6,400.00	6,341.37	6,479.47	6,458.23	29.86	33.18	30.38	-3,677.08	-2,525.86	3,720.81	3,662.48	58.33	63.792		
6,500.00	6,440.36	6,500.00	6,478.68	30.34	33.26	30.44	-3,675.60	-2,526.97	3,706.50	3,647.63	58.87	62.961		
6,600.00	6,538.90	6,525.01	6,503.52	30.80	33.34	-9.96	-3,673.82	-2,529.22	3,690.29	3,630.89	59.40	62.130		
6,700.00	6,634.88	6,539.78	6,518.14	31.25	33.38	-28.16	-3,672.79	-2,531.00	3,666.35	3,606.51	59.84	61.269		
6,800.00	6,725.92	6,550.00	6,528.24	31.68	33.41	-37.48	-3,672.07	-2,532.44	3,635.21	3,574.99	60.22	60.365		
6,900.00	6,809.79	6,578.55	6,556.30	32.07	33.48	-44.25	-3,670.12	-2,537.30	3,597.31	3,536.68	60.64	59.324		
7,000.00	6,884.42	6,600.00	6,577.23	32.43	33.53	-50.27	-3,668.68	-2,541.78	3,553.66	3,492.65	61.01	58.244		
7,100.00	6,947.98	6,613.93	6,590.73	32.77	33.56	-56.21	-3,667.76	-2,545.07	3,505.14	3,443.77	61.37	57.113		
7,200.00	6,998.89	6,625.01	6,601.42	33.18	33.58	-62.33	-3,667.04	-2,547.90	3,452.92	3,391.14	61.78	55.890		
7,300.00	7,035.91	6,650.00	6,625.34	33.76	33.63	-68.87	-3,665.44	-2,554.96	3,398.23	3,335.87	62.36	54.497		
7,400.00	7,058.12	6,650.00	6,625.34	34.61	33.63	-75.12	-3,665.44	-2,554.96	3,342.45	3,279.46	62.99	53.065		
7,500.00	7,064.98	6,650.00	6,625.34	35.68	33.63	-80.97	-3,665.44	-2,554.96	3,287.19	3,223.39	63.81	51.519		
7,600.00	7,064.59	6,672.70	6,646.81	36.95	33.66	-81.41	-3,664.02	-2,562.17	3,233.46	3,168.55	64.91	49.813		
7,700.00	7,064.20	6,681.52	6,655.08	38.40	33.67	-81.57	-3,663.48	-2,565.19	3,182.00	3,115.82	66.18	48.078		
7,800.00	7,063.80	6,700.00	6,672.28	40.00	33.70	-81.93	-3,662.37	-2,571.87	3,132.84	3,065.14	67.70	46.278		
7,900.00	7,063.41	6,700.00	6,672.28	41.75	33.70	-81.93	-3,662.37	-2,571.87	3,085.93	3,016.56	69.36	44.489		
8,000.00	7,063.02	6,712.69	6,683.97	43.62	33.71	-82.17	-3,661.62	-2,576.75	3,041.49	2,970.24	71.26	42.683		
8,100.00	7,062.62	6,725.01	6,695.23	45.59	33.73	-82.40	-3,660.90	-2,581.70	2,999.58	2,926.25	73.33	40.904		
8,200.00	7,062.23	6,738.46	6,707.40	47.65	33.74	-82.65	-3,660.14	-2,587.36	2,960.28	2,884.71	75.58	39.170		
8,300.00	7,061.84	6,750.00	6,717.75	49.79	33.75	-82.86	-3,659.49	-2,592.42	2,923.68	2,845.71	77.97	37.499		
8,400.00	7,061.45	6,769.57	6,735.09	52.00	33.77	-83.22	-3,658.42	-2,601.42	2,889.81	2,809.31	80.50	35.898		
8,500.00	7,061.05	6,800.00	6,761.49	54.27	33.79	-83.77	-3,656.82	-2,616.48	2,858.84	2,775.69	83.15	34.382		
8,600.00	7,060.66	6,807.65	6,768.01	56.60	33.80	-83.90	-3,656.44	-2,620.46	2,830.59	2,744.71	85.89	32.957		
8,700.00	7,060.27	6,825.01	6,782.63	58.97	33.81	-84.21	-3,655.57	-2,629.79	2,805.32	2,716.61	88.70	31.625		
8,800.00	7,059.87	6,850.00	6,803.21	61.38	33.82	-84.64	-3,654.38	-2,643.90	2,782.92	2,691.34	91.58	30.387		
8,900.00	7,059.48	6,883.04	6,829.55	63.83	33.83	-85.19	-3,652.90	-2,663.79	2,763.39	2,668.89	94.50	29.242		
9,000.00	7,059.09	6,914.63	6,853.74	66.32	33.84	-85.70	-3,651.59	-2,684.05	2,746.71	2,649.27	97.44	28.188		
9,100.00	7,058.69	6,950.00	6,879.60	68.83	33.85	-86.24	-3,650.24	-2,708.14	2,732.78	2,632.38	100.40	27.219		
9,200.00	7,058.30	6,990.50	6,907.53	71.37	33.87	-86.83	-3,648.86	-2,737.44	2,721.47	2,618.11	103.36	26.330		
9,300.00	7,057.91	7,035.92	6,936.56	73.93	33.90	-87.45	-3,647.52	-2,772.32	2,712.64	2,606.31	106.32	25.513		
9,400.00	7,057.51	7,087.03	6,966.18	76.51	33.96	-88.08	-3,646.30	-2,813.94	2,706.06	2,596.76	109.30	24.758		
9,500.00	7,057.12	7,144.17	6,995.23	79.11	34.07	-88.69	-3,645.30	-2,863.12	2,701.50	2,589.20	112.30	24.055		
9,600.00	7,056.73	7,207.40	7,022.11	81.73	34.26	-89.27	-3,644.64	-2,920.31	2,698.68	2,583.30	115.37	23.391		
9,700.00	7,056.33	7,276.29	7,044.81	84.37	34.59	-89.76	-3,644.47	-2,985.31	2,697.29	2,578.74	118.55	22.752		
9,770.03	7,056.06	7,327.38	7,057.05	86.22	34.91	-90.02	-3,644.72	-3,034.91	2,697.03	2,576.19	120.84	22.318 CC		
9,800.00	7,055.94	7,350.00	7,061.19	87.01	35.08	-90.11	-3,644.92	-3,057.14	2,697.07	2,575.23	121.85	22.135		
9,900.00	7,055.55	7,426.38	7,069.32	89.68	35.75	-90.29	-3,646.08	-3,133.03	2,697.82	2,572.52	125.30	21.531		
10,000.00	7,055.15	7,516.61	7,069.67	92.35	36.75	-90.30	-3,648.14	-3,223.23	2,699.29	2,570.26	129.03	20.920		
10,100.00	7,054.76	7,616.60	7,069.07	95.03	38.12	-90.30	-3,650.50	-3,323.19	2,700.83	2,567.72	133.11	20.290		
10,200.00	7,054.37	7,716.59	7,068.46	97.73	39.75	-90.30	-3,652.85	-3,423.15	2,702.37	2,564.94	137.43	19.663		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.98	7,816.58	7,067.86	100.43	41.58	-90.29	-3,655.21	-3,523.10	2,703.92	2,561.95	141.97	19.046		
10,400.00	7,053.58	7,916.56	7,067.26	103.14	43.60	-90.29	-3,657.57	-3,623.06	2,705.46	2,558.77	146.69	18.444		
10,500.00	7,053.19	8,016.55	7,066.66	105.86	45.77	-90.28	-3,659.92	-3,723.02	2,707.01	2,555.44	151.57	17.860		
10,600.00	7,052.80	8,116.54	7,066.06	108.59	48.07	-90.28	-3,662.28	-3,822.98	2,708.55	2,551.96	156.59	17.297		
10,700.00	7,052.40	8,216.53	7,065.45	111.32	50.49	-90.27	-3,664.64	-3,922.94	2,710.09	2,548.36	161.73	16.756		
10,800.00	7,052.01	8,316.51	7,064.85	114.06	53.01	-90.27	-3,666.99	-4,022.90	2,711.64	2,544.65	166.98	16.239		
10,900.00	7,051.62	8,416.50	7,064.25	116.80	55.61	-90.26	-3,669.35	-4,122.85	2,713.18	2,540.86	172.32	15.745		
11,000.00	7,051.22	8,516.49	7,063.65	119.55	58.28	-90.26	-3,671.71	-4,222.81	2,714.73	2,536.98	177.75	15.273		
11,100.00	7,050.83	8,616.48	7,063.05	122.31	61.02	-90.25	-3,674.06	-4,322.77	2,716.27	2,533.03	183.24	14.824		
11,200.00	7,050.44	8,716.47	7,062.44	125.07	63.81	-90.25	-3,676.42	-4,422.73	2,717.81	2,529.03	188.79	14.396		
11,300.00	7,050.04	8,816.45	7,061.84	127.83	66.65	-90.25	-3,678.77	-4,522.69	2,719.36	2,524.97	194.39	13.989		
11,400.00	7,049.65	8,916.44	7,061.24	130.60	69.53	-90.24	-3,681.13	-4,622.64	2,720.90	2,520.86	200.04	13.601		
11,500.00	7,049.26	9,016.43	7,060.64	133.37	72.46	-90.24	-3,683.49	-4,722.60	2,722.45	2,516.71	205.74	13.233		
11,600.00	7,048.86	9,116.42	7,060.04	136.15	75.41	-90.23	-3,685.84	-4,822.56	2,723.99	2,512.52	211.47	12.881		
11,700.00	7,048.47	9,216.41	7,059.43	138.93	78.40	-90.23	-3,688.20	-4,922.52	2,725.54	2,508.30	217.23	12.547		
11,800.00	7,048.08	9,316.39	7,058.83	141.71	81.41	-90.22	-3,690.56	-5,022.48	2,727.08	2,504.05	223.03	12.228		
11,900.00	7,047.68	9,416.38	7,058.23	144.49	84.44	-90.22	-3,692.91	-5,122.44	2,728.62	2,499.78	228.85	11.923		
12,000.00	7,047.29	9,516.37	7,057.63	147.28	87.50	-90.21	-3,695.27	-5,222.39	2,730.17	2,495.48	234.69	11.633		
12,100.00	7,046.90	9,616.36	7,057.02	150.07	90.57	-90.21	-3,697.63	-5,322.35	2,731.71	2,491.15	240.56	11.356		
12,200.00	7,046.51	9,716.34	7,056.42	152.87	93.66	-90.20	-3,699.98	-5,422.31	2,733.26	2,486.81	246.45	11.091		
12,300.00	7,046.11	9,816.33	7,055.82	155.66	96.77	-90.20	-3,702.34	-5,522.27	2,734.80	2,482.45	252.35	10.837		
12,400.00	7,045.72	9,916.32	7,055.22	158.46	99.89	-90.20	-3,704.69	-5,622.23	2,736.35	2,478.08	258.27	10.595		
12,500.00	7,045.33	10,016.31	7,054.62	161.26	103.03	-90.19	-3,707.05	-5,722.19	2,737.89	2,473.68	264.21	10.363		
12,600.00	7,044.93	10,116.30	7,054.01	164.06	106.17	-90.19	-3,709.41	-5,822.14	2,739.43	2,469.28	270.15	10.140		
12,700.00	7,044.54	10,216.28	7,053.41	166.86	109.33	-90.18	-3,711.76	-5,922.10	2,740.98	2,464.86	276.12	9.927		
12,800.00	7,044.15	10,316.27	7,052.81	169.67	112.49	-90.18	-3,714.12	-6,022.06	2,742.52	2,460.43	282.09	9.722		
12,900.00	7,043.75	10,416.26	7,052.21	172.48	115.67	-90.17	-3,716.48	-6,122.02	2,744.07	2,455.99	288.07	9.526		
13,000.00	7,043.36	10,516.25	7,051.61	175.28	118.85	-90.17	-3,718.83	-6,221.98	2,745.61	2,451.55	294.07	9.337		
13,100.00	7,042.97	10,616.23	7,051.00	178.09	122.04	-90.16	-3,721.19	-6,321.94	2,747.16	2,447.09	300.07	9.155		
13,200.00	7,042.57	10,716.22	7,050.40	180.91	125.24	-90.16	-3,723.55	-6,421.89	2,748.70	2,442.62	306.08	8.980		
13,300.00	7,042.18	10,816.21	7,049.80	183.72	128.45	-90.16	-3,725.90	-6,521.85	2,750.25	2,438.15	312.10	8.812		
13,400.00	7,041.79	10,916.20	7,049.20	186.53	131.66	-90.15	-3,728.26	-6,621.81	2,751.79	2,433.66	318.13	8.650		
13,500.00	7,041.39	11,016.19	7,048.60	189.35	134.87	-90.15	-3,730.61	-6,721.77	2,753.33	2,429.17	324.16	8.494		
13,600.00	7,041.00	11,116.17	7,047.99	192.17	138.09	-90.14	-3,732.97	-6,821.73	2,754.88	2,424.68	330.20	8.343		
13,700.00	7,040.61	11,216.16	7,047.39	194.99	141.32	-90.14	-3,735.33	-6,921.68	2,756.42	2,420.18	336.25	8.198		
13,800.00	7,040.21	11,316.15	7,046.79	197.81	144.55	-90.13	-3,737.68	-7,021.64	2,757.97	2,415.67	342.30	8.057		
13,900.00	7,039.82	11,416.14	7,046.19	200.63	147.79	-90.13	-3,740.04	-7,121.60	2,759.51	2,411.16	348.35	7.922		
14,000.00	7,039.43	11,516.13	7,045.59	203.45	151.03	-90.12	-3,742.40	-7,221.56	2,761.06	2,406.64	354.42	7.790		
14,100.00	7,039.03	11,616.11	7,044.98	206.27	154.27	-90.12	-3,744.75	-7,321.52	2,762.60	2,402.12	360.48	7.664		
14,200.00	7,038.64	11,716.10	7,044.38	209.09	157.52	-90.12	-3,747.11	-7,421.48	2,764.15	2,397.59	366.55	7.541		
14,300.00	7,038.25	11,816.09	7,043.78	211.92	160.76	-90.11	-3,749.47	-7,521.43	2,765.69	2,393.06	372.63	7.422		
14,400.00	7,037.86	11,916.08	7,043.18	214.74	164.02	-90.11	-3,751.82	-7,621.39	2,767.24	2,388.53	378.71	7.307		
14,500.00	7,037.46	12,016.06	7,042.58	217.57	167.27	-90.10	-3,754.18	-7,721.35	2,768.78	2,383.99	384.79	7.196		
14,600.00	7,037.07	12,116.05	7,041.97	220.40	170.53	-90.10	-3,756.53	-7,821.31	2,770.33	2,379.45	390.88	7.087		
14,700.00	7,036.68	12,216.04	7,041.37	223.23	173.79	-90.09	-3,758.89	-7,921.27	2,771.87	2,374.90	396.97	6.983		
14,800.00	7,036.28	12,316.03	7,040.77	226.05	177.06	-90.09	-3,761.25	-8,021.23	2,773.42	2,370.36	403.06	6.881		
14,871.88	7,036.00	12,387.90	7,040.34	228.09	179.40	-90.09	-3,762.94	-8,093.08	2,774.53	2,367.08	407.44	6.810 ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	15,809.51	7,242.40	3.28	248.35	0.55	2,243.60	21.72	7,581.99					
100.00	100.00	15,790.80	7,242.40	3.28	247.82	0.55	2,243.60	21.48	7,486.53	7,366.11	120.42	62.171		
200.00	200.00	15,809.02	7,242.40	3.34	248.33	0.54	2,243.60	21.23	7,391.19	7,270.08	121.11	61.030		
300.00	300.00	15,808.78	7,242.41	3.44	248.33	0.54	2,243.60	20.99	7,295.97	7,174.38	121.59	60.004		
400.00	399.98	15,808.24	7,242.41	3.60	248.31	171.57	2,243.60	20.45	7,201.44	7,079.32	122.12	58.969		
500.00	499.84	15,807.11	7,242.41	3.79	248.28	172.27	2,243.60	19.32	7,108.26	6,985.53	122.73	57.916		
600.00	599.45	15,805.39	7,242.41	4.02	248.23	172.83	2,243.61	17.60	7,016.60	6,893.17	123.44	56.844		
700.00	698.70	15,803.09	7,242.42	4.29	248.17	173.28	2,243.61	15.30	6,926.65	6,802.41	124.24	55.754		
800.00	797.70	15,799.61	7,242.43	4.59	248.07	173.26	2,243.62	12.66	6,837.85	6,712.75	125.11	54.656		
900.00	896.69	15,802.25	7,242.43	4.92	248.14	173.22	2,243.62	10.02	6,749.37	6,623.26	126.11	53.518		
1,000.00	995.68	15,804.89	7,242.44	5.27	248.22	173.17	2,243.63	7.39	6,661.22	6,534.05	127.17	52.380		
1,100.00	1,094.68	15,807.52	7,242.44	5.64	248.29	173.12	2,243.63	4.75	6,573.40	6,445.12	128.28	51.243		
1,200.00	1,193.67	15,810.16	7,242.45	6.03	248.37	173.07	2,243.64	2.11	6,485.94	6,356.50	129.44	50.108		
1,300.00	1,292.67	15,812.80	7,242.46	6.42	248.44	173.03	2,243.64	-0.52	6,398.84	6,268.19	130.65	48.976		
1,400.00	1,391.66	15,815.44	7,242.46	6.83	248.52	172.98	2,243.65	-3.16	6,312.12	6,180.20	131.93	47.846		
1,500.00	1,490.66	15,818.07	7,242.47	7.25	248.59	172.93	2,243.65	-5.80	6,225.80	6,092.54	133.26	46.719		
1,600.00	1,589.65	15,820.71	7,242.48	7.67	248.66	172.88	2,243.65	-8.43	6,139.90	6,005.24	134.65	45.598		
1,700.00	1,688.64	15,823.35	7,242.48	8.10	248.74	172.84	2,243.66	-11.07	6,054.42	5,918.31	136.11	44.481		
1,800.00	1,787.64	15,825.98	7,242.49	8.53	248.81	172.79	2,243.66	-13.71	5,969.40	5,831.77	137.64	43.371		
1,900.00	1,886.63	15,828.62	7,242.50	8.97	248.89	172.74	2,243.67	-16.35	5,884.85	5,745.62	139.23	42.268		
2,000.00	1,985.63	15,831.26	7,242.50	9.41	248.96	172.69	2,243.67	-18.98	5,800.78	5,659.90	140.88	41.174		
2,100.00	2,084.62	15,833.89	7,242.51	9.85	249.04	172.64	2,243.68	-21.62	5,717.23	5,574.62	142.61	40.089		
2,200.00	2,183.61	15,836.53	7,242.52	10.30	249.11	172.60	2,243.68	-24.26	5,634.21	5,489.80	144.42	39.014		
2,300.00	2,282.61	15,839.17	7,242.52	10.75	249.19	172.55	2,243.69	-26.89	5,551.75	5,405.47	146.29	37.951		
2,400.00	2,381.60	15,841.80	7,242.53	11.20	249.26	172.50	2,243.69	-29.53	5,469.88	5,321.64	148.24	36.900		
2,500.00	2,480.60	15,844.44	7,242.53	11.66	249.34	172.45	2,243.70	-32.17	5,388.62	5,238.35	150.26	35.862		
2,600.00	2,579.59	15,847.08	7,242.54	12.11	249.41	172.41	2,243.70	-34.80	5,307.99	5,155.63	152.36	34.839		
2,700.00	2,678.58	15,849.72	7,242.55	12.57	249.49	172.36	2,243.71	-37.44	5,228.03	5,073.50	154.54	33.830		
2,800.00	2,777.58	15,852.35	7,242.55	13.02	249.56	172.31	2,243.71	-40.08	5,148.77	4,991.98	156.79	32.838		
2,900.00	2,876.57	15,854.99	7,242.56	13.48	249.63	172.26	2,243.72	-42.71	5,070.25	4,911.12	159.12	31.863		
3,000.00	2,975.57	15,857.63	7,242.57	13.94	249.71	172.22	2,243.72	-45.35	4,992.49	4,830.95	161.54	30.906		
3,100.00	3,074.56	15,860.26	7,242.57	14.40	249.78	172.17	2,243.73	-47.99	4,915.53	4,751.50	164.03	29.967		
3,200.00	3,173.55	15,862.90	7,242.58	14.87	249.86	172.12	2,243.73	-50.63	4,839.41	4,672.81	166.61	29.047		
3,300.00	3,272.55	15,865.54	7,242.59	15.33	249.93	172.07	2,243.74	-53.26	4,764.18	4,594.92	169.26	28.146		
3,400.00	3,371.54	15,868.17	7,242.59	15.79	250.01	172.02	2,243.74	-55.90	4,689.87	4,517.87	172.00	27.266		
3,500.00	3,470.54	15,870.81	7,242.60	16.26	250.08	171.98	2,243.74	-58.54	4,616.53	4,441.71	174.82	26.407		
3,600.00	3,569.53	15,873.45	7,242.61	16.72	250.16	171.93	2,243.75	-61.17	4,544.20	4,366.48	177.72	25.569		
3,700.00	3,668.53	15,876.08	7,242.61	17.19	250.23	171.88	2,243.75	-63.81	4,472.94	4,292.23	180.70	24.753		
3,800.00	3,767.52	15,878.72	7,242.62	17.65	250.31	171.83	2,243.76	-66.45	4,402.79	4,219.03	183.77	23.959		
3,900.00	3,866.51	15,881.36	7,242.63	18.12	250.38	171.79	2,243.76	-69.08	4,333.82	4,146.91	186.91	23.187		
4,000.00	3,965.51	15,884.00	7,242.63	18.59	250.45	171.74	2,243.77	-71.72	4,266.07	4,075.95	190.12	22.438		
4,100.00	4,064.50	15,886.63	7,242.64	19.05	250.53	171.69	2,243.77	-74.36	4,199.61	4,006.20	193.42	21.713		
4,200.00	4,163.50	15,889.27	7,242.64	19.52	250.60	171.64	2,243.78	-76.99	4,134.50	3,937.72	196.78	21.011		
4,300.00	4,262.49	15,908.16	7,242.65	19.99	251.14	171.59	2,243.78	-79.63	4,070.80	3,870.26	200.54	20.299		
4,400.00	4,361.48	15,905.52	7,242.66	20.46	251.06	171.55	2,243.79	-82.27	4,008.59	3,804.65	203.94	19.656		
4,500.00	4,460.48	15,902.88	7,242.66	20.92	250.99	171.50	2,243.79	-84.91	3,947.92	3,740.53	207.39	19.036		
4,600.00	4,559.47	15,900.25	7,242.67	21.39	250.91	171.45	2,243.80	-87.54	3,888.88	3,677.99	210.89	18.441		
4,700.00	4,658.47	15,902.45	7,242.68	21.86	250.98	171.40	2,243.80	-90.18	3,831.54	3,617.00	214.54	17.860		
4,800.00	4,757.46	15,905.09	7,242.68	22.33	251.05	171.36	2,243.81	-92.82	3,775.97	3,557.73	218.23	17.302		
4,900.00	4,856.45	15,907.73	7,242.69	22.80	251.13	171.31	2,243.81	-95.45	3,722.26	3,500.29	221.96	16.770		
5,000.00	4,955.45	15,910.37	7,242.70	23.27	251.20	171.26	2,243.82	-98.09	3,670.48	3,444.77	225.72	16.262		
5,100.00	5,054.44	15,913.00	7,242.70	23.74	251.28	171.21	2,243.82	-100.73	3,620.73	3,391.25	229.48	15.778		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	15,915.64	7,242.71	24.21	251.35	171.16	2,243.83	-103.36	3,573.08	3,339.84	233.24	15.319		
5,300.00	5,252.43	15,918.28	7,242.72	24.68	251.42	171.12	2,243.83	-106.00	3,527.62	3,290.63	236.99	14.885		
5,400.00	5,351.42	15,920.91	7,242.72	25.15	251.50	171.07	2,243.83	-108.64	3,484.43	3,243.72	240.71	14.476		
5,500.00	5,450.42	15,923.55	7,242.73	25.62	251.57	171.02	2,243.84	-111.27	3,443.61	3,199.22	244.39	14.090		
5,600.00	5,549.41	15,926.19	7,242.73	26.09	251.65	170.97	2,243.84	-113.91	3,405.23	3,157.22	248.02	13.730		
5,700.00	5,648.41	15,928.82	7,242.74	26.56	251.72	170.93	2,243.85	-116.55	3,369.38	3,117.82	251.57	13.394		
5,800.00	5,747.40	15,931.46	7,242.75	27.03	251.80	170.88	2,243.85	-119.19	3,336.15	3,081.12	255.03	13.082		
5,900.00	5,846.40	15,934.10	7,242.75	27.51	251.87	170.83	2,243.86	-121.82	3,305.60	3,047.22	258.38	12.794		
6,000.00	5,945.39	15,936.73	7,242.76	27.98	251.95	170.78	2,243.86	-124.46	3,277.82	3,016.21	261.61	12.530		
6,100.00	6,044.38	15,939.37	7,242.77	28.45	252.02	170.74	2,243.87	-127.10	3,252.88	2,988.18	264.69	12.289		
6,200.00	6,143.38	15,942.01	7,242.77	28.92	252.10	170.69	2,243.87	-129.73	3,230.83	2,963.21	267.62	12.073		
6,300.00	6,242.37	15,944.65	7,242.78	29.39	252.17	170.64	2,243.88	-132.37	3,211.75	2,941.38	270.37	11.879		
6,400.00	6,341.37	15,947.28	7,242.79	29.86	252.25	170.59	2,243.88	-135.01	3,195.68	2,922.76	272.93	11.709		
6,500.00	6,440.36	15,949.92	7,242.79	30.34	252.32	170.54	2,243.89	-137.64	3,182.68	2,907.40	275.28	11.562		
6,600.00	6,538.90	15,958.85	7,242.81	30.80	252.57	131.76	2,243.90	-146.57	3,172.87	2,895.29	277.58	11.430		
6,700.00	6,634.88	15,983.15	7,242.87	31.25	253.26	115.43	2,243.95	-170.87	3,166.47	2,886.43	280.04	11.307		
6,800.00	6,725.92	16,022.31	7,242.97	31.68	254.37	108.12	2,244.02	-210.03	3,163.30	2,880.67	282.63	11.192		
6,864.18	6,780.71	16,054.84	7,243.05	31.93	255.29	105.10	2,244.07	-242.56	3,162.78	2,878.41	284.36	11.122 CC		
6,900.00	6,809.79	16,075.36	7,243.10	32.07	255.87	103.71	2,244.11	-263.09	3,162.93	2,877.57	285.35	11.084		
7,000.00	6,884.42	16,141.00	7,243.26	32.43	257.73	100.51	2,244.23	-328.73	3,164.69	2,876.47	288.22	10.980		
7,100.00	6,947.98	16,217.61	7,243.45	32.77	259.90	97.99	2,244.37	-405.34	3,167.83	2,876.55	291.28	10.876		
7,200.00	6,998.89	16,303.31	7,243.66	33.18	262.32	96.00	2,244.52	-491.03	3,171.53	2,876.97	294.57	10.767		
7,300.00	7,035.91	16,404.09	7,243.88	33.76	265.18	94.52	2,244.69	-583.70	3,175.06	2,876.73	298.34	10.643		
7,400.00	7,058.12	16,506.73	7,244.12	34.61	268.08	93.58	2,244.86	-681.06	3,177.84	2,875.56	302.28	10.513		
7,500.00	7,064.98	16,607.07	7,244.36	35.68	270.93	93.23	2,245.04	-780.72	3,179.46	2,873.18	306.27	10.381		
7,600.00	7,064.59	16,707.08	7,244.61	36.95	273.76	93.24	2,245.22	-880.71	3,180.49	2,870.07	310.42	10.246		
7,700.00	7,064.20	16,807.08	7,244.85	38.40	276.59	93.25	2,245.40	-980.71	3,181.51	2,866.79	314.73	10.109		
7,800.00	7,063.80	16,907.09	7,245.10	40.00	279.43	93.26	2,245.58	-1,080.70	3,182.54	2,863.35	319.18	9.971		
7,900.00	7,063.41	17,007.10	7,245.34	41.75	282.26	93.27	2,245.76	-1,180.69	3,183.56	2,859.79	323.78	9.833		
8,000.00	7,063.02	17,107.10	7,245.59	43.62	285.10	93.28	2,245.94	-1,280.68	3,184.59	2,856.11	328.48	9.695		
8,100.00	7,062.62	17,207.11	7,245.83	45.59	287.94	93.29	2,246.12	-1,380.68	3,185.62	2,852.32	333.29	9.558		
8,200.00	7,062.23	17,307.12	7,246.07	47.65	290.77	93.31	2,246.30	-1,480.67	3,186.64	2,848.45	338.19	9.423		
8,300.00	7,061.84	17,407.13	7,246.32	49.79	293.61	93.32	2,246.48	-1,580.66	3,187.67	2,844.50	343.17	9.289		
8,400.00	7,061.45	17,507.13	7,246.56	52.00	296.45	93.33	2,246.66	-1,680.65	3,188.69	2,840.48	348.21	9.157		
8,500.00	7,061.05	17,607.14	7,246.81	54.27	299.29	93.34	2,246.84	-1,780.65	3,189.72	2,836.40	353.32	9.028		
8,600.00	7,060.66	17,707.15	7,247.05	56.60	302.13	93.35	2,247.02	-1,880.64	3,190.75	2,832.27	358.48	8.901		
8,700.00	7,060.27	17,792.92	7,247.30	58.97	304.56	93.36	2,247.19	-1,980.63	3,191.77	2,828.50	363.28	8.786		
8,800.00	7,059.87	17,892.91	7,247.54	61.38	307.40	93.37	2,247.37	-2,080.62	3,192.80	2,824.28	368.52	8.664		
8,900.00	7,059.48	18,007.17	7,247.78	63.83	310.64	93.38	2,247.55	-2,180.62	3,193.83	2,819.62	374.21	8.535		
9,000.00	7,059.09	18,107.18	7,248.03	66.32	313.48	93.39	2,247.73	-2,280.61	3,194.86	2,815.33	379.52	8.418		
9,100.00	7,058.69	18,207.19	7,248.27	68.83	316.33	93.40	2,247.91	-2,380.60	3,195.88	2,811.02	384.87	8.304		
9,200.00	7,058.30	18,307.19	7,248.52	71.37	319.17	93.41	2,248.09	-2,480.59	3,196.91	2,806.67	390.24	8.192		
9,300.00	7,057.91	18,407.20	7,248.76	73.93	322.01	93.42	2,248.27	-2,580.59	3,197.94	2,802.31	395.63	8.083		
9,400.00	7,057.51	18,507.21	7,249.01	76.51	324.85	93.43	2,248.45	-2,680.58	3,198.96	2,797.92	401.04	7.977		
9,500.00	7,057.12	18,607.21	7,249.25	79.11	327.69	93.44	2,248.63	-2,780.57	3,199.99	2,793.51	406.48	7.872		
9,600.00	7,056.73	18,707.22	7,249.49	81.73	330.53	93.45	2,248.81	-2,880.57	3,201.02	2,789.09	411.93	7.771		
9,700.00	7,056.33	18,807.23	7,249.74	84.37	333.38	93.46	2,248.99	-2,980.56	3,202.05	2,784.65	417.39	7.672		
9,800.00	7,055.94	18,892.84	7,249.98	87.01	335.81	93.47	2,249.17	-3,080.55	3,203.08	2,780.61	422.47	7.582		
9,900.00	7,055.55	19,007.24	7,250.23	89.68	339.06	93.48	2,249.35	-3,180.54	3,204.10	2,775.74	428.37	7.480		
10,000.00	7,055.15	19,092.83	7,250.47	92.35	341.50	93.49	2,249.53	-3,280.54	3,205.13	2,771.67	433.46	7.394		
10,100.00	7,054.76	19,118.26	7,250.53	95.03	342.22	93.49	2,249.57	-3,305.97	3,207.03	2,770.32	436.70	7.344 ES		
10,200.00	7,054.37	19,118.26	7,250.53	97.73	342.22	93.49	2,249.57	-3,305.97	3,211.94	2,773.12	438.82	7.320		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.98	19,118.26	7,250.53	100.43	342.22	93.49	2,249.57	-3,305.97	3,219.94	2,779.42	440.52	7.309 SF		
10,400.00	7,053.58	19,118.26	7,250.53	103.14	342.22	93.49	2,249.57	-3,305.97	3,231.03	2,789.21	441.82	7.313		
10,500.00	7,053.19	19,118.26	7,250.53	105.86	342.22	93.49	2,249.57	-3,305.97	3,245.16	2,802.44	442.72	7.330		
10,600.00	7,052.80	19,118.26	7,250.53	108.59	342.22	93.49	2,249.57	-3,305.97	3,262.29	2,819.08	443.21	7.361		
10,700.00	7,052.40	19,118.26	7,250.53	111.32	342.22	93.49	2,249.57	-3,305.97	3,282.39	2,839.06	443.33	7.404		
10,800.00	7,052.01	19,118.26	7,250.53	114.06	342.22	93.49	2,249.57	-3,305.97	3,305.38	2,862.32	443.06	7.460		
10,900.00	7,051.62	19,118.26	7,250.53	116.80	342.22	93.49	2,249.57	-3,305.97	3,331.23	2,888.78	442.44	7.529		
11,000.00	7,051.22	19,118.26	7,250.53	119.55	342.22	93.49	2,249.57	-3,305.97	3,359.85	2,918.36	441.48	7.610		
11,100.00	7,050.83	19,118.26	7,250.53	122.31	342.22	93.49	2,249.57	-3,305.97	3,391.18	2,950.98	440.20	7.704		
11,200.00	7,050.44	19,118.26	7,250.53	125.07	342.22	93.49	2,249.57	-3,305.97	3,425.14	2,986.52	438.62	7.809		
11,300.00	7,050.04	19,118.26	7,250.53	127.83	342.22	93.49	2,249.57	-3,305.97	3,461.66	3,024.90	436.76	7.926		
11,400.00	7,049.65	19,118.26	7,250.53	130.60	342.22	93.49	2,249.57	-3,305.97	3,500.66	3,066.01	434.64	8.054		
11,500.00	7,049.26	19,118.26	7,250.53	133.37	342.22	93.49	2,249.57	-3,305.97	3,542.05	3,109.75	432.29	8.194		
11,600.00	7,048.86	19,118.26	7,250.53	136.15	342.22	93.49	2,249.57	-3,305.97	3,585.75	3,156.02	429.73	8.344		
11,700.00	7,048.47	19,118.26	7,250.53	138.93	342.22	93.49	2,249.57	-3,305.97	3,631.68	3,204.70	426.98	8.505		
11,800.00	7,048.08	19,118.26	7,250.53	141.71	342.22	93.49	2,249.57	-3,305.97	3,679.76	3,255.69	424.07	8.677		
11,900.00	7,047.68	19,118.26	7,250.53	144.49	342.22	93.49	2,249.57	-3,305.97	3,729.89	3,308.89	421.00	8.860		
12,000.00	7,047.29	19,118.26	7,250.53	147.28	342.22	93.49	2,249.57	-3,305.97	3,782.01	3,364.20	417.81	9.052		
12,100.00	7,046.90	19,118.26	7,250.53	150.07	342.22	93.49	2,249.57	-3,305.97	3,836.03	3,421.52	414.51	9.254		
12,200.00	7,046.51	19,118.26	7,250.53	152.87	342.22	93.49	2,249.57	-3,305.97	3,891.87	3,480.75	411.11	9.467		
12,300.00	7,046.11	19,118.26	7,250.53	155.66	342.22	93.49	2,249.57	-3,305.97	3,949.45	3,541.80	407.64	9.688		
12,400.00	7,045.72	19,118.26	7,250.53	158.46	342.22	93.49	2,249.57	-3,305.97	4,008.70	3,604.58	404.11	9.920		
12,500.00	7,045.33	19,118.26	7,250.53	161.26	342.22	93.49	2,249.57	-3,305.97	4,069.54	3,669.00	400.54	10.160		
12,600.00	7,044.93	19,118.26	7,250.53	164.06	342.22	93.49	2,249.57	-3,305.97	4,131.91	3,734.97	396.93	10.410		
12,700.00	7,044.54	19,118.26	7,250.53	166.86	342.22	93.49	2,249.57	-3,305.97	4,195.73	3,802.43	393.30	10.668		
12,800.00	7,044.15	19,118.26	7,250.53	169.67	342.22	93.49	2,249.57	-3,305.97	4,260.95	3,871.28	389.66	10.935		
12,900.00	7,043.75	19,118.26	7,250.53	172.48	342.22	93.49	2,249.57	-3,305.97	4,327.49	3,941.47	386.02	11.211		
13,000.00	7,043.36	19,118.26	7,250.53	175.28	342.22	93.49	2,249.57	-3,305.97	4,395.30	4,012.92	382.38	11.494		
13,100.00	7,042.97	19,118.26	7,250.53	178.09	342.22	93.49	2,249.57	-3,305.97	4,464.32	4,085.56	378.76	11.787		
13,200.00	7,042.57	19,118.26	7,250.53	180.91	342.22	93.49	2,249.57	-3,305.97	4,534.50	4,159.33	375.16	12.087		
13,300.00	7,042.18	19,118.26	7,250.53	183.72	342.22	93.49	2,249.57	-3,305.97	4,605.78	4,234.19	371.59	12.395		
13,400.00	7,041.79	19,118.26	7,250.53	186.53	342.22	93.49	2,249.57	-3,305.97	4,678.11	4,310.06	368.05	12.710		
13,500.00	7,041.39	19,118.26	7,250.53	189.35	342.22	93.49	2,249.57	-3,305.97	4,751.44	4,386.89	364.55	13.034		
13,600.00	7,041.00	19,118.26	7,250.53	192.17	342.22	93.49	2,249.57	-3,305.97	4,825.73	4,464.65	361.09	13.365		
13,700.00	7,040.61	19,118.26	7,250.53	194.99	342.22	93.49	2,249.57	-3,305.97	4,900.94	4,543.27	357.67	13.703		
13,800.00	7,040.21	19,118.26	7,250.53	197.81	342.22	93.49	2,249.57	-3,305.97	4,977.02	4,622.72	354.30	14.048		
13,900.00	7,039.82	19,118.26	7,250.53	200.63	342.22	93.49	2,249.57	-3,305.97	5,053.93	4,702.96	350.97	14.400		
14,000.00	7,039.43	19,118.26	7,250.53	203.45	342.22	93.49	2,249.57	-3,305.97	5,131.64	4,783.94	347.70	14.759		
14,100.00	7,039.03	19,118.26	7,250.53	206.27	342.22	93.49	2,249.57	-3,305.97	5,210.11	4,865.63	344.48	15.124		
14,200.00	7,038.64	19,118.26	7,250.53	209.09	342.22	93.49	2,249.57	-3,305.97	5,289.30	4,947.99	341.32	15.497		
14,300.00	7,038.25	19,118.26	7,250.53	211.92	342.22	93.49	2,249.57	-3,305.97	5,369.19	5,030.99	338.21	15.876		
14,400.00	7,037.86	19,118.26	7,250.53	214.74	342.22	93.49	2,249.57	-3,305.97	5,449.75	5,114.60	335.15	16.261		
14,500.00	7,037.46	19,118.26	7,250.53	217.57	342.22	93.49	2,249.57	-3,305.97	5,530.93	5,198.78	332.15	16.652		
14,600.00	7,037.07	19,118.26	7,250.53	220.40	342.22	93.49	2,249.57	-3,305.97	5,612.73	5,283.52	329.21	17.049		
14,700.00	7,036.68	19,118.26	7,250.53	223.23	342.22	93.49	2,249.57	-3,305.97	5,695.11	5,368.79	326.32	17.453		
14,800.00	7,036.28	19,118.26	7,250.53	226.05	342.22	93.49	2,249.57	-3,305.97	5,778.04	5,454.56	323.48	17.862		
14,871.88	7,036.00	19,118.26	7,250.53	228.09	342.22	93.49	2,249.57	-3,305.97	5,837.98	5,516.50	321.48	18.160		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	15,717.46	7,134.45	3.28	248.06	-0.11	2,083.32	-3.92	7,432.41					
100.00	100.00	15,717.70	7,134.45	3.28	248.07	-0.11	2,083.31	-4.16	7,336.47	7,217.90	118.57	61.874		
200.00	200.00	15,717.95	7,134.45	3.34	248.08	-0.12	2,083.31	-4.41	7,240.64	7,121.64	119.00	60.844		
300.00	300.00	15,718.19	7,134.46	3.44	248.08	-0.13	2,083.31	-4.65	7,144.93	7,025.47	119.46	59.811		
400.00	399.98	15,718.75	7,134.46	3.60	248.10	171.02	2,083.30	-5.21	7,049.86	6,929.89	119.97	58.765		
500.00	499.84	15,719.94	7,134.46	3.79	248.13	171.80	2,083.29	-6.40	6,956.08	6,835.51	120.57	57.692		
600.00	599.45	15,721.76	7,134.46	4.02	248.18	172.42	2,083.27	-8.22	6,863.75	6,742.47	121.28	56.593		
700.00	698.70	15,724.21	7,134.47	4.29	248.25	172.92	2,083.25	-10.67	6,773.05	6,650.95	122.11	55.468		
800.00	797.70	15,727.02	7,134.48	4.59	248.33	172.90	2,083.22	-13.48	6,683.47	6,560.45	123.02	54.326		
900.00	896.69	15,729.82	7,134.48	4.92	248.41	172.85	2,083.19	-16.28	6,594.20	6,470.20	124.00	53.180		
1,000.00	995.68	15,732.63	7,134.49	5.27	248.49	172.79	2,083.16	-19.09	6,505.23	6,380.21	125.02	52.033		
1,100.00	1,094.68	15,735.43	7,134.50	5.64	248.57	172.74	2,083.13	-21.89	6,416.58	6,290.49	126.09	50.887		
1,200.00	1,193.67	15,738.24	7,134.50	6.03	248.65	172.69	2,083.10	-24.70	6,328.28	6,201.05	127.22	49.742		
1,300.00	1,292.67	15,741.04	7,134.51	6.42	248.73	172.63	2,083.07	-27.50	6,240.32	6,111.92	128.41	48.598		
1,400.00	1,391.66	15,743.85	7,134.52	6.83	248.81	172.58	2,083.05	-30.30	6,152.73	6,023.08	129.65	47.457		
1,500.00	1,490.66	15,746.65	7,134.52	7.25	248.89	172.53	2,083.02	-33.11	6,065.53	5,934.58	130.95	46.319		
1,600.00	1,589.65	15,749.46	7,134.53	7.67	248.97	172.47	2,082.99	-35.91	5,978.72	5,846.40	132.32	45.185		
1,700.00	1,688.64	15,752.26	7,134.54	8.10	249.05	172.42	2,082.96	-38.72	5,892.33	5,758.58	133.75	44.056		
1,800.00	1,787.64	15,755.06	7,134.55	8.53	249.12	172.36	2,082.93	-41.52	5,806.38	5,671.13	135.24	42.932		
1,900.00	1,886.63	15,757.87	7,134.55	8.97	249.20	172.31	2,082.90	-44.33	5,720.88	5,584.06	136.81	41.816		
2,000.00	1,985.63	15,760.67	7,134.56	9.41	249.28	172.26	2,082.87	-47.13	5,635.85	5,497.40	138.45	40.707		
2,100.00	2,084.62	15,763.48	7,134.57	9.85	249.36	172.20	2,082.84	-49.94	5,551.33	5,411.16	140.16	39.606		
2,200.00	2,183.61	15,766.28	7,134.57	10.30	249.44	172.15	2,082.82	-52.74	5,467.32	5,325.37	141.95	38.516		
2,300.00	2,282.61	15,769.09	7,134.58	10.75	249.52	172.10	2,082.79	-55.54	5,383.86	5,240.05	143.81	37.437		
2,400.00	2,381.60	15,771.89	7,134.59	11.20	249.60	172.04	2,082.76	-58.35	5,300.97	5,155.22	145.75	36.370		
2,500.00	2,480.60	15,774.70	7,134.59	11.66	249.68	171.99	2,082.73	-61.15	5,218.68	5,070.91	147.77	35.315		
2,600.00	2,579.59	15,777.50	7,134.60	12.11	249.76	171.93	2,082.70	-63.96	5,137.02	4,987.15	149.88	34.275		
2,700.00	2,678.58	15,780.31	7,134.61	12.57	249.84	171.88	2,082.67	-66.76	5,056.02	4,903.96	152.06	33.250		
2,800.00	2,777.58	15,783.11	7,134.61	13.02	249.92	171.83	2,082.64	-69.57	4,975.70	4,821.37	154.33	32.241		
2,900.00	2,876.57	15,785.92	7,134.62	13.48	250.00	171.77	2,082.61	-72.37	4,896.11	4,739.42	156.68	31.249		
3,000.00	2,975.57	15,788.72	7,134.63	13.94	250.08	171.72	2,082.59	-75.18	4,817.27	4,658.15	159.12	30.274		
3,100.00	3,074.56	15,791.53	7,134.63	14.40	250.15	171.67	2,082.56	-77.98	4,739.24	4,577.59	161.65	29.318		
3,200.00	3,173.55	15,794.33	7,134.64	14.87	250.23	171.61	2,082.53	-80.79	4,662.04	4,497.77	164.26	28.382		
3,300.00	3,272.55	15,802.93	7,134.65	15.33	250.48	171.56	2,082.50	-83.59	4,585.72	4,418.65	167.06	27.449		
3,400.00	3,371.54	15,800.12	7,134.65	15.79	250.40	171.50	2,082.47	-86.39	4,510.32	4,340.56	169.76	26.569		
3,500.00	3,470.54	15,802.74	7,134.66	16.26	250.47	171.45	2,082.44	-89.20	4,435.89	4,263.25	172.64	25.694		
3,600.00	3,569.53	15,805.55	7,134.67	16.72	250.55	171.40	2,082.41	-92.00	4,362.49	4,186.88	175.61	24.841		
3,700.00	3,668.53	15,808.35	7,134.68	17.19	250.63	171.34	2,082.38	-94.81	4,290.16	4,111.48	178.68	24.011		
3,800.00	3,767.52	15,811.16	7,134.68	17.65	250.71	171.29	2,082.36	-97.61	4,218.96	4,037.13	181.83	23.203		
3,900.00	3,866.51	15,813.96	7,134.69	18.12	250.79	171.24	2,082.33	-100.42	4,148.94	3,963.87	185.07	22.418		
4,000.00	3,965.51	15,816.77	7,134.70	18.59	250.87	171.18	2,082.30	-103.22	4,080.17	3,891.78	188.40	21.657		
4,100.00	4,064.50	15,819.57	7,134.70	19.05	250.95	171.13	2,082.27	-106.03	4,012.72	3,820.91	191.81	20.920		
4,200.00	4,163.50	15,822.38	7,134.71	19.52	251.03	171.07	2,082.24	-108.83	3,946.64	3,751.34	195.30	20.208		
4,300.00	4,262.49	15,825.18	7,134.72	19.99	251.11	171.02	2,082.21	-111.64	3,882.01	3,683.14	198.87	19.520		
4,400.00	4,361.48	15,827.99	7,134.72	20.46	251.19	170.97	2,082.18	-114.44	3,818.91	3,616.39	202.52	18.857		
4,500.00	4,460.48	15,830.79	7,134.73	20.92	251.26	170.91	2,082.15	-117.24	3,757.40	3,551.17	206.24	18.219		
4,600.00	4,559.47	15,833.60	7,134.74	21.39	251.34	170.86	2,082.13	-120.05	3,697.58	3,487.56	210.01	17.606		
4,700.00	4,658.47	15,836.40	7,134.74	21.86	251.42	170.81	2,082.10	-122.85	3,639.51	3,425.67	213.85	17.019		
4,800.00	4,757.46	15,839.21	7,134.75	22.33	251.50	170.75	2,082.07	-125.66	3,583.30	3,365.57	217.73	16.458		
4,900.00	4,856.45	15,842.01	7,134.76	22.80	251.58	170.70	2,082.04	-128.46	3,529.02	3,307.38	221.65	15.922		
5,000.00	4,955.45	15,844.81	7,134.76	23.27	251.66	170.64	2,082.01	-131.27	3,476.77	3,251.18	225.59	15.412		
5,100.00	5,054.44	15,847.62	7,134.77	23.74	251.74	170.59	2,081.98	-134.07	3,426.64	3,197.09	229.55	14.928		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	15,850.42	7,134.78	24.21	251.82	170.54	2,081.95	-136.88	3,378.72	3,145.21	233.51	14.469		
5,300.00	5,252.43	15,853.23	7,134.79	24.68	251.90	170.48	2,081.92	-139.68	3,333.12	3,095.66	237.46	14.037		
5,400.00	5,351.42	15,856.03	7,134.79	25.15	251.98	170.43	2,081.90	-142.49	3,289.92	3,048.55	241.37	13.630		
5,500.00	5,450.42	15,858.84	7,134.80	25.62	252.06	170.38	2,081.87	-145.29	3,249.22	3,003.98	245.24	13.249		
5,600.00	5,549.41	15,861.64	7,134.81	26.09	252.14	170.32	2,081.84	-148.09	3,211.12	2,962.08	249.04	12.894		
5,700.00	5,648.41	15,864.45	7,134.81	26.56	252.22	170.27	2,081.81	-150.90	3,175.70	2,922.95	252.75	12.564		
5,800.00	5,747.40	15,867.25	7,134.82	27.03	252.29	170.21	2,081.78	-153.70	3,143.07	2,886.71	256.36	12.260		
5,900.00	5,846.40	15,870.06	7,134.83	27.51	252.37	170.16	2,081.75	-156.51	3,113.31	2,853.47	259.85	11.981		
6,000.00	5,945.39	15,872.86	7,134.83	27.98	252.45	170.11	2,081.72	-159.31	3,086.50	2,823.32	263.18	11.728		
6,100.00	6,044.38	15,875.67	7,134.84	28.45	252.53	170.05	2,081.70	-162.12	3,062.72	2,796.37	266.35	11.499		
6,200.00	6,143.38	15,878.47	7,134.85	28.92	252.61	170.00	2,081.67	-164.92	3,042.04	2,772.71	269.33	11.295		
6,300.00	6,242.37	15,881.28	7,134.85	29.39	252.69	169.95	2,081.64	-167.73	3,024.53	2,752.42	272.11	11.115		
6,400.00	6,341.37	15,884.08	7,134.86	29.86	252.77	169.89	2,081.61	-170.53	3,010.23	2,735.57	274.66	10.960		
6,500.00	6,440.36	15,886.88	7,134.87	30.34	252.85	169.84	2,081.58	-173.33	2,999.20	2,722.23	276.97	10.829		
6,600.00	6,538.90	15,904.08	7,134.89	30.80	253.34	130.87	2,081.49	-182.43	2,991.49	2,712.07	279.42	10.706		
6,700.00	6,634.88	15,920.45	7,134.95	31.25	253.80	114.33	2,081.24	-206.89	2,987.13	2,705.59	281.54	10.610		
6,794.61	6,721.17	15,957.28	7,135.04	31.65	254.84	107.11	2,080.86	-243.72	2,985.87	2,702.00	283.87	10.519 CC		
6,800.00	6,725.92	15,959.76	7,135.05	31.68	254.91	106.80	2,080.83	-246.21	2,985.87	2,701.87	284.00	10.513		
6,900.00	6,809.79	16,012.96	7,135.18	32.07	256.41	102.19	2,080.29	-299.40	2,987.20	2,700.62	286.58	10.424		
7,000.00	6,884.42	16,078.73	7,135.34	32.43	258.27	98.81	2,079.61	-365.17	2,990.36	2,701.06	289.29	10.337		
7,100.00	6,947.98	16,155.45	7,135.52	32.77	260.44	96.15	2,078.83	-441.89	2,994.50	2,702.30	292.21	10.248		
7,200.00	6,998.89	16,241.24	7,135.73	33.18	262.87	94.06	2,077.95	-527.67	2,998.77	2,703.40	295.37	10.153		
7,300.00	7,035.91	16,333.98	7,135.96	33.76	265.49	92.55	2,077.00	-620.40	3,002.37	2,703.56	298.82	10.048		
7,400.00	7,058.12	16,431.38	7,136.20	34.61	268.25	91.63	2,076.00	-717.80	3,004.69	2,702.14	302.55	9.931		
7,500.00	7,064.98	16,531.06	7,136.44	35.68	271.07	91.36	2,074.98	-817.47	3,005.33	2,698.82	306.51	9.805		
7,600.00	7,064.59	16,631.05	7,136.69	36.95	273.90	91.38	2,073.95	-917.46	3,005.14	2,694.48	310.65	9.674		
7,700.00	7,064.20	16,731.05	7,136.93	38.40	276.73	91.39	2,072.93	-1,017.46	3,004.94	2,689.97	314.97	9.540		
7,800.00	7,063.80	16,831.05	7,137.17	40.00	279.56	91.40	2,071.90	-1,117.45	3,004.74	2,685.31	319.43	9.406		
7,900.00	7,063.41	16,931.05	7,137.42	41.75	282.39	91.41	2,070.88	-1,217.44	3,004.54	2,680.51	324.03	9.272		
8,000.00	7,063.02	17,031.05	7,137.66	43.62	285.22	91.42	2,069.86	-1,317.43	3,004.35	2,675.60	328.75	9.139		
8,100.00	7,062.62	17,131.04	7,137.91	45.59	288.06	91.44	2,068.83	-1,417.42	3,004.15	2,670.59	333.56	9.006		
8,200.00	7,062.23	17,231.04	7,138.15	47.65	290.89	91.45	2,067.81	-1,517.42	3,003.95	2,665.48	338.47	8.875		
8,300.00	7,061.84	17,331.04	7,138.40	49.79	293.72	91.46	2,066.78	-1,617.41	3,003.75	2,660.30	343.45	8.746		
8,400.00	7,061.45	17,431.04	7,138.64	52.00	296.56	91.47	2,065.76	-1,717.40	3,003.56	2,655.05	348.50	8.618		
8,500.00	7,061.05	17,531.03	7,138.88	54.27	299.39	91.49	2,064.73	-1,817.39	3,003.36	2,649.75	353.62	8.493		
8,600.00	7,060.66	17,631.03	7,139.13	56.60	302.23	91.50	2,063.71	-1,917.39	3,003.17	2,644.38	358.78	8.370		
8,700.00	7,060.27	17,731.03	7,139.37	58.97	305.06	91.51	2,062.68	-2,017.38	3,002.97	2,638.98	363.99	8.250		
8,800.00	7,059.87	17,831.03	7,139.62	61.38	307.90	91.52	2,061.66	-2,117.37	3,002.77	2,633.53	369.25	8.132		
8,900.00	7,059.48	17,931.03	7,139.86	63.83	310.73	91.53	2,060.63	-2,217.36	3,002.58	2,628.04	374.54	8.017		
9,000.00	7,059.09	18,031.02	7,140.11	66.32	313.57	91.55	2,059.61	-2,317.35	3,002.38	2,622.52	379.86	7.904		
9,100.00	7,058.69	18,131.02	7,140.35	68.83	316.41	91.56	2,058.58	-2,417.35	3,002.19	2,616.98	385.21	7.794		
9,200.00	7,058.30	18,231.02	7,140.60	71.37	319.25	91.57	2,057.56	-2,517.34	3,001.99	2,611.40	390.59	7.686		
9,300.00	7,057.91	18,331.02	7,140.84	73.93	322.08	91.58	2,056.53	-2,617.33	3,001.79	2,605.81	395.99	7.581		
9,400.00	7,057.51	18,431.01	7,141.08	76.51	324.92	91.60	2,055.51	-2,717.32	3,001.60	2,600.19	401.41	7.478		
9,500.00	7,057.12	18,531.01	7,141.33	79.11	327.76	91.61	2,054.48	-2,817.31	3,001.40	2,594.55	406.85	7.377		
9,600.00	7,056.73	18,631.01	7,141.57	81.73	330.60	91.62	2,053.46	-2,917.31	3,001.21	2,588.90	412.31	7.279		
9,700.00	7,056.33	18,731.01	7,141.82	84.37	333.44	91.63	2,052.43	-3,017.30	3,001.01	2,583.23	417.78	7.183		
9,800.00	7,055.94	18,831.00	7,142.06	87.01	336.28	91.65	2,051.41	-3,117.29	3,000.82	2,577.55	423.27	7.090		
9,900.00	7,055.55	18,931.00	7,142.31	89.68	339.12	91.66	2,050.38	-3,217.28	3,000.62	2,571.86	428.77	6.998		
9,993.17	7,055.18	19,018.34	7,142.52	92.17	341.60	91.67	2,049.49	-3,304.61	3,000.45	2,566.71	433.73	6.918		
10,000.00	7,055.15	19,018.34	7,142.52	92.35	341.60	91.67	2,049.49	-3,304.61	3,000.46	2,566.54	433.91	6.915		
10,100.00	7,054.76	19,018.34	7,142.52	95.03	341.60	91.67	2,049.49	-3,304.61	3,002.35	2,566.07	436.28	6.882 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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,200.00	7,054.37	19,018.34	7,142.52	97.73	341.60	91.67	2,049.49	-3,304.61	3,007.57	2,569.39	438.18	6.864		
10,300.00	7,053.98	19,018.34	7,142.52	100.43	341.60	91.67	2,049.49	-3,304.61	3,016.10	2,576.47	439.62	6.861 SF		
10,400.00	7,053.58	19,018.34	7,142.52	103.14	341.60	91.67	2,049.49	-3,304.61	3,027.90	2,587.30	440.60	6.872		
10,500.00	7,053.19	19,018.34	7,142.52	105.86	341.60	91.67	2,049.49	-3,304.61	3,042.95	2,601.83	441.13	6.898		
10,600.00	7,052.80	19,018.34	7,142.52	108.59	341.60	91.67	2,049.49	-3,304.61	3,061.20	2,619.99	441.21	6.938		
10,700.00	7,052.40	19,018.34	7,142.52	111.32	341.60	91.67	2,049.49	-3,304.61	3,082.58	2,641.73	440.85	6.992		
10,800.00	7,052.01	19,018.34	7,142.52	114.06	341.60	91.67	2,049.49	-3,304.61	3,107.04	2,666.94	440.09	7.060		
10,900.00	7,051.62	19,018.34	7,142.52	116.80	341.60	91.67	2,049.49	-3,304.61	3,134.49	2,695.55	438.94	7.141		
11,000.00	7,051.22	19,018.34	7,142.52	119.55	341.60	91.67	2,049.49	-3,304.61	3,164.87	2,727.45	437.42	7.235		
11,100.00	7,050.83	19,018.34	7,142.52	122.31	341.60	91.67	2,049.49	-3,304.61	3,198.09	2,762.53	435.55	7.343		
11,200.00	7,050.44	19,018.34	7,142.52	125.07	341.60	91.67	2,049.49	-3,304.61	3,234.06	2,800.68	433.38	7.462		
11,300.00	7,050.04	19,018.34	7,142.52	127.83	341.60	91.67	2,049.49	-3,304.61	3,272.69	2,841.78	430.91	7.595		
11,400.00	7,049.65	19,018.34	7,142.52	130.60	341.60	91.67	2,049.49	-3,304.61	3,313.89	2,885.71	428.18	7.739		
11,500.00	7,049.26	19,018.34	7,142.52	133.37	341.60	91.67	2,049.49	-3,304.61	3,357.56	2,932.34	425.22	7.896		
11,600.00	7,048.86	19,018.34	7,142.52	136.15	341.60	91.67	2,049.49	-3,304.61	3,403.61	2,981.56	422.06	8.064		
11,700.00	7,048.47	19,018.34	7,142.52	138.93	341.60	91.67	2,049.49	-3,304.61	3,451.95	3,033.24	418.71	8.244		
11,800.00	7,048.08	19,018.34	7,142.52	141.71	341.60	91.67	2,049.49	-3,304.61	3,502.47	3,087.27	415.21	8.435		
11,900.00	7,047.68	19,018.34	7,142.52	144.49	341.60	91.67	2,049.49	-3,304.61	3,555.09	3,143.52	411.57	8.638		
12,000.00	7,047.29	19,018.34	7,142.52	147.28	341.60	91.67	2,049.49	-3,304.61	3,609.72	3,201.89	407.83	8.851		
12,100.00	7,046.90	19,018.34	7,142.52	150.07	341.60	91.67	2,049.49	-3,304.61	3,666.25	3,262.26	404.00	9.075		
12,200.00	7,046.51	19,018.34	7,142.52	152.87	341.60	91.67	2,049.49	-3,304.61	3,724.62	3,324.52	400.09	9.309		
12,300.00	7,046.11	19,018.34	7,142.52	155.66	341.60	91.67	2,049.49	-3,304.61	3,784.73	3,388.59	396.14	9.554		
12,400.00	7,045.72	19,018.34	7,142.52	158.46	341.60	91.67	2,049.49	-3,304.61	3,846.49	3,454.35	392.15	9.809		
12,500.00	7,045.33	19,018.34	7,142.52	161.26	341.60	91.67	2,049.49	-3,304.61	3,909.84	3,521.71	388.13	10.073		
12,600.00	7,044.93	19,018.34	7,142.52	164.06	341.60	91.67	2,049.49	-3,304.61	3,974.70	3,590.59	384.11	10.348		
12,700.00	7,044.54	19,018.34	7,142.52	166.86	341.60	91.67	2,049.49	-3,304.61	4,040.99	3,660.90	380.09	10.632		
12,800.00	7,044.15	19,018.34	7,142.52	169.67	341.60	91.67	2,049.49	-3,304.61	4,108.65	3,732.56	376.08	10.925		
12,900.00	7,043.75	19,018.34	7,142.52	172.48	341.60	91.67	2,049.49	-3,304.61	4,177.60	3,805.50	372.10	11.227		
13,000.00	7,043.36	19,018.34	7,142.52	175.28	341.60	91.67	2,049.49	-3,304.61	4,247.79	3,879.65	368.14	11.538		
13,100.00	7,042.97	19,018.34	7,142.52	178.09	341.60	91.67	2,049.49	-3,304.61	4,319.15	3,954.93	364.23	11.858		
13,200.00	7,042.57	19,018.34	7,142.52	180.91	341.60	91.67	2,049.49	-3,304.61	4,391.63	4,031.28	360.35	12.187		
13,300.00	7,042.18	19,018.34	7,142.52	183.72	341.60	91.67	2,049.49	-3,304.61	4,465.18	4,108.66	356.52	12.524		
13,400.00	7,041.79	19,018.34	7,142.52	186.53	341.60	91.67	2,049.49	-3,304.61	4,539.73	4,186.99	352.75	12.870		
13,500.00	7,041.39	19,018.34	7,142.52	189.35	341.60	91.67	2,049.49	-3,304.61	4,615.25	4,266.22	349.03	13.223		
13,600.00	7,041.00	19,018.34	7,142.52	192.17	341.60	91.67	2,049.49	-3,304.61	4,691.69	4,346.32	345.37	13.585		
13,700.00	7,040.61	19,018.34	7,142.52	194.99	341.60	91.67	2,049.49	-3,304.61	4,768.99	4,427.22	341.77	13.954		
13,800.00	7,040.21	19,018.34	7,142.52	197.81	341.60	91.67	2,049.49	-3,304.61	4,847.13	4,508.90	338.23	14.331		
13,900.00	7,039.82	19,018.34	7,142.52	200.63	341.60	91.67	2,049.49	-3,304.61	4,926.05	4,591.30	334.76	14.715		
14,000.00	7,039.43	19,018.34	7,142.52	203.45	341.60	91.67	2,049.49	-3,304.61	5,005.73	4,674.38	331.35	15.107		
14,100.00	7,039.03	19,018.34	7,142.52	206.27	341.60	91.67	2,049.49	-3,304.61	5,086.13	4,758.12	328.01	15.506		
14,200.00	7,038.64	19,018.34	7,142.52	209.09	341.60	91.67	2,049.49	-3,304.61	5,167.21	4,842.48	324.74	15.912		
14,300.00	7,038.25	19,018.34	7,142.52	211.92	341.60	91.67	2,049.49	-3,304.61	5,248.95	4,927.42	321.53	16.325		
14,400.00	7,037.86	19,018.34	7,142.52	214.74	341.60	91.67	2,049.49	-3,304.61	5,331.31	5,012.92	318.39	16.745		
14,500.00	7,037.46	19,018.34	7,142.52	217.57	341.60	91.67	2,049.49	-3,304.61	5,414.26	5,098.95	315.31	17.171		
14,600.00	7,037.07	19,018.34	7,142.52	220.40	341.60	91.67	2,049.49	-3,304.61	5,497.78	5,185.47	312.31	17.604		
14,700.00	7,036.68	19,018.34	7,142.52	223.23	341.60	91.67	2,049.49	-3,304.61	5,581.84	5,272.48	309.36	18.043		
14,800.00	7,036.28	19,018.34	7,142.52	226.05	341.60	91.67	2,049.49	-3,304.61	5,666.42	5,359.94	306.48	18.489		
14,871.88	7,036.00	19,018.34	7,142.52	228.09	341.60	91.67	2,049.49	-3,304.61	5,727.52	5,423.07	304.45	18.813		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1,496.85	1,544.29	3.28	8.05	-117.75	-3,956.14	-7,519.07	8,635.52					
100.00	100.00	1,584.00	1,630.02	3.28	8.51	-117.71	-3,944.32	-7,508.77	8,618.60	8,607.50	11.10	776.760		
200.00	200.00	1,584.00	1,630.02	3.34	8.51	-117.71	-3,944.32	-7,508.77	8,601.41	8,590.29	11.11	773.932		
300.00	300.00	1,628.65	1,674.00	3.44	8.74	-117.69	-3,938.32	-7,503.94	8,585.30	8,573.91	11.39	753.866		
400.00	399.98	1,717.79	1,761.73	3.60	9.20	52.79	-3,925.70	-7,494.36	8,568.13	8,556.22	11.91	719.354		
500.00	499.84	1,773.00	1,816.12	3.79	9.49	53.13	-3,918.27	-7,488.55	8,549.40	8,537.07	12.32	693.725		
600.00	599.45	1,879.81	1,921.46	4.02	10.04	53.57	-3,904.80	-7,477.07	8,528.84	8,515.83	13.01	655.597		
700.00	698.70	1,926.85	1,967.86	4.29	10.29	53.99	-3,898.83	-7,472.16	8,506.48	8,493.02	13.46	631.767		
800.00	797.70	2,168.97	2,206.53	4.59	11.56	54.32	-3,868.02	-7,445.69	8,482.87	8,468.04	14.83	571.897		
900.00	896.69	900.00	2,437.36	4.92	4.96	54.60	-3,837.73	-7,415.40	8,457.30	8,447.46	9.84	859.501		
1,000.00	995.68	2,520.16	2,551.56	5.27	13.51	54.74	-3,822.08	-7,399.10	8,430.48	8,413.43	17.05	494.492		
1,100.00	1,094.68	1,100.00	2,739.53	5.64	5.65	54.98	-3,796.18	-7,372.18	8,404.03	8,392.90	11.13	755.033		
1,200.00	1,193.67	2,898.01	2,921.44	6.03	15.71	55.23	-3,768.14	-7,344.24	8,375.66	8,356.17	19.48	429.890		
1,300.00	1,292.67	2,943.61	2,965.99	6.42	15.99	55.29	-3,761.25	-7,337.34	8,347.30	8,327.23	20.07	415.938		
1,400.00	1,391.66	1,400.00	3,074.73	6.83	7.14	55.43	-3,745.45	-7,320.57	8,319.47	8,306.01	13.45	618.361		
1,500.00	1,490.66	3,148.41	3,166.26	7.25	17.21	55.54	-3,732.50	-7,305.63	8,291.04	8,269.25	21.79	380.510		
1,600.00	1,589.65	3,200.00	3,216.79	7.67	17.52	55.61	-3,725.72	-7,297.72	8,263.32	8,240.89	22.43	368.371		
1,700.00	1,688.64	1,700.00	3,285.63	8.10	8.92	55.69	-3,716.53	-7,287.07	8,235.93	8,219.93	16.01	514.564		
1,800.00	1,787.64	3,360.42	3,373.93	8.53	18.46	55.80	-3,704.66	-7,273.30	8,208.49	8,184.49	24.00	342.081		
1,900.00	1,886.63	3,391.00	3,403.90	8.97	18.64	55.84	-3,700.67	-7,268.72	8,181.54	8,156.97	24.57	333.022		
2,000.00	1,985.63	3,427.55	3,439.77	9.41	18.84	55.89	-3,695.91	-7,263.54	8,155.33	8,130.15	25.17	323.994		
2,100.00	2,084.62	3,452.40	3,464.20	9.85	18.98	55.92	-3,692.68	-7,260.30	8,130.00	8,104.27	25.73	315.995		
2,200.00	2,183.61	3,486.00	3,497.27	10.30	19.18	55.96	-3,688.31	-7,256.30	8,105.55	8,079.22	26.33	307.862		
2,300.00	2,282.61	2,300.00	3,598.31	10.75	12.63	56.11	-3,674.61	-7,244.36	8,081.35	8,060.08	21.26	380.090		
2,400.00	2,381.60	3,618.86	3,628.02	11.20	19.91	56.15	-3,670.38	-7,241.00	8,057.51	8,029.67	27.84	289.462		
2,500.00	2,480.60	3,644.08	3,652.86	11.66	20.05	56.19	-3,666.83	-7,238.51	8,034.58	8,006.17	28.41	282.796		
2,600.00	2,579.59	4,096.64	4,096.55	12.11	22.66	56.91	-3,594.24	-7,187.72	8,008.76	7,977.81	30.94	258.816		
2,700.00	2,678.58	2,700.00	4,227.57	12.57	14.45	57.09	-3,576.35	-7,167.94	7,982.03	7,957.23	24.81	321.746		
2,800.00	2,777.58	4,291.07	4,287.00	13.02	23.81	57.17	-3,568.21	-7,158.56	7,954.88	7,922.14	32.74	242.936		
2,900.00	2,876.57	4,343.00	4,337.99	13.48	24.11	57.24	-3,561.53	-7,151.34	7,928.89	7,895.43	33.45	237.018		
3,000.00	2,975.57	4,343.00	4,337.99	13.94	24.11	57.24	-3,561.53	-7,151.34	7,903.39	7,869.45	33.94	232.872		
3,100.00	3,074.56	4,456.47	4,449.51	14.40	24.76	57.40	-3,546.61	-7,136.65	7,878.51	7,843.59	34.92	225.639		
3,200.00	3,173.55	4,490.04	4,482.51	14.87	24.95	57.44	-3,542.14	-7,132.49	7,853.89	7,818.34	35.55	220.911		
3,300.00	3,272.55	4,534.00	4,525.77	15.33	25.20	57.51	-3,536.34	-7,127.22	7,829.92	7,793.69	36.23	216.091		
3,400.00	3,371.54	4,606.21	4,596.91	15.79	25.60	57.61	-3,527.39	-7,118.69	7,806.45	7,769.41	37.04	210.779		
3,500.00	3,470.54	4,629.00	4,619.39	16.26	25.72	57.64	-3,524.76	-7,115.96	7,783.52	7,745.89	37.63	206.861		
3,600.00	3,569.53	4,677.43	4,667.21	16.72	25.98	57.70	-3,519.41	-7,110.46	7,761.26	7,722.94	38.32	202.515		
3,700.00	3,668.53	4,724.00	4,713.28	17.19	26.23	57.77	-3,514.52	-7,105.78	7,740.02	7,701.01	39.01	198.387		
3,800.00	3,767.52	4,802.45	4,790.96	17.65	26.63	57.87	-3,506.74	-7,098.05	7,719.36	7,679.52	39.84	193.772		
3,900.00	3,866.51	4,852.13	4,840.16	18.12	26.88	57.93	-3,502.08	-7,092.98	7,698.76	7,658.23	40.54	189.913		
4,000.00	3,965.51	4,888.40	4,876.12	18.59	27.06	57.98	-3,498.80	-7,089.56	7,678.95	7,637.77	41.18	186.460		
4,100.00	4,064.50	4,915.00	4,902.51	19.05	27.19	58.01	-3,496.46	-7,087.22	7,659.96	7,618.17	41.79	183.313		
4,200.00	4,163.50	4,976.41	4,963.49	19.52	27.49	58.09	-3,491.18	-7,082.22	7,641.60	7,599.07	42.53	179.660		
4,300.00	4,262.49	5,024.93	5,011.70	19.99	27.72	58.15	-3,487.11	-7,078.61	7,623.92	7,580.69	43.23	176.368		
4,400.00	4,361.48	5,104.00	5,090.34	20.46	28.09	58.25	-3,480.65	-7,073.35	7,607.02	7,562.97	44.05	172.688		
4,500.00	4,460.48	5,104.00	5,090.34	20.92	28.09	58.25	-3,480.65	-7,073.35	7,590.57	7,546.03	44.54	170.432		
4,600.00	4,559.47	5,159.03	5,145.12	21.39	28.33	58.32	-3,476.50	-7,070.17	7,574.92	7,529.67	45.25	167.399		
4,700.00	4,658.47	5,199.26	5,185.20	21.86	28.51	58.37	-3,473.81	-7,068.09	7,560.08	7,514.18	45.90	164.703		
4,800.00	4,757.46	5,239.64	5,225.47	22.33	28.69	58.42	-3,471.39	-7,066.21	7,546.01	7,499.46	46.55	162.102		
4,900.00	4,856.45	5,294.00	5,279.71	22.80	28.92	58.49	-3,468.61	-7,064.02	7,532.75	7,485.49	47.26	159.392		
5,000.00	4,955.45	5,334.62	5,320.27	23.27	29.08	58.53	-3,466.78	-7,062.57	7,520.15	7,472.25	47.90	156.993		
5,100.00	5,054.44	5,396.34	5,381.90	23.74	29.33	58.60	-3,464.24	-7,060.53	7,508.10	7,459.47	48.63	154.394		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21-4(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,153.44	5,458.18	5,443.67	24.21	29.57	58.67	-3,461.97	-7,058.71	7,496.55	7,447.19	49.36	151.882		
5,300.00	5,252.43	5,520.14	5,505.58	24.68	29.82	58.74	-3,459.98	-7,057.09	7,485.51	7,435.42	50.09	149.453		
5,400.00	5,351.42	5,579.00	5,564.40	25.15	30.05	58.80	-3,458.35	-7,055.74	7,474.97	7,424.17	50.80	147.145		
5,500.00	5,450.42	5,644.68	5,630.04	25.62	30.29	58.87	-3,456.80	-7,054.48	7,464.93	7,413.40	51.54	144.849		
5,600.00	5,549.41	5,707.21	5,692.55	26.09	30.53	58.93	-3,455.54	-7,053.52	7,455.40	7,403.14	52.26	142.665		
5,700.00	5,648.41	5,769.82	5,755.16	26.56	30.76	59.00	-3,454.50	-7,052.81	7,446.37	7,393.39	52.98	140.551		
5,800.00	5,747.40	5,864.00	5,849.32	27.03	31.11	59.09	-3,453.33	-7,052.19	7,437.94	7,384.11	53.83	138.166		
5,900.00	5,846.40	5,900.97	5,886.29	27.51	31.23	59.13	-3,452.97	-7,052.08	7,429.79	7,375.35	54.44	136.475		
6,000.00	5,945.39	5,975.16	5,960.48	27.98	31.49	59.20	-3,452.28	-7,052.05	7,422.11	7,366.91	55.20	134.458		
6,100.00	6,044.38	6,049.38	6,034.69	28.45	31.75	59.28	-3,451.63	-7,052.28	7,414.79	7,358.83	55.96	132.503		
6,200.00	6,143.38	6,123.61	6,108.92	28.92	32.02	59.35	-3,451.01	-7,052.75	7,407.81	7,351.10	56.72	130.607		
6,300.00	6,242.37	6,221.08	6,206.39	29.39	32.36	59.46	-3,450.20	-7,053.62	7,401.09	7,343.52	57.57	128.549		
6,400.00	6,341.37	6,332.08	6,317.38	29.86	32.75	59.57	-3,449.11	-7,054.52	7,394.27	7,335.78	58.49	126.427		
6,500.00	6,440.36	6,443.02	6,428.31	30.34	33.14	59.69	-3,447.82	-7,055.29	7,387.31	7,327.91	59.40	124.370		
6,600.00	6,538.90	6,528.47	6,513.74	30.80	33.44	19.98	-3,446.74	-7,055.94	7,374.50	7,314.29	60.20	122.496		
6,700.00	6,634.88	6,613.10	6,598.37	31.25	33.75	2.64	-3,445.62	-7,056.74	7,347.53	7,286.55	60.97	120.506		
6,800.00	6,725.92	6,693.61	6,678.86	31.68	34.03	-5.80	-3,444.51	-7,057.65	7,306.95	7,245.27	61.69	118.454		
6,900.00	6,809.79	6,757.68	6,742.92	32.07	34.26	-11.77	-3,443.61	-7,058.50	7,253.79	7,191.51	62.28	116.470		
7,000.00	6,884.42	6,809.08	6,794.31	32.43	34.44	-17.41	-3,442.98	-7,059.33	7,189.44	7,126.67	62.76	114.546		
7,100.00	6,947.98	6,853.35	6,838.57	32.77	34.59	-24.04	-3,442.50	-7,060.18	7,115.43	7,052.27	63.16	112.657		
7,200.00	6,998.89	6,889.40	6,874.61	33.18	34.72	-33.02	-3,442.16	-7,060.94	7,033.53	6,970.06	63.46	110.827		
7,300.00	7,035.91	6,916.26	6,901.46	33.76	34.81	-46.16	-3,441.93	-7,061.56	6,945.70	6,882.02	63.68	109.072		
7,400.00	7,058.12	6,933.19	6,918.39	34.61	34.87	-65.11	-3,441.80	-7,061.98	6,854.11	6,790.29	63.82	107.397		
7,500.00	7,064.98	6,939.66	6,924.86	35.68	34.90	-87.32	-3,441.76	-7,062.14	6,760.99	6,697.09	63.90	105.805		
7,600.00	7,064.59	6,941.14	6,926.34	36.95	34.90	-87.35	-3,441.75	-7,062.18	6,667.97	6,603.99	63.98	104.218		
7,700.00	7,064.20	6,942.64	6,927.83	38.40	34.91	-87.39	-3,441.73	-7,062.21	6,575.15	6,511.04	64.11	102.567		
7,800.00	7,063.80	6,944.14	6,929.33	40.00	34.91	-87.42	-3,441.72	-7,062.25	6,482.54	6,418.27	64.28	100.853		
7,900.00	7,063.41	6,945.65	6,930.84	41.75	34.92	-87.46	-3,441.71	-7,062.29	6,390.16	6,325.66	64.50	99.075		
8,000.00	7,063.02	6,947.18	6,932.37	43.62	34.92	-87.49	-3,441.70	-7,062.33	6,298.01	6,233.24	64.77	97.233		
8,100.00	7,062.62	6,948.72	6,933.91	45.59	34.93	-87.53	-3,441.69	-7,062.37	6,206.10	6,141.00	65.10	95.328		
8,200.00	7,062.23	6,950.27	6,935.46	47.65	34.93	-87.56	-3,441.68	-7,062.41	6,114.45	6,048.96	65.49	93.362		
8,300.00	7,061.84	6,951.84	6,937.03	49.79	34.94	-87.60	-3,441.67	-7,062.45	6,023.06	5,957.11	65.94	91.336		
8,400.00	7,061.45	6,953.42	6,938.61	52.00	34.94	-87.64	-3,441.66	-7,062.49	5,931.95	5,865.49	66.46	89.256		
8,500.00	7,061.05	6,955.01	6,940.20	54.27	34.95	-87.67	-3,441.65	-7,062.53	5,841.12	5,774.08	67.04	87.123		
8,600.00	7,060.66	6,956.62	6,941.80	56.60	34.96	-87.71	-3,441.64	-7,062.57	5,750.61	5,682.91	67.70	84.943		
8,700.00	7,060.27	6,958.23	6,943.42	58.97	34.96	-87.75	-3,441.63	-7,062.62	5,660.41	5,591.98	68.43	82.720		
8,800.00	7,059.87	6,959.87	6,945.05	61.38	34.97	-87.79	-3,441.62	-7,062.66	5,570.54	5,501.31	69.23	80.461		
8,900.00	7,059.48	6,961.51	6,946.70	63.83	34.97	-87.82	-3,441.61	-7,062.70	5,481.02	5,410.91	70.12	78.171		
9,000.00	7,059.09	6,963.17	6,948.36	66.32	34.98	-87.86	-3,441.59	-7,062.75	5,391.88	5,320.80	71.08	75.857		
9,100.00	7,058.69	6,964.85	6,950.03	68.83	34.98	-87.90	-3,441.58	-7,062.79	5,303.12	5,230.99	72.13	73.525		
9,200.00	7,058.30	6,966.53	6,951.72	71.37	34.99	-87.94	-3,441.57	-7,062.84	5,214.76	5,141.50	73.26	71.182		
9,300.00	7,057.91	6,968.24	6,953.42	73.93	35.00	-87.98	-3,441.56	-7,062.88	5,126.83	5,052.35	74.48	68.835		
9,400.00	7,057.51	6,969.95	6,955.14	76.51	35.00	-88.02	-3,441.55	-7,062.93	5,039.35	4,963.56	75.79	66.490		
9,500.00	7,057.12	6,971.69	6,956.87	79.11	35.01	-88.06	-3,441.54	-7,062.98	4,952.35	4,875.15	77.19	64.155		
9,600.00	7,056.73	6,973.43	6,958.61	81.73	35.01	-88.10	-3,441.53	-7,063.02	4,865.84	4,787.15	78.69	61.834		
9,700.00	7,056.33	6,975.20	6,960.38	84.37	35.02	-88.14	-3,441.52	-7,063.07	4,779.86	4,699.57	80.29	59.535		
9,800.00	7,055.94	6,976.98	6,962.15	87.01	35.03	-88.18	-3,441.51	-7,063.12	4,694.43	4,612.45	81.98	57.263		
9,900.00	7,055.55	6,978.77	6,963.95	89.68	35.03	-88.22	-3,441.50	-7,063.17	4,609.59	4,525.82	83.78	55.023		
10,000.00	7,055.15	6,980.58	6,965.76	92.35	35.04	-88.27	-3,441.49	-7,063.22	4,525.37	4,439.69	85.68	52.820		
10,100.00	7,054.76	6,982.41	6,967.58	95.03	35.05	-88.31	-3,441.48	-7,063.27	4,441.80	4,354.12	87.68	50.658		
10,200.00	7,054.37	6,984.25	6,969.42	97.73	35.05	-88.35	-3,441.47	-7,063.32	4,358.92	4,269.12	89.80	48.542		
10,300.00	7,053.98	6,986.11	6,971.28	100.43	35.06	-88.40	-3,441.45	-7,063.37	4,276.77	4,184.75	92.02	46.474		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,400.00	7,053.58	6,987.98	6,973.16	103.14	35.07	-88.44	-3,441.44	-7,063.42	4,195.40	4,101.03	94.37	44.458		
10,500.00	7,053.19	6,989.87	6,975.05	105.86	35.07	-88.48	-3,441.43	-7,063.48	4,114.85	4,018.02	96.83	42.497		
10,600.00	7,052.80	6,991.78	6,976.96	108.59	35.08	-88.53	-3,441.42	-7,063.53	4,035.16	3,935.76	99.41	40.592		
10,700.00	7,052.40	6,993.71	6,978.88	111.32	35.09	-88.57	-3,441.41	-7,063.59	3,956.40	3,854.29	102.11	38.746		
10,800.00	7,052.01	6,995.66	6,980.83	114.06	35.09	-88.62	-3,441.40	-7,063.64	3,878.62	3,773.68	104.94	36.961		
10,900.00	7,051.62	6,997.62	6,982.79	116.80	35.10	-88.66	-3,441.39	-7,063.70	3,801.87	3,693.97	107.90	35.236		
11,000.00	7,051.22	6,999.60	6,984.77	119.55	35.11	-88.71	-3,441.38	-7,063.75	3,726.22	3,615.24	110.99	33.574		
11,100.00	7,050.83	7,001.60	6,986.77	122.31	35.11	-88.76	-3,441.37	-7,063.81	3,651.75	3,537.54	114.21	31.975		
11,200.00	7,050.44	7,003.62	6,988.79	125.07	35.12	-88.80	-3,441.36	-7,063.87	3,578.52	3,460.95	117.56	30.439		
11,300.00	7,050.04	7,005.66	6,990.82	127.83	35.13	-88.85	-3,441.35	-7,063.93	3,506.61	3,385.55	121.06	28.966		
11,400.00	7,049.65	7,007.71	6,992.88	130.60	35.13	-88.90	-3,441.34	-7,063.99	3,436.10	3,311.41	124.69	27.557		
11,500.00	7,049.26	7,010.00	6,995.17	133.37	35.14	-88.95	-3,441.33	-7,064.05	3,367.09	3,238.62	128.46	26.211		
11,600.00	7,048.86	7,012.73	6,997.89	136.15	35.15	-89.01	-3,441.31	-7,064.13	3,299.66	3,167.29	132.37	24.927		
11,700.00	7,048.47	7,015.78	7,000.94	138.93	35.16	-89.09	-3,441.30	-7,064.22	3,233.91	3,097.50	136.42	23.706		
11,800.00	7,048.08	7,018.85	7,004.01	141.71	35.17	-89.16	-3,441.28	-7,064.31	3,169.96	3,029.36	140.60	22.546		
11,900.00	7,047.68	7,021.94	7,007.10	144.49	35.18	-89.23	-3,441.26	-7,064.41	3,107.90	2,962.99	144.91	21.447		
12,000.00	7,047.29	7,025.05	7,010.21	147.28	35.20	-89.30	-3,441.24	-7,064.50	3,047.86	2,898.52	149.34	20.408		
12,100.00	7,046.90	7,028.19	7,013.35	150.07	35.21	-89.37	-3,441.22	-7,064.59	2,989.96	2,836.07	153.90	19.429		
12,200.00	7,046.51	7,031.34	7,016.50	152.87	35.22	-89.45	-3,441.20	-7,064.69	2,934.32	2,775.77	158.55	18.507		
12,300.00	7,046.11	7,034.52	7,019.68	155.66	35.23	-89.52	-3,441.18	-7,064.78	2,881.08	2,717.77	163.31	17.642		
12,400.00	7,045.72	7,037.72	7,022.87	158.46	35.24	-89.60	-3,441.15	-7,064.88	2,830.36	2,662.21	168.15	16.833		
12,500.00	7,045.33	7,040.94	7,026.09	161.26	35.25	-89.67	-3,441.13	-7,064.97	2,782.31	2,609.27	173.05	16.078		
12,600.00	7,044.93	7,044.19	7,029.34	164.06	35.26	-89.75	-3,441.10	-7,065.07	2,737.08	2,559.08	178.00	15.377		
12,700.00	7,044.54	7,047.45	7,032.60	166.86	35.27	-89.82	-3,441.08	-7,065.17	2,694.79	2,511.82	182.97	14.728		
12,800.00	7,044.15	7,050.74	7,035.89	169.67	35.29	-89.90	-3,441.05	-7,065.27	2,655.59	2,467.64	187.95	14.130		
12,900.00	7,043.75	7,054.06	7,039.20	172.48	35.30	-89.98	-3,441.02	-7,065.37	2,619.62	2,426.73	192.89	13.581		
13,000.00	7,043.36	7,057.39	7,042.53	175.28	35.31	-90.05	-3,440.99	-7,065.47	2,587.02	2,389.23	197.78	13.080		
13,100.00	7,042.97	7,060.75	7,045.89	178.09	35.32	-90.13	-3,440.96	-7,065.58	2,557.91	2,355.32	202.59	12.626		
13,200.00	7,042.57	7,064.14	7,049.27	180.91	35.33	-90.21	-3,440.92	-7,065.68	2,532.41	2,325.14	207.27	12.218		
13,300.00	7,042.18	7,067.54	7,052.68	183.72	35.34	-90.29	-3,440.89	-7,065.79	2,510.63	2,298.83	211.80	11.854		
13,400.00	7,041.79	7,070.97	7,056.11	186.53	35.36	-90.37	-3,440.85	-7,065.89	2,492.68	2,276.53	216.15	11.532		
13,500.00	7,041.39	7,074.43	7,059.56	189.35	35.37	-90.45	-3,440.82	-7,066.00	2,478.63	2,258.35	220.28	11.252		
13,600.00	7,041.00	7,077.91	7,063.04	192.17	35.38	-90.53	-3,440.78	-7,066.11	2,468.55	2,244.39	224.16	11.012		
13,700.00	7,040.61	7,081.42	7,066.55	194.99	35.39	-90.61	-3,440.74	-7,066.22	2,462.49	2,234.72	227.77	10.811		
13,799.58	7,040.22	7,084.94	7,070.06	197.79	35.41	-90.70	-3,440.70	-7,066.33	2,460.47	2,229.40	231.07	10.648 CC		
13,800.00	7,040.21	7,084.95	7,070.08	197.81	35.41	-90.70	-3,440.70	-7,066.33	2,460.47	2,229.39	231.08	10.648		
13,900.00	7,039.82	7,088.51	7,073.64	200.63	35.42	-90.78	-3,440.65	-7,066.44	2,462.52	2,228.44	234.08	10.520 ES		
14,000.00	7,039.43	7,092.09	7,077.22	203.45	35.43	-90.86	-3,440.61	-7,066.55	2,468.61	2,231.87	236.75	10.427		
14,100.00	7,039.03	7,095.70	7,080.82	206.27	35.44	-90.95	-3,440.56	-7,066.67	2,478.73	2,239.65	239.08	10.368		
14,200.00	7,038.64	7,099.34	7,084.46	209.09	35.46	-91.03	-3,440.52	-7,066.78	2,492.81	2,251.75	241.06	10.341 SF		
14,300.00	7,038.25	7,103.00	7,088.12	211.92	35.47	-91.12	-3,440.47	-7,066.90	2,510.80	2,268.09	242.70	10.345		
14,400.00	7,037.86	7,106.69	7,091.81	214.74	35.48	-91.20	-3,440.42	-7,067.02	2,532.60	2,288.59	244.01	10.379		
14,500.00	7,037.46	7,110.41	7,095.53	217.57	35.50	-91.29	-3,440.36	-7,067.14	2,558.13	2,313.14	244.99	10.442		
14,600.00	7,037.07	7,114.16	7,099.27	220.40	35.51	-91.38	-3,440.31	-7,067.26	2,587.27	2,341.61	245.66	10.532		
14,700.00	7,036.68	7,117.93	7,103.04	223.23	35.52	-91.46	-3,440.25	-7,067.38	2,619.90	2,373.87	246.03	10.649		
14,800.00	7,036.28	7,121.73	7,106.84	226.05	35.54	-91.55	-3,440.20	-7,067.50	2,655.89	2,409.76	246.13	10.791		
14,871.88	7,036.00	7,124.49	7,109.59	228.09	35.54	-91.62	-3,440.15	-7,067.59	2,683.77	2,437.73	246.04	10.908		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	67.00	3.28	3.28	-118.21	-4,110.72	-7,661.80	8,695.15					
100.00	100.00	33.00	100.00	3.28	3.33	-118.21	-4,110.72	-7,661.80	8,694.89	8,688.28	6.61	1,314.437		
200.00	200.00	133.00	200.00	3.34	4.38	-118.21	-4,110.72	-7,661.80	8,694.89	8,687.18	7.71	1,127.221		
300.00	300.00	233.00	300.00	3.44	7.18	-118.21	-4,110.72	-7,661.80	8,694.89	8,684.27	10.63	818.246		
400.00	399.98	332.98	399.98	3.60	10.41	51.96	-4,110.72	-7,661.80	8,693.82	8,679.81	14.00	620.786		
500.00	499.84	432.84	499.84	3.79	13.76	52.04	-4,110.72	-7,661.80	8,690.59	8,673.04	17.55	495.290		
600.00	599.45	532.45	599.45	4.02	17.16	52.17	-4,110.72	-7,661.80	8,685.22	8,664.05	21.18	410.156		
700.00	698.70	631.70	698.70	4.29	20.57	52.35	-4,110.72	-7,661.80	8,677.73	8,652.87	24.86	349.116		
800.00	797.70	730.70	797.70	4.59	23.99	52.44	-4,110.72	-7,661.80	8,669.05	8,640.47	28.57	303.386		
900.00	896.69	829.69	896.69	4.92	27.42	52.51	-4,110.72	-7,661.80	8,660.37	8,628.05	32.33	267.904		
1,000.00	995.68	928.68	995.68	5.27	30.85	52.58	-4,110.72	-7,661.80	8,651.72	8,615.61	36.11	239.619		
1,100.00	1,094.68	1,027.68	1,094.68	5.64	34.29	52.66	-4,110.72	-7,661.80	8,643.07	8,603.16	39.91	216.575		
1,200.00	1,193.67	1,126.67	1,193.67	6.03	37.73	52.73	-4,110.72	-7,661.80	8,634.44	8,590.72	43.73	197.462		
1,300.00	1,292.67	1,225.67	1,292.67	6.42	41.17	52.81	-4,110.72	-7,661.80	8,625.83	8,578.27	47.56	181.365		
1,400.00	1,391.66	1,324.66	1,391.66	6.83	44.62	52.88	-4,110.72	-7,661.80	8,617.23	8,565.82	51.41	167.631		
1,500.00	1,490.66	1,423.66	1,490.66	7.25	48.07	52.95	-4,110.72	-7,661.80	8,608.64	8,553.38	55.26	155.783		
1,600.00	1,589.65	1,522.65	1,589.65	7.67	51.51	53.03	-4,110.72	-7,661.80	8,600.07	8,540.95	59.12	145.460		
1,700.00	1,688.64	1,621.64	1,688.64	8.10	54.96	53.10	-4,110.72	-7,661.80	8,591.51	8,528.52	62.99	136.389		
1,800.00	1,787.64	1,720.64	1,787.64	8.53	58.41	53.18	-4,110.72	-7,661.80	8,582.97	8,516.10	66.87	128.357		
1,900.00	1,886.63	1,819.63	1,886.63	8.97	61.86	53.25	-4,110.72	-7,661.80	8,574.45	8,503.70	70.75	121.197		
2,000.00	1,985.63	1,918.63	1,985.63	9.41	65.32	53.33	-4,110.72	-7,661.80	8,565.93	8,491.30	74.63	114.775		
2,100.00	2,084.62	2,017.62	2,084.62	9.85	68.77	53.41	-4,110.72	-7,661.80	8,557.44	8,478.92	78.52	108.984		
2,200.00	2,183.61	2,116.61	2,183.61	10.30	72.22	53.48	-4,110.72	-7,661.80	8,548.96	8,466.54	82.41	103.735		
2,300.00	2,282.61	2,215.61	2,282.61	10.75	75.67	53.56	-4,110.72	-7,661.80	8,540.49	8,454.18	86.31	98.956		
2,400.00	2,381.60	2,314.60	2,381.60	11.20	79.13	53.63	-4,110.72	-7,661.80	8,532.04	8,441.83	90.20	94.588		
2,500.00	2,480.60	2,413.60	2,480.60	11.66	82.58	53.71	-4,110.72	-7,661.80	8,523.60	8,429.50	94.10	90.580		
2,600.00	2,579.59	2,512.59	2,579.59	12.11	86.03	53.78	-4,110.72	-7,661.80	8,515.18	8,417.18	98.00	86.889		
2,700.00	2,678.58	2,611.58	2,678.58	12.57	89.49	53.86	-4,110.72	-7,661.80	8,506.77	8,404.87	101.90	83.479		
2,800.00	2,777.58	2,710.58	2,777.58	13.02	92.94	53.94	-4,110.72	-7,661.80	8,498.38	8,392.57	105.81	80.319		
2,900.00	2,876.57	2,809.57	2,876.57	13.48	96.39	54.01	-4,110.72	-7,661.80	8,490.00	8,380.29	109.71	77.384		
3,000.00	2,975.57	2,908.57	2,975.57	13.94	99.85	54.09	-4,110.72	-7,661.80	8,481.64	8,368.03	113.62	74.650		
3,100.00	3,074.56	3,007.56	3,074.56	14.40	103.30	54.17	-4,110.72	-7,661.80	8,473.30	8,355.77	117.53	72.097		
3,200.00	3,173.55	3,106.55	3,173.55	14.87	106.75	54.25	-4,110.72	-7,661.80	8,464.97	8,343.53	121.44	69.708		
3,300.00	3,272.55	3,205.55	3,272.55	15.33	110.21	54.32	-4,110.72	-7,661.80	8,456.65	8,331.31	125.35	67.467		
3,400.00	3,371.54	3,304.54	3,371.54	15.79	113.66	54.40	-4,110.72	-7,661.80	8,448.36	8,319.10	129.26	65.361		
3,500.00	3,470.54	3,403.54	3,470.54	16.26	117.12	54.48	-4,110.72	-7,661.80	8,440.07	8,306.91	133.17	63.379		
3,600.00	3,569.53	3,502.53	3,569.53	16.72	120.57	54.56	-4,110.72	-7,661.80	8,431.81	8,294.73	137.08	61.510		
3,700.00	3,668.53	3,601.53	3,668.53	17.19	124.03	54.63	-4,110.72	-7,661.80	8,423.55	8,282.56	140.99	59.745		
3,800.00	3,767.52	3,700.52	3,767.52	17.65	127.48	54.71	-4,110.72	-7,661.80	8,415.32	8,270.41	144.91	58.074		
3,900.00	3,866.51	3,800.49	3,866.51	18.12	130.97	54.79	-4,110.72	-7,661.80	8,407.10	8,258.24	148.85	56.479		
4,000.00	3,965.51	3,901.49	3,965.51	18.59	134.50	54.87	-4,110.72	-7,661.80	8,398.89	8,246.05	152.84	54.953		
4,100.00	4,064.50	4,002.50	4,064.50	19.05	138.02	54.95	-4,110.72	-7,661.80	8,390.70	8,233.88	156.82	53.504		
4,200.00	4,163.50	4,103.50	4,163.50	19.52	141.55	55.02	-4,110.72	-7,661.80	8,382.53	8,221.72	160.81	52.127		
4,300.00	4,262.49	4,204.51	4,262.49	19.99	145.07	55.10	-4,110.72	-7,661.80	8,374.37	8,209.58	164.80	50.816		
4,400.00	4,361.48	4,305.52	4,361.48	20.46	148.60	55.18	-4,110.72	-7,661.80	8,366.23	8,197.45	168.78	49.568		
4,500.00	4,460.48	4,406.52	4,460.48	20.92	152.12	55.26	-4,110.72	-7,661.80	8,358.11	8,185.34	172.77	48.377		
4,600.00	4,559.47	4,507.53	4,559.47	21.39	155.65	55.34	-4,110.72	-7,661.80	8,350.00	8,173.24	176.76	47.240		
4,700.00	4,658.47	4,608.53	4,658.47	21.86	159.17	55.42	-4,110.72	-7,661.80	8,341.90	8,161.16	180.75	46.153		
4,800.00	4,757.46	4,709.54	4,757.46	22.33	162.70	55.50	-4,110.72	-7,661.80	8,333.83	8,149.09	184.73	45.112		
4,900.00	4,856.45	4,789.45	4,856.45	22.80	166.49	55.58	-4,110.72	-7,661.80	8,325.77	8,137.78	188.99	44.289		
5,000.00	4,955.45	4,888.45	4,955.45	23.27	168.94	55.66	-4,110.72	-7,661.80	8,317.72	8,125.82	191.91	43.343		
5,100.00	5,054.44	4,987.44	5,054.44	23.74	172.40	55.74	-4,110.72	-7,661.80	8,309.70	8,113.87	195.83	42.434		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,086.44	5,153.44	24.21	175.85	55.82	-4,110.72	-7,661.80	8,301.68	8,101.94	199.74	41.562		
5,300.00	5,252.43	5,185.43	5,252.43	24.68	179.31	55.90	-4,110.72	-7,661.80	8,293.69	8,090.02	203.66	40.722		
5,400.00	5,351.42	5,284.42	5,351.42	25.15	182.76	55.98	-4,110.72	-7,661.80	8,285.71	8,078.13	207.58	39.915		
5,500.00	5,450.42	5,383.42	5,450.42	25.62	186.22	56.06	-4,110.72	-7,661.80	8,277.75	8,066.24	211.50	39.138		
5,600.00	5,549.41	5,482.41	5,549.41	26.09	189.67	56.14	-4,110.72	-7,661.80	8,269.80	8,054.38	215.42	38.388		
5,700.00	5,648.41	5,581.41	5,648.41	26.56	193.13	56.22	-4,110.72	-7,661.80	8,261.87	8,042.53	219.35	37.666		
5,800.00	5,747.40	5,680.40	5,747.40	27.03	196.59	56.30	-4,110.72	-7,661.80	8,253.96	8,030.69	223.27	36.969		
5,900.00	5,846.40	5,779.40	5,846.40	27.51	200.04	56.38	-4,110.72	-7,661.80	8,246.06	8,018.88	227.19	36.296		
6,000.00	5,945.39	5,878.39	5,945.39	27.98	203.50	56.47	-4,110.72	-7,661.80	8,238.18	8,007.08	231.11	35.646		
6,100.00	6,044.38	5,977.38	6,044.38	28.45	206.95	56.55	-4,110.72	-7,661.80	8,230.32	7,995.29	235.03	35.018		
6,200.00	6,143.38	6,076.38	6,143.38	28.92	210.41	56.63	-4,110.72	-7,661.80	8,222.48	7,983.53	238.95	34.411		
6,300.00	6,242.37	6,175.37	6,242.37	29.39	213.86	56.71	-4,110.72	-7,661.80	8,214.65	7,971.77	242.87	33.823		
6,400.00	6,341.37	6,274.37	6,341.37	29.86	217.32	56.79	-4,110.72	-7,661.80	8,206.84	7,960.04	246.80	33.254		
6,500.00	6,440.36	6,373.36	6,440.36	30.34	220.77	56.88	-4,110.72	-7,661.80	8,199.04	7,948.32	250.72	32.702		
6,600.00	6,538.90	6,471.90	6,538.90	30.80	224.21	17.08	-4,110.72	-7,661.80	8,185.49	7,930.88	254.62	32.148		
6,700.00	6,634.88	6,567.88	6,634.88	31.25	227.56	-0.42	-4,110.72	-7,661.80	8,157.94	7,899.54	258.40	31.571		
6,800.00	6,725.92	6,658.92	6,725.92	31.68	230.74	-9.12	-4,110.72	-7,661.80	8,116.97	7,855.00	261.97	30.984		
6,900.00	6,809.79	6,742.79	6,809.79	32.07	233.67	-15.45	-4,110.72	-7,661.80	8,063.60	7,798.36	265.24	30.401		
7,000.00	6,884.42	6,817.42	6,884.42	32.43	236.27	-21.63	-4,110.72	-7,661.80	7,999.17	7,731.03	268.14	29.832		
7,100.00	6,947.98	6,880.98	6,947.98	32.77	238.49	-28.99	-4,110.72	-7,661.80	7,925.31	7,654.72	270.59	29.289		
7,200.00	6,998.89	6,931.89	6,998.89	33.18	240.27	-38.83	-4,110.72	-7,661.80	7,843.87	7,571.32	272.55	28.780		
7,300.00	7,035.91	6,968.91	7,035.91	33.76	241.56	-52.60	-4,110.72	-7,661.80	7,756.92	7,482.95	273.97	28.313		
7,400.00	7,058.12	7,008.88	7,058.12	34.61	242.96	-70.89	-4,110.72	-7,661.80	7,666.65	7,391.18	275.48	27.831		
7,500.00	7,064.98	7,002.02	7,064.98	35.68	242.72	-90.50	-4,110.72	-7,661.80	7,575.35	7,300.01	275.34	27.513		
7,600.00	7,064.59	7,002.41	7,064.59	36.95	242.73	-90.49	-4,110.72	-7,661.80	7,484.37	7,208.89	275.48	27.168		
7,700.00	7,064.20	7,002.80	7,064.20	38.40	242.74	-90.48	-4,110.72	-7,661.80	7,393.63	7,117.94	275.68	26.819		
7,800.00	7,063.80	7,003.20	7,063.80	40.00	242.76	-90.48	-4,110.72	-7,661.80	7,303.12	7,027.18	275.94	26.466		
7,900.00	7,063.41	7,003.59	7,063.41	41.75	242.77	-90.47	-4,110.72	-7,661.80	7,212.87	6,936.61	276.26	26.109		
8,000.00	7,063.02	7,003.98	7,063.02	43.62	242.79	-90.46	-4,110.72	-7,661.80	7,122.88	6,846.23	276.65	25.747		
8,100.00	7,062.62	7,004.38	7,062.62	45.59	242.80	-90.45	-4,110.72	-7,661.80	7,033.16	6,756.06	277.10	25.382		
8,200.00	7,062.23	7,004.77	7,062.23	47.65	242.81	-90.45	-4,110.72	-7,661.80	6,943.72	6,666.10	277.61	25.012		
8,300.00	7,061.84	7,005.16	7,061.84	49.79	242.83	-90.44	-4,110.72	-7,661.80	6,854.57	6,576.37	278.20	24.639		
8,400.00	7,061.45	7,005.56	7,061.45	52.00	242.84	-90.43	-4,110.72	-7,661.80	6,765.73	6,486.86	278.86	24.262		
8,500.00	7,061.05	7,005.95	7,061.05	54.27	242.85	-90.43	-4,110.72	-7,661.80	6,677.20	6,397.60	279.60	23.881		
8,600.00	7,060.66	7,006.34	7,060.66	56.60	242.87	-90.42	-4,110.72	-7,661.80	6,588.99	6,308.59	280.41	23.498		
8,700.00	7,060.27	7,006.73	7,060.27	58.97	242.88	-90.41	-4,110.72	-7,661.80	6,501.13	6,219.84	281.30	23.111		
8,800.00	7,059.87	7,007.13	7,059.87	61.38	242.90	-90.40	-4,110.72	-7,661.80	6,413.63	6,131.37	282.26	22.722		
8,900.00	7,059.48	7,007.52	7,059.48	63.83	242.91	-90.40	-4,110.72	-7,661.80	6,326.49	6,043.19	283.31	22.331		
9,000.00	7,059.09	7,007.91	7,059.09	66.32	242.92	-90.39	-4,110.72	-7,661.80	6,239.75	5,955.31	284.43	21.938		
9,100.00	7,058.69	7,008.31	7,058.69	68.83	242.94	-90.38	-4,110.72	-7,661.80	6,153.40	5,867.76	285.64	21.543		
9,200.00	7,058.30	7,008.70	7,058.30	71.37	242.95	-90.37	-4,110.72	-7,661.80	6,067.47	5,780.55	286.93	21.146		
9,300.00	7,057.91	7,009.09	7,057.91	73.93	242.96	-90.37	-4,110.72	-7,661.80	5,981.98	5,693.68	288.30	20.749		
9,400.00	7,057.51	7,009.49	7,057.51	76.51	242.98	-90.36	-4,110.72	-7,661.80	5,896.95	5,607.19	289.76	20.351		
9,500.00	7,057.12	7,009.88	7,057.12	79.11	242.99	-90.35	-4,110.72	-7,661.80	5,812.39	5,521.10	291.30	19.954		
9,600.00	7,056.73	6,989.73	7,056.73	81.73	242.29	-90.35	-4,110.72	-7,661.80	5,728.34	5,436.13	292.20	19.604		
9,700.00	7,056.33	6,989.33	7,056.33	84.37	242.27	-90.34	-4,110.72	-7,661.80	5,644.80	5,350.91	293.89	19.207		
9,800.00	7,055.94	6,988.94	7,055.94	87.01	242.26	-90.33	-4,110.72	-7,661.80	5,561.80	5,266.14	295.66	18.812		
9,900.00	7,055.55	6,988.55	7,055.55	89.68	242.25	-90.32	-4,110.72	-7,661.80	5,479.37	5,181.86	297.52	18.417		
10,000.00	7,055.15	6,988.15	7,055.15	92.35	242.23	-90.32	-4,110.72	-7,661.80	5,397.54	5,098.08	299.46	18.024		
10,100.00	7,054.76	6,987.76	7,054.76	95.03	242.22	-90.31	-4,110.72	-7,661.80	5,316.32	5,014.83	301.50	17.633		
10,200.00	7,054.37	6,987.37	7,054.37	97.73	242.21	-90.30	-4,110.72	-7,661.80	5,235.76	4,932.14	303.62	17.244		
10,300.00	7,053.98	6,986.98	7,053.98	100.43	242.19	-90.30	-4,110.72	-7,661.80	5,155.88	4,850.04	305.84	16.858		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	6,986.58	7,053.58	103.14	242.18	-90.29	-4,110.72	-7,661.80	5,076.71	4,768.56	308.15	16.475		
10,500.00	7,053.19	6,986.19	7,053.19	105.86	242.17	-90.28	-4,110.72	-7,661.80	4,998.29	4,687.74	310.55	16.095		
10,600.00	7,052.80	6,985.80	7,052.80	108.59	242.15	-90.27	-4,110.72	-7,661.80	4,920.65	4,607.60	313.05	15.719		
10,700.00	7,052.40	6,985.40	7,052.40	111.32	242.14	-90.27	-4,110.72	-7,661.80	4,843.83	4,528.19	315.64	15.346		
10,800.00	7,052.01	6,985.01	7,052.01	114.06	242.12	-90.26	-4,110.72	-7,661.80	4,767.87	4,449.54	318.32	14.978		
10,900.00	7,051.62	6,984.62	7,051.62	116.80	242.11	-90.25	-4,110.72	-7,661.80	4,692.81	4,371.70	321.11	14.614		
11,000.00	7,051.22	6,984.22	7,051.22	119.55	242.10	-90.25	-4,110.72	-7,661.80	4,618.70	4,294.70	323.99	14.256		
11,100.00	7,050.83	6,983.83	7,050.83	122.31	242.08	-90.24	-4,110.72	-7,661.80	4,545.57	4,218.60	326.97	13.902		
11,200.00	7,050.44	6,983.44	7,050.44	125.07	242.07	-90.23	-4,110.72	-7,661.80	4,473.49	4,143.44	330.06	13.554		
11,300.00	7,050.04	6,983.04	7,050.04	127.83	242.06	-90.22	-4,110.72	-7,661.80	4,402.50	4,069.27	333.24	13.211		
11,400.00	7,049.65	6,982.65	7,049.65	130.60	242.04	-90.22	-4,110.72	-7,661.80	4,332.66	3,996.14	336.52	12.875		
11,500.00	7,049.26	6,982.26	7,049.26	133.37	242.03	-90.21	-4,110.72	-7,661.80	4,264.01	3,924.12	339.90	12.545		
11,600.00	7,048.86	6,981.86	7,048.86	136.15	242.01	-90.20	-4,110.72	-7,661.80	4,196.63	3,853.25	343.38	12.222		
11,700.00	7,048.47	6,981.47	7,048.47	138.93	242.00	-90.19	-4,110.72	-7,661.80	4,130.57	3,783.61	346.95	11.905		
11,800.00	7,048.08	6,981.08	7,048.08	141.71	241.99	-90.19	-4,110.72	-7,661.80	4,065.89	3,715.27	350.63	11.596		
11,900.00	7,047.68	6,980.68	7,047.68	144.49	241.97	-90.18	-4,110.72	-7,661.80	4,002.67	3,648.27	354.40	11.294		
12,000.00	7,047.29	6,980.29	7,047.29	147.28	241.96	-90.17	-4,110.72	-7,661.80	3,940.97	3,582.72	358.26	11.000		
12,100.00	7,046.90	6,979.90	7,046.90	150.07	241.95	-90.17	-4,110.72	-7,661.80	3,880.87	3,518.66	362.21	10.715		
12,200.00	7,046.51	6,979.51	7,046.51	152.87	241.93	-90.16	-4,110.72	-7,661.80	3,822.44	3,456.20	366.24	10.437		
12,300.00	7,046.11	6,979.11	7,046.11	155.66	241.92	-90.15	-4,110.72	-7,661.80	3,765.76	3,395.40	370.36	10.168		
12,400.00	7,045.72	6,978.72	7,045.72	158.46	241.90	-90.14	-4,110.72	-7,661.80	3,710.90	3,336.36	374.55	9.908		
12,500.00	7,045.33	6,978.33	7,045.33	161.26	241.89	-90.14	-4,110.72	-7,661.80	3,657.96	3,279.16	378.80	9.657		
12,600.00	7,044.93	6,977.93	7,044.93	164.06	241.88	-90.13	-4,110.72	-7,661.80	3,607.02	3,223.90	383.12	9.415		
12,700.00	7,044.54	6,977.54	7,044.54	166.86	241.86	-90.12	-4,110.72	-7,661.80	3,558.16	3,170.67	387.49	9.183		
12,800.00	7,044.15	6,977.15	7,044.15	169.67	241.85	-90.12	-4,110.72	-7,661.80	3,511.46	3,119.56	391.90	8.960		
12,900.00	7,043.75	6,976.75	7,043.75	172.48	241.84	-90.11	-4,110.72	-7,661.80	3,467.02	3,070.69	396.34	8.748		
13,000.00	7,043.36	6,976.36	7,043.36	175.28	241.82	-90.10	-4,110.72	-7,661.80	3,424.93	3,024.13	400.80	8.545		
13,100.00	7,042.97	6,975.97	7,042.97	178.09	241.81	-90.09	-4,110.72	-7,661.80	3,385.27	2,980.01	405.26	8.353		
13,200.00	7,042.57	6,975.57	7,042.57	180.91	241.79	-90.09	-4,110.72	-7,661.80	3,348.12	2,938.41	409.71	8.172		
13,300.00	7,042.18	6,975.18	7,042.18	183.72	241.78	-90.08	-4,110.72	-7,661.80	3,313.58	2,899.44	414.14	8.001		
13,400.00	7,041.79	6,974.79	7,041.79	186.53	241.77	-90.07	-4,110.72	-7,661.80	3,281.72	2,863.20	418.52	7.841		
13,500.00	7,041.39	6,974.39	7,041.39	189.35	241.75	-90.06	-4,110.72	-7,661.80	3,252.62	2,829.77	422.85	7.692		
13,600.00	7,041.00	6,974.00	7,041.00	192.17	241.74	-90.06	-4,110.72	-7,661.80	3,226.37	2,799.27	427.10	7.554		
13,700.00	7,040.61	6,973.61	7,040.61	194.99	241.73	-90.05	-4,110.72	-7,661.80	3,203.02	2,771.76	431.26	7.427		
13,800.00	7,040.21	6,973.21	7,040.21	197.81	241.71	-90.04	-4,110.72	-7,661.80	3,182.64	2,747.34	435.31	7.311		
13,900.00	7,039.82	6,972.82	7,039.82	200.63	241.70	-90.04	-4,110.72	-7,661.80	3,165.30	2,726.07	439.23	7.207		
14,000.00	7,039.43	6,972.43	7,039.43	203.45	241.68	-90.03	-4,110.72	-7,661.80	3,151.03	2,708.03	443.00	7.113		
14,100.00	7,039.03	6,972.03	7,039.03	206.27	241.67	-90.02	-4,110.72	-7,661.80	3,139.88	2,693.27	446.61	7.030		
14,200.00	7,038.64	6,971.64	7,038.64	209.09	241.66	-90.01	-4,110.72	-7,661.80	3,131.89	2,681.84	450.05	6.959		
14,300.00	7,038.25	6,971.25	7,038.25	211.92	241.64	-90.01	-4,110.72	-7,661.80	3,127.08	2,673.79	453.29	6.899		
14,400.00	7,037.86	6,970.86	7,037.86	214.74	241.63	-90.00	-4,110.72	-7,661.80	3,125.46	2,669.13	456.34	6.849		
14,400.59	7,037.85	6,970.85	7,037.85	214.76	241.63	-90.00	-4,110.72	-7,661.80	3,125.46	2,669.11	456.35	6.849 CC		
14,500.00	7,037.46	6,970.46	7,037.46	217.57	241.62	-89.99	-4,110.72	-7,661.80	3,127.04	2,667.88	459.17	6.810 ES		
14,600.00	7,037.07	6,970.07	7,037.07	220.40	241.60	-89.99	-4,110.72	-7,661.80	3,131.82	2,670.04	461.78	6.782		
14,700.00	7,036.68	6,969.68	7,036.68	223.23	241.59	-89.98	-4,110.72	-7,661.80	3,139.77	2,675.61	464.16	6.764		
14,800.00	7,036.28	6,969.28	7,036.28	226.05	241.57	-89.97	-4,110.72	-7,661.80	3,150.88	2,684.57	466.31	6.757 SF		
14,871.88	7,036.00	6,969.00	7,036.00	228.09	241.57	-89.97	-4,110.72	-7,661.80	3,160.80	2,693.08	467.71	6.758		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	52.00	3.28	3.28	-107.31	-2,793.32	-8,962.11	9,387.48					
100.00	100.00	48.00	100.00	3.28	3.39	-107.31	-2,793.32	-8,962.11	9,387.34	9,380.67	6.67	1,407.388		
200.00	200.00	148.00	200.00	3.34	4.74	-107.31	-2,793.32	-8,962.11	9,387.34	9,379.26	8.08	1,162.298		
300.00	300.00	248.00	300.00	3.44	7.65	-107.31	-2,793.32	-8,962.11	9,387.34	9,376.24	11.10	846.024		
400.00	399.98	347.98	399.98	3.60	10.91	62.86	-2,793.32	-8,962.11	9,386.54	9,372.04	14.50	647.231		
500.00	499.84	447.84	499.84	3.79	14.27	62.93	-2,793.32	-8,962.11	9,384.15	9,366.10	18.05	519.757		
600.00	599.45	547.45	599.45	4.02	17.67	63.05	-2,793.32	-8,962.11	9,380.18	9,358.50	21.69	432.494		
700.00	698.70	646.70	698.70	4.29	21.09	63.22	-2,793.32	-8,962.11	9,374.64	9,349.27	25.37	369.481		
800.00	797.70	745.70	797.70	4.59	24.51	63.30	-2,793.32	-8,962.11	9,368.23	9,339.14	29.09	322.002		
900.00	896.69	844.69	896.69	4.92	27.94	63.38	-2,793.32	-8,962.11	9,361.83	9,328.98	32.85	284.989		
1,000.00	995.68	943.68	995.68	5.27	31.37	63.46	-2,793.32	-8,962.11	9,355.45	9,318.82	36.63	255.380		
1,100.00	1,094.68	1,042.68	1,094.68	5.64	34.81	63.53	-2,793.32	-8,962.11	9,349.08	9,308.64	40.44	231.189		
1,200.00	1,193.67	1,141.67	1,193.67	6.03	38.25	63.61	-2,793.32	-8,962.11	9,342.74	9,298.47	44.26	211.076		
1,300.00	1,292.67	1,240.67	1,292.67	6.42	41.70	63.69	-2,793.32	-8,962.11	9,336.40	9,288.30	48.10	194.104		
1,400.00	1,391.66	1,339.66	1,391.66	6.83	45.14	63.76	-2,793.32	-8,962.11	9,330.09	9,278.14	51.95	179.601		
1,500.00	1,490.66	1,438.66	1,490.66	7.25	48.59	63.84	-2,793.32	-8,962.11	9,323.79	9,267.98	55.81	167.070		
1,600.00	1,589.65	1,537.65	1,589.65	7.67	52.04	63.92	-2,793.32	-8,962.11	9,317.51	9,257.84	59.67	156.139		
1,700.00	1,688.64	1,636.64	1,688.64	8.10	55.49	64.00	-2,793.32	-8,962.11	9,311.25	9,247.70	63.55	146.523		
1,800.00	1,787.64	1,735.64	1,787.64	8.53	58.94	64.07	-2,793.32	-8,962.11	9,305.01	9,237.58	67.43	138.001		
1,900.00	1,886.63	1,834.63	1,886.63	8.97	62.39	64.15	-2,793.32	-8,962.11	9,298.78	9,227.47	71.31	130.397		
2,000.00	1,985.63	1,933.63	1,985.63	9.41	65.84	64.23	-2,793.32	-8,962.11	9,292.57	9,217.37	75.20	123.572		
2,100.00	2,084.62	2,032.62	2,084.62	9.85	69.29	64.31	-2,793.32	-8,962.11	9,286.37	9,207.28	79.09	117.413		
2,200.00	2,183.61	2,131.61	2,183.61	10.30	72.74	64.39	-2,793.32	-8,962.11	9,280.20	9,197.21	82.99	111.828		
2,300.00	2,282.61	2,230.61	2,282.61	10.75	76.20	64.46	-2,793.32	-8,962.11	9,274.04	9,187.16	86.88	106.740		
2,400.00	2,381.60	2,329.60	2,381.60	11.20	79.65	64.54	-2,793.32	-8,962.11	9,267.90	9,177.11	90.78	102.086		
2,500.00	2,480.60	2,428.60	2,480.60	11.66	83.10	64.62	-2,793.32	-8,962.11	9,261.78	9,167.09	94.69	97.814		
2,600.00	2,579.59	2,527.59	2,579.59	12.11	86.56	64.70	-2,793.32	-8,962.11	9,255.67	9,157.08	98.59	93.879		
2,700.00	2,678.58	2,626.58	2,678.58	12.57	90.01	64.78	-2,793.32	-8,962.11	9,249.58	9,147.09	102.50	90.242		
2,800.00	2,777.58	2,725.58	2,777.58	13.02	93.46	64.86	-2,793.32	-8,962.11	9,243.51	9,137.11	106.41	86.871		
2,900.00	2,876.57	2,824.57	2,876.57	13.48	96.92	64.93	-2,793.32	-8,962.11	9,237.46	9,127.15	110.31	83.737		
3,000.00	2,975.57	2,923.57	2,975.57	13.94	100.37	65.01	-2,793.32	-8,962.11	9,231.43	9,117.20	114.23	80.818		
3,100.00	3,074.56	3,022.56	3,074.56	14.40	103.82	65.09	-2,793.32	-8,962.11	9,225.41	9,107.27	118.14	78.091		
3,200.00	3,173.55	3,121.55	3,173.55	14.87	107.28	65.17	-2,793.32	-8,962.11	9,219.41	9,097.36	122.05	75.538		
3,300.00	3,272.55	3,220.55	3,272.55	15.33	110.73	65.25	-2,793.32	-8,962.11	9,213.43	9,087.46	125.96	73.144		
3,400.00	3,371.54	3,319.54	3,371.54	15.79	114.19	65.33	-2,793.32	-8,962.11	9,207.46	9,077.59	129.88	70.894		
3,500.00	3,470.54	3,418.54	3,470.54	16.26	117.64	65.41	-2,793.32	-8,962.11	9,201.52	9,067.73	133.79	68.775		
3,600.00	3,569.53	3,517.53	3,569.53	16.72	121.10	65.49	-2,793.32	-8,962.11	9,195.59	9,057.88	137.71	66.776		
3,700.00	3,668.53	3,616.53	3,668.53	17.19	124.55	65.57	-2,793.32	-8,962.11	9,189.68	9,048.06	141.62	64.888		
3,800.00	3,767.52	3,715.52	3,767.52	17.65	128.01	65.65	-2,793.32	-8,962.11	9,183.79	9,038.25	145.54	63.101		
3,900.00	3,866.51	3,814.51	3,866.51	18.12	131.46	65.73	-2,793.32	-8,962.11	9,177.91	9,028.45	149.46	61.407		
4,000.00	3,965.51	3,913.51	3,965.51	18.59	134.92	65.81	-2,793.32	-8,962.11	9,172.06	9,018.68	153.38	59.800		
4,100.00	4,064.50	4,012.50	4,064.50	19.05	138.37	65.89	-2,793.32	-8,962.11	9,166.22	9,008.92	157.30	58.273		
4,200.00	4,163.50	4,111.50	4,163.50	19.52	141.83	65.97	-2,793.32	-8,962.11	9,160.40	8,999.18	161.22	56.821		
4,300.00	4,262.49	4,210.49	4,262.49	19.99	145.28	66.05	-2,793.32	-8,962.11	9,154.60	8,989.46	165.14	55.437		
4,400.00	4,361.48	4,309.48	4,361.48	20.46	148.74	66.13	-2,793.32	-8,962.11	9,148.82	8,979.76	169.06	54.117		
4,500.00	4,460.48	4,408.48	4,460.48	20.92	152.19	66.21	-2,793.32	-8,962.11	9,143.05	8,970.07	172.98	52.857		
4,600.00	4,559.47	4,507.47	4,559.47	21.39	155.65	66.29	-2,793.32	-8,962.11	9,137.30	8,960.41	176.90	51.653		
4,700.00	4,658.47	4,606.47	4,658.47	21.86	159.10	66.37	-2,793.32	-8,962.11	9,131.58	8,950.76	180.82	50.501		
4,800.00	4,757.46	4,705.46	4,757.46	22.33	162.56	66.45	-2,793.32	-8,962.11	9,125.87	8,941.13	184.74	49.398		
4,900.00	4,856.45	4,804.45	4,856.45	22.80	166.01	66.53	-2,793.32	-8,962.11	9,120.17	8,931.51	188.66	48.341		
5,000.00	4,955.45	4,903.45	4,955.45	23.27	169.47	66.61	-2,793.32	-8,962.11	9,114.50	8,921.92	192.59	47.327		
5,100.00	5,054.44	5,002.44	5,054.44	23.74	172.92	66.69	-2,793.32	-8,962.11	9,108.85	8,912.34	196.51	46.354		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,101.44	5,153.44	24.21	176.38	66.77	-2,793.32	-8,962.11	9,103.21	8,902.78	200.43	45.418		
5,300.00	5,252.43	5,200.43	5,252.43	24.68	179.83	66.86	-2,793.32	-8,962.11	9,097.59	8,893.24	204.35	44.519		
5,400.00	5,351.42	5,300.58	5,351.42	25.15	183.33	66.94	-2,793.32	-8,962.11	9,091.99	8,883.68	208.32	43.645		
5,500.00	5,450.42	5,401.58	5,450.42	25.62	186.85	67.02	-2,793.32	-8,962.11	9,086.41	8,874.10	212.31	42.798		
5,600.00	5,549.41	5,502.59	5,549.41	26.09	190.38	67.10	-2,793.32	-8,962.11	9,080.85	8,864.55	216.30	41.982		
5,700.00	5,648.41	5,603.59	5,648.41	26.56	193.90	67.18	-2,793.32	-8,962.11	9,075.31	8,855.01	220.30	41.195		
5,800.00	5,747.40	5,704.60	5,747.40	27.03	197.43	67.26	-2,793.32	-8,962.11	9,069.78	8,845.49	224.29	40.437		
5,900.00	5,846.40	5,805.61	5,846.40	27.51	200.96	67.34	-2,793.32	-8,962.11	9,064.28	8,835.99	228.29	39.705		
6,000.00	5,945.39	5,906.61	5,945.39	27.98	204.48	67.43	-2,793.32	-8,962.11	9,058.79	8,826.51	232.28	38.999		
6,100.00	6,044.38	6,007.62	6,044.38	28.45	208.01	67.51	-2,793.32	-8,962.11	9,053.32	8,817.04	236.28	38.316		
6,200.00	6,143.38	6,108.62	6,143.38	28.92	211.53	67.59	-2,793.32	-8,962.11	9,047.87	8,807.60	240.27	37.657		
6,300.00	6,242.37	6,209.63	6,242.37	29.39	215.06	67.67	-2,793.32	-8,962.11	9,042.44	8,798.17	244.27	37.018		
6,400.00	6,341.37	6,289.37	6,341.37	29.86	217.84	67.76	-2,793.32	-8,962.11	9,037.03	8,789.51	247.52	36.510		
6,500.00	6,440.36	6,388.36	6,440.36	30.34	221.30	67.84	-2,793.32	-8,962.11	9,031.63	8,780.19	251.45	35.919		
6,600.00	6,538.90	6,486.90	6,538.90	30.80	224.74	28.30	-2,793.32	-8,962.11	9,020.12	8,764.77	255.35	35.324		
6,700.00	6,634.88	6,582.88	6,634.88	31.25	228.09	11.35	-2,793.32	-8,962.11	8,993.64	8,734.50	259.14	34.706		
6,800.00	6,725.92	6,673.92	6,725.92	31.68	231.26	3.52	-2,793.32	-8,962.11	8,952.77	8,690.05	262.72	34.077		
6,900.00	6,809.79	6,757.79	6,809.79	32.07	234.19	-1.53	-2,793.32	-8,962.11	8,898.50	8,632.50	266.00	33.453		
7,000.00	6,884.42	6,832.42	6,884.42	32.43	236.80	-5.89	-2,793.32	-8,962.11	8,832.18	8,563.27	268.91	32.845		
7,100.00	6,947.98	6,904.02	6,947.98	32.77	239.30	-10.81	-2,793.32	-8,962.11	8,755.43	8,483.79	271.64	32.232		
7,200.00	6,998.89	6,946.89	6,998.89	33.18	240.79	-17.72	-2,793.32	-8,962.11	8,670.15	8,396.85	273.30	31.724		
7,300.00	7,035.91	6,983.91	7,035.91	33.76	242.09	-29.59	-2,793.32	-8,962.11	8,578.47	8,303.77	274.70	31.229		
7,400.00	7,058.12	7,006.12	7,058.12	34.61	242.86	-53.15	-2,793.32	-8,962.11	8,482.64	8,207.12	275.52	30.787		
7,500.00	7,064.98	7,012.98	7,064.98	35.68	243.10	-91.03	-2,793.32	-8,962.11	8,385.06	8,109.29	275.77	30.406		
7,600.00	7,064.59	7,012.59	7,064.59	36.95	243.09	-91.01	-2,793.32	-8,962.11	8,287.41	8,011.65	275.76	30.053		
7,700.00	7,064.20	7,012.20	7,064.20	38.40	243.07	-91.00	-2,793.32	-8,962.11	8,189.82	7,914.06	275.76	29.699		
7,800.00	7,063.80	7,011.80	7,063.80	40.00	243.06	-90.99	-2,793.32	-8,962.11	8,092.29	7,816.51	275.78	29.343		
7,900.00	7,063.41	7,011.41	7,063.41	41.75	243.05	-90.98	-2,793.32	-8,962.11	7,994.82	7,719.01	275.82	28.986		
8,000.00	7,063.02	7,011.02	7,063.02	43.62	243.03	-90.96	-2,793.32	-8,962.11	7,897.41	7,621.55	275.87	28.627		
8,100.00	7,062.62	7,010.62	7,062.62	45.59	243.02	-90.95	-2,793.32	-8,962.11	7,800.07	7,524.13	275.94	28.267		
8,200.00	7,062.23	7,010.23	7,062.23	47.65	243.00	-90.94	-2,793.32	-8,962.11	7,702.80	7,426.77	276.03	27.905		
8,300.00	7,061.84	7,009.84	7,061.84	49.79	242.99	-90.93	-2,793.32	-8,962.11	7,605.60	7,329.45	276.15	27.542		
8,400.00	7,061.45	7,009.45	7,061.45	52.00	242.98	-90.91	-2,793.32	-8,962.11	7,508.47	7,232.19	276.28	27.177		
8,500.00	7,061.05	7,009.05	7,061.05	54.27	242.96	-90.90	-2,793.32	-8,962.11	7,411.42	7,134.97	276.44	26.810		
8,600.00	7,060.66	7,008.66	7,060.66	56.60	242.95	-90.89	-2,793.32	-8,962.11	7,314.44	7,037.82	276.63	26.441		
8,700.00	7,060.27	7,008.27	7,060.27	58.97	242.94	-90.88	-2,793.32	-8,962.11	7,217.55	6,940.71	276.84	26.071		
8,800.00	7,059.87	7,007.87	7,059.87	61.38	242.92	-90.86	-2,793.32	-8,962.11	7,120.75	6,843.67	277.08	25.699		
8,900.00	7,059.48	7,007.48	7,059.48	63.83	242.91	-90.85	-2,793.32	-8,962.11	7,024.03	6,746.69	277.35	25.326		
9,000.00	7,059.09	7,007.09	7,059.09	66.32	242.89	-90.84	-2,793.32	-8,962.11	6,927.41	6,649.76	277.65	24.950		
9,100.00	7,058.69	7,006.69	7,058.69	68.83	242.88	-90.83	-2,793.32	-8,962.11	6,830.89	6,552.91	277.98	24.573		
9,200.00	7,058.30	7,006.30	7,058.30	71.37	242.87	-90.81	-2,793.32	-8,962.11	6,734.46	6,456.12	278.34	24.195		
9,300.00	7,057.91	7,005.91	7,057.91	73.93	242.85	-90.80	-2,793.32	-8,962.11	6,638.15	6,359.40	278.75	23.814		
9,400.00	7,057.51	7,005.51	7,057.51	76.51	242.84	-90.79	-2,793.32	-8,962.11	6,541.94	6,262.75	279.19	23.432		
9,500.00	7,057.12	7,005.12	7,057.12	79.11	242.83	-90.78	-2,793.32	-8,962.11	6,445.85	6,166.18	279.67	23.048		
9,600.00	7,056.73	7,004.73	7,056.73	81.73	242.81	-90.76	-2,793.32	-8,962.11	6,349.88	6,069.69	280.18	22.663		
9,700.00	7,056.33	7,004.33	7,056.33	84.37	242.80	-90.75	-2,793.32	-8,962.11	6,254.03	5,973.28	280.75	22.276		
9,800.00	7,055.94	7,003.94	7,055.94	87.01	242.78	-90.74	-2,793.32	-8,962.11	6,158.32	5,876.96	281.35	21.888		
9,900.00	7,055.55	7,003.55	7,055.55	89.68	242.77	-90.73	-2,793.32	-8,962.11	6,062.74	5,780.74	282.01	21.498		
10,000.00	7,055.15	7,003.15	7,055.15	92.35	242.76	-90.71	-2,793.32	-8,962.11	5,967.31	5,684.60	282.71	21.107		
10,100.00	7,054.76	7,002.76	7,054.76	95.03	242.74	-90.70	-2,793.32	-8,962.11	5,872.04	5,588.57	283.46	20.715		
10,200.00	7,054.37	7,002.37	7,054.37	97.73	242.73	-90.69	-2,793.32	-8,962.11	5,776.92	5,492.65	284.27	20.322		
10,300.00	7,053.98	7,001.98	7,053.98	100.43	242.72	-90.68	-2,793.32	-8,962.11	5,681.97	5,396.84	285.13	19.928		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 1-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,053.58	7,001.58	7,053.58	103.14	242.70	-90.66	-2,793.32	-8,962.11	5,587.20	5,301.15	286.05	19.532		
10,500.00	7,053.19	7,001.19	7,053.19	105.86	242.69	-90.65	-2,793.32	-8,962.11	5,492.61	5,205.58	287.03	19.136		
10,600.00	7,052.80	7,000.80	7,052.80	108.59	242.67	-90.64	-2,793.32	-8,962.11	5,398.22	5,110.15	288.06	18.740		
10,700.00	7,052.40	7,000.40	7,052.40	111.32	242.66	-90.63	-2,793.32	-8,962.11	5,304.03	5,014.86	289.17	18.342		
10,800.00	7,052.01	7,000.01	7,052.01	114.06	242.65	-90.61	-2,793.32	-8,962.11	5,210.06	4,919.72	290.34	17.945		
10,900.00	7,051.62	7,000.38	7,051.62	116.80	242.66	-90.60	-2,793.32	-8,962.11	5,116.31	4,824.71	291.61	17.545		
11,000.00	7,051.22	7,000.78	7,051.22	119.55	242.67	-90.59	-2,793.32	-8,962.11	5,022.81	4,729.86	292.95	17.146		
11,100.00	7,050.83	7,001.17	7,050.83	122.31	242.69	-90.58	-2,793.32	-8,962.11	4,929.57	4,635.20	294.36	16.746		
11,200.00	7,050.44	7,001.56	7,050.44	125.07	242.70	-90.56	-2,793.32	-8,962.11	4,836.59	4,540.73	295.86	16.348		
11,300.00	7,050.04	7,001.96	7,050.04	127.83	242.72	-90.55	-2,793.32	-8,962.11	4,743.90	4,446.46	297.44	15.949		
11,400.00	7,049.65	7,002.35	7,049.65	130.60	242.73	-90.54	-2,793.32	-8,962.11	4,651.51	4,352.41	299.10	15.551		
11,500.00	7,049.26	7,002.74	7,049.26	133.37	242.74	-90.53	-2,793.32	-8,962.11	4,559.44	4,258.58	300.86	15.155		
11,600.00	7,048.86	7,003.14	7,048.86	136.15	242.76	-90.51	-2,793.32	-8,962.11	4,467.72	4,165.01	302.71	14.759		
11,700.00	7,048.47	7,003.53	7,048.47	138.93	242.77	-90.50	-2,793.32	-8,962.11	4,376.35	4,071.70	304.66	14.365		
11,800.00	7,048.08	7,003.92	7,048.08	141.71	242.78	-90.49	-2,793.32	-8,962.11	4,285.38	3,978.67	306.71	13.972		
11,900.00	7,047.68	7,004.32	7,047.68	144.49	242.80	-90.47	-2,793.32	-8,962.11	4,194.81	3,885.94	308.87	13.581		
12,000.00	7,047.29	7,004.71	7,047.29	147.28	242.81	-90.46	-2,793.32	-8,962.11	4,104.68	3,793.54	311.14	13.193		
12,100.00	7,046.90	7,005.10	7,046.90	150.07	242.83	-90.45	-2,793.32	-8,962.11	4,015.02	3,701.49	313.53	12.806		
12,200.00	7,046.51	7,005.50	7,046.51	152.87	242.84	-90.44	-2,793.32	-8,962.11	3,925.86	3,609.82	316.04	12.422		
12,300.00	7,046.11	7,005.89	7,046.11	155.66	242.85	-90.42	-2,793.32	-8,962.11	3,837.23	3,518.54	318.69	12.041		
12,400.00	7,045.72	7,006.28	7,045.72	158.46	242.87	-90.41	-2,793.32	-8,962.11	3,749.17	3,427.70	321.47	11.663		
12,500.00	7,045.33	7,006.67	7,045.33	161.26	242.88	-90.40	-2,793.32	-8,962.11	3,661.73	3,337.34	324.40	11.288		
12,600.00	7,044.93	7,007.07	7,044.93	164.06	242.89	-90.39	-2,793.32	-8,962.11	3,574.95	3,247.48	327.47	10.917		
12,700.00	7,044.54	7,007.46	7,044.54	166.86	242.91	-90.37	-2,793.32	-8,962.11	3,488.87	3,158.16	330.71	10.550		
12,800.00	7,044.15	7,007.85	7,044.15	169.67	242.92	-90.36	-2,793.32	-8,962.11	3,403.56	3,069.45	334.11	10.187		
12,900.00	7,043.75	7,008.25	7,043.75	172.48	242.94	-90.35	-2,793.32	-8,962.11	3,319.06	2,981.38	337.68	9.829		
13,000.00	7,043.36	7,008.64	7,043.36	175.28	242.95	-90.34	-2,793.32	-8,962.11	3,235.45	2,894.01	341.44	9.476		
13,100.00	7,042.97	7,009.03	7,042.97	178.09	242.96	-90.32	-2,793.32	-8,962.11	3,152.79	2,807.41	345.39	9.128		
13,200.00	7,042.57	7,009.43	7,042.57	180.91	242.98	-90.31	-2,793.32	-8,962.11	3,071.17	2,721.64	349.53	8.787		
13,300.00	7,042.18	7,009.82	7,042.18	183.72	242.99	-90.30	-2,793.32	-8,962.11	2,990.66	2,636.78	353.88	8.451		
13,400.00	7,041.79	6,989.79	7,041.79	186.53	242.29	-90.29	-2,793.32	-8,962.11	2,911.36	2,553.63	357.73	8.138		
13,500.00	7,041.39	6,989.39	7,041.39	189.35	242.28	-90.27	-2,793.32	-8,962.11	2,833.37	2,470.88	362.49	7.816		
13,600.00	7,041.00	6,989.00	7,041.00	192.17	242.26	-90.26	-2,793.32	-8,962.11	2,756.80	2,389.33	367.48	7.502		
13,700.00	7,040.61	6,988.61	7,040.61	194.99	242.25	-90.25	-2,793.32	-8,962.11	2,681.78	2,309.08	372.70	7.196		
13,800.00	7,040.21	6,988.21	7,040.21	197.81	242.24	-90.24	-2,793.32	-8,962.11	2,608.43	2,230.28	378.15	6.898		
13,900.00	7,039.82	6,987.82	7,039.82	200.63	242.22	-90.22	-2,793.32	-8,962.11	2,536.90	2,153.07	383.84	6.609		
14,000.00	7,039.43	6,987.43	7,039.43	203.45	242.21	-90.21	-2,793.32	-8,962.11	2,467.36	2,077.60	389.76	6.330		
14,100.00	7,039.03	6,987.03	7,039.03	206.27	242.19	-90.20	-2,793.32	-8,962.11	2,399.96	2,004.05	395.91	6.062		
14,200.00	7,038.64	6,986.64	7,038.64	209.09	242.18	-90.19	-2,793.32	-8,962.11	2,334.91	1,932.63	402.27	5.804		
14,300.00	7,038.25	6,986.25	7,038.25	211.92	242.17	-90.17	-2,793.32	-8,962.11	2,272.39	1,863.55	408.84	5.558		
14,400.00	7,037.86	6,985.86	7,037.86	214.74	242.15	-90.16	-2,793.32	-8,962.11	2,212.63	1,797.05	415.58	5.324		
14,500.00	7,037.46	6,985.46	7,037.46	217.57	242.14	-90.15	-2,793.32	-8,962.11	2,155.85	1,733.38	422.47	5.103		
14,600.00	7,037.07	6,985.07	7,037.07	220.40	242.13	-90.14	-2,793.32	-8,962.11	2,102.30	1,672.84	429.46	4.895		
14,700.00	7,036.68	6,984.68	7,036.68	223.23	242.11	-90.12	-2,793.32	-8,962.11	2,052.22	1,615.71	436.51	4.701		
14,800.00	7,036.28	6,984.28	7,036.28	226.05	242.10	-90.11	-2,793.32	-8,962.11	2,005.89	1,562.33	443.56	4.522		
14,871.88	7,036.00	6,984.00	7,036.00	228.09	242.09	-90.10	-2,793.32	-8,962.11	1,975.04	1,526.46	448.58	4.403 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-23-18(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 121-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	35.00	3.28	3.28	-107.06	-2,760.16	-8,994.37	9,408.42					
100.00	100.00	29.36	64.36	3.28	3.28	-107.06	-2,760.23	-8,994.41	9,408.48	9,401.92	6.57	1,433.059		
200.00	200.00	74.53	109.53	3.34	3.28	-107.06	-2,760.58	-8,994.62	9,409.15	9,402.53	6.62	1,421.172		
300.00	300.00	121.00	155.99	3.44	3.29	-107.07	-2,761.25	-8,995.02	9,410.40	9,403.67	6.73	1,397.415		
400.00	399.98	164.99	199.97	3.60	3.31	63.07	-2,762.01	-8,995.64	9,411.45	9,404.54	6.90	1,363.072		
500.00	499.84	208.00	242.97	3.79	3.34	63.08	-2,762.70	-8,996.51	9,411.49	9,404.37	7.12	1,321.182		
600.00	599.45	208.00	242.97	4.02	3.34	63.09	-2,762.70	-8,996.51	9,410.80	9,403.45	7.36	1,279.171		
700.00	698.70	256.88	291.82	4.29	3.39	63.15	-2,763.31	-8,998.11	9,409.07	9,401.39	7.67	1,226.211		
800.00	797.70	300.00	334.88	4.59	3.44	63.18	-2,763.60	-9,000.30	9,407.48	9,399.45	8.03	1,171.836		
900.00	896.69	300.00	334.88	4.92	3.44	63.18	-2,763.60	-9,000.30	9,406.53	9,398.17	8.36	1,125.101		
938.94	935.24	300.00	334.88	5.05	3.44	63.18	-2,763.60	-9,000.30	9,406.45	9,397.95	8.50	1,107.073		
1,000.00	995.68	300.00	334.88	5.27	3.44	63.18	-2,763.60	-9,000.30	9,406.65	9,397.93	8.72	1,079.261		
1,100.00	1,094.68	354.05	388.79	5.64	3.52	63.23	-2,763.52	-9,004.07	9,407.21	9,398.05	9.16	1,026.729		
1,200.00	1,193.67	391.00	425.60	6.03	3.59	63.27	-2,763.12	-9,007.30	9,408.79	9,399.18	9.61	979.332		
1,300.00	1,292.67	391.00	425.60	6.42	3.59	63.27	-2,763.12	-9,007.30	9,411.14	9,401.13	10.01	940.553		
1,400.00	1,391.66	428.98	463.38	6.83	3.66	63.31	-2,762.41	-9,011.18	9,414.25	9,403.77	10.48	898.187		
1,500.00	1,490.66	481.00	515.00	7.25	3.78	63.37	-2,760.90	-9,017.39	9,418.34	9,407.34	11.00	856.270		
1,600.00	1,589.65	481.00	515.00	7.67	3.78	63.37	-2,760.90	-9,017.39	9,422.94	9,411.51	11.42	825.076		
1,700.00	1,688.64	481.00	515.00	8.10	3.78	63.37	-2,760.90	-9,017.39	9,428.59	9,416.74	11.85	795.844		
1,800.00	1,787.64	533.36	566.82	8.53	3.91	63.43	-2,758.90	-9,024.60	9,434.77	9,422.38	12.40	761.149		
1,900.00	1,886.63	572.00	604.97	8.97	4.02	63.48	-2,757.20	-9,030.48	9,441.88	9,428.96	12.92	730.661		
2,000.00	1,985.63	572.00	604.97	9.41	4.02	63.48	-2,757.20	-9,030.48	9,449.75	9,436.39	13.36	707.428		
2,100.00	2,084.62	572.00	604.97	9.85	4.02	63.48	-2,757.20	-9,030.48	9,458.68	9,444.88	13.80	685.648		
2,200.00	2,183.61	628.53	660.62	10.30	4.21	63.56	-2,754.50	-9,040.05	9,467.91	9,453.52	14.39	658.045		
2,300.00	2,282.61	693.00	723.80	10.75	4.44	63.65	-2,751.21	-9,052.45	9,478.66	9,463.64	15.02	631.229		
2,400.00	2,381.60	693.00	723.80	11.20	4.44	63.65	-2,751.21	-9,052.45	9,489.48	9,474.02	15.46	614.000		
2,500.00	2,480.60	693.00	723.80	11.66	4.44	63.65	-2,751.21	-9,052.45	9,501.34	9,485.45	15.89	597.791		
2,600.00	2,579.59	719.32	749.51	12.11	4.55	63.68	-2,749.88	-9,057.93	9,514.10	9,497.69	16.42	579.534		
2,700.00	2,678.58	761.00	790.15	12.57	4.72	63.74	-2,747.98	-9,066.98	9,527.70	9,510.70	16.99	560.699		
2,800.00	2,777.58	761.00	790.15	13.02	4.72	63.74	-2,747.98	-9,066.98	9,541.97	9,524.54	17.43	547.481		
2,900.00	2,876.57	809.20	837.01	13.48	4.94	63.81	-2,745.59	-9,078.00	9,556.94	9,538.90	18.04	529.689		
3,000.00	2,975.57	855.00	881.38	13.94	5.16	63.88	-2,742.70	-9,089.00	9,572.61	9,553.98	18.64	513.574		
3,100.00	3,074.56	855.00	881.38	14.40	5.16	63.88	-2,742.70	-9,089.00	9,589.01	9,569.94	19.07	502.806		
3,200.00	3,173.55	894.12	919.12	14.87	5.37	63.94	-2,739.94	-9,098.87	9,606.09	9,586.43	19.65	488.788		
3,300.00	3,272.55	949.00	971.84	15.33	5.67	64.03	-2,735.95	-9,113.60	9,624.23	9,603.92	20.31	473.819		
3,400.00	3,371.54	949.00	971.84	15.79	5.67	64.03	-2,735.95	-9,113.60	9,642.72	9,621.99	20.74	464.989		
3,500.00	3,470.54	978.56	1,000.13	16.26	5.85	64.08	-2,733.65	-9,121.87	9,662.13	9,640.84	21.29	453.830		
3,600.00	3,569.53	1,044.00	1,062.55	16.72	6.25	64.19	-2,727.75	-9,140.62	9,682.10	9,660.09	22.01	439.896		
3,700.00	3,668.53	1,044.00	1,062.55	17.19	6.25	64.19	-2,727.75	-9,140.62	9,702.66	9,680.23	22.43	432.616		
3,800.00	3,767.52	1,085.72	1,102.16	17.65	6.53	64.27	-2,723.56	-9,153.03	9,723.86	9,700.81	23.05	421.929		
3,900.00	3,866.51	1,139.00	1,152.47	18.12	6.90	64.37	-2,718.00	-9,169.64	9,746.03	9,722.30	23.73	410.771		
4,000.00	3,965.51	1,139.00	1,152.47	18.59	6.90	64.37	-2,718.00	-9,169.64	9,768.62	9,744.48	24.14	404.744		
4,100.00	4,064.50	1,139.00	1,152.47	19.05	6.90	64.37	-2,718.00	-9,169.64	9,792.17	9,767.63	24.54	399.012		
4,200.00	4,163.50	1,184.38	1,195.06	19.52	7.24	64.45	-2,712.93	-9,184.47	9,816.31	9,791.12	25.19	389.730		
4,300.00	4,262.49	1,234.00	1,241.31	19.99	7.62	64.55	-2,706.85	-9,201.39	9,841.36	9,815.50	25.86	380.563		
4,400.00	4,361.48	1,234.00	1,241.31	20.46	7.62	64.55	-2,706.85	-9,201.39	9,866.90	9,840.64	26.26	375.800		
4,500.00	4,460.48	1,234.00	1,241.31	20.92	7.62	64.55	-2,706.85	-9,201.39	9,893.38	9,866.73	26.65	371.267		
4,600.00	4,559.47	1,279.37	1,283.30	21.39	8.00	64.64	-2,700.92	-9,217.52	9,920.39	9,893.08	27.30	363.343		
4,700.00	4,658.47	1,329.00	1,328.91	21.86	8.42	64.75	-2,694.21	-9,235.88	9,948.38	9,920.39	27.99	355.475		
4,800.00	4,757.46	1,329.00	1,328.91	22.33	8.42	64.75	-2,694.21	-9,235.88	9,976.79	9,948.42	28.37	351.702		
7,700.00	7,064.20	3,509.00	3,307.19	38.40	31.15	-20.99	-2,432.73	-10,112.65	9,982.52	9,929.96	52.55	189.953		
7,800.00	7,063.80	3,555.27	3,349.40	40.00	31.63	-21.14	-2,427.62	-10,130.87	9,890.84	9,837.88	52.96	186.750		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
7,900.00	7,063.41	3,612.94	3,401.98	41.75	32.24	-21.32	-2,420.74	-10,153.54	9,799.10	9,745.63	53.47	183.276		
8,000.00	7,063.02	3,635.40	3,422.45	43.62	32.48	-21.39	-2,418.03	-10,162.39	9,707.38	9,653.65	53.73	180.679		
8,100.00	7,062.62	3,841.44	3,611.11	45.59	34.61	-22.11	-2,394.21	-10,241.69	9,615.25	9,559.94	55.31	173.836		
8,200.00	7,062.23	3,859.08	3,627.31	47.65	34.79	-22.17	-2,392.13	-10,248.36	9,522.94	9,467.38	55.55	171.417		
8,300.00	7,061.84	3,887.00	3,652.90	49.79	35.07	-22.28	-2,388.76	-10,259.01	9,430.73	9,374.85	55.88	168.766		
8,400.00	7,061.45	3,887.00	3,652.90	52.00	35.07	-22.28	-2,388.76	-10,259.01	9,338.59	9,282.56	56.02	166.688		
8,500.00	7,061.05	3,887.00	3,652.90	54.27	35.07	-22.28	-2,388.76	-10,259.01	9,246.61	9,190.43	56.18	164.582		
8,600.00	7,060.66	3,920.23	3,683.29	56.60	35.42	-22.40	-2,384.73	-10,271.83	9,154.63	9,098.04	56.59	161.774		
8,700.00	7,060.27	3,934.15	3,695.99	58.97	35.57	-22.45	-2,383.06	-10,277.25	9,062.83	9,005.95	56.87	159.351		
8,800.00	7,059.87	3,948.24	3,708.85	61.38	35.72	-22.50	-2,381.37	-10,282.78	8,971.14	8,913.96	57.17	156.911		
8,900.00	7,059.48	3,982.00	3,739.58	63.83	36.07	-22.63	-2,377.39	-10,296.17	8,879.62	8,822.00	57.62	154.096		
9,000.00	7,059.09	3,982.00	3,739.58	66.32	36.07	-22.63	-2,377.39	-10,296.17	8,788.11	8,730.25	57.86	151.893		
9,100.00	7,058.69	3,997.70	3,753.85	68.83	36.24	-22.69	-2,375.55	-10,302.45	8,696.77	8,638.55	58.22	149.389		
9,200.00	7,058.30	4,021.82	3,775.76	71.37	36.50	-22.79	-2,372.70	-10,312.14	8,605.51	8,546.86	58.65	146.734		
9,300.00	7,057.91	7,243.98	6,863.78	73.93	57.48	-82.20	-2,187.12	-11,003.81	8,510.55	8,438.17	72.37	117.591		
9,400.00	7,057.51	7,244.77	6,864.57	76.51	57.48	-82.23	-2,187.14	-11,003.82	8,411.53	8,339.01	72.53	115.980		
9,500.00	7,057.12	7,245.56	6,865.37	79.11	57.49	-82.27	-2,187.16	-11,003.84	8,312.54	8,239.85	72.69	114.357		
9,600.00	7,056.73	7,246.37	6,866.17	81.73	57.49	-82.31	-2,187.17	-11,003.85	8,213.58	8,140.71	72.86	112.724		
9,700.00	7,056.33	7,247.19	6,866.99	84.37	57.49	-82.35	-2,187.19	-11,003.87	8,114.64	8,041.59	73.05	111.079		
9,800.00	7,055.94	7,248.01	6,867.81	87.01	57.49	-82.39	-2,187.21	-11,003.89	8,015.72	7,942.47	73.25	109.424		
9,900.00	7,055.55	7,248.84	6,868.65	89.68	57.49	-82.43	-2,187.22	-11,003.90	7,916.84	7,843.37	73.47	107.757		
10,000.00	7,055.15	7,249.69	6,869.49	92.35	57.50	-82.47	-2,187.24	-11,003.92	7,817.98	7,744.28	73.70	106.080		
10,100.00	7,054.76	7,250.54	6,870.34	95.03	57.50	-82.51	-2,187.26	-11,003.94	7,719.15	7,645.20	73.94	104.392		
10,200.00	7,054.37	7,251.40	6,871.20	97.73	57.50	-82.55	-2,187.28	-11,003.96	7,620.35	7,546.14	74.21	102.693		
10,300.00	7,053.98	7,252.28	6,872.08	100.43	57.50	-82.60	-2,187.30	-11,003.98	7,521.58	7,447.10	74.48	100.984		
10,400.00	7,053.58	7,253.16	6,872.96	103.14	57.50	-82.64	-2,187.31	-11,003.99	7,422.85	7,348.07	74.78	99.264		
10,500.00	7,053.19	7,254.05	6,873.85	105.86	57.51	-82.68	-2,187.33	-11,004.01	7,324.15	7,249.05	75.09	97.534		
10,600.00	7,052.80	7,254.96	6,874.75	108.59	57.51	-82.72	-2,187.35	-11,004.03	7,225.48	7,150.05	75.43	95.795		
10,700.00	7,052.40	7,255.87	6,875.67	111.32	57.51	-82.77	-2,187.37	-11,004.05	7,126.85	7,051.07	75.78	94.046		
10,800.00	7,052.01	7,256.79	6,876.59	114.06	57.51	-82.81	-2,187.39	-11,004.07	7,028.26	6,952.11	76.16	92.288		
10,900.00	7,051.62	7,257.73	6,877.53	116.80	57.52	-82.86	-2,187.41	-11,004.09	6,929.71	6,853.16	76.55	90.521		
11,000.00	7,051.22	7,258.68	6,878.47	119.55	57.52	-82.90	-2,187.43	-11,004.11	6,831.21	6,754.23	76.97	88.746		
11,100.00	7,050.83	7,259.64	6,879.43	122.31	57.52	-82.95	-2,187.45	-11,004.13	6,732.74	6,655.32	77.42	86.963		
11,200.00	7,050.44	7,260.61	6,880.40	125.07	57.52	-83.00	-2,187.47	-11,004.15	6,634.32	6,556.43	77.89	85.173		
11,300.00	7,050.04	7,261.59	6,881.38	127.83	57.52	-83.04	-2,187.50	-11,004.18	6,535.95	6,457.56	78.39	83.376		
11,400.00	7,049.65	7,262.58	6,882.38	130.60	57.53	-83.09	-2,187.52	-11,004.20	6,437.63	6,358.71	78.92	81.573		
11,500.00	7,049.26	7,263.59	6,883.38	133.37	57.53	-83.14	-2,187.54	-11,004.22	6,339.36	6,259.89	79.48	79.765		
11,600.00	7,048.86	7,264.61	6,884.40	136.15	57.53	-83.19	-2,187.56	-11,004.24	6,241.15	6,161.09	80.06	77.951		
11,700.00	7,048.47	7,265.64	6,885.43	138.93	57.53	-83.24	-2,187.59	-11,004.27	6,143.00	6,062.31	80.69	76.134		
11,800.00	7,048.08	7,266.68	6,886.48	141.71	57.54	-83.29	-2,187.61	-11,004.29	6,044.90	5,963.56	81.34	74.314		
11,900.00	7,047.68	7,267.74	6,887.53	144.49	57.54	-83.34	-2,187.63	-11,004.31	5,946.87	5,864.83	82.04	72.491		
12,000.00	7,047.29	7,268.81	6,888.60	147.28	57.54	-83.39	-2,187.66	-11,004.34	5,848.90	5,766.13	82.77	70.668		
12,100.00	7,046.90	7,269.90	6,889.69	150.07	57.54	-83.44	-2,187.68	-11,004.36	5,751.00	5,667.46	83.54	68.843		
12,200.00	7,046.51	7,270.99	6,890.78	152.87	57.55	-83.50	-2,187.71	-11,004.39	5,653.18	5,568.83	84.35	67.020		
12,300.00	7,046.11	7,272.11	6,891.90	155.66	57.55	-83.55	-2,187.73	-11,004.41	5,555.43	5,470.22	85.21	65.198		
12,400.00	7,045.72	7,273.23	6,893.02	158.46	57.55	-83.60	-2,187.76	-11,004.44	5,457.77	5,371.65	86.11	63.379		
12,500.00	7,045.33	7,274.38	6,894.17	161.26	57.56	-83.66	-2,187.79	-11,004.47	5,360.19	5,273.12	87.07	61.564		
12,600.00	7,044.93	7,275.53	6,895.32	164.06	57.56	-83.72	-2,187.81	-11,004.49	5,262.70	5,174.62	88.07	59.754		
12,700.00	7,044.54	7,276.71	6,896.49	166.86	57.56	-83.77	-2,187.84	-11,004.52	5,165.30	5,076.17	89.13	57.950		
12,800.00	7,044.15	7,277.89	6,897.68	169.67	57.56	-83.83	-2,187.87	-11,004.55	5,068.01	4,977.76	90.25	56.154		
12,900.00	7,043.75	7,279.10	6,898.89	172.48	57.57	-83.89	-2,187.90	-11,004.58	4,970.82	4,879.39	91.43	54.367		
13,000.00	7,043.36	7,280.32	6,900.11	175.28	57.57	-83.95	-2,187.93	-11,004.61	4,873.75	4,781.08	92.67	52.590		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-23-18(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 121-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
13,100.00	7,042.97	7,281.56	6,901.34	178.09	57.57	-84.01	-2,187.96	-11,004.64	4,776.80	4,682.81	93.99	50.825	
13,200.00	7,042.57	7,282.81	6,902.60	180.91	57.58	-84.07	-2,187.99	-11,004.67	4,679.97	4,584.61	95.37	49.073	
13,300.00	7,042.18	7,284.08	6,903.87	183.72	57.58	-84.13	-2,188.02	-11,004.70	4,583.29	4,486.46	96.83	47.335	
13,400.00	7,041.79	7,285.37	6,905.16	186.53	57.58	-84.19	-2,188.05	-11,004.73	4,486.74	4,388.37	98.37	45.612	
13,500.00	7,041.39	7,286.68	6,906.46	189.35	57.58	-84.25	-2,188.08	-11,004.76	4,390.35	4,290.36	99.99	43.907	
13,600.00	7,041.00	7,288.01	6,907.79	192.17	57.59	-84.32	-2,188.12	-11,004.80	4,294.13	4,192.42	101.71	42.220	
13,700.00	7,040.61	7,289.35	6,909.13	194.99	57.59	-84.38	-2,188.15	-11,004.83	4,198.08	4,094.56	103.52	40.553	
13,800.00	7,040.21	7,290.72	6,910.50	197.81	57.59	-84.45	-2,188.18	-11,004.87	4,102.21	3,996.78	105.44	38.907	
13,900.00	7,039.82	7,292.10	6,911.88	200.63	57.60	-84.52	-2,188.22	-11,004.90	4,006.55	3,899.09	107.46	37.284	
14,000.00	7,039.43	7,293.51	6,913.29	203.45	57.60	-84.58	-2,188.26	-11,004.94	3,911.11	3,801.51	109.60	35.685	
14,100.00	7,039.03	7,294.93	6,914.71	206.27	57.60	-84.65	-2,188.29	-11,004.97	3,815.90	3,704.03	111.86	34.112	
14,200.00	7,038.64	7,296.38	6,916.15	209.09	57.61	-84.72	-2,188.33	-11,005.01	3,720.94	3,606.68	114.26	32.565	
14,300.00	7,038.25	7,297.85	6,917.62	211.92	57.61	-84.79	-2,188.37	-11,005.05	3,626.25	3,509.45	116.80	31.047	
14,400.00	7,037.86	7,299.34	6,919.11	214.74	57.62	-84.87	-2,188.41	-11,005.09	3,531.85	3,412.36	119.49	29.558	
14,500.00	7,037.46	7,300.85	6,920.62	217.57	57.62	-84.94	-2,188.45	-11,005.13	3,437.76	3,315.42	122.34	28.099	
14,600.00	7,037.07	7,302.38	6,922.16	220.40	57.62	-85.01	-2,188.49	-11,005.17	3,344.02	3,218.65	125.37	26.673	
14,700.00	7,036.68	7,303.94	6,923.71	223.23	57.63	-85.09	-2,188.53	-11,005.21	3,250.65	3,122.07	128.59	25.280	
14,800.00	7,036.28	7,305.53	6,925.30	226.05	57.63	-85.17	-2,188.57	-11,005.25	3,157.69	3,025.69	132.00	23.922	
14,871.88	7,036.00	7,306.68	6,926.45	228.09	57.63	-85.22	-2,188.60	-11,005.28	3,091.14	2,956.55	134.59	22.967	CC, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	35.00	3.28	3.28	-107.07	-2,751.07	-8,961.82	9,374.64					
100.00	100.00	0.00	35.00	3.28	3.28	-107.07	-2,751.07	-8,961.82	9,374.80	9,368.23	6.56	1,428.018		
200.00	200.00	57.85	92.85	3.34	3.28	-107.07	-2,751.44	-8,962.05	9,375.51	9,368.90	6.62	1,416.296		
300.00	300.00	577.00	611.23	3.44	3.96	-106.98	-2,736.86	-8,960.91	9,374.71	9,367.30	7.42	1,264.218		
400.00	399.98	577.00	611.23	3.60	3.96	63.23	-2,736.86	-8,960.91	9,371.14	9,363.58	7.56	1,239.719		
500.00	499.84	630.85	664.66	3.79	4.10	63.37	-2,730.13	-8,961.66	9,366.60	9,358.71	7.89	1,186.942		
600.00	599.45	667.00	700.45	4.02	4.21	63.51	-2,725.21	-8,962.64	9,361.29	9,353.06	8.22	1,138.434		
700.00	698.70	826.31	857.69	4.29	4.75	63.89	-2,700.25	-8,968.11	9,354.71	9,345.67	9.03	1,035.615		
800.00	797.70	958.91	987.94	4.59	5.28	64.15	-2,675.82	-8,972.70	9,346.48	9,336.61	9.87	946.973		
900.00	896.69	1,043.55	1,070.54	4.92	5.67	64.33	-2,657.74	-8,976.30	9,338.32	9,327.74	10.58	882.572		
1,000.00	995.68	1,146.27	1,170.07	5.27	6.18	64.56	-2,632.89	-8,981.52	9,330.29	9,318.85	11.45	815.184		
1,100.00	1,094.68	1,202.93	1,224.60	5.64	6.50	64.70	-2,617.89	-8,984.89	9,322.57	9,310.44	12.13	768.659		
1,200.00	1,193.67	1,277.55	1,295.97	6.03	6.94	64.89	-2,596.70	-8,989.94	9,315.26	9,302.31	12.95	719.375		
1,300.00	1,292.67	1,356.25	1,370.57	6.42	7.44	65.10	-2,572.38	-8,995.90	9,308.25	9,294.41	13.84	672.505		
1,400.00	1,391.66	1,417.00	1,427.69	6.83	7.85	65.27	-2,552.31	-9,000.95	9,301.60	9,286.94	14.65	634.848		
1,500.00	1,490.66	1,454.44	1,462.72	7.25	8.11	65.38	-2,539.51	-9,004.34	9,295.57	9,280.24	15.33	606.291		
1,600.00	1,589.65	1,512.00	1,516.35	7.67	8.53	65.55	-2,519.47	-9,010.19	9,290.41	9,274.24	16.17	574.660		
1,700.00	1,688.64	1,524.21	1,527.70	8.10	8.62	65.59	-2,515.17	-9,011.51	9,285.83	9,269.14	16.68	556.560		
1,800.00	1,787.64	1,586.38	1,585.34	8.53	9.09	65.78	-2,492.92	-9,018.45	9,281.92	9,264.33	17.59	527.730		
1,900.00	1,886.63	1,637.48	1,632.53	8.97	9.49	65.94	-2,474.23	-9,024.40	9,278.55	9,260.12	18.42	503.585		
2,000.00	1,985.63	1,682.83	1,674.21	9.41	9.86	66.08	-2,457.27	-9,029.98	9,275.81	9,256.59	19.23	482.420		
2,100.00	2,084.62	1,727.56	1,715.15	9.85	10.23	66.22	-2,440.21	-9,035.77	9,273.74	9,253.70	20.04	462.773		
2,200.00	2,183.61	1,771.67	1,755.33	10.30	10.61	66.36	-2,423.02	-9,041.75	9,272.34	9,251.49	20.86	444.575		
2,300.00	2,282.61	2,300.00	1,842.92	10.75	15.38	66.69	-2,384.06	-9,055.31	9,271.37	9,245.32	26.06	355.800		
2,400.00	2,381.60	1,978.06	1,941.53	11.20	12.46	67.06	-2,338.80	-9,070.54	9,270.42	9,246.81	23.61	392.711		
2,500.00	2,480.60	2,026.21	1,984.70	11.66	12.92	67.22	-2,318.58	-9,077.37	9,269.95	9,245.44	24.50	378.301		
2,518.81	2,499.22	2,034.40	1,992.04	11.74	12.99	67.25	-2,315.15	-9,078.55	9,269.94	9,245.27	24.67	375.828		
2,600.00	2,579.59	2,085.00	2,037.37	12.11	13.47	67.42	-2,293.94	-9,086.01	9,270.19	9,244.68	25.51	363.440		
2,700.00	2,678.58	2,700.00	2,109.31	12.57	19.45	67.70	-2,260.08	-9,097.85	9,270.80	9,238.91	31.89	290.698		
2,800.00	2,777.58	2,246.17	2,181.52	13.02	15.03	67.98	-2,225.86	-9,109.70	9,271.66	9,243.70	27.96	331.622		
2,900.00	2,876.57	2,300.41	2,229.95	13.48	15.56	68.17	-2,202.81	-9,117.81	9,273.03	9,244.15	28.94	320.474		
3,000.00	2,975.57	2,351.44	2,275.54	13.94	16.07	68.34	-2,181.26	-9,125.60	9,275.13	9,245.24	29.88	310.387		
3,100.00	3,074.56	2,393.35	2,313.01	14.40	16.48	68.49	-2,163.67	-9,132.14	9,277.82	9,247.08	30.74	301.828		
3,200.00	3,173.55	2,430.49	2,346.23	14.87	16.85	68.61	-2,148.17	-9,138.10	9,281.24	9,249.69	31.55	294.205		
3,300.00	3,272.55	2,473.29	2,384.54	15.33	17.27	68.76	-2,130.42	-9,145.18	9,285.41	9,253.00	32.41	286.498		
3,400.00	3,371.54	2,567.12	2,468.55	15.79	18.20	69.08	-2,091.67	-9,160.77	9,290.01	9,256.23	33.78	275.008		
3,500.00	3,470.54	2,623.82	2,519.42	16.26	18.76	69.27	-2,068.49	-9,170.23	9,295.03	9,260.25	34.78	267.271		
3,600.00	3,569.53	3,600.00	2,691.69	16.72	28.75	69.93	-1,988.70	-9,201.58	9,300.01	9,254.93	45.08	206.312		
3,700.00	3,668.53	2,899.11	2,765.12	17.19	21.56	70.22	-1,952.62	-9,214.69	9,304.71	9,266.27	38.44	242.038		
3,800.00	3,767.52	2,959.97	2,818.96	17.65	22.19	70.44	-1,925.98	-9,224.50	9,309.99	9,270.48	39.51	235.645		
3,900.00	3,866.51	3,172.40	3,009.12	18.12	24.35	71.16	-1,837.08	-9,257.02	9,315.12	9,273.02	42.10	221.258		
4,000.00	3,965.51	3,221.00	3,052.39	18.59	24.85	71.33	-1,816.17	-9,264.21	9,320.08	9,277.05	43.03	216.589		
4,100.00	4,064.50	3,277.83	3,103.04	19.05	25.43	71.52	-1,791.86	-9,272.79	9,325.63	9,281.59	44.04	211.742		
4,200.00	4,163.50	4,200.00	3,187.85	19.52	34.75	71.84	-1,752.69	-9,287.16	9,331.69	9,278.08	53.61	174.063		
4,300.00	4,262.49	3,458.87	3,265.68	19.99	27.26	72.13	-1,717.15	-9,300.08	9,337.85	9,291.13	46.72	199.865		
4,400.00	4,361.48	3,508.42	3,310.34	20.46	27.75	72.30	-1,697.05	-9,307.61	9,344.57	9,296.93	47.64	196.153		
4,500.00	4,460.48	3,571.53	3,367.17	20.92	28.39	72.51	-1,671.43	-9,317.37	9,351.85	9,303.16	48.69	192.063		
4,600.00	4,559.47	3,692.86	3,476.27	21.39	29.61	72.91	-1,621.78	-9,336.16	9,359.47	9,309.14	50.33	185.960		
4,700.00	4,658.47	3,775.86	3,551.10	21.86	30.44	73.19	-1,588.16	-9,348.77	9,367.13	9,315.56	51.58	181.621		
4,800.00	4,757.46	3,887.12	3,651.37	22.33	31.56	73.56	-1,542.94	-9,365.53	9,375.00	9,321.90	53.10	176.544		
4,900.00	4,856.45	3,917.76	3,678.78	22.80	31.88	73.66	-1,530.09	-9,370.22	9,383.30	9,329.47	53.83	174.298		
5,000.00	4,955.45	3,952.12	3,709.36	23.27	32.24	73.78	-1,515.40	-9,375.65	9,392.35	9,337.75	54.60	172.024		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,054.44	3,976.00	3,730.52	23.74	32.49	73.86	-1,505.01	-9,379.54	9,402.17	9,346.92	55.25	170.177		
5,200.00	5,153.44	4,021.65	3,770.71	24.21	32.99	74.02	-1,484.78	-9,387.19	9,412.71	9,356.57	56.14	167.650		
5,300.00	5,252.43	4,071.00	3,813.84	24.68	33.53	74.20	-1,462.39	-9,395.80	9,424.04	9,366.96	57.08	165.112		
5,400.00	5,351.42	4,097.41	3,836.79	25.15	33.83	74.29	-1,450.20	-9,400.53	9,436.05	9,378.29	57.76	163.356		
5,500.00	5,450.42	4,143.05	3,876.24	25.62	34.35	74.46	-1,428.80	-9,408.82	9,448.76	9,390.09	58.66	161.064		
5,600.00	5,549.41	4,165.00	3,895.12	26.09	34.60	74.54	-1,418.37	-9,412.86	9,462.17	9,402.88	59.29	159.589		
5,700.00	5,648.41	4,217.98	3,940.58	26.56	35.22	74.74	-1,393.05	-9,422.84	9,476.25	9,415.97	60.28	157.207		
5,800.00	5,747.40	4,248.02	4,411.80	27.03	40.81	76.52	-1,168.99	-9,513.21	9,489.35	9,423.12	66.23	143.275		
5,900.00	5,846.40	6,078.78	5,695.04	27.51	49.41	79.47	-861.70	-9,617.40	9,488.62	9,413.47	75.15	126.256		
6,000.00	5,945.39	6,206.24	5,822.29	27.98	49.81	79.62	-854.61	-9,619.25	9,487.42	9,411.43	76.00	124.839		
6,100.00	6,044.38	6,362.94	5,978.84	28.45	50.27	79.79	-847.93	-9,620.94	9,485.96	9,409.06	76.90	123.359		
6,200.00	6,143.38	6,450.91	6,066.74	28.92	50.51	79.88	-844.85	-9,621.61	9,484.19	9,406.58	77.60	122.216		
6,300.00	6,242.37	6,527.56	6,143.36	29.39	50.72	79.96	-842.65	-9,622.33	9,482.62	9,404.35	78.27	121.156		
6,400.00	6,341.37	6,604.37	6,220.14	29.86	50.92	80.03	-840.88	-9,623.23	9,481.31	9,402.38	78.93	120.117		
6,500.00	6,440.36	6,697.85	6,313.61	30.34	51.16	80.12	-839.26	-9,624.48	9,480.20	9,400.57	79.63	119.049		
6,600.00	6,538.90	6,800.38	6,416.11	30.80	51.42	40.82	-837.98	-9,625.83	9,472.79	9,392.45	80.34	117.902		
6,700.00	6,634.88	6,896.43	6,512.16	31.25	51.66	24.44	-837.17	-9,627.07	9,449.97	9,368.96	81.01	116.645		
6,800.00	6,725.92	6,986.81	6,602.53	31.68	51.88	17.63	-836.60	-9,628.25	9,412.25	9,330.61	81.64	115.293		
6,900.00	6,809.79	7,071.03	6,686.74	32.07	52.08	14.16	-836.19	-9,629.36	9,360.55	9,278.34	82.21	113.866		
7,000.00	6,884.42	7,146.46	6,762.17	32.43	52.27	12.24	-835.83	-9,630.35	9,296.13	9,213.42	82.71	112.401		
7,100.00	6,947.98	7,210.97	6,826.66	32.77	52.43	11.22	-835.52	-9,631.19	9,220.57	9,137.45	83.12	110.928		
7,200.00	6,998.89	7,262.96	6,878.65	33.18	52.56	10.88	-835.28	-9,631.87	9,135.73	9,052.28	83.45	109.476		
7,300.00	7,035.91	7,301.16	6,916.85	33.76	52.65	11.37	-835.09	-9,632.38	9,043.70	8,960.01	83.68	108.072		
7,400.00	7,058.12	7,324.63	6,940.31	34.61	52.71	14.05	-834.98	-9,632.68	8,946.73	8,862.90	83.82	106.736		
7,500.00	7,064.98	7,332.79	6,948.48	35.68	52.73	63.81	-834.94	-9,632.79	8,847.20	8,763.33	83.88	105.480		
7,600.00	7,064.59	7,333.71	6,949.39	36.95	52.73	64.07	-834.94	-9,632.80	8,747.23	8,663.33	83.89	104.266		
7,700.00	7,064.20	7,334.62	6,950.31	38.40	52.74	64.33	-834.93	-9,632.81	8,647.25	8,563.34	83.91	103.052		
7,800.00	7,063.80	7,335.54	6,951.22	40.00	52.74	64.58	-834.93	-9,632.83	8,547.27	8,463.34	83.93	101.836		
7,900.00	7,063.41	7,336.45	6,952.14	41.75	52.74	64.84	-834.92	-9,632.84	8,447.30	8,363.34	83.95	100.619		
8,000.00	7,063.02	7,337.37	6,953.05	43.62	52.74	65.10	-834.92	-9,632.85	8,347.32	8,263.34	83.98	99.402		
8,100.00	7,062.62	7,338.28	6,953.96	45.59	52.75	65.36	-834.92	-9,632.86	8,247.34	8,163.34	84.00	98.183		
8,200.00	7,062.23	7,339.20	6,954.88	47.65	52.75	65.62	-834.91	-9,632.87	8,147.37	8,063.34	84.02	96.964		
8,300.00	7,061.84	7,340.11	6,955.79	49.79	52.75	65.89	-834.91	-9,632.89	8,047.39	7,963.34	84.05	95.744		
8,400.00	7,061.45	7,341.03	6,956.71	52.00	52.75	66.15	-834.90	-9,632.90	7,947.42	7,863.34	84.08	94.523		
8,500.00	7,061.05	7,341.94	6,957.62	54.27	52.75	66.41	-834.90	-9,632.91	7,847.45	7,763.34	84.11	93.301		
8,600.00	7,060.66	7,342.86	6,958.54	56.60	52.76	66.68	-834.89	-9,632.92	7,747.47	7,663.33	84.14	92.079		
8,700.00	7,060.27	7,343.77	6,959.45	58.97	52.76	66.95	-834.89	-9,632.93	7,647.50	7,563.33	84.17	90.856		
8,800.00	7,059.87	7,344.68	6,960.37	61.38	52.76	67.22	-834.88	-9,632.95	7,547.53	7,463.32	84.21	89.632		
8,900.00	7,059.48	7,345.60	6,961.28	63.83	52.76	67.48	-834.88	-9,632.96	7,447.56	7,363.32	84.24	88.408		
9,000.00	7,059.09	7,346.51	6,962.20	66.32	52.77	67.75	-834.88	-9,632.97	7,347.59	7,263.31	84.28	87.184		
9,100.00	7,058.69	7,347.43	6,963.11	68.83	52.77	68.03	-834.87	-9,632.98	7,247.62	7,163.30	84.32	85.959		
9,200.00	7,058.30	7,348.34	6,964.03	71.37	52.77	68.30	-834.87	-9,632.99	7,147.65	7,063.29	84.35	84.733		
9,300.00	7,057.91	7,349.26	6,964.94	73.93	52.77	68.57	-834.86	-9,633.01	7,047.68	6,963.28	84.40	83.507		
9,400.00	7,057.51	7,350.17	6,965.86	76.51	52.78	68.84	-834.86	-9,633.02	6,947.71	6,863.27	84.44	82.281		
9,500.00	7,057.12	7,351.09	6,966.77	79.11	52.78	69.12	-834.85	-9,633.03	6,847.75	6,763.26	84.48	81.055		
9,600.00	7,056.73	7,352.00	6,967.68	81.73	52.78	69.40	-834.85	-9,633.04	6,747.78	6,663.25	84.53	79.828		
9,700.00	7,056.33	7,352.92	6,968.60	84.37	52.78	69.67	-834.85	-9,633.05	6,647.82	6,563.24	84.58	78.601		
9,800.00	7,055.94	7,353.83	6,969.51	87.01	52.78	69.95	-834.84	-9,633.07	6,547.85	6,463.23	84.63	77.374		
9,900.00	7,055.55	7,354.75	6,970.43	89.68	52.79	70.23	-834.84	-9,633.08	6,447.89	6,363.21	84.68	76.147		
10,000.00	7,055.15	7,355.66	6,971.34	92.35	52.79	70.51	-834.83	-9,633.09	6,347.93	6,263.20	84.73	74.920		
10,100.00	7,054.76	7,356.58	6,972.26	95.03	52.79	70.79	-834.83	-9,633.10	6,247.97	6,163.18	84.78	73.693		
10,200.00	7,054.37	7,357.49	6,973.17	97.73	52.79	71.07	-834.82	-9,633.11	6,148.01	6,063.17	84.84	72.466		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.98	7,358.41	6,974.09	100.43	52.80	71.36	-834.82	-9,633.13	6,048.05	5,963.15	84.90	71.239		
10,400.00	7,053.58	7,359.32	6,975.00	103.14	52.80	71.64	-834.81	-9,633.14	5,948.09	5,863.13	84.96	70.012		
10,500.00	7,053.19	7,360.24	6,975.92	105.86	52.80	71.92	-834.81	-9,633.15	5,848.13	5,763.11	85.02	68.785		
10,600.00	7,052.80	7,361.15	6,976.83	108.59	52.80	72.21	-834.81	-9,633.16	5,748.18	5,663.09	85.09	67.558		
10,700.00	7,052.40	7,362.07	6,977.75	111.32	52.80	72.50	-834.80	-9,633.17	5,648.23	5,563.08	85.15	66.331		
10,800.00	7,052.01	7,362.98	6,978.66	114.06	52.81	72.78	-834.80	-9,633.19	5,548.28	5,463.05	85.22	65.105		
10,900.00	7,051.62	7,363.90	6,979.58	116.80	52.81	73.07	-834.79	-9,633.20	5,448.33	5,363.03	85.29	63.878		
11,000.00	7,051.22	7,364.81	6,980.49	119.55	52.81	73.36	-834.79	-9,633.21	5,348.38	5,263.01	85.37	62.652		
11,100.00	7,050.83	7,365.72	6,981.41	122.31	52.81	73.65	-834.78	-9,633.22	5,248.43	5,162.99	85.44	61.427		
11,200.00	7,050.44	7,366.64	6,982.32	125.07	52.82	73.94	-834.78	-9,633.23	5,148.49	5,062.97	85.52	60.201		
11,300.00	7,050.04	7,367.55	6,983.23	127.83	52.82	74.23	-834.78	-9,633.25	5,048.54	4,962.94	85.60	58.976		
11,400.00	7,049.65	7,368.47	6,984.15	130.60	52.82	74.53	-834.77	-9,633.26	4,948.60	4,862.92	85.69	57.752		
11,500.00	7,049.26	7,369.38	6,985.06	133.37	52.82	74.82	-834.77	-9,633.27	4,848.67	4,762.89	85.78	56.527		
11,600.00	7,048.86	7,370.30	6,985.98	136.15	52.83	75.11	-834.76	-9,633.28	4,748.73	4,662.86	85.87	55.304		
11,700.00	7,048.47	7,371.21	6,986.89	138.93	52.83	75.41	-834.76	-9,633.29	4,648.80	4,562.84	85.96	54.080		
11,800.00	7,048.08	7,372.13	6,987.81	141.71	52.83	75.71	-834.75	-9,633.31	4,548.87	4,462.81	86.06	52.857		
11,900.00	7,047.68	7,373.04	6,988.72	144.49	52.83	76.00	-834.75	-9,633.32	4,448.94	4,362.78	86.16	51.635		
12,000.00	7,047.29	7,373.96	6,989.64	147.28	52.83	76.30	-834.74	-9,633.33	4,349.02	4,262.75	86.27	50.412		
12,100.00	7,046.90	7,374.87	6,990.55	150.07	52.84	76.60	-834.74	-9,633.34	4,249.10	4,162.72	86.38	49.191		
12,200.00	7,046.51	7,375.79	6,991.47	152.87	52.84	76.90	-834.74	-9,633.35	4,149.18	4,062.68	86.50	47.970		
12,300.00	7,046.11	7,376.70	6,992.38	155.66	52.84	77.20	-834.73	-9,633.37	4,049.27	3,962.65	86.62	46.749		
12,400.00	7,045.72	7,377.62	6,993.30	158.46	52.84	77.50	-834.73	-9,633.38	3,949.36	3,862.61	86.74	45.529		
12,500.00	7,045.33	7,378.53	6,994.21	161.26	52.85	77.80	-834.72	-9,633.39	3,849.45	3,762.57	86.88	44.309		
12,600.00	7,044.93	7,379.45	6,995.13	164.06	52.85	78.10	-834.72	-9,633.40	3,749.55	3,662.53	87.02	43.089		
12,700.00	7,044.54	7,380.36	6,996.04	166.86	52.85	78.40	-834.71	-9,633.41	3,649.66	3,562.49	87.17	41.870		
12,800.00	7,044.15	7,381.28	6,996.96	169.67	52.85	78.70	-834.71	-9,633.43	3,549.77	3,462.45	87.32	40.652		
12,900.00	7,043.75	7,382.19	6,997.87	172.48	52.86	79.01	-834.71	-9,633.44	3,449.89	3,362.40	87.49	39.433		
13,000.00	7,043.36	7,383.11	6,998.78	175.28	52.86	79.31	-834.70	-9,633.45	3,350.01	3,262.35	87.66	38.215		
13,100.00	7,042.97	7,384.02	6,999.70	178.09	52.86	79.61	-834.70	-9,633.46	3,250.14	3,162.30	87.85	36.998		
13,200.00	7,042.57	7,384.94	7,000.61	180.91	52.86	79.92	-834.69	-9,633.47	3,150.28	3,062.24	88.05	35.780		
13,300.00	7,042.18	7,385.85	7,001.53	183.72	52.86	80.23	-834.69	-9,633.49	3,050.43	2,962.17	88.26	34.563		
13,400.00	7,041.79	7,386.76	7,002.44	186.53	52.87	80.53	-834.68	-9,633.50	2,950.59	2,862.11	88.48	33.346		
13,500.00	7,041.39	7,387.68	7,003.36	189.35	52.87	80.84	-834.68	-9,633.51	2,850.76	2,762.03	88.73	32.129		
13,600.00	7,041.00	7,388.59	7,004.27	192.17	52.87	81.15	-834.67	-9,633.52	2,750.94	2,661.95	88.99	30.911		
13,700.00	7,040.61	7,389.55	7,005.23	194.99	52.87	81.47	-834.67	-9,633.53	2,651.14	2,561.85	89.28	29.694		
13,800.00	7,040.21	7,390.54	7,006.22	197.81	52.88	81.80	-834.67	-9,633.55	2,551.34	2,461.75	89.59	28.477		
13,900.00	7,039.82	7,391.52	7,007.20	200.63	52.88	82.13	-834.66	-9,633.56	2,451.57	2,361.63	89.94	27.259		
14,000.00	7,039.43	7,392.50	7,008.17	203.45	52.88	82.46	-834.66	-9,633.57	2,351.82	2,261.50	90.31	26.040		
14,100.00	7,039.03	7,393.47	7,009.14	206.27	52.88	82.79	-834.65	-9,633.59	2,252.08	2,161.35	90.73	24.821		
14,200.00	7,038.64	7,394.43	7,010.11	209.09	52.89	83.12	-834.65	-9,633.60	2,152.37	2,061.18	91.20	23.602		
14,300.00	7,038.25	7,395.38	7,011.06	211.92	52.89	83.44	-834.64	-9,633.61	2,052.69	1,960.98	91.71	22.381		
14,400.00	7,037.86	7,396.34	7,012.01	214.74	52.89	83.77	-834.64	-9,633.62	1,953.04	1,860.74	92.30	21.160		
14,500.00	7,037.46	7,397.28	7,012.96	217.57	52.89	84.09	-834.63	-9,633.64	1,853.43	1,760.47	92.96	19.938		
14,600.00	7,037.07	7,398.22	7,013.90	220.40	52.90	84.41	-834.63	-9,633.65	1,753.86	1,660.14	93.72	18.714		
14,700.00	7,036.68	7,399.15	7,014.83	223.23	52.90	84.73	-834.62	-9,633.66	1,654.35	1,559.76	94.59	17.490		
14,800.00	7,036.28	7,400.08	7,015.76	226.05	52.90	85.04	-834.62	-9,633.67	1,554.89	1,459.29	95.60	16.264		
14,871.88	7,036.00	7,400.74	7,016.42	228.09	52.90	85.27	-834.62	-9,633.68	1,483.45	1,387.01	96.44	15.383 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2,207.00	2,139.89	3.28	15.40	-104.10	-2,197.19	-8,749.55	9,271.54					
100.00	100.00	2,245.75	2,175.32	3.28	15.74	-104.01	-2,182.26	-8,744.73	9,248.76	9,230.74	18.02	513.189		
200.00	200.00	2,302.00	2,226.88	3.34	16.24	-103.89	-2,160.75	-8,738.14	9,226.71	9,208.21	18.51	498.592		
300.00	300.00	2,342.59	2,264.14	3.44	16.60	-103.80	-2,145.33	-8,733.55	9,205.17	9,186.26	18.91	486.685		
400.00	399.98	2,534.81	2,440.19	3.60	18.32	67.22	-2,071.67	-8,710.58	9,182.38	9,161.77	20.61	445.513		
500.00	499.84	2,585.00	2,485.87	3.79	18.78	67.80	-2,051.71	-8,704.80	9,158.51	9,137.31	21.20	432.012		
600.00	599.45	2,645.03	2,540.46	4.02	19.33	68.45	-2,027.65	-8,698.16	9,133.88	9,111.95	21.92	416.659		
700.00	698.70	2,887.28	2,760.07	4.29	21.60	69.71	-1,929.31	-8,670.10	9,107.92	9,083.67	24.25	375.631		
800.00	797.70	2,920.47	2,790.14	4.59	21.91	69.85	-1,915.84	-8,666.09	9,080.74	9,055.92	24.82	365.837		
900.00	896.69	2,973.40	2,838.23	4.92	22.41	70.02	-1,894.68	-8,659.71	9,054.11	9,028.52	25.59	353.781		
1,000.00	995.68	3,047.44	2,905.96	5.27	23.08	70.25	-1,866.21	-8,650.61	9,027.91	9,001.36	26.55	340.022		
1,100.00	1,094.68	3,128.99	2,980.86	5.64	23.82	70.50	-1,835.59	-8,640.44	9,002.01	8,974.42	27.59	326.313		
1,200.00	1,193.67	3,220.87	3,065.01	6.03	24.65	70.79	-1,800.46	-8,629.15	8,976.33	8,947.60	28.73	312.414		
1,300.00	1,292.67	3,278.93	3,118.24	6.42	25.18	70.97	-1,778.39	-8,621.99	8,950.92	8,921.31	29.61	302.271		
1,400.00	1,391.66	3,322.71	3,158.61	6.83	25.57	71.11	-1,762.35	-8,616.64	8,926.12	8,895.74	30.39	293.756		
1,500.00	1,490.66	3,346.00	3,180.19	7.25	25.77	71.18	-1,754.05	-8,613.81	8,902.00	8,870.99	31.01	287.082		
1,600.00	1,589.65	3,397.54	3,228.09	7.67	26.21	71.33	-1,736.02	-8,607.76	8,878.51	8,846.66	31.85	278.751		
1,700.00	1,688.64	3,440.00	3,267.68	8.10	26.57	71.46	-1,721.40	-8,603.06	8,855.79	8,823.15	32.63	271.377		
1,800.00	1,787.64	1,800.00	3,358.76	8.53	13.02	71.74	-1,688.68	-8,592.10	8,833.35	8,812.71	20.63	428.125		
1,900.00	1,886.63	3,824.00	3,627.20	8.97	29.76	72.56	-1,594.95	-8,556.29	8,810.38	8,773.98	36.40	242.031		
2,000.00	1,985.63	2,000.00	3,715.02	9.41	14.29	72.84	-1,562.79	-8,543.56	8,786.30	8,763.50	22.80	385.362		
2,100.00	2,084.62	3,970.95	3,763.64	9.85	31.03	73.00	-1,544.05	-8,536.68	8,762.53	8,724.03	38.50	227.612		
2,200.00	2,183.61	4,015.00	3,804.31	10.30	31.42	73.14	-1,528.03	-8,531.27	8,739.45	8,700.11	39.34	222.155		
2,300.00	2,282.61	4,082.54	3,866.58	10.75	32.02	73.36	-1,503.09	-8,523.28	8,716.92	8,676.54	40.38	215.856		
2,400.00	2,381.60	4,148.75	3,927.55	11.20	32.61	73.57	-1,478.45	-8,515.59	8,694.78	8,653.36	41.42	209.908		
2,500.00	2,480.60	4,215.51	3,989.10	11.66	33.21	73.78	-1,453.76	-8,507.99	8,673.12	8,630.65	42.47	204.219		
2,600.00	2,579.59	4,668.50	4,400.01	12.11	37.51	75.34	-1,273.31	-8,448.53	8,648.64	8,601.81	46.84	184.662		
2,700.00	2,678.58	4,709.12	4,436.15	12.57	37.92	75.49	-1,255.65	-8,442.83	8,624.20	8,576.46	47.73	180.669		
2,800.00	2,777.58	4,743.16	4,466.55	13.02	38.26	75.61	-1,241.04	-8,438.21	8,600.52	8,551.95	48.58	177.051		
2,900.00	2,876.57	4,774.00	4,494.17	13.48	38.57	75.72	-1,227.95	-8,434.17	8,577.62	8,528.23	49.39	173.665		
3,000.00	2,975.57	4,811.97	4,528.36	13.94	38.93	75.86	-1,212.16	-8,429.33	8,555.49	8,505.23	50.26	170.227		
3,100.00	3,074.56	4,869.00	4,580.16	14.40	39.48	76.06	-1,189.35	-8,422.35	8,534.20	8,482.90	51.29	166.378		
3,200.00	3,173.55	4,900.03	4,608.53	14.87	39.76	76.17	-1,177.33	-8,418.63	8,513.51	8,461.42	52.09	163.435		
3,300.00	3,272.55	4,989.84	4,691.02	15.33	40.58	76.47	-1,143.52	-8,407.71	8,493.29	8,439.91	53.38	159.117		
3,400.00	3,371.54	5,057.00	4,752.54	15.79	41.20	76.70	-1,117.88	-8,399.49	8,473.23	8,418.75	54.48	155.532		
3,500.00	3,470.54	5,114.37	4,805.10	16.26	41.72	76.89	-1,095.95	-8,392.63	8,453.70	8,398.20	55.50	152.318		
3,600.00	3,569.53	5,152.00	4,839.75	16.72	42.06	77.02	-1,081.92	-8,388.31	8,434.94	8,378.58	56.36	149.667		
3,700.00	3,668.53	5,196.24	4,880.67	17.19	42.45	77.17	-1,065.83	-8,383.41	8,416.90	8,359.64	57.26	147.004		
3,800.00	3,767.52	5,247.00	4,927.86	17.65	42.89	77.33	-1,047.93	-8,378.03	8,399.60	8,341.39	58.21	144.306		
3,900.00	3,866.51	5,278.98	4,957.73	18.12	43.16	77.44	-1,036.99	-8,374.77	8,383.01	8,324.02	58.99	142.102		
4,000.00	3,965.51	5,320.74	4,996.92	18.59	43.50	77.57	-1,023.13	-8,370.68	8,367.16	8,307.30	59.85	139.795		
4,100.00	4,064.50	5,342.00	5,016.93	19.05	43.68	77.63	-1,016.26	-8,368.66	8,352.08	8,291.53	60.55	137.929		
4,200.00	4,163.50	5,387.23	5,059.74	19.52	44.02	77.77	-1,002.25	-8,364.61	8,337.76	8,276.35	61.41	135.771		
4,300.00	4,262.49	5,437.00	5,107.25	19.99	44.40	77.91	-987.95	-8,360.59	8,324.39	8,262.09	62.30	133.622		
4,400.00	4,361.48	5,437.00	5,107.25	20.46	44.40	77.91	-987.95	-8,360.59	8,311.76	8,248.94	62.83	132.299		
4,500.00	4,460.48	5,490.25	5,158.45	20.92	44.76	78.06	-973.86	-8,356.74	8,299.91	8,236.22	63.70	130.304		
4,600.00	4,559.47	5,531.00	5,197.87	21.39	45.04	78.16	-963.86	-8,354.05	8,288.86	8,224.38	64.48	128.542		
4,700.00	4,658.47	4,700.00	5,294.42	21.86	39.85	78.41	-941.62	-8,347.57	8,278.17	8,218.24	59.93	138.139		
4,800.00	4,757.46	5,692.66	5,355.45	22.33	46.01	78.55	-929.45	-8,343.47	8,267.76	8,201.31	66.45	124.416		
4,900.00	4,856.45	4,900.00	5,457.59	22.80	41.85	78.77	-912.04	-8,336.70	8,257.64	8,194.71	62.93	131.226		
5,000.00	4,955.45	5,849.44	5,509.77	23.27	46.83	78.87	-903.83	-8,333.23	8,247.71	8,179.45	68.26	120.827		
5,100.00	5,054.44	5,909.00	5,568.71	23.74	47.12	78.98	-895.95	-8,329.94	8,238.71	8,169.67	69.04	119.324		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,923.47	5,583.06	24.21	47.18	79.01	-894.21	-8,329.23	8,230.27	8,160.66	69.62	118.225		
5,300.00	5,252.43	6,001.85	5,660.84	24.68	47.52	79.15	-885.26	-8,325.51	8,222.43	8,151.98	70.45	116.713		
5,400.00	5,351.42	6,061.24	5,719.85	25.15	47.77	79.25	-879.08	-8,322.88	8,214.98	8,143.79	71.19	115.395		
5,500.00	5,450.42	6,097.00	5,755.41	25.62	47.92	79.31	-875.65	-8,321.41	8,208.10	8,136.27	71.83	114.266		
5,600.00	5,549.41	6,162.22	5,820.33	26.09	48.17	79.41	-869.77	-8,319.10	8,201.77	8,129.19	72.58	113.004		
5,700.00	5,648.41	6,214.87	5,872.76	26.56	48.37	79.49	-865.27	-8,317.62	8,196.13	8,122.85	73.28	111.854		
5,800.00	5,747.40	6,286.00	5,943.60	27.03	48.64	79.60	-859.01	-8,315.96	8,191.00	8,116.96	74.04	110.628		
5,900.00	5,846.40	6,355.23	6,012.56	27.51	48.90	79.71	-853.13	-8,314.56	8,186.26	8,111.47	74.79	109.451		
6,000.00	5,945.39	6,436.33	6,093.42	27.98	49.19	79.83	-847.07	-8,313.08	8,181.79	8,106.21	75.58	108.252		
6,100.00	6,044.38	6,519.84	6,176.74	28.45	49.48	79.95	-841.59	-8,311.70	8,177.55	8,101.19	76.36	107.087		
6,200.00	6,143.38	6,591.63	6,248.40	28.92	49.72	80.05	-837.48	-8,310.64	8,173.56	8,096.47	77.09	106.021		
6,300.00	6,242.37	6,644.30	6,301.00	29.39	49.88	80.12	-834.83	-8,310.13	8,170.09	8,092.34	77.75	105.082		
6,400.00	6,341.37	6,716.64	6,373.28	29.86	50.11	80.21	-831.69	-8,309.78	8,167.14	8,088.68	78.46	104.090		
6,500.00	6,440.36	6,820.47	6,477.04	30.34	50.41	80.34	-828.17	-8,309.40	8,164.36	8,085.09	79.26	103.003		
6,600.00	6,538.90	6,925.70	6,582.24	30.80	50.71	80.41	-825.46	-8,308.85	8,155.16	8,075.11	80.05	101.873		
6,700.00	6,634.88	7,022.00	6,678.51	31.25	50.97	80.49	-823.22	-8,308.33	8,130.61	8,049.82	80.79	100.640		
6,800.00	6,725.92	7,113.26	6,769.75	31.68	51.23	80.56	-821.30	-8,307.83	8,091.24	8,009.76	81.47	99.310		
6,900.00	6,809.79	7,197.30	6,853.77	32.07	51.46	80.63	-819.82	-8,307.36	8,038.01	7,955.91	82.10	97.910		
7,000.00	6,884.42	7,271.03	6,927.49	32.43	51.66	80.69	-818.73	-8,306.95	7,972.23	7,889.60	82.63	96.476		
7,100.00	6,947.98	7,333.00	6,989.46	32.77	51.83	80.74	-817.95	-8,306.61	7,895.53	7,812.45	83.08	95.037		
7,200.00	6,998.89	7,382.57	7,039.03	33.18	51.96	80.78	-817.41	-8,306.34	7,809.78	7,726.36	83.43	93.613		
7,300.00	7,035.91	7,418.48	7,074.93	33.76	52.06	80.81	-817.06	-8,306.15	7,717.09	7,633.42	83.67	92.229		
7,400.00	7,058.12	7,445.46	7,101.91	34.61	52.13	80.83	-816.81	-8,306.01	7,619.73	7,535.89	83.84	90.889		
7,500.00	7,064.98	7,453.55	7,110.00	35.68	52.15	80.84	-816.74	-8,305.96	7,520.08	7,436.18	83.90	89.634		
7,600.00	7,064.59	7,452.24	7,108.69	36.95	52.15	80.84	-816.75	-8,305.97	7,420.11	7,336.20	83.91	88.425		
7,700.00	7,064.20	7,450.95	7,107.40	38.40	52.14	80.83	-816.76	-8,305.97	7,320.14	7,236.21	83.93	87.215		
7,800.00	7,063.80	7,449.67	7,106.12	40.00	52.14	80.81	-816.77	-8,305.98	7,220.18	7,136.23	83.95	86.004		
7,900.00	7,063.41	7,448.39	7,104.84	41.75	52.14	80.78	-816.78	-8,305.99	7,120.21	7,036.24	83.97	84.792		
8,000.00	7,063.02	7,447.13	7,103.58	43.62	52.13	80.74	-816.80	-8,306.00	7,020.25	6,936.25	84.00	83.579		
8,100.00	7,062.62	7,445.87	7,102.33	45.59	52.13	80.69	-816.81	-8,306.00	6,920.28	6,836.26	84.02	82.365		
8,200.00	7,062.23	7,444.63	7,101.08	47.65	52.13	80.63	-816.82	-8,306.01	6,820.32	6,736.27	84.05	81.149		
8,300.00	7,061.84	7,443.39	7,099.85	49.79	52.12	80.56	-816.83	-8,306.02	6,720.36	6,636.28	84.07	79.933		
8,400.00	7,061.45	7,442.17	7,098.62	52.00	52.12	80.49	-816.84	-8,306.03	6,620.39	6,536.29	84.10	78.716		
8,500.00	7,061.05	7,440.95	7,097.40	54.27	52.12	80.41	-816.85	-8,306.03	6,520.43	6,436.30	84.14	77.498		
8,600.00	7,060.66	7,439.74	7,096.20	56.60	52.11	80.34	-816.86	-8,306.04	6,420.47	6,336.30	84.17	76.280		
8,700.00	7,060.27	7,438.55	7,095.00	58.97	52.11	80.25	-816.88	-8,306.05	6,320.52	6,236.31	84.21	75.061		
8,800.00	7,059.87	7,437.36	7,093.81	61.38	52.11	80.16	-816.89	-8,306.05	6,220.56	6,136.32	84.24	73.841		
8,900.00	7,059.48	7,436.17	7,092.63	63.83	52.10	80.07	-816.90	-8,306.06	6,120.60	6,036.32	84.28	72.620		
9,000.00	7,059.09	7,435.00	7,091.45	66.32	52.10	80.00	-816.91	-8,306.07	6,020.65	5,936.32	84.32	71.399		
9,100.00	7,058.69	7,433.84	7,090.29	68.83	52.10	80.00	-816.92	-8,306.07	5,920.69	5,836.33	84.37	70.177		
9,200.00	7,058.30	7,432.68	7,089.14	71.37	52.09	80.00	-816.93	-8,306.08	5,820.74	5,736.33	84.41	68.955		
9,300.00	7,057.91	7,431.54	7,087.99	73.93	52.09	80.00	-816.94	-8,306.09	5,720.79	5,636.33	84.46	67.732		
9,400.00	7,057.51	7,430.40	7,086.85	76.51	52.09	80.00	-816.95	-8,306.09	5,620.84	5,536.33	84.51	66.509		
9,500.00	7,057.12	7,429.27	7,085.72	79.11	52.09	80.00	-816.96	-8,306.10	5,520.90	5,436.33	84.57	65.285		
9,600.00	7,056.73	7,428.15	7,084.60	81.73	52.08	80.00	-816.97	-8,306.10	5,420.95	5,336.33	84.62	64.061		
9,700.00	7,056.33	7,427.03	7,083.48	84.37	52.08	80.00	-816.98	-8,306.11	5,321.01	5,236.33	84.68	62.837		
9,800.00	7,055.94	7,425.92	7,082.38	87.01	52.08	80.00	-816.99	-8,306.12	5,221.06	5,136.32	84.74	61.612		
9,900.00	7,055.55	7,424.83	7,081.28	89.68	52.07	80.00	-817.00	-8,306.12	5,121.12	5,036.32	84.81	60.387		
10,000.00	7,055.15	7,423.74	7,080.19	92.35	52.07	80.00	-817.01	-8,306.13	5,021.19	4,936.31	84.87	59.162		
10,100.00	7,054.76	7,422.65	7,079.11	95.03	52.07	80.00	-817.02	-8,306.13	4,921.25	4,836.31	84.94	57.937		
10,200.00	7,054.37	7,421.64	7,078.09	97.73	52.06	80.00	-817.03	-8,306.14	4,821.32	4,736.30	85.02	56.711		
10,300.00	7,053.98	7,420.73	7,077.18	100.43	52.06	80.00	-817.04	-8,306.14	4,721.39	4,636.30	85.09	55.485		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-42-11(PR_150CC) - OH - MWD													Offset Site Error:	0.00 ft
Survey Program: 57-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,053.58	7,419.82	7,076.27	103.14	52.06	103.26	-817.05	-8,306.15	4,621.46	4,536.29	85.17	54.259		
10,500.00	7,053.19	7,418.91	7,075.36	105.86	52.06	102.97	-817.05	-8,306.15	4,521.54	4,436.28	85.26	53.033		
10,600.00	7,052.80	7,417.99	7,074.45	108.59	52.05	102.69	-817.06	-8,306.16	4,421.62	4,336.27	85.35	51.807		
10,700.00	7,052.40	7,417.08	7,073.53	111.32	52.05	102.40	-817.07	-8,306.16	4,321.70	4,236.26	85.44	50.581		
10,800.00	7,052.01	7,416.17	7,072.62	114.06	52.05	102.11	-817.08	-8,306.17	4,221.79	4,136.25	85.54	49.355		
10,900.00	7,051.62	7,415.25	7,071.70	116.80	52.05	101.82	-817.09	-8,306.17	4,121.88	4,036.23	85.64	48.128		
11,000.00	7,051.22	7,414.34	7,070.79	119.55	52.05	101.53	-817.10	-8,306.18	4,021.97	3,936.22	85.75	46.902		
11,100.00	7,050.83	7,413.42	7,069.87	122.31	52.04	101.24	-817.11	-8,306.18	3,922.07	3,836.20	85.87	45.676		
11,200.00	7,050.44	7,412.51	7,068.96	125.07	52.04	100.95	-817.11	-8,306.19	3,822.17	3,736.19	85.99	44.450		
11,300.00	7,050.04	7,411.59	7,068.04	127.83	52.04	100.66	-817.12	-8,306.19	3,722.28	3,636.17	86.12	43.224		
11,400.00	7,049.65	7,410.67	7,067.13	130.60	52.04	100.37	-817.13	-8,306.20	3,622.40	3,536.15	86.25	41.998		
11,500.00	7,049.26	7,409.76	7,066.21	133.37	52.03	100.08	-817.14	-8,306.20	3,522.52	3,436.12	86.40	40.772		
11,600.00	7,048.86	7,408.84	7,065.29	136.15	52.03	99.78	-817.15	-8,306.20	3,422.65	3,336.10	86.55	39.545		
11,700.00	7,048.47	7,407.92	7,064.37	138.93	52.03	99.49	-817.16	-8,306.21	3,322.78	3,236.07	86.71	38.319		
11,800.00	7,048.08	7,407.00	7,063.46	141.71	52.03	99.19	-817.17	-8,306.21	3,222.93	3,136.04	86.89	37.093		
11,900.00	7,047.68	7,406.08	7,062.54	144.49	52.02	98.90	-817.17	-8,306.22	3,123.08	3,036.01	87.07	35.867		
12,000.00	7,047.29	7,405.16	7,061.62	147.28	52.02	98.60	-817.18	-8,306.22	3,023.24	2,935.97	87.28	34.640		
12,100.00	7,046.90	7,404.24	7,060.70	150.07	52.02	98.30	-817.19	-8,306.23	2,923.42	2,835.92	87.49	33.413		
12,200.00	7,046.51	7,403.32	7,059.78	152.87	52.02	98.00	-817.20	-8,306.23	2,823.60	2,735.88	87.73	32.187		
12,300.00	7,046.11	7,402.40	7,058.85	155.66	52.01	97.71	-817.21	-8,306.24	2,723.80	2,635.82	87.98	30.959		
12,400.00	7,045.72	7,401.48	7,057.93	158.46	52.01	97.41	-817.22	-8,306.24	2,624.01	2,535.76	88.26	29.732		
12,500.00	7,045.33	7,400.56	7,057.01	161.26	52.01	97.11	-817.23	-8,306.25	2,524.25	2,435.69	88.56	28.504		
12,600.00	7,044.93	7,399.63	7,056.09	164.06	52.01	96.81	-817.24	-8,306.25	2,424.49	2,335.60	88.89	27.275		
12,700.00	7,044.54	7,398.71	7,055.17	166.86	52.00	96.50	-817.25	-8,306.26	2,324.76	2,235.51	89.26	26.046		
12,800.00	7,044.15	7,397.79	7,054.24	169.67	52.00	96.20	-817.26	-8,306.26	2,225.06	2,135.40	89.66	24.816		
12,900.00	7,043.75	7,396.86	7,053.32	172.48	52.00	95.90	-817.26	-8,306.27	2,125.38	2,035.27	90.11	23.586		
13,000.00	7,043.36	7,395.94	7,052.39	175.28	52.00	95.60	-817.27	-8,306.27	2,025.73	1,935.11	90.62	22.354		
13,100.00	7,042.97	7,395.01	7,051.47	178.09	51.99	95.30	-817.28	-8,306.28	1,926.12	1,834.93	91.19	21.122		
13,200.00	7,042.57	7,394.09	7,050.54	180.91	51.99	94.99	-817.29	-8,306.28	1,826.55	1,734.71	91.84	19.889		
13,300.00	7,042.18	7,393.16	7,049.62	183.72	51.99	94.69	-817.30	-8,306.29	1,727.03	1,634.45	92.58	18.654		
13,400.00	7,041.79	7,392.24	7,048.69	186.53	51.99	94.38	-817.31	-8,306.29	1,627.57	1,534.13	93.44	17.419		
13,500.00	7,041.39	7,391.31	7,047.76	189.35	51.98	94.08	-817.32	-8,306.30	1,528.17	1,433.74	94.44	16.182		
13,600.00	7,041.00	7,390.38	7,046.84	192.17	51.98	93.77	-817.33	-8,306.30	1,428.87	1,333.26	95.61	14.945		
13,700.00	7,040.61	7,389.45	7,045.91	194.99	51.98	93.47	-817.34	-8,306.31	1,329.66	1,232.67	96.99	13.709		
13,800.00	7,040.21	7,388.53	7,044.98	197.81	51.98	93.16	-817.35	-8,306.31	1,230.58	1,131.92	98.66	12.473		
13,900.00	7,039.82	7,387.60	7,044.05	200.63	51.97	92.85	-817.36	-8,306.32	1,131.67	1,030.98	100.69	11.239		
14,000.00	7,039.43	7,386.67	7,043.12	203.45	51.97	92.55	-817.37	-8,306.32	1,032.96	929.77	103.19	10.011		
14,100.00	7,039.03	7,385.74	7,042.19	206.27	51.97	92.24	-817.38	-8,306.33	934.52	828.21	106.32	8.790		
14,200.00	7,038.64	7,384.81	7,041.26	209.09	51.97	91.93	-817.39	-8,306.33	836.46	726.15	110.31	7.583		
14,300.00	7,038.25	7,383.88	7,040.33	211.92	51.96	91.63	-817.39	-8,306.34	738.91	623.39	115.52	6.396		
14,400.00	7,037.86	7,382.95	7,039.40	214.74	51.96	91.32	-817.40	-8,306.34	642.12	519.63	122.49	5.242		
14,500.00	7,037.46	7,382.01	7,038.47	217.57	51.96	91.01	-817.41	-8,306.35	546.48	414.41	132.08	4.138		
14,600.00	7,037.07	7,381.08	7,037.54	220.40	51.96	90.70	-817.42	-8,306.35	452.73	306.99	145.74	3.106		
14,700.00	7,036.68	7,380.15	7,036.60	223.23	51.95	90.39	-817.43	-8,306.36	362.34	196.40	165.94	2.184		
14,800.00	7,036.28	7,379.22	7,035.67	226.05	51.95	90.08	-817.44	-8,306.36	278.58	82.18	196.40	1.418 Level 3		
14,871.88	7,036.00	7,378.54	7,035.00	228.09	51.95	89.86	-817.45	-8,306.36	226.67	0.67	226.00	1.003 Level 2, CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 34-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 168-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	35.00	3.28	3.28	-107.37	-2,816.99	-9,003.01	9,433.50					
100.00	100.00	37.28	72.28	3.28	3.28	-107.37	-2,816.91	-9,003.10	9,433.53	9,426.96	6.57	1,436.804		
200.00	200.00	94.63	129.63	3.34	3.29	-107.37	-2,816.47	-9,003.55	9,434.05	9,427.43	6.62	1,424.461		
300.00	300.00	168.00	202.98	3.44	3.30	-107.36	-2,815.35	-9,004.69	9,435.05	9,428.30	6.74	1,399.267		
400.00	399.98	168.00	202.98	3.60	3.30	62.78	-2,815.35	-9,004.69	9,435.81	9,428.91	6.89	1,368.671		
500.00	499.84	212.28	247.23	3.79	3.33	62.80	-2,814.49	-9,005.89	9,435.63	9,428.52	7.11	1,327.114		
600.00	599.45	259.00	293.90	4.02	3.37	62.84	-2,813.60	-9,007.82	9,434.80	9,427.42	7.38	1,278.312		
700.00	698.70	259.00	293.90	4.29	3.37	62.88	-2,813.60	-9,007.82	9,432.99	9,425.34	7.65	1,232.572		
800.00	797.70	291.78	326.63	4.59	3.40	62.91	-2,813.08	-9,009.55	9,431.15	9,423.15	7.99	1,180.043		
900.00	896.69	319.71	354.51	4.92	3.44	62.94	-2,812.77	-9,011.21	9,430.07	9,421.71	8.36	1,128.312		
995.44	991.17	350.00	384.74	5.25	3.48	62.96	-2,812.59	-9,013.21	9,429.76	9,421.02	8.74	1,079.470		
1,000.00	995.68	350.00	384.74	5.27	3.48	62.96	-2,812.59	-9,013.21	9,429.76	9,421.01	8.75	1,077.428		
1,100.00	1,094.68	407.32	441.91	5.64	3.58	63.02	-2,812.43	-9,017.30	9,430.06	9,420.85	9.21	1,023.625		
1,200.00	1,193.67	482.62	517.00	6.03	3.73	63.08	-2,812.27	-9,022.93	9,430.74	9,421.00	9.74	968.484		
1,300.00	1,292.67	532.00	566.24	6.42	3.84	63.13	-2,812.11	-9,026.69	9,431.67	9,421.43	10.24	921.106		
1,400.00	1,391.66	585.32	619.39	6.83	3.98	63.18	-2,812.07	-9,030.99	9,433.12	9,422.35	10.77	875.858		
1,500.00	1,490.66	644.00	677.83	7.25	4.14	63.23	-2,812.39	-9,036.23	9,435.35	9,424.02	11.33	832.631		
1,600.00	1,589.65	670.72	704.43	7.67	4.22	63.25	-2,812.65	-9,038.75	9,438.09	9,426.26	11.82	798.241		
1,700.00	1,688.64	757.47	790.77	8.10	4.49	63.33	-2,813.68	-9,047.07	9,441.29	9,428.79	12.49	755.634		
1,800.00	1,787.64	865.52	898.33	8.53	4.86	63.42	-2,815.00	-9,057.25	9,444.37	9,431.11	13.26	712.436		
1,900.00	1,886.63	1,900.00	1,088.07	8.97	9.11	63.60	-2,815.54	-9,075.12	9,447.30	9,429.62	17.21	534.279		
2,000.00	1,985.63	1,096.00	1,127.81	9.41	5.72	63.63	-2,815.53	-9,078.63	9,449.68	9,434.77	14.91	633.688		
2,100.00	2,084.62	1,151.95	1,183.53	9.85	5.94	63.69	-2,815.38	-9,083.73	9,452.40	9,436.85	15.55	607.677		
2,200.00	2,183.61	1,190.00	1,221.36	10.30	6.09	63.72	-2,815.16	-9,087.79	9,456.12	9,439.99	16.14	586.002		
2,300.00	2,282.61	1,190.00	1,221.36	10.75	6.09	63.72	-2,815.16	-9,087.79	9,460.61	9,444.03	16.58	570.665		
2,400.00	2,381.60	1,239.09	1,270.10	11.20	6.30	63.77	-2,814.82	-9,093.60	9,465.76	9,448.55	17.21	550.091		
2,500.00	2,480.60	1,285.00	1,315.63	11.66	6.50	63.82	-2,814.53	-9,099.51	9,471.70	9,453.88	17.83	531.284		
2,600.00	2,579.59	1,285.00	1,315.63	12.11	6.50	63.82	-2,814.53	-9,099.51	9,478.36	9,460.09	18.27	518.789		
2,700.00	2,678.58	1,339.34	1,369.46	12.57	6.74	63.87	-2,814.52	-9,107.00	9,485.62	9,466.69	18.93	501.164		
2,800.00	2,777.58	1,379.00	1,408.70	13.02	6.92	63.91	-2,814.93	-9,112.72	9,493.64	9,474.11	19.53	486.159		
2,900.00	2,876.57	1,410.37	1,439.71	13.48	7.07	63.94	-2,815.31	-9,117.44	9,502.32	9,482.23	20.10	472.835		
3,000.00	2,975.57	1,447.16	1,476.04	13.94	7.24	63.98	-2,815.55	-9,123.26	9,511.68	9,490.99	20.69	459.771		
3,100.00	3,074.56	1,475.00	1,503.49	14.40	7.38	64.01	-2,815.58	-9,127.87	9,521.70	9,500.46	21.24	448.248		
3,200.00	3,173.55	1,522.14	1,549.93	14.87	7.61	64.05	-2,815.65	-9,135.97	9,532.36	9,510.48	21.88	435.683		
3,300.00	3,272.55	1,570.00	1,597.02	15.33	7.85	64.10	-2,815.94	-9,144.52	9,543.69	9,521.17	22.52	423.783		
3,400.00	3,371.54	1,604.14	1,630.57	15.79	8.03	64.14	-2,816.22	-9,150.81	9,555.61	9,532.50	23.10	413.609		
3,500.00	3,470.54	1,665.00	1,690.32	16.26	8.34	64.20	-2,816.60	-9,162.39	9,568.13	9,544.32	23.80	401.960		
3,600.00	3,569.53	1,665.00	1,690.32	16.72	8.34	64.20	-2,816.60	-9,162.39	9,581.27	9,557.03	24.23	395.369		
3,700.00	3,668.53	1,716.40	1,740.68	17.19	8.62	64.26	-2,816.84	-9,172.68	9,594.99	9,570.10	24.89	385.434		
3,800.00	3,767.52	1,759.00	1,782.31	17.65	8.85	64.30	-2,816.99	-9,181.69	9,609.52	9,584.01	25.51	376.632		
3,900.00	3,866.51	1,759.00	1,782.31	18.12	8.85	64.30	-2,816.99	-9,181.69	9,624.77	9,598.83	25.94	371.078		
4,000.00	3,965.51	1,813.09	1,835.08	18.59	9.16	64.36	-2,817.58	-9,193.57	9,640.59	9,613.98	26.61	362.298		
4,100.00	4,064.50	1,853.00	1,873.94	19.05	9.39	64.40	-2,818.58	-9,202.57	9,657.15	9,629.94	27.22	354.843		
4,200.00	4,163.50	1,900.01	1,919.67	19.52	9.66	64.44	-2,820.01	-9,213.37	9,674.29	9,646.43	27.85	347.319		
4,300.00	4,262.49	1,958.57	1,976.58	19.99	10.01	64.50	-2,821.78	-9,227.05	9,691.86	9,663.31	28.55	339.488		
4,400.00	4,361.48	2,022.62	2,038.78	20.46	10.40	64.56	-2,823.68	-9,242.25	9,709.80	9,680.53	29.27	331.721		
4,500.00	4,460.48	2,042.00	2,057.58	20.92	10.52	64.58	-2,824.25	-9,246.90	9,728.26	9,698.49	29.77	326.731		
4,600.00	4,559.47	2,042.00	2,057.58	21.39	10.52	64.58	-2,824.25	-9,246.90	9,747.68	9,717.51	30.18	322.989		
4,700.00	4,658.47	2,042.00	2,057.58	21.86	10.52	64.58	-2,824.25	-9,246.90	9,768.09	9,737.51	30.58	319.423		
4,800.00	4,757.46	2,091.71	2,105.62	22.33	10.84	64.63	-2,825.61	-9,259.64	9,788.57	9,757.34	31.23	313.430		
4,900.00	4,856.45	2,137.00	2,148.98	22.80	11.14	64.68	-2,826.67	-9,272.64	9,810.75	9,778.89	31.86	307.964		
5,000.00	4,955.45	2,513.00	2,511.26	23.27	13.64	65.09	-2,830.49	-9,372.82	9,831.15	9,796.94	34.21	287.345		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,054.44	2,513.00	2,511.26	23.74	13.64	65.09	-2,830.49	-9,372.82	9,850.85	9,816.23	34.61	284.594		
5,200.00	5,153.44	2,513.00	2,511.26	24.21	13.64	65.09	-2,830.49	-9,372.82	9,871.52	9,836.51	35.01	281.970		
5,300.00	5,252.43	2,563.03	2,559.29	24.68	13.99	65.15	-2,829.62	-9,386.80	9,892.86	9,857.19	35.67	277.329		
5,400.00	5,351.42	2,609.00	2,603.36	25.15	14.31	65.21	-2,829.05	-9,399.88	9,914.78	9,878.47	36.31	273.049		
5,500.00	5,450.42	2,609.00	2,603.36	25.62	14.31	65.21	-2,829.05	-9,399.88	9,937.42	9,900.72	36.70	270.803		
5,600.00	5,549.41	2,609.00	2,603.36	26.09	14.31	65.21	-2,829.05	-9,399.88	9,961.00	9,923.92	37.08	268.665		
5,700.00	5,648.41	2,662.46	2,654.40	26.56	14.71	65.27	-2,828.75	-9,415.77	9,984.80	9,947.05	37.75	264.482		
7,200.00	6,998.89	6,928.55	6,812.30	33.18	40.40	-14.52	-2,853.76	-10,246.44	9,941.30	9,877.24	64.05	155.199		
7,300.00	7,035.91	6,958.23	6,841.98	33.76	40.50	-24.75	-2,854.23	-10,246.93	9,950.04	9,785.75	64.29	153.204		
7,400.00	7,058.12	6,977.05	6,860.79	34.61	40.56	-45.83	-2,854.55	-10,247.25	9,754.31	9,689.88	64.43	151.395		
7,500.00	7,064.98	6,984.67	6,868.41	35.68	40.58	-85.07	-2,854.69	-10,247.38	9,656.45	9,591.97	64.48	149.769		
7,600.00	7,064.59	6,985.83	6,869.57	36.95	40.59	-85.11	-2,854.71	-10,247.40	9,558.33	9,493.85	64.49	148.224		
7,700.00	7,064.20	6,986.99	6,870.73	38.40	40.59	-85.15	-2,854.73	-10,247.42	9,460.25	9,395.75	64.51	146.654		
7,800.00	7,063.80	6,988.16	6,871.89	40.00	40.59	-85.18	-2,854.75	-10,247.43	9,362.21	9,297.67	64.54	145.057		
7,900.00	7,063.41	6,989.31	6,873.05	41.75	40.60	-85.22	-2,854.78	-10,247.45	9,264.22	9,199.63	64.59	143.434		
8,000.00	7,063.02	6,990.47	6,874.21	43.62	40.60	-85.25	-2,854.80	-10,247.47	9,166.27	9,101.62	64.65	141.783		
8,100.00	7,062.62	6,991.63	6,875.36	45.59	40.61	-85.29	-2,854.82	-10,247.49	9,068.36	9,003.63	64.73	140.104		
8,200.00	7,062.23	6,992.78	6,876.52	47.65	40.61	-85.32	-2,854.85	-10,247.51	8,970.49	8,905.68	64.82	138.397		
8,300.00	7,061.84	6,993.93	6,877.67	49.79	40.61	-85.36	-2,854.87	-10,247.53	8,872.68	8,807.76	64.92	136.662		
8,400.00	7,061.45	6,995.08	6,878.81	52.00	40.62	-85.39	-2,854.89	-10,247.55	8,774.91	8,709.87	65.05	134.898		
8,500.00	7,061.05	6,996.22	6,879.96	54.27	40.62	-85.43	-2,854.91	-10,247.57	8,677.20	8,612.01	65.19	133.105		
8,600.00	7,060.66	6,997.37	6,881.10	56.60	40.63	-85.47	-2,854.94	-10,247.59	8,579.54	8,514.18	65.35	131.283		
8,700.00	7,060.27	6,998.51	6,882.24	58.97	40.63	-85.50	-2,854.96	-10,247.61	8,481.93	8,416.40	65.53	129.432		
8,800.00	7,059.87	6,999.65	6,883.38	61.38	40.63	-85.54	-2,854.98	-10,247.63	8,384.38	8,318.64	65.73	127.552		
8,900.00	7,059.48	7,000.79	6,884.52	63.83	40.64	-85.57	-2,855.01	-10,247.65	8,286.88	8,220.93	65.96	125.643		
9,000.00	7,059.09	7,001.92	6,885.66	66.32	40.64	-85.61	-2,855.03	-10,247.67	8,189.45	8,123.25	66.20	123.705		
9,100.00	7,058.69	7,003.05	6,886.79	68.83	40.64	-85.64	-2,855.06	-10,247.69	8,092.08	8,025.61	66.47	121.740		
9,200.00	7,058.30	7,004.19	6,887.92	71.37	40.65	-85.68	-2,855.08	-10,247.70	7,994.77	7,928.01	66.76	119.747		
9,300.00	7,057.91	7,005.32	6,889.05	73.93	40.65	-85.71	-2,855.10	-10,247.72	7,897.53	7,830.45	67.08	117.728		
9,400.00	7,057.51	7,006.44	6,890.17	76.51	40.66	-85.75	-2,855.13	-10,247.74	7,800.36	7,732.93	67.43	115.683		
9,500.00	7,057.12	7,007.57	6,891.30	79.11	40.66	-85.78	-2,855.15	-10,247.76	7,703.26	7,635.46	67.80	113.612		
9,600.00	7,056.73	7,008.69	6,892.42	81.73	40.66	-85.81	-2,855.18	-10,247.78	7,606.24	7,538.03	68.21	111.518		
9,700.00	7,056.33	7,009.81	6,893.54	84.37	40.67	-85.85	-2,855.20	-10,247.80	7,509.30	7,440.66	68.64	109.402		
9,800.00	7,055.94	7,010.93	6,894.66	87.01	40.67	-85.88	-2,855.22	-10,247.82	7,412.43	7,343.33	69.10	107.264		
9,900.00	7,055.55	7,012.05	6,895.78	89.68	40.67	-85.92	-2,855.25	-10,247.84	7,315.65	7,246.05	69.60	105.107		
10,000.00	7,055.15	7,013.16	6,896.89	92.35	40.68	-85.95	-2,855.27	-10,247.85	7,218.96	7,148.83	70.13	102.931		
10,100.00	7,054.76	7,014.27	6,898.00	95.03	40.68	-85.99	-2,855.30	-10,247.87	7,122.36	7,051.66	70.70	100.740		
10,200.00	7,054.37	7,015.38	6,899.11	97.73	40.69	-86.02	-2,855.32	-10,247.89	7,025.85	6,954.55	71.30	98.533		
10,300.00	7,053.98	7,016.49	6,900.22	100.43	40.69	-86.06	-2,855.35	-10,247.91	6,929.45	6,857.50	71.95	96.315		
10,400.00	7,053.58	7,017.60	6,901.33	103.14	40.69	-86.09	-2,855.37	-10,247.93	6,833.14	6,760.52	72.63	94.086		
10,500.00	7,053.19	7,018.70	6,902.43	105.86	40.70	-86.12	-2,855.40	-10,247.95	6,736.95	6,663.60	73.35	91.848		
10,600.00	7,052.80	7,019.81	6,903.53	108.59	40.70	-86.16	-2,855.43	-10,247.96	6,640.86	6,566.75	74.11	89.605		
10,700.00	7,052.40	7,020.91	6,904.63	111.32	40.70	-86.19	-2,855.45	-10,247.98	6,544.89	6,469.97	74.92	87.357		
10,800.00	7,052.01	7,022.01	6,905.73	114.06	40.71	-86.23	-2,855.48	-10,248.00	6,449.05	6,373.28	75.77	85.108		
10,900.00	7,051.62	7,023.10	6,906.83	116.80	40.71	-86.26	-2,855.50	-10,248.02	6,353.33	6,276.66	76.68	82.860		
11,000.00	7,051.22	7,024.20	6,907.92	119.55	40.71	-86.29	-2,855.53	-10,248.04	6,257.75	6,180.12	77.63	80.615		
11,100.00	7,050.83	7,025.29	6,909.01	122.31	40.72	-86.33	-2,855.55	-10,248.05	6,162.31	6,083.68	78.63	78.376		
11,200.00	7,050.44	7,026.38	6,910.10	125.07	40.72	-86.36	-2,855.58	-10,248.07	6,067.01	5,987.33	79.68	76.144		
11,300.00	7,050.04	7,027.47	6,911.19	127.83	40.73	-86.39	-2,855.61	-10,248.09	5,971.87	5,891.08	80.79	73.922		
11,400.00	7,049.65	7,028.55	6,912.28	130.60	40.73	-86.43	-2,855.63	-10,248.11	5,876.88	5,794.93	81.95	71.713		
11,500.00	7,049.26	7,029.64	6,913.36	133.37	40.73	-86.46	-2,855.66	-10,248.13	5,782.07	5,698.90	83.17	69.519		
11,600.00	7,048.86	7,030.72	6,914.44	136.15	40.74	-86.50	-2,855.69	-10,248.14	5,687.44	5,602.98	84.46	67.341		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
11,700.00	7,048.47	7,031.80	6,915.52	138.93	40.74	-86.53	-2,855.71	-10,248.16	5,592.99	5,507.18	85.80	65.183		
11,800.00	7,048.08	7,032.88	6,916.60	141.71	40.74	-86.56	-2,855.74	-10,248.18	5,498.73	5,411.52	87.22	63.046		
11,900.00	7,047.68	7,033.96	6,917.68	144.49	40.75	-86.60	-2,855.77	-10,248.20	5,404.69	5,315.99	88.70	60.933		
12,000.00	7,047.29	7,035.03	6,918.75	147.28	40.75	-86.63	-2,855.79	-10,248.21	5,310.86	5,220.60	90.25	58.844		
12,100.00	7,046.90	7,036.10	6,919.83	150.07	40.75	-86.66	-2,855.82	-10,248.23	5,217.26	5,125.37	91.88	56.783		
12,200.00	7,046.51	7,037.18	6,920.90	152.87	40.76	-86.69	-2,855.85	-10,248.25	5,123.90	5,030.31	93.59	54.750		
12,300.00	7,046.11	7,038.24	6,921.96	155.66	40.76	-86.73	-2,855.87	-10,248.27	5,030.79	4,935.42	95.37	52.748		
12,400.00	7,045.72	7,039.31	6,923.03	158.46	40.76	-86.76	-2,855.90	-10,248.28	4,937.96	4,840.71	97.24	50.779		
12,500.00	7,045.33	7,040.38	6,924.10	161.26	40.77	-86.79	-2,855.93	-10,248.30	4,845.41	4,746.20	99.20	48.843		
12,600.00	7,044.93	7,041.44	6,925.16	164.06	40.77	-86.83	-2,855.96	-10,248.32	4,753.16	4,651.90	101.26	46.942		
12,700.00	7,044.54	7,042.50	6,926.22	166.86	40.77	-86.86	-2,855.98	-10,248.34	4,661.23	4,557.83	103.40	45.078		
12,800.00	7,044.15	7,043.56	6,927.28	169.67	40.78	-86.89	-2,856.01	-10,248.35	4,569.64	4,463.99	105.65	43.251		
12,900.00	7,043.75	7,044.62	6,928.33	172.48	40.78	-86.92	-2,856.04	-10,248.37	4,478.41	4,370.40	108.01	41.463		
13,000.00	7,043.36	7,045.67	6,929.39	175.28	40.79	-86.96	-2,856.07	-10,248.39	4,387.56	4,277.08	110.48	39.715		
13,100.00	7,042.97	7,046.73	6,930.44	178.09	40.79	-86.99	-2,856.09	-10,248.41	4,297.12	4,184.06	113.06	38.007		
13,200.00	7,042.57	7,047.78	6,931.49	180.91	40.79	-87.02	-2,856.12	-10,248.42	4,207.11	4,091.34	115.77	36.342		
13,300.00	7,042.18	7,048.83	6,932.54	183.72	40.80	-87.05	-2,856.15	-10,248.44	4,117.56	3,998.96	118.60	34.718		
13,400.00	7,041.79	7,049.88	6,933.59	186.53	40.80	-87.09	-2,856.18	-10,248.46	4,028.50	3,906.93	121.57	33.138		
13,500.00	7,041.39	7,050.92	6,934.64	189.35	40.80	-87.12	-2,856.21	-10,248.47	3,939.97	3,815.29	124.68	31.601		
13,600.00	7,041.00	7,051.97	6,935.68	192.17	40.81	-87.15	-2,856.23	-10,248.49	3,851.99	3,724.06	127.93	30.109		
13,700.00	7,040.61	7,053.01	6,936.72	194.99	40.81	-87.18	-2,856.26	-10,248.51	3,764.62	3,633.27	131.35	28.661		
13,800.00	7,040.21	7,054.05	6,937.76	197.81	40.81	-87.22	-2,856.29	-10,248.52	3,677.89	3,542.97	134.93	27.259		
13,900.00	7,039.82	7,055.09	6,938.80	200.63	40.82	-87.25	-2,856.32	-10,248.54	3,591.85	3,453.18	138.67	25.901		
14,000.00	7,039.43	7,056.13	6,939.84	203.45	40.82	-87.28	-2,856.35	-10,248.56	3,506.55	3,363.95	142.60	24.590		
14,100.00	7,039.03	7,057.16	6,940.87	206.27	40.82	-87.31	-2,856.38	-10,248.57	3,422.05	3,275.33	146.72	23.324		
14,200.00	7,038.64	7,058.19	6,941.90	209.09	40.83	-87.34	-2,856.41	-10,248.59	3,338.40	3,187.37	151.03	22.104		
14,300.00	7,038.25	7,059.23	6,942.94	211.92	40.83	-87.38	-2,856.43	-10,248.61	3,255.68	3,100.12	155.56	20.929		
14,400.00	7,037.86	7,060.26	6,943.96	214.74	40.83	-87.41	-2,856.46	-10,248.62	3,173.95	3,013.66	160.29	19.801		
14,500.00	7,037.46	7,061.28	6,944.99	217.57	40.84	-87.44	-2,856.49	-10,248.64	3,093.29	2,928.04	165.25	18.719		
14,600.00	7,037.07	7,062.31	6,946.02	220.40	40.84	-87.47	-2,856.52	-10,248.66	3,013.79	2,843.35	170.44	17.682		
14,700.00	7,036.68	7,063.33	6,947.04	223.23	40.84	-87.50	-2,856.55	-10,248.67	2,935.55	2,759.67	175.87	16.691		
14,800.00	7,036.28	7,064.36	6,948.06	226.05	40.85	-87.53	-2,856.58	-10,248.69	2,858.66	2,677.11	181.55	15.746		
14,871.88	7,036.00	7,065.09	6,948.80	228.09	40.85	-87.56	-2,856.60	-10,248.70	2,804.29	2,618.51	185.78	15.094 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	35.00	3.28	3.28	-107.08	-2,749.25	-8,947.08	9,360.01					
100.00	100.00	37.29	72.29	3.28	3.28	-107.08	-2,749.17	-8,947.16	9,360.04	9,353.47	6.57	1,425.628		
200.00	200.00	94.66	129.66	3.34	3.29	-107.08	-2,748.74	-8,947.60	9,360.56	9,353.94	6.62	1,413.473		
300.00	300.00	464.99	499.83	3.44	3.72	-107.02	-2,739.21	-8,946.58	9,358.66	9,351.49	7.17	1,305.681		
400.00	399.98	725.16	759.81	3.60	4.38	63.26	-2,730.96	-8,941.34	9,355.23	9,347.25	7.98	1,172.381		
500.00	499.84	791.39	825.96	3.79	4.58	63.40	-2,728.26	-8,939.52	9,349.12	9,340.75	8.36	1,117.647		
600.00	599.45	850.00	884.47	4.02	4.76	63.57	-2,725.04	-8,938.61	9,342.04	9,333.27	8.78	1,064.234		
700.00	698.70	881.52	915.93	4.29	4.87	63.75	-2,722.97	-8,938.41	9,333.96	9,324.82	9.15	1,020.309		
800.00	797.70	945.00	979.22	4.59	5.08	63.84	-2,718.14	-8,938.56	9,325.63	9,315.97	9.66	965.160		
900.00	896.69	997.17	1,031.16	4.92	5.27	63.91	-2,713.29	-8,939.19	9,317.73	9,307.56	10.17	915.896		
1,000.00	995.68	1,000.00	1,146.07	5.27	5.27	64.09	-2,699.20	-8,941.51	9,309.93	9,299.40	10.53	884.302		
1,100.00	1,094.68	1,100.00	1,505.32	5.64	5.59	64.75	-2,636.31	-8,949.27	9,301.51	9,290.33	11.18	832.132		
1,200.00	1,193.67	1,843.05	1,859.26	6.03	9.30	65.57	-2,546.98	-8,953.34	9,290.05	9,274.79	15.27	608.424		
1,300.00	1,292.67	2,018.12	2,027.37	6.42	10.37	66.00	-2,498.11	-8,953.23	9,276.47	9,259.76	16.71	555.126		
1,400.00	1,391.66	2,055.78	2,063.45	6.83	10.61	66.10	-2,487.32	-8,953.26	9,263.06	9,245.71	17.35	533.919		
1,500.00	1,490.66	2,081.00	2,087.61	7.25	10.77	66.16	-2,480.08	-8,953.40	9,250.36	9,232.43	17.92	516.176		
1,600.00	1,589.65	2,137.30	2,141.47	7.67	11.14	66.30	-2,463.70	-8,954.11	9,238.27	9,219.56	18.70	493.940		
1,700.00	1,688.64	1,700.00	2,228.17	8.10	8.26	66.54	-2,436.29	-8,955.93	9,226.71	9,210.42	16.29	566.469		
1,800.00	1,787.64	2,412.23	2,403.24	8.53	13.00	67.03	-2,379.77	-8,958.45	9,214.50	9,193.10	21.39	430.728		
1,900.00	1,886.63	2,524.09	2,509.62	8.97	13.78	67.32	-2,345.21	-8,959.58	9,202.28	9,179.69	22.59	407.280		
2,000.00	1,985.63	2,618.45	2,599.57	9.41	14.44	67.57	-2,316.71	-8,960.09	9,189.99	9,166.31	23.68	388.012		
2,100.00	2,084.62	2,762.31	2,735.93	9.85	15.48	67.96	-2,270.90	-8,961.10	9,177.68	9,152.54	25.15	364.963		
2,200.00	2,183.61	2,828.59	2,798.53	10.30	15.97	68.15	-2,249.12	-8,961.62	9,165.41	9,139.33	26.08	351.409		
2,300.00	2,282.61	2,885.29	2,852.29	10.75	16.37	68.30	-2,231.12	-8,962.07	9,153.61	9,126.67	26.94	339.797		
2,400.00	2,381.60	2,933.00	2,897.91	11.20	16.71	68.43	-2,217.17	-8,962.34	9,142.34	9,114.61	27.73	329.657		
2,500.00	2,480.60	3,002.69	2,964.69	11.66	17.20	68.60	-2,197.27	-8,962.85	9,131.55	9,102.88	28.67	318.505		
2,600.00	2,579.59	3,180.00	3,134.59	12.11	18.43	69.06	-2,146.55	-8,963.49	9,120.48	9,090.14	30.34	300.655		
2,700.00	2,678.58	2,700.00	3,248.12	12.57	15.14	69.35	-2,113.73	-8,963.01	9,109.15	9,081.61	27.54	330.735		
2,800.00	2,777.58	3,362.34	3,309.69	13.02	19.69	69.52	-2,095.67	-8,962.72	9,097.93	9,065.43	32.50	279.934		
2,900.00	2,876.57	3,409.00	3,354.40	13.48	20.02	69.64	-2,082.34	-8,962.85	9,087.40	9,054.10	33.29	272.967		
3,000.00	2,975.57	3,503.90	3,445.42	13.94	20.68	69.88	-2,055.47	-8,963.29	9,077.27	9,042.86	34.41	263.780		
3,100.00	3,074.56	3,574.28	3,512.93	14.40	21.17	70.06	-2,035.57	-8,963.62	9,067.35	9,031.98	35.37	256.358		
3,200.00	3,173.55	3,644.77	3,580.41	14.87	21.67	70.24	-2,015.20	-8,964.21	9,057.81	9,021.47	36.33	249.287		
3,300.00	3,272.55	3,722.44	3,654.66	15.33	22.23	70.45	-1,992.44	-8,965.09	9,048.64	9,011.28	37.36	242.203		
3,400.00	3,371.54	3,813.89	3,741.60	15.79	22.90	70.70	-1,964.12	-8,966.45	9,039.70	9,001.20	38.50	234.798		
3,500.00	3,470.54	3,908.19	3,830.96	16.26	23.61	70.97	-1,934.04	-8,967.99	9,030.96	8,991.28	39.68	227.608		
3,600.00	3,569.53	4,000.05	3,917.99	16.72	24.31	71.22	-1,904.65	-8,969.42	9,022.33	8,981.49	40.84	220.914		
3,700.00	3,668.53	4,071.00	3,985.31	17.19	24.84	71.42	-1,882.30	-8,970.58	9,014.08	8,972.23	41.85	215.403		
3,800.00	3,767.52	4,113.94	4,026.14	17.65	25.16	71.54	-1,869.04	-8,971.40	9,006.34	8,963.70	42.64	211.213		
3,900.00	3,866.51	4,166.00	4,075.76	18.12	25.55	71.68	-1,853.33	-8,972.59	8,999.25	8,955.75	43.50	206.875		
4,000.00	3,965.51	4,571.83	4,460.23	18.59	28.63	72.83	-1,723.64	-8,975.81	8,990.33	8,943.32	47.00	191.265		
4,100.00	4,064.50	4,615.34	4,501.23	19.05	28.98	72.96	-1,709.06	-8,975.67	8,980.91	8,933.08	47.83	187.769		
4,200.00	4,163.50	4,662.36	4,545.65	19.52	29.34	73.09	-1,693.64	-8,975.70	8,972.15	8,923.48	48.67	184.333		
4,300.00	4,262.49	4,713.89	4,594.59	19.99	29.73	73.24	-1,677.52	-8,975.85	8,964.00	8,914.46	49.54	180.933		
4,400.00	4,361.48	4,765.02	4,643.40	20.46	30.10	73.38	-1,662.29	-8,976.10	8,956.45	8,906.05	50.40	177.706		
4,500.00	4,460.48	4,830.00	4,705.59	20.92	30.57	73.55	-1,643.47	-8,976.69	8,949.51	8,898.16	51.35	174.290		
4,600.00	4,559.47	4,895.16	4,768.30	21.39	31.02	73.72	-1,625.77	-8,977.31	8,943.02	8,890.75	52.27	171.084		
4,700.00	4,658.47	4,969.06	4,839.92	21.86	31.51	73.89	-1,607.59	-8,977.83	8,936.81	8,883.57	53.24	167.866		
4,800.00	4,757.46	5,035.44	4,904.46	22.33	31.94	74.05	-1,592.06	-8,978.41	8,931.02	8,876.88	54.14	164.963		
4,900.00	4,856.45	5,105.61	4,972.86	22.80	32.37	74.21	-1,576.45	-8,979.12	8,925.63	8,870.57	55.05	162.129		
5,000.00	4,955.45	5,188.82	5,054.32	23.27	32.86	74.39	-1,559.51	-8,979.95	8,920.56	8,864.54	56.02	159.242		
5,100.00	5,054.44	5,273.53	5,137.71	23.74	33.33	74.56	-1,544.59	-8,980.64	8,915.70	8,858.74	56.96	156.527		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,351.89	5,215.17	24.21	33.73	74.70	-1,532.78	-8,981.18	8,911.08	8,853.24	57.84	154.066		
5,300.00	5,252.43	5,429.55	5,292.11	24.68	34.11	74.83	-1,522.29	-8,981.77	8,906.77	8,848.07	58.69	151.756		
5,400.00	5,351.42	5,509.80	5,371.90	25.15	34.48	74.96	-1,513.79	-8,982.30	8,902.69	8,843.16	59.53	149.552		
5,500.00	5,450.42	5,581.39	5,443.21	25.62	34.78	75.06	-1,507.50	-8,982.83	8,898.92	8,838.62	60.31	147.565		
5,600.00	5,549.41	5,604.81	5,566.12	26.09	35.65	75.35	-1,492.58	-8,982.36	8,894.22	8,832.59	61.64	144.297		
5,700.00	5,648.41	5,672.00	5,733.24	26.56	35.89	75.43	-1,489.62	-8,981.99	8,889.62	8,827.27	62.36	142.562		
5,800.00	5,747.40	5,905.33	5,766.55	27.03	36.01	75.47	-1,488.38	-8,981.98	8,885.52	8,822.57	62.95	141.155		
5,900.00	5,846.40	5,966.00	5,827.19	27.51	36.21	75.53	-1,486.62	-8,982.16	8,881.98	8,818.35	63.63	139.586		
6,000.00	5,945.39	6,038.73	5,899.91	27.98	36.45	75.61	-1,484.95	-8,982.61	8,878.83	8,814.49	64.34	137.989		
6,100.00	6,044.38	6,143.70	6,004.85	28.45	36.80	75.71	-1,482.76	-8,983.33	8,875.81	8,810.65	65.16	136.209		
6,200.00	6,143.38	6,245.50	6,106.63	28.92	37.14	75.82	-1,480.80	-8,983.88	8,872.69	8,806.72	65.97	134.491		
6,300.00	6,242.37	6,321.43	6,182.54	29.39	37.39	75.89	-1,479.29	-8,984.41	8,869.75	8,803.05	66.70	132.982		
6,400.00	6,341.37	6,398.55	6,259.64	29.86	37.65	75.97	-1,477.62	-8,985.15	8,867.09	8,799.66	67.43	131.501		
6,500.00	6,440.36	6,479.52	6,340.59	30.34	37.92	76.06	-1,475.90	-8,986.11	8,864.67	8,796.50	68.18	130.028		
6,600.00	6,538.90	6,568.48	6,429.52	30.80	38.22	76.70	-1,474.11	-8,987.33	8,856.18	8,787.24	68.94	128.456		
6,700.00	6,634.88	6,675.24	6,536.25	31.25	38.58	20.17	-1,472.03	-8,988.73	8,832.32	8,762.58	69.75	126.630		
6,800.00	6,725.92	6,753.92	6,614.90	31.68	38.85	13.05	-1,470.54	-8,989.75	8,793.62	8,723.19	70.43	124.862		
6,900.00	6,809.79	6,821.64	6,682.61	32.07	39.08	9.09	-1,469.30	-8,990.75	8,741.19	8,670.17	71.03	123.071		
7,000.00	6,884.42	6,888.06	6,749.01	32.43	39.30	6.41	-1,468.07	-8,991.85	8,676.27	8,604.70	71.57	121.228		
7,100.00	6,947.98	6,949.91	6,810.83	32.77	39.52	4.16	-1,466.76	-8,992.91	8,600.35	8,528.31	72.04	119.381		
7,200.00	6,998.89	6,999.88	6,860.78	33.18	39.69	1.69	-1,465.56	-8,993.79	8,515.26	8,442.86	72.41	117.606		
7,300.00	7,035.91	7,043.32	6,904.21	33.76	39.84	-2.16	-1,464.45	-8,994.56	8,423.08	8,350.40	72.68	115.888		
7,400.00	7,058.12	7,071.64	6,932.50	34.61	39.94	-12.29	-1,463.74	-8,995.04	8,326.07	8,253.22	72.85	114.296		
7,500.00	7,064.98	7,081.71	6,942.57	35.68	39.98	-79.09	-1,463.48	-8,995.21	8,226.63	8,153.73	72.90	112.854		
7,600.00	7,064.59	7,083.18	6,944.04	36.95	39.98	-79.26	-1,463.45	-8,995.24	8,126.80	8,053.90	72.90	111.486		
7,700.00	7,064.20	7,084.64	6,945.50	38.40	39.99	-79.43	-1,463.41	-8,995.26	8,026.97	7,954.07	72.90	110.114		
7,800.00	7,063.80	7,086.09	6,946.96	40.00	40.00	-79.60	-1,463.38	-8,995.28	7,927.15	7,854.25	72.90	108.741		
7,900.00	7,063.41	7,087.54	6,948.40	41.75	40.00	-79.78	-1,463.34	-8,995.31	7,827.33	7,754.43	72.90	107.365		
8,000.00	7,063.02	7,088.98	6,949.84	43.62	40.01	-79.95	-1,463.30	-8,995.33	7,727.52	7,654.61	72.91	105.987		
8,100.00	7,062.62	7,090.41	6,951.27	45.59	40.01	-80.12	-1,463.27	-8,995.35	7,627.71	7,554.79	72.92	104.606		
8,200.00	7,062.23	7,091.84	6,952.70	47.65	40.02	-80.28	-1,463.23	-8,995.38	7,527.90	7,454.97	72.93	103.223		
8,300.00	7,061.84	7,093.26	6,954.12	49.79	40.02	-80.45	-1,463.20	-8,995.40	7,428.10	7,355.16	72.94	101.838		
8,400.00	7,061.45	7,094.68	6,955.53	52.00	40.03	-80.62	-1,463.16	-8,995.42	7,328.31	7,255.35	72.96	100.450		
8,500.00	7,061.05	7,096.08	6,956.94	54.27	40.03	-80.79	-1,463.13	-8,995.45	7,228.52	7,155.55	72.97	99.059		
8,600.00	7,060.66	7,097.48	6,958.34	56.60	40.04	-80.96	-1,463.09	-8,995.47	7,128.74	7,055.75	72.99	97.667		
8,700.00	7,060.27	7,098.88	6,959.73	58.97	40.04	-81.12	-1,463.06	-8,995.49	7,028.96	6,955.95	73.01	96.272		
8,800.00	7,059.87	7,100.27	6,961.12	61.38	40.05	-81.29	-1,463.03	-8,995.51	6,929.19	6,856.16	73.04	94.874		
8,900.00	7,059.48	7,101.65	6,962.50	63.83	40.05	-81.45	-1,462.99	-8,995.54	6,829.43	6,756.37	73.06	93.474		
9,000.00	7,059.09	7,103.02	6,963.88	66.32	40.06	-81.62	-1,462.96	-8,995.56	6,729.67	6,656.58	73.09	92.071		
9,100.00	7,058.69	7,104.39	6,965.24	68.83	40.06	-81.78	-1,462.92	-8,995.58	6,629.92	6,556.80	73.12	90.666		
9,200.00	7,058.30	7,105.75	6,966.61	71.37	40.06	-81.94	-1,462.89	-8,995.60	6,530.18	6,457.02	73.16	89.259		
9,300.00	7,057.91	7,107.11	6,967.96	73.93	40.07	-82.11	-1,462.86	-8,995.62	6,430.44	6,357.24	73.20	87.849		
9,400.00	7,057.51	7,108.46	6,969.31	76.51	40.07	-82.27	-1,462.83	-8,995.65	6,330.72	6,257.47	73.24	86.436		
9,500.00	7,057.12	7,109.80	6,970.66	79.11	40.08	-82.43	-1,462.79	-8,995.67	6,231.00	6,157.71	73.29	85.020		
9,600.00	7,056.73	7,111.14	6,971.99	81.73	40.08	-82.59	-1,462.76	-8,995.69	6,131.29	6,057.95	73.34	83.602		
9,700.00	7,056.33	7,112.47	6,973.32	84.37	40.09	-82.75	-1,462.73	-8,995.71	6,031.59	5,958.19	73.39	82.181		
9,800.00	7,055.94	7,113.80	6,974.65	87.01	40.09	-82.91	-1,462.69	-8,995.73	5,931.90	5,858.44	73.45	80.757		
9,900.00	7,055.55	7,115.12	6,975.97	89.68	40.10	-83.07	-1,462.66	-8,995.75	5,832.22	5,758.70	73.52	79.330		
10,000.00	7,055.15	7,116.43	6,977.28	92.35	40.10	-83.23	-1,462.63	-8,995.77	5,732.55	5,658.96	73.59	77.900		
10,100.00	7,054.76	7,117.74	6,978.59	95.03	40.11	-83.39	-1,462.60	-8,995.79	5,632.89	5,559.23	73.66	76.467		
10,200.00	7,054.37	7,119.04	6,979.89	97.73	40.11	-83.54	-1,462.57	-8,995.81	5,533.25	5,459.50	73.75	75.031		
10,300.00	7,053.98	7,120.34	6,981.19	100.43	40.12	-83.70	-1,462.54	-8,995.83	5,433.61	5,359.78	73.83	73.592		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 43-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 118-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,053.58	7,121.63	6,982.48	103.14	40.12	-83.86	-1,462.50	-8,995.86	5,333.99	5,260.06	73.93	72.150		
10,500.00	7,053.19	7,122.92	6,983.76	105.86	40.13	-84.01	-1,462.47	-8,995.88	5,234.39	5,160.36	74.03	70.704		
10,600.00	7,052.80	7,124.20	6,985.04	108.59	40.13	-84.17	-1,462.44	-8,995.90	5,134.80	5,060.65	74.14	69.254		
10,700.00	7,052.40	7,125.47	6,986.31	111.32	40.13	-84.32	-1,462.41	-8,995.92	5,035.22	4,960.96	74.26	67.801		
10,800.00	7,052.01	7,126.74	6,987.58	114.06	40.14	-84.48	-1,462.38	-8,995.94	4,935.67	4,861.27	74.40	66.344		
10,900.00	7,051.62	7,128.00	6,988.84	116.80	40.14	-84.63	-1,462.35	-8,995.95	4,836.13	4,761.59	74.54	64.883		
11,000.00	7,051.22	7,129.26	6,990.10	119.55	40.15	-84.78	-1,462.32	-8,995.97	4,736.61	4,661.92	74.69	63.418		
11,100.00	7,050.83	7,130.51	6,991.35	122.31	40.15	-84.93	-1,462.29	-8,995.99	4,637.11	4,562.25	74.85	61.949		
11,200.00	7,050.44	7,131.76	6,992.60	125.07	40.16	-85.09	-1,462.26	-8,996.01	4,537.63	4,462.60	75.03	60.476		
11,300.00	7,050.04	7,133.00	6,993.84	127.83	40.16	-85.24	-1,462.23	-8,996.03	4,438.17	4,362.95	75.23	58.998		
11,400.00	7,049.65	7,134.23	6,995.07	130.60	40.17	-85.39	-1,462.20	-8,996.05	4,338.74	4,263.31	75.44	57.516		
11,500.00	7,049.26	7,135.46	6,996.30	133.37	40.17	-85.54	-1,462.17	-8,996.07	4,239.34	4,163.68	75.66	56.029		
11,600.00	7,048.86	7,136.69	6,997.53	136.15	40.17	-85.69	-1,462.14	-8,996.09	4,139.97	4,064.05	75.91	54.537		
11,700.00	7,048.47	7,137.91	6,998.74	138.93	40.18	-85.83	-1,462.11	-8,996.11	4,040.62	3,964.44	76.18	53.040		
11,800.00	7,048.08	7,139.12	6,999.96	141.71	40.18	-85.98	-1,462.08	-8,996.13	3,941.31	3,864.83	76.47	51.538		
11,900.00	7,047.68	7,140.33	7,001.17	144.49	40.19	-86.13	-1,462.05	-8,996.15	3,842.03	3,765.24	76.79	50.031		
12,000.00	7,047.29	7,141.53	7,002.37	147.28	40.19	-86.28	-1,462.02	-8,996.16	3,742.79	3,665.65	77.14	48.519		
12,100.00	7,046.90	7,142.73	7,003.57	150.07	40.20	-86.42	-1,461.99	-8,996.18	3,643.60	3,566.07	77.52	47.001		
12,200.00	7,046.51	7,143.92	7,004.76	152.87	40.20	-86.57	-1,461.97	-8,996.20	3,544.44	3,466.51	77.94	45.478		
12,300.00	7,046.11	7,145.11	7,005.95	155.66	40.20	-86.72	-1,461.94	-8,996.22	3,445.34	3,366.95	78.39	43.950		
12,400.00	7,045.72	7,146.29	7,007.13	158.46	40.21	-86.86	-1,461.91	-8,996.24	3,346.29	3,267.40	78.89	42.417		
12,500.00	7,045.33	7,147.47	7,008.31	161.26	40.21	-87.00	-1,461.88	-8,996.25	3,247.29	3,167.86	79.44	40.879		
12,600.00	7,044.93	7,148.65	7,009.48	164.06	40.22	-87.15	-1,461.85	-8,996.27	3,148.36	3,068.33	80.04	39.335		
12,700.00	7,044.54	7,149.81	7,010.65	166.86	40.22	-87.29	-1,461.82	-8,996.29	3,049.50	2,968.80	80.70	37.788		
12,800.00	7,044.15	7,150.98	7,011.81	169.67	40.22	-87.43	-1,461.80	-8,996.31	2,950.72	2,869.29	81.43	36.236		
12,900.00	7,043.75	7,152.14	7,012.97	172.48	40.23	-87.58	-1,461.77	-8,996.33	2,852.02	2,769.78	82.24	34.681		
13,000.00	7,043.36	7,153.29	7,014.12	175.28	40.23	-87.72	-1,461.74	-8,996.34	2,753.41	2,670.29	83.13	33.123		
13,100.00	7,042.97	7,154.44	7,015.27	178.09	40.24	-87.86	-1,461.71	-8,996.36	2,654.91	2,570.80	84.11	31.564		
13,200.00	7,042.57	7,155.58	7,016.42	180.91	40.24	-88.00	-1,461.69	-8,996.38	2,556.52	2,471.31	85.21	30.003		
13,300.00	7,042.18	7,156.72	7,017.55	183.72	40.25	-88.14	-1,461.66	-8,996.39	2,458.26	2,371.84	86.43	28.444		
13,400.00	7,041.79	7,157.86	7,018.69	186.53	40.25	-88.28	-1,461.63	-8,996.41	2,360.15	2,272.37	87.78	26.886		
13,500.00	7,041.39	7,158.99	7,019.82	189.35	40.25	-88.42	-1,461.61	-8,996.43	2,262.21	2,172.91	89.30	25.333		
13,600.00	7,041.00	7,160.11	7,020.94	192.17	40.26	-88.55	-1,461.58	-8,996.45	2,164.45	2,073.45	91.00	23.786		
13,700.00	7,040.61	7,161.23	7,022.06	194.99	40.26	-88.69	-1,461.55	-8,996.46	2,066.90	1,974.00	92.90	22.249		
13,800.00	7,040.21	7,162.35	7,023.18	197.81	40.27	-88.83	-1,461.53	-8,996.48	1,969.60	1,874.56	95.04	20.723		
13,900.00	7,039.82	7,163.46	7,024.29	200.63	40.27	-88.97	-1,461.50	-8,996.50	1,872.58	1,775.12	97.46	19.214		
14,000.00	7,039.43	7,164.56	7,025.39	203.45	40.27	-89.10	-1,461.47	-8,996.51	1,775.90	1,675.70	100.20	17.724		
14,100.00	7,039.03	7,165.67	7,026.50	206.27	40.28	-89.24	-1,461.45	-8,996.53	1,679.60	1,576.29	103.31	16.258		
14,200.00	7,038.64	7,166.76	7,027.59	209.09	40.28	-89.37	-1,461.42	-8,996.54	1,583.76	1,476.90	106.86	14.821		
14,300.00	7,038.25	7,167.86	7,028.69	211.92	40.28	-89.51	-1,461.40	-8,996.56	1,488.46	1,377.54	110.92	13.419		
14,400.00	7,037.86	7,168.95	7,029.77	214.74	40.29	-89.64	-1,461.37	-8,996.58	1,393.83	1,278.24	115.59	12.058		
14,500.00	7,037.46	7,170.03	7,030.86	217.57	40.29	-89.77	-1,461.34	-8,996.59	1,299.99	1,179.00	120.99	10.745		
14,600.00	7,037.07	7,171.11	7,031.94	220.40	40.30	-89.91	-1,461.32	-8,996.61	1,207.15	1,079.89	127.26	9.486		
14,700.00	7,036.68	7,172.19	7,033.01	223.23	40.30	-90.04	-1,461.29	-8,996.62	1,115.54	980.96	134.58	8.289		
14,800.00	7,036.28	7,173.26	7,034.08	226.05	40.30	-90.17	-1,461.27	-8,996.64	1,025.51	882.33	143.17	7.163		
14,871.88	7,036.00	7,174.02	7,034.85	228.09	40.31	-90.27	-1,461.25	-8,996.65	962.00	811.73	150.27	6.402 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	35.00	3.28	3.28	-107.06	-2,755.07	-8,977.96	9,391.24					
100.00	100.00	178.03	213.00	3.28	3.33	-107.04	-2,752.30	-8,977.65	9,390.74	9,384.13	6.61	1,420.174		
200.00	200.00	307.05	341.99	3.34	3.47	-107.03	-2,749.26	-8,976.66	9,389.30	9,382.50	6.81	1,379.649		
300.00	300.00	411.54	446.42	3.44	3.64	-107.01	-2,746.10	-8,976.00	9,387.81	9,380.72	7.09	1,324.290		
400.00	399.98	495.89	530.72	3.60	3.82	63.21	-2,742.99	-8,975.57	9,385.48	9,378.06	7.42	1,265.537		
500.00	499.84	542.00	576.78	3.79	3.93	63.29	-2,741.01	-8,975.57	9,381.94	9,374.23	7.71	1,216.349		
600.00	599.45	590.35	625.08	4.02	4.05	63.41	-2,738.83	-8,975.87	9,377.40	9,369.33	8.07	1,162.585		
700.00	698.70	648.00	682.67	4.29	4.21	63.56	-2,736.27	-8,976.79	9,372.04	9,363.55	8.49	1,103.837		
800.00	797.70	665.03	699.67	4.59	4.25	63.59	-2,735.54	-8,977.17	9,366.36	9,357.52	8.84	1,059.544		
900.00	896.69	714.14	748.73	4.92	4.39	63.64	-2,733.62	-8,978.47	9,361.39	9,352.08	9.31	1,005.602		
1,000.00	995.68	790.00	824.51	5.27	4.62	63.72	-2,730.84	-8,980.59	9,356.72	9,346.84	9.89	946.231		
1,100.00	1,094.68	836.34	870.79	5.64	4.77	63.77	-2,728.99	-8,982.12	9,352.51	9,342.10	10.40	898.944		
1,200.00	1,193.67	884.00	918.35	6.03	4.93	63.82	-2,726.68	-8,984.17	9,348.94	9,338.00	10.94	854.365		
1,300.00	1,292.67	884.00	918.35	6.42	4.93	63.82	-2,726.68	-8,984.17	9,346.15	9,334.81	11.34	824.276		
1,400.00	1,391.66	933.53	967.74	6.83	5.09	63.88	-2,724.06	-8,986.91	9,343.95	9,332.04	11.91	784.493		
1,500.00	1,490.66	979.00	1,013.03	7.25	5.25	63.94	-2,721.65	-8,990.05	9,342.70	9,330.22	12.48	748.559		
1,600.00	1,589.65	979.00	1,013.03	7.67	5.25	63.94	-2,721.65	-8,990.05	9,342.12	9,329.22	12.90	724.143		
1,637.33	1,626.60	1,012.85	1,046.73	7.83	5.38	63.98	-2,719.73	-8,992.71	9,342.05	9,328.87	13.18	708.827		
1,700.00	1,688.64	1,043.47	1,077.17	8.10	5.49	64.02	-2,717.77	-8,995.29	9,342.16	9,328.61	13.56	689.098		
1,800.00	1,787.64	1,105.24	1,138.50	8.53	5.72	64.10	-2,717.17	-9,000.95	9,342.77	9,328.55	14.22	657.137		
1,900.00	1,886.63	1,168.00	1,200.70	8.97	5.97	64.19	-2,707.49	-9,007.09	9,343.67	9,328.78	14.89	627.380		
2,000.00	1,985.63	1,212.08	1,244.29	9.41	6.15	64.26	-2,702.93	-9,011.77	9,345.12	9,329.61	15.51	602.593		
2,100.00	2,084.62	1,263.00	1,294.53	9.85	6.37	64.35	-2,697.16	-9,017.78	9,347.32	9,331.16	16.16	578.534		
2,200.00	2,183.61	1,263.00	1,294.53	10.30	6.37	64.35	-2,697.16	-9,017.78	9,350.20	9,333.61	16.60	563.405		
2,300.00	2,282.61	1,311.53	1,342.25	10.75	6.59	64.43	-2,691.08	-9,024.15	9,353.77	9,336.52	17.25	542.295		
2,400.00	2,381.60	1,358.00	1,387.78	11.20	6.80	64.51	-2,684.67	-9,030.91	9,358.18	9,340.28	17.90	522.921		
2,500.00	2,480.60	1,407.18	1,435.88	11.66	7.04	64.60	-2,677.60	-9,038.39	9,363.17	9,344.61	18.57	504.340		
2,600.00	2,579.59	1,515.54	1,541.92	12.11	7.57	64.80	-2,662.46	-9,054.70	9,368.33	9,348.81	19.52	479.932		
2,700.00	2,678.58	1,579.15	1,604.30	12.57	7.89	64.92	-2,654.23	-9,064.09	9,373.57	9,353.30	20.27	462.456		
2,800.00	2,777.58	1,642.00	1,665.84	13.02	8.21	65.03	-2,646.05	-9,073.82	9,379.45	9,358.43	21.02	446.252		
2,900.00	2,876.57	1,704.68	1,727.22	13.48	8.54	65.14	-2,638.06	-9,083.71	9,385.75	9,363.98	21.77	431.130		
3,000.00	2,975.57	1,859.61	1,879.08	13.94	9.36	65.41	-2,618.38	-9,107.26	9,391.58	9,368.58	22.99	408.423		
3,100.00	3,074.56	1,899.25	1,917.88	14.40	9.58	65.48	-2,613.10	-9,113.41	9,397.76	9,374.12	23.64	397.516		
3,200.00	3,173.55	2,043.65	2,059.34	14.87	10.37	65.73	-2,594.73	-9,135.79	9,404.19	9,379.36	24.83	378.709		
3,300.00	3,272.55	2,089.93	2,104.73	15.33	10.62	65.81	-2,589.04	-9,142.88	9,410.59	9,385.08	25.51	368.834		
3,400.00	3,371.54	2,349.93	2,359.00	15.79	12.09	66.29	-2,552.01	-9,182.29	9,416.56	9,389.20	27.36	344.183		
3,500.00	3,470.54	2,401.00	2,409.05	16.26	12.38	66.38	-2,545.06	-9,189.72	9,422.06	9,393.98	28.08	335.518		
3,600.00	3,569.53	2,445.20	2,452.40	16.72	12.63	66.46	-2,539.51	-9,196.28	9,428.12	9,399.36	28.76	327.804		
3,700.00	3,668.53	2,495.00	2,501.21	17.19	12.92	66.54	-2,533.05	-9,203.79	9,434.59	9,405.12	29.47	320.137		
3,800.00	3,767.52	2,557.32	2,562.20	17.65	13.28	66.66	-2,524.70	-9,213.51	9,441.52	9,411.26	30.25	312.087		
3,900.00	3,866.51	2,634.30	2,637.41	18.12	13.73	66.80	-2,514.08	-9,226.02	9,449.01	9,417.89	31.12	303.644		
4,000.00	3,965.51	2,730.68	2,731.60	18.59	14.30	66.97	-2,500.79	-9,241.55	9,456.49	9,424.39	32.10	294.635		
4,100.00	4,064.50	2,874.00	2,871.84	19.05	15.14	67.22	-2,482.02	-9,264.35	9,464.04	9,430.71	33.33	283.958		
4,200.00	4,163.50	2,913.82	2,910.90	19.52	15.37	67.29	-2,477.39	-9,270.50	9,471.53	9,437.55	33.98	278.736		
4,300.00	4,262.49	2,969.00	2,965.02	19.99	15.68	67.38	-2,471.39	-9,279.49	9,479.83	9,445.12	34.71	273.086		
4,400.00	4,361.48	2,993.49	2,989.02	20.46	15.83	67.42	-2,468.78	-9,283.62	9,488.67	9,453.39	35.28	268.957		
4,500.00	4,460.48	3,219.49	3,210.73	20.92	17.12	67.79	-2,444.37	-9,319.86	9,496.81	9,459.88	36.94	257.107		
4,600.00	4,559.47	3,404.52	3,392.98	21.39	18.14	68.06	-2,428.26	-9,347.40	9,504.73	9,466.39	38.33	247.956		
4,700.00	4,658.47	3,716.22	3,700.75	21.86	19.81	68.52	-2,400.00	-9,387.74	9,510.22	9,469.85	40.37	235.584		
4,800.00	4,757.46	3,729.00	3,713.36	22.33	19.88	68.54	-2,398.68	-9,389.30	9,515.57	9,474.69	40.88	232.779		
4,900.00	4,856.45	3,787.72	3,771.22	22.80	20.21	68.63	-2,392.22	-9,396.92	9,521.40	9,479.77	41.63	228.699		
5,000.00	4,955.45	3,824.00	3,806.87	23.27	20.41	68.69	-2,387.84	-9,402.07	9,528.09	9,485.82	42.27	225.435		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,054.44	3,856.30	3,838.55	23.74	20.61	68.75	-2,383.78	-9,406.89	9,535.47	9,492.59	42.88	222.374		
5,200.00	5,153.44	3,916.00	3,897.01	24.21	20.96	68.85	-2,376.11	-9,416.26	9,543.58	9,499.93	43.65	218.651		
5,300.00	5,252.43	3,948.15	3,928.46	24.68	21.15	68.91	-2,371.93	-9,421.48	9,552.19	9,507.93	44.26	215.826		
5,400.00	5,351.42	4,156.54	4,132.71	25.15	22.38	69.26	-2,346.45	-9,453.95	9,560.54	9,514.68	45.86	208.477		
5,500.00	5,450.42	4,228.60	4,203.39	25.62	22.81	69.38	-2,337.61	-9,464.88	9,568.57	9,521.88	46.69	204.928		
5,600.00	5,549.41	4,339.74	4,312.14	26.09	23.47	69.57	-2,322.34	-9,482.01	9,576.71	9,528.95	47.76	200.518		
5,700.00	5,648.41	4,430.19	4,400.37	26.56	24.03	69.74	-2,308.29	-9,496.04	9,584.79	9,536.06	48.72	196.718		
5,800.00	5,747.40	4,485.00	4,453.69	27.03	24.38	69.84	-2,299.04	-9,504.77	9,593.21	9,543.73	49.48	193.881		
5,900.00	5,846.40	4,543.67	4,510.65	27.51	24.75	69.96	-2,288.81	-9,514.39	9,602.10	9,551.84	50.27	191.028		
6,000.00	5,945.39	4,721.20	4,683.52	27.98	25.87	70.29	-2,260.27	-9,542.88	9,610.91	9,559.15	51.76	185.685		
6,100.00	6,044.38	5,910.63	5,862.42	28.45	31.68	71.87	-2,169.41	-9,647.66	9,614.83	9,557.02	57.82	166.294		
6,200.00	6,143.38	6,152.04	6,103.80	28.92	32.56	72.07	-2,167.44	-9,650.59	9,611.41	9,552.25	59.16	162.455		
6,300.00	6,242.37	6,300.00	6,303.65	29.39	33.09	72.25	-2,165.35	-9,649.94	9,606.21	9,546.06	60.15	159.705		
6,400.00	6,341.37	6,446.26	6,398.00	29.86	33.62	72.33	-2,164.04	-9,649.22	9,600.94	9,539.76	61.17	156.948		
6,500.00	6,440.36	6,490.18	6,441.90	30.34	33.78	72.37	-2,163.32	-9,649.19	9,596.30	9,534.47	61.83	155.213		
6,600.00	6,538.90	6,566.00	6,517.71	30.80	34.06	72.39	-2,161.96	-9,649.74	9,586.14	9,523.55	62.59	153.167		
6,700.00	6,634.88	6,566.00	6,517.71	31.25	34.06	72.39	-2,161.96	-9,649.74	9,561.10	9,498.05	63.05	151.636		
6,800.00	6,725.92	6,632.55	6,584.24	31.68	34.31	72.39	-2,160.80	-9,650.73	9,521.87	9,458.15	63.73	149.414		
6,900.00	6,809.79	6,681.55	6,633.23	32.07	34.50	72.39	-2,160.07	-9,651.66	9,469.25	9,404.96	64.29	147.280		
7,000.00	6,884.42	6,725.62	6,677.29	32.43	34.67	72.39	-2,159.51	-9,652.64	9,404.41	9,339.62	64.79	145.157		
7,100.00	6,947.98	6,766.16	6,717.81	32.77	34.83	72.39	-2,159.07	-9,653.66	9,328.85	9,263.65	65.21	143.068		
7,200.00	6,998.89	6,806.10	6,757.73	33.18	34.99	72.39	-2,158.67	-9,654.74	9,244.30	9,178.75	65.55	141.022		
7,300.00	7,035.91	6,835.90	6,787.52	33.76	35.10	72.39	-2,158.39	-9,655.58	9,152.76	9,086.97	65.79	139.114		
7,400.00	7,058.12	6,854.77	6,806.38	34.61	35.18	72.39	-2,158.22	-9,656.12	9,056.45	8,990.52	65.93	137.363		
7,500.00	7,064.98	6,862.18	6,813.78	35.68	35.21	72.39	-2,158.16	-9,656.34	8,957.72	8,891.75	65.98	135.774		
7,600.00	7,064.59	6,864.12	6,815.72	36.95	35.21	72.39	-2,158.14	-9,656.40	8,858.60	8,792.62	65.98	134.259		
7,700.00	7,064.20	6,866.07	6,817.67	38.40	35.22	72.39	-2,158.12	-9,656.45	8,759.49	8,693.50	65.99	132.733		
7,800.00	7,063.80	6,868.03	6,819.63	40.00	35.23	72.39	-2,158.10	-9,656.51	8,660.41	8,594.40	66.01	131.196		
7,900.00	7,063.41	6,870.00	6,821.60	41.75	35.24	72.39	-2,158.09	-9,656.57	8,561.35	8,495.31	66.04	129.648		
8,000.00	7,063.02	6,871.98	6,823.58	43.62	35.24	72.39	-2,158.07	-9,656.63	8,462.30	8,396.24	66.07	128.088		
8,100.00	7,062.62	6,873.97	6,825.57	45.59	35.25	72.39	-2,158.05	-9,656.69	8,363.28	8,297.18	66.10	126.515		
8,200.00	7,062.23	6,875.97	6,827.57	47.65	35.26	72.39	-2,158.04	-9,656.75	8,264.29	8,198.14	66.15	124.931		
8,300.00	7,061.84	6,877.98	6,829.59	49.79	35.27	72.39	-2,158.02	-9,656.81	8,165.31	8,099.11	66.20	123.334		
8,400.00	7,061.45	6,880.01	6,831.61	52.00	35.27	72.39	-2,158.00	-9,656.87	8,066.36	8,000.10	66.27	121.725		
8,500.00	7,061.05	6,882.04	6,833.64	54.27	35.28	72.39	-2,157.98	-9,656.93	7,967.44	7,901.10	66.34	120.102		
8,600.00	7,060.66	6,884.09	6,835.68	56.60	35.29	72.39	-2,157.97	-9,656.99	7,868.54	7,802.12	66.42	118.467		
8,700.00	7,060.27	6,886.14	6,837.74	58.97	35.30	72.39	-2,157.95	-9,657.06	7,769.68	7,703.16	66.51	116.818		
8,800.00	7,059.87	6,888.21	6,839.80	61.38	35.31	72.39	-2,157.93	-9,657.12	7,670.84	7,604.22	66.61	115.156		
8,900.00	7,059.48	6,890.28	6,841.88	63.83	35.31	72.39	-2,157.91	-9,657.18	7,572.02	7,505.30	66.73	113.480		
9,000.00	7,059.09	6,892.37	6,843.96	66.32	35.32	72.39	-2,157.90	-9,657.25	7,473.24	7,406.39	66.85	111.790		
9,100.00	7,058.69	6,894.47	6,846.06	68.83	35.33	72.39	-2,157.88	-9,657.31	7,374.50	7,307.51	66.99	110.086		
9,200.00	7,058.30	6,896.58	6,848.17	71.37	35.34	72.39	-2,157.86	-9,657.38	7,275.78	7,208.64	67.14	108.368		
9,300.00	7,057.91	6,898.70	6,850.29	73.93	35.35	72.39	-2,157.84	-9,657.44	7,177.10	7,109.80	67.30	106.636		
9,400.00	7,057.51	6,900.84	6,852.43	76.51	35.36	72.39	-2,157.83	-9,657.51	7,078.46	7,010.98	67.49	104.889		
9,500.00	7,057.12	6,902.98	6,854.57	79.11	35.36	72.39	-2,157.81	-9,657.57	6,979.85	6,912.17	67.68	103.129		
9,600.00	7,056.73	6,905.14	6,856.73	81.73	35.37	72.39	-2,157.79	-9,657.64	6,881.29	6,813.39	67.89	101.354		
9,700.00	7,056.33	6,907.31	6,858.89	84.37	35.38	72.39	-2,157.77	-9,657.71	6,782.76	6,714.64	68.12	99.564		
9,800.00	7,055.94	6,909.49	6,861.07	87.01	35.39	72.39	-2,157.76	-9,657.77	6,684.28	6,615.91	68.37	97.761		
9,900.00	7,055.55	6,911.68	6,863.26	89.68	35.40	72.39	-2,157.74	-9,657.84	6,585.85	6,517.20	68.64	95.944		
10,000.00	7,055.15	6,913.88	6,865.47	92.35	35.41	72.39	-2,157.72	-9,657.91	6,487.45	6,418.52	68.93	94.113		
10,100.00	7,054.76	6,916.10	6,867.68	95.03	35.42	72.39	-2,157.70	-9,657.98	6,389.11	6,319.87	69.25	92.268		
10,200.00	7,054.37	6,918.33	6,869.91	97.73	35.42	72.39	-2,157.69	-9,658.05	6,290.82	6,221.24	69.58	90.410		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 89-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,053.98	6,920.57	6,872.15	100.43	35.43	-82.22	-2,157.67	-9,658.12	6,192.59	6,122.65	69.94	88.540		
10,400.00	7,053.58	6,922.82	6,874.40	103.14	35.44	-82.33	-2,157.65	-9,658.19	6,094.41	6,024.08	70.33	86.657		
10,500.00	7,053.19	6,925.09	6,876.67	105.86	35.45	-82.44	-2,157.63	-9,658.26	5,996.29	5,925.55	70.74	84.762		
10,600.00	7,052.80	6,927.37	6,878.94	108.59	35.46	-82.55	-2,157.62	-9,658.34	5,898.23	5,827.04	71.19	82.856		
10,700.00	7,052.40	6,929.66	6,881.24	111.32	35.47	-82.67	-2,157.60	-9,658.41	5,800.24	5,728.58	71.66	80.940		
10,800.00	7,052.01	6,931.97	6,883.54	114.06	35.48	-82.78	-2,157.58	-9,658.48	5,702.31	5,630.14	72.17	79.014		
10,900.00	7,051.62	6,934.28	6,885.85	116.80	35.49	-82.89	-2,157.56	-9,658.56	5,604.46	5,531.75	72.71	77.079		
11,000.00	7,051.22	6,936.61	6,888.18	119.55	35.50	-83.00	-2,157.54	-9,658.63	5,506.68	5,433.39	73.29	75.136		
11,100.00	7,050.83	6,938.96	6,890.53	122.31	35.51	-83.12	-2,157.53	-9,658.71	5,408.99	5,335.08	73.91	73.187		
11,200.00	7,050.44	6,941.31	6,892.88	125.07	35.51	-83.23	-2,157.51	-9,658.78	5,311.37	5,236.81	74.57	71.231		
11,300.00	7,050.04	6,943.69	6,895.25	127.83	35.52	-83.35	-2,157.49	-9,658.86	5,213.85	5,138.58	75.27	69.272		
11,400.00	7,049.65	6,944.00	6,895.57	130.60	35.52	-83.36	-2,157.49	-9,658.87	5,116.42	5,040.41	76.01	67.313		
11,500.00	7,049.26	6,944.00	6,895.57	133.37	35.52	-83.36	-2,157.49	-9,658.87	5,019.10	4,942.30	76.80	65.352		
11,600.00	7,048.86	6,944.00	6,895.57	136.15	35.52	-83.36	-2,157.49	-9,658.87	4,921.88	4,844.23	77.64	63.391		
11,700.00	7,048.47	6,944.00	6,895.57	138.93	35.52	-83.36	-2,157.49	-9,658.87	4,824.77	4,746.23	78.54	61.430		
11,800.00	7,048.08	6,944.00	6,895.57	141.71	35.52	-83.36	-2,157.49	-9,658.87	4,727.79	4,648.29	79.50	59.472		
11,900.00	7,047.68	6,956.13	6,907.69	144.49	35.57	-83.96	-2,157.39	-9,659.27	4,630.91	4,550.37	80.54	57.502		
12,000.00	7,047.29	6,958.29	6,909.85	147.28	35.58	-84.06	-2,157.38	-9,659.34	4,534.18	4,452.56	81.62	55.552		
12,100.00	7,046.90	6,960.48	6,912.04	150.07	35.59	-84.17	-2,157.36	-9,659.41	4,437.59	4,354.82	82.77	53.612		
12,200.00	7,046.51	6,962.71	6,914.26	152.87	35.60	-84.28	-2,157.34	-9,659.49	4,341.16	4,257.16	84.00	51.681		
12,300.00	7,046.11	6,964.97	6,916.52	155.66	35.61	-84.39	-2,157.32	-9,659.57	4,244.89	4,159.59	85.30	49.762		
12,400.00	7,045.72	6,967.25	6,918.81	158.46	35.62	-84.50	-2,157.30	-9,659.64	4,148.80	4,062.11	86.69	47.858		
12,500.00	7,045.33	6,969.57	6,921.12	161.26	35.63	-84.62	-2,157.28	-9,659.72	4,052.89	3,964.72	88.16	45.970		
12,600.00	7,044.93	6,971.93	6,923.48	164.06	35.64	-84.73	-2,157.26	-9,659.81	3,957.18	3,867.45	89.73	44.101		
12,700.00	7,044.54	6,974.31	6,925.86	166.86	35.65	-84.85	-2,157.24	-9,659.89	3,861.69	3,770.29	91.40	42.251		
12,800.00	7,044.15	6,976.74	6,928.28	169.67	35.66	-84.97	-2,157.22	-9,659.98	3,766.43	3,673.26	93.17	40.425		
12,900.00	7,043.75	6,979.19	6,930.74	172.48	35.67	-85.09	-2,157.20	-9,660.06	3,671.42	3,576.36	95.06	38.623		
13,000.00	7,043.36	6,981.69	6,933.23	175.28	35.68	-85.21	-2,157.17	-9,660.15	3,576.68	3,479.62	97.07	36.847		
13,100.00	7,042.97	6,984.22	6,935.76	178.09	35.69	-85.34	-2,157.15	-9,660.24	3,482.24	3,383.03	99.21	35.101		
13,200.00	7,042.57	6,986.79	6,938.33	180.91	35.70	-85.46	-2,157.13	-9,660.34	3,388.11	3,286.62	101.49	33.385		
13,300.00	7,042.18	6,989.39	6,940.93	183.72	35.71	-85.59	-2,157.10	-9,660.43	3,294.32	3,190.41	103.91	31.702		
13,400.00	7,041.79	6,992.04	6,943.58	186.53	35.72	-85.72	-2,157.08	-9,660.53	3,200.91	3,094.40	106.50	30.054		
13,500.00	7,041.39	6,994.73	6,946.26	189.35	35.73	-85.85	-2,157.05	-9,660.63	3,107.90	2,998.63	109.27	28.443		
13,600.00	7,041.00	6,997.46	6,948.99	192.17	35.74	-85.99	-2,157.03	-9,660.73	3,015.34	2,903.12	112.22	26.871		
13,700.00	7,040.61	7,000.23	6,951.76	194.99	35.75	-86.12	-2,157.00	-9,660.83	2,923.26	2,807.90	115.37	25.339		
13,800.00	7,040.21	7,003.04	6,954.57	197.81	35.76	-86.26	-2,156.97	-9,660.94	2,831.72	2,712.99	118.73	23.849		
13,900.00	7,039.82	7,005.90	6,957.43	200.63	35.78	-86.40	-2,156.94	-9,661.05	2,740.77	2,618.44	122.34	22.404		
14,000.00	7,039.43	7,008.81	6,960.33	203.45	35.79	-86.55	-2,156.91	-9,661.16	2,650.47	2,524.28	126.19	21.004		
14,100.00	7,039.03	7,011.76	6,963.28	206.27	35.80	-86.69	-2,156.88	-9,661.27	2,560.88	2,430.56	130.32	19.651		
14,200.00	7,038.64	7,014.76	6,966.27	209.09	35.81	-86.84	-2,156.85	-9,661.39	2,472.09	2,337.34	134.74	18.347		
14,300.00	7,038.25	7,017.80	6,969.32	211.92	35.82	-86.99	-2,156.82	-9,661.51	2,384.18	2,244.69	139.49	17.092		
14,400.00	7,037.86	7,020.90	6,972.41	214.74	35.84	-87.14	-2,156.78	-9,661.63	2,297.25	2,152.67	144.58	15.890		
14,500.00	7,037.46	7,024.05	6,975.56	217.57	35.85	-87.30	-2,156.75	-9,661.75	2,211.42	2,061.39	150.03	14.739		
14,600.00	7,037.07	7,027.25	6,978.76	220.40	35.86	-87.46	-2,156.72	-9,661.88	2,126.83	1,970.94	155.89	13.643		
14,700.00	7,036.68	7,030.51	6,982.01	223.23	35.87	-87.62	-2,156.68	-9,662.01	2,043.63	1,881.45	162.18	12.601		
14,800.00	7,036.28	7,033.82	6,985.32	226.05	35.89	-87.78	-2,156.64	-9,662.15	1,961.98	1,793.06	168.92	11.615		
14,871.88	7,036.00	7,036.23	6,987.73	228.09	35.90	-87.90	-2,156.61	-9,662.24	1,904.38	1,730.32	174.06	10.941 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-8-17(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 82-MWVD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	35.00	3.28	3.28	-107.38	-2,813.35	-8,986.32	9,416.48				
100.00	100.00	43.32	78.32	3.28	3.28	-107.38	-2,813.24	-8,986.41	9,416.49	9,409.93	6.57	1,434.201	
200.00	200.00	112.97	147.96	3.34	3.29	-107.38	-2,812.61	-8,986.90	9,416.89	9,410.26	6.63	1,420.405	
300.00	300.00	171.00	205.98	3.44	3.33	-107.37	-2,811.65	-8,987.60	9,417.60	9,410.83	6.77	1,391.149	
400.00	399.98	209.39	244.36	3.60	3.36	62.78	-2,810.97	-8,988.31	9,418.09	9,411.13	6.95	1,354.630	
500.00	499.84	263.00	297.94	3.79	3.41	62.81	-2,810.27	-8,989.80	9,417.79	9,410.59	7.20	1,308.124	
600.00	599.45	263.00	297.94	4.02	3.41	62.83	-2,810.27	-8,989.80	9,416.48	9,409.04	7.43	1,266.779	
700.00	698.70	263.00	297.94	4.29	3.41	62.87	-2,810.27	-8,989.80	9,414.63	9,406.93	7.71	1,221.570	
800.00	797.70	305.13	340.04	4.59	3.47	62.90	-2,810.16	-8,991.54	9,412.44	9,404.37	8.07	1,166.918	
900.00	896.69	354.00	388.82	4.92	3.55	62.94	-2,810.83	-8,994.40	9,411.55	9,403.08	8.47	1,111.014	
998.78	994.48	354.00	388.82	5.27	3.55	62.94	-2,810.83	-8,994.40	9,411.03	9,402.21	8.82	1,066.763	
1,000.00	995.68	354.00	388.82	5.27	3.55	62.94	-2,810.83	-8,994.40	9,411.03	9,402.20	8.83	1,066.226	
1,100.00	1,094.68	354.00	388.82	5.64	3.55	62.94	-2,810.83	-8,994.40	9,411.57	9,402.37	9.20	1,022.984	
1,200.00	1,193.67	387.39	422.10	6.03	3.61	62.97	-2,811.83	-8,996.78	9,412.94	9,403.30	9.64	976.222	
1,300.00	1,292.67	412.44	447.06	6.42	3.66	62.98	-2,812.91	-8,998.70	9,415.13	9,405.04	10.09	933.532	
1,400.00	1,391.66	445.00	479.46	6.83	3.73	63.00	-2,814.74	-9,001.37	9,418.12	9,407.57	10.56	892.286	
1,500.00	1,490.66	556.84	590.62	7.25	4.00	63.06	-2,823.20	-9,010.14	9,421.44	9,410.22	11.22	840.048	
1,600.00	1,589.65	628.10	661.40	7.67	4.20	63.08	-2,829.76	-9,015.38	9,424.77	9,412.95	11.82	797.460	
1,700.00	1,688.64	747.06	779.40	8.10	4.58	63.11	-2,842.19	-9,023.73	9,428.14	9,415.55	12.59	748.883	
1,800.00	1,787.64	1,339.05	1,369.02	8.53	6.84	63.42	-2,879.17	-9,057.81	9,430.42	9,415.30	15.12	623.718	
1,900.00	1,886.63	1,383.00	1,412.90	8.97	7.01	63.45	-2,880.00	-9,059.98	9,429.04	9,413.32	15.72	599.716	
2,000.00	1,985.63	1,383.00	1,412.90	9.41	7.01	63.45	-2,880.00	-9,059.98	9,428.26	9,412.10	16.16	583.330	
2,023.79	2,009.18	1,383.00	1,412.90	9.52	7.01	63.45	-2,880.00	-9,059.98	9,428.23	9,411.96	16.27	579.560	
2,100.00	2,084.62	1,383.00	1,412.90	9.85	7.01	63.45	-2,880.00	-9,059.98	9,428.54	9,411.93	16.61	567.811	
2,200.00	2,183.61	1,383.00	1,412.90	10.30	7.01	63.45	-2,880.00	-9,059.98	9,429.88	9,412.83	17.05	553.116	
2,300.00	2,282.61	1,383.00	1,412.90	10.75	7.01	63.45	-2,880.00	-9,059.98	9,432.27	9,414.78	17.49	539.201	
2,400.00	2,381.60	1,445.00	1,474.62	11.20	7.27	63.50	-2,881.72	-9,065.50	9,435.35	9,417.17	18.18	519.035	
2,500.00	2,480.60	1,445.00	1,474.62	11.66	7.27	63.50	-2,881.72	-9,065.50	9,439.21	9,420.59	18.62	506.842	
2,600.00	2,579.59	1,445.00	1,474.62	12.11	7.27	63.50	-2,881.72	-9,065.50	9,444.13	9,425.07	19.07	495.284	
2,700.00	2,678.58	1,458.60	1,488.12	12.57	7.33	63.51	-2,882.25	-9,067.12	9,450.10	9,430.53	19.57	482.961	
2,800.00	2,777.58	1,525.04	1,554.00	13.02	7.63	63.55	-2,885.35	-9,075.06	9,456.64	9,436.36	20.28	466.273	
2,900.00	2,876.57	1,569.00	1,597.58	13.48	7.83	63.58	-2,887.82	-9,080.32	9,463.57	9,442.67	20.91	452.684	
3,000.00	2,975.57	1,609.57	1,637.75	13.94	8.02	63.60	-2,890.63	-9,085.28	9,471.13	9,449.60	21.52	440.088	
3,100.00	3,074.56	1,665.00	1,692.49	14.40	8.29	63.63	-2,895.66	-9,092.36	9,479.53	9,457.33	22.20	426.982	
3,200.00	3,173.55	1,665.00	1,692.49	14.87	8.29	63.63	-2,895.66	-9,092.36	9,488.46	9,465.82	22.64	419.084	
3,300.00	3,272.55	1,665.00	1,692.49	15.33	8.29	63.63	-2,895.66	-9,092.36	9,498.43	9,475.35	23.08	411.573	
3,400.00	3,371.54	1,708.70	1,735.51	15.79	8.51	63.65	-2,900.47	-9,098.41	9,508.94	9,485.23	23.71	401.024	
3,500.00	3,470.54	3,500.00	1,813.80	16.26	18.40	63.67	-2,910.28	-9,110.29	9,520.43	9,488.10	32.33	294.457	
3,600.00	3,569.53	1,912.62	1,935.70	16.72	9.58	63.71	-2,925.51	-9,127.92	9,531.24	9,505.72	25.53	373.384	
3,700.00	3,668.53	2,075.34	2,095.52	17.19	10.46	63.74	-2,946.69	-9,150.00	9,541.61	9,514.87	26.74	356.866	
3,800.00	3,767.52	2,101.25	2,120.97	17.65	10.60	63.75	-2,949.96	-9,153.62	9,552.35	9,525.06	27.30	349.948	
3,900.00	3,866.51	2,136.00	2,155.05	18.12	10.79	63.76	-2,954.35	-9,158.79	9,563.88	9,535.99	27.90	342.828	
4,000.00	3,965.51	2,194.29	2,212.15	18.59	11.12	63.78	-2,961.85	-9,167.75	9,576.00	9,547.39	28.61	334.667	
4,100.00	4,064.50	2,395.75	2,409.62	19.05	12.25	63.82	-2,988.81	-9,197.15	9,587.48	9,557.43	30.05	319.101	
4,200.00	4,163.50	2,448.57	2,461.38	19.52	12.55	63.83	-2,996.23	-9,204.61	9,598.84	9,568.10	30.74	312.219	
4,300.00	4,262.49	2,488.31	2,500.25	19.99	12.79	63.84	-3,002.14	-9,210.39	9,610.80	9,579.42	31.38	306.303	
4,400.00	4,361.48	2,538.40	2,549.16	20.46	13.08	63.84	-3,009.97	-9,217.89	9,623.36	9,591.30	32.06	300.139	
4,500.00	4,460.48	2,607.00	2,616.09	20.92	13.49	63.85	-3,020.79	-9,228.34	9,636.26	9,603.41	32.85	293.363	
4,600.00	4,559.47	3,337.27	3,332.52	21.39	17.68	63.97	-3,123.03	-9,322.79	9,648.48	9,611.46	37.03	260.576	
4,700.00	4,658.47	3,499.58	3,492.84	21.86	18.55	64.00	-3,143.74	-9,337.45	9,654.38	9,616.10	38.28	252.176	
4,800.00	4,757.46	3,550.00	3,542.56	22.33	18.83	64.01	-3,150.70	-9,342.03	9,660.67	9,621.68	38.99	247.782	
4,900.00	4,856.45	3,550.00	3,542.56	22.80	18.83	64.01	-3,150.70	-9,342.03	9,667.64	9,628.20	39.44	245.142	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,000.00	4,955.45	3,609.33	3,601.01	23.27	19.16	64.01	-3,159.00	-9,347.98	9,675.12	9,634.94	40.19	240.759		
5,100.00	5,054.44	3,644.00	3,635.14	23.74	19.35	64.02	-3,163.74	-9,351.80	9,683.35	9,642.55	40.81	237.297		
5,200.00	5,153.44	3,644.00	3,635.14	24.21	19.35	64.02	-3,163.74	-9,351.80	9,692.43	9,651.19	41.25	234.996		
5,300.00	5,252.43	3,690.26	3,680.60	24.68	19.62	64.03	-3,170.25	-9,357.38	9,702.06	9,660.13	41.92	231.415		
5,400.00	5,351.42	3,739.00	3,728.32	25.15	19.91	64.03	-3,177.64	-9,363.93	9,712.74	9,670.12	42.62	227.912		
5,500.00	5,450.42	3,739.00	3,728.32	25.62	19.91	64.03	-3,177.64	-9,363.93	9,723.91	9,680.86	43.04	225.907		
5,600.00	5,549.41	3,771.93	3,760.48	26.09	20.11	64.03	-3,182.89	-9,368.65	9,735.94	9,692.29	43.65	223.049		
5,700.00	5,648.41	4,305.00	4,282.41	26.56	23.29	64.07	-3,266.22	-9,436.45	9,747.58	9,700.61	46.97	207.519		
5,800.00	5,747.40	4,337.18	4,314.10	27.03	23.48	64.08	-3,270.49	-9,440.05	9,755.85	9,708.27	47.58	205.034		
5,900.00	5,846.40	4,368.63	4,345.03	27.51	23.66	64.08	-3,274.75	-9,443.77	9,764.81	9,716.63	48.18	202.654		
6,000.00	5,945.39	4,399.00	4,374.88	27.98	23.83	64.09	-3,278.95	-9,447.55	9,774.47	9,725.69	48.78	200.382		
6,100.00	6,044.38	4,455.89	4,430.74	28.45	24.17	64.10	-3,286.63	-9,455.01	9,784.70	9,735.18	49.51	197.622		
6,200.00	6,143.38	4,495.00	4,469.16	28.92	24.40	64.11	-3,291.63	-9,460.39	9,795.39	9,745.25	50.15	195.327		
6,300.00	6,242.37	4,550.09	4,523.23	29.39	24.73	64.12	-3,298.76	-9,468.23	9,806.60	9,755.73	50.87	192.777		
6,400.00	6,341.37	4,600.25	4,572.35	29.86	25.03	64.13	-3,305.70	-9,475.60	9,818.40	9,766.83	51.56	190.412		
6,500.00	6,440.36	6,387.09	6,344.94	30.34	33.51	65.07	-3,413.94	-9,613.37	9,813.38	9,753.39	60.00	163.562		
6,600.00	6,538.90	6,491.92	6,449.76	30.80	33.89	25.49	-3,413.65	-9,614.47	9,802.25	9,741.38	60.87	161.034		
6,700.00	6,634.88	6,594.10	6,551.93	31.25	34.26	8.43	-3,413.08	-9,615.55	9,776.26	9,714.56	61.70	158.436		
6,800.00	6,725.92	6,726.69	6,684.51	31.68	34.72	0.41	-3,411.86	-9,616.87	9,735.92	9,673.33	62.59	155.548		
6,900.00	6,809.79	6,919.98	6,877.77	32.07	35.38	-4.98	-3,408.64	-9,617.46	9,681.57	9,617.96	63.60	152.219		
7,000.00	6,884.42	6,991.82	6,949.60	32.43	35.62	-9.87	-3,407.08	-9,617.31	9,614.90	9,550.73	64.16	149.852		
7,100.00	6,947.98	7,038.01	6,995.78	32.77	35.78	-15.53	-3,406.15	-9,617.28	9,538.20	9,473.63	64.57	147.717		
7,200.00	6,998.89	7,075.17	7,032.92	33.18	35.91	-23.52	-3,405.45	-9,617.31	9,453.32	9,388.44	64.88	145.712		
7,300.00	7,035.91	7,102.32	7,060.07	33.76	36.00	-36.63	-3,404.98	-9,617.35	9,362.32	9,297.24	65.08	143.857		
7,400.00	7,058.12	7,118.75	7,076.50	34.61	36.05	-59.67	-3,404.70	-9,617.39	9,267.40	9,202.21	65.19	142.159		
7,500.00	7,064.98	7,123.97	7,081.72	35.68	36.07	-91.23	-3,404.62	-9,617.40	9,170.92	9,105.70	65.22	140.616		
7,600.00	7,064.59	7,123.87	7,081.62	36.95	36.07	-91.23	-3,404.62	-9,617.40	9,074.45	9,009.22	65.23	139.119		
7,700.00	7,064.20	7,123.77	7,081.51	38.40	36.07	-91.22	-3,404.62	-9,617.40	8,978.06	8,912.81	65.26	137.578		
7,800.00	7,063.80	7,123.66	7,081.41	40.00	36.07	-91.22	-3,404.62	-9,617.40	8,881.76	8,816.45	65.31	135.993		
7,900.00	7,063.41	7,123.56	7,081.31	41.75	36.07	-91.22	-3,404.62	-9,617.40	8,785.53	8,720.14	65.39	134.363		
8,000.00	7,063.02	7,123.45	7,081.20	43.62	36.07	-91.22	-3,404.62	-9,617.40	8,689.39	8,623.90	65.49	132.687		
8,100.00	7,062.62	7,123.35	7,081.10	45.59	36.07	-91.21	-3,404.63	-9,617.40	8,593.34	8,527.72	65.62	130.965		
8,200.00	7,062.23	7,123.24	7,080.99	47.65	36.07	-91.21	-3,404.63	-9,617.40	8,497.38	8,431.61	65.77	129.196		
8,300.00	7,061.84	7,123.14	7,080.89	49.79	36.07	-91.21	-3,404.63	-9,617.40	8,401.51	8,335.55	65.96	127.380		
8,400.00	7,061.45	7,123.03	7,080.78	52.00	36.07	-91.21	-3,404.63	-9,617.40	8,305.74	8,239.57	66.17	125.519		
8,500.00	7,061.05	7,122.93	7,080.67	54.27	36.07	-91.20	-3,404.63	-9,617.40	8,210.07	8,143.65	66.42	123.611		
8,600.00	7,060.66	7,122.82	7,080.57	56.60	36.07	-91.20	-3,404.63	-9,617.40	8,114.51	8,047.81	66.70	121.659		
8,700.00	7,060.27	7,122.71	7,080.46	58.97	36.07	-91.20	-3,404.64	-9,617.40	8,019.05	7,952.04	67.01	119.663		
8,800.00	7,059.87	7,122.60	7,080.35	61.38	36.07	-91.20	-3,404.64	-9,617.40	7,923.71	7,856.35	67.36	117.624		
8,900.00	7,059.48	7,122.49	7,080.24	63.83	36.07	-91.19	-3,404.64	-9,617.40	7,828.48	7,760.73	67.75	115.545		
9,000.00	7,059.09	7,122.38	7,080.13	66.32	36.07	-91.19	-3,404.64	-9,617.40	7,733.38	7,665.20	68.18	113.426		
9,100.00	7,058.69	7,122.28	7,080.02	68.83	36.07	-91.19	-3,404.64	-9,617.40	7,638.39	7,569.75	68.65	111.271		
9,200.00	7,058.30	7,122.17	7,079.91	71.37	36.07	-91.19	-3,404.65	-9,617.40	7,543.54	7,474.39	69.15	109.082		
9,300.00	7,057.91	7,122.05	7,079.80	73.93	36.07	-91.18	-3,404.65	-9,617.40	7,448.82	7,379.12	69.71	106.862		
9,400.00	7,057.51	7,121.94	7,079.69	76.51	36.07	-91.18	-3,404.65	-9,617.39	7,354.25	7,283.95	70.30	104.612		
9,500.00	7,057.12	7,121.83	7,079.58	79.11	36.06	-91.18	-3,404.65	-9,617.39	7,259.81	7,188.87	70.94	102.338		
9,600.00	7,056.73	7,121.72	7,079.47	81.73	36.06	-91.17	-3,404.65	-9,617.39	7,165.53	7,093.90	71.63	100.041		
9,700.00	7,056.33	7,121.61	7,079.35	84.37	36.06	-91.17	-3,404.65	-9,617.39	7,071.41	6,999.05	72.36	97.725		
9,800.00	7,055.94	7,121.49	7,079.24	87.01	36.06	-91.17	-3,404.66	-9,617.39	6,977.45	6,904.30	73.14	95.394		
9,900.00	7,055.55	7,121.38	7,079.13	89.68	36.06	-91.17	-3,404.66	-9,617.39	6,883.65	6,809.68	73.98	93.051		
10,000.00	7,055.15	7,121.26	7,079.01	92.35	36.06	-91.16	-3,404.66	-9,617.39	6,790.04	6,715.18	74.86	90.700		
10,100.00	7,054.76	7,121.15	7,078.90	95.03	36.06	-91.16	-3,404.66	-9,617.39	6,696.61	6,620.81	75.80	88.345		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,054.37	7,121.03	7,078.78	97.73	36.06	-91.16	-3,404.66	-9,617.39	6,603.38	6,526.58	76.79	85.989		
10,300.00	7,053.98	7,120.92	7,078.67	100.43	36.06	-91.16	-3,404.67	-9,617.39	6,510.34	6,432.50	77.84	83.635		
10,400.00	7,053.58	7,120.80	7,078.55	103.14	36.06	-91.15	-3,404.67	-9,617.39	6,417.51	6,338.57	78.95	81.288		
10,500.00	7,053.19	7,120.68	7,078.43	105.86	36.06	-91.15	-3,404.67	-9,617.39	6,324.91	6,244.79	80.11	78.951		
10,600.00	7,052.80	7,120.57	7,078.31	108.59	36.06	-91.15	-3,404.67	-9,617.39	6,232.53	6,151.19	81.34	76.626		
10,700.00	7,052.40	7,120.45	7,078.20	111.32	36.06	-91.14	-3,404.67	-9,617.39	6,140.39	6,057.76	82.62	74.318		
10,800.00	7,052.01	7,120.33	7,078.08	114.06	36.06	-91.14	-3,404.68	-9,617.39	6,048.50	5,964.52	83.97	72.029		
10,900.00	7,051.62	7,120.21	7,077.96	116.80	36.06	-91.14	-3,404.68	-9,617.39	5,956.87	5,871.48	85.39	69.762		
11,000.00	7,051.22	7,120.09	7,077.84	119.55	36.06	-91.14	-3,404.68	-9,617.39	5,865.51	5,778.64	86.87	67.520		
11,100.00	7,050.83	7,119.97	7,077.72	122.31	36.06	-91.13	-3,404.68	-9,617.39	5,774.44	5,686.02	88.42	65.305		
11,200.00	7,050.44	7,119.85	7,077.59	125.07	36.06	-91.13	-3,404.68	-9,617.39	5,683.67	5,593.63	90.05	63.120		
11,300.00	7,050.04	7,119.72	7,077.47	127.83	36.06	-91.13	-3,404.69	-9,617.39	5,593.22	5,501.48	91.74	60.968		
11,400.00	7,049.65	7,119.60	7,077.35	130.60	36.06	-91.12	-3,404.69	-9,617.39	5,503.10	5,409.58	93.51	58.849		
11,500.00	7,049.26	7,119.48	7,077.23	133.37	36.06	-91.12	-3,404.69	-9,617.39	5,413.32	5,317.96	95.36	56.767		
11,600.00	7,048.86	7,119.35	7,077.10	136.15	36.06	-91.12	-3,404.69	-9,617.39	5,323.91	5,226.62	97.29	54.722		
11,700.00	7,048.47	7,119.23	7,076.98	138.93	36.06	-91.12	-3,404.69	-9,617.39	5,234.88	5,135.57	99.30	52.717		
11,800.00	7,048.08	7,119.10	7,076.85	141.71	36.06	-91.11	-3,404.70	-9,617.39	5,146.25	5,044.85	101.40	50.752		
11,900.00	7,047.68	7,118.98	7,076.73	144.49	36.06	-91.11	-3,404.70	-9,617.39	5,058.05	4,954.46	103.59	48.829		
12,000.00	7,047.29	7,118.85	7,076.60	147.28	36.05	-91.11	-3,404.70	-9,617.39	4,970.29	4,864.43	105.86	46.950		
12,100.00	7,046.90	7,118.73	7,076.47	150.07	36.05	-91.10	-3,404.70	-9,617.39	4,883.01	4,774.77	108.24	45.114		
12,200.00	7,046.51	7,118.60	7,076.35	152.87	36.05	-91.10	-3,404.70	-9,617.39	4,796.22	4,685.51	110.71	43.324		
12,300.00	7,046.11	7,118.47	7,076.22	155.66	36.05	-91.10	-3,404.71	-9,617.39	4,709.95	4,596.68	113.28	41.579		
12,400.00	7,045.72	7,118.34	7,076.09	158.46	36.05	-91.09	-3,404.71	-9,617.39	4,624.24	4,508.29	115.96	39.880		
12,500.00	7,045.33	7,118.21	7,075.96	161.26	36.05	-91.09	-3,404.71	-9,617.39	4,539.12	4,420.38	118.74	38.227		
12,600.00	7,044.93	7,118.08	7,075.83	164.06	36.05	-91.09	-3,404.71	-9,617.38	4,454.61	4,332.97	121.64	36.622		
12,700.00	7,044.54	7,117.95	7,075.70	166.86	36.05	-91.08	-3,404.71	-9,617.38	4,370.75	4,246.10	124.65	35.063		
12,800.00	7,044.15	7,117.82	7,075.57	169.67	36.05	-91.08	-3,404.72	-9,617.38	4,287.59	4,159.80	127.79	33.552		
12,900.00	7,043.75	7,117.68	7,075.43	172.48	36.05	-91.08	-3,404.72	-9,617.38	4,205.16	4,074.12	131.05	32.089		
13,000.00	7,043.36	7,117.55	7,075.30	175.28	36.05	-91.08	-3,404.72	-9,617.38	4,123.51	3,989.08	134.43	30.673		
13,100.00	7,042.97	7,117.42	7,075.17	178.09	36.05	-91.07	-3,404.72	-9,617.38	4,042.69	3,904.73	137.95	29.304		
13,200.00	7,042.57	7,117.28	7,075.03	180.91	36.05	-91.07	-3,404.73	-9,617.38	3,962.73	3,821.12	141.61	27.983		
13,300.00	7,042.18	7,117.15	7,074.90	183.72	36.05	-91.07	-3,404.73	-9,617.38	3,883.71	3,738.30	145.41	26.709		
13,400.00	7,041.79	7,117.01	7,074.76	186.53	36.05	-91.06	-3,404.73	-9,617.38	3,805.68	3,656.33	149.35	25.481		
13,500.00	7,041.39	7,116.88	7,074.63	189.35	36.05	-91.06	-3,404.73	-9,617.38	3,728.69	3,575.25	153.44	24.300		
13,600.00	7,041.00	7,116.74	7,074.49	192.17	36.05	-91.06	-3,404.73	-9,617.38	3,652.82	3,495.14	157.68	23.166		
13,700.00	7,040.61	7,116.60	7,074.35	194.99	36.05	-91.05	-3,404.74	-9,617.38	3,578.13	3,416.06	162.08	22.077		
13,800.00	7,040.21	7,116.46	7,074.21	197.81	36.05	-91.05	-3,404.74	-9,617.38	3,504.71	3,338.08	166.63	21.033		
13,900.00	7,039.82	7,116.32	7,074.07	200.63	36.05	-91.05	-3,404.74	-9,617.38	3,432.63	3,261.30	171.34	20.035		
14,000.00	7,039.43	7,116.18	7,073.93	203.45	36.05	-91.04	-3,404.74	-9,617.38	3,361.98	3,185.78	176.20	19.080		
14,100.00	7,039.03	7,116.04	7,073.79	206.27	36.05	-91.04	-3,404.75	-9,617.38	3,292.85	3,111.63	181.22	18.170		
14,200.00	7,038.64	7,115.90	7,073.65	209.09	36.04	-91.04	-3,404.75	-9,617.38	3,225.34	3,038.94	186.40	17.303		
14,300.00	7,038.25	7,115.76	7,073.51	211.92	36.04	-91.03	-3,404.75	-9,617.38	3,159.55	2,967.82	191.73	16.479		
14,400.00	7,037.86	7,115.61	7,073.36	214.74	36.04	-91.03	-3,404.75	-9,617.38	3,095.60	2,898.39	197.21	15.697		
14,500.00	7,037.46	7,115.47	7,073.22	217.57	36.04	-91.03	-3,404.76	-9,617.38	3,033.59	2,830.76	202.83	14.956		
14,600.00	7,037.07	7,115.32	7,073.07	220.40	36.04	-91.02	-3,404.76	-9,617.38	2,973.66	2,765.08	208.58	14.257		
14,700.00	7,036.68	7,115.18	7,072.93	223.23	36.04	-91.02	-3,404.76	-9,617.38	2,915.92	2,701.48	214.44	13.598		
14,800.00	7,036.28	7,115.03	7,072.78	226.05	36.04	-91.02	-3,404.76	-9,617.38	2,860.52	2,640.11	220.41	12.978		
14,871.88	7,036.00	7,114.93	7,072.68	228.09	36.04	-91.01	-3,404.76	-9,617.38	2,822.21	2,597.46	224.75	12.557	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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	933.72	959.41	3.28	5.56	-108.11	-2,891.79	-8,842.88	9,353.04					
100.00	100.00	1,003.00	1,026.88	3.28	5.92	-108.20	-2,903.09	-8,831.91	9,342.90	9,333.74	9.16	1,019.896		
200.00	200.00	1,056.22	1,078.70	3.34	6.20	-108.26	-2,911.95	-8,823.65	9,333.19	9,323.71	9.47	985.084		
300.00	300.00	1,098.00	1,119.48	3.44	6.43	-108.31	-2,918.64	-8,817.49	9,324.06	9,314.27	9.79	952.529		
400.00	399.98	1,136.09	1,156.74	3.60	6.63	61.96	-2,924.49	-8,812.20	9,314.77	9,304.65	10.12	920.213		
500.00	499.84	1,193.00	1,212.58	3.79	6.93	62.10	-2,932.76	-8,805.00	9,304.61	9,294.01	10.60	878.058		
600.00	599.45	1,220.72	1,239.81	4.02	7.08	62.28	-2,936.74	-8,801.68	9,293.34	9,282.38	10.96	847.691		
700.00	698.70	1,293.93	1,311.55	4.29	7.47	62.47	-2,948.27	-8,792.74	9,280.90	9,269.29	11.61	799.359		
800.00	797.70	1,368.64	1,384.75	4.59	7.88	62.45	-2,960.24	-8,783.75	9,267.82	9,255.51	12.31	753.028		
900.00	896.69	1,441.38	1,456.20	4.92	8.27	62.43	-2,971.05	-8,775.49	9,255.00	9,241.99	13.01	711.370		
1,000.00	995.68	1,757.00	1,766.95	5.27	9.97	62.37	-3,010.76	-8,737.24	9,239.94	9,224.94	15.00	616.043		
1,100.00	1,094.68	1,757.00	1,766.95	5.64	9.97	62.37	-3,010.76	-8,737.24	9,225.49	9,210.13	15.36	600.665		
1,200.00	1,193.67	1,827.42	1,836.23	6.03	10.36	62.35	-3,020.10	-8,728.83	9,211.67	9,195.55	16.11	571.731		
1,300.00	1,292.67	2,240.96	2,241.96	6.42	12.74	62.23	-3,075.74	-8,672.01	9,195.64	9,176.87	18.77	489.936		
1,400.00	1,391.66	2,305.12	2,305.01	6.83	13.10	62.22	-3,083.15	-8,662.68	9,178.83	9,159.32	19.51	470.410		
1,500.00	1,490.66	2,321.00	2,320.65	7.25	13.19	62.21	-3,084.81	-8,660.47	9,162.59	9,142.59	20.01	457.943		
1,600.00	1,589.65	2,382.14	2,380.88	7.67	13.53	62.21	-3,091.36	-8,652.31	9,146.82	9,126.07	20.74	440.919		
1,700.00	1,688.64	2,441.27	2,439.14	8.10	13.86	62.20	-3,098.29	-8,644.88	9,131.84	9,110.35	21.48	425.052		
1,800.00	1,787.64	2,572.57	2,568.07	8.53	14.61	62.16	-3,115.64	-8,627.16	9,116.45	9,093.82	22.63	402.835		
1,900.00	1,886.63	2,738.86	2,731.20	8.97	15.60	62.11	-3,138.13	-8,604.13	9,100.95	9,076.95	24.00	379.262		
2,000.00	1,985.63	2,834.35	2,824.38	9.41	16.19	62.06	-3,153.24	-8,589.74	9,084.96	9,059.97	25.00	363.463		
2,100.00	2,084.62	2,890.00	2,878.83	9.85	16.53	62.04	-3,161.37	-8,581.63	9,069.16	9,043.39	25.77	351.993		
2,200.00	2,183.61	2,940.44	2,928.33	10.30	16.83	62.03	-3,168.20	-8,574.73	9,053.86	9,027.37	26.49	341.755		
2,300.00	2,282.61	2,984.00	2,971.18	10.75	17.08	62.02	-3,173.78	-8,569.25	9,039.27	9,012.08	27.18	332.515		
2,400.00	2,381.60	3,054.89	3,040.88	11.20	17.49	62.00	-3,183.34	-8,560.52	9,025.15	8,997.12	28.03	321.966		
2,500.00	2,480.60	3,110.15	3,095.11	11.66	17.81	61.98	-3,191.38	-8,553.67	9,011.32	8,982.53	28.79	313.010		
2,600.00	2,579.59	3,169.00	3,153.18	12.11	18.14	61.97	-3,198.51	-8,547.28	8,998.11	8,968.54	29.56	304.358		
2,700.00	2,678.58	3,200.58	3,184.43	12.57	18.30	61.97	-3,201.85	-8,544.21	8,985.44	8,955.26	30.18	297.722		
2,800.00	2,777.58	3,262.00	3,245.28	13.02	18.62	61.97	-3,208.10	-8,538.71	8,973.41	8,942.46	30.95	289.967		
2,900.00	2,876.57	3,307.44	3,290.32	13.48	18.85	61.97	-3,212.82	-8,534.85	8,961.85	8,930.21	31.63	283.290		
3,000.00	2,975.57	3,375.56	3,357.73	13.94	19.20	61.96	-3,220.61	-8,529.04	8,950.69	8,918.25	32.44	275.929		
3,100.00	3,074.56	3,100.00	3,504.22	14.40	17.79	61.96	-3,236.52	-8,516.74	8,939.55	8,908.06	31.49	283.864		
3,200.00	3,173.55	3,601.66	3,581.68	14.87	20.37	61.96	-3,245.02	-8,509.72	8,927.87	8,893.37	34.50	258.777		
3,300.00	3,272.55	4,080.92	4,053.05	15.33	23.11	61.83	-3,309.37	-8,454.16	8,914.34	8,876.78	37.56	237.322		
3,400.00	3,371.54	4,112.00	4,083.51	15.79	23.30	61.82	-3,313.84	-8,449.85	8,899.16	8,860.94	38.22	232.829		
3,500.00	3,470.54	4,178.57	4,148.91	16.26	23.69	61.80	-3,322.72	-8,441.23	8,884.48	8,845.42	39.06	227.452		
3,600.00	3,569.53	4,235.19	4,204.66	16.72	24.02	61.79	-3,329.84	-8,434.39	8,870.33	8,830.48	39.85	222.597		
3,700.00	3,668.53	4,301.00	4,269.26	17.19	24.40	61.77	-3,339.47	-8,426.30	8,856.62	8,815.93	40.69	217.652		
3,800.00	3,767.52	4,343.46	4,310.89	17.65	24.65	61.75	-3,346.08	-8,421.17	8,843.40	8,801.99	41.41	213.560		
3,900.00	3,866.51	4,396.00	4,362.53	18.12	24.96	61.73	-3,353.80	-8,415.33	8,830.79	8,788.61	42.18	209.343		
4,000.00	3,965.51	4,452.40	4,418.06	18.59	25.28	61.72	-3,361.69	-8,409.50	8,818.69	8,775.73	42.97	205.246		
4,100.00	4,064.50	4,491.00	4,456.11	19.05	25.50	61.71	-3,366.96	-8,405.65	8,807.04	8,763.38	43.65	201.752		
4,200.00	4,163.50	4,554.19	4,518.50	19.52	25.84	61.69	-3,375.18	-8,399.86	8,795.87	8,751.41	44.46	197.839		
4,300.00	4,262.49	4,585.00	4,548.97	19.99	26.01	61.69	-3,378.97	-8,397.33	8,785.39	8,740.29	45.10	194.817		
4,400.00	4,361.48	4,633.98	4,597.49	20.46	26.26	61.69	-3,384.62	-8,393.77	8,775.55	8,729.74	45.81	191.565		
4,500.00	4,460.48	4,680.00	4,643.17	20.92	26.49	61.69	-3,389.45	-8,391.03	8,766.45	8,719.94	46.51	188.491		
4,600.00	4,559.47	4,711.27	4,674.25	21.39	26.63	61.69	-3,392.53	-8,389.47	8,758.02	8,710.90	47.12	185.857		
4,700.00	4,658.47	4,700.00	4,770.38	21.86	26.60	61.71	-3,401.10	-8,385.58	8,750.28	8,702.74	47.55	184.035		
4,800.00	4,757.46	4,943.54	4,905.60	22.33	27.67	61.75	-3,410.65	-8,379.94	8,741.78	8,692.68	49.10	178.034		
4,900.00	4,856.45	4,997.74	4,959.66	22.80	27.90	61.77	-3,413.93	-8,378.00	8,733.58	8,683.78	49.80	175.373		
5,000.00	4,955.45	5,059.00	5,020.81	23.27	28.16	61.80	-3,417.32	-8,376.30	8,725.93	8,675.41	50.52	172.707		
5,100.00	5,054.44	5,151.54	5,113.29	23.74	28.51	61.85	-3,419.79	-8,374.87	8,718.58	8,667.24	51.34	169.823		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,153.44	5,219.68	5,181.43	24.21	28.74	61.91	-3,419.74	-8,374.52	8,711.35	8,659.32	52.03	167.420		
5,300.00	5,252.43	5,285.29	5,247.04	24.68	28.95	61.96	-3,419.71	-8,374.44	8,704.51	8,651.79	52.72	165.123		
5,400.00	5,351.42	5,352.53	5,314.28	25.15	29.17	62.02	-3,419.90	-8,374.56	8,698.07	8,644.67	53.40	162.879		
5,500.00	5,450.42	5,443.60	5,405.35	25.62	29.47	62.09	-3,420.34	-8,374.87	8,691.86	8,637.69	54.17	160.442		
5,600.00	5,549.41	5,534.70	5,496.44	26.09	29.77	62.16	-3,420.87	-8,375.24	8,685.76	8,630.82	54.95	158.073		
5,700.00	5,648.41	5,626.71	5,588.45	26.56	30.08	62.24	-3,421.49	-8,375.67	8,679.77	8,624.05	55.72	155.762		
5,800.00	5,747.40	5,739.04	5,700.77	27.03	30.44	62.33	-3,422.11	-8,376.19	8,673.76	8,617.19	56.56	153.343		
5,900.00	5,846.40	5,851.27	5,813.00	27.51	30.81	62.42	-3,422.39	-8,376.65	8,667.61	8,610.20	57.40	150.992		
6,000.00	5,945.39	5,959.48	5,921.21	27.98	31.17	62.51	-3,422.44	-8,377.00	8,661.34	8,603.10	58.24	148.715		
6,100.00	6,044.38	6,064.28	6,026.02	28.45	31.53	62.59	-3,422.89	-8,377.12	8,655.01	8,595.94	59.08	146.508		
6,200.00	6,143.38	6,169.20	6,130.93	28.92	31.90	62.68	-3,423.82	-8,377.02	8,648.64	8,588.73	59.91	144.359		
6,300.00	6,242.37	6,311.87	6,273.59	29.39	32.43	62.78	-3,425.54	-8,376.35	8,642.03	8,581.11	60.92	141.859		
6,400.00	6,341.37	6,462.19	6,423.89	29.86	33.01	62.89	-3,427.42	-8,374.71	8,634.86	8,572.89	61.96	139.355		
6,500.00	6,440.36	6,541.99	6,503.67	30.34	33.32	62.95	-3,428.59	-8,373.62	8,627.50	8,564.75	62.75	137.494		
6,600.00	6,538.90	6,617.61	6,579.27	30.80	33.62	23.26	-3,430.06	-8,372.68	8,614.41	8,550.90	63.51	135.635		
6,700.00	6,634.88	6,691.24	6,652.87	31.25	33.91	6.03	-3,431.82	-8,371.86	8,587.00	8,522.76	64.24	133.667		
6,800.00	6,725.92	6,763.83	6,725.44	31.68	34.20	-2.23	-3,433.88	-8,371.15	8,545.81	8,480.88	64.93	131.611		
6,900.00	6,809.79	6,853.00	6,814.57	32.07	34.55	-7.92	-3,436.31	-8,370.37	8,491.68	8,426.03	65.64	129.359		
7,000.00	6,884.42	6,932.19	6,893.73	32.43	34.86	-13.23	-3,438.14	-8,369.72	8,425.84	8,359.58	66.26	127.162		
7,100.00	6,947.98	6,999.47	6,961.00	32.77	35.13	-19.49	-3,439.44	-8,369.22	8,349.96	8,283.19	66.77	125.060		
7,200.00	6,998.89	7,060.94	7,022.46	33.18	35.37	-28.33	-3,440.45	-8,368.77	8,265.92	8,198.74	67.19	123.029		
7,300.00	7,035.91	7,114.19	7,075.70	33.76	35.59	-42.35	-3,441.30	-8,368.28	8,175.81	8,108.29	67.51	121.097		
7,400.00	7,058.12	7,145.17	7,106.67	34.61	35.71	-64.66	-3,441.79	-8,367.94	8,081.92	8,014.22	67.71	119.363		
7,500.00	7,064.98	7,153.49	7,114.99	35.68	35.74	-91.87	-3,441.92	-8,367.84	7,986.67	7,918.88	67.79	117.820		
7,600.00	7,064.59	7,151.23	7,112.74	36.95	35.73	-91.81	-3,441.89	-8,367.87	7,891.56	7,823.72	67.83	116.335		
7,700.00	7,064.20	7,149.01	7,110.51	38.40	35.73	-91.76	-3,441.85	-8,367.89	7,796.57	7,728.66	67.91	114.803		
7,800.00	7,063.80	7,146.80	7,108.31	40.00	35.72	-91.71	-3,441.82	-8,367.92	7,701.71	7,633.69	68.02	113.222		
7,900.00	7,063.41	7,144.63	7,106.13	41.75	35.71	-91.66	-3,441.78	-8,367.95	7,606.98	7,538.81	68.17	111.591		
8,000.00	7,063.02	7,142.48	7,103.98	43.62	35.70	-91.61	-3,441.75	-8,367.97	7,512.38	7,444.03	68.35	109.911		
8,100.00	7,062.62	7,140.35	7,101.86	45.59	35.69	-91.56	-3,441.72	-8,367.99	7,417.93	7,349.36	68.57	108.180		
8,200.00	7,062.23	7,138.25	7,099.75	47.65	35.68	-91.51	-3,441.68	-8,368.02	7,323.63	7,254.79	68.83	106.401		
8,300.00	7,061.84	7,136.17	7,097.67	49.79	35.67	-91.46	-3,441.65	-8,368.04	7,229.47	7,160.34	69.13	104.572		
8,400.00	7,061.45	7,134.11	7,095.62	52.00	35.67	-91.41	-3,441.62	-8,368.06	7,135.48	7,066.00	69.48	102.696		
8,500.00	7,061.05	7,132.08	7,093.58	54.27	35.66	-91.37	-3,441.58	-8,368.09	7,041.65	6,971.77	69.88	100.774		
8,600.00	7,060.66	7,130.07	7,091.57	56.60	35.65	-91.32	-3,441.55	-8,368.11	6,947.99	6,877.67	70.32	98.808		
8,700.00	7,060.27	7,128.08	7,089.58	58.97	35.64	-91.27	-3,441.52	-8,368.13	6,854.51	6,783.70	70.81	96.800		
8,800.00	7,059.87	7,126.11	7,087.62	61.38	35.63	-91.23	-3,441.49	-8,368.15	6,761.22	6,689.86	71.36	94.753		
8,900.00	7,059.48	7,124.16	7,085.67	63.83	35.63	-91.18	-3,441.46	-8,368.17	6,668.12	6,596.16	71.96	92.670		
9,000.00	7,059.09	7,122.24	7,083.74	66.32	35.62	-91.14	-3,441.43	-8,368.19	6,575.22	6,502.61	72.61	90.554		
9,100.00	7,058.69	7,120.33	7,081.84	68.83	35.61	-91.09	-3,441.40	-8,368.21	6,482.53	6,409.21	73.32	88.409		
9,200.00	7,058.30	7,118.45	7,079.96	71.37	35.60	-91.05	-3,441.37	-8,368.23	6,390.07	6,315.97	74.10	86.239		
9,300.00	7,057.91	7,116.58	7,078.09	73.93	35.60	-91.01	-3,441.34	-8,368.25	6,297.83	6,222.90	74.93	84.048		
9,400.00	7,057.51	7,114.74	7,076.25	76.51	35.59	-90.96	-3,441.31	-8,368.27	6,205.84	6,130.01	75.83	81.841		
9,500.00	7,057.12	7,112.91	7,074.42	79.11	35.58	-90.92	-3,441.28	-8,368.29	6,114.09	6,037.30	76.79	79.621		
9,600.00	7,056.73	7,111.10	7,072.61	81.73	35.57	-90.88	-3,441.25	-8,368.31	6,022.61	5,944.79	77.82	77.394		
9,700.00	7,056.33	7,109.32	7,070.83	84.37	35.57	-90.84	-3,441.22	-8,368.33	5,931.40	5,852.49	78.91	75.163		
9,800.00	7,055.94	7,107.55	7,069.06	87.01	35.56	-90.79	-3,441.19	-8,368.34	5,840.48	5,760.40	80.08	72.933		
9,900.00	7,055.55	7,105.80	7,067.31	89.68	35.55	-90.75	-3,441.17	-8,368.36	5,749.86	5,668.54	81.32	70.709		
10,000.00	7,055.15	7,104.06	7,065.57	92.35	35.55	-90.71	-3,441.14	-8,368.38	5,659.56	5,576.93	82.63	68.494		
10,100.00	7,054.76	7,102.35	7,063.86	95.03	35.54	-90.67	-3,441.11	-8,368.40	5,569.58	5,485.57	84.01	66.293		
10,200.00	7,054.37	7,100.65	7,062.16	97.73	35.53	-90.63	-3,441.08	-8,368.41	5,479.96	5,394.48	85.48	64.110		
10,300.00	7,053.98	7,098.97	7,060.48	100.43	35.53	-90.59	-3,441.06	-8,368.43	5,390.69	5,303.67	87.02	61.948		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,400.00	7,053.58	7,097.30	7,058.81	103.14	35.52	-90.55	-3,441.03	-8,368.44	5,301.82	5,213.17	88.64	59.811		
10,500.00	7,053.19	7,095.65	7,057.17	105.86	35.51	-90.52	-3,441.00	-8,368.46	5,213.34	5,122.99	90.35	57.703		
10,600.00	7,052.80	7,094.02	7,055.54	108.59	35.51	-90.48	-3,440.98	-8,368.48	5,125.29	5,033.15	92.14	55.625		
10,700.00	7,052.40	7,092.41	7,053.92	111.32	35.50	-90.44	-3,440.95	-8,368.49	5,037.68	4,943.66	94.02	53.581		
10,800.00	7,052.01	7,090.81	7,052.32	114.06	35.49	-90.40	-3,440.93	-8,368.51	4,950.54	4,854.55	95.99	51.574		
10,900.00	7,051.62	7,089.22	7,050.74	116.80	35.49	-90.37	-3,440.90	-8,368.52	4,863.90	4,765.85	98.05	49.606		
11,000.00	7,051.22	7,087.65	7,049.17	119.55	35.48	-90.33	-3,440.88	-8,368.53	4,777.78	4,677.57	100.21	47.679		
11,100.00	7,050.83	7,086.10	7,047.62	122.31	35.48	-90.29	-3,440.85	-8,368.55	4,692.20	4,589.74	102.46	45.794		
11,200.00	7,050.44	7,084.56	7,046.08	125.07	35.47	-90.26	-3,440.83	-8,368.56	4,607.21	4,502.39	104.82	43.954		
11,300.00	7,050.04	7,083.04	7,044.55	127.83	35.46	-90.22	-3,440.80	-8,368.58	4,522.83	4,415.56	107.28	42.160		
11,400.00	7,049.65	7,081.53	7,043.04	130.60	35.46	-90.19	-3,440.78	-8,368.59	4,439.10	4,329.26	109.84	40.413		
11,500.00	7,049.26	7,080.03	7,041.55	133.37	35.45	-90.15	-3,440.76	-8,368.60	4,356.06	4,243.54	112.52	38.714		
11,600.00	7,048.86	7,078.55	7,040.07	136.15	35.45	-90.12	-3,440.73	-8,368.62	4,273.74	4,158.44	115.31	37.064		
11,700.00	7,048.47	7,077.09	7,038.60	138.93	35.44	-90.08	-3,440.71	-8,368.63	4,192.19	4,073.98	118.21	35.463		
11,800.00	7,048.08	7,075.63	7,037.15	141.71	35.43	-90.05	-3,440.69	-8,368.64	4,111.46	3,990.22	121.24	33.913		
11,900.00	7,047.68	7,074.19	7,035.71	144.49	35.43	-90.01	-3,440.66	-8,368.65	4,031.59	3,907.21	124.38	32.413		
12,000.00	7,047.29	7,072.77	7,034.28	147.28	35.42	-89.98	-3,440.64	-8,368.67	3,952.63	3,824.98	127.65	30.964		
12,100.00	7,046.90	7,071.35	7,032.87	150.07	35.42	-89.95	-3,440.62	-8,368.68	3,874.65	3,743.60	131.05	29.566		
12,200.00	7,046.51	7,069.95	7,031.47	152.87	35.41	-89.92	-3,440.59	-8,368.69	3,797.70	3,663.11	134.58	28.218		
12,300.00	7,046.11	7,068.57	7,030.08	155.66	35.41	-89.88	-3,440.57	-8,368.70	3,721.84	3,583.59	138.25	26.922		
12,400.00	7,045.72	7,067.19	7,028.71	158.46	35.40	-89.85	-3,440.55	-8,368.71	3,647.15	3,505.10	142.04	25.676		
12,500.00	7,045.33	7,065.83	7,027.35	161.26	35.39	-89.82	-3,440.53	-8,368.73	3,573.69	3,427.71	145.98	24.481		
12,600.00	7,044.93	7,064.50	7,026.02	164.06	35.39	-89.79	-3,440.48	-8,368.76	3,501.55	3,351.50	150.05	23.337		
12,700.00	7,044.54	7,063.32	7,024.84	166.86	35.38	-89.76	-3,440.47	-8,368.77	3,430.80	3,276.55	154.25	22.241		
12,800.00	7,044.15	7,062.14	7,023.66	169.67	35.38	-89.73	-3,440.45	-8,368.78	3,361.54	3,202.95	158.60	21.195		
12,900.00	7,043.75	7,060.96	7,022.48	172.48	35.37	-89.71	-3,440.43	-8,368.78	3,293.86	3,130.79	163.08	20.198		
13,000.00	7,043.36	7,059.78	7,021.30	175.28	35.37	-89.68	-3,440.41	-8,368.79	3,227.86	3,060.18	167.69	19.249		
13,100.00	7,042.97	7,058.60	7,020.12	178.09	35.37	-89.65	-3,440.40	-8,368.80	3,163.65	2,991.22	172.43	18.348		
13,200.00	7,042.57	7,057.41	7,018.93	180.91	35.36	-89.62	-3,440.38	-8,368.81	3,101.33	2,924.04	177.28	17.494		
13,300.00	7,042.18	7,056.22	7,017.74	183.72	35.36	-89.59	-3,440.36	-8,368.82	3,041.02	2,858.76	182.25	16.686		
13,400.00	7,041.79	7,055.03	7,016.55	186.53	35.35	-89.57	-3,440.34	-8,368.83	2,982.84	2,795.51	187.33	15.923		
13,500.00	7,041.39	7,053.84	7,015.36	189.35	35.35	-89.54	-3,440.33	-8,368.83	2,926.93	2,734.44	192.49	15.206		
13,600.00	7,041.00	7,052.64	7,014.16	192.17	35.34	-89.51	-3,440.31	-8,368.84	2,873.40	2,675.68	197.73	14.532		
13,700.00	7,040.61	7,051.44	7,012.97	194.99	35.34	-89.48	-3,440.29	-8,368.85	2,822.41	2,619.39	203.02	13.902		
13,800.00	7,040.21	7,050.25	7,011.77	197.81	35.33	-89.45	-3,440.27	-8,368.86	2,774.08	2,565.74	208.35	13.315		
13,900.00	7,039.82	7,049.04	7,010.57	200.63	35.33	-89.43	-3,440.25	-8,368.87	2,728.57	2,514.88	213.68	12.769		
14,000.00	7,039.43	7,047.84	7,009.36	203.45	35.32	-89.40	-3,440.24	-8,368.87	2,686.00	2,467.00	219.01	12.264		
14,100.00	7,039.03	7,046.63	7,008.16	206.27	35.32	-89.37	-3,440.22	-8,368.88	2,646.54	2,422.25	224.29	11.800		
14,200.00	7,038.64	7,045.43	7,006.95	209.09	35.31	-89.34	-3,440.20	-8,368.89	2,610.30	2,380.81	229.49	11.374		
14,300.00	7,038.25	7,044.22	7,005.74	211.92	35.31	-89.31	-3,440.18	-8,368.90	2,577.44	2,342.85	234.59	10.987		
14,400.00	7,037.86	7,043.00	7,004.53	214.74	35.30	-89.28	-3,440.16	-8,368.91	2,548.09	2,308.55	239.54	10.637		
14,500.00	7,037.46	7,041.79	7,003.31	217.57	35.30	-89.26	-3,440.14	-8,368.92	2,522.36	2,278.04	244.31	10.324		
14,600.00	7,037.07	7,040.57	7,002.10	220.40	35.29	-89.23	-3,440.12	-8,368.92	2,500.36	2,251.49	248.87	10.047		
14,700.00	7,036.68	7,039.36	7,000.88	223.23	35.29	-89.20	-3,440.11	-8,368.93	2,482.20	2,229.03	253.17	9.804		
14,800.00	7,036.28	7,038.13	6,999.66	226.05	35.28	-89.17	-3,440.09	-8,368.94	2,467.96	2,210.77	257.19	9.596		
14,871.88	7,036.00	7,037.26	6,998.78	228.09	35.28	-89.15	-3,440.07	-8,368.95	2,460.19	2,200.30	259.89	9.466 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	64.00	3.28	3.28	-133.03	-3,146.28	-3,370.09	4,610.93				
100.00	100.00	36.00	100.00	3.28	3.34	-133.03	-3,146.28	-3,370.09	4,610.49	4,603.86	6.62	695.988	
200.00	200.00	136.00	200.00	3.34	4.45	-133.03	-3,146.28	-3,370.09	4,610.49	4,602.70	7.78	592.334	
300.00	300.00	236.00	300.00	3.44	7.27	-133.03	-3,146.28	-3,370.09	4,610.49	4,599.77	10.72	430.100	
400.00	399.98	335.98	399.98	3.60	10.51	37.15	-3,146.28	-3,370.09	4,609.09	4,594.99	14.10	326.789	
500.00	499.84	435.84	499.84	3.79	13.86	37.24	-3,146.28	-3,370.09	4,604.92	4,587.27	17.65	260.914	
600.00	599.45	535.45	599.45	4.02	17.26	37.39	-3,146.28	-3,370.09	4,597.98	4,576.70	21.28	216.071	
700.00	698.70	634.70	698.70	4.29	20.67	37.60	-3,146.28	-3,370.09	4,588.29	4,563.32	24.96	183.817	
800.00	797.70	733.70	797.70	4.59	24.09	37.72	-3,146.28	-3,370.09	4,577.05	4,548.37	28.68	159.605	
900.00	896.69	832.69	896.69	4.92	27.52	37.82	-3,146.28	-3,370.09	4,565.82	4,533.40	32.43	140.810	
1,000.00	995.68	931.68	995.68	5.27	30.95	37.93	-3,146.28	-3,370.09	4,554.61	4,518.41	36.20	125.816	
1,100.00	1,094.68	1,030.68	1,094.68	5.64	34.39	38.04	-3,146.28	-3,370.09	4,543.42	4,503.42	40.00	113.593	
1,200.00	1,193.67	1,129.67	1,193.67	6.03	37.83	38.15	-3,146.28	-3,370.09	4,532.24	4,488.43	43.81	103.448	
1,300.00	1,292.67	1,228.67	1,292.67	6.42	41.28	38.26	-3,146.28	-3,370.09	4,521.08	4,473.44	47.64	94.901	
1,400.00	1,391.66	1,327.66	1,391.66	6.83	44.72	38.37	-3,146.28	-3,370.09	4,509.94	4,458.46	51.48	87.607	
1,500.00	1,490.66	1,426.66	1,490.66	7.25	48.17	38.48	-3,146.28	-3,370.09	4,498.81	4,443.48	55.33	81.311	
1,600.00	1,589.65	1,525.65	1,589.65	7.67	51.62	38.60	-3,146.28	-3,370.09	4,487.70	4,428.52	59.19	75.824	
1,700.00	1,688.64	1,624.64	1,688.64	8.10	55.07	38.71	-3,146.28	-3,370.09	4,476.61	4,413.56	63.05	71.001	
1,800.00	1,787.64	1,723.64	1,787.64	8.53	58.52	38.82	-3,146.28	-3,370.09	4,465.54	4,398.62	66.92	66.730	
1,900.00	1,886.63	1,822.63	1,886.63	8.97	61.97	38.94	-3,146.28	-3,370.09	4,454.48	4,383.68	70.79	62.922	
2,000.00	1,985.63	1,921.63	1,985.63	9.41	65.42	39.05	-3,146.28	-3,370.09	4,443.44	4,368.77	74.67	59.506	
2,100.00	2,084.62	2,020.62	2,084.62	9.85	68.87	39.16	-3,146.28	-3,370.09	4,432.42	4,353.86	78.55	56.425	
2,200.00	2,183.61	2,119.61	2,183.61	10.30	72.32	39.28	-3,146.28	-3,370.09	4,421.41	4,338.97	82.44	53.632	
2,300.00	2,282.61	2,218.61	2,282.61	10.75	75.78	39.40	-3,146.28	-3,370.09	4,410.42	4,324.09	86.33	51.089	
2,400.00	2,381.60	2,317.60	2,381.60	11.20	79.23	39.51	-3,146.28	-3,370.09	4,399.45	4,309.24	90.22	48.764	
2,500.00	2,480.60	2,416.60	2,480.60	11.66	82.68	39.63	-3,146.28	-3,370.09	4,388.50	4,294.39	94.11	46.630	
2,600.00	2,579.59	2,515.59	2,579.59	12.11	86.14	39.75	-3,146.28	-3,370.09	4,377.57	4,279.56	98.01	44.666	
2,700.00	2,678.58	2,614.58	2,678.58	12.57	89.59	39.86	-3,146.28	-3,370.09	4,366.66	4,264.75	101.90	42.850	
2,800.00	2,777.58	2,713.58	2,777.58	13.02	93.04	39.98	-3,146.28	-3,370.09	4,355.76	4,249.96	105.80	41.169	
2,900.00	2,876.57	2,812.57	2,876.57	13.48	96.50	40.10	-3,146.28	-3,370.09	4,344.89	4,235.18	109.70	39.606	
3,000.00	2,975.57	2,911.57	2,975.57	13.94	99.95	40.22	-3,146.28	-3,370.09	4,334.03	4,220.42	113.60	38.150	
3,100.00	3,074.56	3,010.56	3,074.56	14.40	103.41	40.34	-3,146.28	-3,370.09	4,323.19	4,205.68	117.51	36.791	
3,200.00	3,173.55	3,109.55	3,173.55	14.87	106.86	40.46	-3,146.28	-3,370.09	4,312.37	4,190.96	121.41	35.519	
3,300.00	3,272.55	3,208.55	3,272.55	15.33	110.31	40.59	-3,146.28	-3,370.09	4,301.57	4,176.26	125.31	34.326	
3,400.00	3,371.54	3,307.54	3,371.54	15.79	113.77	40.71	-3,146.28	-3,370.09	4,290.79	4,161.57	129.22	33.205	
3,500.00	3,470.54	3,406.54	3,470.54	16.26	117.22	40.83	-3,146.28	-3,370.09	4,280.03	4,146.90	133.13	32.150	
3,600.00	3,569.53	3,505.53	3,569.53	16.72	120.68	40.96	-3,146.28	-3,370.09	4,269.29	4,132.25	137.03	31.155	
3,700.00	3,668.53	3,604.53	3,668.53	17.19	124.13	41.08	-3,146.28	-3,370.09	4,258.57	4,117.63	140.94	30.215	
3,800.00	3,767.52	3,703.52	3,767.52	17.65	127.59	41.20	-3,146.28	-3,370.09	4,247.87	4,103.02	144.85	29.326	
3,900.00	3,866.51	3,802.51	3,866.51	18.12	131.04	41.33	-3,146.28	-3,370.09	4,237.19	4,088.43	148.76	28.483	
4,000.00	3,965.51	3,901.51	3,965.51	18.59	134.50	41.46	-3,146.28	-3,370.09	4,226.52	4,073.85	152.67	27.684	
4,100.00	4,064.50	4,000.50	4,064.50	19.05	137.95	41.58	-3,146.28	-3,370.09	4,215.88	4,059.30	156.58	26.925	
4,200.00	4,163.50	4,100.50	4,163.50	19.52	141.44	41.71	-3,146.28	-3,370.09	4,205.27	4,044.74	160.53	26.197	
4,300.00	4,262.49	4,201.51	4,262.49	19.99	144.97	41.84	-3,146.28	-3,370.09	4,194.67	4,030.16	164.51	25.498	
4,400.00	4,361.48	4,302.52	4,361.48	20.46	148.49	41.97	-3,146.28	-3,370.09	4,184.09	4,015.60	168.49	24.833	
4,500.00	4,460.48	4,403.52	4,460.48	20.92	152.02	42.10	-3,146.28	-3,370.09	4,173.53	4,001.06	172.47	24.198	
4,600.00	4,559.47	4,504.53	4,559.47	21.39	155.54	42.23	-3,146.28	-3,370.09	4,163.00	3,986.54	176.46	23.592	
4,700.00	4,658.47	4,605.53	4,658.47	21.86	159.07	42.36	-3,146.28	-3,370.09	4,152.48	3,972.04	180.44	23.013	
4,800.00	4,757.46	4,706.54	4,757.46	22.33	162.59	42.49	-3,146.28	-3,370.09	4,141.99	3,957.57	184.42	22.459	
4,900.00	4,856.45	4,807.55	4,856.45	22.80	166.12	42.62	-3,146.28	-3,370.09	4,131.52	3,943.11	188.41	21.929	
5,000.00	4,955.45	4,908.55	4,955.45	23.27	169.64	42.75	-3,146.28	-3,370.09	4,121.07	3,928.68	192.39	21.420	
5,100.00	5,054.44	5,009.56	5,054.44	23.74	173.17	42.89	-3,146.28	-3,370.09	4,110.65	3,914.27	196.38	20.932	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,089.44	5,153.44	24.21	175.96	43.02	-3,146.28	-3,370.09	4,100.24	3,900.62	199.63	20.540	
5,300.00	5,252.43	5,188.43	5,252.43	24.68	179.41	43.15	-3,146.28	-3,370.09	4,089.86	3,886.32	203.54	20.093	
5,400.00	5,351.42	5,287.42	5,351.42	25.15	182.87	43.29	-3,146.28	-3,370.09	4,079.50	3,872.05	207.46	19.664	
5,500.00	5,450.42	5,386.42	5,450.42	25.62	186.32	43.43	-3,146.28	-3,370.09	4,069.17	3,857.79	211.37	19.251	
5,600.00	5,549.41	5,485.41	5,549.41	26.09	189.78	43.56	-3,146.28	-3,370.09	4,058.86	3,843.56	215.29	18.853	
5,700.00	5,648.41	5,584.41	5,648.41	26.56	193.23	43.70	-3,146.28	-3,370.09	4,048.57	3,829.36	219.21	18.469	
5,800.00	5,747.40	5,683.40	5,747.40	27.03	196.69	43.84	-3,146.28	-3,370.09	4,038.30	3,815.17	223.12	18.099	
5,900.00	5,846.40	5,782.40	5,846.40	27.51	200.15	43.98	-3,146.28	-3,370.09	4,028.06	3,801.01	227.04	17.741	
6,000.00	5,945.39	5,881.39	5,945.39	27.98	203.60	44.12	-3,146.28	-3,370.09	4,017.84	3,786.88	230.96	17.396	
6,100.00	6,044.38	5,980.38	6,044.38	28.45	207.06	44.26	-3,146.28	-3,370.09	4,007.64	3,772.76	234.88	17.063	
6,200.00	6,143.38	6,079.38	6,143.38	28.92	210.51	44.40	-3,146.28	-3,370.09	3,997.47	3,758.68	238.80	16.740	
6,300.00	6,242.37	6,178.37	6,242.37	29.39	213.97	44.54	-3,146.28	-3,370.09	3,987.32	3,744.61	242.71	16.428	
6,400.00	6,341.37	6,277.37	6,341.37	29.86	217.42	44.68	-3,146.28	-3,370.09	3,977.20	3,730.57	246.63	16.126	
6,500.00	6,440.36	6,376.36	6,440.36	30.34	220.88	44.82	-3,146.28	-3,370.09	3,967.10	3,716.55	250.55	15.833	
6,600.00	6,538.90	6,474.90	6,538.90	30.80	224.32	4.77	-3,146.28	-3,370.09	3,951.91	3,697.47	254.45	15.531	
6,700.00	6,634.88	6,570.88	6,634.88	31.25	227.67	-13.29	-3,146.28	-3,370.09	3,924.34	3,666.12	258.22	15.198	
6,800.00	6,725.92	6,661.92	6,725.92	31.68	230.85	-22.83	-3,146.28	-3,370.09	3,885.03	3,623.24	261.79	14.840	
6,900.00	6,809.79	6,745.79	6,809.79	32.07	233.77	-30.27	-3,146.28	-3,370.09	3,835.02	3,569.97	265.05	14.469	
7,000.00	6,884.42	6,820.42	6,884.42	32.43	236.38	-37.73	-3,146.28	-3,370.09	3,775.69	3,507.74	267.95	14.091	
7,100.00	6,947.98	6,883.98	6,947.98	32.77	238.60	-46.19	-3,146.28	-3,370.09	3,708.70	3,438.28	270.42	13.714	
7,200.00	6,998.89	6,934.89	6,998.89	33.18	240.37	-56.14	-3,146.28	-3,370.09	3,635.95	3,363.52	272.44	13.346	
7,300.00	7,035.91	6,971.91	7,035.91	33.76	241.67	-67.47	-3,146.28	-3,370.09	3,559.49	3,285.52	273.97	12.992	
7,400.00	7,058.12	7,005.88	7,058.12	34.61	242.85	-79.38	-3,146.28	-3,370.09	3,481.48	3,206.03	275.45	12.639	
7,500.00	7,064.98	7,000.98	7,064.98	35.68	242.68	-90.27	-3,146.28	-3,370.09	3,404.10	3,128.45	275.65	12.350	
7,600.00	7,064.59	7,000.59	7,064.59	36.95	242.67	-90.26	-3,146.28	-3,370.09	3,328.31	3,052.18	276.13	12.053	
7,700.00	7,064.20	7,000.20	7,064.20	38.40	242.65	-90.25	-3,146.28	-3,370.09	3,253.83	2,977.06	276.78	11.756	
7,800.00	7,063.80	7,000.20	7,063.80	40.00	242.65	-90.24	-3,146.28	-3,370.09	3,180.75	2,903.15	277.61	11.458	
7,900.00	7,063.41	7,000.59	7,063.41	41.75	242.67	-90.23	-3,146.28	-3,370.09	3,109.18	2,830.54	278.63	11.159	
8,000.00	7,063.02	7,000.98	7,063.02	43.62	242.68	-90.22	-3,146.28	-3,370.09	3,039.20	2,759.36	279.84	10.860	
8,100.00	7,062.62	7,001.38	7,062.62	45.59	242.70	-90.21	-3,146.28	-3,370.09	2,970.95	2,689.70	281.25	10.563	
8,200.00	7,062.23	7,001.77	7,062.23	47.65	242.71	-90.20	-3,146.28	-3,370.09	2,904.53	2,621.68	282.85	10.269	
8,300.00	7,061.84	7,002.16	7,061.84	49.79	242.72	-90.18	-3,146.28	-3,370.09	2,840.08	2,555.44	284.64	9.978	
8,400.00	7,061.45	7,002.56	7,061.45	52.00	242.74	-90.17	-3,146.28	-3,370.09	2,777.74	2,491.11	286.63	9.691	
8,500.00	7,061.05	7,002.95	7,061.05	54.27	242.75	-90.16	-3,146.28	-3,370.09	2,717.65	2,428.84	288.81	9.410	
8,600.00	7,060.66	7,003.34	7,060.66	56.60	242.76	-90.15	-3,146.28	-3,370.09	2,659.96	2,368.79	291.17	9.135	
8,700.00	7,060.27	7,003.73	7,060.27	58.97	242.78	-90.14	-3,146.28	-3,370.09	2,604.83	2,311.12	293.71	8.869	
8,800.00	7,059.87	7,004.13	7,059.87	61.38	242.79	-90.13	-3,146.28	-3,370.09	2,552.44	2,256.02	296.41	8.611	
8,900.00	7,059.48	7,004.52	7,059.48	63.83	242.80	-90.12	-3,146.28	-3,370.09	2,502.94	2,203.67	299.27	8.363	
9,000.00	7,059.09	7,004.91	7,059.09	66.32	242.82	-90.11	-3,146.28	-3,370.09	2,456.52	2,154.25	302.27	8.127	
9,100.00	7,058.69	7,005.31	7,058.69	68.83	242.83	-90.10	-3,146.28	-3,370.09	2,413.35	2,107.96	305.38	7.903	
9,200.00	7,058.30	7,005.70	7,058.30	71.37	242.85	-90.09	-3,146.28	-3,370.09	2,373.61	2,065.01	308.60	7.692	
9,300.00	7,057.91	7,006.09	7,057.91	73.93	242.86	-90.08	-3,146.28	-3,370.09	2,337.47	2,025.58	311.90	7.494	
9,400.00	7,057.51	7,006.49	7,057.51	76.51	242.87	-90.07	-3,146.28	-3,370.09	2,305.11	1,989.87	315.25	7.312	
9,500.00	7,057.12	7,006.88	7,057.12	79.11	242.89	-90.06	-3,146.28	-3,370.09	2,276.69	1,958.06	318.63	7.145	
9,600.00	7,056.73	7,007.27	7,056.73	81.73	242.90	-90.05	-3,146.28	-3,370.09	2,252.35	1,930.34	322.01	6.995	
9,700.00	7,056.33	7,007.67	7,056.33	84.37	242.91	-90.04	-3,146.28	-3,370.09	2,232.23	1,906.87	325.36	6.861	
9,800.00	7,055.94	7,008.06	7,055.94	87.01	242.93	-90.03	-3,146.28	-3,370.09	2,216.44	1,887.79	328.66	6.744	
9,900.00	7,055.55	7,008.45	7,055.55	89.68	242.94	-90.02	-3,146.28	-3,370.09	2,205.08	1,873.22	331.87	6.645	
10,000.00	7,055.15	7,008.85	7,055.15	92.35	242.96	-90.01	-3,146.28	-3,370.09	2,198.22	1,863.26	334.96	6.563	
10,100.00	7,054.76	7,009.24	7,054.76	95.03	242.97	-90.00	-3,146.28	-3,370.09	2,195.89	1,857.97	337.92	6.498	
10,101.16	7,054.76	7,009.24	7,054.76	95.07	242.97	-90.00	-3,146.28	-3,370.09	2,195.89	1,857.94	337.95	6.498 CC	
10,200.00	7,054.37	7,009.63	7,054.37	97.73	242.98	-89.99	-3,146.28	-3,370.09	2,198.11	1,857.40	340.71	6.452 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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - GREELEY SWD #1(XX) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,053.98	6,989.98	7,053.98	100.43	242.30	-89.98	-3,146.28	-3,370.09	2,204.87	1,862.25	342.63	6.435		
10,400.00	7,053.58	6,989.58	7,053.58	103.14	242.28	-89.97	-3,146.28	-3,370.09	2,216.13	1,871.11	345.02	6.423 SF		
10,500.00	7,053.19	6,989.19	7,053.19	105.86	242.27	-89.96	-3,146.28	-3,370.09	2,231.81	1,884.61	347.20	6.428		
10,600.00	7,052.80	6,988.80	7,052.80	108.59	242.26	-89.95	-3,146.28	-3,370.09	2,251.83	1,902.66	349.17	6.449		
10,700.00	7,052.40	6,988.40	7,052.40	111.32	242.24	-89.94	-3,146.28	-3,370.09	2,276.08	1,925.14	350.93	6.486		
10,800.00	7,052.01	6,988.01	7,052.01	114.06	242.23	-89.93	-3,146.28	-3,370.09	2,304.41	1,951.93	352.48	6.538		
10,900.00	7,051.62	6,987.62	7,051.62	116.80	242.21	-89.92	-3,146.28	-3,370.09	2,336.68	1,982.86	353.82	6.604		
11,000.00	7,051.22	6,987.22	7,051.22	119.55	242.20	-89.91	-3,146.28	-3,370.09	2,372.72	2,017.77	354.96	6.685		
11,100.00	7,050.83	6,986.83	7,050.83	122.31	242.19	-89.90	-3,146.28	-3,370.09	2,412.38	2,056.47	355.91	6.778		
11,200.00	7,050.44	6,986.44	7,050.44	125.07	242.17	-89.89	-3,146.28	-3,370.09	2,455.47	2,098.79	356.68	6.884		
11,300.00	7,050.04	6,986.04	7,050.04	127.83	242.16	-89.88	-3,146.28	-3,370.09	2,501.82	2,144.53	357.29	7.002		
11,400.00	7,049.65	6,985.65	7,049.65	130.60	242.15	-89.87	-3,146.28	-3,370.09	2,551.25	2,193.50	357.75	7.131		
11,500.00	7,049.26	6,985.26	7,049.26	133.37	242.13	-89.86	-3,146.28	-3,370.09	2,603.58	2,245.50	358.08	7.271		
11,600.00	7,048.86	6,984.86	7,048.86	136.15	242.12	-89.85	-3,146.28	-3,370.09	2,658.65	2,300.36	358.28	7.421		
11,700.00	7,048.47	6,984.47	7,048.47	138.93	242.11	-89.84	-3,146.28	-3,370.09	2,716.28	2,357.90	358.38	7.579		
11,800.00	7,048.08	6,984.08	7,048.08	141.71	242.09	-89.83	-3,146.28	-3,370.09	2,776.32	2,417.94	358.37	7.747		
11,900.00	7,047.68	6,983.68	7,047.68	144.49	242.08	-89.82	-3,146.28	-3,370.09	2,838.61	2,480.32	358.29	7.923		
12,000.00	7,047.29	6,983.29	7,047.29	147.28	242.06	-89.81	-3,146.28	-3,370.09	2,903.01	2,544.88	358.13	8.106		
12,100.00	7,046.90	6,982.90	7,046.90	150.07	242.05	-89.79	-3,146.28	-3,370.09	2,969.38	2,611.47	357.91	8.296		
12,200.00	7,046.51	6,982.51	7,046.51	152.87	242.04	-89.78	-3,146.28	-3,370.09	3,037.59	2,679.96	357.63	8.494		
12,300.00	7,046.11	6,982.11	7,046.11	155.66	242.02	-89.77	-3,146.28	-3,370.09	3,107.53	2,750.22	357.31	8.697		
12,400.00	7,045.72	6,981.72	7,045.72	158.46	242.01	-89.76	-3,146.28	-3,370.09	3,179.07	2,822.12	356.95	8.906		
12,500.00	7,045.33	6,981.33	7,045.33	161.26	242.00	-89.75	-3,146.28	-3,370.09	3,252.11	2,895.56	356.56	9.121		
12,600.00	7,044.93	6,980.93	7,044.93	164.06	241.98	-89.74	-3,146.28	-3,370.09	3,326.56	2,970.42	356.14	9.341		
12,700.00	7,044.54	6,980.54	7,044.54	166.86	241.97	-89.73	-3,146.28	-3,370.09	3,402.32	3,046.61	355.70	9.565		
12,800.00	7,044.15	6,980.15	7,044.15	169.67	241.95	-89.72	-3,146.28	-3,370.09	3,479.30	3,124.05	355.25	9.794		
12,900.00	7,043.75	6,979.75	7,043.75	172.48	241.94	-89.71	-3,146.28	-3,370.09	3,557.43	3,202.65	354.78	10.027		
13,000.00	7,043.36	6,979.36	7,043.36	175.28	241.93	-89.70	-3,146.28	-3,370.09	3,636.63	3,282.32	354.31	10.264		
13,100.00	7,042.97	6,978.97	7,042.97	178.09	241.91	-89.69	-3,146.28	-3,370.09	3,716.83	3,363.00	353.82	10.505		
13,200.00	7,042.57	6,978.57	7,042.57	180.91	241.90	-89.68	-3,146.28	-3,370.09	3,797.97	3,444.63	353.34	10.749		
13,300.00	7,042.18	6,978.18	7,042.18	183.72	241.89	-89.67	-3,146.28	-3,370.09	3,879.99	3,527.14	352.85	10.996		
13,400.00	7,041.79	6,977.79	7,041.79	186.53	241.87	-89.66	-3,146.28	-3,370.09	3,962.84	3,610.47	352.36	11.246		
13,500.00	7,041.39	6,977.39	7,041.39	189.35	241.86	-89.65	-3,146.28	-3,370.09	4,046.46	3,694.58	351.88	11.500		
13,600.00	7,041.00	6,977.00	7,041.00	192.17	241.84	-89.64	-3,146.28	-3,370.09	4,130.81	3,779.41	351.40	11.755		
13,700.00	7,040.61	6,976.61	7,040.61	194.99	241.83	-89.63	-3,146.28	-3,370.09	4,215.84	3,864.92	350.92	12.014		
13,800.00	7,040.21	6,976.21	7,040.21	197.81	241.82	-89.62	-3,146.28	-3,370.09	4,301.52	3,951.07	350.45	12.274		
13,900.00	7,039.82	6,975.82	7,039.82	200.63	241.80	-89.61	-3,146.28	-3,370.09	4,387.81	4,037.82	349.98	12.537		
14,000.00	7,039.43	6,975.43	7,039.43	203.45	241.79	-89.60	-3,146.28	-3,370.09	4,474.66	4,125.14	349.52	12.802		
14,100.00	7,039.03	6,975.03	7,039.03	206.27	241.78	-89.59	-3,146.28	-3,370.09	4,562.06	4,212.98	349.07	13.069		
14,200.00	7,038.64	6,974.64	7,038.64	209.09	241.76	-89.58	-3,146.28	-3,370.09	4,649.96	4,301.33	348.63	13.338		
14,300.00	7,038.25	6,974.25	7,038.25	211.92	241.75	-89.57	-3,146.28	-3,370.09	4,738.34	4,390.15	348.19	13.608		
14,400.00	7,037.86	6,973.86	7,037.86	214.74	241.73	-89.56	-3,146.28	-3,370.09	4,827.18	4,479.41	347.77	13.880		
14,500.00	7,037.46	6,973.46	7,037.46	217.57	241.72	-89.55	-3,146.28	-3,370.09	4,916.44	4,569.09	347.35	14.154		
14,600.00	7,037.07	6,973.07	7,037.07	220.40	241.71	-89.54	-3,146.28	-3,370.09	5,006.11	4,659.17	346.94	14.429		
14,700.00	7,036.68	6,972.68	7,036.68	223.23	241.69	-89.53	-3,146.28	-3,370.09	5,096.16	4,749.63	346.54	14.706		
14,800.00	7,036.28	6,972.28	7,036.28	226.05	241.68	-89.52	-3,146.28	-3,370.09	5,186.58	4,840.44	346.14	14.984		
14,871.88	7,036.00	6,972.00	7,036.00	228.09	241.67	-89.51	-3,146.28	-3,370.09	5,251.79	4,905.93	345.87	15.184		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	10.00	3.28	3.28	24.10	1,097.65	490.89	1,202.46				
100.00	100.00	87.32	97.32	3.28	3.29	24.10	1,097.73	490.95	1,202.52	1,195.95	6.57	183.030	
200.00	200.00	187.53	197.53	3.34	3.33	24.10	1,097.89	491.16	1,202.75	1,196.08	6.67	180.332	
300.00	300.00	290.60	300.60	3.44	3.44	24.11	1,097.91	491.36	1,202.84	1,195.96	6.88	174.762	
301.61	301.61	292.27	302.27	3.45	3.44	-165.74	1,097.90	491.36	1,202.84	1,195.95	6.89	174.655	
400.00	399.98	383.57	393.57	3.60	3.58	-165.73	1,097.91	491.80	1,204.73	1,197.56	7.17	167.949	
500.00	499.84	486.56	496.55	3.79	3.78	-165.72	1,098.00	492.81	1,210.29	1,202.73	7.56	160.040	
600.00	599.45	581.35	591.34	4.02	3.99	-165.74	1,098.01	493.74	1,219.15	1,211.14	8.01	152.145	
700.00	698.70	684.94	694.92	4.29	4.26	-165.75	1,097.97	495.28	1,231.54	1,222.99	8.55	144.027	
800.00	797.70	785.62	795.59	4.59	4.55	-165.85	1,097.63	496.57	1,245.46	1,236.33	9.13	136.362	
900.00	896.69	881.33	891.29	4.92	4.84	-165.95	1,097.41	497.73	1,259.46	1,249.72	9.74	129.288	
1,000.00	995.68	983.34	993.29	5.27	5.17	-166.04	1,097.16	499.22	1,273.56	1,263.15	10.41	122.379	
1,100.00	1,094.68	1,076.48	1,086.43	5.64	5.49	-166.14	1,097.04	500.29	1,287.64	1,276.57	11.07	116.302	
1,200.00	1,193.67	1,176.54	1,186.47	6.03	5.84	-166.23	1,097.16	501.73	1,302.07	1,290.29	11.79	110.477	
1,300.00	1,292.67	1,284.60	1,294.52	6.42	6.23	-166.33	1,096.79	503.25	1,316.07	1,303.52	12.55	104.844	
1,400.00	1,391.66	1,384.02	1,393.94	6.83	6.60	-166.43	1,096.18	504.12	1,329.62	1,316.32	13.30	99.945	
1,500.00	1,490.66	1,484.60	1,494.51	7.25	6.97	-166.53	1,095.61	504.91	1,343.17	1,329.10	14.07	95.438	
1,600.00	1,589.65	1,582.83	1,592.73	7.67	7.35	-166.61	1,094.83	506.05	1,356.67	1,341.82	14.85	91.375	
1,700.00	1,688.64	1,679.17	1,689.06	8.10	7.72	-166.69	1,094.27	507.04	1,370.31	1,354.68	15.62	87.712	
1,800.00	1,787.64	1,780.18	1,790.07	8.53	8.11	-166.80	1,093.87	507.80	1,384.02	1,367.60	16.43	84.253	
1,900.00	1,886.63	1,888.74	1,898.62	8.97	8.54	-166.91	1,093.10	508.30	1,397.34	1,380.06	17.27	80.899	
2,000.00	1,985.63	1,982.37	1,992.25	9.41	8.91	-167.03	1,092.45	508.09	1,410.41	1,392.35	18.06	78.102	
2,100.00	2,084.62	2,084.70	2,094.58	9.85	9.32	-167.17	1,092.02	507.74	1,423.70	1,404.81	18.89	75.371	
2,200.00	2,183.61	2,176.03	2,185.90	10.30	9.68	-167.29	1,091.62	507.52	1,437.01	1,417.34	19.67	73.039	
2,300.00	2,282.61	2,271.59	2,281.47	10.75	10.06	-167.41	1,091.71	507.34	1,450.84	1,430.36	20.48	70.830	
2,400.00	2,381.60	2,368.87	2,378.75	11.20	10.46	-167.52	1,091.76	507.55	1,464.79	1,443.48	21.30	68.756	
2,500.00	2,480.60	2,472.22	2,482.10	11.66	10.88	-167.65	1,091.88	507.57	1,478.73	1,456.57	22.16	66.737	
2,600.00	2,579.59	2,568.09	2,577.97	12.11	11.27	-167.78	1,091.96	507.14	1,492.47	1,469.49	22.98	64.952	
2,700.00	2,678.58	2,664.56	2,674.44	12.57	11.66	-167.91	1,092.38	506.74	1,506.55	1,482.74	23.80	63.290	
2,800.00	2,777.58	2,766.51	2,776.38	13.02	12.07	-168.05	1,092.82	506.21	1,520.60	1,495.94	24.66	61.664	
2,900.00	2,876.57	2,875.42	2,885.29	13.48	12.52	-168.20	1,092.97	505.25	1,534.27	1,508.71	25.55	60.043	
3,000.00	2,975.57	2,972.09	2,981.95	13.94	12.92	-168.34	1,092.77	504.19	1,547.53	1,521.15	26.39	58.648	
3,100.00	3,074.56	3,075.16	3,085.01	14.40	13.34	-168.51	1,092.88	502.64	1,560.97	1,533.71	27.26	57.272	
3,200.00	3,173.55	3,171.03	3,180.87	14.87	13.74	-168.67	1,092.92	500.80	1,574.19	1,546.10	28.09	56.043	
3,300.00	3,272.55	3,274.98	3,284.80	15.33	14.17	-168.83	1,092.94	499.27	1,587.57	1,558.61	28.97	54.810	
3,400.00	3,371.54	3,377.03	3,386.85	15.79	14.60	-168.97	1,092.48	497.86	1,600.55	1,570.72	29.83	53.650	
3,500.00	3,470.54	3,474.55	3,484.35	16.26	15.00	-169.11	1,092.08	496.38	1,613.54	1,582.86	30.68	52.593	
3,600.00	3,569.53	3,568.02	3,577.81	16.72	15.39	-169.23	1,091.79	495.27	1,626.73	1,595.23	31.51	51.633	
3,700.00	3,668.53	3,656.21	3,666.00	17.19	15.76	-169.33	1,091.74	494.83	1,640.42	1,608.12	32.30	50.782	
3,800.00	3,767.52	3,750.17	3,759.96	17.65	16.16	-169.42	1,092.20	494.75	1,654.76	1,621.63	33.13	49.945	
3,900.00	3,866.51	3,852.95	3,862.74	18.12	16.58	-169.53	1,092.68	494.49	1,669.02	1,635.01	34.01	49.075	
4,000.00	3,965.51	3,952.87	3,962.66	18.59	17.00	-169.64	1,093.06	493.89	1,683.09	1,648.22	34.87	48.264	
4,100.00	4,064.50	4,052.57	4,062.36	19.05	17.42	-169.75	1,093.50	493.23	1,697.20	1,661.46	35.73	47.494	
4,200.00	4,163.50	4,154.18	4,163.96	19.52	17.85	-169.86	1,093.72	492.75	1,711.17	1,674.56	36.61	46.742	
4,300.00	4,262.49	4,252.43	4,262.21	19.99	18.26	-169.96	1,093.90	492.12	1,725.06	1,687.59	37.46	46.045	
4,400.00	4,361.48	4,349.92	4,359.69	20.46	18.67	-170.06	1,094.16	491.64	1,739.08	1,700.76	38.32	45.386	
4,500.00	4,460.48	4,447.49	4,457.27	20.92	19.08	-170.16	1,094.45	491.19	1,753.14	1,713.97	39.17	44.756	
4,600.00	4,559.47	4,542.22	4,551.99	21.39	19.48	-170.24	1,094.81	490.97	1,767.37	1,727.36	40.01	44.175	
4,700.00	4,658.47	4,638.88	4,648.66	21.86	19.89	-170.32	1,095.35	491.05	1,781.86	1,741.00	40.86	43.612	
4,800.00	4,757.46	4,736.31	4,746.08	22.33	20.30	-170.40	1,095.86	491.07	1,796.31	1,754.60	41.71	43.065	
4,900.00	4,856.45	4,825.43	4,835.20	22.80	20.67	-170.46	1,096.56	491.48	1,811.15	1,768.63	42.52	42.599	
5,000.00	4,955.45	4,915.06	4,924.82	23.27	21.05	-170.52	1,097.69	492.29	1,826.57	1,783.25	43.32	42.161	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,054.44	5,021.62	5,031.36	23.74	21.50	-170.59	1,099.19	492.87	1,842.03	1,797.80	44.23	41.643		
5,200.00	5,153.44	5,137.61	5,147.35	24.21	21.99	-170.68	1,100.08	493.04	1,856.76	1,811.56	45.20	41.079		
5,300.00	5,252.43	5,243.25	5,252.99	24.68	22.44	-170.77	1,100.27	492.61	1,870.75	1,824.65	46.10	40.577		
5,400.00	5,351.42	5,347.55	5,357.29	25.15	22.88	-170.87	1,100.54	491.70	1,884.69	1,837.69	47.00	40.100		
5,500.00	5,450.42	5,456.52	5,466.25	25.62	23.34	-170.98	1,100.20	490.47	1,898.00	1,850.08	47.92	39.606		
5,600.00	5,549.41	5,554.21	5,563.92	26.09	23.75	-171.09	1,099.88	488.82	1,911.14	1,862.36	48.78	39.178		
5,700.00	5,648.41	5,651.47	5,661.17	26.56	24.16	-171.18	1,099.61	487.59	1,924.46	1,874.82	49.64	38.770		
5,800.00	5,747.40	5,751.61	5,761.30	27.03	24.59	-171.29	1,099.35	486.17	1,937.76	1,887.25	50.51	38.363		
5,900.00	5,846.40	5,848.72	5,858.40	27.51	25.00	-171.40	1,099.27	484.24	1,951.05	1,899.68	51.37	37.982		
6,000.00	5,945.39	5,944.43	5,954.09	27.98	25.41	-171.51	1,099.34	482.49	1,964.54	1,912.32	52.22	37.623		
6,100.00	6,044.38	6,043.39	6,053.03	28.45	25.83	-171.62	1,099.52	480.63	1,978.13	1,925.04	53.08	37.264		
6,200.00	6,143.38	6,148.70	6,158.31	28.92	26.27	-171.75	1,099.69	478.28	1,991.60	1,937.61	53.99	36.889		
6,300.00	6,242.37	6,248.62	6,258.21	29.39	26.70	-171.87	1,099.44	476.15	2,004.72	1,949.86	54.86	36.541		
6,400.00	6,341.37	6,347.86	6,357.42	29.86	27.12	-171.99	1,099.54	473.68	2,018.07	1,962.33	55.73	36.210		
6,500.00	6,440.36	6,446.04	6,455.56	30.34	27.54	-172.13	1,099.54	470.70	2,031.17	1,974.57	56.60	35.888		
6,600.00	6,538.90	6,537.41	6,546.88	30.80	27.92	147.28	1,099.98	467.86	2,046.60	1,989.18	57.42	35.643		
6,700.00	6,634.88	6,636.72	6,646.12	31.25	28.35	129.47	1,100.73	464.11	2,066.63	2,008.35	58.28	35.462		
6,800.00	6,725.92	6,734.50	6,743.81	31.68	28.76	121.18	1,101.34	460.11	2,090.80	2,031.68	59.12	35.368 SF		
6,900.00	6,809.79	6,822.47	6,831.72	32.07	29.14	116.06	1,101.63	456.72	2,119.16	2,059.27	59.89	35.383		
7,000.00	6,884.42	6,898.86	6,908.04	32.43	29.47	112.10	1,102.00	453.46	2,151.93	2,091.32	60.62	35.501		
7,100.00	6,947.98	6,964.87	6,973.96	32.77	29.75	108.49	1,102.49	450.30	2,189.17	2,127.84	61.32	35.698		
7,200.00	6,998.89	7,021.64	7,030.66	33.18	29.99	104.83	1,102.99	447.41	2,230.71	2,168.66	62.05	35.951		
7,300.00	7,035.91	7,067.97	7,076.93	33.76	30.19	100.87	1,103.34	445.01	2,276.18	2,213.38	62.80	36.243		
7,400.00	7,058.12	7,098.30	7,107.22	34.61	30.32	96.35	1,103.52	443.41	2,325.05	2,261.49	63.55	36.585		
7,500.00	7,064.98	7,112.16	7,121.06	35.68	30.38	91.45	1,103.59	442.67	2,376.49	2,312.22	64.28	36.973		
7,600.00	7,064.59	7,118.20	7,127.09	36.95	30.40	91.62	1,103.63	442.33	2,430.42	2,365.39	65.02	37.378		
7,700.00	7,064.20	7,124.54	7,133.42	38.40	30.43	91.80	1,103.67	441.97	2,487.18	2,421.36	65.83	37.784		
7,800.00	7,063.80	7,131.21	7,140.07	40.00	30.46	91.99	1,103.72	441.58	2,546.60	2,479.93	66.67	38.199		
7,900.00	7,063.41	7,138.22	7,147.07	41.75	30.49	92.19	1,103.77	441.16	2,608.48	2,540.95	67.53	38.628		
8,000.00	7,063.02	7,145.61	7,154.44	43.62	30.52	92.39	1,103.83	440.70	2,672.65	2,604.25	68.40	39.073		
8,100.00	7,062.62	7,153.40	7,162.23	45.59	30.56	92.61	1,103.89	440.21	2,738.96	2,669.69	69.27	39.539		
8,200.00	7,062.23	7,161.64	7,170.45	47.65	30.59	92.85	1,103.96	439.68	2,807.24	2,737.11	70.14	40.026		
8,300.00	7,061.84	7,170.36	7,179.15	49.79	30.63	93.09	1,104.04	439.10	2,877.37	2,806.38	70.99	40.535		
8,400.00	7,061.45	7,179.61	7,188.37	52.00	30.67	93.35	1,104.13	438.47	2,949.20	2,877.38	71.82	41.065		
8,500.00	7,061.05	7,189.43	7,198.16	54.27	30.71	93.63	1,104.23	437.78	3,022.61	2,949.98	72.63	41.617		
8,600.00	7,060.66	7,199.87	7,208.58	56.60	30.75	93.92	1,104.35	437.02	3,097.48	3,024.06	73.42	42.189		
8,700.00	7,060.27	7,211.01	7,219.68	58.97	30.80	94.23	1,104.48	436.19	3,173.72	3,099.53	74.19	42.780		
8,800.00	7,059.87	7,213.67	7,222.34	61.38	30.81	94.31	1,104.50	436.02	3,251.24	3,176.36	74.88	43.420		
8,900.00	7,059.48	7,220.40	7,229.05	63.83	30.84	94.50	1,104.56	435.53	3,329.94	3,254.38	75.57	44.066		
9,000.00	7,059.09	7,227.04	7,235.68	66.32	30.87	94.68	1,104.62	435.05	3,409.75	3,333.52	76.23	44.731		
9,100.00	7,058.69	7,233.60	7,242.22	68.83	30.90	94.87	1,104.68	434.59	3,490.58	3,413.72	76.86	45.414		
9,200.00	7,058.30	7,240.07	7,248.67	71.37	30.93	95.05	1,104.74	434.13	3,572.37	3,494.90	77.47	46.114		
9,300.00	7,057.91	7,247.15	7,254.44	73.93	31.07	95.21	1,104.79	433.71	3,655.05	3,576.88	78.17	46.758		
9,400.00	7,057.51	7,267.62	7,260.95	76.51	31.05	95.39	1,104.83	433.26	3,738.57	3,659.90	78.67	47.520		
9,500.00	7,057.12	7,261.09	7,267.47	79.11	31.02	95.58	1,104.87	432.81	3,822.87	3,743.72	79.15	48.297		
9,600.00	7,056.73	7,265.44	7,273.98	81.73	31.04	95.76	1,104.92	432.36	3,907.90	3,828.24	79.66	49.057		
9,700.00	7,056.33	7,271.97	7,280.50	84.37	31.06	95.94	1,104.96	431.90	3,993.61	3,913.46	80.16	49.824		
9,800.00	7,055.94	7,278.50	7,287.01	87.01	31.09	96.12	1,105.00	431.45	4,079.96	3,999.33	80.63	50.601		
9,900.00	7,055.55	7,285.03	7,293.52	89.68	31.12	96.31	1,105.04	431.00	4,166.92	4,085.83	81.09	51.388		
10,000.00	7,055.15	7,291.56	7,300.04	92.35	31.15	96.49	1,105.08	430.55	4,254.43	4,172.91	81.53	52.185		
10,100.00	7,054.76	7,298.09	7,306.55	95.03	31.18	96.67	1,105.13	430.09	4,342.48	4,260.53	81.95	52.990		
10,200.00	7,054.37	7,304.62	7,313.07	97.73	31.21	96.85	1,105.17	429.64	4,431.02	4,348.66	82.36	53.803		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,053.98	7,311.15	7,319.58	100.43	31.24	97.03	1,105.21	429.19	4,520.03	4,437.28	82.75	54.624		
10,400.00	7,053.58	7,317.69	7,326.10	103.14	31.26	97.21	1,105.25	428.74	4,609.48	4,526.36	83.13	55.452		
10,500.00	7,053.19	7,324.22	7,332.61	105.86	31.29	97.40	1,105.30	428.28	4,699.35	4,615.86	83.49	56.286		
10,600.00	7,052.80	7,330.75	7,339.13	108.59	31.32	97.58	1,105.34	427.83	4,789.61	4,705.77	83.84	57.126		
10,700.00	7,052.40	7,337.28	7,345.64	111.32	31.35	97.76	1,105.38	427.38	4,880.25	4,796.06	84.18	57.971		
10,800.00	7,052.01	7,343.81	7,352.16	114.06	31.38	97.94	1,105.42	426.93	4,971.23	4,886.72	84.51	58.822		
10,900.00	7,051.62	7,350.34	7,358.67	116.80	31.41	98.12	1,105.46	426.47	5,062.54	4,977.71	84.83	59.677		
11,000.00	7,051.22	7,356.87	7,365.19	119.55	31.43	98.30	1,105.51	426.02	5,154.17	5,069.03	85.14	60.537		
11,100.00	7,050.83	7,363.40	7,371.70	122.31	31.46	98.48	1,105.55	425.57	5,246.10	5,160.66	85.44	61.401		
11,200.00	7,050.44	7,369.93	7,378.22	125.07	31.49	98.66	1,105.59	425.12	5,338.31	5,252.58	85.73	62.268		
11,300.00	7,050.04	7,376.46	7,384.73	127.83	31.52	98.84	1,105.63	424.66	5,430.79	5,344.77	86.01	63.139		
11,400.00	7,049.65	7,382.99	7,391.25	130.60	31.55	99.02	1,105.67	424.21	5,523.52	5,437.23	86.29	64.013		
11,500.00	7,049.26	7,389.52	7,397.76	133.37	31.58	99.20	1,105.72	423.76	5,616.49	5,529.94	86.55	64.890		
11,600.00	7,048.86	7,396.05	7,404.28	136.15	31.61	99.38	1,105.76	423.31	5,709.69	5,622.88	86.81	65.769		
11,700.00	7,048.47	7,402.58	7,410.79	138.93	31.63	99.56	1,105.80	422.85	5,803.12	5,716.05	87.07	66.651		
11,800.00	7,048.08	7,409.11	7,417.30	141.71	31.66	99.74	1,105.84	422.40	5,896.75	5,809.43	87.31	67.535		
11,900.00	7,047.68	7,415.64	7,423.82	144.49	31.69	99.91	1,105.88	421.95	5,990.58	5,903.02	87.55	68.421		
12,000.00	7,047.29	7,422.17	7,430.33	147.28	31.72	100.09	1,105.93	421.50	6,084.59	5,996.80	87.79	69.308		
12,100.00	7,046.90	7,428.70	7,436.85	150.07	31.75	100.27	1,105.97	421.04	6,178.79	6,090.77	88.02	70.198		
12,200.00	7,046.51	7,435.24	7,443.36	152.87	31.78	100.45	1,106.01	420.59	6,273.17	6,184.92	88.24	71.089		
12,300.00	7,046.11	7,441.77	7,449.88	155.66	31.80	100.63	1,106.05	420.14	6,367.70	6,279.24	88.46	71.981		
12,400.00	7,045.72	7,448.30	7,456.39	158.46	31.83	100.81	1,106.10	419.69	6,462.40	6,373.72	88.68	72.874		
12,500.00	7,045.33	7,454.83	7,462.91	161.26	31.86	100.98	1,106.14	419.23	6,557.25	6,468.36	88.89	73.768		
12,600.00	7,044.93	7,443.00	7,451.11	164.06	31.81	100.66	1,106.06	420.05	6,652.26	6,563.27	89.00	74.749		
12,700.00	7,044.54	7,443.00	7,451.11	166.86	31.81	100.66	1,106.06	420.05	6,747.41	6,658.25	89.16	75.676		
12,800.00	7,044.15	7,443.00	7,451.11	169.67	31.81	100.66	1,106.06	420.05	6,842.70	6,753.38	89.32	76.605		
12,900.00	7,043.75	7,443.00	7,451.11	172.48	31.81	100.66	1,106.06	420.05	6,938.12	6,848.64	89.48	77.535		
13,000.00	7,043.36	7,443.00	7,451.11	175.28	31.81	100.66	1,106.06	420.05	7,033.67	6,944.03	89.64	78.467		
13,100.00	7,042.97	7,443.00	7,451.11	178.09	31.81	100.66	1,106.06	420.05	7,129.34	7,039.55	89.79	79.399		
13,200.00	7,042.57	7,443.00	7,451.11	180.91	31.81	100.66	1,106.06	420.05	7,225.13	7,135.19	89.94	80.332		
13,300.00	7,042.18	7,443.00	7,451.11	183.72	31.81	100.66	1,106.06	420.05	7,321.03	7,230.94	90.09	81.266		
13,400.00	7,041.79	7,443.00	7,451.11	186.53	31.81	100.66	1,106.06	420.05	7,417.04	7,326.81	90.23	82.201		
13,500.00	7,041.39	7,443.00	7,451.11	189.35	31.81	100.66	1,106.06	420.05	7,513.15	7,422.78	90.37	83.136		
13,600.00	7,041.00	7,443.00	7,451.11	192.17	31.81	100.66	1,106.06	420.05	7,609.36	7,518.85	90.51	84.072		
13,700.00	7,040.61	7,443.00	7,451.11	194.99	31.81	100.66	1,106.06	420.05	7,705.67	7,615.03	90.65	85.008		
13,800.00	7,040.21	7,443.00	7,451.11	197.81	31.81	100.66	1,106.06	420.05	7,802.07	7,711.29	90.78	85.944		
13,900.00	7,039.82	7,443.00	7,451.11	200.63	31.81	100.66	1,106.06	420.05	7,898.57	7,807.65	90.91	86.881		
14,000.00	7,039.43	7,443.00	7,451.11	203.45	31.81	100.66	1,106.06	420.05	7,995.14	7,904.10	91.04	87.818		
14,100.00	7,039.03	7,443.00	7,451.11	206.27	31.81	100.66	1,106.06	420.05	8,091.81	8,000.64	91.17	88.755		
14,200.00	7,038.64	7,443.00	7,451.11	209.09	31.81	100.66	1,106.06	420.05	8,188.55	8,097.25	91.30	89.693		
14,300.00	7,038.25	7,443.00	7,451.11	211.92	31.81	100.66	1,106.06	420.05	8,285.36	8,193.95	91.42	90.630		
14,400.00	7,037.86	7,443.00	7,451.11	214.74	31.81	100.66	1,106.06	420.05	8,382.26	8,290.72	91.54	91.567		
14,500.00	7,037.46	7,443.00	7,451.11	217.57	31.81	100.66	1,106.06	420.05	8,479.22	8,387.56	91.66	92.505		
14,600.00	7,037.07	7,443.00	7,451.11	220.40	31.81	100.66	1,106.06	420.05	8,576.26	8,484.48	91.78	93.442		
14,700.00	7,036.68	7,443.00	7,451.11	223.23	31.81	100.66	1,106.06	420.05	8,673.36	8,581.46	91.90	94.378		
14,800.00	7,036.28	7,443.00	7,451.11	226.05	31.81	100.66	1,106.06	420.05	8,770.53	8,678.51	92.02	95.315		
14,871.88	7,036.00	7,443.00	7,451.11	228.09	31.81	100.66	1,106.06	420.05	8,840.41	8,748.31	92.10	95.988		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	20.00	3.28	3.28	85.09	44.81	521.51	523.81					
100.00	100.00	78.84	98.84	3.28	3.28	85.03	45.35	521.55	523.52	516.95	6.57	79.688		
200.00	200.00	181.15	201.14	3.34	3.33	84.86	46.95	521.49	523.60	516.93	6.67	78.526		
300.00	300.00	282.11	302.09	3.44	3.43	84.71	48.25	521.02	523.25	516.37	6.88	76.084		
334.61	334.60	316.29	336.26	3.49	3.48	-105.21	48.65	520.85	523.17	516.20	6.97	75.062 CC, ES		
400.00	399.98	379.70	399.67	3.60	3.58	-105.44	49.40	520.69	523.49	516.32	7.17	72.993		
500.00	499.84	477.40	497.36	3.79	3.76	-106.07	50.56	520.85	525.20	517.66	7.55	69.599		
600.00	599.45	575.91	595.86	4.02	3.99	-107.04	51.87	521.29	528.29	520.29	8.00	66.033		
700.00	698.70	674.55	694.48	4.29	4.24	-108.35	53.43	521.81	532.77	524.25	8.52	62.502		
800.00	797.70	772.49	792.41	4.59	4.52	-109.88	54.79	522.44	538.32	529.22	9.10	59.134		
900.00	896.69	870.22	890.13	4.92	4.81	-111.41	56.44	523.21	544.46	534.73	9.73	55.963		
1,000.00	995.68	969.28	989.17	5.27	5.13	-112.90	57.92	524.13	551.08	540.68	10.40	53.007		
1,100.00	1,094.68	1,068.28	1,088.15	5.64	5.47	-114.35	59.36	524.95	557.96	546.87	11.09	50.290		
1,200.00	1,193.67	1,168.09	1,187.95	6.03	5.81	-115.79	60.89	525.69	565.14	553.31	11.82	47.803		
1,300.00	1,292.67	1,267.99	1,287.84	6.42	6.17	-117.18	62.29	526.22	572.42	559.85	12.57	45.534		
1,400.00	1,391.66	1,366.23	1,386.07	6.83	6.53	-118.55	63.90	526.58	579.95	566.62	13.33	43.505		
1,500.00	1,490.66	1,467.35	1,487.17	7.25	6.91	-119.90	65.35	527.00	587.80	573.68	14.12	41.640		
1,600.00	1,589.65	1,567.44	1,587.26	7.67	7.29	-121.19	66.54	526.99	595.46	580.55	14.91	39.938		
1,700.00	1,688.64	1,669.12	1,688.94	8.10	7.69	-122.49	67.87	526.73	603.24	587.52	15.72	38.375		
1,800.00	1,787.64	1,767.73	1,787.53	8.53	8.07	-123.69	68.76	526.20	610.89	594.37	16.52	36.970		
1,900.00	1,886.63	1,865.36	1,885.16	8.97	8.45	-124.83	69.56	526.00	619.07	601.74	17.33	35.720		
2,000.00	1,985.63	1,966.66	1,986.46	9.41	8.86	-126.00	70.51	525.70	627.46	609.30	18.16	34.549		
2,100.00	2,084.62	2,069.15	2,088.95	9.85	9.26	-127.13	71.00	524.97	635.52	616.52	19.00	33.445		
2,200.00	2,183.61	2,167.84	2,187.63	10.30	9.66	-128.16	71.00	524.14	643.48	623.65	19.83	32.453		
2,300.00	2,282.61	2,267.45	2,287.24	10.75	10.06	-129.16	70.97	523.47	651.77	631.11	20.66	31.543		
2,400.00	2,381.60	2,368.35	2,388.14	11.20	10.47	-130.13	70.58	522.70	660.00	638.49	21.51	30.687		
2,500.00	2,480.60	2,467.80	2,487.58	11.66	10.87	-131.05	70.03	521.82	668.21	645.86	22.35	29.899		
2,600.00	2,579.59	2,567.03	2,586.80	12.11	11.27	-131.92	69.12	521.16	676.59	653.39	23.19	29.174		
2,700.00	2,678.58	2,663.97	2,683.74	12.57	11.67	-132.73	68.12	520.68	685.19	661.17	24.03	28.519		
2,800.00	2,777.58	2,763.96	2,783.72	13.02	12.07	-133.52	67.10	520.52	694.22	669.34	24.88	27.905		
2,900.00	2,876.57	2,863.42	2,883.18	13.48	12.48	-134.30	65.99	520.08	703.09	677.36	25.73	27.327		
3,000.00	2,975.57	2,961.56	2,981.31	13.94	12.89	-135.09	65.31	519.53	712.23	685.65	26.57	26.802		
3,100.00	3,074.56	3,060.09	3,079.84	14.40	13.29	-135.87	64.82	518.95	721.60	694.18	27.42	26.315		
3,200.00	3,173.55	3,159.47	3,179.22	14.87	13.71	-136.66	64.66	518.17	731.14	702.86	28.28	25.857		
3,300.00	3,272.55	3,258.73	3,278.47	15.33	14.12	-137.44	64.47	517.30	740.74	711.61	29.13	25.428		
3,400.00	3,371.54	3,355.36	3,375.09	15.79	14.52	-138.17	64.28	516.59	750.58	720.60	29.97	25.042		
3,500.00	3,470.54	3,453.26	3,472.99	16.26	14.93	-138.86	64.01	516.42	760.91	730.09	30.82	24.688		
3,600.00	3,569.53	3,553.68	3,573.42	16.72	15.35	-139.55	63.64	516.19	771.26	739.57	31.69	24.340		
3,700.00	3,668.53	3,654.14	3,673.87	17.19	15.77	-140.22	63.16	515.81	781.53	748.98	32.55	24.008		
3,800.00	3,767.52	3,754.63	3,774.36	17.65	16.19	-140.88	62.58	515.29	791.73	758.31	33.42	23.690		
3,900.00	3,866.51	3,855.16	3,874.89	18.12	16.61	-141.52	61.90	514.61	801.84	767.55	34.29	23.385		
4,000.00	3,965.51	3,955.72	3,975.44	18.59	17.03	-142.14	61.12	513.78	811.88	776.72	35.16	23.093		
4,100.00	4,064.50	4,056.31	4,076.02	19.05	17.46	-142.76	60.24	512.80	821.83	785.80	36.03	22.812		
4,200.00	4,163.50	4,156.93	4,176.63	19.52	17.88	-143.36	59.25	511.66	831.69	794.79	36.90	22.541		
4,300.00	4,262.49	4,255.68	4,275.36	19.99	18.30	-143.93	58.21	510.47	841.52	803.77	37.76	22.288		
4,400.00	4,361.48	4,351.95	4,371.63	20.46	18.70	-144.47	57.24	509.55	851.65	813.05	38.60	22.062		
4,500.00	4,460.48	4,447.91	4,467.58	20.92	19.10	-144.99	56.49	508.96	862.26	822.81	39.45	21.859		
4,600.00	4,559.47	4,545.89	4,565.56	21.39	19.52	-145.54	56.22	508.23	873.21	832.91	40.30	21.666		
4,700.00	4,658.47	4,644.20	4,663.86	21.86	19.93	-146.08	56.03	507.45	884.25	843.09	41.16	21.482		
4,800.00	4,757.46	4,741.87	4,761.54	22.33	20.34	-146.59	55.87	506.90	895.57	853.56	42.02	21.315		
4,900.00	4,856.45	4,839.23	4,858.89	22.80	20.75	-147.08	55.59	506.60	907.03	864.16	42.87	21.158		
5,000.00	4,955.45	4,935.77	4,955.44	23.27	21.16	-147.55	55.66	506.43	918.91	875.19	43.72	21.020		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,054.44	5,035.87	5,055.53	23.74	21.58	-148.05	55.93	506.04	930.86	886.27	44.59	20.877		
5,200.00	5,153.44	5,135.38	5,155.04	24.21	22.01	-148.54	56.11	505.59	942.76	897.31	45.45	20.741		
5,300.00	5,252.43	5,235.20	5,254.85	24.68	22.43	-149.01	56.33	505.10	954.74	908.42	46.32	20.610		
5,400.00	5,351.42	5,337.94	5,357.60	25.15	22.86	-149.51	56.48	504.19	966.47	919.26	47.21	20.470		
5,500.00	5,450.42	5,437.68	5,457.33	25.62	23.29	-149.98	56.40	503.13	977.99	929.90	48.08	20.340		
5,600.00	5,549.41	5,534.53	5,554.17	26.09	23.70	-150.41	56.36	502.30	989.72	940.79	48.93	20.226		
5,700.00	5,648.41	5,634.14	5,653.79	26.56	24.12	-150.83	56.26	501.71	1,001.63	951.82	49.80	20.112		
5,800.00	5,747.40	5,735.78	5,755.42	27.03	24.55	-151.24	55.80	501.14	1,013.34	962.65	50.69	19.992		
5,900.00	5,846.40	5,832.99	5,852.63	27.51	24.96	-151.62	55.28	500.59	1,025.02	973.48	51.54	19.887		
6,000.00	5,945.39	5,928.25	5,947.88	27.98	25.37	-151.99	55.13	500.24	1,037.18	984.79	52.38	19.800		
6,100.00	6,044.38	6,029.63	6,049.27	28.45	25.80	-152.38	55.14	499.67	1,049.38	996.12	53.27	19.701		
6,200.00	6,143.38	6,130.64	6,150.28	28.92	26.23	-152.77	54.94	498.90	1,061.36	1,007.21	54.15	19.602		
6,300.00	6,242.37	6,227.38	6,247.01	29.39	26.64	-153.13	54.75	498.26	1,073.43	1,018.43	55.00	19.518		
6,400.00	6,341.37	6,323.58	6,343.21	29.86	27.05	-153.47	54.69	497.90	1,085.82	1,029.98	55.85	19.444		
6,500.00	6,440.36	6,422.44	6,442.07	30.34	27.47	-153.81	54.68	497.64	1,098.36	1,041.65	56.71	19.368		
6,600.00	6,538.90	6,520.86	6,540.49	30.80	27.88	-154.16	54.67	497.40	1,114.61	1,057.04	57.57	19.359 SF		
6,700.00	6,634.88	6,616.75	6,636.38	31.25	28.29	-147.79	54.67	497.19	1,139.74	1,081.32	58.42	19.511		
6,800.00	6,725.92	6,707.73	6,727.36	31.68	28.68	-139.31	54.66	497.00	1,173.52	1,114.30	59.22	19.817		
6,900.00	6,809.79	6,791.56	6,811.19	32.07	29.04	-133.75	54.65	496.85	1,215.79	1,155.83	59.96	20.275		
7,000.00	6,884.42	6,866.16	6,885.79	32.43	29.35	-128.98	54.65	496.73	1,266.34	1,205.69	60.65	20.880		
7,100.00	6,947.98	6,929.71	6,949.34	32.77	29.62	-123.94	54.64	496.63	1,324.75	1,263.48	61.27	21.623		
7,200.00	6,998.89	6,980.63	7,000.26	33.18	29.84	-117.89	54.64	496.56	1,390.29	1,328.48	61.81	22.492		
7,300.00	7,035.91	7,017.69	7,037.31	33.76	30.00	-110.24	54.64	496.51	1,461.90	1,399.61	62.28	23.472		
7,400.00	7,058.12	7,039.96	7,059.59	34.61	30.09	-100.67	54.64	496.48	1,538.11	1,475.44	62.67	24.543		
7,500.00	7,064.98	7,046.93	7,066.56	35.68	30.12	-89.79	54.64	496.48	1,617.15	1,554.18	62.97	25.683		
7,600.00	7,064.59	7,046.66	7,066.28	36.95	30.12	-89.78	54.64	496.48	1,698.07	1,634.84	63.23	26.857		
7,700.00	7,064.20	7,046.38	7,066.01	38.40	30.12	-89.76	54.64	496.48	1,780.92	1,717.43	63.50	28.048		
7,800.00	7,063.80	7,046.11	7,065.74	40.00	30.12	-89.75	54.64	496.48	1,865.46	1,801.69	63.76	29.255		
7,900.00	7,063.41	7,045.84	7,065.46	41.75	30.12	-89.73	54.64	496.48	1,951.46	1,887.43	64.03	30.477		
8,000.00	7,063.02	7,045.56	7,065.19	43.62	30.12	-89.71	54.64	496.48	2,038.74	1,974.45	64.29	31.713		
8,100.00	7,062.62	7,045.29	7,064.92	45.59	30.12	-89.70	54.64	496.48	2,127.13	2,062.60	64.54	32.960		
8,200.00	7,062.23	7,045.02	7,064.65	47.65	30.12	-89.68	54.64	496.48	2,216.52	2,151.74	64.78	34.218		
8,300.00	7,061.84	7,044.75	7,064.37	49.79	30.11	-89.67	54.64	496.48	2,306.77	2,241.77	65.01	35.485		
8,400.00	7,061.45	7,044.47	7,064.10	52.00	30.11	-89.65	54.64	496.48	2,397.80	2,332.58	65.23	36.762		
8,500.00	7,061.05	7,044.20	7,063.83	54.27	30.11	-89.63	54.64	496.48	2,489.52	2,424.09	65.44	38.045		
8,600.00	7,060.66	7,043.93	7,063.56	56.60	30.11	-89.62	54.64	496.48	2,581.85	2,516.22	65.64	39.336		
8,700.00	7,060.27	7,043.66	7,063.29	58.97	30.11	-89.60	54.64	496.48	2,674.74	2,608.91	65.83	40.633		
8,800.00	7,059.87	7,043.39	7,063.01	61.38	30.11	-89.59	54.64	496.48	2,768.12	2,702.11	66.01	41.935		
8,900.00	7,059.48	7,043.11	7,062.74	63.83	30.11	-89.57	54.64	496.48	2,861.94	2,795.76	66.18	43.242		
9,000.00	7,059.09	7,042.84	7,062.47	66.32	30.11	-89.55	54.64	496.48	2,956.18	2,889.82	66.35	44.553		
9,100.00	7,058.69	7,042.57	7,062.20	68.83	30.11	-89.54	54.64	496.48	3,050.78	2,984.26	66.51	45.868		
9,200.00	7,058.30	7,042.30	7,061.93	71.37	30.10	-89.52	54.64	496.48	3,145.71	3,079.04	66.67	47.187		
9,300.00	7,057.91	7,042.03	7,061.66	73.93	30.10	-89.51	54.64	496.48	3,240.95	3,174.13	66.81	48.508		
9,400.00	7,057.51	7,041.76	7,061.39	76.51	30.10	-89.49	54.64	496.48	3,336.46	3,269.51	66.95	49.831		
9,500.00	7,057.12	7,041.49	7,061.11	79.11	30.10	-89.47	54.64	496.48	3,432.24	3,365.14	67.09	51.157		
9,600.00	7,056.73	7,041.22	7,060.84	81.73	30.10	-89.46	54.64	496.48	3,528.24	3,461.02	67.22	52.485		
9,700.00	7,056.33	7,040.94	7,060.57	84.37	30.10	-89.44	54.64	496.48	3,624.46	3,557.11	67.35	53.814		
9,800.00	7,055.94	7,040.67	7,060.30	87.01	30.10	-89.43	54.64	496.48	3,720.89	3,653.41	67.48	55.145		
9,900.00	7,055.55	7,040.40	7,060.03	89.68	30.10	-89.41	54.64	496.48	3,817.49	3,749.90	67.59	56.476		
10,000.00	7,055.15	7,040.13	7,059.76	92.35	30.10	-89.39	54.64	496.48	3,914.27	3,846.56	67.71	57.808		
10,100.00	7,054.76	7,039.86	7,059.49	95.03	30.09	-89.38	54.64	496.48	4,011.20	3,943.38	67.82	59.141		
10,200.00	7,054.37	7,039.59	7,059.22	97.73	30.09	-89.36	54.64	496.48	4,108.28	4,040.35	67.93	60.474		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.98	7,039.32	7,058.95	100.43	30.09	89.35	54.64	496.48	4,205.50	4,137.46	68.04	61.807		
10,400.00	7,053.58	7,039.05	7,058.68	103.14	30.09	89.33	54.64	496.48	4,302.85	4,234.70	68.15	63.141		
10,500.00	7,053.19	7,038.78	7,058.41	105.86	30.09	89.31	54.64	496.49	4,400.31	4,332.06	68.25	64.474		
10,600.00	7,052.80	7,038.51	7,058.14	108.59	30.09	89.30	54.64	496.49	4,497.89	4,429.54	68.35	65.806		
10,700.00	7,052.40	7,038.24	7,057.87	111.32	30.09	89.28	54.64	496.49	4,595.57	4,527.12	68.45	67.138		
10,800.00	7,052.01	7,037.97	7,057.60	114.06	30.09	89.27	54.64	496.49	4,693.35	4,624.80	68.55	68.470		
10,900.00	7,051.62	7,037.70	7,057.33	116.80	30.08	89.25	54.64	496.49	4,791.22	4,722.57	68.64	69.801		
11,000.00	7,051.22	7,037.43	7,057.06	119.55	30.08	89.24	54.64	496.49	4,889.17	4,820.44	68.73	71.131		
11,100.00	7,050.83	7,037.17	7,056.79	122.31	30.08	89.22	54.64	496.49	4,987.21	4,918.38	68.83	72.460		
11,200.00	7,050.44	7,036.90	7,056.52	125.07	30.08	89.20	54.64	496.49	5,085.32	5,016.40	68.92	73.788		
11,300.00	7,050.04	7,036.63	7,056.26	127.83	30.08	89.19	54.64	496.49	5,183.51	5,114.50	69.01	75.114		
11,400.00	7,049.65	7,036.36	7,055.99	130.60	30.08	89.17	54.64	496.49	5,281.76	5,212.66	69.10	76.440		
11,500.00	7,049.26	7,036.09	7,055.72	133.37	30.08	89.16	54.64	496.49	5,380.08	5,310.89	69.19	77.763		
11,600.00	7,048.86	7,035.82	7,055.45	136.15	30.08	89.14	54.64	496.49	5,478.46	5,409.18	69.27	79.086		
11,700.00	7,048.47	7,035.55	7,055.18	138.93	30.08	89.12	54.64	496.49	5,576.89	5,507.53	69.36	80.407		
11,800.00	7,048.08	7,035.28	7,054.91	141.71	30.07	89.11	54.64	496.49	5,675.38	5,605.94	69.44	81.726		
11,900.00	7,047.68	7,035.02	7,054.64	144.49	30.07	89.09	54.64	496.49	5,773.93	5,704.40	69.53	83.043		
12,000.00	7,047.29	7,034.75	7,054.38	147.28	30.07	89.08	54.64	496.49	5,872.52	5,802.91	69.61	84.359		
12,100.00	7,046.90	7,034.48	7,054.11	150.07	30.07	89.06	54.64	496.49	5,971.16	5,901.46	69.70	85.673		
12,200.00	7,046.51	7,034.21	7,053.84	152.87	30.07	89.05	54.64	496.49	6,069.84	6,000.06	69.78	86.984		
12,300.00	7,046.11	7,033.94	7,053.57	155.66	30.07	89.03	54.64	496.49	6,168.57	6,098.70	69.86	88.294		
12,400.00	7,045.72	7,033.68	7,053.30	158.46	30.07	89.01	54.64	496.49	6,267.33	6,197.39	69.95	89.602		
12,500.00	7,045.33	7,033.41	7,053.04	161.26	30.07	89.00	54.64	496.49	6,366.14	6,296.11	70.03	90.907		
12,600.00	7,044.93	7,033.14	7,052.77	164.06	30.07	88.98	54.64	496.49	6,464.98	6,394.87	70.11	92.210		
12,700.00	7,044.54	7,032.87	7,052.50	166.86	30.06	88.97	54.64	496.49	6,563.86	6,493.66	70.19	93.511		
12,800.00	7,044.15	7,032.61	7,052.23	169.67	30.06	88.95	54.64	496.49	6,662.77	6,592.49	70.28	94.810		
12,900.00	7,043.75	7,032.34	7,051.97	172.48	30.06	88.94	54.64	496.49	6,761.71	6,691.35	70.36	96.106		
13,000.00	7,043.36	7,032.07	7,051.70	175.28	30.06	88.92	54.64	496.49	6,860.68	6,790.24	70.44	97.400		
13,100.00	7,042.97	7,031.81	7,051.43	178.09	30.06	88.90	54.64	496.49	6,959.68	6,889.16	70.52	98.691		
13,200.00	7,042.57	7,031.54	7,051.17	180.91	30.06	88.89	54.64	496.49	7,058.71	6,988.11	70.60	99.980		
13,300.00	7,042.18	7,031.27	7,050.90	183.72	30.06	88.87	54.64	496.49	7,157.77	7,087.09	70.68	101.266		
13,400.00	7,041.79	7,031.01	7,050.63	186.53	30.06	88.86	54.64	496.49	7,256.85	7,186.09	70.76	102.549		
13,500.00	7,041.39	7,030.74	7,050.37	189.35	30.06	88.84	54.64	496.50	7,355.96	7,285.12	70.85	103.830		
13,600.00	7,041.00	7,030.47	7,050.10	192.17	30.05	88.83	54.64	496.50	7,455.09	7,384.17	70.93	105.108		
13,700.00	7,040.61	7,030.21	7,049.83	194.99	30.05	88.81	54.64	496.50	7,554.25	7,483.24	71.01	106.383		
13,800.00	7,040.21	7,029.94	7,049.57	197.81	30.05	88.79	54.64	496.50	7,653.43	7,582.33	71.09	107.655		
13,900.00	7,039.82	7,029.67	7,049.30	200.63	30.05	88.78	54.64	496.50	7,752.62	7,681.45	71.17	108.925		
14,000.00	7,039.43	7,029.41	7,049.04	203.45	30.05	88.76	54.64	496.50	7,851.84	7,780.59	71.26	110.192		
14,100.00	7,039.03	7,029.14	7,048.77	206.27	30.05	88.75	54.64	496.50	7,951.08	7,879.74	71.34	111.455		
14,200.00	7,038.64	7,028.88	7,048.50	209.09	30.05	88.73	54.64	496.50	8,050.34	7,978.91	71.42	112.716		
14,300.00	7,038.25	7,028.61	7,048.24	211.92	30.05	88.72	54.64	496.50	8,149.61	8,078.11	71.50	113.974		
14,400.00	7,037.86	7,028.35	7,047.97	214.74	30.04	88.70	54.64	496.50	8,248.90	8,177.32	71.59	115.228		
14,500.00	7,037.46	7,028.08	7,047.71	217.57	30.04	88.68	54.64	496.50	8,348.21	8,276.54	71.67	116.480		
14,600.00	7,037.07	7,027.82	7,047.44	220.40	30.04	88.67	54.64	496.50	8,447.54	8,375.78	71.75	117.728		
14,700.00	7,036.68	7,027.55	7,047.18	223.23	30.04	88.65	54.64	496.50	8,546.88	8,475.04	71.84	118.974		
14,800.00	7,036.28	7,027.29	7,046.91	226.05	30.04	88.64	54.64	496.50	8,646.23	8,574.31	71.92	120.216		
14,871.88	7,036.00	7,027.09	7,046.72	228.09	30.04	88.63	54.64	496.50	8,717.66	8,645.68	71.98	121.107		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2.00	0.00	3.28	3.28	0.48	299.82	2.50	299.83					
100.00	100.00	102.00	100.00	3.28	3.29	0.48	299.82	2.50	299.83	293.26	6.57	45.637		
200.00	200.00	202.00	200.00	3.34	3.34	0.48	299.82	2.50	299.83	293.15	6.68	44.914	CC, ES	
300.00	300.00	292.36	290.34	3.44	3.44	0.45	301.30	2.35	301.46	294.57	6.89	43.756		
400.00	399.98	382.60	380.48	3.60	3.58	170.54	305.61	1.92	307.95	300.75	7.21	42.741		
500.00	499.84	471.99	469.58	3.79	3.75	170.50	312.66	1.21	320.97	313.36	7.61	42.190		
600.00	599.45	559.98	557.04	4.02	3.96	170.47	322.29	0.25	340.42	332.34	8.08	42.118		
700.00	698.70	646.06	642.26	4.29	4.19	170.46	334.30	-0.96	366.17	357.56	8.61	42.537		
800.00	797.70	730.18	725.16	4.59	4.44	170.51	348.49	-2.38	396.61	387.45	9.16	43.281		
900.00	896.69	812.69	806.03	4.92	4.71	170.53	364.76	-4.02	429.81	420.08	9.73	44.163		
1,000.00	995.68	893.49	884.74	5.27	4.98	170.51	382.93	-5.84	465.66	455.35	10.32	45.144		
1,100.00	1,094.68	972.52	961.19	5.64	5.27	170.47	402.83	-7.84	504.09	493.18	10.91	46.207		
1,200.00	1,193.67	1,050.39	1,035.96	6.03	5.58	170.40	424.48	-10.01	545.01	533.50	11.51	47.359		
1,300.00	1,292.67	1,141.13	1,122.77	6.42	5.95	170.32	450.76	-12.65	587.03	574.85	12.17	48.232		
1,400.00	1,391.66	1,231.87	1,209.58	6.83	6.35	170.25	477.04	-15.29	629.05	616.19	12.86	48.914		
1,500.00	1,490.66	1,322.61	1,296.39	7.25	6.75	170.19	503.33	-17.93	671.07	657.50	13.57	49.448		
1,600.00	1,589.65	1,413.35	1,383.20	7.67	7.17	170.14	529.61	-20.57	713.09	698.79	14.30	49.863		
1,700.00	1,688.64	1,504.09	1,470.01	8.10	7.59	170.09	555.89	-23.21	755.11	740.07	15.05	50.186		
1,800.00	1,787.64	1,594.83	1,556.82	8.53	8.02	170.05	582.17	-25.84	797.14	781.33	15.81	50.435		
1,900.00	1,886.63	1,685.57	1,643.63	8.97	8.46	170.01	608.45	-28.48	839.16	822.58	16.58	50.625		
2,000.00	1,985.63	1,776.31	1,730.45	9.41	8.91	169.97	634.73	-31.12	881.18	863.83	17.36	50.769		
2,100.00	2,084.62	1,867.05	1,817.26	9.85	9.35	169.94	661.01	-33.76	923.21	905.06	18.15	50.875		
2,200.00	2,183.61	1,957.79	1,904.07	10.30	9.81	169.91	687.29	-36.40	965.23	946.29	18.94	50.952		
2,300.00	2,282.61	2,048.53	1,990.88	10.75	10.26	169.89	713.58	-39.04	1,007.25	987.51	19.75	51.005		
2,400.00	2,381.60	2,139.27	2,077.69	11.20	10.72	169.86	739.86	-41.67	1,049.28	1,028.72	20.56	51.039		
2,500.00	2,480.60	2,230.01	2,164.50	11.66	11.18	169.84	766.14	-44.31	1,091.30	1,069.93	21.37	51.058		
2,600.00	2,579.59	2,320.76	2,251.31	12.11	11.64	169.82	792.42	-46.95	1,133.33	1,111.13	22.19	51.065		
2,700.00	2,678.58	2,411.50	2,338.12	12.57	12.11	169.80	818.70	-49.59	1,175.35	1,152.33	23.02	51.062		
2,800.00	2,777.58	2,502.24	2,424.93	13.02	12.57	169.78	844.98	-52.23	1,217.38	1,193.53	23.85	51.051		
2,900.00	2,876.57	2,607.02	2,511.74	13.48	13.11	169.76	871.26	-54.87	1,259.40	1,234.66	24.75	50.894		
3,000.00	2,975.57	2,683.72	2,598.55	13.94	13.51	169.75	897.55	-57.51	1,301.43	1,275.92	25.51	51.011		
3,100.00	3,074.56	2,774.46	2,685.36	14.40	13.98	169.73	923.83	-60.14	1,343.45	1,317.10	26.35	50.985		
3,200.00	3,173.55	2,865.20	2,772.18	14.87	14.45	169.72	950.11	-62.78	1,385.48	1,358.29	27.19	50.955		
3,300.00	3,272.55	2,955.94	2,858.99	15.33	14.93	169.71	976.39	-65.42	1,427.50	1,399.47	28.03	50.924		
3,400.00	3,371.54	3,046.68	2,945.80	15.79	15.40	169.69	1,002.67	-68.06	1,469.53	1,440.65	28.88	50.890		
3,500.00	3,470.54	3,137.42	3,032.61	16.26	15.88	169.68	1,028.95	-70.70	1,511.55	1,481.83	29.72	50.855		
3,600.00	3,569.53	3,228.16	3,119.42	16.72	16.35	169.67	1,055.23	-73.34	1,553.58	1,523.01	30.57	50.819		
3,700.00	3,668.53	3,318.90	3,206.23	17.19	16.83	169.66	1,081.51	-75.98	1,595.60	1,564.18	31.42	50.782		
3,800.00	3,767.52	3,409.64	3,293.04	17.65	17.31	169.65	1,107.80	-78.61	1,637.63	1,605.36	32.27	50.745		
3,900.00	3,866.51	3,500.38	3,379.85	18.12	17.78	169.64	1,134.08	-81.25	1,679.66	1,646.53	33.12	50.707		
4,000.00	3,965.51	3,608.88	3,466.66	18.59	18.36	169.63	1,160.36	-83.89	1,721.68	1,687.62	34.07	50.539		
4,100.00	4,064.50	3,681.86	3,553.47	19.05	18.74	169.62	1,186.64	-86.53	1,763.71	1,728.87	34.83	50.632		
4,200.00	4,163.50	3,772.60	3,640.28	19.52	19.22	169.62	1,212.92	-89.17	1,805.73	1,770.04	35.69	50.595		
4,300.00	4,262.49	3,863.34	3,727.10	19.99	19.70	169.61	1,239.20	-91.81	1,847.76	1,811.21	36.55	50.558		
4,400.00	4,361.48	3,954.08	3,813.91	20.46	20.18	169.60	1,265.48	-94.45	1,889.78	1,852.38	37.41	50.521		
4,500.00	4,460.48	4,044.82	3,900.72	20.92	20.66	169.59	1,291.77	-97.08	1,931.81	1,893.54	38.26	50.485		
4,600.00	4,559.47	4,135.56	3,987.53	21.39	21.14	169.59	1,318.05	-99.72	1,973.84	1,934.71	39.13	50.449		
4,700.00	4,658.47	4,226.30	4,074.34	21.86	21.62	169.58	1,344.33	-102.36	2,015.86	1,975.88	39.99	50.414		
4,800.00	4,757.46	4,317.04	4,161.15	22.33	22.11	169.57	1,370.61	-105.00	2,057.89	2,017.04	40.85	50.379		
4,900.00	4,856.45	4,407.78	4,247.96	22.80	22.59	169.57	1,396.89	-107.64	2,099.91	2,058.20	41.71	50.345		
5,000.00	4,955.45	4,501.48	4,334.77	23.27	23.08	169.56	1,423.17	-110.28	2,141.94	2,099.35	42.59	50.294		
5,100.00	5,054.44	4,589.26	4,421.58	23.74	23.55	169.56	1,449.45	-112.92	2,183.96	2,140.53	43.44	50.278		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	4,680.00	4,508.39	24.21	24.03	169.55	1,475.73	-115.55	2,225.99	2,181.69	44.30	50.246		
5,300.00	5,252.43	4,770.74	4,595.20	24.68	24.52	169.55	1,502.02	-118.19	2,268.02	2,222.85	45.17	50.213		
5,400.00	5,351.42	4,861.48	4,682.01	25.15	25.00	169.54	1,528.30	-120.83	2,310.04	2,264.01	46.03	50.182		
5,500.00	5,450.42	4,952.22	4,768.83	25.62	25.48	169.54	1,554.58	-123.47	2,352.07	2,305.17	46.90	50.151		
5,600.00	5,549.41	5,042.96	4,855.64	26.09	25.97	169.53	1,580.86	-126.11	2,394.09	2,346.33	47.77	50.121		
5,700.00	5,648.41	5,133.70	4,942.45	26.56	26.45	169.53	1,607.14	-128.75	2,436.12	2,387.49	48.63	50.091		
5,800.00	5,747.40	5,224.44	5,029.26	27.03	26.93	169.52	1,633.42	-131.39	2,478.15	2,428.64	49.50	50.061		
5,900.00	5,846.40	5,315.18	5,116.07	27.51	27.42	169.52	1,659.70	-134.02	2,520.17	2,469.80	50.37	50.033		
6,000.00	5,945.39	6,000.00	5,253.59	27.98	31.00	169.52	1,700.07	-138.08	2,561.52	2,507.12	54.40	47.083		
6,100.00	6,044.38	6,259.03	6,044.38	28.45	31.65	169.76	1,805.06	-148.62	2,585.30	2,528.69	56.60	43.706		
6,200.00	6,143.38	6,358.02	6,143.38	28.92	32.00	169.81	1,805.06	-148.62	2,599.22	2,541.80	57.43	45.260		
6,300.00	6,242.37	6,457.01	6,242.37	29.39	32.36	169.87	1,805.06	-148.62	2,613.16	2,554.90	58.26	44.856		
6,400.00	6,341.37	6,556.01	6,341.37	29.86	32.71	169.92	1,805.06	-148.62	2,627.09	2,568.00	59.09	44.463		
6,500.00	6,440.36	6,655.00	6,440.36	30.34	33.07	169.98	1,805.06	-148.62	2,641.02	2,581.11	59.92	44.079		
6,600.00	6,538.90	6,753.54	6,538.90	30.80	33.42	129.63	1,805.06	-148.62	2,654.96	2,594.21	60.75	43.706		
6,700.00	6,634.88	6,850.59	6,635.94	31.25	33.78	112.39	1,805.06	-148.76	2,668.81	2,607.26	61.56	43.355		
6,800.00	6,725.92	6,956.04	6,740.71	31.68	34.15	104.89	1,804.97	-159.71	2,682.36	2,620.00	62.36	43.015		
6,900.00	6,809.79	7,067.69	6,848.03	32.07	34.54	100.77	1,804.74	-189.95	2,695.17	2,632.00	63.18	42.662		
7,000.00	6,884.42	7,186.21	6,954.32	32.43	34.93	98.22	1,804.33	-242.00	2,706.88	2,642.84	64.04	42.266		
7,100.00	6,947.98	7,311.96	7,054.47	32.77	35.30	96.54	1,803.74	-317.71	2,717.10	2,652.05	65.04	41.773		
7,200.00	6,998.89	7,444.72	7,141.91	33.18	35.65	95.43	1,802.96	-417.29	2,725.43	2,659.13	66.30	41.107		
7,300.00	7,035.91	7,583.45	7,209.16	33.76	36.10	94.69	1,802.01	-538.30	2,731.55	2,663.57	67.99	40.179		
7,400.00	7,058.12	7,726.14	7,249.37	34.61	37.02	94.25	1,800.94	-674.90	2,735.19	2,664.98	70.21	38.960		
7,500.00	7,064.98	7,860.74	7,258.91	35.68	38.40	94.06	1,799.90	-808.94	2,736.21	2,663.39	72.83	37.572		
7,600.00	7,064.59	7,960.74	7,258.53	36.95	39.66	94.06	1,799.11	-908.93	2,736.24	2,660.81	75.44	36.273		
7,700.00	7,064.20	8,060.74	7,258.16	38.40	41.08	94.06	1,798.33	-1,008.93	2,736.28	2,657.91	78.36	34.918		
7,800.00	7,063.80	8,160.74	7,257.78	40.00	42.66	94.06	1,797.55	-1,108.93	2,736.31	2,654.72	81.58	33.540		
7,900.00	7,063.41	8,260.74	7,257.40	41.75	44.36	94.07	1,796.77	-1,208.92	2,736.34	2,651.27	85.06	32.168		
8,000.00	7,063.02	8,360.74	7,257.02	43.62	46.18	94.07	1,795.99	-1,308.92	2,736.37	2,647.59	88.78	30.823		
8,100.00	7,062.62	8,460.74	7,256.64	45.59	48.10	94.07	1,795.20	-1,408.91	2,736.40	2,643.71	92.69	29.522		
8,200.00	7,062.23	8,560.74	7,256.26	47.65	50.12	94.07	1,794.42	-1,508.91	2,736.43	2,639.65	96.78	28.274		
8,300.00	7,061.84	8,660.74	7,255.88	49.79	52.21	94.07	1,793.64	-1,608.91	2,736.46	2,635.43	101.03	27.085		
8,400.00	7,061.45	8,760.74	7,255.50	52.00	54.37	94.07	1,792.86	-1,708.90	2,736.49	2,631.07	105.42	25.959		
8,500.00	7,061.05	8,860.74	7,255.12	54.27	56.59	94.07	1,792.07	-1,808.90	2,736.52	2,626.60	109.92	24.895		
8,600.00	7,060.66	8,960.74	7,254.74	56.60	58.87	94.07	1,791.29	-1,908.89	2,736.55	2,622.02	114.54	23.893		
8,700.00	7,060.27	9,060.74	7,254.36	58.97	61.20	94.07	1,790.51	-2,008.89	2,736.58	2,617.34	119.24	22.950		
8,800.00	7,059.87	9,160.74	7,253.98	61.38	63.57	94.07	1,789.73	-2,108.89	2,736.61	2,612.58	124.03	22.063		
8,900.00	7,059.48	9,260.74	7,253.60	63.83	65.97	94.07	1,788.95	-2,208.88	2,736.64	2,607.74	128.90	21.231		
9,000.00	7,059.09	9,360.74	7,253.22	66.32	68.42	94.07	1,788.16	-2,308.88	2,736.67	2,602.84	133.83	20.449		
9,100.00	7,058.69	9,460.74	7,252.84	68.83	70.89	94.07	1,787.38	-2,408.88	2,736.70	2,597.88	138.82	19.714		
9,200.00	7,058.30	9,560.74	7,252.46	71.37	73.40	94.07	1,786.60	-2,508.87	2,736.73	2,592.87	143.86	19.023		
9,300.00	7,057.91	9,660.74	7,252.08	73.93	75.92	94.07	1,785.82	-2,608.87	2,736.77	2,587.81	148.96	18.373		
9,400.00	7,057.51	9,760.74	7,251.70	76.51	78.47	94.07	1,785.04	-2,708.86	2,736.80	2,582.71	154.09	17.761		
9,500.00	7,057.12	9,860.74	7,251.32	79.11	81.04	94.07	1,784.25	-2,808.86	2,736.83	2,577.56	159.26	17.184		
9,600.00	7,056.73	9,960.74	7,250.94	81.73	83.63	94.07	1,783.47	-2,908.86	2,736.86	2,572.39	164.47	16.640		
9,700.00	7,056.33	10,060.74	7,250.57	84.37	86.24	94.07	1,782.69	-3,008.85	2,736.89	2,567.18	169.71	16.127		
9,800.00	7,055.94	10,160.74	7,250.19	87.01	88.86	94.07	1,781.91	-3,108.85	2,736.92	2,561.94	174.98	15.642		
9,900.00	7,055.55	10,260.74	7,249.81	89.68	91.50	94.07	1,781.13	-3,208.85	2,736.95	2,556.68	180.27	15.182		
10,000.00	7,055.15	10,360.74	7,249.43	92.35	94.15	94.07	1,780.34	-3,308.84	2,736.98	2,551.39	185.59	14.747		
10,100.00	7,054.76	10,460.74	7,249.05	95.03	96.81	94.07	1,779.56	-3,408.84	2,737.01	2,546.08	190.93	14.335		
10,200.00	7,054.37	10,560.74	7,248.67	97.73	99.48	94.07	1,778.78	-3,508.83	2,737.04	2,540.75	196.29	13.944		
10,300.00	7,053.98	10,660.74	7,248.29	100.43	102.16	94.07	1,778.00	-3,608.83	2,737.07	2,535.40	201.67	13.572		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,400.00	7,053.58	10,760.74	7,247.91	103.14	104.85	94.07	1,777.22	-3,708.83	2,737.10	2,530.03	207.07	13.218		
10,500.00	7,053.19	10,860.74	7,247.53	105.86	107.55	94.07	1,776.43	-3,808.82	2,737.13	2,524.65	212.48	12.882		
10,600.00	7,052.80	10,960.74	7,247.15	108.59	110.26	94.07	1,775.65	-3,908.82	2,737.16	2,519.25	217.91	12.561		
10,700.00	7,052.40	11,060.74	7,246.77	111.32	112.98	94.07	1,774.87	-4,008.82	2,737.19	2,513.84	223.35	12.255		
10,800.00	7,052.01	11,160.74	7,246.39	114.06	115.70	94.07	1,774.09	-4,108.81	2,737.22	2,508.42	228.81	11.963		
10,900.00	7,051.62	11,260.74	7,246.01	116.80	118.43	94.07	1,773.31	-4,208.81	2,737.25	2,502.98	234.27	11.684		
11,000.00	7,051.22	11,360.74	7,245.63	119.55	121.16	94.07	1,772.52	-4,308.80	2,737.29	2,497.53	239.75	11.417		
11,100.00	7,050.83	11,460.74	7,245.25	122.31	123.90	94.07	1,771.74	-4,408.80	2,737.32	2,492.08	245.24	11.162		
11,200.00	7,050.44	11,560.74	7,244.87	125.07	126.65	94.07	1,770.96	-4,508.80	2,737.35	2,486.61	250.74	10.917		
11,300.00	7,050.04	11,660.74	7,244.49	127.83	129.40	94.07	1,770.18	-4,608.79	2,737.38	2,481.14	256.24	10.683		
11,400.00	7,049.65	11,760.74	7,244.11	130.60	132.15	94.07	1,769.40	-4,708.79	2,737.41	2,475.65	261.76	10.458		
11,500.00	7,049.26	11,860.74	7,243.73	133.37	134.91	94.07	1,768.61	-4,808.79	2,737.44	2,470.16	267.28	10.242		
11,600.00	7,048.86	11,960.74	7,243.35	136.15	137.68	94.07	1,767.83	-4,908.78	2,737.47	2,464.66	272.81	10.034		
11,700.00	7,048.47	12,060.74	7,242.97	138.93	140.44	94.07	1,767.05	-5,008.78	2,737.50	2,459.16	278.34	9.835		
11,800.00	7,048.08	12,160.74	7,242.60	141.71	143.21	94.07	1,766.27	-5,108.77	2,737.53	2,453.64	283.89	9.643		
11,900.00	7,047.68	12,260.74	7,242.22	144.49	145.99	94.07	1,765.49	-5,208.77	2,737.56	2,448.12	289.44	9.458		
12,000.00	7,047.29	12,360.74	7,241.84	147.28	148.77	94.08	1,764.70	-5,308.77	2,737.59	2,442.60	294.99	9.280		
12,100.00	7,046.90	12,460.74	7,241.46	150.07	151.55	94.08	1,763.92	-5,408.76	2,737.62	2,437.07	300.55	9.109		
12,200.00	7,046.51	12,560.74	7,241.08	152.87	154.33	94.08	1,763.14	-5,508.76	2,737.65	2,431.53	306.12	8.943		
12,300.00	7,046.11	12,660.74	7,240.70	155.66	157.11	94.08	1,762.36	-5,608.76	2,737.68	2,425.99	311.69	8.783		
12,400.00	7,045.72	12,760.74	7,240.32	158.46	159.90	94.08	1,761.58	-5,708.75	2,737.71	2,420.45	317.26	8.629		
12,500.00	7,045.33	12,860.74	7,239.94	161.26	162.69	94.08	1,760.79	-5,808.75	2,737.74	2,414.90	322.84	8.480		
12,600.00	7,044.93	12,960.74	7,239.56	164.06	165.49	94.08	1,760.01	-5,908.74	2,737.78	2,409.35	328.43	8.336		
12,700.00	7,044.54	13,060.74	7,239.18	166.86	168.28	94.08	1,759.23	-6,008.74	2,737.81	2,403.79	334.02	8.197		
12,800.00	7,044.15	13,160.74	7,238.80	169.67	171.08	94.08	1,758.45	-6,108.74	2,737.84	2,398.23	339.61	8.062		
12,900.00	7,043.75	13,260.74	7,238.42	172.48	173.88	94.08	1,757.67	-6,208.73	2,737.87	2,392.66	345.20	7.931		
13,000.00	7,043.36	13,360.74	7,238.04	175.28	176.68	94.08	1,756.88	-6,308.73	2,737.90	2,387.09	350.80	7.805		
13,100.00	7,042.97	13,460.74	7,237.66	178.09	179.48	94.08	1,756.10	-6,408.72	2,737.93	2,381.52	356.41	7.682		
13,200.00	7,042.57	13,560.74	7,237.28	180.91	182.29	94.08	1,755.32	-6,508.72	2,737.96	2,375.95	362.01	7.563		
13,300.00	7,042.18	13,660.74	7,236.90	183.72	185.09	94.08	1,754.54	-6,608.72	2,737.99	2,370.37	367.62	7.448		
13,400.00	7,041.79	13,760.74	7,236.52	186.53	187.90	94.08	1,753.76	-6,708.71	2,738.02	2,364.79	373.23	7.336		
13,500.00	7,041.39	13,860.74	7,236.14	189.35	190.71	94.08	1,752.97	-6,808.71	2,738.05	2,359.21	378.84	7.227		
13,600.00	7,041.00	13,960.74	7,235.76	192.17	193.52	94.08	1,752.19	-6,908.71	2,738.08	2,353.62	384.46	7.122		
13,700.00	7,040.61	14,060.74	7,235.38	194.99	196.33	94.08	1,751.41	-7,008.70	2,738.11	2,348.03	390.08	7.019		
13,800.00	7,040.21	14,160.74	7,235.01	197.81	199.15	94.08	1,750.63	-7,108.70	2,738.14	2,342.44	395.70	6.920		
13,900.00	7,039.82	14,260.74	7,234.63	200.63	201.96	94.08	1,749.85	-7,208.69	2,738.17	2,336.85	401.32	6.823		
14,000.00	7,039.43	14,360.74	7,234.25	203.45	204.78	94.08	1,749.06	-7,308.69	2,738.20	2,331.25	406.95	6.729		
14,100.00	7,039.03	14,460.74	7,233.87	206.27	207.60	94.08	1,748.28	-7,408.69	2,738.23	2,325.66	412.58	6.637		
14,200.00	7,038.64	14,560.74	7,233.49	209.09	210.41	94.08	1,747.50	-7,508.68	2,738.26	2,320.06	418.21	6.548		
14,300.00	7,038.25	14,660.74	7,233.11	211.92	213.23	94.08	1,746.72	-7,608.68	2,738.30	2,314.46	423.84	6.461		
14,400.00	7,037.86	14,760.74	7,232.73	214.74	216.05	94.08	1,745.94	-7,708.68	2,738.33	2,308.85	429.47	6.376		
14,500.00	7,037.46	14,860.74	7,232.35	217.57	218.87	94.08	1,745.15	-7,808.67	2,738.36	2,303.25	435.11	6.293		
14,600.00	7,037.07	14,960.74	7,231.97	220.40	221.70	94.08	1,744.37	-7,908.67	2,738.39	2,297.64	440.75	6.213		
14,700.00	7,036.68	15,060.74	7,231.59	223.23	224.52	94.08	1,743.59	-8,008.66	2,738.42	2,292.03	446.38	6.135		
14,800.00	7,036.28	15,160.74	7,231.21	226.05	227.34	94.08	1,742.81	-8,108.66	2,738.45	2,286.42	452.03	6.058		
14,800.02	7,036.28	15,160.76	7,231.21	226.05	227.34	94.08	1,742.81	-8,108.68	2,738.45	2,286.42	452.03	6.058		
14,871.88	7,036.00	15,216.01	7,231.00	228.09	228.91	94.08	1,742.38	-8,163.93	2,738.52	2,282.91	455.61	6.011 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2.00	0.00	3.28	3.28	0.51	280.15	2.50	280.16					
100.00	100.00	102.00	100.00	3.28	3.29	0.51	280.15	2.50	280.16	273.59	6.57	42.643		
200.00	200.00	202.00	200.00	3.34	3.34	0.51	280.15	2.50	280.16	273.49	6.68	41.968		
300.00	300.00	302.00	300.00	3.44	3.45	0.51	280.15	2.50	280.16	273.27	6.89	40.647 CC, ES		
400.00	399.98	392.89	390.87	3.60	3.59	170.66	281.64	2.31	283.52	276.33	7.20	39.399		
500.00	499.84	483.37	481.24	3.79	3.77	170.66	285.97	1.76	293.45	285.86	7.59	38.653		
600.00	599.45	572.69	570.28	4.02	3.99	170.67	293.01	0.85	309.87	301.81	8.06	38.427		
700.00	698.70	660.32	657.38	4.29	4.22	170.66	302.60	-0.37	332.67	324.08	8.59	38.723		
800.00	797.70	746.17	742.37	4.59	4.48	170.71	314.54	-1.90	360.26	351.11	9.15	39.366		
900.00	896.69	830.50	825.47	4.92	4.74	170.69	328.73	-3.72	390.66	380.94	9.73	40.158		
1,000.00	995.68	919.15	912.41	5.27	5.04	170.64	345.89	-5.92	423.48	413.15	10.33	40.998		
1,100.00	1,094.68	1,013.48	1,004.87	5.64	5.37	170.58	364.47	-8.30	456.65	445.67	10.98	41.607		
1,200.00	1,193.67	1,107.82	1,097.33	6.03	5.72	170.53	383.05	-10.68	489.82	478.17	11.65	42.043		
1,300.00	1,292.67	1,202.16	1,189.79	6.42	6.09	170.48	401.63	-13.06	522.98	510.63	12.35	42.344		
1,400.00	1,391.66	1,303.50	1,282.26	6.83	6.50	170.44	420.21	-15.44	556.15	543.05	13.10	42.453		
1,500.00	1,490.66	1,409.16	1,374.72	7.25	6.94	170.41	438.79	-17.83	589.32	575.43	13.89	42.437		
1,600.00	1,589.65	1,485.18	1,467.18	7.67	7.26	170.38	457.37	-20.21	622.49	607.92	14.57	42.730		
1,700.00	1,688.64	1,579.52	1,559.64	8.10	7.67	170.35	475.95	-22.59	655.66	640.32	15.34	42.751		
1,800.00	1,787.64	1,673.86	1,652.10	8.53	8.08	170.33	494.53	-24.97	688.82	672.71	16.12	42.742		
1,900.00	1,886.63	1,768.19	1,744.56	8.97	8.49	170.30	513.11	-27.35	721.99	705.09	16.91	42.708		
2,000.00	1,985.63	1,862.53	1,837.02	9.41	8.91	170.28	531.69	-29.73	755.16	737.46	17.70	42.658		
2,100.00	2,084.62	1,956.87	1,929.48	9.85	9.34	170.26	550.27	-32.11	788.33	769.82	18.51	42.595		
2,200.00	2,183.61	2,051.21	2,021.94	10.30	9.76	170.25	568.85	-34.49	821.50	802.18	19.32	42.524		
2,300.00	2,282.61	2,145.55	2,114.40	10.75	10.19	170.23	587.43	-36.87	854.67	834.53	20.14	42.446		
2,400.00	2,381.60	2,239.89	2,206.86	11.20	10.62	170.22	606.01	-39.25	887.83	866.88	20.96	42.365		
2,500.00	2,480.60	2,334.23	2,299.32	11.66	11.05	170.20	624.59	-41.63	921.00	899.22	21.78	42.281		
2,600.00	2,579.59	2,428.56	2,391.78	12.11	11.49	170.19	643.17	-44.02	954.17	931.56	22.61	42.196		
2,700.00	2,678.58	2,522.90	2,484.24	12.57	11.92	170.18	661.75	-46.40	987.34	963.90	23.45	42.111		
2,800.00	2,777.58	2,617.24	2,576.70	13.02	12.36	170.17	680.33	-48.78	1,020.51	996.23	24.28	42.026		
2,900.00	2,876.57	2,711.58	2,669.16	13.48	12.80	170.16	698.91	-51.16	1,053.68	1,028.56	25.12	41.942		
3,000.00	2,975.57	2,805.92	2,761.62	13.94	13.24	170.15	717.49	-53.54	1,086.85	1,060.88	25.96	41.860		
3,100.00	3,074.56	2,900.26	2,854.08	14.40	13.68	170.14	736.07	-55.92	1,120.02	1,093.21	26.81	41.779		
3,200.00	3,173.55	3,005.40	2,946.54	14.87	14.18	170.13	754.65	-58.30	1,153.19	1,125.48	27.70	41.626		
3,300.00	3,272.55	3,088.94	3,039.00	15.33	14.57	170.12	773.23	-60.68	1,186.36	1,157.85	28.50	41.623		
3,400.00	3,371.54	3,183.27	3,131.46	15.79	15.01	170.11	791.81	-63.06	1,219.52	1,190.17	29.35	41.547		
3,500.00	3,470.54	3,277.61	3,223.92	16.26	15.46	170.10	810.39	-65.44	1,252.69	1,222.49	30.20	41.474		
3,600.00	3,569.53	3,371.95	3,316.38	16.72	15.90	170.10	828.97	-67.82	1,285.86	1,254.81	31.06	41.403		
3,700.00	3,668.53	3,466.29	3,408.84	17.19	16.35	170.09	847.55	-70.20	1,319.03	1,287.12	31.91	41.334		
3,800.00	3,767.52	3,560.63	3,501.30	17.65	16.80	170.08	866.13	-72.59	1,352.20	1,319.43	32.77	41.267		
3,900.00	3,866.51	3,654.97	3,593.76	18.12	17.24	170.08	884.71	-74.97	1,385.37	1,351.75	33.62	41.202		
4,000.00	3,965.51	3,749.31	3,686.22	18.59	17.69	170.07	903.29	-77.35	1,418.54	1,384.06	34.48	41.139		
4,100.00	4,064.50	3,843.65	3,778.68	19.05	18.14	170.07	921.86	-79.73	1,451.71	1,416.37	35.34	41.078		
4,200.00	4,163.50	3,937.98	3,871.14	19.52	18.59	170.06	940.44	-82.11	1,484.88	1,448.68	36.20	41.018		
4,300.00	4,262.49	4,032.32	3,963.60	19.99	19.04	170.06	959.02	-84.49	1,518.05	1,480.99	37.06	40.961		
4,400.00	4,361.48	4,126.66	4,056.06	20.46	19.49	170.05	977.60	-86.87	1,551.22	1,513.29	37.92	40.905		
4,500.00	4,460.48	4,221.00	4,148.52	20.92	19.94	170.05	996.18	-89.25	1,584.39	1,545.60	38.79	40.850		
4,600.00	4,559.47	4,315.34	4,240.99	21.39	20.39	170.04	1,014.76	-91.63	1,617.55	1,577.91	39.65	40.798		
4,700.00	4,658.47	4,409.68	4,333.45	21.86	20.84	170.04	1,033.34	-94.01	1,650.72	1,610.21	40.51	40.747		
4,800.00	4,757.46	4,504.02	4,425.91	22.33	21.29	170.03	1,051.92	-96.39	1,683.89	1,642.52	41.38	40.697		
4,900.00	4,856.45	4,601.65	4,518.37	22.80	21.75	170.03	1,070.50	-98.78	1,717.06	1,674.81	42.26	40.634		
5,000.00	4,955.45	4,692.69	4,610.83	23.27	22.19	170.03	1,089.08	-101.16	1,750.23	1,707.12	43.11	40.602		
5,100.00	5,054.44	4,787.03	4,703.29	23.74	22.64	170.02	1,107.66	-103.54	1,783.40	1,739.43	43.97	40.557		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	4,881.37	4,795.75	24.21	23.09	170.02	1,126.24	-105.92	1,816.57	1,771.73	44.84	40.513		
5,300.00	5,252.43	4,975.71	4,888.21	24.68	23.54	170.02	1,144.82	-108.30	1,849.74	1,804.03	45.71	40.470		
5,400.00	5,351.42	5,070.05	4,980.67	25.15	24.00	170.01	1,163.40	-110.68	1,882.91	1,836.33	46.57	40.428		
5,500.00	5,450.42	5,164.39	5,073.13	25.62	24.45	170.01	1,181.98	-113.06	1,916.08	1,868.64	47.44	40.388		
5,600.00	5,549.41	5,258.73	5,165.59	26.09	24.90	170.01	1,200.56	-115.44	1,949.25	1,900.94	48.31	40.348		
5,700.00	5,648.41	5,353.06	5,258.05	26.56	25.35	170.00	1,219.14	-117.82	1,982.42	1,933.24	49.18	40.310		
5,800.00	5,747.40	5,447.40	5,350.51	27.03	25.81	170.00	1,237.72	-120.20	2,015.59	1,965.54	50.05	40.272		
5,900.00	5,846.40	5,541.74	5,442.97	27.51	26.26	170.00	1,256.30	-122.58	2,048.75	1,997.84	50.92	40.236		
6,000.00	5,945.39	5,636.08	5,535.43	27.98	26.71	170.00	1,274.88	-124.97	2,081.92	2,030.14	51.79	40.200		
6,100.00	6,044.38	5,730.42	5,627.89	28.45	27.17	169.99	1,293.46	-127.35	2,115.09	2,062.43	52.66	40.166		
6,200.00	6,143.38	5,824.76	5,720.35	28.92	27.62	169.99	1,312.04	-129.73	2,148.26	2,094.73	53.53	40.132		
6,300.00	6,242.37	5,919.10	5,812.81	29.39	28.07	169.99	1,330.62	-132.11	2,181.43	2,127.03	54.40	40.099		
6,400.00	6,341.37	6,013.44	5,905.27	29.86	28.53	169.99	1,349.20	-134.49	2,214.60	2,159.33	55.27	40.067		
6,500.00	6,440.36	6,107.77	5,997.73	30.34	28.98	169.98	1,367.78	-136.87	2,247.77	2,191.63	56.14	40.036		
6,600.00	6,538.90	6,201.83	6,089.92	30.80	29.43	127.92	1,386.31	-139.24	2,280.87	2,223.86	57.01	40.006		
6,700.00	6,634.88	6,306.20	6,180.06	31.25	29.93	108.89	1,404.42	-141.56	2,313.46	2,255.54	57.92	39.945		
6,800.00	6,725.92	6,381.43	6,265.94	31.68	30.29	99.81	1,421.68	-143.78	2,345.13	2,286.47	58.66	39.976		
6,900.00	6,809.79	6,462.55	6,345.45	32.07	30.68	94.39	1,437.65	-145.82	2,375.76	2,316.33	59.43	39.977		
7,000.00	6,884.42	6,535.17	6,416.62	32.43	31.03	90.67	1,451.96	-147.66	2,405.40	2,345.23	60.17	39.976		
7,100.00	6,947.98	6,610.95	6,490.86	32.77	31.40	88.08	1,466.87	-150.31	2,434.16	2,373.11	61.04	39.875		
7,200.00	6,998.89	6,735.09	6,610.62	33.18	31.99	87.06	1,480.81	-171.40	2,461.13	2,398.64	62.49	39.387		
7,300.00	7,035.91	7,300.00	6,749.06	33.76	34.58	86.95	1,518.25	-229.57	2,484.86	2,418.53	66.32	37.466		
7,400.00	7,058.12	7,210.17	6,975.53	34.61	34.15	89.16	1,562.27	-449.17	2,502.51	2,435.07	67.44	37.107		
7,500.00	7,064.98	7,584.71	7,069.95	35.68	37.53	90.11	1,578.79	-805.74	2,508.21	2,435.94	72.27	34.706		
7,600.00	7,064.59	7,684.71	7,069.67	36.95	38.83	90.12	1,578.03	-905.74	2,508.27	2,433.35	74.92	33.480		
7,700.00	7,064.20	7,784.71	7,069.38	38.40	40.29	90.12	1,577.28	-1,005.74	2,508.33	2,430.44	77.89	32.204		
7,800.00	7,063.80	7,884.71	7,069.10	40.00	41.89	90.12	1,576.53	-1,105.73	2,508.39	2,427.24	81.15	30.910		
7,900.00	7,063.41	7,984.71	7,068.81	41.75	43.62	90.12	1,575.78	-1,205.73	2,508.45	2,423.77	84.68	29.624		
8,000.00	7,063.02	8,084.71	7,068.53	43.62	45.47	90.13	1,575.02	-1,305.73	2,508.51	2,420.08	88.43	28.367		
8,100.00	7,062.62	8,184.71	7,068.24	45.59	47.42	90.13	1,574.27	-1,405.72	2,508.57	2,416.18	92.39	27.153		
8,200.00	7,062.23	8,284.71	7,067.96	47.65	49.46	90.13	1,573.52	-1,505.72	2,508.63	2,412.11	96.52	25.991		
8,300.00	7,061.84	8,384.71	7,067.67	49.79	51.58	90.13	1,572.77	-1,605.72	2,508.69	2,407.88	100.81	24.886		
8,400.00	7,061.45	8,484.71	7,067.39	52.00	53.76	90.14	1,572.01	-1,705.71	2,508.75	2,403.52	105.23	23.840		
8,500.00	7,061.05	8,584.71	7,067.10	54.27	56.01	90.14	1,571.26	-1,805.71	2,508.81	2,399.03	109.77	22.854		
8,600.00	7,060.66	8,684.71	7,066.82	56.60	58.31	90.14	1,570.51	-1,905.71	2,508.87	2,394.44	114.42	21.926		
8,700.00	7,060.27	8,784.71	7,066.53	58.97	60.66	90.14	1,569.76	-2,005.70	2,508.92	2,389.76	119.16	21.055		
8,800.00	7,059.87	8,884.71	7,066.25	61.38	63.05	90.15	1,569.00	-2,105.70	2,508.98	2,385.00	123.99	20.236		
8,900.00	7,059.48	8,984.71	7,065.97	63.83	65.48	90.15	1,568.25	-2,205.70	2,509.04	2,380.16	128.88	19.468		
9,000.00	7,059.09	9,084.71	7,065.68	66.32	67.94	90.15	1,567.50	-2,305.69	2,509.10	2,375.26	133.84	18.746		
9,100.00	7,058.69	9,184.71	7,065.40	68.83	70.43	90.15	1,566.75	-2,405.69	2,509.16	2,370.30	138.86	18.069		
9,200.00	7,058.30	9,284.71	7,065.11	71.37	72.95	90.16	1,565.99	-2,505.69	2,509.22	2,365.29	143.94	17.433		
9,300.00	7,057.91	9,384.71	7,064.83	73.93	75.49	90.16	1,565.24	-2,605.68	2,509.28	2,360.23	149.05	16.835		
9,400.00	7,057.51	9,484.71	7,064.54	76.51	78.06	90.16	1,564.49	-2,705.68	2,509.34	2,355.13	154.21	16.272		
9,500.00	7,057.12	9,584.71	7,064.26	79.11	80.64	90.16	1,563.74	-2,805.68	2,509.40	2,349.99	159.41	15.742		
9,600.00	7,056.73	9,684.71	7,063.97	81.73	83.24	90.17	1,562.98	-2,905.67	2,509.46	2,344.82	164.64	15.242		
9,700.00	7,056.33	9,784.71	7,063.69	84.37	85.86	90.17	1,562.23	-3,005.67	2,509.52	2,339.61	169.91	14.770		
9,800.00	7,055.94	9,884.71	7,063.40	87.01	88.50	90.17	1,561.48	-3,105.67	2,509.58	2,334.38	175.20	14.324		
9,900.00	7,055.55	9,984.71	7,063.12	89.68	91.14	90.17	1,560.73	-3,205.66	2,509.64	2,329.12	180.52	13.902		
10,000.00	7,055.15	10,084.71	7,062.83	92.35	93.80	90.18	1,559.97	-3,305.66	2,509.70	2,323.84	185.86	13.503		
10,100.00	7,054.76	10,184.71	7,062.55	95.03	96.47	90.18	1,559.22	-3,405.66	2,509.76	2,318.54	191.22	13.125		
10,200.00	7,054.37	10,284.71	7,062.26	97.73	99.16	90.18	1,558.47	-3,505.65	2,509.82	2,313.21	196.61	12.766		
10,300.00	7,053.98	10,384.71	7,061.98	100.43	101.85	90.18	1,557.72	-3,605.65	2,509.88	2,307.87	202.01	12.425		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		Highside Toolface (°)	Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,053.58	10,484.71	7,061.69	103.14	104.55	90.19	1,556.96	-3,705.65	2,509.94	2,302.51	207.43	12.100		
10,500.00	7,053.19	10,584.71	7,061.41	105.86	107.26	90.19	1,556.21	-3,805.64	2,510.00	2,297.14	212.86	11.792		
10,600.00	7,052.80	10,684.71	7,061.12	108.59	109.97	90.19	1,555.46	-3,905.64	2,510.06	2,291.75	218.31	11.498		
10,700.00	7,052.40	10,784.71	7,060.84	111.32	112.69	90.19	1,554.71	-4,005.64	2,510.12	2,286.35	223.77	11.217		
10,800.00	7,052.01	10,884.71	7,060.55	114.06	115.42	90.19	1,553.96	-4,105.63	2,510.18	2,280.93	229.24	10.950		
10,900.00	7,051.62	10,984.71	7,060.27	116.80	118.16	90.20	1,553.20	-4,205.63	2,510.24	2,275.51	234.73	10.694		
11,000.00	7,051.22	11,084.71	7,059.99	119.55	120.90	90.20	1,552.45	-4,305.63	2,510.30	2,270.07	240.23	10.450		
11,100.00	7,050.83	11,184.71	7,059.70	122.31	123.65	90.20	1,551.70	-4,405.62	2,510.36	2,264.62	245.73	10.216		
11,200.00	7,050.44	11,284.71	7,059.42	125.07	126.40	90.20	1,550.95	-4,505.62	2,510.42	2,259.17	251.25	9.992		
11,300.00	7,050.04	11,384.71	7,059.13	127.83	129.15	90.21	1,550.19	-4,605.62	2,510.47	2,253.70	256.77	9.777		
11,400.00	7,049.65	11,484.71	7,058.85	130.60	131.91	90.21	1,549.44	-4,705.61	2,510.53	2,248.23	262.31	9.571		
11,500.00	7,049.26	11,584.71	7,058.56	133.37	134.68	90.21	1,548.69	-4,805.61	2,510.59	2,242.75	267.85	9.373		
11,600.00	7,048.86	11,684.71	7,058.28	136.15	137.45	90.21	1,547.94	-4,905.61	2,510.65	2,237.26	273.39	9.183		
11,700.00	7,048.47	11,784.71	7,057.99	138.93	140.22	90.22	1,547.18	-5,005.60	2,510.71	2,231.77	278.95	9.001		
11,800.00	7,048.08	11,884.71	7,057.71	141.71	142.99	90.22	1,546.43	-5,105.60	2,510.77	2,226.26	284.51	8.825		
11,900.00	7,047.68	11,984.71	7,057.42	144.49	145.77	90.22	1,545.68	-5,205.60	2,510.83	2,220.76	290.08	8.656		
12,000.00	7,047.29	12,084.71	7,057.14	147.28	148.56	90.22	1,544.93	-5,305.59	2,510.89	2,215.24	295.65	8.493		
12,100.00	7,046.90	12,184.71	7,056.85	150.07	151.34	90.23	1,544.17	-5,405.59	2,510.95	2,209.73	301.23	8.336		
12,200.00	7,046.51	12,284.71	7,056.57	152.87	154.13	90.23	1,543.42	-5,505.59	2,511.01	2,204.20	306.81	8.184		
12,300.00	7,046.11	12,384.71	7,056.28	155.66	156.92	90.23	1,542.67	-5,605.58	2,511.07	2,198.67	312.40	8.038		
12,400.00	7,045.72	12,484.71	7,056.00	158.46	159.71	90.23	1,541.92	-5,705.58	2,511.13	2,193.14	317.99	7.897		
12,500.00	7,045.33	12,584.71	7,055.71	161.26	162.50	90.24	1,541.16	-5,805.58	2,511.19	2,187.61	323.59	7.760		
12,600.00	7,044.93	12,684.71	7,055.43	164.06	165.30	90.24	1,540.41	-5,905.57	2,511.25	2,182.06	329.19	7.629		
12,700.00	7,044.54	12,784.71	7,055.14	166.86	168.10	90.24	1,539.66	-6,005.57	2,511.31	2,176.52	334.79	7.501		
12,800.00	7,044.15	12,884.71	7,054.86	169.67	170.90	90.24	1,538.91	-6,105.57	2,511.37	2,170.97	340.40	7.378		
12,900.00	7,043.75	12,984.71	7,054.57	172.48	173.70	90.25	1,538.15	-6,205.56	2,511.43	2,165.42	346.01	7.258		
13,000.00	7,043.36	13,084.71	7,054.29	175.28	176.51	90.25	1,537.40	-6,305.56	2,511.49	2,159.86	351.63	7.142		
13,100.00	7,042.97	13,184.71	7,054.01	178.09	179.31	90.25	1,536.65	-6,405.56	2,511.55	2,154.30	357.25	7.030		
13,200.00	7,042.57	13,284.71	7,053.72	180.91	182.12	90.25	1,535.90	-6,505.55	2,511.61	2,148.74	362.87	6.922		
13,300.00	7,042.18	13,384.71	7,053.44	183.72	184.93	90.26	1,535.14	-6,605.55	2,511.67	2,143.18	368.49	6.816		
13,400.00	7,041.79	13,484.70	7,053.15	186.53	187.74	90.26	1,534.39	-6,705.55	2,511.73	2,137.61	374.12	6.714		
13,500.00	7,041.39	13,584.70	7,052.87	189.35	190.55	90.26	1,533.64	-6,805.54	2,511.79	2,132.04	379.75	6.614		
13,600.00	7,041.00	13,684.70	7,052.58	192.17	193.37	90.26	1,532.89	-6,905.54	2,511.85	2,126.47	385.38	6.518		
13,700.00	7,040.61	13,784.70	7,052.30	194.99	196.18	90.27	1,532.13	-7,005.54	2,511.91	2,120.89	391.02	6.424		
13,800.00	7,040.21	13,884.70	7,052.01	197.81	199.00	90.27	1,531.38	-7,105.54	2,511.97	2,115.31	396.65	6.333		
13,900.00	7,039.82	13,984.70	7,051.73	200.63	201.81	90.27	1,530.63	-7,205.53	2,512.03	2,109.73	402.29	6.244		
14,000.00	7,039.43	14,084.70	7,051.44	203.45	204.63	90.27	1,529.88	-7,305.53	2,512.09	2,104.15	407.93	6.158		
14,100.00	7,039.03	14,184.70	7,051.16	206.27	207.45	90.28	1,529.12	-7,405.53	2,512.15	2,098.57	413.58	6.074		
14,200.00	7,038.64	14,284.70	7,050.87	209.09	210.27	90.28	1,528.37	-7,505.52	2,512.21	2,092.98	419.22	5.993		
14,300.00	7,038.25	14,384.70	7,050.59	211.92	213.09	90.28	1,527.62	-7,605.52	2,512.27	2,087.40	424.87	5.913		
14,400.00	7,037.86	14,484.70	7,050.30	214.74	215.92	90.28	1,526.87	-7,705.52	2,512.33	2,081.81	430.52	5.836		
14,500.00	7,037.46	14,584.70	7,050.02	217.57	218.74	90.29	1,526.11	-7,805.51	2,512.39	2,076.22	436.17	5.760		
14,600.00	7,037.07	14,684.70	7,049.73	220.40	221.56	90.29	1,525.36	-7,905.51	2,512.45	2,070.62	441.82	5.687		
14,700.00	7,036.68	14,784.70	7,049.45	223.23	224.39	90.29	1,524.61	-8,005.51	2,512.51	2,065.03	447.48	5.615		
14,800.00	7,036.28	14,884.70	7,049.16	226.05	227.22	90.29	1,523.86	-8,105.50	2,512.57	2,059.43	453.13	5.545		
14,802.90	7,036.27	14,887.60	7,049.16	226.14	227.30	90.29	1,523.84	-8,108.40	2,512.57	2,059.27	453.30	5.543		
14,871.88	7,036.00	14,942.37	7,049.00	228.09	228.85	90.30	1,523.42	-8,163.17	2,512.65	2,055.85	456.80	5.501 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	0.48	200.00	1.67	200.01					
100.00	100.00	101.00	100.00	3.28	3.28	0.48	200.00	1.67	200.01	193.44	6.57	30.444		
200.00	200.00	201.00	200.00	3.34	3.34	0.48	200.00	1.67	200.01	193.33	6.67	29.964		
300.00	300.00	301.00	300.00	3.44	3.45	0.48	200.00	1.67	200.01	193.12	6.89	29.024 CC, ES		
400.00	399.98	400.98	399.98	3.60	3.61	170.70	200.00	1.67	201.73	194.53	7.20	28.014		
500.00	499.84	500.84	499.84	3.79	3.81	170.92	200.00	1.67	206.89	199.30	7.60	27.240		
600.00	599.45	600.45	599.45	4.02	4.05	171.26	200.00	1.67	215.51	207.44	8.07	26.710		
700.00	698.70	699.95	691.93	4.29	4.30	171.50	201.39	1.08	229.03	220.44	8.59	26.650		
800.00	797.70	784.34	783.21	4.59	4.57	171.52	205.46	-0.64	247.37	238.21	9.17	26.987		
900.00	896.69	882.05	880.71	4.92	4.88	171.38	211.36	-3.13	267.26	257.48	9.78	27.322		
1,000.00	995.68	980.05	978.50	5.27	5.20	171.27	217.28	-5.63	287.15	276.71	10.44	27.515		
1,100.00	1,094.68	1,078.05	1,076.29	5.64	5.54	171.17	223.20	-8.13	307.04	295.92	11.12	27.609		
1,200.00	1,193.67	1,176.05	1,174.08	6.03	5.90	171.08	229.12	-10.63	326.93	315.10	11.83	27.628		
1,300.00	1,292.67	1,274.05	1,271.87	6.42	6.26	171.00	235.04	-13.13	346.82	334.25	12.57	27.598		
1,400.00	1,391.66	1,372.05	1,369.66	6.83	6.63	170.94	240.96	-15.63	366.71	353.39	13.32	27.535		
1,500.00	1,490.66	1,470.05	1,467.45	7.25	7.01	170.87	246.88	-18.13	386.60	372.52	14.08	27.449		
1,600.00	1,589.65	1,568.05	1,565.24	7.67	7.40	170.82	252.80	-20.63	406.50	391.63	14.86	27.348		
1,700.00	1,688.64	1,666.05	1,663.03	8.10	7.79	170.77	258.72	-23.14	426.39	410.74	15.65	27.238		
1,800.00	1,787.64	1,764.05	1,760.82	8.53	8.18	170.72	264.64	-25.64	446.28	429.83	16.45	27.123		
1,900.00	1,886.63	1,862.05	1,858.61	8.97	8.58	170.68	270.56	-28.14	466.18	448.92	17.26	27.006		
2,000.00	1,985.63	1,960.06	1,956.40	9.41	8.98	170.64	276.48	-30.64	486.07	468.00	18.08	26.890		
2,100.00	2,084.62	2,058.06	2,054.19	9.85	9.39	170.60	282.40	-33.14	505.97	487.07	18.90	26.775		
2,200.00	2,183.61	2,156.06	2,151.98	10.30	9.79	170.57	288.32	-35.64	525.86	506.14	19.72	26.662		
2,300.00	2,282.61	2,254.06	2,249.77	10.75	10.20	170.54	294.24	-38.14	545.75	525.20	20.55	26.553		
2,400.00	2,381.60	2,352.06	2,347.56	11.20	10.61	170.51	300.16	-40.64	565.65	544.26	21.39	26.446		
2,500.00	2,480.60	2,450.06	2,445.35	11.66	11.03	170.48	306.08	-43.14	585.54	563.32	22.23	26.344		
2,600.00	2,579.59	2,548.06	2,543.14	12.11	11.44	170.46	312.00	-45.64	605.44	582.37	23.07	26.245		
2,700.00	2,678.58	2,646.06	2,640.93	12.57	11.86	170.44	317.92	-48.14	625.33	601.42	23.91	26.150		
2,800.00	2,777.58	2,744.06	2,738.72	13.02	12.27	170.41	323.84	-50.64	645.23	620.47	24.76	26.059		
2,900.00	2,876.57	2,842.06	2,836.50	13.48	12.69	170.39	329.76	-53.14	665.12	639.51	25.61	25.971		
3,000.00	2,975.57	2,940.06	2,934.29	13.94	13.11	170.38	335.68	-55.64	685.02	658.56	26.46	25.887		
3,100.00	3,074.56	3,038.06	3,032.08	14.40	13.53	170.36	341.60	-58.14	704.91	677.60	27.32	25.807		
3,200.00	3,173.55	3,136.06	3,129.87	14.87	13.95	170.34	347.52	-60.65	724.81	696.64	28.17	25.729		
3,300.00	3,272.55	3,234.06	3,227.66	15.33	14.38	170.32	353.45	-63.15	744.71	715.68	29.03	25.655		
3,400.00	3,371.54	3,332.06	3,325.45	15.79	14.80	170.31	359.37	-65.65	764.60	734.72	29.89	25.584		
3,500.00	3,470.54	3,430.07	3,423.24	16.26	15.22	170.29	365.29	-68.15	784.50	753.75	30.75	25.516		
3,600.00	3,569.53	3,528.07	3,521.03	16.72	15.64	170.28	371.21	-70.65	804.39	772.79	31.61	25.450		
3,700.00	3,668.53	3,626.07	3,618.82	17.19	16.07	170.27	377.13	-73.15	824.29	791.82	32.47	25.387		
3,800.00	3,767.52	3,724.07	3,716.61	17.65	16.49	170.25	383.05	-75.65	844.18	810.85	33.33	25.327		
3,900.00	3,866.51	3,822.07	3,814.40	18.12	16.92	170.24	388.97	-78.15	864.08	829.88	34.20	25.268		
4,000.00	3,965.51	3,920.07	3,912.19	18.59	17.34	170.23	394.89	-80.65	883.97	848.91	35.06	25.212		
4,100.00	4,064.50	4,018.07	4,009.98	19.05	17.77	170.22	400.81	-83.15	903.87	867.94	35.93	25.159		
4,200.00	4,163.50	4,116.07	4,107.77	19.52	18.20	170.21	406.73	-85.65	923.77	886.97	36.79	25.107		
4,300.00	4,262.49	4,214.07	4,205.56	19.99	18.62	170.20	412.65	-88.15	943.66	906.00	37.66	25.057		
4,400.00	4,361.48	4,312.07	4,303.35	20.46	19.05	170.19	418.57	-90.65	963.56	925.03	38.53	25.009		
4,500.00	4,460.48	4,410.07	4,401.14	20.92	19.48	170.18	424.49	-93.15	983.45	944.06	39.40	24.962		
4,600.00	4,559.47	4,508.07	4,498.93	21.39	19.91	170.17	430.41	-95.65	1,003.35	963.08	40.27	24.917		
4,700.00	4,658.47	4,606.07	4,596.72	21.86	20.33	170.16	436.33	-98.16	1,023.25	982.11	41.14	24.874		
4,800.00	4,757.46	4,704.07	4,694.51	22.33	20.76	170.15	442.25	-100.66	1,043.14	1,001.13	42.01	24.832		
4,900.00	4,856.45	4,802.07	4,792.30	22.80	21.19	170.15	448.17	-103.16	1,063.04	1,020.16	42.88	24.792		
5,000.00	4,955.45	4,900.08	4,890.09	23.27	21.62	170.14	454.09	-105.66	1,082.93	1,039.18	43.75	24.753		
5,100.00	5,054.44	5,001.92	4,987.88	23.74	22.07	170.13	460.01	-108.16	1,102.83	1,058.19	44.64	24.706		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,096.08	5,085.67	24.21	22.48	170.12	465.93	-110.66	1,122.73	1,077.23	45.49	24.679		
5,300.00	5,252.43	5,205.92	5,183.46	24.68	22.96	170.12	471.85	-113.16	1,142.62	1,096.20	46.42	24.616		
5,400.00	5,351.42	5,307.92	5,281.25	25.15	23.41	170.11	477.77	-115.66	1,162.52	1,115.21	47.31	24.573		
5,500.00	5,450.42	5,409.92	5,379.04	25.62	23.85	170.10	483.69	-118.16	1,182.41	1,134.21	48.20	24.532		
5,600.00	5,549.41	5,488.08	5,476.83	26.09	24.20	170.10	489.61	-120.66	1,202.31	1,153.32	48.99	24.544		
5,700.00	5,648.41	5,586.08	5,574.62	26.56	24.63	170.09	495.53	-123.16	1,222.21	1,172.35	49.86	24.513		
5,800.00	5,747.40	5,684.08	5,672.41	27.03	25.06	170.09	501.45	-125.66	1,242.10	1,191.37	50.73	24.482		
5,900.00	5,846.40	5,782.08	5,770.20	27.51	25.49	170.08	507.37	-128.16	1,262.00	1,210.39	51.61	24.453		
6,000.00	5,945.39	5,880.08	5,867.99	27.98	25.92	170.07	513.29	-130.66	1,281.89	1,229.41	52.48	24.424		
6,100.00	6,044.38	5,978.08	5,965.78	28.45	26.35	170.07	519.21	-133.16	1,301.79	1,248.43	53.36	24.397		
6,200.00	6,143.38	6,076.08	6,063.57	28.92	26.78	170.06	525.13	-135.66	1,321.69	1,267.45	54.23	24.370		
6,300.00	6,242.37	6,174.08	6,161.36	29.39	27.21	170.06	531.05	-138.17	1,341.58	1,286.47	55.11	24.343		
6,400.00	6,341.37	6,272.08	6,259.15	29.86	27.64	170.05	536.97	-140.67	1,361.48	1,305.49	55.99	24.318		
6,500.00	6,440.36	6,370.09	6,356.93	30.34	28.07	170.05	542.89	-143.17	1,381.37	1,324.51	56.86	24.293		
6,600.00	6,538.90	6,467.80	6,454.44	30.80	28.50	129.27	548.79	-145.66	1,401.26	1,343.52	57.74	24.270		
6,700.00	6,634.88	6,563.35	6,549.79	31.25	28.92	111.83	554.56	-148.10	1,421.02	1,362.44	58.58	24.257		
6,800.00	6,725.92	6,655.17	6,641.40	31.68	29.32	104.44	560.11	-150.50	1,440.86	1,381.46	59.40	24.259		
6,900.00	6,809.79	6,756.53	6,741.76	32.07	29.77	100.72	566.24	-162.46	1,460.76	1,400.46	60.31	24.223		
7,000.00	6,884.42	6,867.00	6,847.44	32.43	30.26	98.62	572.81	-193.45	1,480.12	1,418.81	61.32	24.138		
7,100.00	6,947.98	6,988.85	6,955.86	32.77	30.81	97.47	579.68	-248.25	1,498.29	1,435.82	62.46	23.987		
7,200.00	6,998.89	7,124.35	7,061.69	33.18	31.48	96.93	586.56	-332.16	1,514.45	1,450.65	63.80	23.738		
7,300.00	7,035.91	7,274.93	7,155.57	33.76	32.39	96.80	592.92	-449.28	1,527.67	1,462.20	65.47	23.333		
7,400.00	7,058.12	7,439.91	7,223.81	34.61	33.75	96.87	597.92	-598.90	1,536.95	1,469.23	67.73	22.694		
7,500.00	7,064.98	7,615.03	7,251.82	35.68	35.65	96.96	600.63	-771.18	1,541.42	1,470.70	70.73	21.793		
7,600.00	7,064.59	7,722.71	7,251.67	36.95	37.05	96.96	601.25	-878.86	1,542.82	1,469.39	73.43	21.010		
7,700.00	7,064.20	7,822.70	7,251.30	38.40	38.52	96.96	601.82	-978.84	1,544.19	1,467.83	76.36	20.222		
7,800.00	7,063.80	7,922.69	7,250.94	40.00	40.14	96.95	602.39	-1,078.83	1,545.56	1,465.98	79.59	19.419		
7,900.00	7,063.41	8,022.68	7,250.57	41.75	41.88	96.95	602.96	-1,178.82	1,546.94	1,463.86	83.08	18.620		
8,000.00	7,063.02	8,122.67	7,250.20	43.62	43.75	96.94	603.52	-1,278.81	1,548.31	1,461.50	86.80	17.837		
8,100.00	7,062.62	8,222.66	7,249.84	45.59	45.72	96.94	604.09	-1,378.80	1,549.68	1,458.95	90.73	17.080		
8,200.00	7,062.23	8,322.65	7,249.47	47.65	47.78	96.93	604.66	-1,478.79	1,551.05	1,456.22	94.84	16.355		
8,300.00	7,061.84	8,422.64	7,249.10	49.79	49.92	96.93	605.22	-1,578.77	1,552.42	1,453.33	99.10	15.666		
8,400.00	7,061.45	8,522.63	7,248.74	52.00	52.13	96.92	605.79	-1,678.76	1,553.79	1,450.30	103.49	15.013		
8,500.00	7,061.05	8,622.63	7,248.37	54.27	54.40	96.92	606.36	-1,778.75	1,555.17	1,447.15	108.01	14.398		
8,600.00	7,060.66	8,722.62	7,248.01	56.60	56.72	96.91	606.92	-1,878.74	1,556.54	1,443.90	112.63	13.819		
8,700.00	7,060.27	8,822.61	7,247.64	58.97	59.10	96.91	607.49	-1,978.73	1,557.91	1,440.56	117.35	13.276		
8,800.00	7,059.87	8,922.60	7,247.27	61.38	61.51	96.90	608.06	-2,078.71	1,559.28	1,437.13	122.15	12.765		
8,900.00	7,059.48	9,022.59	7,246.91	63.83	63.96	96.90	608.62	-2,178.70	1,560.65	1,433.63	127.02	12.287		
9,000.00	7,059.09	9,122.58	7,246.54	66.32	66.44	96.89	609.19	-2,278.69	1,562.02	1,430.07	131.96	11.837		
9,100.00	7,058.69	9,222.57	7,246.17	68.83	68.95	96.89	609.76	-2,378.68	1,563.40	1,426.44	136.95	11.416		
9,200.00	7,058.30	9,322.56	7,245.81	71.37	71.49	96.88	610.32	-2,478.67	1,564.77	1,422.77	142.00	11.020		
9,300.00	7,057.91	9,422.55	7,245.44	73.93	74.05	96.87	610.89	-2,578.66	1,566.14	1,419.05	147.09	10.647		
9,400.00	7,057.51	9,522.54	7,245.08	76.51	76.64	96.87	611.46	-2,678.64	1,567.51	1,415.29	152.23	10.297		
9,500.00	7,057.12	9,622.53	7,244.71	79.11	79.24	96.86	612.02	-2,778.63	1,568.88	1,411.48	157.40	9.968		
9,600.00	7,056.73	9,722.52	7,244.34	81.73	81.86	96.86	612.59	-2,878.62	1,570.26	1,407.65	162.61	9.657		
9,700.00	7,056.33	9,822.51	7,243.98	84.37	84.49	96.85	613.16	-2,978.61	1,571.63	1,403.78	167.84	9.364		
9,800.00	7,055.94	9,922.50	7,243.61	87.01	87.14	96.85	613.72	-3,078.60	1,573.00	1,399.89	173.11	9.087		
9,900.00	7,055.55	10,022.49	7,243.25	89.68	89.81	96.84	614.29	-3,178.59	1,574.37	1,395.97	178.40	8.825		
10,000.00	7,055.15	10,122.48	7,242.88	92.35	92.48	96.84	614.86	-3,278.57	1,575.74	1,392.03	183.72	8.577		
10,100.00	7,054.76	10,222.47	7,242.51	95.03	95.17	96.83	615.43	-3,378.56	1,577.12	1,388.06	189.05	8.342		
10,200.00	7,054.37	10,322.46	7,242.15	97.73	97.86	96.83	615.99	-3,478.55	1,578.49	1,384.08	194.41	8.119		
10,300.00	7,053.98	10,422.45	7,241.78	100.43	100.57	96.82	616.56	-3,578.54	1,579.86	1,380.07	199.79	7.908		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	10,522.44	7,241.41	103.14	103.28	96.82	617.13	-3,678.53	1,581.23	1,376.06	205.18	7.707		
10,500.00	7,053.19	10,622.44	7,241.05	105.86	106.00	96.81	617.69	-3,778.51	1,582.60	1,372.02	210.58	7.515		
10,600.00	7,052.80	10,722.43	7,240.68	108.59	108.73	96.81	618.26	-3,878.50	1,583.98	1,367.97	216.00	7.333		
10,700.00	7,052.40	10,822.42	7,240.32	111.32	111.47	96.80	618.83	-3,978.49	1,585.35	1,363.91	221.44	7.159		
10,800.00	7,052.01	10,922.41	7,239.95	114.06	114.21	96.80	619.39	-4,078.48	1,586.72	1,359.83	226.89	6.993		
10,900.00	7,051.62	11,022.40	7,239.58	116.80	116.96	96.80	619.96	-4,178.47	1,588.09	1,355.75	232.34	6.835		
11,000.00	7,051.22	11,122.39	7,239.22	119.55	119.71	96.79	620.53	-4,278.46	1,589.46	1,351.65	237.81	6.684		
11,100.00	7,050.83	11,222.38	7,238.85	122.31	122.47	96.79	621.09	-4,378.44	1,590.84	1,347.54	243.29	6.539		
11,200.00	7,050.44	11,322.37	7,238.49	125.07	125.23	96.78	621.66	-4,478.43	1,592.21	1,343.43	248.78	6.400		
11,300.00	7,050.04	11,422.36	7,238.12	127.83	128.00	96.78	622.23	-4,578.42	1,593.58	1,339.30	254.28	6.267		
11,400.00	7,049.65	11,522.35	7,237.75	130.60	130.77	96.77	622.79	-4,678.41	1,594.95	1,335.17	259.78	6.140		
11,500.00	7,049.26	11,622.34	7,237.39	133.37	133.54	96.77	623.36	-4,778.40	1,596.32	1,331.03	265.30	6.017		
11,600.00	7,048.86	11,722.33	7,237.02	136.15	136.32	96.76	623.93	-4,878.38	1,597.70	1,326.88	270.82	5.900		
11,700.00	7,048.47	11,822.32	7,236.65	138.93	139.10	96.76	624.49	-4,978.37	1,599.07	1,322.73	276.34	5.787		
11,800.00	7,048.08	11,922.31	7,236.29	141.71	141.89	96.75	625.06	-5,078.36	1,600.44	1,318.56	281.88	5.678		
11,900.00	7,047.68	12,022.30	7,235.92	144.49	144.67	96.75	625.63	-5,178.35	1,601.81	1,314.40	287.42	5.573		
12,000.00	7,047.29	12,122.29	7,235.56	147.28	147.47	96.74	626.19	-5,278.34	1,603.19	1,310.22	292.96	5.472		
12,100.00	7,046.90	12,222.28	7,235.19	150.07	150.26	96.74	626.76	-5,378.33	1,604.56	1,306.05	298.51	5.375		
12,200.00	7,046.51	12,322.27	7,234.82	152.87	153.05	96.73	627.33	-5,478.31	1,605.93	1,301.86	304.07	5.282		
12,300.00	7,046.11	12,422.26	7,234.46	155.66	155.85	96.73	627.90	-5,578.30	1,607.30	1,297.68	309.63	5.191		
12,400.00	7,045.72	12,522.25	7,234.09	158.46	158.65	96.72	628.46	-5,678.29	1,608.67	1,293.48	315.19	5.104		
12,500.00	7,045.33	12,622.24	7,233.73	161.26	161.46	96.72	629.03	-5,778.28	1,610.05	1,289.29	320.76	5.019		
12,600.00	7,044.93	12,722.24	7,233.36	164.06	164.26	96.71	629.60	-5,878.27	1,611.42	1,285.08	326.33	4.938		
12,700.00	7,044.54	12,822.23	7,232.99	166.86	167.07	96.71	630.16	-5,978.26	1,612.79	1,280.88	331.91	4.859		
12,800.00	7,044.15	12,922.22	7,232.63	169.67	169.88	96.70	630.73	-6,078.24	1,614.16	1,276.67	337.49	4.783		
12,900.00	7,043.75	13,022.21	7,232.26	172.48	172.69	96.70	631.30	-6,178.23	1,615.54	1,272.46	343.08	4.709		
13,000.00	7,043.36	13,122.20	7,231.89	175.28	175.50	96.69	631.86	-6,278.22	1,616.91	1,268.24	348.66	4.637		
13,100.00	7,042.97	13,222.19	7,231.53	178.09	178.31	96.69	632.43	-6,378.21	1,618.28	1,264.02	354.26	4.568		
13,200.00	7,042.57	13,322.18	7,231.16	180.91	181.13	96.68	633.00	-6,478.20	1,619.65	1,259.80	359.85	4.501		
13,300.00	7,042.18	13,422.17	7,230.80	183.72	183.95	96.68	633.56	-6,578.18	1,621.03	1,255.58	365.45	4.436		
13,400.00	7,041.79	13,522.16	7,230.43	186.53	186.76	96.67	634.13	-6,678.17	1,622.40	1,251.35	371.05	4.372		
13,500.00	7,041.39	13,622.15	7,230.06	189.35	189.58	96.67	634.70	-6,778.16	1,623.77	1,247.12	376.65	4.311		
13,600.00	7,041.00	13,722.14	7,229.70	192.17	192.40	96.67	635.26	-6,878.15	1,625.14	1,242.89	382.26	4.251		
13,700.00	7,040.61	13,822.13	7,229.33	194.99	195.23	96.66	635.83	-6,978.14	1,626.51	1,238.65	387.86	4.194		
13,800.00	7,040.21	13,922.12	7,228.97	197.81	198.05	96.66	636.40	-7,078.13	1,627.89	1,234.41	393.47	4.137		
13,900.00	7,039.82	14,022.11	7,228.60	200.63	200.87	96.65	636.96	-7,178.11	1,629.26	1,230.17	399.09	4.082		
14,000.00	7,039.43	14,122.10	7,228.23	203.45	203.70	96.65	637.53	-7,278.10	1,630.63	1,225.93	404.70	4.029		
14,100.00	7,039.03	14,222.09	7,227.87	206.27	206.52	96.64	638.10	-7,378.09	1,632.00	1,221.69	410.32	3.977		
14,200.00	7,038.64	14,322.08	7,227.50	209.09	209.35	96.64	638.66	-7,478.08	1,633.38	1,217.44	415.94	3.927		
14,300.00	7,038.25	14,422.07	7,227.13	211.92	212.18	96.63	639.23	-7,578.07	1,634.75	1,213.19	421.56	3.878		
14,400.00	7,037.86	14,522.06	7,226.77	214.74	215.01	96.63	639.80	-7,678.06	1,636.12	1,208.94	427.18	3.830		
14,500.00	7,037.46	14,622.05	7,226.40	217.57	217.84	96.62	640.37	-7,778.04	1,637.49	1,204.69	432.80	3.783		
14,600.00	7,037.07	14,722.05	7,226.04	220.40	220.67	96.62	640.93	-7,878.03	1,638.87	1,200.44	438.43	3.738		
14,700.00	7,036.68	14,822.04	7,225.67	223.23	223.50	96.61	641.50	-7,978.02	1,640.24	1,196.18	444.06	3.694		
14,800.00	7,036.28	14,922.03	7,225.30	226.05	226.33	96.61	642.07	-8,078.01	1,641.61	1,191.93	449.69	3.651		
14,871.88	7,036.00	14,993.90	7,225.04	228.09	228.37	96.61	642.47	-8,149.88	1,642.60	1,188.87	453.73	3.620 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	0.00	0.00	3.28	3.28	-179.52	-99.83	-0.83	99.83					
100.00	100.00	100.00	100.00	3.28	3.28	-179.52	-99.83	-0.83	99.83	93.26	6.57	15.196		
200.00	200.00	200.00	200.00	3.34	3.34	-179.52	-99.83	-0.83	99.83	93.16	6.67	14.958 CC, ES		
300.00	300.00	296.61	296.59	3.44	3.44	-179.45	-101.45	-0.97	101.51	94.62	6.89	14.731		
400.00	399.98	393.08	392.94	3.60	3.58	-9.24	-106.31	-1.37	104.83	97.62	7.21	14.543		
500.00	499.84	489.46	488.97	3.79	3.77	-9.35	-114.39	-2.05	108.06	100.45	7.62	14.191		
600.00	599.45	585.74	584.57	4.02	4.00	-9.61	-125.67	-2.98	111.21	103.10	8.10	13.722		
700.00	698.70	681.91	679.64	4.29	4.26	-10.01	-140.13	-4.19	114.26	105.60	8.66	13.192		
800.00	797.70	777.93	774.01	4.59	4.56	-10.41	-157.72	-5.65	118.72	109.45	9.27	12.802		
900.00	896.69	873.55	867.36	4.92	4.90	-10.64	-178.37	-7.37	126.50	116.58	9.92	12.747		
1,000.00	995.68	968.58	959.40	5.27	5.27	-10.71	-201.96	-9.33	137.58	126.97	10.61	12.964		
1,100.00	1,094.68	1,066.56	1,053.68	5.64	5.68	-10.68	-228.51	-11.54	150.99	139.68	11.31	13.349		
1,200.00	1,193.67	1,165.64	1,149.00	6.03	6.11	-10.65	-255.45	-13.78	164.51	152.46	12.04	13.660		
1,300.00	1,292.67	1,264.73	1,244.33	6.42	6.56	-10.63	-282.40	-16.02	178.02	165.22	12.80	13.906		
1,400.00	1,391.66	1,363.81	1,339.65	6.83	7.03	-10.60	-309.34	-18.26	191.53	177.95	13.58	14.099		
1,500.00	1,490.66	1,462.89	1,434.97	7.25	7.51	-10.59	-336.28	-20.50	205.05	190.66	14.39	14.252		
1,600.00	1,589.65	1,561.97	1,530.29	7.67	7.99	-10.57	-363.23	-22.74	218.56	203.35	15.21	14.373		
1,700.00	1,688.64	1,661.06	1,625.62	8.10	8.48	-10.56	-390.17	-24.98	232.07	216.03	16.04	14.469		
1,800.00	1,787.64	1,760.14	1,720.94	8.53	8.98	-10.54	-417.12	-27.22	245.58	228.70	16.88	14.545		
1,900.00	1,886.63	1,859.22	1,816.26	8.97	9.49	-10.53	-444.06	-29.46	259.10	241.36	17.74	14.605		
2,000.00	1,985.63	1,958.30	1,911.58	9.41	10.00	-10.52	-471.00	-31.70	272.61	254.01	18.60	14.653		
2,100.00	2,084.62	2,057.39	2,006.91	9.85	10.51	-10.51	-497.95	-33.94	286.12	266.65	19.48	14.691		
2,200.00	2,183.61	2,156.47	2,102.23	10.30	11.03	-10.51	-524.89	-36.18	299.64	279.28	20.36	14.720		
2,300.00	2,282.61	2,255.55	2,197.55	10.75	11.55	-10.50	-551.83	-38.42	313.15	291.91	21.24	14.743		
2,400.00	2,381.60	2,354.64	2,292.88	11.20	12.07	-10.49	-578.78	-40.66	326.66	304.53	22.13	14.761		
2,500.00	2,480.60	2,453.72	2,388.20	11.66	12.60	-10.48	-605.72	-42.91	340.18	317.15	23.02	14.775		
2,600.00	2,579.59	2,552.80	2,483.52	12.11	13.12	-10.48	-632.66	-45.15	353.69	329.77	23.92	14.785		
2,700.00	2,678.58	2,651.88	2,578.84	12.57	13.65	-10.47	-659.61	-47.39	367.20	342.38	24.82	14.792		
2,800.00	2,777.58	2,750.97	2,674.17	13.02	14.18	-10.47	-686.55	-49.63	380.72	354.99	25.73	14.797		
2,900.00	2,876.57	2,850.05	2,769.49	13.48	14.71	-10.46	-713.49	-51.87	394.23	367.59	26.64	14.799		
3,000.00	2,975.57	2,949.13	2,864.81	13.94	15.24	-10.46	-740.44	-54.11	407.74	380.19	27.55	14.801		
3,100.00	3,074.56	3,048.22	2,960.13	14.40	15.78	-10.46	-767.38	-56.35	421.26	392.79	28.46	14.801		
3,200.00	3,173.55	3,147.30	3,055.46	14.87	16.31	-10.45	-794.32	-58.59	434.77	405.39	29.38	14.799		
3,300.00	3,272.55	3,246.38	3,150.78	15.33	16.85	-10.45	-821.27	-60.83	448.28	417.99	30.29	14.797		
3,400.00	3,371.54	3,345.46	3,246.10	15.79	17.38	-10.44	-848.21	-63.07	461.80	430.58	31.21	14.795		
3,500.00	3,470.54	3,444.55	3,341.43	16.26	17.92	-10.44	-875.15	-65.31	475.31	443.18	32.13	14.791		
3,600.00	3,569.53	3,543.63	3,436.75	16.72	18.46	-10.44	-902.10	-67.55	488.82	455.77	33.06	14.787		
3,700.00	3,668.53	3,642.71	3,532.07	17.19	18.99	-10.44	-929.04	-69.79	502.34	468.36	33.98	14.783		
3,800.00	3,767.52	3,741.79	3,627.39	17.65	19.53	-10.43	-955.98	-72.03	515.85	480.94	34.91	14.779		
3,900.00	3,866.51	3,840.88	3,722.72	18.12	20.07	-10.43	-982.93	-74.27	529.36	493.53	35.83	14.774		
4,000.00	3,965.51	3,939.96	3,818.04	18.59	20.61	-10.43	-1,009.87	-76.52	542.88	506.12	36.76	14.769		
4,100.00	4,064.50	4,039.04	3,913.36	19.05	21.15	-10.42	-1,036.81	-78.76	556.39	518.70	37.69	14.764		
4,200.00	4,163.50	4,138.13	4,008.68	19.52	21.69	-10.42	-1,063.76	-81.00	569.90	531.29	38.62	14.759		
4,300.00	4,262.49	4,237.21	4,104.01	19.99	22.23	-10.42	-1,090.70	-83.24	583.42	543.87	39.54	14.753		
4,400.00	4,361.48	4,336.29	4,199.33	20.46	22.77	-10.42	-1,117.64	-85.48	596.93	556.45	40.48	14.748		
4,500.00	4,460.48	4,435.37	4,294.65	20.92	23.31	-10.42	-1,144.59	-87.72	610.44	569.04	41.41	14.742		
4,600.00	4,559.47	4,534.46	4,389.98	21.39	23.86	-10.41	-1,171.53	-89.96	623.96	581.62	42.34	14.737		
4,700.00	4,658.47	4,633.54	4,485.30	21.86	24.40	-10.41	-1,198.47	-92.20	637.47	594.20	43.27	14.732		
4,800.00	4,757.46	4,732.62	4,580.62	22.33	24.94	-10.41	-1,225.42	-94.44	650.98	606.78	44.21	14.726		
4,900.00	4,856.45	4,831.70	4,675.94	22.80	25.48	-10.41	-1,252.36	-96.68	664.50	619.36	45.14	14.721		
5,000.00	4,955.45	4,930.79	4,771.27	23.27	26.03	-10.41	-1,279.30	-98.92	678.01	631.94	46.07	14.716		
5,100.00	5,054.44	5,029.87	4,866.59	23.74	26.57	-10.41	-1,306.25	-101.16	691.52	644.51	47.01	14.710		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,128.95	4,961.91	24.21	27.11	-10.41	-1,333.19	-103.40	705.04	657.09	47.94	14.705		
5,300.00	5,252.43	5,228.04	5,057.24	24.68	27.65	-10.40	-1,360.13	-105.64	718.55	669.67	48.88	14.700		
5,400.00	5,351.42	5,327.12	5,152.56	25.15	28.20	-10.40	-1,387.08	-107.88	732.06	682.25	49.82	14.695		
5,500.00	5,450.42	5,426.20	5,247.88	25.62	28.74	-10.40	-1,414.02	-110.13	745.58	694.82	50.75	14.690		
5,600.00	5,549.41	5,525.28	5,343.20	26.09	29.29	-10.40	-1,440.97	-112.37	759.09	707.40	51.69	14.685		
5,700.00	5,648.41	5,624.37	5,438.53	26.56	29.83	-10.40	-1,467.91	-114.61	772.60	719.97	52.63	14.680		
5,800.00	5,747.40	5,723.45	5,533.85	27.03	30.37	-10.40	-1,494.85	-116.85	786.11	732.55	53.57	14.676		
5,900.00	5,846.40	5,822.53	5,629.17	27.51	30.92	-10.40	-1,521.80	-119.09	799.63	745.12	54.50	14.671		
6,000.00	5,945.39	5,921.61	5,724.49	27.98	31.46	-10.40	-1,548.74	-121.33	813.14	757.70	55.44	14.666		
6,100.00	6,044.38	6,020.70	5,819.82	28.45	32.01	-10.39	-1,575.68	-123.57	826.65	770.27	56.38	14.662		
6,200.00	6,143.38	6,119.78	5,915.14	28.92	32.55	-10.39	-1,602.63	-125.81	840.17	782.85	57.32	14.657		
6,300.00	6,242.37	6,218.86	6,010.46	29.39	33.10	-10.39	-1,629.57	-128.05	853.68	795.42	58.26	14.653		
6,400.00	6,341.37	6,317.95	6,105.79	29.86	33.64	-10.39	-1,656.51	-130.29	867.19	807.99	59.20	14.649		
6,500.00	6,440.36	6,417.03	6,201.11	30.34	34.19	-10.39	-1,683.46	-132.53	880.71	820.57	60.14	14.644		
6,600.00	6,538.90	6,515.82	6,296.15	30.80	34.73	-49.10	-1,710.32	-134.77	894.22	833.13	61.09	14.639		
6,700.00	6,634.88	6,612.42	6,389.09	31.25	35.26	-65.68	-1,736.59	-136.95	907.86	845.82	62.04	14.635		
6,800.00	6,725.92	6,704.46	6,477.63	31.68	35.77	-73.43	-1,761.62	-139.03	922.35	859.36	62.99	14.644		
6,900.00	6,809.79	6,789.68	6,559.62	32.07	36.24	-78.21	-1,784.79	-140.96	938.96	875.00	63.96	14.682		
7,000.00	6,884.42	6,865.96	6,633.01	32.43	36.66	-81.42	-1,805.53	-142.68	959.27	894.30	64.97	14.764		
7,100.00	6,947.98	6,963.17	6,726.22	32.77	37.19	-84.64	-1,831.92	-149.65	984.09	917.75	66.35	14.832		
7,200.00	6,998.89	7,094.28	6,848.25	33.18	37.86	-88.29	-1,866.63	-181.79	1,011.44	943.54	67.89	14.898		
7,300.00	7,035.91	7,271.44	6,998.01	33.76	38.63	-92.57	-1,909.56	-264.94	1,038.87	969.90	68.96	15.064		
7,400.00	7,058.12	7,526.85	7,162.42	34.61	39.49	-97.32	-1,957.41	-452.15	1,061.51	992.58	68.93	15.400		
7,500.00	7,064.98	7,871.90	7,249.01	35.68	40.71	-99.89	-1,984.34	-780.71	1,070.94	1,000.91	70.03	15.294		
7,600.00	7,064.59	7,972.99	7,248.41	36.95	41.40	-99.89	-1,984.93	-881.79	1,070.68	998.18	72.50	14.768		
7,700.00	7,064.20	8,072.99	7,247.81	38.40	42.36	-99.88	-1,985.51	-981.79	1,070.42	995.12	75.30	14.216		
7,800.00	7,063.80	8,172.99	7,247.21	40.00	43.60	-99.87	-1,986.10	-1,081.78	1,070.16	991.76	78.40	13.650		
7,900.00	7,063.41	8,272.99	7,246.62	41.75	45.05	-99.86	-1,986.68	-1,181.78	1,069.90	988.12	81.78	13.083		
8,000.00	7,063.02	8,372.99	7,246.02	43.62	46.67	-99.85	-1,987.26	-1,281.77	1,069.64	984.25	85.39	12.526		
8,100.00	7,062.62	8,472.99	7,245.43	45.59	48.44	-99.84	-1,987.85	-1,381.77	1,069.38	980.16	89.22	11.986		
8,200.00	7,062.23	8,572.99	7,244.83	47.65	50.32	-99.83	-1,988.43	-1,481.77	1,069.12	975.89	93.24	11.467		
8,300.00	7,061.84	8,672.99	7,244.23	49.79	52.30	-99.83	-1,989.02	-1,581.76	1,068.86	971.45	97.41	10.973		
8,400.00	7,061.45	8,772.99	7,243.64	52.00	54.37	-99.82	-1,989.60	-1,681.76	1,068.60	966.87	101.73	10.504		
8,500.00	7,061.05	8,872.99	7,243.04	54.27	56.51	-99.81	-1,990.18	-1,781.75	1,068.34	962.17	106.17	10.062		
8,600.00	7,060.66	8,972.99	7,242.45	56.60	58.72	-99.80	-1,990.77	-1,881.75	1,068.09	957.36	110.72	9.646		
8,700.00	7,060.27	9,072.99	7,241.85	58.97	60.98	-99.79	-1,991.35	-1,981.75	1,067.83	952.45	115.37	9.255		
8,800.00	7,059.87	9,172.99	7,241.26	61.38	63.29	-99.78	-1,991.93	-2,081.74	1,067.57	947.46	120.11	8.888		
8,900.00	7,059.48	9,272.99	7,240.66	63.83	65.65	-99.77	-1,992.52	-2,181.74	1,067.31	942.39	124.92	8.544		
9,000.00	7,059.09	9,372.99	7,240.06	66.32	68.05	-99.77	-1,993.10	-2,281.73	1,067.05	937.25	129.80	8.221		
9,100.00	7,058.69	9,472.98	7,239.47	68.83	70.48	-99.76	-1,993.69	-2,381.73	1,066.79	932.05	134.74	7.917		
9,200.00	7,058.30	9,572.98	7,238.87	71.37	72.95	-99.75	-1,994.27	-2,481.73	1,066.53	926.79	139.74	7.632		
9,300.00	7,057.91	9,672.98	7,238.28	73.93	75.44	-99.74	-1,994.85	-2,581.72	1,066.27	921.49	144.78	7.365		
9,400.00	7,057.51	9,772.98	7,237.68	76.51	77.96	-99.73	-1,995.44	-2,681.72	1,066.01	916.15	149.87	7.113		
9,500.00	7,057.12	9,872.98	7,237.08	79.11	80.50	-99.72	-1,996.02	-2,781.71	1,065.75	910.76	154.99	6.876		
9,600.00	7,056.73	9,972.98	7,236.49	81.73	83.06	-99.71	-1,996.61	-2,881.71	1,065.50	905.34	160.15	6.653		
9,700.00	7,056.33	10,072.98	7,235.89	84.37	85.64	-99.70	-1,997.19	-2,981.71	1,065.24	899.89	165.35	6.442		
9,800.00	7,055.94	10,172.98	7,235.30	87.01	88.24	-99.70	-1,997.77	-3,081.70	1,064.98	894.41	170.57	6.244		
9,900.00	7,055.55	10,272.98	7,234.70	89.68	90.85	-99.69	-1,998.36	-3,181.70	1,064.72	888.90	175.82	6.056		
10,000.00	7,055.15	10,372.98	7,234.10	92.35	93.48	-99.68	-1,998.94	-3,281.70	1,064.46	883.37	181.09	5.878		
10,100.00	7,054.76	10,472.98	7,233.51	95.03	96.13	-99.67	-1,999.52	-3,381.69	1,064.20	877.81	186.39	5.710		
10,200.00	7,054.37	10,572.98	7,232.91	97.73	98.78	-99.66	-2,000.11	-3,481.69	1,063.94	872.24	191.71	5.550		
10,300.00	7,053.98	10,672.98	7,232.32	100.43	101.45	-99.65	-2,000.69	-3,581.68	1,063.68	866.64	197.04	5.398		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	10,772.98	7,231.72	103.14	104.12	-99.64	-2,001.28	-3,681.68	1,063.43	861.03	202.40	5.254		
10,500.00	7,053.19	10,872.98	7,231.13	105.86	106.81	-99.64	-2,001.86	-3,781.68	1,063.17	855.40	207.77	5.117		
10,600.00	7,052.80	10,972.98	7,230.53	108.59	109.50	-99.63	-2,002.44	-3,881.67	1,062.91	849.76	213.15	4.987		
10,700.00	7,052.40	11,072.98	7,229.93	111.32	112.20	-99.62	-2,003.03	-3,981.67	1,062.65	844.10	218.55	4.862		
10,800.00	7,052.01	11,172.98	7,229.34	114.06	114.91	-99.61	-2,003.61	-4,081.66	1,062.39	838.43	223.96	4.744		
10,900.00	7,051.62	11,272.98	7,228.74	116.80	117.63	-99.60	-2,004.19	-4,181.66	1,062.13	832.75	229.38	4.630		
11,000.00	7,051.22	11,372.98	7,228.15	119.55	120.35	-99.59	-2,004.78	-4,281.66	1,061.87	827.06	234.82	4.522		
11,100.00	7,050.83	11,472.98	7,227.55	122.31	123.08	-99.58	-2,005.36	-4,381.65	1,061.62	821.35	240.26	4.419		
11,200.00	7,050.44	11,572.98	7,226.95	125.07	125.82	-99.57	-2,005.95	-4,481.65	1,061.36	815.64	245.72	4.319		
11,300.00	7,050.04	11,672.97	7,226.36	127.83	128.56	-99.57	-2,006.53	-4,581.64	1,061.10	809.92	251.18	4.224		
11,400.00	7,049.65	11,772.97	7,225.76	130.60	131.31	-99.56	-2,007.11	-4,681.64	1,060.84	804.19	256.65	4.133		
11,500.00	7,049.26	11,872.97	7,225.17	133.37	134.06	-99.55	-2,007.70	-4,781.64	1,060.58	798.45	262.13	4.046		
11,600.00	7,048.86	11,972.97	7,224.57	136.15	136.81	-99.54	-2,008.28	-4,881.63	1,060.32	792.70	267.62	3.962		
11,700.00	7,048.47	12,072.97	7,223.98	138.93	139.57	-99.53	-2,008.86	-4,981.63	1,060.06	786.95	273.12	3.881		
11,800.00	7,048.08	12,172.97	7,223.38	141.71	142.34	-99.52	-2,009.45	-5,081.62	1,059.81	781.19	278.62	3.804		
11,900.00	7,047.68	12,272.97	7,222.78	144.49	145.10	-99.51	-2,010.03	-5,181.62	1,059.55	775.42	284.13	3.729		
12,000.00	7,047.29	12,372.97	7,222.19	147.28	147.87	-99.50	-2,010.62	-5,281.62	1,059.29	769.65	289.64	3.657		
12,100.00	7,046.90	12,472.97	7,221.59	150.07	150.65	-99.50	-2,011.20	-5,381.61	1,059.03	763.87	295.16	3.588		
12,200.00	7,046.51	12,572.97	7,221.00	152.87	153.43	-99.49	-2,011.78	-5,481.61	1,058.77	758.09	300.68	3.521		
12,300.00	7,046.11	12,672.97	7,220.40	155.66	156.21	-99.48	-2,012.37	-5,581.60	1,058.51	752.30	306.22	3.457		
12,400.00	7,045.72	12,772.97	7,219.80	158.46	158.99	-99.47	-2,012.95	-5,681.60	1,058.26	746.51	311.75	3.395		
12,500.00	7,045.33	12,872.97	7,219.21	161.26	161.77	-99.46	-2,013.53	-5,781.60	1,058.00	740.71	317.29	3.334		
12,600.00	7,044.93	12,972.97	7,218.61	164.06	164.56	-99.45	-2,014.12	-5,881.59	1,057.74	734.91	322.83	3.276		
12,700.00	7,044.54	13,072.97	7,218.02	166.86	167.35	-99.44	-2,014.70	-5,981.59	1,057.48	729.10	328.38	3.220		
12,800.00	7,044.15	13,172.97	7,217.42	169.67	170.14	-99.43	-2,015.29	-6,081.58	1,057.22	723.29	333.93	3.166		
12,900.00	7,043.75	13,272.97	7,216.82	172.48	172.94	-99.42	-2,015.87	-6,181.58	1,056.97	717.48	339.49	3.113		
13,000.00	7,043.36	13,372.97	7,216.23	175.28	175.74	-99.42	-2,016.45	-6,281.58	1,056.71	711.66	345.05	3.062		
13,100.00	7,042.97	13,472.97	7,215.63	178.09	178.54	-99.41	-2,017.04	-6,381.57	1,056.45	705.84	350.61	3.013		
13,200.00	7,042.57	13,572.97	7,215.04	180.91	181.34	-99.40	-2,017.62	-6,481.57	1,056.19	700.01	356.18	2.965		
13,300.00	7,042.18	13,672.97	7,214.44	183.72	184.14	-99.39	-2,018.20	-6,581.57	1,055.93	694.19	361.75	2.919		
13,400.00	7,041.79	13,772.96	7,213.85	186.53	186.94	-99.38	-2,018.79	-6,681.56	1,055.68	688.36	367.32	2.874		
13,500.00	7,041.39	13,872.96	7,213.25	189.35	189.75	-99.37	-2,019.37	-6,781.56	1,055.42	682.52	372.90	2.830		
13,600.00	7,041.00	13,972.96	7,212.65	192.17	192.56	-99.36	-2,019.96	-6,881.55	1,055.16	676.69	378.47	2.788		
13,700.00	7,040.61	14,072.96	7,212.06	194.99	195.37	-99.35	-2,020.54	-6,981.55	1,054.90	670.85	384.06	2.747		
13,800.00	7,040.21	14,172.96	7,211.46	197.81	198.18	-99.35	-2,021.12	-7,081.55	1,054.64	665.01	389.64	2.707		
13,900.00	7,039.82	14,272.96	7,210.87	200.63	200.99	-99.34	-2,021.71	-7,181.54	1,054.39	659.16	395.22	2.668		
14,000.00	7,039.43	14,372.96	7,210.27	203.45	203.80	-99.33	-2,022.29	-7,281.54	1,054.13	653.32	400.81	2.630		
14,100.00	7,039.03	14,472.96	7,209.67	206.27	206.62	-99.32	-2,022.88	-7,381.53	1,053.87	647.47	406.40	2.593		
14,200.00	7,038.64	14,572.96	7,209.08	209.09	209.43	-99.31	-2,023.46	-7,481.53	1,053.61	641.62	412.00	2.557		
14,300.00	7,038.25	14,672.96	7,208.48	211.92	212.25	-99.30	-2,024.04	-7,581.53	1,053.36	635.76	417.59	2.522		
14,400.00	7,037.86	14,772.96	7,207.89	214.74	215.07	-99.29	-2,024.63	-7,681.52	1,053.10	629.91	423.19	2.488		
14,500.00	7,037.46	14,872.96	7,207.29	217.57	217.88	-99.28	-2,025.21	-7,781.52	1,052.84	624.05	428.79	2.455		
14,600.00	7,037.07	14,972.96	7,206.70	220.40	220.70	-99.27	-2,025.79	-7,881.51	1,052.58	618.19	434.39	2.423		
14,700.00	7,036.68	15,072.96	7,206.10	223.23	223.53	-99.27	-2,026.38	-7,981.51	1,052.33	612.33	439.99	2.392		
14,800.00	7,036.28	15,172.96	7,205.50	226.05	226.35	-99.26	-2,026.96	-8,081.51	1,052.07	606.47	445.60	2.361		
14,871.88	7,036.00	15,244.84	7,205.08	228.09	228.38	-99.25	-2,027.38	-8,153.38	1,051.88	602.26	449.62	2.339 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	-179.57	-220.04	-1.67	220.05					
100.00	100.00	101.00	100.00	3.28	3.28	-179.57	-220.04	-1.67	220.05	213.48	6.57	33.495		
200.00	200.00	199.00	200.00	3.34	3.34	-179.57	-220.04	-1.67	220.05	213.37	6.67	32.974	CC, ES	
300.00	300.00	291.91	292.90	3.44	3.43	-179.55	-221.51	-1.74	221.63	214.75	6.88	32.194		
400.00	399.98	384.64	385.52	3.60	3.57	-9.41	-225.98	-1.94	224.73	217.54	7.19	31.248		
500.00	499.84	477.29	477.86	3.79	3.74	-9.53	-233.44	-2.29	227.63	220.04	7.58	30.011		
600.00	599.45	569.86	569.83	4.02	3.96	-9.75	-243.86	-2.77	230.31	222.25	8.06	28.581		
700.00	698.70	662.35	661.35	4.29	4.20	-10.06	-257.23	-3.39	232.78	224.18	8.60	27.073		
800.00	797.70	754.72	752.26	4.59	4.49	-10.42	-273.52	-4.14	236.55	227.35	9.19	25.731		
900.00	896.69	846.77	842.29	4.92	4.80	-10.71	-292.66	-5.03	243.52	233.69	9.83	24.781		
1,000.00	995.68	938.32	931.18	5.27	5.15	-10.95	-314.56	-6.04	253.69	243.19	10.50	24.171		
1,100.00	1,094.68	1,029.19	1,018.66	5.64	5.52	-11.12	-339.08	-7.17	267.01	255.83	11.19	23.872		
1,200.00	1,193.67	1,119.21	1,104.52	6.03	5.92	-11.23	-366.09	-8.42	283.45	271.56	11.89	23.842		
1,300.00	1,292.67	1,208.21	1,188.53	6.42	6.33	-11.29	-395.44	-9.78	302.96	290.36	12.60	24.045		
1,400.00	1,391.66	1,296.04	1,270.49	6.83	6.77	-11.31	-426.94	-11.24	325.48	312.16	13.31	24.448		
1,500.00	1,490.66	1,382.56	1,350.26	7.25	7.23	-11.29	-460.41	-12.79	350.94	336.91	14.03	25.021		
1,600.00	1,589.65	1,467.65	1,427.69	7.67	7.71	-11.24	-495.66	-14.42	379.28	364.55	14.73	25.744		
1,700.00	1,688.64	1,551.20	1,502.65	8.10	8.20	-11.17	-532.49	-16.12	410.42	394.99	15.43	26.596		
1,800.00	1,787.64	1,633.10	1,575.07	8.53	8.70	-11.09	-570.70	-17.89	444.29	428.17	16.12	27.562		
1,900.00	1,886.63	1,713.29	1,644.88	8.97	9.22	-11.00	-610.10	-19.71	480.80	464.01	16.79	28.629		
2,000.00	1,985.63	1,791.68	1,712.04	9.41	9.74	-10.91	-650.49	-21.58	519.87	502.41	17.45	29.784		
2,100.00	2,084.62	1,875.69	1,782.96	9.85	10.32	-10.80	-695.49	-23.66	561.10	542.90	18.20	30.828		
2,200.00	2,183.61	1,966.65	1,859.58	10.30	10.97	-10.70	-744.45	-25.92	602.64	583.58	19.06	31.623		
2,300.00	2,282.61	2,057.61	1,936.21	10.75	11.62	-10.62	-793.40	-28.19	644.18	624.26	19.93	32.328		
2,400.00	2,381.60	2,148.57	2,012.84	11.20	12.28	-10.54	-842.36	-30.45	685.72	664.92	20.81	32.954		
2,500.00	2,480.60	2,239.53	2,089.47	11.66	12.95	-10.47	-891.31	-32.72	727.27	705.57	21.70	33.514		
2,600.00	2,579.59	2,330.49	2,166.10	12.11	13.62	-10.41	-940.27	-34.98	768.81	746.21	22.60	34.015		
2,700.00	2,678.58	2,421.45	2,242.72	12.57	14.30	-10.36	-989.22	-37.24	810.36	786.84	23.51	34.466		
2,800.00	2,777.58	2,512.41	2,319.35	13.02	14.99	-10.31	-1,038.18	-39.51	851.90	827.47	24.43	34.873		
2,900.00	2,876.57	2,603.37	2,395.98	13.48	15.67	-10.26	-1,087.14	-41.77	893.45	868.09	25.35	35.242		
3,000.00	2,975.57	2,705.68	2,472.61	13.94	16.45	-10.22	-1,136.09	-44.04	934.99	908.64	26.35	35.485		
3,100.00	3,074.56	2,785.28	2,549.23	14.40	17.06	-10.19	-1,185.05	-46.30	976.54	949.32	27.22	35.882		
3,200.00	3,173.55	2,876.24	2,625.86	14.87	17.75	-10.15	-1,234.00	-48.56	1,018.08	989.93	28.15	36.161		
3,300.00	3,272.55	2,967.20	2,702.49	15.33	18.45	-10.12	-1,282.96	-50.83	1,059.63	1,030.53	29.10	36.417		
3,400.00	3,371.54	3,058.16	2,779.12	15.79	19.15	-10.09	-1,331.91	-53.09	1,101.18	1,071.13	30.04	36.652		
3,500.00	3,470.54	3,149.12	2,855.75	16.26	19.85	-10.07	-1,380.87	-55.36	1,142.72	1,111.73	30.99	36.869		
3,600.00	3,569.53	3,240.08	2,932.37	16.72	20.56	-10.04	-1,429.82	-57.62	1,184.27	1,152.32	31.95	37.070		
3,700.00	3,668.53	3,331.04	3,009.00	17.19	21.26	-10.02	-1,478.78	-59.89	1,225.82	1,192.92	32.90	37.255		
3,800.00	3,767.52	3,422.00	3,085.63	17.65	21.97	-10.00	-1,527.74	-62.15	1,267.37	1,233.50	33.86	37.427		
3,900.00	3,866.51	3,512.96	3,162.26	18.12	22.68	-9.97	-1,576.69	-64.41	1,308.91	1,274.09	34.82	37.587		
4,000.00	3,965.51	3,603.92	3,238.89	18.59	23.38	-9.96	-1,625.65	-66.68	1,350.46	1,314.68	35.79	37.737		
4,100.00	4,064.50	3,705.12	3,315.51	19.05	24.17	-9.94	-1,674.60	-68.94	1,392.01	1,355.19	36.82	37.810		
4,200.00	4,163.50	3,785.84	3,392.14	19.52	24.81	-9.92	-1,723.56	-71.21	1,433.56	1,395.84	37.72	38.006		
4,300.00	4,262.49	3,876.80	3,468.77	19.99	25.52	-9.91	-1,772.51	-73.47	1,475.11	1,436.42	38.69	38.128		
4,400.00	4,361.48	3,967.76	3,545.40	20.46	26.23	-9.89	-1,821.47	-75.74	1,516.65	1,477.00	39.66	38.242		
4,500.00	4,460.48	4,058.72	3,622.03	20.92	26.94	-9.88	-1,870.42	-78.00	1,558.20	1,517.57	40.63	38.350		
4,600.00	4,559.47	4,149.68	3,698.65	21.39	27.66	-9.86	-1,919.38	-80.26	1,599.75	1,558.15	41.61	38.451		
4,700.00	4,658.47	4,240.63	3,775.28	21.86	28.37	-9.85	-1,968.34	-82.53	1,641.30	1,598.72	42.58	38.546		
4,800.00	4,757.46	4,331.59	3,851.91	22.33	29.08	-9.84	-2,017.29	-84.79	1,682.85	1,639.29	43.56	38.636		
4,900.00	4,856.45	4,422.55	3,928.54	22.80	29.80	-9.83	-2,066.25	-87.06	1,724.40	1,679.86	44.53	38.721		
5,000.00	4,955.45	4,513.51	4,005.16	23.27	30.52	-9.81	-2,115.20	-89.32	1,765.95	1,720.43	45.51	38.801		
5,100.00	5,054.44	4,604.47	4,081.79	23.74	31.23	-9.80	-2,164.16	-91.59	1,807.49	1,761.00	46.49	38.877		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	4,695.43	4,158.42	24.21	31.95	-9.79	-2,213.11	-93.85	1,849.04	1,801.57	47.47	38.950		
5,300.00	5,252.43	4,786.39	4,235.05	24.68	32.67	-9.78	-2,262.07	-96.11	1,890.59	1,842.14	48.45	39.018		
5,400.00	5,351.42	4,877.35	4,311.68	25.15	33.38	-9.77	-2,311.03	-98.38	1,932.14	1,882.70	49.44	39.083		
5,500.00	5,450.42	4,968.31	4,388.30	25.62	34.10	-9.77	-2,359.98	-100.64	1,973.69	1,923.27	50.42	39.145		
5,600.00	5,549.41	5,059.27	4,464.93	26.09	34.82	-9.76	-2,408.94	-102.91	2,015.24	1,963.83	51.40	39.204		
5,700.00	5,648.41	5,150.23	4,541.56	26.56	35.54	-9.75	-2,457.89	-105.17	2,056.79	2,004.40	52.39	39.260		
5,800.00	5,747.40	5,241.19	4,618.19	27.03	36.26	-9.74	-2,506.85	-107.43	2,098.34	2,044.96	53.37	39.313		
5,900.00	5,846.40	5,332.15	4,694.82	27.51	36.97	-9.73	-2,555.80	-109.70	2,139.89	2,085.52	54.36	39.364		
6,000.00	5,945.39	5,423.11	4,771.44	27.98	37.69	-9.73	-2,604.76	-111.96	2,181.43	2,126.09	55.35	39.413		
6,100.00	6,044.38	5,514.07	4,848.07	28.45	38.41	-9.72	-2,653.71	-114.23	2,222.98	2,166.65	56.34	39.459		
6,200.00	6,143.38	5,605.03	4,924.70	28.92	39.13	-9.71	-2,702.67	-116.49	2,264.53	2,207.21	57.32	39.504		
6,300.00	6,242.37	5,704.02	5,001.33	29.39	39.92	-9.71	-2,751.63	-118.76	2,306.08	2,247.72	58.36	39.512		
6,400.00	6,341.37	5,878.35	5,156.11	29.86	41.27	-9.70	-2,847.93	-123.21	2,347.24	2,286.85	60.39	38.869		
6,500.00	6,440.36	6,500.00	5,592.35	30.34	45.43	-9.74	-3,055.60	-132.81	2,376.15	2,310.65	65.50	36.277		
6,600.00	6,538.90	7,006.07	6,214.94	30.80	47.82	-49.52	-3,213.99	-140.14	2,386.23	2,319.22	67.01	35.610		
6,700.00	6,634.88	7,428.28	6,635.93	31.25	49.17	-69.05	-3,240.57	-142.15	2,377.24	2,310.64	66.60	35.695		
6,800.00	6,725.92	7,529.21	6,735.91	31.68	49.42	-77.80	-3,240.64	-155.10	2,364.74	2,297.47	67.26	35.156		
6,900.00	6,809.79	7,635.13	6,837.25	32.07	49.67	-83.15	-3,240.83	-185.49	2,353.52	2,285.66	67.85	34.686		
7,000.00	6,884.42	7,746.66	6,936.96	32.43	49.92	-86.87	-3,241.13	-235.14	2,343.82	2,275.43	68.39	34.272		
7,100.00	6,947.98	7,864.26	7,031.01	32.77	50.15	-89.63	-3,241.57	-305.46	2,335.82	2,266.87	68.95	33.878		
7,200.00	6,998.89	7,988.05	7,114.28	33.18	50.34	-91.67	-3,242.12	-396.80	2,329.61	2,259.95	69.66	33.441		
7,300.00	7,035.91	8,117.65	7,180.81	33.76	50.49	-93.12	-3,242.80	-507.76	2,325.23	2,254.51	70.72	32.880		
7,400.00	7,058.12	8,252.01	7,224.63	34.61	50.58	-94.01	-3,243.58	-634.51	2,322.64	2,250.34	72.29	32.128		
7,500.00	7,064.98	8,389.40	7,240.97	35.68	50.64	-94.35	-3,244.41	-770.65	2,321.80	2,247.31	74.49	31.169		
7,600.00	7,064.59	8,507.86	7,240.63	36.95	50.69	-94.35	-3,245.04	-873.39	2,321.61	2,244.51	77.10	30.111		
7,700.00	7,064.20	8,607.86	7,240.22	38.40	50.76	-94.35	-3,245.66	-973.39	2,321.41	2,241.55	79.86	29.068		
7,800.00	7,063.80	8,707.86	7,239.82	40.00	50.86	-94.35	-3,246.27	-1,073.38	2,321.21	2,238.28	82.92	27.993		
7,900.00	7,063.41	8,807.86	7,239.41	41.75	51.03	-94.35	-3,246.88	-1,173.38	2,321.01	2,234.76	86.25	26.910		
8,000.00	7,063.02	8,907.86	7,239.01	43.62	51.36	-94.35	-3,247.49	-1,273.38	2,320.81	2,230.99	89.82	25.838		
8,100.00	7,062.62	9,007.86	7,238.60	45.59	52.02	-94.35	-3,248.11	-1,373.37	2,320.61	2,227.01	93.60	24.793		
8,200.00	7,062.23	9,107.86	7,238.19	47.65	53.21	-94.35	-3,248.72	-1,473.37	2,320.41	2,222.84	97.56	23.783		
8,300.00	7,061.84	9,192.14	7,237.79	49.79	54.55	-94.35	-3,249.33	-1,573.37	2,320.21	2,218.83	101.38	22.887		
8,400.00	7,061.45	9,307.86	7,237.38	52.00	56.69	-94.35	-3,249.94	-1,673.37	2,320.01	2,214.04	105.97	21.893		
8,500.00	7,061.05	9,407.86	7,236.98	54.27	58.69	-94.35	-3,250.56	-1,773.36	2,319.81	2,209.43	110.38	21.017		
8,600.00	7,060.66	9,507.86	7,236.57	56.60	60.79	-94.35	-3,251.17	-1,873.36	2,319.61	2,204.72	114.89	20.189		
8,700.00	7,060.27	9,607.86	7,236.16	58.97	62.97	-94.35	-3,251.78	-1,973.36	2,319.41	2,199.90	119.51	19.407		
8,800.00	7,059.87	9,707.86	7,235.76	61.38	65.21	-94.35	-3,252.39	-2,073.35	2,319.21	2,194.99	124.22	18.670		
8,900.00	7,059.48	9,807.86	7,235.35	63.83	67.50	-94.35	-3,253.01	-2,173.35	2,319.01	2,190.00	129.01	17.975		
9,000.00	7,059.09	9,907.86	7,234.95	66.32	69.84	-94.35	-3,253.62	-2,273.35	2,318.81	2,184.94	133.87	17.321		
9,100.00	7,058.69	10,007.86	7,234.54	68.83	72.22	-94.35	-3,254.23	-2,373.34	2,318.61	2,179.81	138.80	16.705		
9,200.00	7,058.30	10,107.86	7,234.14	71.37	74.64	-94.35	-3,254.84	-2,473.34	2,318.41	2,174.63	143.78	16.125		
9,300.00	7,057.91	10,207.86	7,233.73	73.93	77.08	-94.35	-3,255.46	-2,573.34	2,318.21	2,169.40	148.81	15.578		
9,400.00	7,057.51	10,307.86	7,233.32	76.51	79.56	-94.35	-3,256.07	-2,673.34	2,318.01	2,164.12	153.89	15.062		
9,500.00	7,057.12	10,407.86	7,232.92	79.11	82.06	-94.35	-3,256.68	-2,773.33	2,317.81	2,158.80	159.02	14.576		
9,600.00	7,056.73	10,507.86	7,232.51	81.73	84.58	-94.35	-3,257.29	-2,873.33	2,317.61	2,153.44	164.18	14.117		
9,700.00	7,056.33	10,607.86	7,232.11	84.37	87.13	-94.35	-3,257.91	-2,973.33	2,317.41	2,148.04	169.37	13.682		
9,800.00	7,055.94	10,707.86	7,231.70	87.01	89.69	-94.35	-3,258.52	-3,073.32	2,317.21	2,142.61	174.60	13.272		
9,900.00	7,055.55	10,807.86	7,231.30	89.68	92.27	-94.35	-3,259.13	-3,173.32	2,317.01	2,137.16	179.86	12.883		
10,000.00	7,055.15	10,907.86	7,230.89	92.35	94.87	-94.35	-3,259.74	-3,273.32	2,316.81	2,131.68	185.14	12.514		
10,100.00	7,054.76	11,007.86	7,230.48	95.03	97.49	-94.35	-3,260.36	-3,373.32	2,316.62	2,126.17	190.44	12.164		
10,200.00	7,054.37	11,107.86	7,230.08	97.73	100.11	-94.35	-3,260.97	-3,473.31	2,316.42	2,120.64	195.77	11.832		
10,300.00	7,053.98	11,207.86	7,229.67	100.43	102.75	-94.35	-3,261.58	-3,573.31	2,316.22	2,115.09	201.12	11.516		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	11,307.86	7,229.27	103.14	105.40	-94.35	-3,262.19	-3,673.31	2,316.02	2,109.53	206.49	11.216		
10,500.00	7,053.19	11,407.86	7,228.86	105.86	108.06	-94.35	-3,262.81	-3,773.30	2,315.82	2,103.94	211.88	10.930		
10,600.00	7,052.80	11,507.86	7,228.46	108.59	110.73	-94.35	-3,263.42	-3,873.30	2,315.62	2,098.34	217.28	10.657		
10,700.00	7,052.40	11,607.86	7,228.05	111.32	113.41	-94.35	-3,264.03	-3,973.30	2,315.42	2,092.72	222.70	10.397		
10,800.00	7,052.01	11,707.86	7,227.64	114.06	116.10	-94.35	-3,264.64	-4,073.30	2,315.22	2,087.09	228.13	10.149		
10,900.00	7,051.62	11,807.86	7,227.24	116.80	118.80	-94.35	-3,265.26	-4,173.29	2,315.02	2,081.45	233.57	9.911		
11,000.00	7,051.22	11,907.86	7,226.83	119.55	121.50	-94.35	-3,265.87	-4,273.29	2,314.82	2,075.79	239.03	9.684		
11,100.00	7,050.83	12,007.86	7,226.43	122.31	124.22	-94.35	-3,266.48	-4,373.29	2,314.62	2,070.12	244.49	9.467		
11,200.00	7,050.44	12,107.86	7,226.02	125.07	126.93	-94.35	-3,267.09	-4,473.28	2,314.42	2,064.45	249.97	9.259		
11,300.00	7,050.04	12,207.86	7,225.62	127.83	129.66	-94.35	-3,267.71	-4,573.28	2,314.22	2,058.76	255.46	9.059		
11,400.00	7,049.65	12,307.86	7,225.21	130.60	132.39	-94.35	-3,268.32	-4,673.28	2,314.02	2,053.06	260.96	8.867		
11,500.00	7,049.26	12,407.86	7,224.80	133.37	135.12	-94.35	-3,268.93	-4,773.28	2,313.82	2,047.36	266.46	8.683		
11,600.00	7,048.86	12,507.86	7,224.40	136.15	137.86	-94.35	-3,269.54	-4,873.27	2,313.62	2,041.64	271.98	8.507		
11,700.00	7,048.47	12,607.86	7,223.99	138.93	140.61	-94.35	-3,270.16	-4,973.27	2,313.42	2,035.92	277.50	8.337		
11,800.00	7,048.08	12,707.87	7,223.59	141.71	143.36	-94.35	-3,270.77	-5,073.27	2,313.22	2,030.19	283.03	8.173		
11,900.00	7,047.68	12,807.87	7,223.18	144.49	146.11	-94.35	-3,271.38	-5,173.26	2,313.02	2,024.46	288.56	8.016		
12,000.00	7,047.29	12,907.87	7,222.78	147.28	148.87	-94.35	-3,271.99	-5,273.26	2,312.82	2,018.72	294.10	7.864		
12,100.00	7,046.90	13,007.87	7,222.37	150.07	151.63	-94.35	-3,272.61	-5,373.26	2,312.62	2,012.97	299.65	7.718		
12,200.00	7,046.51	13,107.87	7,221.96	152.87	154.39	-94.35	-3,273.22	-5,473.26	2,312.42	2,007.22	305.21	7.577		
12,300.00	7,046.11	13,207.87	7,221.56	155.66	157.16	-94.35	-3,273.83	-5,573.25	2,312.22	2,001.46	310.76	7.440		
12,400.00	7,045.72	13,307.87	7,221.15	158.46	159.93	-94.35	-3,274.44	-5,673.25	2,312.02	1,995.69	316.33	7.309		
12,500.00	7,045.33	13,407.87	7,220.75	161.26	162.71	-94.35	-3,275.05	-5,773.25	2,311.82	1,989.93	321.90	7.182		
12,600.00	7,044.93	13,507.87	7,220.34	164.06	165.49	-94.35	-3,275.67	-5,873.24	2,311.62	1,984.15	327.47	7.059		
12,700.00	7,044.54	13,607.87	7,219.94	166.86	168.27	-94.35	-3,276.28	-5,973.24	2,311.42	1,978.38	333.05	6.940		
12,800.00	7,044.15	13,707.87	7,219.53	169.67	171.05	-94.35	-3,276.89	-6,073.24	2,311.22	1,972.59	338.63	6.825		
12,900.00	7,043.75	13,807.87	7,219.12	172.48	173.83	-94.35	-3,277.50	-6,173.23	2,311.03	1,966.81	344.22	6.714		
13,000.00	7,043.36	13,907.87	7,218.72	175.28	176.62	-94.35	-3,278.12	-6,273.23	2,310.83	1,961.02	349.81	6.606		
13,100.00	7,042.97	14,007.87	7,218.31	178.09	179.41	-94.35	-3,278.73	-6,373.23	2,310.63	1,955.22	355.40	6.501		
13,200.00	7,042.57	14,107.87	7,217.91	180.91	182.20	-94.35	-3,279.34	-6,473.23	2,310.43	1,949.43	361.00	6.400		
13,300.00	7,042.18	14,192.13	7,217.50	183.72	184.56	-94.35	-3,279.95	-6,573.22	2,310.23	1,944.07	366.16	6.309		
13,400.00	7,041.79	14,307.87	7,217.10	186.53	187.79	-94.35	-3,280.57	-6,673.22	2,310.03	1,937.82	372.20	6.206		
13,500.00	7,041.39	14,407.87	7,216.69	189.35	190.59	-94.35	-3,281.18	-6,773.22	2,309.83	1,932.02	377.81	6.114		
13,600.00	7,041.00	14,507.87	7,216.28	192.17	193.39	-94.35	-3,281.79	-6,873.21	2,309.63	1,926.21	383.42	6.024		
13,700.00	7,040.61	14,607.87	7,215.88	194.99	196.19	-94.35	-3,282.40	-6,973.21	2,309.43	1,920.40	389.03	5.936		
13,800.00	7,040.21	14,707.87	7,215.47	197.81	198.99	-94.35	-3,283.02	-7,073.21	2,309.23	1,914.58	394.64	5.851		
13,900.00	7,039.82	14,807.87	7,215.07	200.63	201.80	-94.35	-3,283.63	-7,173.21	2,309.03	1,908.77	400.26	5.769		
14,000.00	7,039.43	14,907.87	7,214.66	203.45	204.60	-94.35	-3,284.24	-7,273.20	2,308.83	1,902.95	405.88	5.688		
14,100.00	7,039.03	15,007.87	7,214.25	206.27	207.41	-94.35	-3,284.85	-7,373.20	2,308.63	1,897.13	411.50	5.610		
14,200.00	7,038.64	15,092.13	7,213.85	209.09	209.78	-94.35	-3,285.47	-7,473.20	2,308.43	1,891.74	416.69	5.540		
14,300.00	7,038.25	15,207.87	7,213.44	211.92	213.03	-94.35	-3,286.08	-7,573.19	2,308.23	1,885.48	422.75	5.460		
14,400.00	7,037.86	15,307.87	7,213.04	214.74	215.84	-94.35	-3,286.69	-7,673.19	2,308.03	1,879.65	428.38	5.388		
14,500.00	7,037.46	15,407.87	7,212.63	217.57	218.65	-94.35	-3,287.30	-7,773.19	2,307.83	1,873.82	434.01	5.317		
14,600.00	7,037.07	15,507.87	7,212.23	220.40	221.47	-94.35	-3,287.92	-7,873.19	2,307.63	1,867.99	439.64	5.249		
14,700.00	7,036.68	15,607.87	7,211.82	223.23	224.28	-94.35	-3,288.53	-7,973.18	2,307.43	1,862.15	445.28	5.182		
14,800.00	7,036.28	15,692.13	7,211.41	226.05	226.66	-94.35	-3,289.14	-8,073.18	2,307.23	1,856.76	450.47	5.122		
14,871.88	7,036.00	15,764.01	7,211.12	228.09	228.68	-94.35	-3,289.58	-8,145.06	2,307.09	1,852.57	454.52	5.076 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	0.50	159.93	1.39	159.93					
100.00	100.00	101.00	100.00	3.28	3.28	0.50	159.93	1.39	159.93	153.36	6.57	24.344		
200.00	200.00	201.00	200.00	3.34	3.34	0.50	159.93	1.39	159.93	153.26	6.67	23.960		
300.00	300.00	301.00	300.00	3.44	3.45	0.50	159.93	1.39	159.93	153.04	6.89	23.208 CC, ES		
400.00	399.98	400.98	399.98	3.60	3.61	170.74	159.93	1.39	161.65	154.45	7.20	22.449		
500.00	499.84	500.84	499.84	3.79	3.81	171.02	159.93	1.39	166.82	159.23	7.60	21.964		
600.00	599.45	600.45	599.45	4.02	4.05	171.44	159.93	1.39	175.44	167.37	8.07	21.744		
700.00	698.70	703.12	695.86	4.29	4.32	171.51	160.78	0.02	188.33	179.72	8.62	21.859		
800.00	797.70	804.33	794.61	4.59	4.62	171.38	162.33	-2.46	203.81	194.61	9.21	22.137		
900.00	896.69	905.54	893.36	4.92	4.94	171.26	163.89	-4.95	219.30	209.46	9.84	22.288		
1,000.00	995.68	1,006.74	992.11	5.27	5.28	171.17	165.44	-7.43	234.79	224.28	10.51	22.339		
1,100.00	1,094.68	1,092.05	1,090.86	5.64	5.57	171.08	166.99	-9.92	250.28	239.13	11.16	22.434		
1,200.00	1,193.67	1,209.16	1,189.61	6.03	6.00	171.00	168.55	-12.41	265.78	253.83	11.94	22.256		
1,300.00	1,292.67	1,289.63	1,288.35	6.42	6.29	170.94	170.10	-14.89	281.27	268.65	12.61	22.298		
1,400.00	1,391.66	1,388.43	1,387.10	6.83	6.67	170.88	171.65	-17.38	296.76	283.39	13.37	22.194		
1,500.00	1,490.66	1,487.22	1,485.85	7.25	7.05	170.82	173.21	-19.86	312.25	298.11	14.14	22.077		
1,600.00	1,589.65	1,586.01	1,584.60	7.67	7.43	170.77	174.76	-22.35	327.74	312.82	14.93	21.954		
1,700.00	1,688.64	1,684.80	1,683.35	8.10	7.82	170.73	176.31	-24.84	343.24	327.51	15.72	21.829		
1,800.00	1,787.64	1,783.59	1,782.10	8.53	8.22	170.69	177.87	-27.32	358.73	342.20	16.53	21.703		
1,900.00	1,886.63	1,882.39	1,880.85	8.97	8.62	170.65	179.42	-29.81	374.22	356.88	17.34	21.579		
2,000.00	1,985.63	1,981.18	1,979.60	9.41	9.02	170.62	180.97	-32.29	389.72	371.56	18.16	21.459		
2,100.00	2,084.62	2,079.97	2,078.34	9.85	9.43	170.58	182.53	-34.78	405.21	386.22	18.99	21.342		
2,200.00	2,183.61	2,178.76	2,177.09	10.30	9.83	170.56	184.08	-37.26	420.70	400.89	19.82	21.229		
2,300.00	2,282.61	2,277.56	2,275.84	10.75	10.24	170.53	185.63	-39.75	436.20	415.54	20.65	21.120		
2,400.00	2,381.60	2,376.35	2,374.59	11.20	10.66	170.50	187.19	-42.24	451.69	430.20	21.49	21.016		
2,500.00	2,480.60	2,475.14	2,473.34	11.66	11.07	170.48	188.74	-44.72	467.19	444.85	22.34	20.917		
2,600.00	2,579.59	2,573.93	2,572.09	12.11	11.49	170.46	190.29	-47.21	482.68	459.50	23.18	20.822		
2,700.00	2,678.58	2,672.72	2,670.84	12.57	11.90	170.44	191.85	-49.69	498.17	474.14	24.03	20.731		
2,800.00	2,777.58	2,771.52	2,769.59	13.02	12.32	170.42	193.40	-52.18	513.67	488.78	24.88	20.644		
2,900.00	2,876.57	2,870.31	2,868.33	13.48	12.74	170.40	194.95	-54.66	529.16	503.43	25.74	20.561		
3,000.00	2,975.57	2,969.10	2,967.08	13.94	13.16	170.38	196.51	-57.15	544.66	518.06	26.59	20.482		
3,100.00	3,074.56	3,067.89	3,065.83	14.40	13.58	170.36	198.06	-59.64	560.15	532.70	27.45	20.406		
3,200.00	3,173.55	3,166.69	3,164.58	14.87	14.00	170.35	199.61	-62.12	575.64	547.33	28.31	20.333		
3,300.00	3,272.55	3,265.48	3,263.33	15.33	14.43	170.33	201.17	-64.61	591.14	561.97	29.17	20.264		
3,400.00	3,371.54	3,364.27	3,362.08	15.79	14.85	170.32	202.72	-67.09	606.63	576.60	30.03	20.198		
3,500.00	3,470.54	3,463.06	3,460.83	16.26	15.27	170.31	204.27	-69.58	622.13	591.23	30.90	20.135		
3,600.00	3,569.53	3,561.85	3,559.58	16.72	15.70	170.29	205.83	-72.06	637.62	605.86	31.76	20.074		
3,700.00	3,668.53	3,660.65	3,658.32	17.19	16.12	170.28	207.38	-74.55	653.12	620.49	32.63	20.016		
3,800.00	3,767.52	3,759.44	3,757.07	17.65	16.55	170.27	208.93	-77.04	668.61	635.11	33.50	19.960		
3,900.00	3,866.51	3,858.23	3,855.82	18.12	16.97	170.26	210.49	-79.52	684.10	649.74	34.37	19.907		
4,000.00	3,965.51	3,957.02	3,954.57	18.59	17.40	170.25	212.04	-82.01	699.60	664.36	35.23	19.855		
4,100.00	4,064.50	4,055.82	4,053.32	19.05	17.83	170.24	213.59	-84.49	715.09	678.99	36.10	19.806		
4,200.00	4,163.50	4,154.61	4,152.07	19.52	18.25	170.23	215.15	-86.98	730.59	693.61	36.98	19.759		
4,300.00	4,262.49	4,253.40	4,250.82	19.99	18.68	170.22	216.70	-89.46	746.08	708.24	37.85	19.713		
4,400.00	4,361.48	4,352.19	4,349.57	20.46	19.11	170.21	218.25	-91.95	761.58	722.86	38.72	19.669		
4,500.00	4,460.48	4,450.98	4,448.31	20.92	19.54	170.20	219.81	-94.44	777.07	737.48	39.59	19.627		
4,600.00	4,559.47	4,549.78	4,547.06	21.39	19.97	170.19	221.36	-96.92	792.57	752.10	40.47	19.586		
4,700.00	4,658.47	4,648.57	4,645.81	21.86	20.40	170.19	222.91	-99.41	808.06	766.72	41.34	19.547		
4,800.00	4,757.46	4,747.36	4,744.56	22.33	20.83	170.18	224.46	-101.89	823.56	781.34	42.21	19.509		
4,900.00	4,856.45	4,846.15	4,843.31	22.80	21.25	170.17	226.02	-104.38	839.05	795.96	43.09	19.473		
5,000.00	4,955.45	4,944.95	4,942.06	23.27	21.68	170.16	227.57	-106.86	854.55	810.58	43.96	19.437		
5,100.00	5,054.44	5,043.74	5,040.81	23.74	22.11	170.16	229.12	-109.35	870.04	825.20	44.84	19.403		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,142.53	5,139.56	24.21	22.54	170.15	230.68	-111.84	885.53	839.82	45.72	19.370		
5,300.00	5,252.43	5,241.32	5,238.30	24.68	22.97	170.14	232.23	-114.32	901.03	854.44	46.59	19.338		
5,400.00	5,351.42	5,340.11	5,337.05	25.15	23.40	170.14	233.78	-116.81	916.52	869.05	47.47	19.308		
5,500.00	5,450.42	5,438.91	5,435.80	25.62	23.83	170.13	235.34	-119.29	932.02	883.67	48.35	19.278		
5,600.00	5,549.41	5,537.70	5,534.55	26.09	24.27	170.13	236.89	-121.78	947.51	898.29	49.22	19.249		
5,700.00	5,648.41	5,636.49	5,633.30	26.56	24.70	170.12	238.44	-124.26	963.01	912.91	50.10	19.221		
5,800.00	5,747.40	5,735.28	5,732.05	27.03	25.13	170.12	240.00	-126.75	978.50	927.52	50.98	19.193		
5,900.00	5,846.40	5,834.08	5,830.80	27.51	25.56	170.11	241.55	-129.24	994.00	942.14	51.86	19.167		
6,000.00	5,945.39	5,932.87	5,929.55	27.98	25.99	170.11	243.10	-131.72	1,009.49	956.75	52.74	19.142		
6,100.00	6,044.38	6,031.66	6,028.29	28.45	26.42	170.10	244.66	-134.21	1,024.99	971.37	53.62	19.117		
6,200.00	6,143.38	6,130.45	6,127.04	28.92	26.85	170.10	246.21	-136.69	1,040.48	985.99	54.50	19.093		
6,300.00	6,242.37	6,229.24	6,225.79	29.39	27.28	170.09	247.76	-139.18	1,055.98	1,000.60	55.38	19.069		
6,400.00	6,341.37	6,328.04	6,324.54	29.86	27.71	170.09	249.32	-141.67	1,071.47	1,015.22	56.26	19.046		
6,500.00	6,440.36	6,426.83	6,423.29	30.34	28.15	170.08	250.87	-144.15	1,086.97	1,029.83	57.14	19.024		
6,600.00	6,539.36	6,525.33	6,521.75	30.80	28.58	129.74	252.42	-146.63	1,102.47	1,044.46	58.01	19.004		
6,700.00	6,638.36	6,624.15	6,619.83	31.25	29.00	112.93	253.93	-149.05	1,118.03	1,059.17	58.86	18.995		
6,800.00	6,737.36	6,723.06	6,718.75	31.68	29.45	106.13	255.48	-151.53	1,133.72	1,073.96	59.76	18.973		
6,900.00	6,836.36	6,822.06	6,817.75	32.10	29.89	102.71	256.93	-154.01	1,149.01	1,088.30	60.71	18.952		
7,000.00	6,935.36	6,921.06	6,916.75	32.52	30.32	100.82	258.23	-156.46	1,163.40	1,101.68	61.72	18.930		
7,100.00	7,034.36	7,020.06	7,015.75	32.92	30.75	99.75	259.26	-158.87	1,176.32	1,113.48	62.84	18.910		
7,200.00	7,133.36	7,119.06	7,114.75	33.32	31.18	99.16	259.94	-161.25	1,187.16	1,123.00	64.16	18.902		
7,300.00	7,232.36	7,218.06	7,213.75	33.72	31.60	98.85	260.16	-163.60	1,195.35	1,129.48	65.87	18.146		
7,400.00	7,331.36	7,317.06	7,312.75	34.12	32.02	98.69	259.84	-165.92	1,200.38	1,132.25	68.12	17.621		
7,500.00	7,430.36	7,416.06	7,411.75	34.52	32.44	98.61	258.98	-168.21	1,201.92	1,131.04	70.88	16.957		
7,600.00	7,529.36	7,515.06	7,510.75	34.92	32.86	98.62	258.21	-170.47	1,201.97	1,128.46	73.51	16.350		
7,700.00	7,628.36	7,614.06	7,609.75	35.32	33.28	98.62	257.44	-172.69	1,202.03	1,125.56	76.47	15.720		
7,800.00	7,727.36	7,713.06	7,708.75	35.72	33.70	98.62	256.67	-174.88	1,202.09	1,122.37	79.71	15.080		
7,900.00	7,826.36	7,812.06	7,807.75	36.12	34.12	98.63	255.91	-177.04	1,202.14	1,118.92	83.22	14.446		
8,000.00	7,925.36	7,911.06	7,906.75	36.52	34.54	98.63	255.14	-179.17	1,202.20	1,115.25	86.95	13.826		
8,100.00	8,024.36	8,010.06	8,005.75	36.92	34.96	98.63	254.37	-181.27	1,202.25	1,111.37	90.88	13.229		
8,200.00	8,123.36	8,099.06	8,094.75	37.32	35.38	98.64	253.60	-183.34	1,202.31	1,107.32	94.98	12.658		
8,300.00	8,222.36	8,198.06	8,193.75	37.72	35.80	98.64	252.84	-185.38	1,202.36	1,103.12	99.24	12.115		
8,400.00	8,321.36	8,297.06	8,292.75	38.12	36.22	98.64	252.07	-187.39	1,202.42	1,098.79	103.63	11.603		
8,500.00	8,420.36	8,396.06	8,391.75	38.52	36.64	98.65	251.30	-189.37	1,202.48	1,094.33	108.14	11.119		
8,600.00	8,519.36	8,495.06	8,490.75	38.92	37.06	98.65	250.53	-191.32	1,202.53	1,089.78	112.75	10.665		
8,700.00	8,618.36	8,594.06	8,589.75	39.32	37.48	98.65	249.77	-193.24	1,202.59	1,085.13	117.46	10.238		
8,800.00	8,717.36	8,693.06	8,688.75	39.72	37.90	98.66	249.00	-195.13	1,202.64	1,080.40	122.24	9.838		
8,900.00	8,816.36	8,792.06	8,787.75	40.12	38.32	98.66	248.23	-196.99	1,202.70	1,075.60	127.10	9.463		
9,000.00	8,915.36	8,891.06	8,886.75	40.52	38.74	98.66	247.46	-198.82	1,202.76	1,070.74	132.02	9.111		
9,100.00	9,014.36	8,990.06	8,985.75	40.92	39.16	98.67	246.70	-200.62	1,202.81	1,065.82	136.99	8.780		
9,200.00	9,113.36	9,089.06	9,084.75	41.32	39.58	98.67	245.93	-202.39	1,202.87	1,060.85	142.02	8.470		
9,300.00	9,212.36	9,188.06	9,183.75	41.72	40.00	98.68	245.16	-204.13	1,202.92	1,055.83	147.09	8.178		
9,400.00	9,311.36	9,287.06	9,282.75	42.12	40.42	98.68	244.39	-205.84	1,202.98	1,050.77	152.21	7.904		
9,500.00	9,410.36	9,386.06	9,381.75	42.52	40.84	98.68	243.63	-207.52	1,203.04	1,045.68	157.36	7.645		
9,600.00	9,509.36	9,485.06	9,480.75	42.92	41.26	98.69	242.86	-209.17	1,203.09	1,040.55	162.54	7.402		
9,700.00	9,608.36	9,584.06	9,579.75	43.32	41.68	98.69	242.09	-210.79	1,203.15	1,035.39	167.75	7.172		
9,800.00	9,707.36	9,683.06	9,678.75	43.72	42.10	98.69	241.32	-212.38	1,203.20	1,030.21	173.00	6.955		
9,900.00	9,806.36	9,782.06	9,777.75	44.12	42.52	98.70	240.56	-213.94	1,203.26	1,025.00	178.26	6.750		
10,000.00	9,905.36	9,881.06	9,876.75	44.52	42.94	98.70	239.79	-215.47	1,203.31	1,019.76	183.55	6.556		
10,100.00	10,004.36	9,980.06	9,975.75	44.92	43.36	98.70	239.02	-216.97	1,203.37	1,014.51	188.86	6.372		
10,200.00	10,103.36	10,079.06	10,074.75	45.32	43.78	98.71	238.25	-218.44	1,203.43	1,009.23	194.19	6.197		
10,300.00	10,202.36	10,178.06	10,173.75	45.72	44.20	98.71	237.48	-219.88	1,203.48	1,003.94	199.54	6.031		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,053.58	10,522.93	7,235.92	103.14	103.53	98.71	236.72	-3,696.44	1,203.54	998.63	204.91	5.874		
10,500.00	7,053.19	10,622.93	7,235.61	105.86	106.25	98.72	235.95	-3,796.44	1,203.59	993.31	210.29	5.724		
10,600.00	7,052.80	10,722.93	7,235.30	108.59	108.97	98.72	235.18	-3,896.43	1,203.65	987.97	215.68	5.581		
10,700.00	7,052.40	10,822.93	7,234.99	111.32	111.71	98.72	234.41	-3,996.43	1,203.71	982.62	221.09	5.445		
10,800.00	7,052.01	10,922.93	7,234.68	114.06	114.45	98.73	233.65	-4,096.42	1,203.76	977.26	226.50	5.315		
10,900.00	7,051.62	11,022.93	7,234.36	116.80	117.19	98.73	232.88	-4,196.42	1,203.82	971.88	231.93	5.190		
11,000.00	7,051.22	11,122.93	7,234.05	119.55	119.94	98.74	232.11	-4,296.42	1,203.87	966.50	237.37	5.072		
11,100.00	7,050.83	11,222.93	7,233.74	122.31	122.70	98.74	231.34	-4,396.41	1,203.93	961.11	242.82	4.958		
11,200.00	7,050.44	11,322.93	7,233.43	125.07	125.46	98.74	230.58	-4,496.41	1,203.99	955.70	248.28	4.849		
11,300.00	7,050.04	11,422.93	7,233.12	127.83	128.23	98.75	229.81	-4,596.41	1,204.04	950.29	253.75	4.745		
11,400.00	7,049.65	11,522.93	7,232.80	130.60	130.99	98.75	229.04	-4,696.40	1,204.10	944.88	259.22	4.645		
11,500.00	7,049.26	11,622.93	7,232.49	133.37	133.77	98.75	228.27	-4,796.40	1,204.15	939.45	264.71	4.549		
11,600.00	7,048.86	11,722.93	7,232.18	136.15	136.54	98.76	227.51	-4,896.40	1,204.21	934.02	270.19	4.457		
11,700.00	7,048.47	11,822.93	7,231.87	138.93	139.32	98.76	226.74	-4,996.39	1,204.27	928.58	275.69	4.368		
11,800.00	7,048.08	11,922.93	7,231.56	141.71	142.11	98.76	225.97	-5,096.39	1,204.32	923.13	281.19	4.283		
11,900.00	7,047.68	12,022.93	7,231.24	144.49	144.89	98.77	225.20	-5,196.39	1,204.38	917.68	286.70	4.201		
12,000.00	7,047.29	12,122.93	7,230.93	147.28	147.68	98.77	224.44	-5,296.38	1,204.43	912.22	292.21	4.122		
12,100.00	7,046.90	12,222.93	7,230.62	150.07	150.47	98.77	223.67	-5,396.38	1,204.49	906.76	297.73	4.046		
12,200.00	7,046.51	12,322.93	7,230.31	152.87	153.26	98.78	222.90	-5,496.38	1,204.55	901.29	303.25	3.972		
12,300.00	7,046.11	12,422.93	7,230.00	155.66	156.06	98.78	222.13	-5,596.37	1,204.60	895.82	308.78	3.901		
12,400.00	7,045.72	12,522.93	7,229.68	158.46	158.86	98.78	221.37	-5,696.37	1,204.66	890.34	314.31	3.833		
12,500.00	7,045.33	12,622.93	7,229.37	161.26	161.66	98.79	220.60	-5,796.37	1,204.71	884.86	319.85	3.767		
12,600.00	7,044.93	12,722.93	7,229.06	164.06	164.46	98.79	219.83	-5,896.36	1,204.77	879.38	325.39	3.703		
12,700.00	7,044.54	12,822.93	7,228.75	166.86	167.26	98.79	219.06	-5,996.36	1,204.83	873.89	330.93	3.641		
12,800.00	7,044.15	12,922.93	7,228.44	169.67	170.07	98.80	218.30	-6,096.36	1,204.88	868.40	336.48	3.581		
12,900.00	7,043.75	13,022.93	7,228.13	172.48	172.88	98.80	217.53	-6,196.35	1,204.94	862.91	342.03	3.523		
13,000.00	7,043.36	13,122.93	7,227.81	175.28	175.69	98.81	216.76	-6,296.35	1,204.99	857.41	347.58	3.467		
13,100.00	7,042.97	13,222.93	7,227.50	178.09	178.50	98.81	215.99	-6,396.35	1,205.05	851.91	353.14	3.412		
13,200.00	7,042.57	13,322.93	7,227.19	180.91	181.31	98.81	215.22	-6,496.34	1,205.11	846.41	358.70	3.360		
13,300.00	7,042.18	13,422.93	7,226.88	183.72	184.12	98.82	214.46	-6,596.34	1,205.16	840.90	364.26	3.309		
13,400.00	7,041.79	13,522.93	7,226.57	186.53	186.94	98.82	213.69	-6,696.33	1,205.22	835.39	369.83	3.259		
13,500.00	7,041.39	13,622.93	7,226.25	189.35	189.75	98.82	212.92	-6,796.33	1,205.28	829.88	375.39	3.211		
13,600.00	7,041.00	13,722.93	7,225.94	192.17	192.57	98.83	212.15	-6,896.33	1,205.33	824.37	380.96	3.164		
13,700.00	7,040.61	13,822.93	7,225.63	194.99	195.39	98.83	211.39	-6,996.32	1,205.39	818.85	386.54	3.118		
13,800.00	7,040.21	13,922.93	7,225.32	197.81	198.21	98.83	210.62	-7,096.32	1,205.44	813.33	392.11	3.074		
13,900.00	7,039.82	14,022.93	7,225.01	200.63	201.03	98.84	209.85	-7,196.32	1,205.50	807.81	397.69	3.031		
14,000.00	7,039.43	14,122.93	7,224.69	203.45	203.85	98.84	209.08	-7,296.31	1,205.56	802.29	403.26	2.989		
14,100.00	7,039.03	14,222.93	7,224.38	206.27	206.68	98.84	208.32	-7,396.31	1,205.61	796.77	408.84	2.949		
14,200.00	7,038.64	14,322.93	7,224.07	209.09	209.50	98.85	207.55	-7,496.31	1,205.67	791.24	414.43	2.909		
14,300.00	7,038.25	14,422.93	7,223.76	211.92	212.32	98.85	206.78	-7,596.30	1,205.72	785.71	420.01	2.871		
14,400.00	7,037.86	14,522.93	7,223.45	214.74	215.15	98.85	206.01	-7,696.30	1,205.78	780.18	425.60	2.833		
14,500.00	7,037.46	14,622.93	7,223.13	217.57	217.98	98.86	205.25	-7,796.30	1,205.84	774.65	431.18	2.797		
14,600.00	7,037.07	14,722.93	7,222.82	220.40	220.80	98.86	204.48	-7,896.29	1,205.89	769.12	436.77	2.761		
14,700.00	7,036.68	14,822.93	7,222.51	223.23	223.63	98.86	203.71	-7,996.29	1,205.95	763.59	442.36	2.726		
14,800.00	7,036.28	14,922.93	7,222.20	226.05	226.46	98.87	202.94	-8,096.29	1,206.00	758.05	447.95	2.692		
14,871.88	7,036.00	14,994.81	7,221.97	228.09	228.49	98.87	202.39	-8,168.16	1,206.04	754.07	451.97	2.668 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	0.00	0.00	3.28	3.28	-179.47	-60.12	-0.56	60.12					
100.00	100.00	100.00	100.00	3.28	3.28	-179.47	-60.12	-0.56	60.12	53.55	6.57	9.152		
200.00	200.00	200.00	200.00	3.34	3.34	-179.47	-60.12	-0.56	60.12	53.45	6.67	9.008 CC, ES		
300.00	300.00	297.92	297.90	3.44	3.44	-179.32	-61.78	-0.73	61.82	54.93	6.89	8.969		
400.00	399.98	395.70	395.55	3.60	3.58	-8.98	-66.76	-1.26	65.20	57.99	7.21	9.038		
500.00	499.84	493.37	492.86	3.79	3.78	-9.00	-75.04	-2.15	68.53	60.90	7.62	8.988		
600.00	599.45	590.94	589.73	4.02	4.01	-9.21	-86.60	-3.38	71.80	63.69	8.12	8.844		
700.00	698.70	688.40	686.04	4.29	4.28	-9.57	-101.42	-4.96	75.02	66.34	8.68	8.641		
800.00	797.70	785.68	781.61	4.59	4.59	-9.88	-119.44	-6.88	79.68	70.38	9.30	8.568		
900.00	896.69	883.56	877.14	4.92	4.94	-9.94	-140.63	-9.14	87.50	77.56	9.95	8.798		
1,000.00	995.68	983.19	974.22	5.27	5.32	-9.94	-162.90	-11.52	96.05	85.44	10.62	9.047		
1,100.00	1,094.68	1,082.82	1,071.30	5.64	5.72	-9.94	-185.18	-13.89	104.60	93.28	11.32	9.237		
1,200.00	1,193.67	1,182.46	1,168.39	6.03	6.14	-9.94	-207.45	-16.27	113.15	101.09	12.06	9.381		
1,300.00	1,292.67	1,282.09	1,265.47	6.42	6.58	-9.94	-229.72	-18.64	121.70	108.88	12.82	9.490		
1,400.00	1,391.66	1,381.73	1,362.55	6.83	7.02	-9.94	-251.99	-21.02	130.25	116.64	13.61	9.571		
1,500.00	1,490.66	1,481.36	1,459.64	7.25	7.48	-9.94	-274.27	-23.39	138.80	124.39	14.41	9.632		
1,600.00	1,589.65	1,580.99	1,556.72	7.67	7.94	-9.94	-296.54	-25.77	147.35	132.12	15.23	9.676		
1,700.00	1,688.64	1,680.63	1,653.80	8.10	8.41	-9.94	-318.81	-28.14	155.90	139.84	16.06	9.709		
1,800.00	1,787.64	1,780.26	1,750.89	8.53	8.88	-9.94	-341.09	-30.52	164.45	147.55	16.90	9.731		
1,900.00	1,886.63	1,879.90	1,847.97	8.97	9.36	-9.94	-363.36	-32.89	173.00	155.25	17.75	9.747		
2,000.00	1,985.63	1,979.53	1,945.05	9.41	9.85	-9.94	-385.63	-35.27	181.55	162.94	18.61	9.757		
2,100.00	2,084.62	2,079.16	2,042.14	9.85	10.33	-9.94	-407.91	-37.64	190.10	170.63	19.47	9.763		
2,200.00	2,183.61	2,178.80	2,139.22	10.30	10.82	-9.94	-430.18	-40.02	198.65	178.31	20.34	9.765		
2,300.00	2,282.61	2,278.43	2,236.30	10.75	11.32	-9.94	-452.45	-42.39	207.20	185.98	21.22	9.765		
2,400.00	2,381.60	2,378.06	2,333.39	11.20	11.81	-9.94	-474.72	-44.77	215.75	193.65	22.10	9.762		
2,500.00	2,480.60	2,477.70	2,430.47	11.66	12.31	-9.94	-497.00	-47.14	224.30	201.31	22.99	9.758		
2,600.00	2,579.59	2,577.33	2,527.55	12.11	12.81	-9.94	-519.27	-49.52	232.85	208.97	23.87	9.753		
2,700.00	2,678.58	2,676.97	2,624.64	12.57	13.31	-9.94	-541.54	-51.90	241.40	216.63	24.77	9.747		
2,800.00	2,777.58	2,776.60	2,721.72	13.02	13.81	-9.94	-563.82	-54.27	249.95	224.28	25.66	9.740		
2,900.00	2,876.57	2,876.23	2,818.80	13.48	14.31	-9.94	-586.09	-56.65	258.50	231.94	26.56	9.732		
3,000.00	2,975.57	2,975.87	2,915.89	13.94	14.81	-9.94	-608.36	-59.02	267.05	239.59	27.46	9.725		
3,100.00	3,074.56	3,075.50	3,012.97	14.40	15.32	-9.94	-630.63	-61.40	275.60	247.23	28.36	9.717		
3,200.00	3,173.55	3,175.14	3,110.05	14.87	15.82	-9.94	-652.91	-63.77	284.14	254.88	29.27	9.709		
3,300.00	3,272.55	3,274.77	3,207.14	15.33	16.33	-9.94	-675.18	-66.15	292.69	262.52	30.17	9.700		
3,400.00	3,371.54	3,374.40	3,304.22	15.79	16.84	-9.94	-697.45	-68.52	301.24	270.16	31.08	9.692		
3,500.00	3,470.54	3,474.04	3,401.30	16.26	17.34	-9.94	-719.73	-70.90	309.79	277.80	31.99	9.684		
3,600.00	3,569.53	3,573.67	3,498.39	16.72	17.85	-9.94	-742.00	-73.27	318.34	285.44	32.90	9.676		
3,700.00	3,668.53	3,673.30	3,595.47	17.19	18.36	-9.94	-764.27	-75.65	326.89	293.08	33.81	9.668		
3,800.00	3,767.52	3,772.94	3,692.55	17.65	18.87	-9.94	-786.54	-78.02	335.44	300.72	34.73	9.660		
3,900.00	3,866.51	3,872.57	3,789.64	18.12	19.38	-9.94	-808.82	-80.40	343.99	308.35	35.64	9.652		
4,000.00	3,965.51	3,972.21	3,886.72	18.59	19.89	-9.94	-831.09	-82.77	352.54	315.99	36.56	9.644		
4,100.00	4,064.50	4,071.84	3,983.80	19.05	20.40	-9.94	-853.36	-85.15	361.09	323.62	37.47	9.636		
4,200.00	4,163.50	4,171.47	4,080.89	19.52	20.91	-9.94	-875.64	-87.52	369.64	331.25	38.39	9.629		
4,300.00	4,262.49	4,271.11	4,177.97	19.99	21.42	-9.94	-897.91	-89.90	378.19	338.88	39.31	9.622		
4,400.00	4,361.48	4,370.74	4,275.05	20.46	21.94	-9.94	-920.18	-92.27	386.74	346.52	40.22	9.615		
4,500.00	4,460.48	4,470.38	4,372.14	20.92	22.45	-9.94	-942.45	-94.65	395.29	354.15	41.14	9.608		
4,600.00	4,559.47	4,570.01	4,469.22	21.39	22.96	-9.94	-964.73	-97.02	403.84	361.78	42.06	9.601		
4,700.00	4,658.47	4,669.64	4,566.30	21.86	23.47	-9.94	-987.00	-99.40	412.39	369.40	42.98	9.594		
4,800.00	4,757.46	4,769.28	4,663.39	22.33	23.99	-9.94	-1,009.27	-101.77	420.94	377.03	43.90	9.587		
4,900.00	4,856.45	4,868.91	4,760.47	22.80	24.50	-9.94	-1,031.55	-104.15	429.49	384.66	44.83	9.581		
5,000.00	4,955.45	4,968.54	4,857.55	23.27	25.01	-9.94	-1,053.82	-106.52	438.04	392.29	45.75	9.575		
5,100.00	5,054.44	5,068.18	4,954.64	23.74	25.52	-9.94	-1,076.09	-108.90	446.59	399.92	46.67	9.569		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,167.81	5,051.72	24.21	26.04	-9.94	-1,098.37	-111.27	455.14	407.54	47.59	9.563		
5,300.00	5,252.43	5,267.45	5,148.80	24.68	26.55	-9.94	-1,120.64	-113.65	463.69	415.17	48.52	9.557		
5,400.00	5,351.42	5,367.08	5,245.89	25.15	27.07	-9.94	-1,142.91	-116.02	472.24	422.80	49.44	9.552		
5,500.00	5,450.42	5,466.71	5,342.97	25.62	27.58	-9.94	-1,165.18	-118.40	480.79	430.42	50.36	9.546		
5,600.00	5,549.41	5,566.35	5,440.05	26.09	28.10	-9.94	-1,187.46	-120.78	489.34	438.05	51.29	9.541		
5,700.00	5,648.41	5,665.98	5,537.14	26.56	28.61	-9.94	-1,209.73	-123.15	497.88	445.67	52.21	9.535		
5,800.00	5,747.40	5,765.62	5,634.22	27.03	29.12	-9.94	-1,232.00	-125.53	506.43	453.30	53.14	9.530		
5,900.00	5,846.40	5,865.25	5,731.30	27.51	29.64	-9.94	-1,254.28	-127.90	514.98	460.92	54.06	9.525		
6,000.00	5,945.39	5,964.88	5,828.39	27.98	30.15	-9.94	-1,276.55	-130.28	523.53	468.54	54.99	9.520		
6,100.00	6,044.38	6,064.52	5,925.47	28.45	30.67	-9.94	-1,298.82	-132.65	532.08	476.17	55.92	9.516		
6,200.00	6,143.38	6,164.15	6,022.55	28.92	31.18	-9.94	-1,321.09	-135.03	540.63	483.79	56.84	9.511		
6,300.00	6,242.37	6,263.78	6,119.64	29.39	31.70	-9.94	-1,343.37	-137.40	549.18	491.41	57.77	9.507		
6,400.00	6,341.37	6,363.42	6,216.72	29.86	32.21	-9.94	-1,365.64	-139.78	557.73	499.04	58.70	9.502		
6,500.00	6,440.36	6,463.05	6,313.80	30.34	32.73	-9.94	-1,387.91	-142.15	566.28	506.66	59.62	9.498		
6,600.00	6,538.90	6,562.39	6,410.60	30.80	33.24	-49.28	-1,410.12	-144.52	574.81	514.25	60.56	9.492		
6,700.00	6,634.88	6,661.54	6,507.12	31.25	33.76	-66.92	-1,432.28	-146.71	583.59	522.06	61.53	9.485		
6,800.00	6,725.92	6,764.76	6,605.95	31.68	34.27	-75.21	-1,455.05	-167.24	592.72	530.17	62.54	9.477		
6,900.00	6,809.79	6,872.06	6,704.17	32.07	34.77	-80.12	-1,477.81	-203.59	601.87	538.31	63.56	9.469		
7,000.00	6,884.42	6,983.69	6,798.51	32.43	35.23	-83.46	-1,499.80	-258.80	610.68	546.12	64.56	9.460		
7,100.00	6,947.98	7,099.74	6,885.03	32.77	35.66	-85.88	-1,520.12	-333.17	618.71	553.18	65.54	9.440		
7,200.00	6,998.89	7,220.00	6,959.25	33.18	36.05	-87.66	-1,537.74	-425.91	625.55	558.94	66.61	9.392		
7,300.00	7,035.91	7,343.96	7,016.57	33.76	36.45	-88.92	-1,551.59	-534.73	630.75	562.83	67.91	9.287		
7,400.00	7,058.12	7,470.73	7,052.81	34.61	36.97	-89.70	-1,560.68	-655.64	633.97	564.33	69.64	9.103		
7,500.00	7,064.98	7,599.08	7,065.00	35.68	37.83	-90.00	-1,564.31	-783.14	634.97	563.11	71.87	8.836		
7,600.00	7,064.59	7,698.99	7,064.77	36.95	38.81	-90.02	-1,564.91	-883.05	634.76	560.33	74.43	8.529		
7,700.00	7,064.20	7,801.01	7,064.54	38.40	40.08	-90.03	-1,565.51	-983.05	634.55	557.19	77.35	8.203		
7,800.00	7,063.80	7,901.01	7,064.31	40.00	41.53	-90.05	-1,566.11	-1,083.05	634.33	553.78	80.56	7.874		
7,900.00	7,063.41	7,998.99	7,064.08	41.75	43.12	-90.06	-1,566.71	-1,183.04	634.12	550.13	83.99	7.550		
8,000.00	7,063.02	8,101.01	7,063.85	43.62	44.92	-90.08	-1,567.30	-1,283.04	633.91	546.18	87.73	7.225		
8,100.00	7,062.62	8,201.01	7,063.62	45.59	46.80	-90.09	-1,567.90	-1,383.04	633.70	542.05	91.64	6.915		
8,200.00	7,062.23	8,301.01	7,063.39	47.65	48.78	-90.11	-1,568.50	-1,483.04	633.48	537.74	95.74	6.617		
8,300.00	7,061.84	8,401.01	7,063.16	49.79	50.85	-90.12	-1,569.10	-1,583.03	633.27	533.28	99.99	6.333		
8,400.00	7,061.45	8,501.01	7,062.93	52.00	53.00	-90.13	-1,569.70	-1,683.03	633.06	528.68	104.38	6.065		
8,500.00	7,061.05	8,601.01	7,062.70	54.27	55.21	-90.15	-1,570.30	-1,783.03	632.85	523.95	108.90	5.811		
8,600.00	7,060.66	8,701.01	7,062.47	56.60	57.48	-90.16	-1,570.90	-1,883.03	632.63	519.11	113.52	5.573		
8,700.00	7,060.27	8,801.01	7,062.24	58.97	59.80	-90.18	-1,571.50	-1,983.02	632.42	514.18	118.24	5.349		
8,800.00	7,059.87	8,901.01	7,062.01	61.38	62.17	-90.19	-1,572.09	-2,083.02	632.21	509.17	123.04	5.138		
8,900.00	7,059.48	9,001.01	7,061.78	63.83	64.58	-90.21	-1,572.69	-2,183.02	632.00	504.07	127.92	4.941		
9,000.00	7,059.09	9,101.01	7,061.55	66.32	67.02	-90.22	-1,573.29	-2,283.02	631.78	498.92	132.87	4.755		
9,100.00	7,058.69	9,201.02	7,061.32	68.83	69.50	-90.24	-1,573.89	-2,383.02	631.57	493.70	137.87	4.581		
9,200.00	7,058.30	9,301.02	7,061.09	71.37	72.00	-90.25	-1,574.49	-2,483.01	631.36	488.43	142.93	4.417		
9,300.00	7,057.91	9,401.02	7,060.86	73.93	74.53	-90.27	-1,575.09	-2,583.01	631.15	483.11	148.03	4.264		
9,400.00	7,057.51	9,501.02	7,060.63	76.51	77.09	-90.28	-1,575.69	-2,683.01	630.94	477.75	153.18	4.119		
9,500.00	7,057.12	9,601.02	7,060.40	79.11	79.66	-90.30	-1,576.29	-2,783.01	630.72	472.35	158.37	3.983		
9,600.00	7,056.73	9,701.02	7,060.17	81.73	82.26	-90.31	-1,576.89	-2,883.00	630.51	466.92	163.59	3.854		
9,700.00	7,056.33	9,801.02	7,059.93	84.37	84.87	-90.33	-1,577.48	-2,983.00	630.30	461.45	168.85	3.733		
9,800.00	7,055.94	9,901.02	7,059.70	87.01	87.49	-90.34	-1,578.08	-3,083.00	630.09	455.96	174.13	3.618		
9,900.00	7,055.55	10,001.02	7,059.47	89.68	90.13	-90.36	-1,578.68	-3,183.00	629.88	450.44	179.44	3.510		
10,000.00	7,055.15	10,101.02	7,059.24	92.35	92.79	-90.37	-1,579.28	-3,282.99	629.66	444.89	184.77	3.408		
10,100.00	7,054.76	10,201.02	7,059.01	95.03	95.45	-90.39	-1,579.88	-3,382.99	629.45	439.32	190.13	3.311		
10,200.00	7,054.37	10,301.02	7,058.78	97.73	98.13	-90.40	-1,580.48	-3,482.99	629.24	433.73	195.51	3.219		
10,300.00	7,053.98	10,401.02	7,058.55	100.43	100.82	-90.42	-1,581.08	-3,582.99	629.03	428.13	200.90	3.131		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	10,501.02	7,058.32	103.14	103.51	-90.43	-1,581.68	-3,682.98	628.82	422.50	206.31	3.048		
10,500.00	7,053.19	10,601.02	7,058.09	105.86	106.22	-90.45	-1,582.27	-3,782.98	628.60	416.86	211.74	2.969		
10,600.00	7,052.80	10,701.02	7,057.86	108.59	108.93	-90.46	-1,582.87	-3,882.98	628.39	411.21	217.18	2.893		
10,700.00	7,052.40	10,801.02	7,057.63	111.32	111.65	-90.48	-1,583.47	-3,982.98	628.18	405.54	222.64	2.822		
10,800.00	7,052.01	10,901.02	7,057.40	114.06	114.37	-90.49	-1,584.07	-4,082.97	627.97	399.86	228.11	2.753		
10,900.00	7,051.62	11,001.02	7,057.17	116.80	117.11	-90.51	-1,584.67	-4,182.97	627.76	394.17	233.59	2.687		
11,000.00	7,051.22	11,101.02	7,056.94	119.55	119.84	-90.52	-1,585.27	-4,282.97	627.55	388.47	239.08	2.625		
11,100.00	7,050.83	11,201.02	7,056.71	122.31	122.59	-90.54	-1,585.87	-4,382.97	627.34	382.75	244.58	2.565		
11,200.00	7,050.44	11,301.02	7,056.48	125.07	125.34	-90.55	-1,586.47	-4,482.96	627.12	377.03	250.09	2.508		
11,300.00	7,050.04	11,401.02	7,056.25	127.83	128.09	-90.57	-1,587.07	-4,582.96	626.91	371.30	255.61	2.453		
11,400.00	7,049.65	11,501.02	7,056.02	130.60	130.85	-90.58	-1,587.66	-4,682.96	626.70	365.56	261.14	2.400		
11,500.00	7,049.26	11,601.02	7,055.79	133.37	133.61	-90.60	-1,588.26	-4,782.96	626.49	359.81	266.68	2.349		
11,600.00	7,048.86	11,701.02	7,055.56	136.15	136.38	-90.61	-1,588.86	-4,882.95	626.28	354.06	272.22	2.301		
11,700.00	7,048.47	11,801.02	7,055.33	138.93	139.15	-90.63	-1,589.46	-4,982.95	626.07	348.29	277.77	2.254		
11,800.00	7,048.08	11,901.02	7,055.10	141.71	141.92	-90.64	-1,590.06	-5,082.95	625.86	342.53	283.33	2.209		
11,900.00	7,047.68	12,001.03	7,054.87	144.49	144.70	-90.66	-1,590.66	-5,182.95	625.65	336.75	288.89	2.166		
12,000.00	7,047.29	12,101.03	7,054.64	147.28	147.48	-90.67	-1,591.26	-5,282.95	625.44	330.97	294.46	2.124		
12,100.00	7,046.90	12,201.03	7,054.41	150.07	150.27	-90.69	-1,591.86	-5,382.94	625.22	325.19	300.04	2.084		
12,200.00	7,046.51	12,301.03	7,054.18	152.87	153.05	-90.70	-1,592.46	-5,482.94	625.01	319.40	305.62	2.045		
12,300.00	7,046.11	12,401.03	7,053.94	155.66	155.84	-90.72	-1,593.05	-5,582.94	624.80	313.60	311.20	2.008		
12,400.00	7,045.72	12,501.03	7,053.71	158.46	158.63	-90.73	-1,593.65	-5,682.94	624.59	307.80	316.79	1.972		
12,500.00	7,045.33	12,601.03	7,053.48	161.26	161.43	-90.75	-1,594.25	-5,782.93	624.38	302.00	322.38	1.937		
12,600.00	7,044.93	12,701.03	7,053.25	164.06	164.22	-90.76	-1,594.85	-5,882.93	624.17	296.19	327.98	1.903		
12,700.00	7,044.54	12,801.03	7,053.02	166.86	167.02	-90.78	-1,595.45	-5,982.93	623.96	290.38	333.58	1.870		
12,800.00	7,044.15	12,901.03	7,052.79	169.67	169.82	-90.79	-1,596.05	-6,082.93	623.75	284.56	339.19	1.839		
12,900.00	7,043.75	13,001.03	7,052.56	172.48	172.62	-90.81	-1,596.65	-6,182.92	623.54	278.74	344.79	1.808		
13,000.00	7,043.36	13,101.03	7,052.33	175.28	175.43	-90.83	-1,597.25	-6,282.92	623.33	272.92	350.41	1.779		
13,100.00	7,042.97	13,201.03	7,052.10	178.09	178.23	-90.84	-1,597.84	-6,382.92	623.12	267.10	356.02	1.750		
13,200.00	7,042.57	13,301.03	7,051.87	180.91	181.04	-90.86	-1,598.44	-6,482.92	622.91	261.27	361.64	1.722		
13,300.00	7,042.18	13,401.03	7,051.64	183.72	183.85	-90.87	-1,599.04	-6,582.91	622.70	255.44	367.26	1.696		
13,400.00	7,041.79	13,501.03	7,051.41	186.53	186.66	-90.89	-1,599.64	-6,682.91	622.49	249.60	372.88	1.669		
13,500.00	7,041.39	13,601.03	7,051.18	189.35	189.47	-90.90	-1,600.24	-6,782.91	622.28	243.77	378.51	1.644		
13,600.00	7,041.00	13,701.03	7,050.95	192.17	192.28	-90.92	-1,600.84	-6,882.91	622.07	237.93	384.14	1.619		
13,700.00	7,040.61	13,801.03	7,050.72	194.99	195.10	-90.93	-1,601.44	-6,982.90	621.86	232.09	389.77	1.595		
13,800.00	7,040.21	13,901.03	7,050.49	197.81	197.91	-90.95	-1,602.04	-7,082.90	621.64	226.24	395.40	1.572		
13,900.00	7,039.82	14,001.03	7,050.26	200.63	200.73	-90.96	-1,602.64	-7,182.90	621.43	220.40	401.04	1.550		
14,000.00	7,039.43	14,101.03	7,050.03	203.45	203.55	-90.98	-1,603.23	-7,282.90	621.22	214.55	406.68	1.528		
14,100.00	7,039.03	14,201.03	7,049.80	206.27	206.37	-90.99	-1,603.83	-7,382.89	621.01	208.70	412.32	1.506		
14,200.00	7,038.64	14,298.97	7,049.57	209.09	209.13	-91.01	-1,604.43	-7,482.89	620.80	202.90	417.90	1.486 Level 3		
14,300.00	7,038.25	14,401.03	7,049.34	211.92	212.01	-91.02	-1,605.03	-7,582.89	620.59	196.99	423.60	1.465 Level 3		
14,400.00	7,037.86	14,501.03	7,049.11	214.74	214.83	-91.04	-1,605.63	-7,682.89	620.38	191.14	429.25	1.445 Level 3		
14,500.00	7,037.46	14,598.97	7,048.88	217.57	217.60	-91.06	-1,606.23	-7,782.88	620.17	185.34	434.84	1.426 Level 3		
14,600.00	7,037.07	14,701.03	7,048.65	220.40	220.48	-91.07	-1,606.83	-7,882.88	619.96	179.42	440.54	1.407 Level 3		
14,700.00	7,036.68	14,801.04	7,048.42	223.23	223.31	-91.09	-1,607.43	-7,982.88	619.76	173.56	446.19	1.389 Level 3		
14,800.00	7,036.28	14,898.96	7,048.18	226.05	226.07	-91.10	-1,608.02	-8,082.88	619.55	167.76	451.79	1.371 Level 3		
14,871.88	7,036.00	14,970.85	7,048.02	228.09	228.10	-91.11	-1,608.46	-8,154.76	619.39	163.55	455.85	1.359 Level 3, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	-179.50	-159.94	-1.39	159.94					
100.00	100.00	101.00	100.00	3.28	3.28	-179.50	-159.94	-1.39	159.94	153.37	6.57	24.346		
200.00	200.00	199.00	200.00	3.34	3.34	-179.50	-159.94	-1.39	159.94	153.27	6.67	23.968	CC, ES	
300.00	300.00	293.74	294.72	3.44	3.43	-179.47	-161.47	-1.49	161.56	154.67	6.89	23.460		
400.00	399.98	388.31	389.17	3.60	3.57	-9.32	-166.11	-1.78	164.75	157.56	7.20	22.885		
500.00	499.84	482.79	483.33	3.79	3.76	-9.44	-173.86	-2.28	167.80	160.20	7.60	22.083		
600.00	599.45	577.17	577.09	4.02	3.98	-9.67	-184.68	-2.96	170.69	162.61	8.08	21.128		
700.00	698.70	671.48	670.35	4.29	4.23	-10.02	-198.57	-3.85	173.44	164.81	8.63	20.103		
800.00	797.70	765.64	762.97	4.59	4.52	-10.41	-215.49	-4.92	177.53	168.30	9.23	19.232		
900.00	896.69	859.45	854.64	4.92	4.85	-10.69	-235.35	-6.18	184.89	175.02	9.87	18.728		
1,000.00	995.68	952.72	945.09	5.27	5.21	-10.88	-258.06	-7.63	195.49	184.94	10.55	18.529		
1,100.00	1,094.68	1,045.25	1,034.04	5.64	5.59	-10.98	-283.48	-9.24	209.31	198.06	11.25	18.607		
1,200.00	1,193.67	1,136.86	1,121.25	6.03	6.00	-11.00	-311.46	-11.02	226.28	214.32	11.96	18.920		
1,300.00	1,292.67	1,235.56	1,206.19	6.42	6.47	-10.95	-341.71	-12.94	246.37	233.66	12.71	19.383		
1,400.00	1,391.66	1,324.66	1,297.54	6.83	6.91	-10.88	-376.02	-15.12	268.13	254.69	13.44	19.947		
1,500.00	1,490.66	1,422.26	1,388.89	7.25	7.42	-10.82	-410.34	-17.31	289.89	275.66	14.23	20.366		
1,600.00	1,589.65	1,519.86	1,480.23	7.67	7.94	-10.77	-444.65	-19.49	311.65	296.61	15.05	20.713		
1,700.00	1,688.64	1,617.46	1,571.58	8.10	8.47	-10.73	-478.96	-21.67	333.42	317.54	15.88	21.001		
1,800.00	1,787.64	1,715.07	1,662.93	8.53	9.01	-10.69	-513.27	-23.85	355.18	338.46	16.72	21.241		
1,900.00	1,886.63	1,812.67	1,754.27	8.97	9.56	-10.65	-547.59	-26.03	376.94	359.36	17.58	21.443		
2,000.00	1,985.63	1,910.27	1,845.62	9.41	10.11	-10.62	-581.90	-28.21	398.70	380.25	18.45	21.613		
2,100.00	2,084.62	2,007.88	1,936.97	9.85	10.67	-10.60	-616.21	-30.39	420.46	401.14	19.33	21.756		
2,200.00	2,183.61	2,105.48	2,028.31	10.30	11.23	-10.57	-650.53	-32.57	442.22	422.01	20.21	21.879		
2,300.00	2,282.61	2,203.08	2,119.66	10.75	11.80	-10.55	-684.84	-34.75	463.99	442.88	21.11	21.983		
2,400.00	2,381.60	2,300.69	2,211.01	11.20	12.37	-10.53	-719.15	-36.93	485.75	463.74	22.01	22.073		
2,500.00	2,480.60	2,401.71	2,302.35	11.66	12.96	-10.51	-753.47	-39.11	507.51	484.58	22.93	22.134		
2,600.00	2,579.59	2,504.11	2,393.70	12.11	13.57	-10.49	-787.78	-41.30	529.27	505.41	23.86	22.178		
2,700.00	2,678.58	2,606.50	2,485.05	12.57	14.17	-10.48	-822.09	-43.48	551.04	526.23	24.80	22.216		
2,800.00	2,777.58	2,708.90	2,576.39	13.02	14.78	-10.46	-856.41	-45.66	572.80	547.05	25.75	22.246		
2,900.00	2,876.57	2,788.70	2,667.74	13.48	15.26	-10.45	-890.72	-47.84	594.56	567.98	26.58	22.369		
3,000.00	2,975.57	2,886.31	2,759.09	13.94	15.84	-10.43	-925.03	-50.02	616.32	588.82	27.51	22.407		
3,100.00	3,074.56	2,983.91	2,850.43	14.40	16.42	-10.42	-959.35	-52.20	638.09	609.65	28.43	22.441		
3,200.00	3,173.55	3,081.51	2,941.78	14.87	17.01	-10.41	-993.66	-54.38	659.85	630.48	29.37	22.471		
3,300.00	3,272.55	3,179.12	3,033.13	15.33	17.59	-10.40	-1,027.97	-56.56	681.61	651.31	30.30	22.497		
3,400.00	3,371.54	3,276.72	3,124.47	15.79	18.18	-10.39	-1,062.29	-58.74	703.37	672.14	31.23	22.519		
3,500.00	3,470.54	3,374.32	3,215.82	16.26	18.77	-10.38	-1,096.60	-60.92	725.14	692.96	32.17	22.540		
3,600.00	3,569.53	3,471.93	3,307.17	16.72	19.36	-10.37	-1,130.91	-63.10	746.90	713.79	33.11	22.557		
3,700.00	3,668.53	3,569.53	3,398.51	17.19	19.95	-10.37	-1,165.23	-65.28	768.66	734.61	34.05	22.573		
3,800.00	3,767.52	3,667.13	3,489.86	17.65	20.54	-10.36	-1,199.54	-67.47	790.42	755.43	34.99	22.587		
3,900.00	3,866.51	3,764.73	3,581.21	18.12	21.13	-10.35	-1,233.85	-69.65	812.19	776.25	35.94	22.599		
4,000.00	3,965.51	3,862.34	3,672.55	18.59	21.72	-10.34	-1,268.17	-71.83	833.95	797.07	36.88	22.610		
4,100.00	4,064.50	3,959.94	3,763.90	19.05	22.31	-10.34	-1,302.48	-74.01	855.71	817.88	37.83	22.620		
4,200.00	4,163.50	4,057.54	3,855.25	19.52	22.91	-10.33	-1,336.79	-76.19	877.47	838.70	38.78	22.628		
4,300.00	4,262.49	4,155.15	3,946.59	19.99	23.50	-10.33	-1,371.11	-78.37	899.24	859.51	39.73	22.636		
4,400.00	4,361.48	4,252.75	4,037.94	20.46	24.09	-10.32	-1,405.42	-80.55	921.00	880.32	40.68	22.643		
4,500.00	4,460.48	4,350.35	4,129.29	20.92	24.69	-10.31	-1,439.73	-82.73	942.76	901.14	41.63	22.648		
4,600.00	4,559.47	4,447.96	4,220.64	21.39	25.28	-10.31	-1,474.05	-84.91	964.53	921.95	42.58	22.653		
4,700.00	4,658.47	4,545.56	4,311.98	21.86	25.88	-10.30	-1,508.36	-87.09	986.29	942.76	43.53	22.658		
4,800.00	4,757.46	4,643.16	4,403.33	22.33	26.47	-10.30	-1,542.67	-89.27	1,008.05	963.57	44.48	22.662		
4,900.00	4,856.45	4,740.77	4,494.68	22.80	27.07	-10.30	-1,576.99	-91.46	1,029.81	984.38	45.44	22.665		
5,000.00	4,955.45	4,838.37	4,586.02	23.27	27.66	-10.29	-1,611.30	-93.64	1,051.58	1,005.19	46.39	22.668		
5,100.00	5,054.44	4,935.97	4,677.37	23.74	28.26	-10.29	-1,645.61	-95.82	1,073.34	1,025.99	47.34	22.671		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,033.58	4,768.72	24.21	28.85	-10.28	-1,679.92	-98.00	1,095.10	1,046.80	48.30	22.673		
5,300.00	5,252.43	5,131.18	4,860.06	24.68	29.45	-10.28	-1,714.24	-100.18	1,116.86	1,067.61	49.26	22.675		
5,400.00	5,351.42	5,228.78	4,951.41	25.15	30.05	-10.28	-1,748.55	-102.36	1,138.63	1,088.42	50.21	22.676		
5,500.00	5,450.42	5,326.39	5,042.76	25.62	30.64	-10.27	-1,782.86	-104.54	1,160.39	1,109.22	51.17	22.678		
5,600.00	5,549.41	5,423.99	5,134.10	26.09	31.24	-10.27	-1,817.18	-106.72	1,182.15	1,130.03	52.13	22.679		
5,700.00	5,648.41	5,521.59	5,225.45	26.56	31.84	-10.27	-1,851.49	-108.90	1,203.92	1,150.83	53.08	22.680		
5,800.00	5,747.40	5,619.19	5,316.80	27.03	32.43	-10.26	-1,885.80	-111.08	1,225.68	1,171.64	54.04	22.680		
5,900.00	5,846.40	5,716.80	5,408.14	27.51	33.03	-10.26	-1,920.12	-113.26	1,247.44	1,192.44	55.00	22.680		
6,000.00	5,945.39	5,814.40	5,499.49	27.98	33.63	-10.26	-1,954.43	-115.44	1,269.20	1,213.24	55.96	22.681		
6,100.00	6,044.38	5,912.00	5,590.84	28.45	34.23	-10.25	-1,988.74	-117.63	1,290.97	1,234.05	56.92	22.681		
6,200.00	6,143.38	6,009.61	5,682.18	28.92	34.82	-10.25	-2,023.06	-119.81	1,312.73	1,254.85	57.88	22.681		
6,300.00	6,242.37	6,107.21	5,773.53	29.39	35.42	-10.25	-2,057.37	-121.99	1,334.49	1,275.65	58.84	22.681		
6,400.00	6,341.37	6,204.81	5,864.88	29.86	36.02	-10.25	-2,091.68	-124.17	1,356.25	1,296.46	59.80	22.680		
6,500.00	6,440.36	6,302.42	5,956.22	30.34	36.62	-10.24	-2,126.00	-126.35	1,378.02	1,317.26	60.76	22.680		
6,600.00	6,538.90	6,399.73	6,047.30	30.80	37.21	-48.11	-2,160.21	-128.52	1,399.73	1,338.00	61.72	22.677		
6,700.00	6,634.88	6,494.91	6,136.38	31.25	37.80	-63.48	-2,193.67	-130.65	1,421.21	1,358.52	62.69	22.672		
6,800.00	6,725.92	6,585.61	6,221.26	31.68	38.35	-69.83	-2,225.56	-132.68	1,442.60	1,378.96	63.64	22.669		
6,900.00	6,809.79	6,669.59	6,299.86	32.07	38.87	-73.17	-2,255.08	-134.55	1,464.42	1,399.83	64.59	22.672		
7,000.00	6,884.42	6,744.79	6,370.24	32.43	39.33	-75.09	-2,281.52	-136.23	1,487.43	1,421.86	65.57	22.685		
7,100.00	6,947.98	6,809.35	6,430.67	32.77	39.73	-76.01	-2,304.22	-137.68	1,512.46	1,445.85	66.61	22.706		
7,200.00	6,998.89	6,861.69	6,479.65	33.18	40.05	-75.99	-2,322.62	-138.85	1,540.24	1,472.49	67.75	22.735		
7,300.00	7,035.91	6,900.52	6,515.99	33.76	40.29	-74.98	-2,336.27	-139.71	1,571.22	1,502.24	68.99	22.776		
7,400.00	7,058.12	6,924.88	6,538.78	34.61	40.44	-72.93	-2,344.83	-140.26	1,605.50	1,535.20	70.30	22.837		
7,500.00	7,064.98	6,934.17	6,547.48	35.68	40.49	-69.94	-2,348.10	-140.47	1,642.70	1,571.07	71.63	22.932		
7,600.00	7,064.59	6,936.32	6,549.50	36.95	40.51	-70.02	-2,348.85	-140.51	1,683.76	1,610.77	72.99	23.069		
7,700.00	7,064.20	6,934.59	6,549.51	38.40	45.99	-96.12	-2,616.49	-977.84	1,695.21	1,617.03	78.18	21.683		
7,800.00	7,063.80	6,934.59	6,549.51	40.00	46.75	-96.12	-2,617.07	-1,077.84	1,694.97	1,613.74	81.23	20.866		
7,900.00	7,063.41	6,934.59	6,549.51	41.75	47.77	-96.12	-2,617.66	-1,177.83	1,694.74	1,610.18	84.56	20.042		
8,000.00	7,063.02	6,934.59	6,549.51	43.62	49.06	-96.12	-2,618.25	-1,277.83	1,694.51	1,606.38	88.12	19.229		
8,100.00	7,062.62	6,934.59	6,549.51	45.59	50.56	-96.11	-2,618.84	-1,377.83	1,694.27	1,602.37	91.90	18.435		
8,200.00	7,062.23	6,934.59	6,549.51	47.65	52.24	-96.11	-2,619.43	-1,477.82	1,694.04	1,598.17	95.87	17.670		
8,300.00	7,061.84	6,934.59	6,549.51	49.79	54.06	-96.11	-2,620.01	-1,577.82	1,693.81	1,593.80	100.01	16.937		
8,400.00	7,061.45	6,934.59	6,549.51	52.00	55.99	-96.10	-2,620.60	-1,677.82	1,693.57	1,589.28	104.29	16.240		
8,500.00	7,061.05	6,934.59	6,549.51	54.27	58.01	-96.10	-2,621.19	-1,777.81	1,693.34	1,584.64	108.70	15.579		
8,600.00	7,060.66	6,934.59	6,549.51	56.60	60.12	-96.10	-2,621.78	-1,877.81	1,693.10	1,579.88	113.22	14.954		
8,700.00	7,060.27	6,934.59	6,549.51	58.97	62.30	-96.10	-2,622.37	-1,977.81	1,692.87	1,575.03	117.85	14.365		
8,800.00	7,059.87	6,934.59	6,549.51	61.38	64.53	-96.09	-2,622.96	-2,077.80	1,692.64	1,570.08	122.56	13.811		
8,900.00	7,059.48	6,934.59	6,549.51	63.83	66.82	-96.09	-2,623.54	-2,177.80	1,692.40	1,565.05	127.35	13.289		
9,000.00	7,059.09	6,934.59	6,549.51	66.32	69.15	-96.09	-2,624.13	-2,277.80	1,692.17	1,559.95	132.22	12.798		
9,100.00	7,058.69	6,934.59	6,549.51	68.83	71.53	-96.08	-2,624.72	-2,377.79	1,691.94	1,554.79	137.15	12.337		
9,200.00	7,058.30	6,934.59	6,549.51	71.37	73.94	-96.08	-2,625.31	-2,477.79	1,691.70	1,549.57	142.13	11.902		
9,300.00	7,057.91	6,934.59	6,549.51	73.93	76.38	-96.08	-2,625.90	-2,577.79	1,691.47	1,544.30	147.17	11.493		
9,400.00	7,057.51	6,934.59	6,549.51	76.51	78.85	-96.08	-2,626.48	-2,677.78	1,691.24	1,538.98	152.25	11.108		
9,500.00	7,057.12	6,934.59	6,549.51	79.11	81.35	-96.07	-2,627.07	-2,777.78	1,691.00	1,533.62	157.38	10.745		
9,600.00	7,056.73	6,934.59	6,549.51	81.73	83.88	-96.07	-2,627.66	-2,877.78	1,690.77	1,528.23	162.54	10.402		
9,700.00	7,056.33	6,934.59	6,549.51	84.37	86.42	-96.07	-2,628.25	-2,977.77	1,690.53	1,522.80	167.74	10.078		
9,800.00	7,055.94	6,934.59	6,549.51	87.01	88.98	-96.06	-2,628.84	-3,077.77	1,690.30	1,517.34	172.97	9.772		
9,900.00	7,055.55	6,934.59	6,549.51	89.68	91.57	-96.06	-2,629.43	-3,177.77	1,690.07	1,511.85	178.22	9.483		
10,000.00	7,055.15	6,934.59	6,549.51	92.35	94.16	-96.06	-2,630.01	-3,277.76	1,689.83	1,506.33	183.50	9.209		
10,100.00	7,054.76	6,934.59	6,549.51	95.03	96.78	-96.06	-2,630.60	-3,377.76	1,689.60	1,500.79	188.81	8.949		
10,200.00	7,054.37	6,934.59	6,549.51	97.73	99.41	-96.05	-2,631.19	-3,477.76	1,689.37	1,495.23	194.14	8.702		
10,300.00	7,053.98	6,934.59	6,549.51	100.43	102.05	-96.05	-2,631.78	-3,577.75	1,689.13	1,489.65	199.49	8.467		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER STATE 13C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,053.58	10,943.58	7,231.50	103.14	104.70	-96.05	-2,632.37	-3,677.75	1,688.90	1,484.05	204.85	8.244		
10,500.00	7,053.19	11,043.58	7,231.00	105.86	107.36	-96.04	-2,632.95	-3,777.75	1,688.66	1,478.43	210.24	8.032		
10,600.00	7,052.80	11,143.58	7,230.49	108.59	110.03	-96.04	-2,633.54	-3,877.74	1,688.43	1,472.80	215.64	7.830		
10,700.00	7,052.40	11,243.58	7,229.99	111.32	112.71	-96.04	-2,634.13	-3,977.74	1,688.20	1,467.15	221.05	7.637		
10,800.00	7,052.01	11,343.58	7,229.49	114.06	115.40	-96.04	-2,634.72	-4,077.74	1,687.96	1,461.49	226.48	7.453		
10,900.00	7,051.62	11,443.58	7,228.99	116.80	118.10	-96.03	-2,635.31	-4,177.73	1,687.73	1,455.81	231.92	7.277		
11,000.00	7,051.22	11,543.58	7,228.49	119.55	120.81	-96.03	-2,635.90	-4,277.73	1,687.50	1,450.13	237.37	7.109		
11,100.00	7,050.83	11,643.58	7,227.99	122.31	123.52	-96.03	-2,636.48	-4,377.73	1,687.26	1,444.43	242.83	6.948		
11,200.00	7,050.44	11,743.58	7,227.49	125.07	126.24	-96.02	-2,637.07	-4,477.72	1,687.03	1,438.72	248.31	6.794		
11,300.00	7,050.04	11,843.58	7,226.99	127.83	128.97	-96.02	-2,637.66	-4,577.72	1,686.80	1,433.00	253.79	6.646		
11,400.00	7,049.65	11,943.58	7,226.49	130.60	131.70	-96.02	-2,638.25	-4,677.72	1,686.56	1,427.28	259.28	6.505		
11,500.00	7,049.26	12,043.58	7,225.99	133.37	134.43	-96.02	-2,638.84	-4,777.71	1,686.33	1,421.54	264.78	6.369		
11,600.00	7,048.86	12,143.58	7,225.49	136.15	137.18	-96.01	-2,639.42	-4,877.71	1,686.10	1,415.80	270.29	6.238		
11,700.00	7,048.47	12,243.58	7,224.99	138.93	139.92	-96.01	-2,640.01	-4,977.71	1,685.86	1,410.05	275.81	6.112		
11,800.00	7,048.08	12,343.58	7,224.49	141.71	142.67	-96.01	-2,640.60	-5,077.70	1,685.63	1,404.29	281.33	5.992		
11,900.00	7,047.68	12,443.58	7,223.99	144.49	145.43	-96.01	-2,641.19	-5,177.70	1,685.39	1,398.53	286.86	5.875		
12,000.00	7,047.29	12,543.58	7,223.49	147.28	148.19	-96.00	-2,641.78	-5,277.70	1,685.16	1,392.76	292.40	5.763		
12,100.00	7,046.90	12,643.58	7,222.98	150.07	150.95	-96.00	-2,642.37	-5,377.69	1,684.93	1,386.98	297.94	5.655		
12,200.00	7,046.51	12,743.58	7,222.48	152.87	153.72	-96.00	-2,642.95	-5,477.69	1,684.69	1,381.20	303.49	5.551		
12,300.00	7,046.11	12,843.58	7,221.98	155.66	156.49	-95.99	-2,643.54	-5,577.69	1,684.46	1,375.42	309.04	5.451		
12,400.00	7,045.72	12,943.58	7,221.48	158.46	159.26	-95.99	-2,644.13	-5,677.68	1,684.23	1,369.62	314.60	5.354		
12,500.00	7,045.33	13,043.58	7,220.98	161.26	162.03	-95.99	-2,644.72	-5,777.68	1,683.99	1,363.83	320.17	5.260		
12,600.00	7,044.93	13,143.58	7,220.48	164.06	164.81	-95.99	-2,645.31	-5,877.68	1,683.76	1,358.03	325.73	5.169		
12,700.00	7,044.54	13,243.58	7,219.98	166.86	167.59	-95.98	-2,645.89	-5,977.68	1,683.53	1,352.22	331.30	5.082		
12,800.00	7,044.15	13,343.58	7,219.48	169.67	170.38	-95.98	-2,646.48	-6,077.67	1,683.29	1,346.41	336.88	4.997		
12,900.00	7,043.75	13,443.58	7,218.98	172.48	173.16	-95.98	-2,647.07	-6,177.67	1,683.06	1,340.60	342.46	4.915		
13,000.00	7,043.36	13,543.57	7,218.48	175.28	175.95	-95.97	-2,647.66	-6,277.67	1,682.83	1,334.78	348.04	4.835		
13,100.00	7,042.97	13,643.57	7,217.98	178.09	178.74	-95.97	-2,648.25	-6,377.66	1,682.59	1,328.96	353.63	4.758		
13,200.00	7,042.57	13,743.57	7,217.48	180.91	181.54	-95.97	-2,648.84	-6,477.66	1,682.36	1,323.14	359.22	4.683		
13,300.00	7,042.18	13,843.57	7,216.98	183.72	184.33	-95.97	-2,649.42	-6,577.66	1,682.12	1,317.31	364.82	4.611		
13,400.00	7,041.79	13,943.57	7,216.48	186.53	187.13	-95.96	-2,650.01	-6,677.65	1,681.89	1,311.48	370.41	4.541		
13,500.00	7,041.39	14,043.57	7,215.97	189.35	189.93	-95.96	-2,650.60	-6,777.65	1,681.66	1,305.65	376.01	4.472		
13,600.00	7,041.00	14,143.57	7,215.47	192.17	192.73	-95.96	-2,651.19	-6,877.65	1,681.42	1,299.81	381.62	4.406		
13,700.00	7,040.61	14,243.57	7,214.97	194.99	195.53	-95.95	-2,651.78	-6,977.64	1,681.19	1,293.97	387.22	4.342		
13,800.00	7,040.21	14,343.57	7,214.47	197.81	198.34	-95.95	-2,652.36	-7,077.64	1,680.96	1,288.13	392.83	4.279		
13,900.00	7,039.82	14,443.57	7,213.97	200.63	201.14	-95.95	-2,652.95	-7,177.64	1,680.72	1,282.29	398.44	4.218		
14,000.00	7,039.43	14,543.57	7,213.47	203.45	203.95	-95.95	-2,653.54	-7,277.63	1,680.49	1,276.44	404.05	4.159		
14,100.00	7,039.03	14,643.57	7,212.97	206.27	206.76	-95.94	-2,654.13	-7,377.63	1,680.26	1,270.59	409.67	4.102		
14,200.00	7,038.64	14,743.57	7,212.47	209.09	209.57	-95.94	-2,654.72	-7,477.63	1,680.02	1,264.74	415.28	4.045		
14,300.00	7,038.25	14,843.57	7,211.97	211.92	212.38	-95.94	-2,655.31	-7,577.62	1,679.79	1,258.89	420.90	3.991		
14,400.00	7,037.86	14,943.57	7,211.47	214.74	215.19	-95.93	-2,655.89	-7,677.62	1,679.56	1,253.03	426.52	3.938		
14,500.00	7,037.46	15,043.57	7,210.97	217.57	218.00	-95.93	-2,656.48	-7,777.62	1,679.32	1,247.18	432.15	3.886		
14,600.00	7,037.07	15,143.57	7,210.47	220.40	220.82	-95.93	-2,657.07	-7,877.61	1,679.09	1,241.32	437.77	3.836		
14,700.00	7,036.68	15,243.57	7,209.97	223.23	223.63	-95.93	-2,657.66	-7,977.61	1,678.86	1,235.46	443.40	3.786		
14,800.00	7,036.28	15,343.57	7,209.47	226.05	226.45	-95.92	-2,658.25	-8,077.61	1,678.62	1,229.59	449.03	3.738		
14,871.88	7,036.00	15,415.45	7,209.11	228.09	228.48	-95.92	-2,658.67	-8,149.48	1,678.45	1,225.38	453.08	3.705 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	-179.54	-139.90	-1.11	139.91					
100.00	100.00	101.00	100.00	3.28	3.28	-179.54	-139.90	-1.11	139.91	133.34	6.57	21.296		
200.00	200.00	199.00	200.00	3.34	3.34	-179.54	-139.90	-1.11	139.91	133.23	6.67	20.965	CC, ES	
300.00	300.00	294.36	295.35	3.44	3.43	-179.51	-141.45	-1.22	141.53	134.65	6.89	20.549		
400.00	399.98	389.56	390.43	3.60	3.57	-9.34	-146.16	-1.55	144.76	137.56	7.20	20.101		
500.00	499.84	484.67	485.20	3.79	3.76	-9.46	-154.00	-2.09	147.85	140.25	7.60	19.446		
600.00	599.45	579.68	579.57	4.02	3.98	-9.70	-164.96	-2.85	150.82	142.73	8.09	18.651		
700.00	698.70	674.60	673.43	4.29	4.24	-10.07	-179.03	-3.82	153.66	145.02	8.64	17.789		
800.00	797.70	769.37	766.63	4.59	4.54	-10.46	-196.16	-5.00	157.86	148.62	9.24	17.078		
900.00	896.69	863.79	858.86	4.92	4.87	-10.74	-216.28	-6.40	165.35	155.47	9.89	16.723		
1,000.00	995.68	957.64	949.84	5.27	5.23	-10.90	-239.27	-7.99	176.11	165.54	10.57	16.662		
1,100.00	1,094.68	1,050.73	1,039.29	5.64	5.61	-10.96	-264.99	-9.77	190.09	178.81	11.27	16.866		
1,200.00	1,193.67	1,142.89	1,126.96	6.03	6.02	-10.94	-293.31	-11.72	207.25	195.26	11.98	17.294		
1,300.00	1,292.67	1,239.33	1,218.00	6.42	6.48	-10.86	-325.04	-13.92	226.66	213.93	12.72	17.812		
1,400.00	1,391.66	1,337.41	1,310.56	6.83	6.97	-10.79	-357.40	-16.16	246.17	232.67	13.50	18.237		
1,500.00	1,490.66	1,435.49	1,403.12	7.25	7.47	-10.74	-389.76	-18.40	265.68	251.38	14.29	18.586		
1,600.00	1,589.65	1,533.56	1,495.68	7.67	7.98	-10.69	-422.12	-20.63	285.19	270.08	15.11	18.874		
1,700.00	1,688.64	1,631.64	1,588.24	8.10	8.50	-10.65	-454.48	-22.87	304.70	288.76	15.94	19.112		
1,800.00	1,787.64	1,729.72	1,680.80	8.53	9.03	-10.61	-486.84	-25.11	324.21	307.42	16.79	19.311		
1,900.00	1,886.63	1,827.80	1,773.36	8.97	9.57	-10.57	-519.19	-27.35	343.72	326.08	17.65	19.477		
2,000.00	1,985.63	1,925.88	1,865.92	9.41	10.11	-10.54	-551.55	-29.59	363.23	344.72	18.52	19.617		
2,100.00	2,084.62	2,023.95	1,958.47	9.85	10.65	-10.52	-583.91	-31.83	382.75	363.35	19.39	19.736		
2,200.00	2,183.61	2,122.03	2,051.03	10.30	11.20	-10.49	-616.27	-34.06	402.26	381.98	20.28	19.836		
2,300.00	2,282.61	2,220.11	2,143.59	10.75	11.76	-10.47	-648.63	-36.30	421.77	400.60	21.17	19.922		
2,400.00	2,381.60	2,318.19	2,236.15	11.20	12.31	-10.45	-680.99	-38.54	441.28	419.21	22.07	19.996		
2,500.00	2,480.60	2,416.27	2,328.71	11.66	12.87	-10.43	-713.35	-40.78	460.79	437.82	22.97	20.059		
2,600.00	2,579.59	2,514.34	2,421.27	12.11	13.44	-10.42	-745.71	-43.02	480.30	456.42	23.88	20.113		
2,700.00	2,678.58	2,612.42	2,513.83	12.57	14.00	-10.40	-778.07	-45.26	499.81	475.02	24.79	20.160		
2,800.00	2,777.58	2,710.50	2,606.39	13.02	14.57	-10.39	-810.43	-47.49	519.33	493.62	25.71	20.201		
2,900.00	2,876.57	2,808.58	2,698.95	13.48	15.13	-10.37	-842.78	-49.73	538.84	512.21	26.63	20.236		
3,000.00	2,975.57	2,906.66	2,791.51	13.94	15.70	-10.36	-875.14	-51.97	558.35	530.80	27.55	20.267		
3,100.00	3,074.56	3,004.73	2,884.06	14.40	16.27	-10.35	-907.50	-54.21	577.86	549.39	28.47	20.294		
3,200.00	3,173.55	3,102.81	2,976.62	14.87	16.84	-10.34	-939.86	-56.45	597.37	567.97	29.40	20.318		
3,300.00	3,272.55	3,200.89	3,069.18	15.33	17.42	-10.33	-972.22	-58.69	616.88	586.55	30.33	20.339		
3,400.00	3,371.54	3,301.03	3,161.74	15.79	18.00	-10.32	-1,004.58	-60.92	636.40	605.12	31.27	20.350		
3,500.00	3,470.54	3,397.05	3,254.30	16.26	18.56	-10.31	-1,036.94	-63.16	655.91	623.71	32.20	20.373		
3,600.00	3,569.53	3,495.12	3,346.86	16.72	19.14	-10.30	-1,069.30	-65.40	675.42	642.29	33.13	20.387		
3,700.00	3,668.53	3,606.80	3,439.42	17.19	19.79	-10.29	-1,101.66	-67.64	694.93	660.79	34.14	20.357		
3,800.00	3,767.52	3,708.72	3,531.98	17.65	20.39	-10.29	-1,134.02	-69.88	714.44	679.35	35.09	20.358		
3,900.00	3,866.51	3,789.36	3,624.54	18.12	20.87	-10.28	-1,166.38	-72.12	733.95	698.01	35.94	20.419		
4,000.00	3,965.51	3,887.44	3,717.09	18.59	21.44	-10.27	-1,198.73	-74.35	753.47	716.58	36.89	20.427		
4,100.00	4,064.50	3,985.51	3,809.65	19.05	22.02	-10.27	-1,231.09	-76.59	772.98	735.15	37.83	20.435		
4,200.00	4,163.50	4,083.59	3,902.21	19.52	22.60	-10.26	-1,263.45	-78.83	792.49	753.72	38.77	20.441		
4,300.00	4,262.49	4,181.67	3,994.77	19.99	23.18	-10.25	-1,295.81	-81.07	812.00	772.29	39.71	20.447		
4,400.00	4,361.48	4,279.75	4,087.33	20.46	23.76	-10.25	-1,328.17	-83.31	831.51	790.86	40.66	20.451		
4,500.00	4,460.48	4,377.83	4,179.89	20.92	24.34	-10.24	-1,360.53	-85.55	851.02	809.42	41.60	20.456		
4,600.00	4,559.47	4,475.90	4,272.45	21.39	24.92	-10.24	-1,392.89	-87.79	870.54	827.99	42.55	20.459		
4,700.00	4,658.47	4,573.98	4,365.01	21.86	25.50	-10.23	-1,425.25	-90.02	890.05	846.55	43.50	20.462		
4,800.00	4,757.46	4,672.06	4,457.57	22.33	26.08	-10.23	-1,457.61	-92.26	909.56	865.12	44.44	20.465		
4,900.00	4,856.45	4,770.14	4,550.13	22.80	26.66	-10.23	-1,489.97	-94.50	929.07	883.68	45.39	20.467		
5,000.00	4,955.45	4,868.22	4,642.68	23.27	27.24	-10.22	-1,522.32	-96.74	948.58	902.24	46.34	20.469		
5,100.00	5,054.44	4,966.29	4,735.24	23.74	27.82	-10.22	-1,554.68	-98.98	968.10	920.80	47.29	20.471		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,064.37	4,827.80	24.21	28.40	-10.21	-1,587.04	-101.22	987.61	939.37	48.24	20.472		
5,300.00	5,252.43	5,162.45	4,920.36	24.68	28.98	-10.21	-1,619.40	-103.45	1,007.12	957.93	49.19	20.473		
5,400.00	5,351.42	5,260.53	5,012.92	25.15	29.56	-10.21	-1,651.76	-105.69	1,026.63	976.49	50.14	20.474		
5,500.00	5,450.42	5,358.60	5,105.48	25.62	30.15	-10.20	-1,684.12	-107.93	1,046.14	995.05	51.10	20.474		
5,600.00	5,549.41	5,456.68	5,198.04	26.09	30.73	-10.20	-1,716.48	-110.17	1,065.66	1,013.61	52.05	20.475		
5,700.00	5,648.41	5,554.76	5,290.60	26.56	31.31	-10.20	-1,748.84	-112.41	1,085.17	1,032.17	53.00	20.475		
5,800.00	5,747.40	5,652.84	5,383.16	27.03	31.89	-10.19	-1,781.20	-114.65	1,104.68	1,050.73	53.95	20.475		
5,900.00	5,846.40	5,750.92	5,475.72	27.51	32.48	-10.19	-1,813.56	-116.88	1,124.19	1,069.29	54.91	20.475		
6,000.00	5,945.39	5,848.99	5,568.27	27.98	33.06	-10.19	-1,845.92	-119.12	1,143.70	1,087.84	55.86	20.475		
6,100.00	6,044.38	5,947.07	5,660.83	28.45	33.64	-10.18	-1,878.27	-121.36	1,163.21	1,106.40	56.81	20.474		
6,200.00	6,143.38	6,045.15	5,753.39	28.92	34.22	-10.18	-1,910.63	-123.60	1,182.73	1,124.96	57.77	20.474		
6,300.00	6,242.37	6,143.23	5,845.95	29.39	34.81	-10.18	-1,942.99	-125.84	1,202.24	1,143.52	58.72	20.473		
6,400.00	6,341.37	6,241.31	5,938.51	29.86	35.39	-10.18	-1,975.35	-128.08	1,221.75	1,162.07	59.68	20.473		
6,500.00	6,440.36	6,339.38	6,031.07	30.34	35.97	-10.17	-2,007.71	-130.31	1,241.26	1,180.63	60.63	20.472		
6,600.00	6,538.90	6,437.18	6,123.36	30.80	36.56	-48.26	-2,039.98	-132.55	1,260.72	1,199.13	61.59	20.469		
6,700.00	6,634.88	6,532.82	6,213.62	31.25	37.12	-63.94	-2,071.53	-134.73	1,280.01	1,217.46	62.55	20.464		
6,800.00	6,725.92	6,623.97	6,299.64	31.68	37.67	-70.62	-2,101.60	-136.81	1,299.40	1,235.90	63.50	20.463		
6,900.00	6,809.79	6,708.37	6,379.29	32.07	38.17	-74.30	-2,129.45	-138.74	1,319.57	1,255.11	64.45	20.473		
7,000.00	6,884.42	6,783.94	6,450.61	32.43	38.62	-76.53	-2,154.38	-140.46	1,341.45	1,276.01	65.44	20.499		
7,100.00	6,947.98	6,848.83	6,511.85	32.77	39.01	-77.70	-2,175.79	-141.94	1,366.06	1,299.57	66.49	20.545		
7,200.00	6,998.89	6,904.12	6,564.03	33.18	39.33	-77.92	-2,194.04	-143.22	1,394.24	1,326.57	67.67	20.604		
7,300.00	7,035.91	7,028.19	6,679.97	33.76	40.06	-80.10	-2,234.67	-159.04	1,425.26	1,355.60	69.66	20.461		
7,400.00	7,058.12	7,257.51	6,877.59	34.61	41.19	-85.04	-2,304.46	-249.04	1,456.21	1,384.49	71.71	20.306		
7,500.00	7,064.98	7,858.25	7,144.56	35.68	43.10	-93.09	-2,401.83	-753.16	1,475.01	1,401.81	73.20	20.150		
7,600.00	7,064.59	7,983.38	7,144.45	36.95	43.63	-93.10	-2,402.80	-878.28	1,474.83	1,399.01	75.82	19.452		
7,700.00	7,064.20	8,083.38	7,143.88	38.40	44.29	-93.10	-2,403.42	-978.28	1,474.62	1,396.01	78.61	18.758		
7,800.00	7,063.80	8,183.38	7,143.31	40.00	45.21	-93.09	-2,404.03	-1,078.27	1,474.42	1,392.70	81.71	18.044		
7,900.00	7,063.41	8,283.38	7,142.74	41.75	46.41	-93.09	-2,404.64	-1,178.27	1,474.21	1,389.13	85.08	17.327		
8,000.00	7,063.02	8,383.38	7,142.17	43.62	47.84	-93.08	-2,405.26	-1,278.26	1,474.00	1,385.31	88.69	16.619		
8,100.00	7,062.62	8,483.38	7,141.60	45.59	49.46	-93.07	-2,405.87	-1,378.26	1,473.79	1,381.28	92.51	15.931		
8,200.00	7,062.23	8,583.38	7,141.04	47.65	51.23	-93.07	-2,406.48	-1,478.26	1,473.58	1,377.06	96.52	15.267		
8,300.00	7,061.84	8,683.38	7,140.47	49.79	53.12	-93.06	-2,407.09	-1,578.25	1,473.38	1,372.68	100.69	14.632		
8,400.00	7,061.45	8,783.38	7,139.90	52.00	55.12	-93.05	-2,407.71	-1,678.25	1,473.17	1,368.16	105.01	14.029		
8,500.00	7,061.05	8,883.38	7,139.33	54.27	57.20	-93.05	-2,408.32	-1,778.24	1,472.96	1,363.51	109.45	13.457		
8,600.00	7,060.66	8,983.38	7,138.76	56.60	59.35	-93.04	-2,408.93	-1,878.24	1,472.75	1,358.74	114.01	12.918		
8,700.00	7,060.27	9,083.38	7,138.19	58.97	61.57	-93.03	-2,409.55	-1,978.24	1,472.55	1,353.88	118.67	12.409		
8,800.00	7,059.87	9,183.38	7,137.63	61.38	63.84	-93.03	-2,410.16	-2,078.23	1,472.34	1,348.92	123.41	11.930		
8,900.00	7,059.48	9,283.38	7,137.06	63.83	66.16	-93.02	-2,410.77	-2,178.23	1,472.13	1,343.89	128.24	11.480		
9,000.00	7,059.09	9,383.38	7,136.49	66.32	68.53	-93.01	-2,411.39	-2,278.23	1,471.92	1,338.79	133.13	11.056		
9,100.00	7,058.69	9,483.38	7,135.92	68.83	70.93	-93.01	-2,412.00	-2,378.22	1,471.71	1,333.62	138.09	10.658		
9,200.00	7,058.30	9,583.38	7,135.35	71.37	73.36	-93.00	-2,412.61	-2,478.22	1,471.51	1,328.40	143.10	10.283		
9,300.00	7,057.91	9,683.37	7,134.78	73.93	75.83	-93.00	-2,413.22	-2,578.21	1,471.30	1,323.13	148.17	9.930		
9,400.00	7,057.51	9,783.37	7,134.21	76.51	78.33	-92.99	-2,413.84	-2,678.21	1,471.09	1,317.81	153.28	9.597		
9,500.00	7,057.12	9,883.37	7,133.65	79.11	80.85	-92.98	-2,414.45	-2,778.21	1,470.88	1,312.45	158.43	9.284		
9,600.00	7,056.73	9,983.37	7,133.08	81.73	83.39	-92.98	-2,415.06	-2,878.20	1,470.68	1,307.06	163.62	8.988		
9,700.00	7,056.33	10,083.37	7,132.51	84.37	85.95	-92.97	-2,415.68	-2,978.20	1,470.47	1,301.63	168.84	8.709		
9,800.00	7,055.94	10,183.37	7,131.94	87.01	88.53	-92.96	-2,416.29	-3,078.19	1,470.26	1,296.17	174.09	8.445		
9,900.00	7,055.55	10,283.37	7,131.37	89.68	91.13	-92.96	-2,416.90	-3,178.19	1,470.05	1,290.68	179.37	8.195		
10,000.00	7,055.15	10,383.37	7,130.80	92.35	93.74	-92.95	-2,417.52	-3,278.19	1,469.85	1,285.16	184.68	7.959		
10,100.00	7,054.76	10,483.37	7,130.24	95.03	96.37	-92.94	-2,418.13	-3,378.18	1,469.64	1,279.63	190.01	7.734		
10,200.00	7,054.37	10,583.37	7,129.67	97.73	99.01	-92.94	-2,418.74	-3,478.18	1,469.43	1,274.07	195.36	7.521		
10,300.00	7,053.98	10,683.37	7,129.10	100.43	101.66	-92.93	-2,419.35	-3,578.18	1,469.22	1,268.49	200.74	7.319		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER STATE 33N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,053.58	10,783.37	7,128.53	103.14	104.33	-92.92	-2,419.97	-3,678.17	1,469.02	1,262.89	206.13	7.127		
10,500.00	7,053.19	10,883.37	7,127.96	105.86	107.00	-92.92	-2,420.58	-3,778.17	1,468.81	1,257.27	211.53	6.944		
10,600.00	7,052.80	10,983.37	7,127.39	108.59	109.68	-92.91	-2,421.19	-3,878.16	1,468.60	1,251.64	216.96	6.769		
10,700.00	7,052.40	11,083.37	7,126.83	111.32	112.38	-92.91	-2,421.81	-3,978.16	1,468.39	1,246.00	222.40	6.603		
10,800.00	7,052.01	11,183.37	7,126.26	114.06	115.08	-92.90	-2,422.42	-4,078.16	1,468.19	1,240.34	227.85	6.444		
10,900.00	7,051.62	11,283.37	7,125.69	116.80	117.78	-92.89	-2,423.03	-4,178.15	1,467.98	1,234.67	233.31	6.292		
11,000.00	7,051.22	11,383.37	7,125.12	119.55	120.50	-92.89	-2,423.65	-4,278.15	1,467.77	1,228.99	238.79	6.147		
11,100.00	7,050.83	11,483.37	7,124.55	122.31	123.22	-92.88	-2,424.26	-4,378.14	1,467.57	1,223.29	244.27	6.008		
11,200.00	7,050.44	11,583.37	7,123.98	125.07	125.95	-92.87	-2,424.87	-4,478.14	1,467.36	1,217.59	249.77	5.875		
11,300.00	7,050.04	11,683.37	7,123.41	127.83	128.68	-92.87	-2,425.48	-4,578.14	1,467.15	1,211.87	255.28	5.747		
11,400.00	7,049.65	11,783.37	7,122.85	130.60	131.42	-92.86	-2,426.10	-4,678.13	1,466.94	1,206.15	260.79	5.625		
11,500.00	7,049.26	11,883.37	7,122.28	133.37	134.16	-92.85	-2,426.71	-4,778.13	1,466.74	1,200.42	266.31	5.508		
11,600.00	7,048.86	11,983.37	7,121.71	136.15	136.91	-92.85	-2,427.32	-4,878.13	1,466.53	1,194.68	271.85	5.395		
11,700.00	7,048.47	12,083.37	7,121.14	138.93	139.67	-92.84	-2,427.94	-4,978.12	1,466.32	1,188.94	277.39	5.286		
11,800.00	7,048.08	12,183.37	7,120.57	141.71	142.42	-92.83	-2,428.55	-5,078.12	1,466.11	1,183.18	282.93	5.182		
11,900.00	7,047.68	12,283.37	7,120.00	144.49	145.18	-92.83	-2,429.16	-5,178.11	1,465.91	1,177.42	288.48	5.081		
12,000.00	7,047.29	12,383.37	7,119.44	147.28	147.95	-92.82	-2,429.77	-5,278.11	1,465.70	1,171.66	294.04	4.985		
12,100.00	7,046.90	12,483.37	7,118.87	150.07	150.72	-92.82	-2,430.39	-5,378.11	1,465.49	1,165.89	299.61	4.891		
12,200.00	7,046.51	12,583.36	7,118.30	152.87	153.49	-92.81	-2,431.00	-5,478.10	1,465.29	1,160.11	305.18	4.801		
12,300.00	7,046.11	12,683.36	7,117.73	155.66	156.26	-92.80	-2,431.61	-5,578.10	1,465.08	1,154.33	310.75	4.715		
12,400.00	7,045.72	12,783.36	7,117.16	158.46	159.04	-92.80	-2,432.23	-5,678.09	1,464.87	1,148.54	316.33	4.631		
12,500.00	7,045.33	12,883.36	7,116.59	161.26	161.82	-92.79	-2,432.84	-5,778.09	1,464.66	1,142.75	321.92	4.550		
12,600.00	7,044.93	12,983.36	7,116.02	164.06	164.61	-92.78	-2,433.45	-5,878.09	1,464.46	1,136.95	327.51	4.472		
12,700.00	7,044.54	13,083.36	7,115.46	166.86	167.39	-92.78	-2,434.07	-5,978.08	1,464.25	1,131.15	333.10	4.396		
12,800.00	7,044.15	13,183.36	7,114.89	169.67	170.18	-92.77	-2,434.68	-6,078.08	1,464.04	1,125.34	338.70	4.323		
12,900.00	7,043.75	13,283.36	7,114.32	172.48	172.97	-92.76	-2,435.29	-6,178.08	1,463.84	1,119.53	344.30	4.252		
13,000.00	7,043.36	13,383.36	7,113.75	175.28	175.76	-92.76	-2,435.90	-6,278.07	1,463.63	1,113.72	349.91	4.183		
13,100.00	7,042.97	13,483.36	7,113.18	178.09	178.56	-92.75	-2,436.52	-6,378.07	1,463.42	1,107.91	355.52	4.116		
13,200.00	7,042.57	13,583.36	7,112.61	180.91	181.36	-92.74	-2,437.13	-6,478.06	1,463.22	1,102.09	361.13	4.052		
13,300.00	7,042.18	13,683.36	7,112.05	183.72	184.16	-92.74	-2,437.74	-6,578.06	1,463.01	1,096.26	366.75	3.989		
13,400.00	7,041.79	13,783.36	7,111.48	186.53	186.96	-92.73	-2,438.36	-6,678.06	1,462.80	1,090.44	372.36	3.928		
13,500.00	7,041.39	13,883.36	7,110.91	189.35	189.76	-92.72	-2,438.97	-6,778.05	1,462.60	1,084.61	377.99	3.869		
13,600.00	7,041.00	13,983.36	7,110.34	192.17	192.56	-92.72	-2,439.58	-6,878.05	1,462.39	1,078.78	383.61	3.812		
13,700.00	7,040.61	14,083.36	7,109.77	194.99	195.37	-92.71	-2,440.20	-6,978.04	1,462.18	1,072.94	389.24	3.757		
13,800.00	7,040.21	14,183.36	7,109.20	197.81	198.18	-92.71	-2,440.81	-7,078.04	1,461.97	1,067.11	394.87	3.702		
13,900.00	7,039.82	14,283.36	7,108.63	200.63	200.98	-92.70	-2,441.42	-7,178.04	1,461.77	1,061.27	400.50	3.650		
14,000.00	7,039.43	14,383.36	7,108.07	203.45	203.79	-92.69	-2,442.03	-7,278.03	1,461.56	1,055.43	406.13	3.599		
14,100.00	7,039.03	14,483.36	7,107.50	206.27	206.61	-92.69	-2,442.65	-7,378.03	1,461.35	1,049.58	411.77	3.549		
14,200.00	7,038.64	14,583.36	7,106.93	209.09	209.42	-92.68	-2,443.26	-7,478.03	1,461.15	1,043.74	417.41	3.501		
14,300.00	7,038.25	14,683.36	7,106.36	211.92	212.23	-92.67	-2,443.87	-7,578.02	1,460.94	1,037.89	423.05	3.453		
14,400.00	7,037.86	14,783.36	7,105.79	214.74	215.05	-92.67	-2,444.49	-7,678.02	1,460.73	1,032.04	428.69	3.407		
14,500.00	7,037.46	14,883.36	7,105.22	217.57	217.86	-92.66	-2,445.10	-7,778.01	1,460.53	1,026.19	434.34	3.363		
14,600.00	7,037.07	14,983.36	7,104.66	220.40	220.68	-92.65	-2,445.71	-7,878.01	1,460.32	1,020.34	439.99	3.319		
14,700.00	7,036.68	15,083.36	7,104.09	223.23	223.50	-92.65	-2,446.33	-7,978.01	1,460.11	1,014.48	445.63	3.276		
14,800.00	7,036.28	15,183.36	7,103.52	226.05	226.32	-92.64	-2,446.94	-8,078.00	1,459.91	1,008.62	451.28	3.235		
14,871.88	7,036.00	15,255.24	7,103.11	228.09	228.35	-92.64	-2,447.38	-8,149.88	1,459.76	1,004.41	455.35	3.206 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2.00	0.00	3.28	0.00	0.49	260.11	2.23	260.12					
100.00	100.00	102.00	100.00	3.28	0.18	0.49	260.11	2.23	260.12	256.65	3.47	74.986		
200.00	200.00	202.00	200.00	3.34	0.62	0.49	260.11	2.23	260.12	256.16	3.96	65.686		
300.00	300.00	302.00	300.00	3.44	1.06	0.49	260.11	2.23	260.12	255.62	4.51	57.719 CC, ES		
400.00	399.98	401.98	399.98	3.60	1.50	170.70	260.11	2.23	261.85	256.75	5.10	51.378		
500.00	499.84	501.84	499.84	3.79	1.94	170.86	260.11	2.23	267.01	261.29	5.73	46.630		
600.00	599.45	592.61	590.59	4.02	2.34	171.05	261.60	2.02	277.24	270.87	6.37	43.512		
700.00	698.70	682.35	680.23	4.29	2.73	171.20	265.86	1.44	293.98	286.92	7.06	41.648		
800.00	797.70	770.69	768.29	4.59	3.13	171.35	272.78	0.50	315.64	307.88	7.76	40.655		
900.00	896.69	857.78	854.85	4.92	3.52	171.41	282.22	-0.78	340.26	331.79	8.47	40.153		
1,000.00	995.68	943.48	939.71	5.27	3.90	171.40	294.06	-2.39	367.75	358.56	9.19	40.024		
1,100.00	1,094.68	1,037.99	1,022.04	5.64	4.33	171.33	308.00	-4.29	398.04	388.10	9.95	40.024		
1,200.00	1,193.67	1,121.80	1,115.20	6.03	4.70	171.22	325.36	-6.65	429.87	419.22	10.65	40.378		
1,300.00	1,292.67	1,216.60	1,208.37	6.42	5.12	171.13	342.72	-9.01	461.70	450.29	11.41	40.450		
1,400.00	1,391.66	1,311.39	1,301.53	6.83	5.55	171.05	360.08	-11.37	493.53	481.34	12.20	40.468		
1,500.00	1,490.66	1,406.19	1,394.69	7.25	5.99	170.98	377.44	-13.74	525.36	512.38	12.99	40.448		
1,600.00	1,589.65	1,500.99	1,487.86	7.67	6.43	170.92	394.80	-16.10	557.20	543.41	13.79	40.403		
1,700.00	1,688.64	1,604.22	1,581.02	8.10	6.91	170.86	412.16	-18.46	589.03	574.39	14.64	40.234		
1,800.00	1,787.64	1,709.42	1,674.18	8.53	7.41	170.81	429.52	-20.82	620.86	605.36	15.51	40.041		
1,900.00	1,886.63	1,785.38	1,767.35	8.97	7.76	170.77	446.88	-23.18	652.70	636.45	16.24	40.182		
2,000.00	1,985.63	1,880.17	1,860.51	9.41	8.21	170.73	464.24	-25.54	684.53	667.46	17.07	40.096		
2,100.00	2,084.62	1,974.97	1,953.67	9.85	8.66	170.69	481.60	-27.91	716.37	698.46	17.91	40.008		
2,200.00	2,183.61	2,069.77	2,046.84	10.30	9.10	170.66	498.96	-30.27	748.20	729.46	18.74	39.919		
2,300.00	2,282.61	2,164.56	2,140.00	10.75	9.55	170.62	516.32	-32.63	780.04	760.45	19.58	39.831		
2,400.00	2,381.60	2,259.36	2,233.17	11.20	10.00	170.60	533.68	-34.99	811.87	791.44	20.43	39.744		
2,500.00	2,480.60	2,354.16	2,328.33	11.66	10.45	170.57	551.04	-37.35	843.71	822.43	21.27	39.660		
2,600.00	2,579.59	2,448.95	2,419.49	12.11	10.90	170.54	568.40	-39.71	875.54	853.42	22.12	39.577		
2,700.00	2,678.58	2,543.75	2,512.66	12.57	11.35	170.52	585.75	-42.08	907.38	884.41	22.97	39.497		
2,800.00	2,777.58	2,638.55	2,605.82	13.02	11.79	170.50	603.11	-44.44	939.21	915.39	23.83	39.419		
2,900.00	2,876.57	2,733.34	2,698.98	13.48	12.24	170.48	620.47	-46.80	971.05	946.37	24.68	39.345		
3,000.00	2,975.57	2,828.14	2,792.15	13.94	12.69	170.46	637.83	-49.16	1,002.89	977.35	25.54	39.272		
3,100.00	3,074.56	2,922.93	2,885.31	14.40	13.14	170.44	655.19	-51.52	1,034.72	1,008.33	26.39	39.203		
3,200.00	3,173.55	3,017.73	2,978.47	14.87	13.60	170.43	672.55	-53.88	1,066.56	1,039.31	27.25	39.136		
3,300.00	3,272.55	3,112.53	3,071.64	15.33	14.05	170.41	689.91	-56.24	1,098.40	1,070.28	28.11	39.071		
3,400.00	3,371.54	3,207.32	3,164.80	15.79	14.50	170.40	707.27	-58.61	1,130.23	1,101.26	28.97	39.009		
3,500.00	3,470.54	3,302.12	3,257.96	16.26	14.95	170.38	724.63	-60.97	1,162.07	1,132.23	29.84	38.949		
3,600.00	3,569.53	3,396.92	3,351.13	16.72	15.40	170.37	741.99	-63.33	1,193.90	1,163.21	30.70	38.891		
3,700.00	3,668.53	3,508.29	3,444.29	17.19	15.93	170.36	759.35	-65.69	1,225.74	1,194.10	31.64	38.741		
3,800.00	3,767.52	3,596.51	3,537.46	17.65	16.30	170.35	776.71	-68.05	1,257.58	1,225.15	32.43	38.782		
3,900.00	3,866.51	3,681.31	3,630.62	18.12	16.75	170.34	794.07	-70.41	1,289.41	1,256.12	33.29	38.731		
4,000.00	3,965.51	3,776.10	3,723.78	18.59	17.20	170.32	811.43	-72.78	1,321.25	1,287.09	34.16	38.681		
4,100.00	4,064.50	3,870.90	3,816.95	19.05	17.65	170.31	828.79	-75.14	1,353.09	1,318.06	35.02	38.633		
4,200.00	4,163.50	3,965.70	3,910.11	19.52	18.11	170.30	846.14	-77.50	1,384.92	1,349.03	35.89	38.587		
4,300.00	4,262.49	4,060.49	4,003.27	19.99	18.56	170.30	863.50	-79.86	1,416.76	1,380.00	36.76	38.542		
4,400.00	4,361.48	4,155.29	4,096.44	20.46	19.01	170.29	880.86	-82.22	1,448.60	1,410.97	37.63	38.499		
4,500.00	4,460.48	4,250.09	4,189.60	20.92	19.46	170.28	898.22	-84.58	1,480.43	1,441.94	38.50	38.458		
4,600.00	4,559.47	4,344.88	4,282.76	21.39	19.91	170.27	915.58	-86.95	1,512.27	1,472.91	39.36	38.418		
4,700.00	4,658.47	4,439.68	4,375.93	21.86	20.37	170.26	932.94	-89.31	1,544.11	1,503.87	40.23	38.379		
4,800.00	4,757.46	4,534.48	4,469.09	22.33	20.82	170.26	950.30	-91.67	1,575.95	1,534.84	41.10	38.341		
4,900.00	4,856.45	4,629.27	4,562.25	22.80	21.27	170.25	967.66	-94.03	1,607.78	1,565.81	41.97	38.305		
5,000.00	4,955.45	4,724.07	4,655.42	23.27	21.72	170.24	985.02	-96.39	1,639.62	1,596.78	42.84	38.270		
5,100.00	5,054.44	4,818.86	4,748.58	23.74	22.17	170.23	1,002.38	-98.75	1,671.46	1,627.74	43.71	38.235		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	4,913.66	4,841.74	24.21	22.63	170.23	1,019.74	-101.11	1,703.29	1,658.71	44.59	38.202		
5,300.00	5,252.43	5,008.46	4,934.91	24.68	23.08	170.22	1,037.10	-103.48	1,735.13	1,689.67	45.46	38.170		
5,400.00	5,351.42	5,103.25	5,028.07	25.15	23.53	170.22	1,054.46	-105.84	1,766.97	1,720.64	46.33	38.139		
5,500.00	5,450.42	5,198.05	5,121.24	25.62	23.98	170.21	1,071.82	-108.20	1,798.80	1,751.60	47.20	38.109		
5,600.00	5,549.41	5,307.15	5,214.40	26.09	24.50	170.20	1,089.18	-110.56	1,830.64	1,782.50	48.14	38.027		
5,700.00	5,648.41	5,387.64	5,307.56	26.56	24.89	170.20	1,106.54	-112.92	1,862.48	1,813.53	48.95	38.051		
5,800.00	5,747.40	5,482.44	5,400.73	27.03	25.34	170.19	1,123.89	-115.28	1,894.32	1,844.50	49.82	38.023		
5,900.00	5,846.40	5,577.24	5,493.89	27.51	25.79	170.19	1,141.25	-117.65	1,926.15	1,875.46	50.69	37.996		
6,000.00	5,945.39	5,672.03	5,587.05	27.98	26.24	170.18	1,158.61	-120.01	1,957.99	1,906.42	51.57	37.970		
6,100.00	6,044.38	5,766.83	5,680.22	28.45	26.69	170.18	1,175.97	-122.37	1,989.83	1,937.39	52.44	37.945		
6,200.00	6,143.38	5,861.63	5,773.38	28.92	27.15	170.18	1,193.33	-124.73	2,021.66	1,968.35	53.31	37.920		
6,300.00	6,242.37	5,956.42	5,866.54	29.39	27.60	170.17	1,210.69	-127.09	2,053.50	1,999.31	54.19	37.895		
6,400.00	6,341.37	6,051.22	5,959.71	29.86	28.05	170.17	1,228.05	-129.45	2,085.34	2,030.28	55.06	37.872		
6,500.00	6,440.36	6,146.02	6,052.87	30.34	28.50	170.16	1,245.41	-131.82	2,117.18	2,061.24	55.94	37.849		
6,600.00	6,538.90	6,240.53	6,145.75	30.80	28.96	128.23	1,262.72	-134.17	2,148.97	2,092.16	56.81	37.828		
6,700.00	6,634.88	6,332.94	6,236.58	31.25	29.40	109.36	1,279.64	-136.47	2,180.33	2,122.67	57.66	37.816		
6,800.00	6,725.92	6,420.98	6,323.10	31.68	29.82	100.44	1,295.76	-138.67	2,210.91	2,152.45	58.46	37.817		
6,900.00	6,809.79	6,502.48	6,403.19	32.07	30.21	95.17	1,310.69	-140.70	2,240.65	2,181.42	59.23	37.829		
7,000.00	6,884.42	6,575.43	6,474.89	32.43	30.55	91.57	1,324.05	-142.51	2,269.68	2,209.70	59.98	37.843		
7,100.00	6,947.98	6,638.04	6,536.42	32.77	30.85	88.82	1,335.51	-144.07	2,298.20	2,237.48	60.73	37.845		
7,200.00	6,998.89	6,688.76	6,586.26	33.18	31.09	86.47	1,344.80	-145.34	2,326.44	2,264.93	61.52	37.818		
7,300.00	7,035.91	6,726.34	6,623.20	33.76	31.27	84.24	1,351.68	-146.27	2,354.53	2,292.16	62.37	37.751		
7,400.00	7,058.12	6,749.87	6,646.32	34.61	31.39	81.99	1,355.99	-146.86	2,382.43	2,319.14	63.29	37.644		
7,500.00	7,064.98	7,779.76	7,259.84	35.68	37.98	94.66	1,459.80	-827.31	2,397.42	2,324.92	72.50	33.068		
7,600.00	7,064.59	7,879.76	7,259.42	36.95	39.31	94.67	1,458.14	-927.29	2,396.57	2,321.42	75.16	31.887		
7,700.00	7,064.20	7,979.75	7,259.00	38.40	40.79	94.67	1,456.48	-1,027.27	2,395.73	2,317.59	78.14	30.660		
7,800.00	7,063.80	8,079.75	7,258.58	40.00	42.42	94.67	1,454.82	-1,127.25	2,394.88	2,313.47	81.41	29.419		
7,900.00	7,063.41	8,179.75	7,258.16	41.75	44.17	94.67	1,453.16	-1,227.24	2,394.04	2,309.10	84.93	28.187		
8,000.00	7,063.02	8,279.74	7,257.73	43.62	46.03	94.67	1,451.51	-1,327.22	2,393.19	2,304.50	88.68	26.986		
8,100.00	7,062.62	8,379.74	7,257.31	45.59	47.99	94.67	1,449.85	-1,427.20	2,392.34	2,299.71	92.63	25.826		
8,200.00	7,062.23	8,479.74	7,256.89	47.65	50.03	94.67	1,448.19	-1,527.18	2,391.50	2,294.74	96.76	24.716		
8,300.00	7,061.84	8,579.73	7,256.47	49.79	52.16	94.67	1,446.53	-1,627.16	2,390.65	2,289.61	101.04	23.662		
8,400.00	7,061.45	8,679.73	7,256.05	52.00	54.35	94.67	1,444.87	-1,727.14	2,389.80	2,284.36	105.45	22.664		
8,500.00	7,061.05	8,779.73	7,255.63	54.27	56.59	94.67	1,443.21	-1,827.13	2,388.96	2,278.98	109.98	21.723		
8,600.00	7,060.66	8,879.72	7,255.21	56.60	58.90	94.68	1,441.55	-1,927.11	2,388.11	2,273.50	114.61	20.837		
8,700.00	7,060.27	8,979.72	7,254.79	58.97	61.24	94.68	1,439.90	-2,027.09	2,387.26	2,267.93	119.33	20.005		
8,800.00	7,059.87	9,079.71	7,254.37	61.38	63.63	94.68	1,438.24	-2,127.07	2,386.42	2,262.28	124.14	19.223		
8,900.00	7,059.48	9,179.71	7,253.95	63.83	66.06	94.68	1,436.58	-2,227.05	2,385.57	2,256.55	129.02	18.490		
9,000.00	7,059.09	9,279.71	7,253.53	66.32	68.52	94.68	1,434.92	-2,327.04	2,384.73	2,250.76	133.96	17.801		
9,100.00	7,058.69	9,379.70	7,253.11	68.83	71.01	94.68	1,433.26	-2,427.02	2,383.88	2,244.91	138.96	17.155		
9,200.00	7,058.30	9,479.70	7,252.69	71.37	73.53	94.68	1,431.60	-2,527.00	2,383.03	2,239.02	144.02	16.547		
9,300.00	7,057.91	9,579.70	7,252.27	73.93	76.07	94.68	1,429.94	-2,626.98	2,382.19	2,233.07	149.12	15.975		
9,400.00	7,057.51	9,679.69	7,251.85	76.51	78.63	94.68	1,428.29	-2,726.96	2,381.34	2,227.08	154.26	15.438		
9,500.00	7,057.12	9,779.69	7,251.43	79.11	81.21	94.68	1,426.63	-2,826.94	2,380.49	2,221.06	159.43	14.931		
9,600.00	7,056.73	9,879.69	7,251.01	81.73	83.81	94.69	1,424.97	-2,926.93	2,379.65	2,215.00	164.65	14.453		
9,700.00	7,056.33	9,979.68	7,250.59	84.37	86.43	94.69	1,423.31	-3,026.91	2,378.80	2,208.91	169.89	14.002		
9,800.00	7,055.94	10,079.68	7,250.17	87.01	89.06	94.69	1,421.65	-3,126.89	2,377.95	2,202.79	175.16	13.576		
9,900.00	7,055.55	10,179.67	7,249.75	89.68	91.70	94.69	1,419.99	-3,226.87	2,377.11	2,196.65	180.46	13.173		
10,000.00	7,055.15	10,279.67	7,249.33	92.35	94.36	94.69	1,418.33	-3,326.85	2,376.26	2,190.48	185.78	12.791		
10,100.00	7,054.76	10,379.67	7,248.91	95.03	97.02	94.69	1,416.68	-3,426.83	2,375.42	2,184.29	191.12	12.429		
10,200.00	7,054.37	10,479.66	7,248.49	97.73	99.70	94.69	1,415.02	-3,526.82	2,374.57	2,178.09	196.48	12.085		
10,300.00	7,053.98	10,579.66	7,248.07	100.43	102.39	94.69	1,413.36	-3,626.80	2,373.72	2,171.86	201.86	11.759		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	10,679.66	7,247.65	103.14	105.08	94.69	1,411.70	-3,726.78	2,372.88	2,165.62	207.26	11.449		
10,500.00	7,053.19	10,779.65	7,247.23	105.86	107.79	94.69	1,410.04	-3,826.76	2,372.03	2,159.36	212.67	11.153		
10,600.00	7,052.80	10,879.65	7,246.81	108.59	110.50	94.70	1,408.38	-3,926.74	2,371.18	2,153.08	218.10	10.872		
10,700.00	7,052.40	10,979.65	7,246.39	111.32	113.22	94.70	1,406.72	-4,026.73	2,370.34	2,146.80	223.54	10.604		
10,800.00	7,052.01	11,079.64	7,245.97	114.06	115.95	94.70	1,405.07	-4,126.71	2,369.49	2,140.50	228.99	10.347		
10,900.00	7,051.62	11,179.64	7,245.55	116.80	118.68	94.70	1,403.41	-4,226.69	2,368.64	2,134.19	234.46	10.103		
11,000.00	7,051.22	11,279.64	7,245.13	119.55	121.41	94.70	1,401.75	-4,326.67	2,367.80	2,127.87	239.93	9.869		
11,100.00	7,050.83	11,379.63	7,244.71	122.31	124.16	94.70	1,400.09	-4,426.65	2,366.95	2,121.54	245.42	9.645		
11,200.00	7,050.44	11,479.63	7,244.29	125.07	126.90	94.70	1,398.43	-4,526.63	2,366.11	2,115.20	250.91	9.430		
11,300.00	7,050.04	11,579.62	7,243.86	127.83	129.66	94.70	1,396.77	-4,626.62	2,365.26	2,108.85	256.41	9.224		
11,400.00	7,049.65	11,679.62	7,243.44	130.60	132.41	94.70	1,395.11	-4,726.60	2,364.41	2,102.49	261.92	9.027		
11,500.00	7,049.26	11,779.62	7,243.02	133.37	135.17	94.70	1,393.46	-4,826.58	2,363.57	2,096.13	267.44	8.838		
11,600.00	7,048.86	11,879.61	7,242.60	136.15	137.94	94.71	1,391.80	-4,926.56	2,362.72	2,089.75	272.97	8.656		
11,700.00	7,048.47	11,979.61	7,242.18	138.93	140.71	94.71	1,390.14	-5,026.54	2,361.87	2,083.37	278.50	8.481		
11,800.00	7,048.08	12,079.61	7,241.76	141.71	143.48	94.71	1,388.48	-5,126.52	2,361.03	2,076.99	284.04	8.312		
11,900.00	7,047.68	12,179.60	7,241.34	144.49	146.25	94.71	1,386.82	-5,226.51	2,360.18	2,070.60	289.58	8.150		
12,000.00	7,047.29	12,279.60	7,240.92	147.28	149.03	94.71	1,385.16	-5,326.49	2,359.34	2,064.20	295.13	7.994		
12,100.00	7,046.90	12,379.60	7,240.50	150.07	151.81	94.71	1,383.50	-5,426.47	2,358.49	2,057.80	300.69	7.844		
12,200.00	7,046.51	12,479.59	7,240.08	152.87	154.60	94.71	1,381.85	-5,526.45	2,357.64	2,051.39	306.25	7.698		
12,300.00	7,046.11	12,579.59	7,239.66	155.66	157.38	94.71	1,380.19	-5,626.43	2,356.80	2,044.98	311.82	7.558		
12,400.00	7,045.72	12,679.59	7,239.24	158.46	160.17	94.71	1,378.53	-5,726.42	2,355.95	2,038.56	317.39	7.423		
12,500.00	7,045.33	12,779.58	7,238.82	161.26	162.96	94.71	1,376.87	-5,826.40	2,355.10	2,032.14	322.96	7.292		
12,600.00	7,044.93	12,879.58	7,238.40	164.06	165.75	94.72	1,375.21	-5,926.38	2,354.26	2,025.72	328.54	7.166		
12,700.00	7,044.54	12,979.57	7,237.98	166.86	168.55	94.72	1,373.55	-6,026.36	2,353.41	2,019.29	334.12	7.044		
12,800.00	7,044.15	13,079.57	7,237.56	169.67	171.35	94.72	1,371.89	-6,126.34	2,352.56	2,012.85	339.71	6.925		
12,900.00	7,043.75	13,179.57	7,237.14	172.48	174.14	94.72	1,370.24	-6,226.32	2,351.72	2,006.42	345.30	6.811		
13,000.00	7,043.36	13,279.56	7,236.72	175.28	176.95	94.72	1,368.58	-6,326.31	2,350.87	1,999.98	350.89	6.700		
13,100.00	7,042.97	13,379.56	7,236.30	178.09	179.75	94.72	1,366.92	-6,426.29	2,350.03	1,993.54	356.49	6.592		
13,200.00	7,042.57	13,479.56	7,235.88	180.91	182.55	94.72	1,365.26	-6,526.27	2,349.18	1,987.09	362.09	6.488		
13,300.00	7,042.18	13,579.55	7,235.46	183.72	185.36	94.72	1,363.60	-6,626.25	2,348.33	1,980.64	367.69	6.387		
13,400.00	7,041.79	13,679.55	7,235.04	186.53	188.16	94.72	1,361.94	-6,726.23	2,347.49	1,974.19	373.30	6.289		
13,500.00	7,041.39	13,779.55	7,234.62	189.35	190.97	94.73	1,360.28	-6,826.21	2,346.64	1,967.74	378.90	6.193		
13,600.00	7,041.00	13,879.54	7,234.20	192.17	193.78	94.73	1,358.63	-6,926.20	2,345.79	1,961.28	384.51	6.101		
13,700.00	7,040.61	13,979.54	7,233.78	194.99	196.59	94.73	1,356.97	-7,026.18	2,344.95	1,954.82	390.13	6.011		
13,800.00	7,040.21	14,079.53	7,233.36	197.81	199.41	94.73	1,355.31	-7,126.16	2,344.10	1,948.36	395.74	5.923		
13,900.00	7,039.82	14,179.53	7,232.94	200.63	202.22	94.73	1,353.65	-7,226.14	2,343.25	1,941.90	401.36	5.838		
14,000.00	7,039.43	14,279.53	7,232.52	203.45	205.04	94.73	1,351.99	-7,326.12	2,342.41	1,935.43	406.98	5.756		
14,100.00	7,039.03	14,379.52	7,232.10	206.27	207.85	94.73	1,350.33	-7,426.11	2,341.56	1,928.96	412.60	5.675		
14,200.00	7,038.64	14,479.52	7,231.68	209.09	210.67	94.73	1,348.67	-7,526.09	2,340.72	1,922.49	418.22	5.597		
14,300.00	7,038.25	14,579.52	7,231.26	211.92	213.49	94.73	1,347.02	-7,626.07	2,339.87	1,916.02	423.85	5.521		
14,400.00	7,037.86	14,679.51	7,230.84	214.74	216.31	94.73	1,345.36	-7,726.05	2,339.02	1,909.55	429.48	5.446		
14,500.00	7,037.46	14,779.51	7,230.42	217.57	219.13	94.74	1,343.70	-7,826.03	2,338.18	1,903.07	435.10	5.374		
14,600.00	7,037.07	14,879.51	7,230.00	220.40	221.95	94.74	1,342.04	-7,926.01	2,337.33	1,896.60	440.73	5.303		
14,700.00	7,036.68	14,979.50	7,229.57	223.23	224.77	94.74	1,340.38	-8,026.00	2,336.48	1,890.12	446.37	5.234		
14,800.00	7,036.28	15,079.50	7,229.15	226.05	227.59	94.74	1,338.72	-8,125.98	2,335.64	1,883.64	452.00	5.167		
14,856.48	7,036.06	15,116.21	7,229.00	227.65	228.63	94.74	1,338.11	-8,162.69	2,335.24	1,880.60	454.64	5.136		
14,871.88	7,036.00	15,116.21	7,229.00	228.09	228.63	94.74	1,338.11	-8,162.69	2,335.29	1,880.23	455.06	5.132 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	0.00	3.28	3.28	8.90	1,570.52	245.86	1,589.65					
100.00	100.00	109.86	109.86	3.28	3.29	8.90	1,570.16	245.92	1,589.34	1,582.76	6.57	241.771		
200.00	200.00	215.78	215.78	3.34	3.34	8.91	1,569.24	246.00	1,588.49	1,581.81	6.68	237.907		
300.00	300.00	318.92	318.91	3.44	3.45	8.91	1,568.11	245.91	1,587.39	1,580.49	6.90	230.103		
331.21	331.21	348.51	348.50	3.49	3.50	179.07	1,567.77	245.90	1,587.20	1,580.21	6.98	227.282		
400.00	399.98	410.80	410.78	3.60	3.60	179.06	1,567.23	245.74	1,588.16	1,580.97	7.19	220.750		
500.00	499.84	506.15	506.13	3.79	3.79	179.05	1,566.80	245.34	1,592.88	1,585.30	7.57	210.282		
600.00	599.45	614.01	613.99	4.02	4.05	179.05	1,566.17	244.97	1,600.97	1,592.90	8.06	198.538		
700.00	698.70	709.13	709.11	4.29	4.30	179.03	1,565.56	244.34	1,612.42	1,603.83	8.59	187.749		
800.00	797.70	807.81	807.78	4.59	4.59	179.00	1,565.14	243.27	1,625.98	1,616.81	9.17	177.293		
900.00	896.69	911.17	911.13	4.92	4.92	178.97	1,564.44	242.10	1,639.28	1,629.47	9.81	167.088		
1,000.00	995.68	997.64	997.59	5.27	5.20	178.94	1,564.07	240.91	1,652.82	1,642.39	10.43	158.469		
1,100.00	1,094.68	1,073.94	1,073.85	5.64	5.46	178.87	1,564.85	238.81	1,667.54	1,656.51	11.04	151.109		
1,200.00	1,193.67	1,153.00	1,152.81	6.03	5.73	178.75	1,566.84	235.26	1,683.49	1,671.82	11.67	144.296		
1,300.00	1,292.67	1,226.24	1,225.84	6.42	5.99	178.59	1,569.86	230.69	1,700.76	1,688.47	12.29	138.342		
1,400.00	1,391.66	1,308.36	1,307.55	6.83	6.29	178.35	1,574.58	223.93	1,719.34	1,706.37	12.97	132.550		
1,500.00	1,490.66	1,389.25	1,387.78	7.25	6.60	178.05	1,580.13	215.37	1,738.75	1,725.09	13.66	127.285		
1,600.00	1,589.65	1,470.74	1,468.41	7.67	6.92	177.71	1,586.76	205.61	1,759.28	1,744.91	14.37	122.447		
1,700.00	1,688.64	1,562.14	1,558.74	8.10	7.30	177.31	1,594.78	194.13	1,780.45	1,765.31	15.14	117.620		
1,800.00	1,787.64	1,668.37	1,663.69	8.53	7.76	176.86	1,604.11	180.66	1,801.72	1,785.73	16.00	112.622		
1,900.00	1,886.63	1,778.01	1,772.11	8.97	8.25	176.41	1,612.72	166.75	1,822.15	1,805.26	16.89	107.860		
2,000.00	1,985.63	1,892.96	1,885.89	9.41	8.77	175.98	1,621.11	152.73	1,842.22	1,824.39	17.83	103.315		
2,100.00	2,084.62	2,003.27	1,995.18	9.85	9.28	175.57	1,627.99	139.40	1,861.30	1,842.55	18.76	99.240		
2,200.00	2,183.61	2,087.16	2,078.32	10.30	9.66	175.28	1,633.23	129.54	1,880.50	1,860.96	19.55	96.210		
2,300.00	2,282.61	2,169.20	2,159.55	10.75	10.05	174.99	1,639.04	119.66	1,900.55	1,880.22	20.33	93.482		
2,400.00	2,381.60	2,266.74	2,256.08	11.20	10.52	174.65	1,646.49	107.76	1,921.20	1,899.99	21.21	90.591		
2,500.00	2,480.60	2,354.87	2,343.34	11.66	10.94	174.35	1,653.15	97.36	1,941.87	1,919.84	22.03	88.133		
2,600.00	2,579.59	2,451.17	2,438.68	12.11	11.41	174.04	1,660.93	86.24	1,963.11	1,940.20	22.91	85.692		
2,700.00	2,678.58	2,541.45	2,528.11	12.57	11.84	173.77	1,668.14	76.18	1,984.34	1,960.59	23.75	83.550		
2,800.00	2,777.58	2,644.95	2,630.60	13.02	12.35	173.46	1,676.74	64.60	2,005.95	1,981.27	24.67	81.297		
2,900.00	2,876.57	2,749.44	2,734.10	13.48	12.86	173.16	1,684.81	52.79	2,026.99	2,001.39	25.61	79.151		
3,000.00	2,975.57	2,842.22	2,825.95	13.94	13.32	172.88	1,691.96	41.80	2,048.07	2,021.59	26.48	77.348		
3,100.00	3,074.56	2,933.18	2,915.93	14.40	13.78	172.59	1,699.26	30.60	2,069.48	2,042.14	27.34	75.690		
3,200.00	3,173.55	3,046.85	3,028.39	14.87	14.35	172.25	1,708.23	16.70	2,090.84	2,062.49	28.35	73.754		
3,300.00	3,272.55	3,137.44	3,118.08	15.33	14.80	171.99	1,715.01	5.99	2,111.85	2,082.64	29.21	72.297		
3,400.00	3,371.54	3,231.93	3,211.58	15.79	15.28	171.72	1,722.35	-5.52	2,133.17	2,103.07	30.10	70.866		
3,500.00	3,470.54	3,369.56	3,347.89	16.26	15.97	171.34	1,731.64	-22.11	2,153.50	2,122.23	31.27	68.878		
3,600.00	3,569.53	3,469.66	3,447.16	16.72	16.47	171.09	1,737.48	-33.50	2,173.03	2,140.84	32.19	67.512		
3,700.00	3,668.53	3,556.56	3,533.47	17.19	16.89	170.90	1,742.61	-42.25	2,192.70	2,159.68	33.02	66.398		
3,800.00	3,767.52	3,631.04	3,607.40	17.65	17.26	170.75	1,747.70	-49.63	2,213.30	2,179.52	33.78	65.527		
3,900.00	3,866.51	3,714.14	3,689.85	18.12	17.67	170.58	1,754.06	-57.89	2,234.72	2,200.13	34.58	64.618		
4,000.00	3,965.51	3,822.39	3,797.24	18.59	18.20	170.36	1,762.45	-68.53	2,256.26	2,220.71	35.55	63.461		
4,100.00	4,064.50	3,890.39	3,864.70	19.05	18.54	170.24	1,768.07	-74.99	2,278.29	2,242.03	36.26	62.837		
4,200.00	4,163.50	3,983.33	3,956.85	19.52	19.00	170.07	1,776.42	-83.84	2,301.07	2,263.95	37.13	61.980		
4,300.00	4,262.49	4,071.07	4,043.74	19.99	19.44	169.89	1,784.41	-93.00	2,324.01	2,286.05	37.96	61.215		
4,400.00	4,361.48	4,158.91	4,130.65	20.46	19.89	169.70	1,792.81	-102.60	2,347.43	2,308.62	38.81	60.492		
4,500.00	4,460.48	4,299.13	4,269.51	20.92	20.61	169.43	1,805.58	-117.34	2,370.54	2,330.53	40.01	59.251		
4,600.00	4,559.47	4,417.02	4,386.44	21.39	21.20	169.21	1,814.50	-129.39	2,392.07	2,351.02	41.05	58.271		
4,700.00	4,658.47	4,573.86	4,542.26	21.86	21.96	168.95	1,824.02	-144.35	2,412.25	2,369.92	42.33	56.985		
4,800.00	4,757.46	4,711.69	4,679.48	22.33	22.61	168.76	1,829.22	-156.22	2,430.02	2,386.55	43.47	55.905		
4,900.00	4,856.45	9,329.78	7,197.04	22.80	59.15	168.13	-618.11	-174.42	2,341.58	2,314.78	26.81	87.347		
5,000.00	4,955.45	9,337.28	7,197.05	23.27	59.29	168.13	-625.60	-174.18	2,242.55	2,215.57	26.98	83.127		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,054.44	9,347.00	7,197.08	23.74	59.47	168.13	-635.31	-173.84	2,143.56	2,116.39	27.16	78.911		
5,200.00	5,153.44	9,356.03	7,197.13	24.21	59.64	168.14	-644.33	-173.50	2,044.60	2,017.23	27.36	74.721		
5,300.00	5,252.43	9,368.07	7,197.21	24.68	59.86	168.16	-656.37	-173.00	1,945.65	1,918.08	27.58	70.557		
5,400.00	5,351.42	9,380.74	7,197.32	25.15	60.09	168.20	-669.03	-172.42	1,846.73	1,818.93	27.80	66.435		
5,500.00	5,450.42	9,395.34	7,197.45	25.62	60.36	168.24	-683.60	-171.75	1,747.81	1,719.79	28.03	62.364		
5,600.00	5,549.41	9,409.94	7,197.57	26.09	60.64	168.29	-698.19	-171.10	1,648.90	1,620.64	28.26	58.346		
5,700.00	5,648.41	9,425.37	7,197.70	26.56	60.92	168.32	-713.61	-170.52	1,549.98	1,521.48	28.50	54.387		
5,800.00	5,747.40	9,440.70	7,197.82	27.03	61.21	168.30	-728.93	-170.14	1,451.05	1,422.31	28.74	50.484		
5,900.00	5,846.40	9,456.27	7,197.92	27.51	61.50	168.23	-744.50	-169.90	1,352.12	1,323.13	28.99	46.642		
6,000.00	5,945.39	9,471.72	7,198.01	27.98	61.79	168.13	-759.95	-169.72	1,253.17	1,223.93	29.24	42.859		
6,100.00	6,044.38	9,490.64	7,198.07	28.45	62.14	167.97	-778.87	-169.57	1,154.19	1,124.73	29.46	39.173		
6,200.00	6,143.38	9,508.85	7,198.06	28.92	62.48	167.76	-797.08	-169.43	1,055.16	1,025.47	29.69	35.544		
6,300.00	6,242.37	9,521.70	7,198.04	29.39	62.72	167.57	-809.93	-169.35	956.11	926.15	29.96	31.912		
6,400.00	6,341.37	9,535.43	7,198.02	29.86	62.98	167.32	-823.66	-169.27	857.07	826.83	30.23	28.348		
6,500.00	6,440.36	9,548.22	7,198.00	30.34	63.22	167.04	-836.45	-169.19	758.03	727.50	30.53	24.831		
6,600.00	6,538.90	9,561.15	7,198.01	30.80	63.46	175.53	-849.38	-169.09	659.28	628.44	30.84	21.377		
6,700.00	6,634.88	9,573.74	7,198.03	31.25	63.70	-179.43	-861.97	-168.96	563.23	531.75	31.48	17.891		
6,800.00	6,725.92	9,585.67	7,198.07	31.68	63.93	-177.84	-873.90	-168.82	474.60	440.59	34.01	13.954		
6,900.00	6,809.79	9,596.80	7,198.14	32.07	64.14	-177.15	-885.03	-168.67	401.31	359.62	41.69	9.625		
7,000.00	6,884.42	9,607.68	7,198.21	32.43	64.34	-176.66	-895.90	-168.52	355.35	298.76	56.60	6.279		
7,064.42	6,926.74	9,613.91	7,198.24	32.65	64.46	-176.46	-902.13	-168.44	346.31	278.06	68.24	5.075 CC		
7,100.00	6,947.98	9,617.00	7,198.26	32.77	64.52	-176.39	-905.23	-168.40	349.10	274.78	74.32	4.697 ES		
7,200.00	6,998.89	9,624.34	7,198.29	33.18	64.66	-176.35	-912.56	-168.30	384.75	297.69	87.06	4.420 SF		
7,300.00	7,035.91	9,629.55	7,198.31	33.76	64.76	-176.66	-917.77	-168.24	451.89	358.60	93.29	4.844		
7,400.00	7,058.12	9,632.53	7,198.32	34.61	64.81	-177.73	-920.75	-168.20	537.66	441.88	95.77	5.614		
7,500.00	7,064.98	9,633.20	7,198.33	35.68	64.83	178.73	-921.42	-168.19	632.92	536.27	96.65	6.548		
7,600.00	7,064.59	9,632.78	7,198.33	36.95	64.82	178.55	-921.00	-168.20	731.05	634.04	97.01	7.536		
7,700.00	7,064.20	9,632.35	7,198.32	38.40	64.81	178.36	-920.57	-168.20	829.62	732.39	97.24	8.532		
7,800.00	7,063.80	9,631.92	7,198.32	40.00	64.80	178.17	-920.14	-168.21	928.51	831.11	97.39	9.534		
7,900.00	7,063.41	9,631.48	7,198.32	41.75	64.79	177.98	-919.70	-168.21	1,027.60	930.10	97.50	10.540		
8,000.00	7,063.02	9,631.04	7,198.32	43.62	64.79	177.78	-919.26	-168.22	1,126.86	1,029.28	97.58	11.549		
8,100.00	7,062.62	9,630.59	7,198.32	45.59	64.78	177.59	-918.81	-168.22	1,226.24	1,128.60	97.63	12.560		
8,200.00	7,062.23	9,630.13	7,198.32	47.65	64.77	177.39	-918.36	-168.23	1,325.71	1,228.03	97.68	13.572		
8,300.00	7,061.84	9,629.67	7,198.31	49.79	64.76	177.19	-917.90	-168.24	1,425.25	1,327.54	97.71	14.586		
8,400.00	7,061.45	9,629.21	7,198.31	52.00	64.75	176.98	-917.43	-168.24	1,524.85	1,427.11	97.74	15.601		
8,500.00	7,061.05	9,628.74	7,198.31	54.27	64.74	176.78	-916.96	-168.25	1,624.51	1,526.74	97.77	16.616		
8,600.00	7,060.66	9,628.26	7,198.31	56.60	64.73	176.57	-916.49	-168.25	1,724.20	1,626.41	97.79	17.632		
8,700.00	7,060.27	9,627.78	7,198.31	58.97	64.72	176.36	-916.00	-168.26	1,823.93	1,726.12	97.81	18.648		
8,800.00	7,059.87	9,627.29	7,198.31	61.38	64.72	176.15	-915.51	-168.27	1,923.68	1,825.85	97.83	19.664		
8,900.00	7,059.48	9,626.80	7,198.30	63.83	64.71	175.93	-915.02	-168.27	2,023.46	1,925.62	97.84	20.680		
9,000.00	7,059.09	9,626.30	7,198.30	66.32	64.70	175.71	-914.52	-168.28	2,123.26	2,025.40	97.86	21.697		
9,100.00	7,058.69	9,625.79	7,198.30	68.83	64.69	175.49	-914.01	-168.28	2,223.08	2,125.20	97.88	22.713		
9,200.00	7,058.30	9,625.27	7,198.30	71.37	64.68	175.27	-913.50	-168.29	2,322.91	2,225.01	97.89	23.729		
9,300.00	7,057.91	9,624.75	7,198.30	73.93	64.67	175.04	-912.98	-168.30	2,422.76	2,324.84	97.91	24.744		
9,400.00	7,057.51	9,624.23	7,198.29	76.51	64.66	174.81	-912.45	-168.30	2,522.61	2,424.68	97.93	25.759		
9,500.00	7,057.12	9,623.69	7,198.29	79.11	64.65	174.58	-911.92	-168.31	2,622.48	2,524.54	97.95	26.774		
9,600.00	7,056.73	9,623.15	7,198.29	81.73	64.64	174.35	-911.37	-168.32	2,722.36	2,624.40	97.97	27.789		
9,700.00	7,056.33	9,622.60	7,198.29	84.37	64.63	174.11	-910.83	-168.32	2,822.25	2,724.26	97.99	28.803		
9,800.00	7,055.94	9,622.05	7,198.28	87.01	64.62	173.87	-910.27	-168.33	2,922.14	2,824.14	98.01	29.816		
9,900.00	7,055.55	9,621.48	7,198.28	89.68	64.61	173.63	-909.71	-168.34	3,022.05	2,924.02	98.03	30.829		
10,000.00	7,055.15	9,620.91	7,198.28	92.35	64.59	173.38	-909.14	-168.35	3,121.95	3,023.91	98.05	31.841		
10,100.00	7,054.76	9,620.34	7,198.28	95.03	64.58	173.13	-908.56	-168.35	3,221.87	3,123.80	98.07	32.853		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,200.00	7,054.37	9,619.75	7,198.27	97.73	64.57	172.88	-907.97	-168.36	3,321.79	3,223.69	98.09	33.864		
10,300.00	7,053.98	9,619.16	7,198.27	100.43	64.56	172.62	-907.38	-168.37	3,421.71	3,323.59	98.12	34.874		
10,400.00	7,053.58	9,618.55	7,198.27	103.14	64.55	172.36	-906.78	-168.38	3,521.64	3,423.50	98.14	35.884		
10,500.00	7,053.19	9,617.94	7,198.26	105.86	64.54	172.10	-906.17	-168.38	3,621.57	3,523.40	98.16	36.893		
10,600.00	7,052.80	9,617.32	7,198.26	108.59	64.53	171.83	-905.55	-168.39	3,721.50	3,623.31	98.19	37.901		
10,700.00	7,052.40	9,616.69	7,198.26	111.32	64.51	171.56	-904.92	-168.40	3,821.44	3,723.23	98.22	38.908		
10,800.00	7,052.01	9,616.06	7,198.25	114.06	64.50	171.29	-904.28	-168.41	3,921.38	3,823.14	98.24	39.914		
10,900.00	7,051.62	9,615.41	7,198.25	116.80	64.49	171.01	-903.63	-168.42	4,021.33	3,923.06	98.27	40.920		
11,000.00	7,051.22	9,614.75	7,198.25	119.55	64.48	170.73	-902.98	-168.43	4,121.28	4,022.97	98.30	41.925		
11,100.00	7,050.83	9,614.09	7,198.24	122.31	64.47	170.45	-902.31	-168.43	4,221.23	4,122.89	98.33	42.928		
11,200.00	7,050.44	9,613.41	7,198.24	125.07	64.45	170.16	-901.64	-168.44	4,321.18	4,222.81	98.36	43.931		
11,300.00	7,050.04	9,612.73	7,198.24	127.83	64.44	169.87	-900.95	-168.45	4,421.13	4,322.74	98.39	44.933		
11,400.00	7,049.65	9,612.03	7,198.23	130.60	64.43	169.57	-900.26	-168.46	4,521.09	4,422.66	98.43	45.934		
11,500.00	7,049.26	9,611.33	7,198.23	133.37	64.41	169.27	-899.55	-168.47	4,621.04	4,522.59	98.46	46.934		
11,600.00	7,048.86	9,610.61	7,198.23	136.15	64.40	168.97	-898.83	-168.48	4,721.00	4,622.51	98.49	47.932		
11,700.00	7,048.47	9,609.88	7,198.22	138.93	64.39	168.66	-898.11	-168.49	4,820.96	4,722.44	98.53	48.930		
11,800.00	7,048.08	9,609.14	7,198.22	141.71	64.37	168.35	-897.37	-168.50	4,920.93	4,822.36	98.56	49.927		
11,900.00	7,047.68	9,608.39	7,198.21	144.49	64.36	168.04	-896.62	-168.51	5,020.89	4,922.29	98.60	50.922		
12,000.00	7,047.29	9,607.63	7,198.21	147.28	64.34	167.72	-895.86	-168.52	5,120.86	5,022.22	98.64	51.917		
12,100.00	7,046.90	9,606.86	7,198.20	150.07	64.33	167.40	-895.08	-168.53	5,220.82	5,122.15	98.67	52.910		
12,200.00	7,046.51	9,606.07	7,198.20	152.87	64.31	167.07	-894.30	-168.54	5,320.79	5,222.08	98.71	53.903		
12,300.00	7,046.11	9,605.27	7,198.19	155.66	64.30	166.73	-893.50	-168.55	5,420.76	5,322.01	98.75	54.894		
12,400.00	7,045.72	9,604.46	7,198.19	158.46	64.28	166.40	-892.69	-168.56	5,520.73	5,421.94	98.79	55.884		
12,500.00	7,045.33	9,603.64	7,198.18	161.26	64.27	166.06	-891.86	-168.57	5,620.70	5,521.87	98.83	56.873		
12,600.00	7,044.93	9,602.80	7,198.18	164.06	64.25	165.71	-891.02	-168.59	5,720.67	5,621.80	98.87	57.860		
12,700.00	7,044.54	9,601.95	7,198.17	166.86	64.23	165.36	-890.17	-168.60	5,820.64	5,721.73	98.91	58.847		
12,800.00	7,044.15	9,601.08	7,198.17	169.67	64.22	165.00	-889.31	-168.61	5,920.62	5,821.66	98.95	59.832		
12,900.00	7,043.75	9,600.20	7,198.16	172.48	64.20	164.64	-888.43	-168.62	6,020.59	5,921.59	99.00	60.816		
13,000.00	7,043.36	9,599.30	7,198.15	175.28	64.18	164.28	-887.53	-168.63	6,120.57	6,021.53	99.04	61.799		
13,100.00	7,042.97	9,599.00	7,198.15	178.09	64.18	164.16	-887.23	-168.64	6,220.54	6,121.44	99.10	62.772		
13,200.00	7,042.57	9,599.00	7,198.15	180.91	64.18	164.16	-887.23	-168.64	6,320.52	6,221.36	99.16	63.739		
13,300.00	7,042.18	9,599.00	7,198.15	183.72	64.18	164.16	-887.23	-168.64	6,420.50	6,321.27	99.23	64.704		
13,400.00	7,041.79	9,599.00	7,198.15	186.53	64.18	164.16	-887.23	-168.64	6,520.47	6,421.18	99.30	65.667		
13,500.00	7,041.39	9,599.00	7,198.15	189.35	64.18	164.16	-887.23	-168.64	6,620.45	6,521.09	99.36	66.628		
13,600.00	7,041.00	9,599.00	7,198.15	192.17	64.18	164.16	-887.23	-168.64	6,720.43	6,621.00	99.43	67.588		
13,700.00	7,040.61	9,599.00	7,198.15	194.99	64.18	164.16	-887.23	-168.64	6,820.41	6,720.91	99.50	68.545		
13,800.00	7,040.21	9,599.00	7,198.15	197.81	64.18	164.16	-887.23	-168.64	6,920.39	6,820.82	99.57	69.501		
13,900.00	7,039.82	9,599.00	7,198.15	200.63	64.18	164.16	-887.23	-168.64	7,020.37	6,920.73	99.64	70.455		
14,000.00	7,039.43	9,599.00	7,198.15	203.45	64.18	164.16	-887.23	-168.64	7,120.35	7,020.64	99.72	71.406		
14,100.00	7,039.03	9,599.00	7,198.15	206.27	64.18	164.16	-887.23	-168.64	7,220.34	7,120.55	99.79	72.356		
14,200.00	7,038.64	9,599.00	7,198.15	209.09	64.18	164.16	-887.23	-168.64	7,320.32	7,220.46	99.86	73.304		
14,300.00	7,038.25	9,599.00	7,198.15	211.92	64.18	164.16	-887.23	-168.64	7,420.30	7,320.36	99.94	74.249		
14,400.00	7,037.86	9,599.00	7,198.15	214.74	64.18	164.16	-887.23	-168.64	7,520.29	7,420.27	100.01	75.193		
14,500.00	7,037.46	9,599.00	7,198.15	217.57	64.18	164.16	-887.23	-168.64	7,620.27	7,520.18	100.09	76.135		
14,600.00	7,037.07	9,599.00	7,198.15	220.40	64.18	164.16	-887.23	-168.64	7,720.25	7,620.09	100.17	77.074		
14,700.00	7,036.68	9,599.00	7,198.15	223.23	64.18	164.16	-887.23	-168.64	7,820.24	7,719.99	100.24	78.012		
14,800.00	7,036.28	9,599.00	7,198.15	226.05	64.18	164.16	-887.23	-168.64	7,920.22	7,819.90	100.32	78.947		
14,871.88	7,036.00	9,599.00	7,198.15	228.09	64.18	164.16	-887.23	-168.64	7,992.09	7,891.71	100.38	79.618		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	0.00	3.28	3.28	9.99	1,571.98	277.01	1,596.20					
100.00	100.00	103.77	103.77	3.28	3.29	10.00	1,571.82	277.21	1,596.08	1,589.51	6.57	242.837		
200.00	200.00	211.88	211.87	3.34	3.34	10.02	1,571.24	277.72	1,595.64	1,588.97	6.67	239.101		
300.00	300.00	315.52	315.51	3.44	3.45	10.02	1,570.32	277.53	1,594.73	1,587.84	6.89	231.425		
329.33	329.33	345.66	345.65	3.48	3.49	-179.84	1,570.08	277.15	1,594.59	1,587.62	6.97	228.702		
400.00	399.98	419.27	419.25	3.60	3.61	-179.85	1,569.35	276.57	1,595.40	1,588.19	7.20	221.482		
500.00	499.84	523.89	523.86	3.79	3.82	-179.85	1,567.91	276.58	1,599.28	1,591.67	7.61	210.225		
600.00	599.45	615.30	615.27	4.02	4.04	-179.83	1,566.79	276.80	1,606.83	1,598.77	8.06	199.355		
700.00	698.70	718.10	718.05	4.29	4.32	-179.81	1,565.59	277.31	1,617.96	1,609.35	8.61	187.977		
800.00	797.70	820.75	820.69	4.59	4.63	-179.78	1,564.03	277.95	1,630.72	1,621.51	9.21	177.101		
900.00	896.69	915.80	915.73	4.92	4.93	-179.74	1,562.68	278.68	1,643.61	1,633.78	9.82	167.289		
1,000.00	995.68	1,008.18	1,008.09	5.27	5.24	-179.70	1,561.51	279.82	1,656.74	1,646.28	10.47	158.284		
1,100.00	1,094.68	1,098.86	1,098.76	5.64	5.55	-179.67	1,560.96	280.72	1,670.47	1,659.34	11.13	150.095		
1,200.00	1,193.67	1,196.72	1,196.62	6.03	5.90	-179.65	1,560.65	281.41	1,684.43	1,672.59	11.84	142.250		
1,300.00	1,292.67	1,297.68	1,297.58	6.42	6.27	-179.62	1,560.30	282.16	1,698.37	1,685.78	12.59	134.929		
1,400.00	1,391.66	1,393.87	1,393.77	6.83	6.63	-179.60	1,559.90	282.70	1,712.22	1,698.89	13.33	128.434		
1,500.00	1,490.66	1,488.19	1,488.09	7.25	6.99	-179.59	1,559.87	283.33	1,726.45	1,712.37	14.08	122.621		
1,600.00	1,589.65	1,586.66	1,586.55	7.67	7.36	-179.57	1,559.89	284.04	1,740.75	1,725.89	14.86	117.179		
1,700.00	1,688.64	1,686.77	1,686.67	8.10	7.75	-179.54	1,559.93	284.84	1,755.07	1,739.42	15.65	112.144		
1,800.00	1,787.64	1,792.99	1,792.88	8.53	8.17	-179.53	1,559.75	285.50	1,769.17	1,752.69	16.48	107.327		
1,900.00	1,886.63	1,884.24	1,884.13	8.97	8.53	-179.51	1,559.47	285.96	1,783.11	1,765.86	17.25	103.362		
2,000.00	1,985.63	1,967.69	1,967.57	9.41	8.85	-179.54	1,560.05	285.33	1,797.81	1,779.83	17.98	100.005		
2,100.00	2,084.62	2,046.92	2,046.77	9.85	9.15	-179.59	1,561.50	283.93	1,813.44	1,794.76	18.68	97.063		
2,200.00	2,183.61	2,121.30	2,121.09	10.30	9.43	-179.67	1,563.89	282.09	1,830.29	1,810.92	19.37	94.496		
2,300.00	2,282.61	2,192.07	2,191.76	10.75	9.70	-179.75	1,567.25	280.08	1,848.55	1,828.51	20.04	92.253		
2,400.00	2,381.60	2,273.06	2,272.57	11.20	10.02	-179.85	1,572.12	277.75	1,868.04	1,847.28	20.76	89.992		
2,500.00	2,480.60	2,355.49	2,354.77	11.66	10.34	-179.95	1,577.73	275.55	1,888.35	1,866.86	21.49	87.881		
2,600.00	2,579.59	2,440.87	2,439.88	12.11	10.69	179.94	1,584.23	273.19	1,909.42	1,887.18	22.23	85.875		
2,700.00	2,678.58	2,525.54	2,524.20	12.57	11.03	179.82	1,591.26	270.26	1,931.06	1,908.08	22.98	84.027		
2,800.00	2,777.58	2,607.30	2,605.57	13.02	11.37	179.70	1,598.72	267.36	1,953.49	1,929.77	23.71	82.378		
2,900.00	2,876.57	2,689.56	2,687.37	13.48	11.71	179.57	1,606.86	264.35	1,976.65	1,952.20	24.45	80.845		
3,000.00	2,975.57	2,766.65	2,763.94	13.94	12.03	179.44	1,615.24	261.17	2,000.70	1,975.55	25.16	79.530		
3,100.00	3,074.56	2,865.95	2,862.48	14.40	12.46	179.26	1,626.60	256.54	2,025.24	1,999.24	26.00	77.894		
3,200.00	3,173.55	2,961.70	2,957.40	14.87	12.96	179.05	1,639.14	250.92	2,049.16	2,022.21	26.95	76.039		
3,300.00	3,272.55	3,060.45	3,057.46	15.33	13.39	178.86	1,649.51	245.51	2,072.70	2,044.90	27.80	74.561		
3,400.00	3,371.54	3,166.52	3,160.79	15.79	13.86	178.65	1,660.45	239.38	2,096.06	2,067.36	28.70	73.040		
3,500.00	3,470.54	3,269.35	3,262.99	16.26	14.31	178.47	1,670.41	234.01	2,118.88	2,089.30	29.58	71.634		
3,600.00	3,569.53	3,377.71	3,370.83	16.72	14.71	178.33	1,679.08	229.95	2,141.93	2,111.56	30.37	70.520		
3,700.00	3,668.53	3,467.17	3,459.72	17.19	15.11	178.20	1,688.22	225.84	2,165.40	2,134.22	31.18	69.458		
3,800.00	3,767.52	3,561.95	3,553.90	17.65	15.54	178.06	1,698.11	221.69	2,189.11	2,157.10	32.01	68.381		
3,900.00	3,866.51	3,663.40	3,654.70	18.12	16.00	177.91	1,708.64	217.08	2,212.77	2,179.87	32.90	67.264		
4,000.00	3,965.51	3,767.36	3,757.97	18.59	16.47	177.75	1,719.25	211.74	2,236.18	2,202.38	33.80	66.162		
4,100.00	4,064.50	3,857.19	3,847.22	19.05	16.88	177.61	1,728.27	206.97	2,259.45	2,224.84	34.61	65.281		
4,200.00	4,163.50	3,936.84	3,926.24	19.52	17.25	177.46	1,736.98	202.10	2,283.49	2,248.13	35.36	64.581		
4,300.00	4,262.49	4,026.31	4,014.93	19.99	17.67	177.30	1,747.19	196.27	2,307.96	2,271.78	36.17	63.805		
4,400.00	4,361.48	4,108.98	4,096.83	20.46	18.06	177.14	1,757.06	190.80	2,332.95	2,296.01	36.94	63.155		
4,500.00	4,460.48	4,212.93	4,199.84	20.92	18.56	176.97	1,769.54	184.64	2,358.11	2,320.25	37.86	62.292		
4,600.00	4,559.47	4,327.67	4,313.67	21.39	19.10	176.80	1,782.60	178.32	2,382.72	2,343.88	38.84	61.339		
4,700.00	4,658.47	4,430.91	4,416.17	21.86	19.59	176.65	1,793.69	173.00	2,406.76	2,367.00	39.75	60.540		
4,800.00	4,757.46	4,525.63	4,510.27	22.33	20.03	176.55	1,803.79	169.20	2,430.86	2,390.25	40.61	59.864		
4,900.00	4,856.45	4,624.23	4,608.83	22.80	20.51	-153.38	-579.43	105.28	2,386.51	2,358.56	27.95	85.388		
5,000.00	4,955.45	4,723.53	4,708.13	23.27	21.00	-152.58	-590.65	104.81	2,288.37	2,260.09	28.27	80.936		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-423(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,054.44	9,389.00	7,233.81	23.74	58.67	-151.55	-604.18	104.36	2,190.31	2,161.68	28.63	76.498		
5,200.00	5,153.44	9,398.54	7,234.01	24.21	58.84	-150.79	-613.71	104.12	2,092.35	2,063.33	29.01	72.119		
5,300.00	5,252.43	9,410.43	7,234.28	24.68	59.06	-149.79	-625.60	103.90	1,994.49	1,965.06	29.43	67.763		
5,400.00	5,351.42	9,425.62	7,234.64	25.15	59.34	-148.44	-640.78	103.74	1,896.75	1,866.85	29.90	63.439		
5,500.00	5,450.42	9,457.84	7,235.27	25.62	59.94	-145.30	-673.00	103.53	1,799.06	1,768.63	30.43	59.125		
5,600.00	5,549.41	9,493.24	7,235.49	26.09	60.60	-141.39	-708.39	103.16	1,701.22	1,670.22	31.01	54.868		
5,700.00	5,648.41	9,504.83	7,235.52	26.56	60.81	-139.98	-719.98	103.11	1,603.53	1,571.93	31.61	50.731		
5,800.00	5,747.40	9,515.00	7,235.55	27.03	61.00	-138.69	-730.15	103.13	1,506.04	1,473.75	32.29	46.644		
5,900.00	5,846.40	9,525.42	7,235.60	27.51	61.20	-137.31	-740.57	103.22	1,408.80	1,375.73	33.06	42.610		
6,000.00	5,945.39	9,534.98	7,235.67	27.98	61.37	-136.00	-750.13	103.37	1,311.86	1,277.91	33.96	38.633		
6,100.00	6,044.38	9,547.00	7,235.80	28.45	61.60	-134.27	-762.15	103.66	1,215.31	1,180.31	35.00	34.720		
6,200.00	6,143.38	9,563.52	7,235.96	28.92	61.91	-131.78	-778.66	104.14	1,119.18	1,082.93	36.24	30.880		
6,300.00	6,242.37	9,583.06	7,236.06	29.39	62.28	-128.65	-798.18	104.74	1,023.50	985.76	37.74	27.122		
6,400.00	6,341.37	9,593.36	7,236.10	29.86	62.47	-126.92	-808.48	105.12	928.53	888.97	39.56	23.472		
6,500.00	6,440.36	9,605.59	7,236.16	30.34	62.70	-124.81	-820.70	105.63	834.52	792.68	41.84	19.946		
6,600.00	6,538.90	9,619.32	7,236.23	30.80	62.97	-122.20	-834.41	106.28	744.43	699.21	45.21	16.466		
6,700.00	6,634.88	9,632.71	7,236.28	31.25	63.22	-118.06	-847.79	106.93	665.64	614.81	50.84	13.094		
6,800.00	6,725.92	9,644.39	7,236.30	31.68	63.44	-112.40	-859.45	107.52	605.01	545.94	59.07	10.243		
6,900.00	6,809.79	9,653.18	7,236.31	32.07	63.61	-107.40	-868.23	107.99	570.13	500.95	69.18	8.242		
6,960.18	6,855.93	9,657.54	7,236.31	32.28	63.69	-107.49	-872.58	108.23	564.15	488.81	75.34	7.488 CC		
7,000.00	6,884.42	9,659.98	7,236.31	32.43	63.74	-107.61	-875.03	108.36	566.78	487.66	79.12	7.163 ES		
7,100.00	6,947.98	9,664.59	7,236.31	32.77	63.83	-107.22	-879.63	108.63	595.65	508.86	86.79	6.863 SF		
7,200.00	6,998.89	9,667.06	7,236.31	33.18	63.87	-107.59	-882.09	108.77	651.88	560.35	91.53	7.122		
7,300.00	7,035.91	9,667.48	7,236.31	33.76	63.88	-107.38	-882.51	108.80	728.02	633.99	94.03	7.742		
7,400.00	7,058.12	9,666.04	7,236.31	34.61	63.85	-107.50	-881.07	108.71	816.95	721.77	95.18	8.583		
7,500.00	7,064.98	9,662.89	7,236.31	35.68	63.79	-105.26	-877.93	108.53	913.08	817.46	95.61	9.550		
7,600.00	7,064.59	9,659.12	7,236.31	36.95	63.72	-104.06	-874.17	108.31	1,011.42	915.64	95.78	10.560		
7,700.00	7,064.20	9,655.53	7,236.31	38.40	63.65	-102.94	-870.58	108.11	1,110.05	1,014.16	95.89	11.576		
7,800.00	7,063.80	9,652.12	7,236.31	40.00	63.59	-101.88	-867.17	107.93	1,208.89	1,112.93	95.96	12.598		
7,900.00	7,063.41	9,648.86	7,236.31	41.75	63.53	-100.88	-863.91	107.75	1,307.89	1,211.89	96.01	13.623		
8,000.00	7,063.02	9,645.75	7,236.30	43.62	63.47	-100.94	-860.81	107.59	1,407.03	1,310.99	96.04	14.651		
8,100.00	7,062.62	9,642.00	7,236.30	45.59	63.40	-100.82	-857.07	107.40	1,506.27	1,410.23	96.03	15.685		
8,200.00	7,062.23	9,639.30	7,236.29	47.65	63.34	-100.82	-854.37	107.26	1,605.59	1,509.55	96.05	16.717		
8,300.00	7,061.84	9,635.68	7,236.28	49.79	63.28	-100.97	-850.76	107.08	1,704.99	1,608.96	96.03	17.755		
8,400.00	7,061.45	9,632.13	7,236.27	52.00	63.21	-100.95	-847.21	106.91	1,804.44	1,708.43	96.01	18.795		
8,500.00	7,061.05	9,628.64	7,236.26	54.27	63.14	-100.96	-843.73	106.73	1,903.95	1,807.96	95.98	19.836		
8,600.00	7,060.66	9,625.22	7,236.25	56.60	63.08	-101.01	-840.30	106.57	2,003.49	1,907.54	95.96	20.879		
8,700.00	7,060.27	9,621.85	7,236.24	58.97	63.01	-101.09	-836.95	106.40	2,103.08	2,007.15	95.93	21.923		
8,800.00	7,059.87	9,618.55	7,236.23	61.38	62.95	-101.20	-833.65	106.24	2,202.69	2,106.79	95.90	22.968		
8,900.00	7,059.48	9,615.30	7,236.21	63.83	62.89	-101.33	-830.40	106.09	2,302.33	2,206.46	95.87	24.014		
9,000.00	7,059.09	9,612.12	7,236.20	66.32	62.83	-101.50	-827.22	105.94	2,402.00	2,306.15	95.85	25.061		
9,100.00	7,058.69	9,610.00	7,236.18	68.83	62.79	-101.95	-825.11	105.84	2,501.69	2,405.84	95.84	26.102		
9,200.00	7,058.30	9,610.00	7,236.18	71.37	62.79	-101.95	-825.11	105.84	2,601.40	2,505.52	95.88	27.131		
9,300.00	7,057.91	9,610.00	7,236.18	73.93	62.79	-101.95	-825.11	105.84	2,701.13	2,605.21	95.92	28.159		
9,400.00	7,057.51	9,610.00	7,236.18	76.51	62.79	-101.95	-825.11	105.84	2,800.88	2,704.92	95.96	29.187		
9,500.00	7,057.12	9,610.00	7,236.18	79.11	62.79	-101.95	-825.11	105.84	2,900.65	2,804.65	96.00	30.214		
9,600.00	7,056.73	9,601.62	7,236.14	81.73	62.63	-101.85	-816.73	105.46	3,000.41	2,904.54	95.86	31.298		
9,700.00	7,056.33	9,600.24	7,236.14	84.37	62.60	-101.81	-815.35	105.40	3,100.19	3,004.32	95.88	32.336		
9,800.00	7,055.94	9,598.91	7,236.13	87.01	62.58	-101.81	-814.03	105.34	3,199.99	3,104.11	95.89	33.372		
9,900.00	7,055.55	9,597.63	7,236.12	89.68	62.55	-101.81	-812.75	105.29	3,299.81	3,203.90	95.90	34.408		
10,000.00	7,055.15	9,596.40	7,236.12	92.35	62.53	-101.81	-811.52	105.24	3,399.63	3,303.71	95.92	35.443		
10,100.00	7,054.76	9,595.21	7,236.11	95.03	62.51	-101.81	-810.33	105.19	3,499.46	3,403.52	95.94	36.477		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-423(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 146-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,200.00	7,054.37	9,594.07	7,236.11	97.73	62.49	146.03	-809.19	105.15	3,599.29	3,503.34	95.95	37.511	
10,300.00	7,053.98	9,592.96	7,236.10	100.43	62.47	145.77	-808.08	105.10	3,699.14	3,603.17	95.97	38.543	
10,400.00	7,053.58	9,591.89	7,236.10	103.14	62.45	145.52	-807.02	105.06	3,798.99	3,703.00	96.00	39.575	
10,500.00	7,053.19	9,590.86	7,236.09	105.86	62.43	145.28	-805.99	105.02	3,898.85	3,802.83	96.02	40.605	
10,600.00	7,052.80	9,589.86	7,236.09	108.59	62.41	145.05	-804.99	104.99	3,998.72	3,902.68	96.04	41.635	
10,700.00	7,052.40	9,588.90	7,236.09	111.32	62.39	144.83	-804.02	104.95	4,098.59	4,002.52	96.07	42.663	
10,800.00	7,052.01	9,587.97	7,236.08	114.06	62.37	144.62	-803.09	104.92	4,198.47	4,102.37	96.10	43.690	
10,900.00	7,051.62	9,587.00	7,236.04	116.80	62.18	142.41	-793.13	104.58	4,298.38	4,202.44	95.94	44.802	
11,000.00	7,051.22	9,587.00	7,236.04	119.55	62.18	142.41	-793.13	104.58	4,398.26	4,302.27	95.99	45.820	
11,100.00	7,050.83	9,578.00	7,236.04	122.31	62.18	142.41	-793.13	104.58	4,498.15	4,402.11	96.04	46.837	
11,200.00	7,050.44	9,578.00	7,236.04	125.07	62.18	142.41	-793.13	104.58	4,598.04	4,501.95	96.09	47.852	
11,300.00	7,050.04	9,578.00	7,236.04	127.83	62.18	142.41	-793.13	104.58	4,697.94	4,601.80	96.14	48.866	
11,400.00	7,049.65	9,578.00	7,236.04	130.60	62.18	142.41	-793.13	104.58	4,797.84	4,701.65	96.19	49.878	
11,500.00	7,049.26	9,578.00	7,236.04	133.37	62.18	142.41	-793.13	104.58	4,897.74	4,801.50	96.24	50.889	
11,600.00	7,048.86	9,578.00	7,236.04	136.15	62.18	142.41	-793.13	104.58	4,997.65	4,901.36	96.30	51.899	
11,700.00	7,048.47	9,578.00	7,236.04	138.93	62.18	142.41	-793.13	104.58	5,097.56	5,001.21	96.35	52.907	
11,800.00	7,048.08	9,578.00	7,236.04	141.71	62.18	142.41	-793.13	104.58	5,197.48	5,101.08	96.40	53.913	
11,900.00	7,047.68	9,578.00	7,236.04	144.49	62.18	142.41	-793.13	104.58	5,297.40	5,200.94	96.46	54.918	
12,000.00	7,047.29	9,578.00	7,236.04	147.28	62.18	142.41	-793.13	104.58	5,397.32	5,300.80	96.52	55.921	
12,100.00	7,046.90	9,578.00	7,236.04	150.07	62.18	142.41	-793.13	104.58	5,497.25	5,400.67	96.57	56.923	
12,200.00	7,046.51	9,578.00	7,236.04	152.87	62.18	142.41	-793.13	104.58	5,597.17	5,500.54	96.63	57.923	
12,300.00	7,046.11	9,578.00	7,236.04	155.66	62.18	142.41	-793.13	104.58	5,697.10	5,600.41	96.69	58.921	
12,400.00	7,045.72	9,573.79	7,236.03	158.46	62.10	141.52	-788.92	104.45	5,797.03	5,700.37	96.67	59.969	
12,500.00	7,045.33	9,572.37	7,236.02	161.26	62.08	141.22	-787.50	104.40	5,896.97	5,800.27	96.70	60.982	
12,600.00	7,044.93	9,570.97	7,236.01	164.06	62.05	140.93	-786.11	104.36	5,996.90	5,900.17	96.73	61.994	
12,700.00	7,044.54	9,569.59	7,236.01	166.86	62.02	140.64	-784.73	104.32	6,096.84	6,000.07	96.77	63.004	
12,800.00	7,044.15	9,568.23	7,236.00	169.67	62.00	140.36	-783.36	104.28	6,196.77	6,099.97	96.81	64.012	
12,900.00	7,043.75	9,566.88	7,235.99	172.48	61.97	140.09	-782.02	104.24	6,296.71	6,199.87	96.84	65.019	
13,000.00	7,043.36	9,565.56	7,235.98	175.28	61.95	139.82	-780.70	104.20	6,396.65	6,299.77	96.88	66.024	
13,100.00	7,042.97	9,564.25	7,235.97	178.09	61.92	139.56	-779.39	104.16	6,496.60	6,399.67	96.92	67.028	
13,200.00	7,042.57	9,562.96	7,235.96	180.91	61.90	139.31	-778.10	104.12	6,596.54	6,499.57	96.97	68.030	
13,300.00	7,042.18	9,561.69	7,235.95	183.72	61.88	139.06	-776.82	104.08	6,696.48	6,599.47	97.01	69.030	
13,400.00	7,041.79	9,560.43	7,235.94	186.53	61.85	138.81	-775.57	104.04	6,796.43	6,699.38	97.05	70.028	
13,500.00	7,041.39	9,559.19	7,235.93	189.35	61.83	138.57	-774.33	104.01	6,896.38	6,799.28	97.10	71.025	
13,600.00	7,041.00	9,557.96	7,235.92	192.17	61.81	138.33	-773.10	103.97	6,996.32	6,899.18	97.14	72.020	
13,700.00	7,040.61	9,556.75	7,235.91	194.99	61.78	138.10	-771.89	103.94	7,096.27	6,999.08	97.19	73.013	
13,800.00	7,040.21	9,555.56	7,235.90	197.81	61.76	137.87	-770.70	103.90	7,196.22	7,098.98	97.24	74.004	
13,900.00	7,039.82	9,554.38	7,235.88	200.63	61.74	137.65	-769.52	103.87	7,296.17	7,198.88	97.29	74.993	
14,000.00	7,039.43	9,553.22	7,235.87	203.45	61.72	137.43	-768.36	103.84	7,396.13	7,298.78	97.34	75.980	
14,100.00	7,039.03	9,547.00	7,235.80	206.27	61.60	136.29	-762.15	103.66	7,496.08	7,398.78	97.30	77.042	
14,200.00	7,038.64	9,547.00	7,235.80	209.09	61.60	136.29	-762.15	103.66	7,596.04	7,498.66	97.37	78.009	
14,300.00	7,038.25	9,547.00	7,235.80	211.92	61.60	136.29	-762.15	103.66	7,695.99	7,598.54	97.45	78.974	
14,400.00	7,037.86	9,547.00	7,235.80	214.74	61.60	136.29	-762.15	103.66	7,795.95	7,698.42	97.53	79.937	
14,500.00	7,037.46	9,547.00	7,235.80	217.57	61.60	136.29	-762.15	103.66	7,895.90	7,798.30	97.60	80.897	
14,600.00	7,037.07	9,547.00	7,235.80	220.40	61.60	136.29	-762.15	103.66	7,995.86	7,898.18	97.68	81.856	
14,700.00	7,036.68	9,547.00	7,235.80	223.23	61.60	136.29	-762.15	103.66	8,095.82	7,998.06	97.76	82.812	
14,800.00	7,036.28	9,547.00	7,235.80	226.05	61.60	136.29	-762.15	103.66	8,195.78	8,097.94	97.84	83.766	
14,871.88	7,036.00	9,547.00	7,235.80	228.09	61.60	136.29	-762.15	103.66	8,267.63	8,169.73	97.90	84.450	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	0.00	3.28	3.28	10.99	1,567.60	304.54	1,596.91				
100.00	100.00	78.91	78.91	3.28	3.29	11.01	1,568.01	305.16	1,597.57	1,591.00	6.57	243.158	
200.00	200.00	162.46	162.42	3.34	3.31	11.07	1,569.31	307.15	1,599.53	1,592.89	6.64	240.749	
300.00	300.00	281.35	281.24	3.44	3.41	11.19	1,570.93	310.74	1,601.48	1,594.62	6.85	233.702	
400.00	399.98	374.34	374.19	3.60	3.54	-178.56	1,571.20	313.50	1,604.12	1,596.98	7.14	224.774	
500.00	499.84	468.82	468.64	3.79	3.71	-178.55	1,573.30	314.38	1,611.68	1,604.18	7.50	214.833	
600.00	599.45	592.67	592.49	4.02	3.99	-178.56	1,574.53	314.33	1,621.30	1,613.29	8.01	202.394	
700.00	698.70	681.20	681.02	4.29	4.22	-178.56	1,575.07	314.67	1,634.16	1,625.65	8.51	191.990	
800.00	797.70	771.10	770.90	4.59	4.48	-178.55	1,576.19	315.38	1,649.66	1,640.59	9.06	181.989	
900.00	896.69	882.06	881.85	4.92	4.82	-178.55	1,577.57	316.22	1,665.16	1,655.44	9.72	171.286	
1,000.00	995.68	978.38	978.16	5.27	5.14	-178.55	1,578.47	316.76	1,680.32	1,669.95	10.37	162.005	
1,100.00	1,094.68	1,063.00	1,062.77	5.64	5.43	-178.55	1,579.67	317.23	1,695.94	1,684.93	11.01	154.028	
1,200.00	1,193.67	1,161.96	1,161.72	6.03	5.78	-178.56	1,581.49	317.73	1,711.97	1,700.24	11.72	146.021	
1,300.00	1,292.67	1,269.88	1,269.62	6.42	6.17	-178.59	1,583.23	317.42	1,727.62	1,715.13	12.49	138.315	
1,400.00	1,391.66	1,366.07	1,365.79	6.83	6.53	-178.64	1,584.80	316.67	1,743.19	1,729.96	13.23	131.780	
1,500.00	1,490.66	1,461.68	1,461.39	7.25	6.89	-178.68	1,586.33	315.92	1,758.74	1,744.76	13.98	125.817	
1,600.00	1,589.65	1,537.00	1,536.69	7.67	7.18	-178.68	1,587.95	316.73	1,775.18	1,760.53	14.66	121.115	
1,700.00	1,688.64	1,609.32	1,608.93	8.10	7.46	-178.62	1,590.22	319.11	1,792.99	1,777.66	15.33	116.959	
1,800.00	1,787.64	1,689.74	1,689.17	8.53	7.79	-178.52	1,593.49	323.35	1,812.08	1,796.04	16.04	112.940	
1,900.00	1,886.63	1,767.29	1,766.43	8.97	8.10	-178.37	1,597.02	328.98	1,832.06	1,815.31	16.75	109.369	
2,000.00	1,985.63	1,838.99	1,837.75	9.41	8.40	-178.21	1,601.05	335.19	1,853.36	1,835.93	17.43	106.318	
2,100.00	2,084.62	1,909.36	1,907.66	9.85	8.70	-178.06	1,605.97	341.56	1,876.07	1,857.96	18.11	103.605	
2,200.00	2,183.61	1,996.45	1,994.09	10.30	9.07	-177.87	1,612.93	349.68	1,899.79	1,880.92	18.87	100.653	
2,300.00	2,282.61	2,084.74	2,081.70	10.75	9.46	-177.69	1,620.43	357.63	1,923.96	1,904.31	19.65	97.902	
2,400.00	2,381.60	2,179.81	2,176.07	11.20	9.88	-177.54	1,629.03	365.19	1,948.45	1,927.98	20.47	95.183	
2,500.00	2,480.60	2,281.06	2,276.51	11.66	10.34	-177.34	1,637.81	374.55	1,972.87	1,951.54	21.33	92.486	
2,600.00	2,579.59	2,408.16	2,402.63	12.11	10.92	-177.07	1,647.48	386.92	1,996.41	1,974.07	22.35	89.336	
2,700.00	2,678.58	2,499.14	2,493.00	12.57	11.33	-176.89	1,653.98	395.19	2,019.40	1,996.24	23.16	87.192	
2,800.00	2,777.58	2,584.41	2,577.66	13.02	11.72	-176.74	1,660.47	402.97	2,042.86	2,018.92	23.94	85.323	
2,900.00	2,876.57	2,662.92	2,655.55	13.48	12.09	-176.59	1,666.96	410.47	2,067.05	2,042.36	24.69	83.731	
3,000.00	2,975.57	2,767.80	2,759.51	13.94	12.58	-176.38	1,675.87	421.07	2,091.62	2,066.02	25.59	81.726	
3,100.00	3,074.56	2,905.78	2,896.31	14.40	13.23	-176.06	1,685.12	436.45	2,114.67	2,087.97	26.71	79.183	
3,200.00	3,173.55	3,009.79	2,999.57	14.87	13.72	-175.84	1,691.35	447.22	2,136.98	2,109.36	27.61	77.385	
3,300.00	3,272.55	3,103.66	3,092.92	15.33	14.16	-175.69	1,697.16	455.22	2,159.05	2,130.59	28.46	75.858	
3,400.00	3,371.54	3,185.37	3,174.09	15.79	14.55	-175.55	1,702.50	462.94	2,181.69	2,152.45	29.24	74.622	
3,500.00	3,470.54	3,284.71	3,272.69	16.26	15.02	-175.37	1,709.53	472.77	2,204.97	2,174.85	30.12	73.203	
3,600.00	3,569.53	3,399.14	3,386.49	16.72	15.56	-175.20	1,716.84	482.36	2,227.19	2,196.10	31.10	71.620	
3,700.00	3,668.53	3,491.22	3,478.04	17.19	15.99	-175.07	1,722.73	490.23	2,249.52	2,217.58	31.94	70.435	
3,800.00	3,767.52	3,580.55	3,566.82	17.65	16.42	-174.94	1,728.56	498.24	2,272.09	2,239.33	32.76	69.351	
3,900.00	3,866.51	3,673.87	3,659.54	18.12	16.86	-174.81	1,735.06	506.45	2,295.05	2,261.43	33.61	68.279	
4,000.00	3,965.51	3,775.63	3,760.60	18.59	17.35	-174.64	1,741.78	516.37	2,317.92	2,283.40	34.52	67.147	
4,100.00	4,064.50	3,856.22	3,840.58	19.05	17.74	-174.50	1,746.98	524.77	2,340.88	2,305.58	35.30	66.322	
4,200.00	4,163.50	3,924.96	3,908.64	19.52	18.08	-174.36	1,752.01	532.97	2,365.01	2,329.02	35.99	65.709	
4,300.00	4,262.49	4,010.88	3,993.60	19.99	18.51	-174.17	1,758.76	543.86	2,389.91	2,353.10	36.81	64.933	
4,400.00	4,361.48	4,090.09	4,071.91	20.46	18.92	-174.01	1,765.54	553.65	2,415.39	2,377.82	37.57	64.290	
4,500.00	4,460.48	4,204.50	4,185.16	20.92	19.49	-173.83	1,775.95	566.11	2,441.02	2,402.45	38.58	63.278	
4,600.00	4,559.47	4,333.52	4,313.27	21.39	20.11	-173.70	1,786.78	576.86	2,465.20	2,425.54	39.67	62.146	
4,700.00	4,658.47	4,428.88	4,408.05	21.86	20.57	-173.63	1,794.84	583.54	2,489.16	2,448.63	40.53	61.417	
4,800.00	4,757.46	4,529.69	4,508.32	22.33	21.04	-173.59	-600.66	659.40	2,488.83	2,453.75	35.07	70.959	
4,900.00	4,856.45	4,628.57	4,606.33	22.80	21.54	-173.54	-611.55	659.35	2,395.56	2,359.57	36.00	66.550	
5,000.00	4,955.45	4,729.03	4,706.37	23.27	22.04	-173.57	-621.01	659.29	2,302.81	2,265.82	36.99	62.251	
5,100.00	5,054.44	4,829.92	4,806.44	23.74	22.54	-173.77	-630.89	659.19	2,210.62	2,172.54	38.08	58.049	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,153.44	9,313.44	7,126.58	24.21	59.15	-118.95	-644.41	659.02	2,119.07	2,079.77	39.30	53.925		
5,300.00	5,252.43	9,330.40	7,126.77	24.68	59.46	-117.90	-661.37	658.73	2,028.19	1,987.55	40.64	49.901		
5,400.00	5,351.42	9,348.31	7,126.99	25.15	59.79	-116.78	-679.28	658.35	1,938.08	1,895.95	42.12	46.008		
5,500.00	5,450.42	9,366.63	7,127.21	25.62	60.13	-115.62	-697.58	657.88	1,848.83	1,805.08	43.75	42.258		
5,600.00	5,549.41	9,383.39	7,127.41	26.09	60.44	-114.55	-714.34	657.41	1,760.59	1,715.06	45.53	38.667		
5,700.00	5,648.41	9,399.85	7,127.59	26.56	60.74	-113.49	-730.79	656.95	1,673.52	1,626.03	47.50	35.234		
5,800.00	5,747.40	9,423.51	7,127.75	27.03	61.18	-111.94	-754.44	656.32	1,587.79	1,538.07	49.72	31.937		
5,900.00	5,846.40	9,441.42	7,127.76	27.51	61.52	-110.75	-772.34	655.87	1,503.62	1,451.48	52.14	28.838		
6,000.00	5,945.39	9,456.73	7,127.76	27.98	61.80	-109.73	-787.65	655.47	1,421.34	1,366.53	54.81	25.932		
6,100.00	6,044.38	9,470.08	7,127.76	28.45	62.05	-108.83	-800.99	655.10	1,341.31	1,283.56	57.76	23.224		
6,200.00	6,143.38	9,481.80	7,127.78	28.92	62.27	-108.04	-812.71	654.79	1,264.00	1,203.00	61.00	20.720		
6,300.00	6,242.37	9,542.69	7,127.62	29.39	63.40	-103.88	-873.52	651.89	1,189.75	1,124.88	64.87	18.341		
6,400.00	6,341.37	9,561.62	7,127.38	29.86	63.75	-102.57	-892.40	650.53	1,118.93	1,050.12	68.81	16.261		
6,500.00	6,440.36	9,558.00	7,127.43	30.34	63.69	-102.82	-888.79	650.79	1,052.79	979.85	72.94	14.434		
6,600.00	6,538.90	9,571.01	7,127.29	30.80	63.93	-141.17	-901.77	649.94	997.48	919.90	77.57	12.859		
6,700.00	6,634.88	9,577.61	7,127.24	31.25	64.05	-157.17	-908.36	649.58	963.95	881.46	82.50	11.684		
6,783.45	6,711.29	9,590.00	7,127.21	31.61	64.28	-162.53	-920.74	649.04	955.06	868.57	86.49	11.043 CC		
6,800.00	6,725.92	9,590.00	7,127.21	31.68	64.28	-163.37	-920.74	649.04	955.41	868.21	87.21	10.956 ES		
6,900.00	6,809.79	9,590.00	7,127.21	32.07	64.28	-167.01	-920.74	649.04	972.61	881.63	90.98	10.690 SF		
7,000.00	6,884.42	9,597.82	7,127.21	32.43	64.43	-168.66	-928.55	648.78	1,013.93	920.17	93.77	10.813		
7,100.00	6,947.98	9,603.60	7,127.21	32.77	64.54	-169.56	-934.34	648.63	1,075.67	980.12	95.55	11.258		
7,200.00	6,998.89	9,608.26	7,127.21	33.18	64.63	-169.87	-938.99	648.53	1,153.20	1,056.62	96.58	11.940		
7,300.00	7,035.91	9,611.75	7,127.21	33.76	64.69	-169.55	-942.48	648.47	1,241.87	1,144.74	97.13	12.786		
7,400.00	7,058.12	9,614.11	7,127.21	34.61	64.74	-167.86	-944.84	648.44	1,337.55	1,240.16	97.39	13.734		
7,500.00	7,064.98	9,622.00	7,127.21	35.68	64.89	-148.24	-952.73	648.37	1,436.76	1,339.16	97.61	14.720		
7,600.00	7,064.59	9,622.00	7,127.21	36.95	64.89	-148.24	-952.73	648.37	1,536.66	1,439.02	97.64	15.738		
7,700.00	7,064.20	9,622.00	7,127.21	38.40	64.89	-148.24	-952.73	648.37	1,636.57	1,538.90	97.67	16.756		
7,800.00	7,063.80	9,622.00	7,127.21	40.00	64.89	-148.24	-952.73	648.37	1,736.49	1,638.79	97.70	17.773		
7,900.00	7,063.41	9,622.00	7,127.21	41.75	64.89	-148.24	-952.73	648.37	1,836.42	1,738.69	97.73	18.791		
8,000.00	7,063.02	9,622.00	7,127.21	43.62	64.89	-148.24	-952.73	648.37	1,936.36	1,838.60	97.76	19.808		
8,100.00	7,062.62	9,622.00	7,127.21	45.59	64.89	-148.24	-952.73	648.37	2,036.31	1,938.52	97.79	20.824		
8,200.00	7,062.23	9,622.00	7,127.21	47.65	64.89	-148.24	-952.73	648.37	2,136.26	2,038.44	97.81	21.840		
8,300.00	7,061.84	9,622.00	7,127.21	49.79	64.89	-148.24	-952.73	648.37	2,236.21	2,138.37	97.84	22.856		
8,400.00	7,061.45	9,622.00	7,127.21	52.00	64.89	-148.24	-952.73	648.37	2,336.17	2,238.30	97.87	23.871		
8,500.00	7,061.05	9,622.00	7,127.21	54.27	64.89	-148.24	-952.73	648.37	2,436.13	2,338.23	97.89	24.886		
8,600.00	7,060.66	9,622.00	7,127.21	56.60	64.89	-148.24	-952.73	648.37	2,536.09	2,438.17	97.92	25.900		
8,700.00	7,060.27	9,622.00	7,127.21	58.97	64.89	-148.24	-952.73	648.37	2,636.06	2,538.11	97.95	26.913		
8,800.00	7,059.87	9,622.00	7,127.21	61.38	64.89	-148.24	-952.73	648.37	2,736.03	2,638.05	97.98	27.925		
8,900.00	7,059.48	9,622.00	7,127.21	63.83	64.89	-148.24	-952.73	648.37	2,836.00	2,737.99	98.01	28.937		
9,000.00	7,059.09	9,622.00	7,127.21	66.32	64.89	-148.24	-952.73	648.37	2,935.97	2,837.94	98.03	29.948		
9,100.00	7,058.69	9,622.00	7,127.21	68.83	64.89	-148.24	-952.73	648.37	3,035.95	2,937.88	98.06	30.959		
9,200.00	7,058.30	9,622.00	7,127.21	71.37	64.89	-148.24	-952.73	648.37	3,135.92	3,037.83	98.10	31.968		
9,300.00	7,057.91	9,622.00	7,127.21	73.93	64.89	-148.24	-952.73	648.37	3,235.90	3,137.78	98.13	32.977		
9,400.00	7,057.51	9,622.00	7,127.21	76.51	64.89	-148.24	-952.73	648.37	3,335.88	3,237.72	98.16	33.984		
9,500.00	7,057.12	9,622.00	7,127.21	79.11	64.89	-148.24	-952.73	648.37	3,435.86	3,337.67	98.19	34.991		
9,600.00	7,056.73	9,622.00	7,127.21	81.73	64.89	-148.24	-952.73	648.37	3,535.84	3,437.62	98.23	35.997		
9,700.00	7,056.33	9,622.00	7,127.21	84.37	64.89	-148.24	-952.73	648.37	3,635.83	3,537.57	98.26	37.002		
9,800.00	7,055.94	9,622.00	7,127.21	87.01	64.89	-148.24	-952.73	648.37	3,735.81	3,637.51	98.30	38.005		
9,900.00	7,055.55	9,622.00	7,127.21	89.68	64.89	-148.24	-952.73	648.37	3,835.80	3,737.46	98.33	39.008		
10,000.00	7,055.15	9,622.00	7,127.21	92.35	64.89	-148.24	-952.73	648.37	3,935.78	3,837.41	98.37	40.010		
10,100.00	7,054.76	9,622.00	7,127.21	95.03	64.89	-148.24	-952.73	648.37	4,035.77	3,937.36	98.41	41.010		
10,200.00	7,054.37	9,622.00	7,127.21	97.73	64.89	-148.24	-952.73	648.37	4,135.75	4,037.31	98.45	42.010		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,053.98	9,622.00	7,127.21	100.43	64.89	-148.24	-952.73	648.37	4,235.74	4,137.25	98.49	43.008		
10,400.00	7,053.58	9,622.00	7,127.21	103.14	64.89	-148.24	-952.73	648.37	4,335.73	4,237.20	98.53	44.005		
10,500.00	7,053.19	9,622.00	7,127.21	105.86	64.89	-148.24	-952.73	648.37	4,435.72	4,337.15	98.57	45.001		
10,600.00	7,052.80	9,622.00	7,127.21	108.59	64.89	-148.24	-952.73	648.37	4,535.71	4,437.09	98.61	45.995		
10,700.00	7,052.40	9,622.00	7,127.21	111.32	64.89	-148.24	-952.73	648.37	4,635.70	4,537.04	98.66	46.989		
10,800.00	7,052.01	9,622.00	7,127.21	114.06	64.89	-148.24	-952.73	648.37	4,735.69	4,636.99	98.70	47.981		
10,900.00	7,051.62	9,622.00	7,127.21	116.80	64.89	-148.24	-952.73	648.37	4,835.68	4,736.93	98.75	48.971		
11,000.00	7,051.22	9,622.00	7,127.21	119.55	64.89	-148.24	-952.73	648.37	4,935.67	4,836.88	98.79	49.960		
11,100.00	7,050.83	9,622.00	7,127.21	122.31	64.89	-148.24	-952.73	648.37	5,035.66	4,936.82	98.84	50.948		
11,200.00	7,050.44	9,622.00	7,127.21	125.07	64.89	-148.24	-952.73	648.37	5,135.65	5,036.76	98.89	51.935		
11,300.00	7,050.04	9,622.00	7,127.21	127.83	64.89	-148.24	-952.73	648.37	5,235.64	5,136.71	98.94	52.920		
11,400.00	7,049.65	9,622.00	7,127.21	130.60	64.89	-148.24	-952.73	648.37	5,335.63	5,236.65	98.99	53.903		
11,500.00	7,049.26	9,622.00	7,127.21	133.37	64.89	-148.24	-952.73	648.37	5,435.63	5,336.59	99.04	54.885		
11,600.00	7,048.86	9,622.00	7,127.21	136.15	64.89	-148.24	-952.73	648.37	5,535.62	5,436.53	99.09	55.866		
11,700.00	7,048.47	9,622.00	7,127.21	138.93	64.89	-148.24	-952.73	648.37	5,635.61	5,536.47	99.14	56.844		
11,800.00	7,048.08	9,622.00	7,127.21	141.71	64.89	-148.24	-952.73	648.37	5,735.60	5,636.41	99.19	57.822		
11,900.00	7,047.68	9,622.00	7,127.21	144.49	64.89	-148.24	-952.73	648.37	5,835.60	5,736.35	99.25	58.798		
12,000.00	7,047.29	9,622.00	7,127.21	147.28	64.89	-148.24	-952.73	648.37	5,935.59	5,836.29	99.30	59.772		
12,100.00	7,046.90	9,622.00	7,127.21	150.07	64.89	-148.24	-952.73	648.37	6,035.59	5,936.22	99.36	60.744		
12,200.00	7,046.51	9,622.00	7,127.21	152.87	64.89	-148.24	-952.73	648.37	6,135.58	6,036.16	99.42	61.715		
12,300.00	7,046.11	9,622.00	7,127.21	155.66	64.89	-148.24	-952.73	648.37	6,235.57	6,136.10	99.48	62.684		
12,400.00	7,045.72	9,622.00	7,127.21	158.46	64.89	-148.24	-952.73	648.37	6,335.57	6,236.03	99.53	63.652		
12,500.00	7,045.33	9,622.00	7,127.21	161.26	64.89	-148.24	-952.73	648.37	6,435.56	6,335.97	99.59	64.618		
12,600.00	7,044.93	9,622.00	7,127.21	164.06	64.89	-148.24	-952.73	648.37	6,535.56	6,435.90	99.66	65.582		
12,700.00	7,044.54	9,622.00	7,127.21	166.86	64.89	-148.24	-952.73	648.37	6,635.55	6,535.84	99.72	66.544		
12,800.00	7,044.15	9,622.00	7,127.21	169.67	64.89	-148.24	-952.73	648.37	6,735.55	6,635.77	99.78	67.504		
12,900.00	7,043.75	9,622.00	7,127.21	172.48	64.89	-148.24	-952.73	648.37	6,835.54	6,735.70	99.84	68.463		
13,000.00	7,043.36	9,622.00	7,127.21	175.28	64.89	-148.24	-952.73	648.37	6,935.54	6,835.63	99.91	69.420		
13,100.00	7,042.97	9,622.00	7,127.21	178.09	64.89	-148.24	-952.73	648.37	7,035.53	6,935.56	99.97	70.375		
13,200.00	7,042.57	9,622.00	7,127.21	180.91	64.89	-148.24	-952.73	648.37	7,135.53	7,035.49	100.04	71.328		
13,300.00	7,042.18	9,622.00	7,127.21	183.72	64.89	-148.24	-952.73	648.37	7,235.52	7,135.42	100.10	72.279		
13,400.00	7,041.79	9,622.00	7,127.21	186.53	64.89	-148.24	-952.73	648.37	7,335.52	7,235.35	100.17	73.229		
13,500.00	7,041.39	9,622.00	7,127.21	189.35	64.89	-148.24	-952.73	648.37	7,435.52	7,335.28	100.24	74.176		
13,600.00	7,041.00	9,622.00	7,127.21	192.17	64.89	-148.24	-952.73	648.37	7,535.51	7,435.20	100.31	75.122		
13,700.00	7,040.61	9,622.00	7,127.21	194.99	64.89	-148.24	-952.73	648.37	7,635.51	7,535.13	100.38	76.065		
13,800.00	7,040.21	9,622.00	7,127.21	197.81	64.89	-148.24	-952.73	648.37	7,735.50	7,635.05	100.45	77.007		
13,900.00	7,039.82	9,622.00	7,127.21	200.63	64.89	-148.24	-952.73	648.37	7,835.50	7,734.98	100.52	77.947		
14,000.00	7,039.43	9,622.00	7,127.21	203.45	64.89	-148.24	-952.73	648.37	7,935.50	7,834.90	100.60	78.884		
14,100.00	7,039.03	9,622.00	7,127.21	206.27	64.89	-148.24	-952.73	648.37	8,035.49	7,934.82	100.67	79.820		
14,200.00	7,038.64	9,622.00	7,127.21	209.09	64.89	-148.24	-952.73	648.37	8,135.49	8,034.75	100.74	80.754		
14,300.00	7,038.25	9,622.00	7,127.21	211.92	64.89	-148.24	-952.73	648.37	8,235.49	8,134.67	100.82	81.685		
14,400.00	7,037.86	9,622.00	7,127.21	214.74	64.89	-148.24	-952.73	648.37	8,335.48	8,234.59	100.90	82.615		
14,500.00	7,037.46	9,622.00	7,127.21	217.57	64.89	-148.24	-952.73	648.37	8,435.48	8,334.51	100.97	83.542		
14,600.00	7,037.07	9,622.00	7,127.21	220.40	64.89	-148.24	-952.73	648.37	8,535.48	8,434.43	101.05	84.467		
14,700.00	7,036.68	9,622.00	7,127.21	223.23	64.89	-148.24	-952.73	648.37	8,635.47	8,534.35	101.13	85.391		
14,800.00	7,036.28	9,622.00	7,127.21	226.05	64.89	-148.24	-952.73	648.37	8,735.47	8,634.26	101.21	86.312		
14,871.88	7,036.00	9,622.00	7,127.21	228.09	64.89	-148.24	-952.73	648.37	8,807.35	8,706.08	101.27	86.973		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	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: 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	13.12	3.12	3.28	3.28	47.30	1,564.01	1,695.14	2,306.43					
100.00	100.00	144.35	134.34	3.28	3.29	47.28	1,563.90	1,693.79	2,305.62	2,299.04	6.58	350.507		
200.00	200.00	257.27	247.22	3.34	3.37	47.23	1,564.16	1,690.83	2,303.85	2,297.14	6.71	343.354		
300.00	300.00	359.32	349.18	3.44	3.51	47.14	1,565.13	1,686.81	2,301.61	2,294.66	6.95	331.196		
361.23	361.23	410.58	400.39	3.53	3.59	-142.78	1,566.05	1,684.61	2,300.95	2,293.83	7.12	323.098		
400.00	399.98	447.53	437.30	3.60	3.66	-142.83	1,566.90	1,683.00	2,301.19	2,293.93	7.25	317.194		
500.00	499.84	545.75	535.38	3.79	3.88	-143.00	1,569.38	1,678.53	2,303.76	2,296.10	7.66	300.815		
600.00	599.45	641.23	630.69	4.02	4.12	-143.19	1,572.48	1,673.72	2,309.30	2,301.16	8.13	283.881		
700.00	698.70	734.05	723.31	4.29	4.39	-143.41	1,576.04	1,668.73	2,317.85	2,309.18	8.67	267.316		
800.00	797.70	831.76	820.76	4.59	4.70	-143.78	1,580.45	1,663.24	2,328.37	2,319.09	9.28	251.000		
900.00	896.69	928.15	916.90	4.92	5.03	-144.14	1,584.69	1,657.65	2,338.77	2,328.84	9.92	235.727		
1,000.00	995.68	1,012.43	1,000.94	5.27	5.33	-144.47	1,588.86	1,652.90	2,349.78	2,339.21	10.56	222.460		
1,100.00	1,094.68	1,275.15	1,260.57	5.64	6.42	-145.90	1,609.28	1,619.81	2,358.57	2,346.56	12.01	196.337		
1,200.00	1,193.67	1,390.09	1,373.35	6.03	6.97	-146.62	1,617.39	1,599.15	2,362.94	2,350.02	12.92	182.837		
1,300.00	1,292.67	1,481.48	1,462.92	6.42	7.43	-147.19	1,623.90	1,582.27	2,367.32	2,353.57	13.75	172.125		
1,400.00	1,391.66	1,668.06	1,645.70	6.83	8.40	-148.35	1,635.12	1,546.59	2,371.13	2,356.05	15.08	157.214		
1,500.00	1,490.66	1,780.23	1,755.55	7.25	9.00	-149.01	1,638.79	1,524.23	2,372.35	2,356.29	16.06	147.756		
1,600.00	1,589.65	1,862.93	1,836.60	7.67	9.44	-149.48	1,640.91	1,507.93	2,373.48	2,356.59	16.89	140.508		
1,700.00	1,688.64	1,928.20	1,900.74	8.10	9.79	-149.84	1,642.88	1,496.02	2,376.07	2,358.43	17.65	134.644		
1,800.00	1,787.64	1,999.44	1,970.92	8.53	10.17	-150.23	1,645.33	1,483.96	2,380.05	2,361.62	18.43	129.128		
1,900.00	1,886.63	2,060.88	2,031.54	8.97	10.49	-150.55	1,647.83	1,474.30	2,385.46	2,366.30	19.17	124.456		
2,000.00	1,985.63	2,127.89	2,097.74	9.41	10.83	-150.89	1,651.33	1,464.52	2,392.58	2,372.65	19.93	120.037		
2,100.00	2,084.62	2,216.49	2,185.23	9.85	11.29	-151.36	1,656.64	1,451.60	2,400.54	2,379.72	20.82	115.327		
2,200.00	2,183.61	2,296.55	2,264.22	10.30	11.72	-151.79	1,662.15	1,439.78	2,409.25	2,387.59	21.66	111.224		
2,300.00	2,282.61	2,377.51	2,344.04	10.75	12.15	-152.23	1,668.44	1,427.80	2,418.84	2,396.32	22.52	107.409		
2,400.00	2,381.60	2,482.95	2,448.06	11.20	12.70	-152.79	1,676.63	1,412.61	2,428.88	2,405.36	23.52	103.289		
2,500.00	2,480.60	2,567.21	2,531.33	11.66	13.14	-153.22	1,682.59	1,401.23	2,439.10	2,414.71	24.39	100.023		
2,600.00	2,579.59	2,664.72	2,627.78	12.11	13.64	-153.70	1,689.44	1,388.65	2,449.81	2,424.48	25.33	96.731		
2,700.00	2,678.58	2,770.53	2,732.49	12.57	14.19	-154.21	1,696.51	1,375.13	2,460.49	2,434.18	26.31	93.509		
2,800.00	2,777.58	2,919.84	2,879.78	13.02	14.99	-154.97	1,706.32	1,352.80	2,469.97	2,442.39	27.57	89.583		
2,900.00	2,876.57	3,024.28	2,982.46	13.48	15.58	-155.54	1,713.14	1,334.98	2,478.50	2,449.91	28.59	86.678		
3,000.00	2,975.57	3,124.76	3,081.44	13.94	16.13	-156.06	1,719.06	1,318.72	2,487.23	2,457.64	29.59	84.056		
3,100.00	3,074.56	3,219.82	3,175.10	14.40	16.66	-156.55	1,724.49	1,303.38	2,496.03	2,465.48	30.55	81.691		
3,200.00	3,173.55	3,314.72	3,268.71	14.87	17.17	-157.02	1,729.69	1,288.67	2,505.18	2,473.67	31.51	79.509		
3,300.00	3,272.55	3,447.50	3,400.17	15.33	17.86	-157.59	1,734.32	1,270.58	2,513.87	2,481.23	32.64	77.011		
3,400.00	3,371.54	3,523.27	3,475.27	15.79	18.24	-157.90	1,736.41	1,260.74	2,522.41	2,488.95	33.47	75.374		
3,500.00	3,470.54	3,596.35	3,547.74	16.26	18.61	-158.19	1,738.91	1,251.74	2,531.98	2,497.71	34.27	73.882		
3,600.00	3,569.53	3,670.91	3,621.62	16.72	18.99	-158.50	1,742.46	1,242.34	2,542.63	2,507.55	35.09	72.467		
3,700.00	3,668.53	3,753.44	3,703.29	17.19	19.43	-158.86	1,747.44	1,231.52	2,554.22	2,518.27	35.96	71.036		
3,800.00	3,767.52	3,851.53	3,800.04	17.65	19.96	-159.34	1,754.55	1,217.06	2,566.18	2,529.24	36.94	69.471		
3,900.00	3,866.51	3,964.50	3,911.15	18.12	20.60	-159.92	1,763.39	1,198.68	2,578.08	2,540.04	38.03	67.784		
4,000.00	3,965.51	4,096.32	4,040.66	18.59	21.36	-160.60	1,772.81	1,175.98	2,589.14	2,549.88	39.26	65.952		
4,100.00	4,064.50	4,230.99	4,172.85	19.05	22.14	-161.29	1,780.92	1,151.54	2,599.01	2,558.51	40.50	64.176		
4,200.00	4,163.50	4,303.83	4,244.53	19.52	22.54	-161.65	1,784.93	1,139.24	2,609.13	2,567.79	41.34	63.113		
4,300.00	4,262.49	4,390.36	4,329.87	19.99	23.03	-162.04	1,789.38	1,125.66	2,619.77	2,577.51	42.27	61.980		
4,400.00	4,361.48	4,478.47	4,416.89	20.46	23.51	-162.42	1,793.87	1,112.63	2,630.94	2,587.75	43.18	60.923		
4,500.00	4,460.48	4,566.60	4,503.99	20.92	23.98	-162.79	1,798.53	1,099.96	2,642.59	2,598.49	44.10	59.921		
4,600.00	4,559.47	4,650.51	4,586.98	21.39	24.42	-163.14	1,803.09	1,088.42	2,654.79	2,609.81	44.98	59.023		
4,700.00	4,658.47	4,734.06	4,669.70	21.86	24.86	-163.46	1,807.73	1,077.73	2,667.63	2,621.78	45.85	58.180		
4,800.00	4,757.46	4,811.73	4,746.70	22.33	25.26	-163.75	1,812.16	1,068.56	2,681.16	2,634.49	46.68	57.443		
4,900.00	4,856.45	4,903.00	4,838.60	22.80	25.71	-164.01	1,816.33	1,059.73	2,694.33	2,646.73	47.46	56.771		
5,000.00	4,955.45	5,003.00	4,938.60	23.27	26.21	-164.24	1,820.27	1,051.27	2,706.97	2,658.47	48.19	56.152		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
5,100.00	5,054.44	9,515.00	7,235.29	23.74	61.43	-112.23	-693.78	973.32	2,436.22	2,386.78	49.45	49.269	
5,200.00	5,153.44	9,520.57	7,235.17	24.21	61.53	-111.97	-699.33	973.31	2,348.85	2,298.01	50.85	46.195	
5,300.00	5,252.43	9,526.33	7,235.05	24.68	61.63	-111.69	-705.10	973.31	2,262.50	2,210.15	52.35	43.220	
5,400.00	5,351.42	9,535.00	7,234.90	25.15	61.79	-111.28	-713.77	973.33	2,177.29	2,123.29	54.00	40.323	
5,500.00	5,450.42	9,539.42	7,234.83	25.62	61.87	-111.06	-718.19	973.35	2,093.34	2,037.63	55.71	37.579	
5,600.00	5,549.41	9,547.48	7,234.72	26.09	62.02	-110.68	-726.25	973.39	2,010.81	1,953.22	57.59	34.917	
5,700.00	5,648.41	9,555.76	7,234.62	26.56	62.17	-110.27	-734.53	973.44	1,929.88	1,870.28	59.61	32.377	
5,800.00	5,747.40	9,567.00	7,234.51	27.03	62.38	-109.73	-745.76	973.53	1,850.77	1,788.96	61.81	29.943	
5,900.00	5,846.40	9,575.96	7,234.43	27.51	62.54	-109.29	-754.73	973.61	1,773.68	1,709.56	64.13	27.660	
6,000.00	5,945.39	9,589.02	7,234.32	27.98	62.78	-108.66	-767.78	973.73	1,698.90	1,632.24	66.66	25.487	
6,100.00	6,044.38	9,603.03	7,234.19	28.45	63.04	-107.97	-781.79	973.85	1,626.71	1,557.36	69.36	23.454	
6,200.00	6,143.38	9,618.87	7,234.03	28.92	63.33	-107.19	-797.63	973.98	1,557.48	1,485.24	72.24	21.560	
6,300.00	6,242.37	9,634.31	7,233.85	29.39	63.62	-106.43	-813.07	974.09	1,491.61	1,416.36	75.25	19.822	
6,400.00	6,341.37	9,648.05	7,233.66	29.86	63.87	-105.76	-826.81	974.18	1,429.57	1,351.23	78.34	18.249	
6,500.00	6,440.36	9,661.75	7,233.46	30.34	64.13	-105.08	-840.51	974.28	1,371.90	1,290.41	81.50	16.834	
6,600.00	6,538.90	9,673.87	7,233.30	30.80	64.35	-143.58	-852.62	974.35	1,324.77	1,240.06	84.71	15.639	
6,700.00	6,634.88	9,686.68	7,233.18	31.25	64.59	-159.33	-865.44	974.39	1,298.40	1,210.43	87.97	14.759	
6,765.61	6,695.31	9,695.45	7,233.14	31.53	64.75	-164.01	-874.20	974.40	1,293.40	1,203.41	89.99	14.372 CC, ES	
6,800.00	6,725.92	9,700.14	7,233.13	31.68	64.84	-165.67	-878.90	974.40	1,294.78	1,203.79	90.98	14.231	
6,900.00	6,809.79	9,713.42	7,233.10	32.07	65.09	-168.77	-892.17	974.38	1,314.19	1,220.69	93.50	14.055 SF	
7,000.00	6,884.42	9,725.87	7,233.10	32.43	65.32	-170.46	-904.62	974.34	1,355.22	1,259.81	95.41	14.204	
7,100.00	6,947.98	9,735.03	7,233.09	32.77	65.49	-171.51	-913.79	974.31	1,415.06	1,318.37	96.69	14.635	
7,200.00	6,998.89	9,742.64	7,233.09	33.18	65.63	-172.14	-921.39	974.29	1,490.12	1,392.62	97.50	15.284	
7,300.00	7,035.91	9,748.41	7,233.08	33.76	65.74	-172.52	-927.16	974.28	1,576.56	1,478.59	97.97	16.093	
7,400.00	7,058.12	9,752.24	7,233.07	34.61	65.81	-172.82	-931.00	974.27	1,670.67	1,572.46	98.21	17.011	
7,500.00	7,064.98	9,754.10	7,233.07	35.68	65.85	-173.70	-932.85	974.27	1,769.13	1,670.82	98.31	17.995	
7,600.00	7,064.59	9,755.01	7,233.07	36.95	65.86	-173.38	-933.76	974.27	1,868.73	1,770.38	98.36	18.999	
7,700.00	7,064.20	9,755.91	7,233.07	38.40	65.88	-173.06	-934.66	974.27	1,968.37	1,869.97	98.40	20.004	
7,800.00	7,063.80	9,756.80	7,233.07	40.00	65.90	-172.75	-935.56	974.26	2,068.05	1,969.61	98.44	21.008	
7,900.00	7,063.41	9,758.90	7,233.06	41.75	65.94	-172.02	-937.65	974.26	2,167.75	2,069.24	98.51	22.005	
8,000.00	7,063.02	9,761.66	7,233.06	43.62	65.99	-171.06	-940.41	974.25	2,267.48	2,168.89	98.59	22.998	
8,100.00	7,062.62	9,764.85	7,233.05	45.59	66.05	-169.95	-943.60	974.24	2,367.24	2,268.55	98.69	23.987	
8,200.00	7,062.23	9,768.59	7,233.04	47.65	66.12	-168.67	-947.34	974.23	2,467.01	2,368.21	98.80	24.971	
8,300.00	7,061.84	9,773.02	7,233.03	49.79	66.20	-167.16	-951.78	974.20	2,566.79	2,467.87	98.92	25.948	
8,400.00	7,061.45	9,778.37	7,233.02	52.00	66.30	-165.37	-957.13	974.17	2,666.59	2,567.52	99.07	26.917	
8,500.00	7,061.05	9,784.95	7,233.00	54.27	66.42	-163.20	-963.70	974.11	2,766.40	2,667.15	99.24	27.875	
8,600.00	7,060.66	9,793.24	7,232.97	56.60	66.58	-160.53	-971.99	974.02	2,866.22	2,766.76	99.46	28.817	
8,700.00	7,060.27	9,800.00	7,232.91	58.97	66.79	-157.26	-975.43	974.13	2,966.03	2,867.25	99.79	29.747	
8,800.00	7,059.87	9,806.00	7,232.84	61.38	67.04	-154.79	-978.84	974.12	3,065.88	2,965.18	100.16	30.667	
8,900.00	7,059.48	9,812.00	7,232.77	63.83	67.34	-152.27	-982.25	973.99	3,165.73	3,065.03	100.59	31.587	
9,000.00	7,059.09	9,818.00	7,232.70	66.32	67.69	-150.00	-985.66	973.83	3,265.58	3,165.88	101.07	32.507	
9,100.00	7,058.69	9,824.00	7,232.63	68.83	68.09	-147.73	-989.07	973.75	3,365.44	3,265.73	101.60	33.427	
9,200.00	7,058.30	9,830.00	7,232.56	71.37	68.54	-145.46	-992.48	973.66	3,465.30	3,365.58	102.17	34.347	
9,300.00	7,057.91	9,836.00	7,232.49	73.93	69.04	-143.19	-995.89	973.56	3,565.16	3,465.43	102.79	35.267	
9,400.00	7,057.51	9,842.00	7,232.42	76.51	69.59	-140.92	-999.30	973.45	3,665.03	3,565.58	103.46	36.187	
9,500.00	7,057.12	9,848.00	7,232.35	79.11	70.19	-138.65	-1,002.71	973.33	3,764.91	3,665.73	104.18	37.107	
9,600.00	7,056.73	9,854.00	7,232.28	81.73	70.84	-136.38	-1,006.12	973.21	3,864.79	3,765.88	104.95	38.027	
9,700.00	7,056.33	9,860.00	7,232.21	84.37	71.54	-134.11	-1,009.53	973.08	3,964.68	3,866.03	105.77	38.947	
9,800.00	7,055.94	9,866.00	7,232.14	87.01	72.29	-131.84	-1,012.94	972.94	4,064.57	3,966.18	106.64	39.867	
9,900.00	7,055.55	9,872.00	7,232.07	89.68	73.09	-129.57	-1,016.35	972.80	4,164.46	4,066.33	107.56	40.787	
10,000.00	7,055.15	9,878.00	7,232.00	92.35	73.94	-127.30	-1,019.76	972.65	4,264.36	4,166.58	108.53	41.707	
10,100.00	7,054.76	9,884.00	7,231.93	95.03	74.84	-125.03	-1,023.17	972.50	4,364.26	4,266.80	109.55	42.627	

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
10,200.00	7,054.37	9,844.31	7,232.55	97.73	67.54	-146.09	-1,023.05	973.29	4,464.17	4,363.04	101.13	44.144	
10,300.00	7,053.98	9,846.73	7,232.52	100.43	67.59	-145.49	-1,025.48	973.25	4,564.08	4,462.85	101.22	45.090	
10,400.00	7,053.58	9,849.16	7,232.49	103.14	67.63	-144.91	-1,027.90	973.21	4,663.99	4,562.67	101.32	46.034	
10,500.00	7,053.19	9,851.59	7,232.46	105.86	67.68	-144.33	-1,030.33	973.17	4,763.90	4,662.48	101.41	46.975	
10,600.00	7,052.80	9,854.02	7,232.43	108.59	67.72	-143.75	-1,032.76	973.13	4,863.81	4,762.30	101.51	47.914	
10,700.00	7,052.40	9,852.00	7,232.46	111.32	67.69	-144.23	-1,030.74	973.17	4,963.73	4,862.23	101.50	48.903	
10,800.00	7,052.01	9,852.00	7,232.46	114.06	67.69	-144.23	-1,030.74	973.17	5,063.65	4,962.11	101.54	49.868	
10,900.00	7,051.62	9,852.00	7,232.46	116.80	67.69	-144.23	-1,030.74	973.17	5,163.58	5,062.00	101.58	50.831	
11,000.00	7,051.22	9,852.00	7,232.46	119.55	67.69	-144.23	-1,030.74	973.17	5,263.51	5,161.88	101.63	51.793	
11,100.00	7,050.83	9,852.00	7,232.46	122.31	67.69	-144.23	-1,030.74	973.17	5,363.44	5,261.77	101.67	52.754	
11,200.00	7,050.44	9,852.00	7,232.46	125.07	67.69	-144.23	-1,030.74	973.17	5,463.37	5,361.66	101.71	53.713	
11,300.00	7,050.04	9,852.00	7,232.46	127.83	67.69	-144.23	-1,030.74	973.17	5,563.31	5,461.55	101.76	54.671	
11,400.00	7,049.65	9,852.00	7,232.46	130.60	67.69	-144.23	-1,030.74	973.17	5,663.25	5,561.44	101.81	55.628	
11,500.00	7,049.26	9,861.10	7,232.35	133.37	67.86	-142.13	-1,039.84	973.04	5,763.17	5,661.09	102.08	56.459	
11,600.00	7,048.86	9,861.92	7,232.34	136.15	67.87	-141.94	-1,040.66	973.02	5,863.11	5,760.96	102.15	57.399	
11,700.00	7,048.47	9,862.73	7,232.33	138.93	67.89	-141.77	-1,041.47	973.01	5,963.05	5,860.83	102.22	58.338	
11,800.00	7,048.08	9,863.51	7,232.32	141.71	67.90	-141.59	-1,042.25	973.00	6,062.99	5,960.70	102.29	59.275	
11,900.00	7,047.68	9,864.28	7,232.31	144.49	67.92	-141.42	-1,043.02	972.99	6,162.93	6,060.58	102.36	60.211	
12,000.00	7,047.29	9,865.04	7,232.30	147.28	67.93	-141.25	-1,043.78	972.99	6,262.88	6,160.45	102.43	61.145	
12,100.00	7,046.90	9,865.78	7,232.29	150.07	67.95	-141.09	-1,044.52	972.98	6,362.82	6,260.33	102.50	62.077	
12,200.00	7,046.51	9,866.51	7,232.28	152.87	67.96	-140.93	-1,045.25	972.97	6,462.77	6,360.20	102.57	63.008	
12,300.00	7,046.11	9,867.22	7,232.27	155.66	67.97	-140.78	-1,045.96	972.96	6,562.72	6,460.08	102.64	63.937	
12,400.00	7,045.72	9,867.91	7,232.26	158.46	67.99	-140.63	-1,046.65	972.95	6,662.67	6,559.96	102.72	64.865	
12,500.00	7,045.33	9,868.60	7,232.26	161.26	68.00	-140.48	-1,047.34	972.94	6,762.62	6,659.83	102.79	65.791	
12,600.00	7,044.93	9,869.27	7,232.25	164.06	68.01	-140.34	-1,048.01	972.94	6,862.58	6,759.71	102.86	66.715	
12,700.00	7,044.54	9,869.93	7,232.24	166.86	68.03	-140.20	-1,048.67	972.93	6,962.53	6,859.59	102.94	67.637	
12,800.00	7,044.15	9,870.58	7,232.23	169.67	68.04	-140.06	-1,049.32	972.92	7,062.49	6,959.47	103.02	68.557	
12,900.00	7,043.75	9,871.21	7,232.22	172.48	68.05	-139.93	-1,049.95	972.92	7,162.44	7,059.35	103.09	69.476	
13,000.00	7,043.36	9,871.83	7,232.22	175.28	68.06	-139.79	-1,050.57	972.91	7,262.40	7,159.23	103.17	70.393	
13,100.00	7,042.97	9,872.45	7,232.21	178.09	68.07	-139.67	-1,051.18	972.90	7,362.36	7,259.11	103.25	71.309	
13,200.00	7,042.57	9,873.05	7,232.20	180.91	68.08	-139.54	-1,051.79	972.90	7,462.32	7,359.00	103.32	72.222	
13,300.00	7,042.18	9,873.64	7,232.19	183.72	68.10	-139.42	-1,052.38	972.89	7,562.28	7,458.88	103.40	73.134	
13,400.00	7,041.79	9,874.22	7,232.19	186.53	68.11	-139.30	-1,052.95	972.89	7,662.24	7,558.76	103.48	74.043	
13,500.00	7,041.39	9,884.00	7,232.07	189.35	68.29	-137.33	-1,062.74	972.81	7,762.22	7,658.43	103.79	74.785	
13,600.00	7,041.00	9,884.00	7,232.07	192.17	68.29	-137.33	-1,062.74	972.81	7,862.18	7,758.32	103.86	75.700	
13,700.00	7,040.61	9,884.00	7,232.07	194.99	68.29	-137.33	-1,062.74	972.81	7,962.15	7,858.22	103.93	76.612	
13,800.00	7,040.21	9,884.00	7,232.07	197.81	68.29	-137.33	-1,062.74	972.81	8,062.11	7,958.11	104.00	77.523	
13,900.00	7,039.82	9,884.00	7,232.07	200.63	68.29	-137.33	-1,062.74	972.81	8,162.07	8,058.01	104.07	78.432	
14,000.00	7,039.43	9,884.00	7,232.07	203.45	68.29	-137.33	-1,062.74	972.81	8,262.04	8,157.90	104.14	79.339	
14,100.00	7,039.03	9,884.00	7,232.07	206.27	68.29	-137.33	-1,062.74	972.81	8,362.00	8,257.80	104.21	80.244	
14,200.00	7,038.64	9,884.00	7,232.07	209.09	68.29	-137.33	-1,062.74	972.81	8,461.97	8,357.69	104.28	81.148	
14,300.00	7,038.25	9,884.00	7,232.07	211.92	68.29	-137.33	-1,062.74	972.81	8,561.94	8,457.59	104.35	82.049	
14,400.00	7,037.86	9,884.00	7,232.07	214.74	68.29	-137.33	-1,062.74	972.81	8,661.90	8,557.48	104.42	82.949	
14,500.00	7,037.46	9,884.00	7,232.07	217.57	68.29	-137.33	-1,062.74	972.81	8,761.87	8,657.37	104.50	83.846	
14,600.00	7,037.07	9,884.00	7,232.07	220.40	68.29	-137.33	-1,062.74	972.81	8,861.84	8,757.27	104.57	84.742	
14,700.00	7,036.68	9,884.00	7,232.07	223.23	68.29	-137.33	-1,062.74	972.81	8,961.81	8,857.16	104.65	85.636	
14,800.00	7,036.28	9,884.00	7,232.07	226.05	68.29	-137.33	-1,062.74	972.81	9,061.78	8,957.06	104.73	86.528	
14,871.88	7,036.00	9,884.00	7,232.07	228.09	68.29	-137.33	-1,062.74	972.81	9,133.64	9,028.86	104.78	87.167	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	0.00	0.00	3.28	3.28	-179.60	-80.15	-0.56	80.15					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-80.15	-0.56	80.15	73.58	6.57	12.201		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-80.15	-0.56	80.15	73.48	6.67	12.010	CC, ES	
300.00	300.00	297.25	297.23	3.44	3.44	-179.50	-81.79	-0.71	81.84	74.95	6.89	11.875		
400.00	399.98	394.37	394.22	3.60	3.58	-9.24	-86.71	-1.17	85.19	77.98	7.21	11.814		
500.00	499.84	491.39	490.89	3.79	3.77	-9.32	-94.89	-1.94	88.47	80.85	7.62	11.611		
600.00	599.45	588.30	587.11	4.02	4.00	-9.55	-106.31	-3.02	91.68	83.57	8.11	11.303		
700.00	698.70	685.11	682.80	4.29	4.27	-9.94	-120.95	-4.40	94.82	86.15	8.67	10.935		
800.00	797.70	781.75	777.76	4.59	4.58	-10.31	-138.76	-6.08	99.38	90.10	9.29	10.702		
900.00	896.69	877.99	871.68	4.92	4.92	-10.46	-159.65	-8.05	107.28	97.34	9.94	10.792		
1,000.00	995.68	974.79	965.42	5.27	5.29	-10.42	-183.68	-10.31	118.35	107.72	10.62	11.139		
1,100.00	1,094.68	1,074.09	1,061.38	5.64	5.70	-10.36	-209.10	-12.70	130.22	118.90	11.33	11.498		
1,200.00	1,193.67	1,173.38	1,157.33	6.03	6.13	-10.31	-234.52	-15.10	142.10	130.04	12.06	11.783		
1,300.00	1,292.67	1,272.67	1,253.28	6.42	6.58	-10.26	-259.94	-17.49	153.97	141.15	12.82	12.010		
1,400.00	1,391.66	1,371.96	1,349.24	6.83	7.04	-10.22	-285.36	-19.89	165.85	152.24	13.60	12.190		
1,500.00	1,490.66	1,471.25	1,445.19	7.25	7.51	-10.19	-310.78	-22.28	177.72	163.31	14.41	12.335		
1,600.00	1,589.65	1,570.55	1,541.14	7.67	7.99	-10.16	-336.19	-24.68	189.60	174.37	15.23	12.452		
1,700.00	1,688.64	1,669.84	1,637.10	8.10	8.47	-10.13	-361.61	-27.07	201.47	185.41	16.06	12.546		
1,800.00	1,787.64	1,769.13	1,733.05	8.53	8.97	-10.11	-387.03	-29.46	213.35	196.44	16.90	12.622		
1,900.00	1,886.63	1,868.42	1,829.00	8.97	9.46	-10.09	-412.45	-31.86	225.22	207.46	17.76	12.683		
2,000.00	1,985.63	1,967.72	1,924.96	9.41	9.96	-10.07	-437.87	-34.25	237.10	218.48	18.62	12.734		
2,100.00	2,084.62	2,067.01	2,020.91	9.85	10.47	-10.05	-463.29	-36.65	248.97	229.48	19.49	12.775		
2,200.00	2,183.61	2,166.30	2,116.87	10.30	10.98	-10.03	-488.71	-39.04	260.85	240.48	20.37	12.808		
2,300.00	2,282.61	2,265.59	2,212.82	10.75	11.49	-10.02	-514.13	-41.44	272.72	251.47	21.25	12.835		
2,400.00	2,381.60	2,364.89	2,308.77	11.20	12.00	-10.01	-539.55	-43.83	284.60	262.46	22.14	12.857		
2,500.00	2,480.60	2,464.18	2,404.73	11.66	12.52	-10.00	-564.97	-46.23	296.47	273.45	23.03	12.875		
2,600.00	2,579.59	2,563.47	2,500.68	12.11	13.03	-9.98	-590.39	-48.62	308.35	284.43	23.92	12.890		
2,700.00	2,678.58	2,662.76	2,596.63	12.57	13.55	-9.97	-615.81	-51.01	320.22	295.40	24.82	12.901		
2,800.00	2,777.58	2,762.06	2,692.59	13.02	14.07	-9.96	-641.23	-53.41	332.10	306.38	25.72	12.911		
2,900.00	2,876.57	2,861.35	2,788.54	13.48	14.59	-9.96	-666.65	-55.80	343.97	317.35	26.63	12.918		
3,000.00	2,975.57	2,960.64	2,884.49	13.94	15.12	-9.95	-692.07	-58.20	355.85	328.31	27.54	12.923		
3,100.00	3,074.56	3,059.93	2,980.45	14.40	15.64	-9.94	-717.48	-60.59	367.73	339.28	28.44	12.928		
3,200.00	3,173.55	3,159.22	3,076.40	14.87	16.16	-9.93	-742.90	-62.99	379.60	350.24	29.36	12.931		
3,300.00	3,272.55	3,258.52	3,172.36	15.33	16.69	-9.93	-768.32	-65.38	391.48	361.21	30.27	12.933		
3,400.00	3,371.54	3,357.81	3,268.31	15.79	17.21	-9.92	-793.74	-67.78	403.35	372.17	31.19	12.934		
3,500.00	3,470.54	3,457.10	3,364.26	16.26	17.74	-9.91	-819.16	-70.17	415.23	383.12	32.10	12.934		
3,600.00	3,569.53	3,556.39	3,460.22	16.72	18.27	-9.91	-844.58	-72.56	427.10	394.08	33.02	12.934		
3,700.00	3,668.53	3,655.69	3,556.17	17.19	18.80	-9.90	-870.00	-74.96	438.98	405.04	33.94	12.934		
3,800.00	3,767.52	3,754.98	3,652.12	17.65	19.33	-9.90	-895.42	-77.35	450.85	415.99	34.86	12.933		
3,900.00	3,866.51	3,854.27	3,748.08	18.12	19.86	-9.89	-920.84	-79.75	462.73	426.95	35.78	12.931		
4,000.00	3,965.51	3,953.56	3,844.03	18.59	20.39	-9.89	-946.26	-82.14	474.60	437.90	36.71	12.930		
4,100.00	4,064.50	4,052.86	3,939.98	19.05	20.92	-9.88	-971.68	-84.54	486.48	448.85	37.63	12.928		
4,200.00	4,163.50	4,152.15	4,035.94	19.52	21.45	-9.88	-997.10	-86.93	498.35	459.80	38.56	12.926		
4,300.00	4,262.49	4,251.44	4,131.89	19.99	21.98	-9.88	-1,022.52	-89.33	510.23	470.75	39.48	12.923		
4,400.00	4,361.48	4,350.73	4,227.85	20.46	22.51	-9.87	-1,047.94	-91.72	522.11	481.70	40.41	12.921		
4,500.00	4,460.48	4,450.03	4,323.80	20.92	23.04	-9.87	-1,073.35	-94.11	533.98	492.65	41.34	12.918		
4,600.00	4,559.47	4,549.32	4,419.75	21.39	23.57	-9.87	-1,098.77	-96.51	545.86	503.59	42.26	12.916		
4,700.00	4,658.47	4,648.61	4,515.71	21.86	24.10	-9.86	-1,124.19	-98.90	557.73	514.54	43.19	12.913		
4,800.00	4,757.46	4,747.90	4,611.66	22.33	24.64	-9.86	-1,149.61	-101.30	569.61	525.49	44.12	12.910		
4,900.00	4,856.45	4,847.19	4,707.61	22.80	25.17	-9.86	-1,175.03	-103.69	581.48	536.43	45.05	12.907		
5,000.00	4,955.45	4,946.49	4,803.57	23.27	25.70	-9.85	-1,200.45	-106.09	593.36	547.38	45.98	12.904		
5,100.00	5,054.44	5,045.78	4,899.52	23.74	26.23	-9.85	-1,225.87	-108.48	605.23	558.32	46.91	12.901		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,145.07	4,995.47	24.21	26.77	-9.85	-1,251.29	-110.88	617.11	569.27	47.84	12.899		
5,300.00	5,252.43	5,244.36	5,091.43	24.68	27.30	-9.84	-1,276.71	-113.27	628.98	580.21	48.77	12.896		
5,400.00	5,351.42	5,343.66	5,187.38	25.15	27.83	-9.84	-1,302.13	-115.66	640.86	591.15	49.71	12.893		
5,500.00	5,450.42	5,442.95	5,283.34	25.62	28.37	-9.84	-1,327.55	-118.06	652.74	602.10	50.64	12.890		
5,600.00	5,549.41	5,542.24	5,379.29	26.09	28.90	-9.84	-1,352.97	-120.45	664.61	613.04	51.57	12.887		
5,700.00	5,648.41	5,641.53	5,475.24	26.56	29.44	-9.84	-1,378.39	-122.85	676.49	623.98	52.51	12.884		
5,800.00	5,747.40	5,740.83	5,571.20	27.03	29.97	-9.83	-1,403.81	-125.24	688.36	634.92	53.44	12.881		
5,900.00	5,846.40	5,840.12	5,667.15	27.51	30.50	-9.83	-1,429.22	-127.64	700.24	645.86	54.37	12.878		
6,000.00	5,945.39	5,939.41	5,763.10	27.98	31.04	-9.83	-1,454.64	-130.03	712.11	656.81	55.31	12.875		
6,100.00	6,044.38	6,038.70	5,859.06	28.45	31.57	-9.83	-1,480.06	-132.43	723.99	667.75	56.24	12.873		
6,200.00	6,143.38	6,138.00	5,955.01	28.92	32.11	-9.83	-1,505.48	-134.82	735.86	678.69	57.18	12.870		
6,300.00	6,242.37	6,237.29	6,050.96	29.39	32.64	-9.82	-1,530.90	-137.21	747.74	689.63	58.11	12.867		
6,400.00	6,341.37	6,336.58	6,146.92	29.86	33.18	-9.82	-1,556.32	-139.61	759.61	700.57	59.05	12.865		
6,500.00	6,440.36	6,435.87	6,242.87	30.34	33.71	-9.82	-1,581.74	-142.00	771.49	711.51	59.98	12.862		
6,600.00	6,538.90	6,534.88	6,338.55	30.80	34.25	-48.72	-1,607.09	-144.39	783.31	722.38	60.93	12.857		
6,700.00	6,634.88	6,634.73	6,434.63	31.25	34.78	-65.30	-1,632.58	-152.79	795.03	733.13	61.89	12.845		
6,800.00	6,725.92	6,737.39	6,530.82	31.68	35.30	-72.37	-1,658.22	-177.37	806.44	743.55	62.89	12.824		
6,900.00	6,809.79	6,842.94	6,624.41	32.07	35.78	-76.14	-1,683.28	-218.98	817.23	753.33	63.89	12.791		
7,000.00	6,884.42	6,951.51	6,712.33	32.43	36.23	-78.43	-1,706.97	-277.84	827.07	762.14	64.93	12.739		
7,100.00	6,947.98	7,063.04	6,791.24	32.77	36.63	-79.94	-1,728.39	-353.49	835.65	769.61	66.04	12.654		
7,200.00	6,998.89	7,177.34	6,857.57	33.18	37.00	-80.97	-1,746.59	-444.59	842.65	775.32	67.33	12.515		
7,300.00	7,035.91	7,294.02	6,907.93	33.76	37.37	-81.65	-1,760.65	-548.71	847.82	778.92	68.91	12.304		
7,400.00	7,058.12	7,412.48	6,939.41	34.61	37.81	-82.07	-1,769.78	-662.37	850.95	780.09	70.85	12.010		
7,500.00	7,064.98	7,531.96	6,950.01	35.68	38.48	-82.24	-1,773.41	-781.15	851.88	778.70	73.18	11.642		
7,600.00	7,064.59	7,632.18	6,949.63	36.95	39.33	-82.24	-1,774.01	-881.36	851.67	775.92	75.75	11.243		
7,700.00	7,064.20	7,732.18	6,949.25	38.40	40.46	-82.24	-1,774.61	-981.36	851.45	772.82	78.63	10.829		
7,800.00	7,063.80	7,832.18	6,948.87	40.00	41.83	-82.24	-1,775.21	-1,081.36	851.24	769.44	81.80	10.406		
7,900.00	7,063.41	7,932.18	6,948.49	41.75	43.39	-82.24	-1,775.81	-1,181.36	851.03	765.79	85.23	9.985		
8,000.00	7,063.02	8,032.18	6,948.11	43.62	45.11	-82.24	-1,776.41	-1,281.35	850.81	761.92	88.89	9.571		
8,100.00	7,062.62	8,132.18	6,947.73	45.59	46.96	-82.24	-1,777.01	-1,381.35	850.60	757.84	92.76	9.170		
8,200.00	7,062.23	8,232.18	6,947.35	47.65	48.91	-82.24	-1,777.61	-1,481.35	850.39	753.59	96.80	8.785		
8,300.00	7,061.84	8,332.18	6,946.97	49.79	50.96	-82.24	-1,778.20	-1,581.35	850.18	749.18	100.99	8.418		
8,400.00	7,061.45	8,432.18	6,946.59	52.00	53.09	-82.23	-1,778.80	-1,681.34	849.96	744.63	105.33	8.070		
8,500.00	7,061.05	8,532.18	6,946.21	54.27	55.28	-82.23	-1,779.40	-1,781.34	849.75	739.96	109.79	7.740		
8,600.00	7,060.66	8,632.18	6,945.83	56.60	57.54	-82.23	-1,780.00	-1,881.34	849.54	735.19	114.35	7.429		
8,700.00	7,060.27	8,732.18	6,945.46	58.97	59.85	-82.23	-1,780.60	-1,981.33	849.32	730.31	119.01	7.137		
8,800.00	7,059.87	8,832.18	6,945.08	61.38	62.21	-82.23	-1,781.20	-2,081.33	849.11	725.36	123.75	6.861		
8,900.00	7,059.48	8,932.18	6,944.70	63.83	64.61	-82.23	-1,781.80	-2,181.33	848.90	720.33	128.57	6.603		
9,000.00	7,059.09	9,032.18	6,944.32	66.32	67.04	-82.23	-1,782.40	-2,281.33	848.68	715.23	133.46	6.359		
9,100.00	7,058.69	9,132.18	6,943.94	68.83	69.51	-82.23	-1,782.99	-2,381.32	848.47	710.07	138.40	6.131		
9,200.00	7,058.30	9,232.18	6,943.56	71.37	72.01	-82.23	-1,783.59	-2,481.32	848.26	704.86	143.40	5.915		
9,300.00	7,057.91	9,332.18	6,943.18	73.93	74.53	-82.23	-1,784.19	-2,581.32	848.05	699.60	148.44	5.713		
9,400.00	7,057.51	9,432.18	6,942.80	76.51	77.08	-82.22	-1,784.79	-2,681.32	847.83	694.30	153.53	5.522		
9,500.00	7,057.12	9,532.18	6,942.42	79.11	79.65	-82.22	-1,785.39	-2,781.31	847.62	688.96	158.66	5.342		
9,600.00	7,056.73	9,632.17	6,942.04	81.73	82.24	-82.22	-1,785.99	-2,881.31	847.41	683.58	163.83	5.173		
9,700.00	7,056.33	9,732.17	6,941.66	84.37	84.85	-82.22	-1,786.59	-2,981.31	847.19	678.17	169.02	5.012		
9,800.00	7,055.94	9,832.17	6,941.28	87.01	87.47	-82.22	-1,787.18	-3,081.30	846.98	672.73	174.25	4.861		
9,900.00	7,055.55	9,932.17	6,940.90	89.68	90.10	-82.22	-1,787.78	-3,181.30	846.77	667.27	179.50	4.717		
10,000.00	7,055.15	10,032.17	6,940.52	92.35	92.75	-82.22	-1,788.38	-3,281.30	846.55	661.78	184.78	4.581		
10,100.00	7,054.76	10,132.17	6,940.14	95.03	95.42	-82.22	-1,788.98	-3,381.30	846.34	656.26	190.08	4.453		
10,200.00	7,054.37	10,232.17	6,939.77	97.73	98.09	-82.22	-1,789.58	-3,481.29	846.13	650.73	195.40	4.330		
10,300.00	7,053.98	10,332.17	6,939.39	100.43	100.77	-82.22	-1,790.18	-3,581.29	845.92	645.18	200.74	4.214		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,053.58	10,432.17	6,939.01	103.14	103.47	-82.21	-1,790.78	-3,681.29	845.70	639.61	206.10	4.103		
10,500.00	7,053.19	10,532.17	6,938.63	105.86	106.17	-82.21	-1,791.37	-3,781.29	845.49	634.02	211.47	3.998		
10,600.00	7,052.80	10,632.17	6,938.25	108.59	108.88	-82.21	-1,791.97	-3,881.28	845.28	628.42	216.86	3.898		
10,700.00	7,052.40	10,732.17	6,937.87	111.32	111.59	-82.21	-1,792.57	-3,981.28	845.06	622.81	222.26	3.802		
10,800.00	7,052.01	10,832.17	6,937.49	114.06	114.32	-82.21	-1,793.17	-4,081.28	844.85	617.18	227.67	3.711		
10,900.00	7,051.62	10,932.17	6,937.11	116.80	117.05	-82.21	-1,793.77	-4,181.27	844.64	611.54	233.10	3.624		
11,000.00	7,051.22	11,032.17	6,936.73	119.55	119.79	-82.21	-1,794.37	-4,281.27	844.42	605.89	238.54	3.540		
11,100.00	7,050.83	11,132.17	6,936.35	122.31	122.53	-82.21	-1,794.97	-4,381.27	844.21	600.23	243.99	3.460		
11,200.00	7,050.44	11,232.17	6,935.97	125.07	125.28	-82.21	-1,795.57	-4,481.27	844.00	594.55	249.44	3.384		
11,300.00	7,050.04	11,332.17	6,935.59	127.83	128.03	-82.20	-1,796.16	-4,581.26	843.79	588.87	254.91	3.310		
11,400.00	7,049.65	11,432.17	6,935.21	130.60	130.79	-82.20	-1,796.76	-4,681.26	843.57	583.19	260.39	3.240		
11,500.00	7,049.26	11,532.17	6,934.83	133.37	133.55	-82.20	-1,797.36	-4,781.26	843.36	577.49	265.87	3.172		
11,600.00	7,048.86	11,632.17	6,934.45	136.15	136.31	-82.20	-1,797.96	-4,881.25	843.15	571.78	271.36	3.107		
11,700.00	7,048.47	11,732.17	6,934.08	138.93	139.08	-82.20	-1,798.56	-4,981.25	842.93	566.07	276.86	3.045		
11,800.00	7,048.08	11,832.17	6,933.70	141.71	141.85	-82.20	-1,799.16	-5,081.25	842.72	560.36	282.37	2.985		
11,900.00	7,047.68	11,932.17	6,933.32	144.49	144.63	-82.20	-1,799.76	-5,181.25	842.51	554.63	287.88	2.927		
12,000.00	7,047.29	12,032.17	6,932.94	147.28	147.41	-82.20	-1,800.35	-5,281.24	842.29	548.90	293.39	2.871		
12,100.00	7,046.90	12,132.17	6,932.56	150.07	150.19	-82.20	-1,800.95	-5,381.24	842.08	543.17	298.92	2.817		
12,200.00	7,046.51	12,232.17	6,932.18	152.87	152.98	-82.20	-1,801.55	-5,481.24	841.87	537.42	304.44	2.765		
12,300.00	7,046.11	12,332.17	6,931.80	155.66	155.76	-82.19	-1,802.15	-5,581.24	841.66	531.68	309.98	2.715		
12,400.00	7,045.72	12,432.17	6,931.42	158.46	158.55	-82.19	-1,802.75	-5,681.23	841.44	525.93	315.52	2.667		
12,500.00	7,045.33	12,532.17	6,931.04	161.26	161.35	-82.19	-1,803.35	-5,781.23	841.23	520.17	321.06	2.620		
12,600.00	7,044.93	12,632.17	6,930.66	164.06	164.14	-82.19	-1,803.95	-5,881.23	841.02	514.41	326.60	2.575		
12,700.00	7,044.54	12,732.17	6,930.28	166.86	166.94	-82.19	-1,804.55	-5,981.22	840.80	508.65	332.15	2.531		
12,800.00	7,044.15	12,832.17	6,929.90	169.67	169.74	-82.19	-1,805.14	-6,081.22	840.59	502.88	337.71	2.489		
12,900.00	7,043.75	12,932.17	6,929.52	172.48	172.54	-82.19	-1,805.74	-6,181.22	840.38	497.11	343.27	2.448		
13,000.00	7,043.36	13,032.17	6,929.14	175.28	175.34	-82.19	-1,806.34	-6,281.22	840.16	491.34	348.83	2.409		
13,100.00	7,042.97	13,132.17	6,928.77	178.09	178.15	-82.19	-1,806.94	-6,381.21	839.95	485.56	354.39	2.370		
13,200.00	7,042.57	13,232.17	6,928.39	180.91	180.95	-82.19	-1,807.54	-6,481.21	839.74	479.78	359.96	2.333		
13,300.00	7,042.18	13,332.17	6,928.01	183.72	183.76	-82.18	-1,808.14	-6,581.21	839.53	473.99	365.53	2.297		
13,400.00	7,041.79	13,432.17	6,927.63	186.53	186.57	-82.18	-1,808.74	-6,681.21	839.31	468.21	371.11	2.262		
13,500.00	7,041.39	13,532.17	6,927.25	189.35	189.38	-82.18	-1,809.33	-6,781.20	839.10	462.42	376.68	2.228		
13,600.00	7,041.00	13,632.17	6,926.87	192.17	192.19	-82.18	-1,809.93	-6,881.20	838.89	456.62	382.26	2.195		
13,700.00	7,040.61	13,732.17	6,926.49	194.99	195.01	-82.18	-1,810.53	-6,981.20	838.67	450.83	387.84	2.162		
13,800.00	7,040.21	13,832.17	6,926.11	197.81	197.82	-82.18	-1,811.13	-7,081.19	838.46	445.03	393.43	2.131		
13,900.00	7,039.82	13,932.17	6,925.73	200.63	200.64	-82.18	-1,811.73	-7,181.19	838.25	439.23	399.02	2.101		
14,000.00	7,039.43	14,032.16	6,925.35	203.45	203.46	-82.18	-1,812.33	-7,281.19	838.03	433.43	404.60	2.071		
14,100.00	7,039.03	14,132.16	6,924.97	206.27	206.28	-82.18	-1,812.93	-7,381.19	837.82	427.63	410.20	2.042		
14,200.00	7,038.64	14,232.16	6,924.59	209.09	209.10	-82.17	-1,813.52	-7,481.18	837.61	421.82	415.79	2.015		
14,300.00	7,038.25	14,332.16	6,924.21	211.92	211.92	-82.17	-1,814.12	-7,581.18	837.40	416.01	421.38	1.987		
14,400.00	7,037.86	14,432.16	6,923.83	214.74	214.74	-82.17	-1,814.72	-7,681.18	837.18	410.20	426.98	1.961		
14,500.00	7,037.46	14,532.16	6,923.45	217.57	217.56	-82.17	-1,815.32	-7,781.18	836.97	404.39	432.58	1.935		
14,600.00	7,037.07	14,632.16	6,923.08	220.40	220.39	-82.17	-1,815.92	-7,881.17	836.76	398.58	438.18	1.910		
14,700.00	7,036.68	14,732.16	6,922.70	223.23	223.21	-82.17	-1,816.52	-7,981.17	836.54	392.76	443.78	1.885		
14,800.00	7,036.28	14,832.16	6,922.32	226.05	226.04	-82.17	-1,817.12	-8,081.17	836.33	386.95	449.38	1.861		
14,871.88	7,036.00	14,904.04	6,922.04	228.09	228.07	-82.17	-1,817.55	-8,153.05	836.18	382.77	453.41	1.844 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	0.00	0.00	3.28	3.28	-179.60	-40.07	-0.28	40.07					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-40.07	-0.28	40.07	33.51	6.57	6.100		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-40.07	-0.28	40.07	33.40	6.67	6.005 CC		
300.00	300.00	298.59	298.57	3.44	3.44	-179.32	-41.76	-0.50	41.78	34.89	6.89	6.061		
400.00	399.98	397.05	396.89	3.60	3.59	-8.76	-46.79	-1.14	45.19	37.97	7.22	6.262		
500.00	499.84	495.39	494.87	3.79	3.78	-8.59	-55.16	-2.22	48.55	40.92	7.63	6.364		
600.00	599.45	593.62	592.39	4.02	4.02	-8.60	-66.85	-3.73	51.88	43.76	8.13	6.384		
700.00	698.70	691.75	689.34	4.29	4.29	-8.78	-81.83	-5.66	55.17	46.48	8.69	6.346		
800.00	797.70	790.97	786.92	4.59	4.61	-8.94	-99.63	-7.96	59.22	49.93	9.29	6.376		
900.00	896.69	909.12	885.14	4.92	5.02	-9.07	-117.77	-10.30	63.49	53.51	9.98	6.362		
1,000.00	995.68	1,009.21	983.36	5.27	5.40	-9.17	-135.91	-12.64	67.77	57.11	10.66	6.358		
1,100.00	1,094.68	1,109.30	1,081.58	5.64	5.79	-9.27	-154.06	-14.98	72.04	60.67	11.37	6.335		
1,200.00	1,193.67	1,209.39	1,179.80	6.03	6.20	-9.35	-172.20	-17.32	76.31	64.20	12.11	6.300		
1,300.00	1,292.67	1,290.51	1,278.02	6.42	6.54	-9.43	-190.34	-19.66	80.58	67.78	12.80	6.294		
1,400.00	1,391.66	1,409.58	1,376.24	6.83	7.05	-9.49	-208.48	-22.00	84.86	71.19	13.66	6.211		
1,500.00	1,490.66	1,490.33	1,474.46	7.25	7.40	-9.56	-226.63	-24.34	89.13	74.75	14.39	6.196		
1,600.00	1,589.65	1,609.76	1,572.68	7.67	7.93	-9.61	-244.77	-26.68	93.40	78.12	15.28	6.113		
1,700.00	1,688.64	1,709.85	1,670.90	8.10	8.39	-9.66	-262.91	-29.02	97.68	81.57	16.11	6.065		
1,800.00	1,787.64	1,809.94	1,769.12	8.53	8.84	-9.71	-281.05	-31.36	101.95	85.01	16.94	6.017		
1,900.00	1,886.63	1,889.97	1,867.34	8.97	9.21	-9.75	-299.19	-33.70	106.22	88.52	17.70	6.001		
2,000.00	1,985.63	1,989.88	1,965.56	9.41	9.67	-9.79	-317.34	-36.04	110.50	91.94	18.55	5.956		
2,100.00	2,084.62	2,089.78	2,063.78	9.85	10.14	-9.83	-335.48	-38.38	114.77	95.36	19.41	5.913		
2,200.00	2,183.61	2,189.69	2,162.00	10.30	10.60	-9.86	-353.62	-40.72	119.04	98.77	20.27	5.872		
2,300.00	2,282.61	2,289.60	2,260.22	10.75	11.07	-9.89	-371.76	-43.06	123.32	102.17	21.14	5.832		
2,400.00	2,381.60	2,389.51	2,358.44	11.20	11.55	-9.92	-389.91	-45.40	127.59	105.58	22.02	5.795		
2,500.00	2,480.60	2,489.42	2,456.66	11.66	12.02	-9.95	-408.05	-47.74	131.87	108.97	22.89	5.760		
2,600.00	2,579.59	2,589.33	2,554.88	12.11	12.50	-9.97	-426.19	-50.08	136.14	112.37	23.77	5.726		
2,700.00	2,678.58	2,689.24	2,653.10	12.57	12.97	-10.00	-444.33	-52.42	140.41	115.76	24.66	5.695		
2,800.00	2,777.58	2,789.14	2,751.32	13.02	13.45	-10.02	-462.48	-54.76	144.69	119.14	25.54	5.664		
2,900.00	2,876.57	2,889.05	2,849.54	13.48	13.93	-10.04	-480.62	-57.10	148.96	122.53	26.43	5.636		
3,000.00	2,975.57	2,988.96	2,947.76	13.94	14.41	-10.06	-498.76	-59.44	153.23	125.91	27.32	5.608		
3,100.00	3,074.56	3,088.87	3,045.98	14.40	14.89	-10.08	-516.90	-61.78	157.51	129.29	28.22	5.582		
3,200.00	3,173.55	3,188.78	3,144.20	14.87	15.38	-10.10	-535.04	-64.12	161.78	132.67	29.11	5.557		
3,300.00	3,272.55	3,288.69	3,242.42	15.33	15.86	-10.12	-553.19	-66.46	166.06	136.05	30.01	5.534		
3,400.00	3,371.54	3,388.60	3,340.64	15.79	16.34	-10.13	-571.33	-68.80	170.33	139.42	30.91	5.511		
3,500.00	3,470.54	3,488.50	3,438.86	16.26	16.83	-10.15	-589.47	-71.15	174.60	142.80	31.81	5.490		
3,600.00	3,569.53	3,588.41	3,537.07	16.72	17.31	-10.16	-607.61	-73.49	178.88	146.17	32.71	5.469		
3,700.00	3,668.53	3,688.32	3,635.29	17.19	17.80	-10.18	-625.76	-75.83	183.15	149.54	33.61	5.449		
3,800.00	3,767.52	3,788.23	3,733.51	17.65	18.29	-10.19	-643.90	-78.17	187.43	152.91	34.51	5.431		
3,900.00	3,866.51	3,888.14	3,831.73	18.12	18.77	-10.20	-662.04	-80.51	191.70	156.28	35.42	5.413		
4,000.00	3,965.51	3,988.05	3,929.95	18.59	19.26	-10.21	-680.18	-82.85	195.97	159.65	36.32	5.396		
4,100.00	4,064.50	4,087.96	4,028.17	19.05	19.75	-10.23	-698.33	-85.19	200.25	163.02	37.23	5.379		
4,200.00	4,163.50	4,187.86	4,126.39	19.52	20.24	-10.24	-716.47	-87.53	204.52	166.39	38.13	5.363		
4,300.00	4,262.49	4,287.77	4,224.61	19.99	20.72	-10.25	-734.61	-89.87	208.80	169.75	39.04	5.348		
4,400.00	4,361.48	4,387.68	4,322.83	20.46	21.21	-10.26	-752.75	-92.21	213.07	173.12	39.95	5.333		
4,500.00	4,460.48	4,487.59	4,421.05	20.92	21.70	-10.27	-770.89	-94.55	217.34	176.48	40.86	5.319		
4,600.00	4,559.47	4,587.50	4,519.27	21.39	22.19	-10.28	-789.04	-96.89	221.62	179.85	41.77	5.306		
4,700.00	4,658.47	4,687.41	4,617.49	21.86	22.68	-10.29	-807.18	-99.23	225.89	183.21	42.68	5.293		
4,800.00	4,757.46	4,787.32	4,715.71	22.33	23.17	-10.30	-825.32	-101.57	230.17	186.58	43.59	5.280		
4,900.00	4,856.45	4,887.23	4,813.93	22.80	23.66	-10.31	-843.46	-103.91	234.44	189.94	44.50	5.268		
5,000.00	4,955.45	4,987.13	4,912.15	23.27	24.15	-10.31	-861.61	-106.25	238.71	193.30	45.41	5.257		
5,100.00	5,054.44	5,087.04	5,010.37	23.74	24.64	-10.32	-879.75	-108.59	242.99	196.66	46.32	5.245		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,186.95	5,108.59	24.21	25.13	-10.33	-897.89	-110.93	247.26	200.02	47.24	5.234		
5,300.00	5,252.43	5,286.86	5,206.81	24.68	25.62	-10.34	-916.03	-113.27	251.54	203.39	48.15	5.224		
5,400.00	5,351.42	5,386.77	5,305.03	25.15	26.11	-10.34	-934.18	-115.61	255.81	206.75	49.06	5.214		
5,500.00	5,450.42	5,486.68	5,403.25	25.62	26.60	-10.35	-952.32	-117.95	260.08	210.11	49.98	5.204		
5,600.00	5,549.41	5,586.59	5,501.47	26.09	27.10	-10.36	-970.46	-120.29	264.36	213.47	50.89	5.195		
5,700.00	5,648.41	5,686.49	5,599.69	26.56	27.59	-10.36	-988.60	-122.63	268.63	216.83	51.81	5.185		
5,800.00	5,747.40	5,786.40	5,697.91	27.03	28.08	-10.37	-1,006.74	-124.97	272.91	220.19	52.72	5.177		
5,900.00	5,846.40	5,886.31	5,796.13	27.51	28.57	-10.38	-1,024.89	-127.31	277.18	223.54	53.63	5.168		
6,000.00	5,945.39	5,986.22	5,894.35	27.98	29.06	-10.38	-1,043.03	-129.65	281.45	226.90	54.55	5.160		
6,100.00	6,044.38	6,086.13	5,992.57	28.45	29.55	-10.39	-1,061.17	-131.99	285.73	230.26	55.47	5.151		
6,200.00	6,143.38	6,186.04	6,090.79	28.92	30.05	-10.39	-1,079.31	-134.33	290.00	233.62	56.38	5.144		
6,300.00	6,242.37	6,285.95	6,189.01	29.39	30.54	-10.40	-1,097.46	-136.67	294.28	236.98	57.30	5.136		
6,400.00	6,341.37	6,385.85	6,287.23	29.86	31.03	-10.40	-1,115.60	-139.01	298.55	240.34	58.21	5.129		
6,500.00	6,440.36	6,485.76	6,385.45	30.34	31.52	-10.41	-1,133.74	-141.35	302.82	243.69	59.13	5.121		
6,600.00	6,538.90	6,585.37	6,483.37	30.80	32.01	-50.64	-1,151.83	-143.68	307.17	247.11	60.06	5.114		
6,700.00	6,634.88	6,684.85	6,581.05	31.25	32.50	-70.25	-1,169.91	-148.10	312.43	251.38	61.06	5.117		
6,800.00	6,725.92	6,788.24	6,680.82	31.68	32.99	-80.51	-1,188.61	-167.15	319.03	256.94	62.09	5.138		
6,900.00	6,809.79	6,895.57	6,779.71	32.07	33.47	-87.21	-1,207.46	-204.02	326.58	263.55	63.03	5.182		
7,000.00	6,884.42	7,007.06	6,874.41	32.43	33.92	-92.09	-1,225.84	-259.62	334.60	270.86	63.75	5.249		
7,100.00	6,947.98	7,122.72	6,960.97	32.77	34.34	-95.78	-1,243.04	-334.15	342.55	278.33	64.22	5.334		
7,200.00	6,998.89	7,242.38	7,035.00	33.18	34.74	-98.53	-1,258.23	-426.69	349.79	285.24	64.55	5.419		
7,300.00	7,035.91	7,365.52	7,091.99	33.76	35.19	-100.45	-1,270.54	-534.93	355.76	290.73	65.03	5.471		
7,400.00	7,058.12	7,491.31	7,127.95	34.61	35.86	-101.59	-1,279.17	-654.95	359.97	293.96	66.01	5.453		
7,500.00	7,064.98	7,618.63	7,140.00	35.68	36.95	-101.96	-1,283.51	-781.41	362.06	294.29	67.77	5.343		
7,600.00	7,064.59	7,718.92	7,139.46	36.95	38.10	-101.91	-1,285.08	-881.68	362.77	292.45	70.32	5.159		
7,700.00	7,064.20	7,818.92	7,138.92	38.40	39.45	-101.86	-1,286.65	-981.67	363.48	290.28	73.20	4.966		
7,800.00	7,063.80	7,918.91	7,138.38	40.00	40.97	-101.81	-1,288.22	-1,081.65	364.19	287.81	76.38	4.768		
7,900.00	7,063.41	8,018.91	7,137.83	41.75	42.65	-101.77	-1,289.79	-1,181.63	364.90	285.06	79.84	4.570		
8,000.00	7,063.02	8,118.91	7,137.29	43.62	44.45	-101.72	-1,291.36	-1,281.62	365.62	282.08	83.53	4.377		
8,100.00	7,062.62	8,218.90	7,136.75	45.59	46.36	-101.67	-1,292.93	-1,381.60	366.33	278.89	87.43	4.190		
8,200.00	7,062.23	8,318.90	7,136.21	47.65	48.37	-101.63	-1,294.50	-1,481.58	367.04	275.52	91.52	4.011		
8,300.00	7,061.84	8,418.90	7,135.67	49.79	50.46	-101.58	-1,296.07	-1,581.57	367.75	272.00	95.76	3.841		
8,400.00	7,061.45	8,518.90	7,135.12	52.00	52.63	-101.53	-1,297.64	-1,681.55	368.47	268.33	100.13	3.680		
8,500.00	7,061.05	8,618.89	7,134.58	54.27	54.86	-101.49	-1,299.21	-1,781.53	369.18	264.55	104.63	3.528		
8,600.00	7,060.66	8,718.89	7,134.04	56.60	57.15	-101.44	-1,300.78	-1,881.52	369.89	260.66	109.24	3.386		
8,700.00	7,060.27	8,818.89	7,133.50	58.97	59.48	-101.40	-1,302.35	-1,981.50	370.61	256.67	113.94	3.253		
8,800.00	7,059.87	8,918.88	7,132.96	61.38	61.86	-101.35	-1,303.92	-2,081.48	371.32	252.61	118.72	3.128		
8,900.00	7,059.48	9,018.88	7,132.41	63.83	64.28	-101.30	-1,305.49	-2,181.47	372.04	248.47	123.57	3.011		
9,000.00	7,059.09	9,118.88	7,131.87	66.32	66.73	-101.26	-1,307.06	-2,281.45	372.75	244.26	128.49	2.901		
9,100.00	7,058.69	9,218.87	7,131.33	68.83	69.22	-101.21	-1,308.63	-2,381.43	373.47	240.00	133.47	2.798		
9,200.00	7,058.30	9,318.87	7,130.79	71.37	71.73	-101.17	-1,310.20	-2,481.42	374.18	235.68	138.50	2.702		
9,300.00	7,057.91	9,418.87	7,130.25	73.93	74.27	-101.12	-1,311.77	-2,581.40	374.90	231.32	143.57	2.611		
9,400.00	7,057.51	9,518.87	7,129.71	76.51	76.83	-101.08	-1,313.34	-2,681.38	375.61	226.92	148.69	2.526		
9,500.00	7,057.12	9,618.86	7,129.16	79.11	79.41	-101.04	-1,314.91	-2,781.37	376.33	222.48	153.85	2.446		
9,600.00	7,056.73	9,718.86	7,128.62	81.73	82.01	-100.99	-1,316.48	-2,881.35	377.04	218.00	159.04	2.371		
9,700.00	7,056.33	9,818.86	7,128.08	84.37	84.62	-100.95	-1,318.05	-2,981.33	377.76	213.50	164.26	2.300		
9,800.00	7,055.94	9,918.85	7,127.54	87.01	87.25	-100.90	-1,319.62	-3,081.32	378.48	208.96	169.51	2.233		
9,900.00	7,055.55	10,018.85	7,127.00	89.68	89.90	-100.86	-1,321.19	-3,181.30	379.19	204.40	174.79	2.169		
10,000.00	7,055.15	10,118.85	7,126.45	92.35	92.55	-100.82	-1,322.76	-3,281.28	379.91	199.82	180.09	2.110		
10,100.00	7,054.76	10,218.84	7,125.91	95.03	95.22	-100.77	-1,324.33	-3,381.27	380.63	195.21	185.41	2.053		
10,200.00	7,054.37	10,318.84	7,125.37	97.73	97.90	-100.73	-1,325.90	-3,481.25	381.34	190.59	190.76	1.999		
10,300.00	7,053.98	10,418.84	7,124.83	100.43	100.59	-100.69	-1,327.47	-3,581.23	382.06	185.94	196.12	1.948		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	10,518.84	7,124.29	103.14	103.29	-100.64	-1,329.04	-3,681.22	382.78	181.28	201.50	1.900		
10,500.00	7,053.19	10,618.83	7,123.74	105.86	105.99	-100.60	-1,330.61	-3,781.20	383.50	176.61	206.89	1.854		
10,600.00	7,052.80	10,718.83	7,123.20	108.59	108.71	-100.56	-1,332.18	-3,881.18	384.22	171.92	212.30	1.810		
10,700.00	7,052.40	10,818.83	7,122.66	111.32	111.43	-100.52	-1,333.75	-3,981.16	384.93	167.21	217.72	1.768		
10,800.00	7,052.01	10,918.82	7,122.12	114.06	114.16	-100.47	-1,335.32	-4,081.15	385.65	162.49	223.16	1.728		
10,900.00	7,051.62	11,018.82	7,121.58	116.80	116.89	-100.43	-1,336.89	-4,181.13	386.37	157.77	228.61	1.690		
11,000.00	7,051.22	11,118.82	7,121.03	119.55	119.63	-100.39	-1,338.46	-4,281.11	387.09	153.02	234.06	1.654		
11,100.00	7,050.83	11,218.81	7,120.49	122.31	122.37	-100.35	-1,340.03	-4,381.10	387.81	148.27	239.53	1.619		
11,200.00	7,050.44	11,318.81	7,119.95	125.07	125.12	-100.31	-1,341.60	-4,481.08	388.53	143.51	245.01	1.586		
11,300.00	7,050.04	11,418.81	7,119.41	127.83	127.88	-100.26	-1,343.17	-4,581.06	389.25	138.75	250.50	1.554		
11,400.00	7,049.65	11,518.81	7,118.87	130.60	130.63	-100.22	-1,344.74	-4,681.05	389.97	133.97	256.00	1.523		
11,500.00	7,049.26	11,618.80	7,118.32	133.37	133.40	-100.18	-1,346.31	-4,781.03	390.69	129.18	261.51	1.494 Level 3		
11,600.00	7,048.86	11,718.80	7,117.78	136.15	136.16	-100.14	-1,347.88	-4,881.01	391.41	124.39	267.02	1.466 Level 3		
11,700.00	7,048.47	11,818.80	7,117.24	138.93	138.93	-100.10	-1,349.45	-4,981.00	392.13	119.59	272.54	1.439 Level 3		
11,800.00	7,048.08	11,918.79	7,116.70	141.71	141.71	-100.06	-1,351.02	-5,080.98	392.85	114.78	278.07	1.413 Level 3		
11,900.00	7,047.68	12,018.79	7,116.16	144.49	144.48	-100.02	-1,352.59	-5,180.96	393.57	109.97	283.60	1.388 Level 3		
12,000.00	7,047.29	12,118.79	7,115.61	147.28	147.26	-99.98	-1,354.16	-5,280.95	394.29	105.15	289.15	1.364 Level 3		
12,100.00	7,046.90	12,218.78	7,115.07	150.07	150.04	-99.94	-1,355.73	-5,380.93	395.01	100.32	294.69	1.340 Level 3		
12,200.00	7,046.51	12,318.78	7,114.53	152.87	152.83	-99.90	-1,357.30	-5,480.91	395.73	95.49	300.24	1.318 Level 3		
12,300.00	7,046.11	12,418.78	7,113.99	155.66	155.62	-99.86	-1,358.87	-5,580.90	396.46	90.65	305.80	1.296 Level 3		
12,400.00	7,045.72	12,518.78	7,113.45	158.46	158.41	-99.82	-1,360.44	-5,680.88	397.18	85.81	311.37	1.276 Level 3		
12,500.00	7,045.33	12,618.77	7,112.90	161.26	161.20	-99.78	-1,362.01	-5,780.86	397.90	80.96	316.93	1.255 Level 3		
12,600.00	7,044.93	12,718.77	7,112.36	164.06	163.99	-99.74	-1,363.58	-5,880.85	398.62	76.11	322.51	1.236 Level 2		
12,700.00	7,044.54	12,818.77	7,111.82	166.86	166.79	-99.70	-1,365.15	-5,980.83	399.34	71.26	328.09	1.217 Level 2		
12,800.00	7,044.15	12,918.76	7,111.28	169.67	169.59	-99.66	-1,366.72	-6,080.81	400.07	66.40	333.67	1.199 Level 2		
12,900.00	7,043.75	13,018.76	7,110.74	172.48	172.39	-99.62	-1,368.29	-6,180.80	400.79	61.54	339.25	1.181 Level 2		
13,000.00	7,043.36	13,118.76	7,110.20	175.28	175.19	-99.58	-1,369.86	-6,280.78	401.51	56.67	344.84	1.164 Level 2		
13,100.00	7,042.97	13,218.75	7,109.65	178.09	178.00	-99.54	-1,371.43	-6,380.76	402.23	51.80	350.44	1.148 Level 2		
13,200.00	7,042.57	13,318.75	7,109.11	180.91	180.80	-99.50	-1,373.00	-6,480.75	402.96	46.92	356.03	1.132 Level 2		
13,300.00	7,042.18	13,418.75	7,108.57	183.72	183.61	-99.46	-1,374.57	-6,580.73	403.68	42.05	361.64	1.116 Level 2		
13,400.00	7,041.79	13,518.75	7,108.03	186.53	186.42	-99.43	-1,376.14	-6,680.71	404.41	37.17	367.24	1.101 Level 2		
13,500.00	7,041.39	13,618.74	7,107.49	189.35	189.23	-99.39	-1,377.71	-6,780.70	405.13	32.28	372.85	1.087 Level 2		
13,600.00	7,041.00	13,718.74	7,106.94	192.17	192.04	-99.35	-1,379.28	-6,880.68	405.85	27.40	378.46	1.072 Level 2		
13,700.00	7,040.61	13,818.74	7,106.40	194.99	194.85	-99.31	-1,380.85	-6,980.66	406.58	22.51	384.07	1.059 Level 2		
13,800.00	7,040.21	13,918.73	7,105.86	197.81	197.67	-99.27	-1,382.42	-7,080.64	407.30	17.61	389.69	1.045 Level 2		
13,900.00	7,039.82	14,018.73	7,105.32	200.63	200.48	-99.24	-1,383.99	-7,180.63	408.03	12.72	395.31	1.032 Level 2		
14,000.00	7,039.43	14,118.73	7,104.78	203.45	203.30	-99.20	-1,385.56	-7,280.61	408.75	7.82	400.93	1.020 Level 2		
14,100.00	7,039.03	14,218.72	7,104.23	206.27	206.11	-99.16	-1,387.13	-7,380.59	409.48	2.92	406.56	1.007 Level 2		
14,200.00	7,038.64	14,318.72	7,103.69	209.09	208.93	-99.12	-1,388.70	-7,480.58	410.20	-1.98	412.18	0.995 Level 1		
14,300.00	7,038.25	14,418.72	7,103.15	211.92	211.75	-99.09	-1,390.27	-7,580.56	410.93	-6.89	417.81	0.984 Level 1		
14,400.00	7,037.86	14,518.72	7,102.61	214.74	214.57	-99.05	-1,391.84	-7,680.54	411.65	-11.79	423.45	0.972 Level 1		
14,500.00	7,037.46	14,618.71	7,102.07	217.57	217.39	-99.01	-1,393.41	-7,780.53	412.38	-16.70	429.08	0.961 Level 1		
14,600.00	7,037.07	14,718.71	7,101.52	220.40	220.22	-98.97	-1,394.98	-7,880.51	413.10	-21.61	434.72	0.950 Level 1		
14,700.00	7,036.68	14,818.71	7,100.98	223.23	223.04	-98.94	-1,396.55	-7,980.49	413.83	-26.53	440.36	0.940 Level 1		
14,800.00	7,036.28	14,918.70	7,100.44	226.05	225.86	-98.90	-1,398.12	-8,080.48	414.56	-31.44	446.00	0.929 Level 1		
14,871.88	7,036.00	14,990.58	7,100.05	228.09	227.89	-98.88	-1,399.25	-8,152.35	415.08	-34.98	450.05	0.922 Level 1, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	-179.56	-179.97	-1.39	179.97					
100.00	100.00	101.00	100.00	3.28	3.28	-179.56	-179.97	-1.39	179.97	173.40	6.57	27.395		
200.00	200.00	199.00	200.00	3.34	3.34	-179.56	-179.97	-1.39	179.97	173.30	6.67	26.969	CC, ES	
300.00	300.00	293.12	294.11	3.44	3.43	-179.53	-181.48	-1.48	181.58	174.69	6.89	26.370		
400.00	399.98	387.07	387.94	3.60	3.57	-9.38	-186.06	-1.75	184.74	177.54	7.20	25.670		
500.00	499.84	480.93	481.48	3.79	3.75	-9.50	-193.71	-2.21	187.73	180.14	7.59	24.722		
600.00	599.45	574.71	574.64	4.02	3.97	-9.72	-204.39	-2.85	190.55	182.48	8.07	23.607		
700.00	698.70	668.40	667.32	4.29	4.22	-10.05	-218.11	-3.66	193.21	184.59	8.62	22.420		
800.00	797.70	761.96	759.36	4.59	4.51	-10.41	-234.81	-4.66	197.19	187.97	9.22	21.392		
900.00	896.69	855.18	850.48	4.92	4.83	-10.69	-254.43	-5.83	204.42	194.56	9.86	20.739		
1,000.00	995.68	947.87	940.40	5.27	5.19	-10.89	-276.86	-7.16	214.87	204.34	10.53	20.402		
1,100.00	1,094.68	1,039.84	1,028.87	5.64	5.57	-11.01	-301.98	-8.66	228.51	217.29	11.23	20.354		
1,200.00	1,193.67	1,130.92	1,115.63	6.03	5.97	-11.05	-329.63	-10.31	245.31	233.37	11.94	20.552		
1,300.00	1,292.67	1,220.94	1,200.46	6.42	6.40	-11.04	-359.65	-12.10	265.20	252.55	12.65	20.961		
1,400.00	1,391.66	1,309.73	1,283.18	6.83	6.84	-10.98	-391.85	-14.02	288.13	274.76	13.37	21.551		
1,500.00	1,490.66	1,403.40	1,369.60	7.25	7.34	-10.89	-427.94	-16.17	313.40	299.27	14.13	22.179		
1,600.00	1,589.65	1,500.11	1,458.75	7.67	7.87	-10.81	-465.35	-18.39	338.84	323.91	14.93	22.689		
1,700.00	1,688.64	1,603.18	1,547.90	8.10	8.45	-10.74	-502.76	-20.62	364.29	348.50	15.79	23.074		
1,800.00	1,787.64	1,706.48	1,637.05	8.53	9.05	-10.68	-540.17	-22.85	389.74	373.08	16.66	23.392		
1,900.00	1,886.63	1,809.77	1,726.20	8.97	9.65	-10.63	-577.58	-25.08	415.19	397.64	17.55	23.659		
2,000.00	1,985.63	1,886.94	1,815.35	9.41	10.11	-10.59	-614.99	-27.31	440.64	422.32	18.32	24.050		
2,100.00	2,084.62	1,983.65	1,904.50	9.85	10.68	-10.55	-652.40	-29.54	466.09	446.89	19.20	24.276		
2,200.00	2,183.61	2,080.35	1,993.65	10.30	11.27	-10.51	-689.81	-31.77	491.54	471.45	20.09	24.471		
2,300.00	2,282.61	2,177.06	2,082.80	10.75	11.85	-10.47	-727.22	-34.00	516.99	496.00	20.98	24.640		
2,400.00	2,381.60	2,273.77	2,171.95	11.20	12.45	-10.44	-764.63	-36.23	542.44	520.55	21.88	24.787		
2,500.00	2,480.60	2,370.47	2,261.11	11.66	13.04	-10.42	-802.04	-38.46	567.89	545.09	22.79	24.915		
2,600.00	2,579.59	2,467.18	2,350.26	12.11	13.64	-10.39	-839.44	-40.68	593.34	569.63	23.71	25.028		
2,700.00	2,678.58	2,563.89	2,439.41	12.57	14.24	-10.37	-876.85	-42.91	618.78	594.16	24.63	25.128		
2,800.00	2,777.58	2,660.59	2,528.56	13.02	14.84	-10.35	-914.26	-45.14	644.23	618.69	25.55	25.216		
2,900.00	2,876.57	2,757.30	2,617.71	13.48	15.44	-10.33	-951.67	-47.37	669.69	643.21	26.48	25.294		
3,000.00	2,975.57	2,854.01	2,706.86	13.94	16.05	-10.31	-989.08	-49.60	695.14	667.73	27.41	25.364		
3,100.00	3,074.56	2,950.72	2,796.01	14.40	16.65	-10.29	-1,026.49	-51.83	720.59	692.25	28.34	25.426		
3,200.00	3,173.55	3,047.42	2,885.16	14.87	17.26	-10.28	-1,063.90	-54.06	746.04	716.76	29.28	25.482		
3,300.00	3,272.55	3,144.13	2,974.31	15.33	17.87	-10.26	-1,101.31	-56.29	771.49	741.27	30.22	25.533		
3,400.00	3,371.54	3,240.84	3,063.46	15.79	18.48	-10.25	-1,138.72	-58.52	796.94	765.78	31.16	25.578		
3,500.00	3,470.54	3,337.54	3,152.61	16.26	19.09	-10.24	-1,176.13	-60.74	822.39	790.29	32.10	25.619		
3,600.00	3,569.53	3,434.25	3,241.76	16.72	19.71	-10.22	-1,213.54	-62.97	847.84	814.79	33.05	25.656		
3,700.00	3,668.53	3,530.96	3,330.91	17.19	20.32	-10.21	-1,250.95	-65.20	873.29	839.29	33.99	25.689		
3,800.00	3,767.52	3,627.66	3,420.06	17.65	20.93	-10.20	-1,288.36	-67.43	898.74	863.80	34.94	25.720		
3,900.00	3,866.51	3,724.37	3,509.21	18.12	21.55	-10.19	-1,325.77	-69.66	924.19	888.30	35.89	25.748		
4,000.00	3,965.51	3,821.08	3,598.36	18.59	22.16	-10.18	-1,363.17	-71.89	949.64	912.79	36.85	25.773		
4,100.00	4,064.50	3,917.79	3,687.51	19.05	22.78	-10.17	-1,400.58	-74.12	975.09	937.29	37.80	25.797		
4,200.00	4,163.50	4,014.49	3,776.66	19.52	23.40	-10.16	-1,437.99	-76.35	1,000.54	961.79	38.75	25.818		
4,300.00	4,262.49	4,111.20	3,865.82	19.99	24.01	-10.16	-1,475.40	-78.58	1,025.99	986.28	39.71	25.838		
4,400.00	4,361.48	4,207.91	3,954.97	20.46	24.63	-10.15	-1,512.81	-80.81	1,051.44	1,010.78	40.67	25.856		
4,500.00	4,460.48	4,304.61	4,044.12	20.92	25.25	-10.14	-1,550.22	-83.03	1,076.89	1,035.27	41.62	25.872		
4,600.00	4,559.47	4,401.32	4,133.27	21.39	25.87	-10.13	-1,587.63	-85.26	1,102.34	1,059.76	42.58	25.887		
4,700.00	4,658.47	4,501.97	4,222.42	21.86	26.51	-10.13	-1,625.04	-87.49	1,127.79	1,084.23	43.56	25.889		
4,800.00	4,757.46	4,605.27	4,311.57	22.33	27.17	-10.12	-1,662.45	-89.72	1,153.24	1,108.69	44.56	25.881		
4,900.00	4,856.45	4,708.56	4,400.72	22.80	27.83	-10.11	-1,699.86	-91.95	1,178.70	1,133.14	45.56	25.873		
5,000.00	4,955.45	4,788.15	4,489.87	23.27	28.34	-10.11	-1,737.27	-94.18	1,204.15	1,157.72	46.42	25.938		
5,100.00	5,054.44	4,884.86	4,579.02	23.74	28.96	-10.10	-1,774.68	-96.41	1,229.60	1,182.21	47.39	25.948		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	4,981.56	4,668.17	24.21	29.58	-10.10	-1,812.09	-98.64	1,255.05	1,206.70	48.35	25.957		
5,300.00	5,252.43	5,078.27	4,757.32	24.68	30.20	-10.09	-1,849.50	-100.87	1,280.50	1,231.18	49.31	25.966		
5,400.00	5,351.42	5,174.98	4,846.47	25.15	30.82	-10.09	-1,886.90	-103.09	1,305.95	1,255.67	50.28	25.975		
5,500.00	5,450.42	5,271.68	4,935.62	25.62	31.44	-10.08	-1,924.31	-105.32	1,331.40	1,280.16	51.24	25.982		
5,600.00	5,549.41	5,368.39	5,024.77	26.09	32.06	-10.08	-1,961.72	-107.55	1,356.85	1,304.64	52.21	25.989		
5,700.00	5,648.41	5,465.10	5,113.92	26.56	32.69	-10.07	-1,999.13	-109.78	1,382.30	1,329.13	53.17	25.996		
5,800.00	5,747.40	5,561.80	5,203.07	27.03	33.31	-10.07	-2,036.54	-112.01	1,407.75	1,353.61	54.14	26.002		
5,900.00	5,846.40	5,658.51	5,292.22	27.51	33.93	-10.06	-2,073.95	-114.24	1,433.20	1,378.10	55.11	26.008		
6,000.00	5,945.39	5,755.22	5,381.38	27.98	34.55	-10.06	-2,111.36	-116.47	1,458.65	1,402.58	56.07	26.013		
6,100.00	6,044.38	5,851.93	5,470.53	28.45	35.17	-10.06	-2,148.77	-118.70	1,484.10	1,427.06	57.04	26.018		
6,200.00	6,143.38	5,948.63	5,559.68	28.92	35.79	-10.05	-2,186.18	-120.93	1,509.56	1,451.55	58.01	26.023		
6,300.00	6,242.37	6,045.34	5,648.83	29.39	36.42	-10.05	-2,223.59	-123.16	1,535.01	1,476.03	58.98	26.027		
6,400.00	6,341.37	6,142.05	5,737.98	29.86	37.04	-10.04	-2,261.00	-125.38	1,560.46	1,500.51	59.95	26.031		
6,500.00	6,440.36	6,238.75	5,827.13	30.34	37.66	-10.04	-2,298.41	-127.61	1,585.91	1,524.99	60.92	26.035		
6,600.00	6,538.90	6,335.19	5,916.03	30.80	38.28	-47.56	-2,335.71	-129.84	1,611.27	1,549.39	61.89	26.035		
6,700.00	6,634.88	6,429.52	6,002.99	31.25	38.89	-62.48	-2,372.20	-132.01	1,636.24	1,573.38	62.86	26.032		
6,800.00	6,725.92	6,519.43	6,085.87	31.68	39.47	-68.35	-2,406.98	-134.08	1,660.78	1,596.96	63.81	26.026		
6,900.00	6,809.79	6,602.70	6,162.64	32.07	40.00	-71.22	-2,439.19	-136.00	1,685.18	1,620.42	64.77	26.020		
7,000.00	6,884.42	6,677.29	6,231.40	32.43	40.49	-72.73	-2,468.05	-137.72	1,709.99	1,644.25	65.74	26.012		
7,100.00	6,947.98	6,741.35	6,290.46	32.77	40.90	-73.33	-2,492.83	-139.20	1,735.82	1,669.05	66.77	25.997		
7,200.00	6,998.89	6,793.32	6,338.36	33.18	41.23	-73.14	-2,512.93	-140.39	1,763.22	1,695.33	67.89	25.971		
7,300.00	7,035.91	6,831.90	6,373.93	33.76	41.48	-72.14	-2,527.85	-141.28	1,792.55	1,723.44	69.12	25.936		
7,400.00	7,058.12	6,856.15	6,396.28	34.61	41.64	-70.29	-2,537.24	-141.84	1,823.91	1,753.48	70.43	25.897		
7,500.00	7,064.98	6,865.49	6,404.89	35.68	41.70	-67.71	-2,540.85	-142.06	1,856.99	1,785.21	71.78	25.872		
7,600.00	7,064.59	6,867.74	6,406.97	36.95	41.71	-67.79	-2,541.72	-142.11	1,893.21	1,820.04	73.17	25.875		
7,700.00	7,064.20	8,146.64	7,069.42	38.40	47.00	-90.16	-2,552.60	-975.54	1,894.67	1,814.16	80.50	23.535		
7,800.00	7,063.80	8,246.64	7,069.12	40.00	47.61	-90.16	-2,826.20	-1,075.53	1,894.45	1,810.90	83.56	22.672		
7,900.00	7,063.41	8,346.64	7,068.82	41.75	48.46	-90.16	-2,826.80	-1,175.53	1,894.24	1,807.36	86.88	21.803		
8,000.00	7,063.02	8,446.64	7,068.53	43.62	49.58	-90.17	-2,827.39	-1,275.53	1,894.03	1,803.58	90.44	20.942		
8,100.00	7,062.62	8,546.64	7,068.23	45.59	50.94	-90.17	-2,827.99	-1,375.53	1,893.81	1,799.60	94.22	20.101		
8,200.00	7,062.23	8,646.64	7,067.93	47.65	52.52	-90.17	-2,828.59	-1,475.52	1,893.60	1,795.42	98.18	19.287		
8,300.00	7,061.84	8,746.64	7,067.63	49.79	54.26	-90.18	-2,829.19	-1,575.52	1,893.39	1,791.08	102.30	18.507		
8,400.00	7,061.45	8,846.64	7,067.34	52.00	56.14	-90.18	-2,829.79	-1,675.52	1,893.17	1,786.60	106.58	17.763		
8,500.00	7,061.05	8,946.64	7,067.04	54.27	58.12	-90.18	-2,830.38	-1,775.52	1,892.96	1,781.98	110.98	17.057		
8,600.00	7,060.66	9,046.64	7,066.74	56.60	60.19	-90.18	-2,830.98	-1,875.51	1,892.75	1,777.25	115.50	16.388		
8,700.00	7,060.27	9,146.64	7,066.44	58.97	62.34	-90.19	-2,831.58	-1,975.51	1,892.53	1,772.42	120.12	15.756		
8,800.00	7,059.87	9,246.63	7,066.14	61.38	64.56	-90.19	-2,832.18	-2,075.51	1,892.32	1,767.49	124.83	15.160		
8,900.00	7,059.48	9,346.63	7,065.85	63.83	66.83	-90.19	-2,832.77	-2,175.51	1,892.11	1,762.49	129.62	14.598		
9,000.00	7,059.09	9,446.63	7,065.55	66.32	69.15	-90.20	-2,833.37	-2,275.50	1,891.89	1,757.41	134.48	14.068		
9,100.00	7,058.69	9,546.63	7,065.25	68.83	71.51	-90.20	-2,833.97	-2,375.50	1,891.68	1,752.27	139.41	13.570		
9,200.00	7,058.30	9,646.63	7,064.95	71.37	73.91	-90.20	-2,834.57	-2,475.50	1,891.47	1,747.07	144.39	13.100		
9,300.00	7,057.91	9,746.63	7,064.66	73.93	76.34	-90.20	-2,835.17	-2,575.50	1,891.25	1,741.82	149.43	12.657		
9,400.00	7,057.51	9,846.63	7,064.36	76.51	78.81	-90.21	-2,835.76	-2,675.49	1,891.04	1,736.53	154.51	12.239		
9,500.00	7,057.12	9,946.63	7,064.06	79.11	81.30	-90.21	-2,836.36	-2,775.49	1,890.83	1,731.18	159.64	11.844		
9,600.00	7,056.73	10,046.63	7,063.76	81.73	83.82	-90.21	-2,836.96	-2,875.49	1,890.61	1,725.81	164.81	11.472		
9,700.00	7,056.33	10,146.63	7,063.47	84.37	86.35	-90.22	-2,837.56	-2,975.49	1,890.40	1,720.39	170.01	11.119		
9,800.00	7,055.94	10,246.63	7,063.17	87.01	88.91	-90.22	-2,838.16	-3,075.48	1,890.18	1,714.94	175.24	10.786		
9,900.00	7,055.55	10,346.63	7,062.87	89.68	91.49	-90.22	-2,838.75	-3,175.48	1,889.97	1,709.47	180.50	10.471		
10,000.00	7,055.15	10,446.63	7,062.57	92.35	94.08	-90.23	-2,839.35	-3,275.48	1,889.76	1,703.97	185.79	10.171		
10,100.00	7,054.76	10,546.63	7,062.28	95.03	96.69	-90.23	-2,839.95	-3,375.48	1,889.54	1,698.44	191.11	9.887		
10,200.00	7,054.37	10,646.63	7,061.98	97.73	99.32	-90.23	-2,840.55	-3,475.47	1,889.33	1,692.89	196.44	9.618		
10,300.00	7,053.98	10,746.63	7,061.68	100.43	101.95	-90.23	-2,841.15	-3,575.47	1,889.12	1,687.32	201.80	9.361		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,053.58	10,846.63	7,061.38	103.14	104.60	-90.24	-2,841.74	-3,675.47	1,888.90	1,681.73	207.18	9.117		
10,500.00	7,053.19	10,946.63	7,061.09	105.86	107.26	-90.24	-2,842.34	-3,775.47	1,888.69	1,676.12	212.57	8.885		
10,600.00	7,052.80	11,046.63	7,060.79	108.59	109.93	-90.24	-2,842.94	-3,875.46	1,888.48	1,670.50	217.98	8.663		
10,700.00	7,052.40	11,146.63	7,060.49	111.32	112.61	-90.25	-2,843.54	-3,975.46	1,888.26	1,664.86	223.41	8.452		
10,800.00	7,052.01	11,246.63	7,060.19	114.06	115.30	-90.25	-2,844.14	-4,075.46	1,888.05	1,659.20	228.85	8.250		
10,900.00	7,051.62	11,346.63	7,059.90	116.80	118.00	-90.25	-2,844.73	-4,175.46	1,887.84	1,653.54	234.30	8.057		
11,000.00	7,051.22	11,446.63	7,059.60	119.55	120.70	-90.25	-2,845.33	-4,275.45	1,887.62	1,647.86	239.76	7.873		
11,100.00	7,050.83	11,546.63	7,059.30	122.31	123.41	-90.26	-2,845.93	-4,375.45	1,887.41	1,642.17	245.24	7.696		
11,200.00	7,050.44	11,646.63	7,059.00	125.07	126.13	-90.26	-2,846.53	-4,475.45	1,887.20	1,636.47	250.73	7.527		
11,300.00	7,050.04	11,746.63	7,058.70	127.83	128.85	-90.26	-2,847.12	-4,575.45	1,886.98	1,630.76	256.23	7.365		
11,400.00	7,049.65	11,846.63	7,058.41	130.60	131.58	-90.27	-2,847.72	-4,675.44	1,886.77	1,625.04	261.73	7.209		
11,500.00	7,049.26	11,946.63	7,058.11	133.37	134.32	-90.27	-2,848.32	-4,775.44	1,886.56	1,619.31	267.25	7.059		
11,600.00	7,048.86	12,046.63	7,057.81	136.15	137.06	-90.27	-2,848.92	-4,875.44	1,886.34	1,613.57	272.77	6.915		
11,700.00	7,048.47	12,146.63	7,057.51	138.93	139.80	-90.28	-2,849.52	-4,975.44	1,886.13	1,607.83	278.30	6.777		
11,800.00	7,048.08	12,246.63	7,057.22	141.71	142.55	-90.28	-2,850.11	-5,075.43	1,885.92	1,602.07	283.84	6.644		
11,900.00	7,047.68	12,346.63	7,056.92	144.49	145.31	-90.28	-2,850.71	-5,175.43	1,885.70	1,596.32	289.39	6.516		
12,000.00	7,047.29	12,446.63	7,056.62	147.28	148.06	-90.28	-2,851.31	-5,275.43	1,885.49	1,590.55	294.94	6.393		
12,100.00	7,046.90	12,546.63	7,056.32	150.07	150.83	-90.29	-2,851.91	-5,375.43	1,885.28	1,584.78	300.50	6.274		
12,200.00	7,046.51	12,646.63	7,056.03	152.87	153.59	-90.29	-2,852.51	-5,475.42	1,885.06	1,579.00	306.06	6.159		
12,300.00	7,046.11	12,746.63	7,055.73	155.66	156.36	-90.29	-2,853.10	-5,575.42	1,884.85	1,573.22	311.63	6.048		
12,400.00	7,045.72	12,846.63	7,055.43	158.46	159.13	-90.30	-2,853.70	-5,675.42	1,884.64	1,567.43	317.21	5.941		
12,500.00	7,045.33	12,946.62	7,055.13	161.26	161.91	-90.30	-2,854.30	-5,775.42	1,884.42	1,561.64	322.79	5.838		
12,600.00	7,044.93	13,046.62	7,054.84	164.06	164.68	-90.30	-2,854.90	-5,875.41	1,884.21	1,555.84	328.37	5.738		
12,700.00	7,044.54	13,146.62	7,054.54	166.86	167.47	-90.30	-2,855.50	-5,975.41	1,884.00	1,550.04	333.96	5.641		
12,800.00	7,044.15	13,246.62	7,054.24	169.67	170.25	-90.31	-2,856.09	-6,075.41	1,883.78	1,544.23	339.56	5.548		
12,900.00	7,043.75	13,346.62	7,053.94	172.48	173.03	-90.31	-2,856.69	-6,175.41	1,883.57	1,538.42	345.15	5.457		
13,000.00	7,043.36	13,446.62	7,053.65	175.28	175.82	-90.31	-2,857.29	-6,275.40	1,883.36	1,532.60	350.75	5.369		
13,100.00	7,042.97	13,546.62	7,053.35	178.09	178.61	-90.32	-2,857.89	-6,375.40	1,883.14	1,526.79	356.36	5.284		
13,200.00	7,042.57	13,646.62	7,053.05	180.91	181.40	-90.32	-2,858.49	-6,475.40	1,882.93	1,520.96	361.97	5.202		
13,300.00	7,042.18	13,746.62	7,052.75	183.72	184.20	-90.32	-2,859.08	-6,575.40	1,882.72	1,515.14	367.58	5.122		
13,400.00	7,041.79	13,846.62	7,052.46	186.53	187.00	-90.33	-2,859.68	-6,675.39	1,882.50	1,509.31	373.19	5.044		
13,500.00	7,041.39	13,946.62	7,052.16	189.35	189.79	-90.33	-2,860.28	-6,775.39	1,882.29	1,503.48	378.81	4.969		
13,600.00	7,041.00	14,046.62	7,051.86	192.17	192.59	-90.33	-2,860.88	-6,875.39	1,882.08	1,497.65	384.43	4.896		
13,700.00	7,040.61	14,146.62	7,051.56	194.99	195.40	-90.33	-2,861.47	-6,975.39	1,881.86	1,491.81	390.06	4.825		
13,800.00	7,040.21	14,246.62	7,051.26	197.81	198.20	-90.34	-2,862.07	-7,075.38	1,881.65	1,485.97	395.68	4.755		
13,900.00	7,039.82	14,346.62	7,050.97	200.63	201.00	-90.34	-2,862.67	-7,175.38	1,881.44	1,480.13	401.31	4.688		
14,000.00	7,039.43	14,446.62	7,050.67	203.45	203.81	-90.34	-2,863.27	-7,275.38	1,881.22	1,474.28	406.94	4.623		
14,100.00	7,039.03	14,546.62	7,050.37	206.27	206.62	-90.35	-2,863.87	-7,375.38	1,881.01	1,468.44	412.57	4.559		
14,200.00	7,038.64	14,646.62	7,050.07	209.09	209.43	-90.35	-2,864.46	-7,475.37	1,880.80	1,462.59	418.21	4.497		
14,300.00	7,038.25	14,746.62	7,049.78	211.92	212.24	-90.35	-2,865.06	-7,575.37	1,880.58	1,456.74	423.85	4.437		
14,400.00	7,037.86	14,846.62	7,049.48	214.74	215.05	-90.35	-2,865.66	-7,675.37	1,880.37	1,450.88	429.49	4.378		
14,500.00	7,037.46	14,946.62	7,049.18	217.57	217.86	-90.36	-2,866.26	-7,775.36	1,880.16	1,445.03	435.13	4.321		
14,600.00	7,037.07	15,046.62	7,048.88	220.40	220.68	-90.36	-2,866.86	-7,875.36	1,879.95	1,439.17	440.77	4.265		
14,700.00	7,036.68	15,146.62	7,048.59	223.23	223.49	-90.36	-2,867.45	-7,975.36	1,879.73	1,433.31	446.42	4.211		
14,800.00	7,036.28	15,246.62	7,048.29	226.05	226.31	-90.37	-2,868.05	-8,075.36	1,879.52	1,427.45	452.07	4.158		
14,871.88	7,036.00	15,318.50	7,048.08	228.09	228.34	-90.37	-2,868.48	-8,147.24	1,879.37	1,423.24	456.13	4.120 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	0.53	179.97	1.67	179.98					
100.00	100.00	101.00	100.00	3.28	3.28	0.53	179.97	1.67	179.98	173.41	6.57	27.396		
200.00	200.00	201.00	200.00	3.34	3.34	0.53	179.97	1.67	179.98	173.30	6.67	26.964		
300.00	300.00	301.00	300.00	3.44	3.45	0.53	179.97	1.67	179.98	173.09	6.89	26.117 CC, ES		
400.00	399.98	400.98	399.98	3.60	3.61	170.77	179.97	1.67	181.70	174.50	7.20	25.233		
500.00	499.84	500.84	499.84	3.79	3.81	171.01	179.97	1.67	186.87	179.27	7.60	24.603		
600.00	599.45	594.74	593.73	4.02	4.03	171.13	181.36	0.95	196.94	188.88	8.06	24.431		
700.00	698.70	689.94	688.81	4.29	4.29	170.99	185.33	-1.10	213.06	204.46	8.59	24.795		
800.00	797.70	788.20	786.94	4.59	4.58	170.92	189.93	-3.49	231.61	222.43	9.17	25.248		
900.00	896.69	886.46	885.07	4.92	4.89	170.86	194.53	-5.87	250.17	240.37	9.79	25.544		
1,000.00	995.68	984.73	983.19	5.27	5.22	170.81	199.13	-8.25	268.73	258.28	10.45	25.712		
1,100.00	1,094.68	1,082.99	1,081.32	5.64	5.56	170.76	203.73	-10.64	287.29	276.15	11.14	25.787		
1,200.00	1,193.67	1,181.25	1,179.44	6.03	5.92	170.72	208.33	-13.02	305.85	293.99	11.86	25.798		
1,300.00	1,292.67	1,279.51	1,277.57	6.42	6.28	170.69	212.93	-15.40	324.41	311.81	12.59	25.763		
1,400.00	1,391.66	1,377.78	1,375.69	6.83	6.65	170.65	217.53	-17.78	342.97	329.62	13.35	25.698		
1,500.00	1,490.66	1,476.04	1,473.82	7.25	7.03	170.63	222.13	-20.17	361.53	347.41	14.12	25.613		
1,600.00	1,589.65	1,574.30	1,571.95	7.67	7.42	170.60	226.73	-22.55	380.09	365.19	14.90	25.515		
1,700.00	1,688.64	1,672.56	1,670.07	8.10	7.81	170.58	231.34	-24.93	398.65	382.96	15.69	25.409		
1,800.00	1,787.64	1,770.82	1,768.20	8.53	8.20	170.56	235.94	-27.31	417.21	400.72	16.49	25.299		
1,900.00	1,886.63	1,869.09	1,866.32	8.97	8.60	170.54	240.54	-29.70	435.77	418.47	17.30	25.188		
2,000.00	1,985.63	1,967.35	1,964.45	9.41	9.01	170.52	245.14	-32.08	454.33	436.21	18.12	25.077		
2,100.00	2,084.62	2,065.61	2,062.57	9.85	9.41	170.50	249.74	-34.46	472.89	453.95	18.94	24.968		
2,200.00	2,183.61	2,163.87	2,160.70	10.30	9.82	170.49	254.34	-36.85	491.45	471.68	19.77	24.862		
2,300.00	2,282.61	2,262.14	2,258.83	10.75	10.23	170.47	258.94	-39.23	510.01	489.41	20.60	24.759		
2,400.00	2,381.60	2,360.40	2,356.95	11.20	10.64	170.46	263.54	-41.61	528.57	507.13	21.44	24.659		
2,500.00	2,480.60	2,458.66	2,455.08	11.66	11.05	170.45	268.14	-43.99	547.13	524.85	22.28	24.562		
2,600.00	2,579.59	2,556.92	2,553.20	12.11	11.47	170.44	272.74	-46.38	565.69	542.57	23.12	24.469		
2,700.00	2,678.58	2,655.19	2,651.33	12.57	11.88	170.43	277.34	-48.76	584.25	560.29	23.96	24.380		
2,800.00	2,777.58	2,753.45	2,749.45	13.02	12.30	170.42	281.94	-51.14	602.81	578.00	24.81	24.294		
2,900.00	2,876.57	2,851.71	2,847.58	13.48	12.72	170.41	286.54	-53.52	621.37	595.71	25.66	24.212		
3,000.00	2,975.57	2,949.97	2,945.71	13.94	13.14	170.40	291.15	-55.91	639.93	613.42	26.52	24.133		
3,100.00	3,074.56	3,048.24	3,043.83	14.40	13.56	170.39	295.75	-58.29	658.49	631.12	27.37	24.057		
3,200.00	3,173.55	3,146.50	3,141.96	14.87	13.98	170.38	300.35	-60.67	677.05	648.83	28.23	23.985		
3,300.00	3,272.55	3,244.76	3,240.08	15.33	14.40	170.37	304.95	-63.06	695.61	666.53	29.09	23.915		
3,400.00	3,371.54	3,343.02	3,338.21	15.79	14.82	170.37	309.55	-65.44	714.17	684.23	29.95	23.849		
3,500.00	3,470.54	3,441.29	3,436.33	16.26	15.25	170.36	314.15	-67.82	732.74	701.93	30.81	23.785		
3,600.00	3,569.53	3,539.55	3,534.46	16.72	15.67	170.35	318.75	-70.20	751.30	719.63	31.67	23.723		
3,700.00	3,668.53	3,637.81	3,632.59	17.19	16.09	170.35	323.35	-72.59	769.86	737.32	32.53	23.664		
3,800.00	3,767.52	3,736.07	3,730.71	17.65	16.52	170.34	327.95	-74.97	788.42	755.02	33.40	23.607		
3,900.00	3,866.51	3,834.33	3,828.84	18.12	16.94	170.34	332.55	-77.35	806.98	772.72	34.26	23.553		
4,000.00	3,965.51	3,932.60	3,926.96	18.59	17.37	170.33	337.15	-79.73	825.54	790.41	35.13	23.501		
4,100.00	4,064.50	4,030.86	4,025.09	19.05	17.80	170.33	341.75	-82.12	844.10	808.10	36.00	23.450		
4,200.00	4,163.50	4,129.12	4,123.21	19.52	18.22	170.32	346.36	-84.50	862.66	825.80	36.86	23.402		
4,300.00	4,262.49	4,227.38	4,221.34	19.99	18.65	170.32	350.96	-86.88	881.22	843.49	37.73	23.355		
4,400.00	4,361.48	4,325.65	4,319.47	20.46	19.08	170.31	355.56	-89.26	899.78	861.18	38.60	23.310		
4,500.00	4,460.48	4,423.91	4,417.59	20.92	19.50	170.31	360.16	-91.65	918.34	878.87	39.47	23.267		
4,600.00	4,559.47	4,522.17	4,515.72	21.39	19.93	170.30	364.76	-94.03	936.90	896.56	40.34	23.225		
4,700.00	4,658.47	4,620.43	4,613.84	21.86	20.36	170.30	369.36	-96.41	955.46	914.25	41.21	23.184		
4,800.00	4,757.46	4,718.70	4,711.97	22.33	20.79	170.30	373.96	-98.80	974.02	931.94	42.08	23.145		
4,900.00	4,856.45	4,816.96	4,810.09	22.80	21.22	170.29	378.56	-101.18	992.59	949.63	42.96	23.107		
5,000.00	4,955.45	4,915.22	4,908.22	23.27	21.64	170.29	383.16	-103.56	1,011.15	967.32	43.83	23.071		
5,100.00	5,054.44	5,013.48	5,006.34	23.74	22.07	170.29	387.76	-105.94	1,029.71	985.01	44.70	23.036		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,153.44	5,111.75	5,104.47	24.21	22.50	170.28	392.36	-108.33	1,048.27	1,002.69	45.57	23.002		
5,300.00	5,252.43	5,210.01	5,202.60	24.68	22.93	170.28	396.96	-110.71	1,066.83	1,020.38	46.45	22.969		
5,400.00	5,351.42	5,308.27	5,300.72	25.15	23.36	170.28	401.57	-113.09	1,085.39	1,038.07	47.32	22.937		
5,500.00	5,450.42	5,406.53	5,398.85	25.62	23.79	170.27	406.17	-115.47	1,103.95	1,055.75	48.20	22.906		
5,600.00	5,549.41	5,504.80	5,496.97	26.09	24.22	170.27	410.77	-117.86	1,122.51	1,073.44	49.07	22.876		
5,700.00	5,648.41	5,603.06	5,595.10	26.56	24.65	170.27	415.37	-120.24	1,141.07	1,091.13	49.95	22.846		
5,800.00	5,747.40	5,701.32	5,693.22	27.03	25.08	170.27	419.97	-122.62	1,159.63	1,108.81	50.82	22.818		
5,900.00	5,846.40	5,800.42	5,791.35	27.51	25.51	170.26	424.57	-125.01	1,178.19	1,126.49	51.70	22.789		
6,000.00	5,945.39	5,902.16	5,889.48	27.98	25.96	170.26	429.17	-127.39	1,196.75	1,144.16	52.59	22.756		
6,100.00	6,044.38	6,003.89	5,987.60	28.45	26.40	170.26	433.77	-129.77	1,215.31	1,161.83	53.48	22.724		
6,200.00	6,143.38	6,094.37	6,085.73	28.92	26.80	170.26	438.37	-132.15	1,233.88	1,179.55	54.32	22.713		
6,300.00	6,242.37	6,192.63	6,183.85	29.39	27.23	170.25	442.97	-134.54	1,252.44	1,197.24	55.20	22.689		
6,400.00	6,341.37	6,309.11	6,281.98	29.86	27.74	170.25	447.57	-136.92	1,271.00	1,214.84	56.16	22.633		
6,500.00	6,440.36	6,389.16	6,380.10	30.34	28.09	170.25	452.17	-139.30	1,289.56	1,232.60	56.96	22.642		
6,600.00	6,538.90	6,488.38	6,479.14	30.80	28.53	129.55	456.81	-142.95	1,308.11	1,250.27	57.84	22.616		
6,700.00	6,634.88	6,590.21	6,579.34	31.25	28.97	111.76	461.41	-159.84	1,326.29	1,267.56	58.74	22.580		
6,800.00	6,725.92	6,693.58	6,676.99	31.68	29.43	103.57	465.78	-193.10	1,343.62	1,283.98	59.64	22.530		
6,900.00	6,809.79	6,798.55	6,769.34	32.07	29.91	98.80	469.80	-242.60	1,359.65	1,299.09	60.56	22.452		
7,000.00	6,884.42	6,905.13	6,853.51	32.43	30.43	95.64	473.32	-307.68	1,373.99	1,312.44	61.55	22.322		
7,100.00	6,947.98	7,013.19	6,926.59	32.77	31.04	93.42	476.23	-387.06	1,386.25	1,323.55	62.70	22.108		
7,200.00	6,998.89	7,122.52	6,985.82	33.18	31.80	91.83	478.40	-478.76	1,396.13	1,332.01	64.12	21.774		
7,300.00	7,035.91	7,232.77	7,028.81	33.76	32.74	90.74	479.74	-580.13	1,403.34	1,337.46	65.88	21.300		
7,400.00	7,058.12	7,343.51	7,053.78	34.61	33.89	90.07	480.19	-687.87	1,407.72	1,339.69	68.03	20.693		
7,500.00	7,064.98	7,453.31	7,059.84	35.68	35.22	89.79	479.74	-797.37	1,409.14	1,338.64	70.50	19.988		
7,600.00	7,064.59	7,553.30	7,058.09	36.95	36.60	89.74	478.99	-897.35	1,409.21	1,336.01	73.20	19.252		
7,700.00	7,064.20	7,653.29	7,056.35	38.40	38.14	89.68	478.24	-997.32	1,409.27	1,333.06	76.21	18.492		
7,800.00	7,063.80	7,753.29	7,054.60	40.00	39.82	89.63	477.49	-1,097.29	1,409.34	1,329.82	79.52	17.723		
7,900.00	7,063.41	7,853.28	7,052.85	41.75	41.62	89.57	476.73	-1,197.26	1,409.41	1,326.31	83.09	16.962		
8,000.00	7,063.02	7,953.27	7,051.10	43.62	43.55	89.52	475.98	-1,297.24	1,409.48	1,322.58	86.89	16.221		
8,100.00	7,062.62	8,053.26	7,049.35	45.59	45.56	89.46	475.23	-1,397.21	1,409.55	1,318.65	90.90	15.507		
8,200.00	7,062.23	8,153.25	7,047.60	47.65	47.67	89.41	474.48	-1,497.18	1,409.62	1,314.55	95.07	14.827		
8,300.00	7,061.84	8,253.24	7,045.85	49.79	49.85	89.35	473.72	-1,597.15	1,409.69	1,310.29	99.40	14.182		
8,400.00	7,061.45	8,353.23	7,044.10	52.00	52.10	89.29	472.97	-1,697.13	1,409.77	1,305.90	103.86	13.573		
8,500.00	7,061.05	8,453.22	7,042.35	54.27	54.40	89.24	472.22	-1,797.10	1,409.85	1,301.40	108.45	13.000		
8,600.00	7,060.66	8,553.21	7,040.60	56.60	56.75	89.18	471.47	-1,897.07	1,409.92	1,296.79	113.13	12.463		
8,700.00	7,060.27	8,653.20	7,038.85	58.97	59.15	89.13	470.71	-1,997.05	1,410.00	1,292.10	117.90	11.959		
8,800.00	7,059.87	8,753.19	7,037.10	61.38	61.59	89.07	469.96	-2,097.02	1,410.08	1,287.32	122.76	11.487		
8,900.00	7,059.48	8,853.18	7,035.35	63.83	64.06	89.02	469.21	-2,196.99	1,410.16	1,282.48	127.68	11.044		
9,000.00	7,059.09	8,953.17	7,033.60	66.32	66.56	88.96	468.46	-2,296.96	1,410.25	1,277.58	132.67	10.630		
9,100.00	7,058.69	9,053.17	7,031.85	68.83	69.10	88.91	467.70	-2,396.94	1,410.33	1,272.62	137.71	10.241		
9,200.00	7,058.30	9,153.16	7,030.10	71.37	71.65	88.85	466.95	-2,496.91	1,410.42	1,267.61	142.81	9.876		
9,300.00	7,057.91	9,253.15	7,028.36	73.93	74.23	88.80	466.20	-2,596.88	1,410.50	1,262.56	147.95	9.534		
9,400.00	7,057.51	9,353.14	7,026.61	76.51	76.83	88.74	465.45	-2,696.85	1,410.59	1,257.46	153.13	9.212		
9,500.00	7,057.12	9,453.13	7,024.86	79.11	79.44	88.69	464.69	-2,796.83	1,410.68	1,252.34	158.34	8.909		
9,600.00	7,056.73	9,553.12	7,023.11	81.73	82.07	88.63	463.94	-2,896.80	1,410.77	1,247.18	163.59	8.624		
9,700.00	7,056.33	9,653.11	7,021.36	84.37	84.72	88.58	463.19	-2,996.77	1,410.86	1,241.99	168.87	8.355		
9,800.00	7,055.94	9,753.10	7,019.61	87.01	87.38	88.52	462.43	-3,096.74	1,410.96	1,236.78	174.17	8.101		
9,900.00	7,055.55	9,853.09	7,017.86	89.68	90.05	88.47	461.68	-3,196.72	1,411.05	1,231.55	179.50	7.861		
10,000.00	7,055.15	9,953.08	7,016.11	92.35	92.73	88.41	460.93	-3,296.69	1,411.15	1,226.29	184.86	7.634		
10,100.00	7,054.76	10,053.07	7,014.36	95.03	95.42	88.36	460.18	-3,396.66	1,411.24	1,221.02	190.23	7.419		
10,200.00	7,054.37	10,153.06	7,012.61	97.73	98.13	88.30	459.42	-3,496.64	1,411.34	1,215.72	195.62	7.215		
10,300.00	7,053.98	10,253.05	7,010.86	100.43	100.84	88.25	458.67	-3,596.61	1,411.44	1,210.42	201.03	7.021		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,400.00	7,053.58	10,353.05	7,009.11	103.14	103.56	88.19	457.92	-3,696.58	1,411.54	1,205.09	206.45	6.837		
10,500.00	7,053.19	10,453.04	7,007.36	105.86	106.28	88.14	457.17	-3,796.55	1,411.65	1,199.76	211.89	6.662		
10,600.00	7,052.80	10,553.03	7,005.61	108.59	109.01	88.08	456.41	-3,896.53	1,411.75	1,194.41	217.34	6.496		
10,700.00	7,052.40	10,653.02	7,003.86	111.32	111.75	88.03	455.66	-3,996.50	1,411.85	1,189.05	222.80	6.337		
10,800.00	7,052.01	10,753.01	7,002.11	114.06	114.50	87.97	454.91	-4,096.47	1,411.96	1,183.68	228.28	6.185		
10,900.00	7,051.62	10,853.00	7,000.37	116.80	117.25	87.92	454.16	-4,196.44	1,412.07	1,178.30	233.77	6.041		
11,000.00	7,051.22	10,952.99	6,998.62	119.55	120.00	87.86	453.40	-4,296.42	1,412.18	1,172.92	239.26	5.902		
11,100.00	7,050.83	11,052.98	6,996.87	122.31	122.76	87.81	452.65	-4,396.39	1,412.29	1,167.52	244.77	5.770		
11,200.00	7,050.44	11,152.97	6,995.12	125.07	125.53	87.76	451.90	-4,496.36	1,412.40	1,162.12	250.28	5.643		
11,300.00	7,050.04	11,252.96	6,993.37	127.83	128.30	87.70	451.15	-4,596.33	1,412.51	1,156.71	255.80	5.522		
11,400.00	7,049.65	11,352.95	6,991.62	130.60	131.07	87.65	450.39	-4,696.31	1,412.63	1,151.30	261.33	5.406		
11,500.00	7,049.26	11,452.94	6,989.87	133.37	133.84	87.59	449.64	-4,796.28	1,412.74	1,145.88	266.86	5.294		
11,600.00	7,048.86	11,552.93	6,988.12	136.15	136.62	87.54	448.89	-4,896.25	1,412.86	1,140.45	272.40	5.187		
11,700.00	7,048.47	11,652.93	6,986.37	138.93	139.41	87.48	448.14	-4,996.22	1,412.97	1,135.02	277.95	5.084		
11,800.00	7,048.08	11,752.92	6,984.62	141.71	142.19	87.43	447.38	-5,096.20	1,413.09	1,129.59	283.50	4.984		
11,900.00	7,047.68	11,852.91	6,982.87	144.49	144.98	87.37	446.63	-5,196.17	1,413.21	1,124.15	289.06	4.889		
12,000.00	7,047.29	11,952.90	6,981.12	147.28	147.77	87.32	445.88	-5,296.14	1,413.34	1,118.71	294.62	4.797		
12,100.00	7,046.90	12,052.89	6,979.37	150.07	150.56	87.26	445.13	-5,396.12	1,413.46	1,113.27	300.19	4.709		
12,200.00	7,046.51	12,152.88	6,977.62	152.87	153.36	87.21	444.37	-5,496.09	1,413.58	1,107.82	305.76	4.623		
12,300.00	7,046.11	12,252.87	6,975.87	155.66	156.16	87.15	443.62	-5,596.06	1,413.71	1,102.37	311.34	4.541		
12,400.00	7,045.72	12,352.86	6,974.12	158.46	158.96	87.10	442.87	-5,696.03	1,413.84	1,096.92	316.92	4.461		
12,500.00	7,045.33	12,452.85	6,972.37	161.26	161.76	87.04	442.12	-5,796.01	1,413.96	1,091.47	322.50	4.384		
12,600.00	7,044.93	12,552.84	6,970.63	164.06	164.56	86.99	441.36	-5,895.98	1,414.09	1,086.01	328.08	4.310		
12,700.00	7,044.54	12,652.83	6,968.88	166.86	167.37	86.93	440.61	-5,995.95	1,414.23	1,080.55	333.67	4.238		
12,800.00	7,044.15	12,752.82	6,967.13	169.67	170.18	86.88	439.86	-6,095.92	1,414.36	1,075.10	339.26	4.169		
12,900.00	7,043.75	12,852.82	6,965.38	172.48	172.99	86.82	439.11	-6,195.90	1,414.49	1,069.63	344.86	4.102		
13,000.00	7,043.36	12,952.81	6,963.63	175.28	175.80	86.77	438.35	-6,295.87	1,414.63	1,064.17	350.45	4.037		
13,100.00	7,042.97	13,052.80	6,961.88	178.09	178.61	86.71	437.60	-6,395.84	1,414.76	1,058.71	356.05	3.973		
13,200.00	7,042.57	13,152.79	6,960.13	180.91	181.42	86.66	436.85	-6,495.81	1,414.90	1,053.25	361.65	3.912		
13,300.00	7,042.18	13,252.78	6,958.38	183.72	184.24	86.60	436.10	-6,595.79	1,415.04	1,047.78	367.25	3.853		
13,400.00	7,041.79	13,352.77	6,956.63	186.53	187.05	86.55	435.34	-6,695.76	1,415.18	1,042.32	372.86	3.795		
13,500.00	7,041.39	13,452.76	6,954.88	189.35	189.87	86.50	434.59	-6,795.73	1,415.32	1,036.86	378.46	3.740		
13,600.00	7,041.00	13,552.75	6,953.13	192.17	192.69	86.44	433.84	-6,895.71	1,415.46	1,031.39	384.07	3.685		
13,700.00	7,040.61	13,652.74	6,951.38	194.99	195.51	86.39	433.08	-6,995.68	1,415.60	1,025.93	389.68	3.633		
13,800.00	7,040.21	13,752.73	6,949.63	197.81	198.33	86.33	432.33	-7,095.65	1,415.75	1,020.46	395.29	3.582		
13,900.00	7,039.82	13,852.72	6,947.88	200.63	201.15	86.28	431.58	-7,195.62	1,415.90	1,015.00	400.90	3.532		
14,000.00	7,039.43	13,952.71	6,946.13	203.45	203.98	86.22	430.83	-7,295.60	1,416.04	1,009.53	406.51	3.483		
14,100.00	7,039.03	14,052.70	6,944.38	206.27	206.80	86.17	430.07	-7,395.57	1,416.19	1,004.07	412.13	3.436		
14,200.00	7,038.64	14,152.70	6,942.64	209.09	209.63	86.11	429.32	-7,495.54	1,416.34	998.60	417.74	3.390		
14,300.00	7,038.25	14,252.69	6,940.89	211.92	212.45	86.06	428.57	-7,595.51	1,416.49	993.14	423.36	3.346		
14,400.00	7,037.86	14,352.68	6,939.14	214.74	215.28	86.00	427.82	-7,695.49	1,416.65	987.68	428.97	3.302		
14,500.00	7,037.46	14,452.67	6,937.39	217.57	218.10	85.95	427.06	-7,795.46	1,416.80	982.21	434.59	3.260		
14,600.00	7,037.07	14,552.66	6,935.64	220.40	220.93	85.89	426.31	-7,895.43	1,416.96	976.75	440.20	3.219		
14,700.00	7,036.68	14,652.65	6,933.89	223.23	223.76	85.84	425.56	-7,995.40	1,417.11	971.29	445.82	3.179		
14,800.00	7,036.28	14,752.64	6,932.14	226.05	226.59	85.79	424.81	-8,095.38	1,417.27	965.83	451.44	3.139		
14,871.88	7,036.00	14,817.75	6,931.00	228.09	228.43	85.75	424.32	-8,160.47	1,417.40	962.13	455.27	3.113 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	13.47	6.57	3.050		
200.00	200.00	200.00	200.00	3.34	3.34	180.00	-20.04	0.00	20.04	13.36	6.67	3.002 CC		
300.00	300.00	299.27	299.25	3.44	3.44	-179.37	-21.74	-0.24	21.75	14.86	6.89	3.155		
400.00	399.98	398.41	398.25	3.60	3.59	-8.32	-26.84	-0.96	25.19	17.97	7.22	3.489		
500.00	499.84	497.42	496.89	3.79	3.79	-7.87	-35.31	-2.16	28.60	20.97	7.64	3.746		
600.00	599.45	596.33	595.06	4.02	4.05	-7.71	-47.14	-3.83	32.00	23.86	8.14	3.933		
700.00	698.70	704.60	692.95	4.29	4.39	-7.78	-62.25	-5.96	35.27	26.55	8.72	4.045		
800.00	797.70	795.37	791.57	4.59	4.73	-8.09	-78.49	-8.26	37.60	28.33	9.28	4.054		
900.00	896.69	904.66	890.18	4.92	5.17	-8.36	-94.72	-10.55	39.93	29.99	9.94	4.016		
1,000.00	995.68	995.32	988.80	5.27	5.56	-8.61	-110.96	-12.84	42.25	31.66	10.59	3.991		
1,100.00	1,094.68	1,104.71	1,087.42	5.64	6.05	-8.83	-127.20	-15.14	44.58	33.24	11.33	3.933		
1,200.00	1,193.67	1,204.74	1,186.04	6.03	6.52	-9.03	-143.43	-17.43	46.90	34.83	12.08	3.884		
1,300.00	1,292.67	1,304.77	1,284.66	6.42	7.00	-9.21	-159.67	-19.73	49.23	36.39	12.84	3.834		
1,400.00	1,391.66	1,404.79	1,383.28	6.83	7.50	-9.37	-175.91	-22.02	51.56	37.93	13.62	3.784		
1,500.00	1,490.66	1,504.82	1,481.90	7.25	8.00	-9.52	-192.15	-24.31	53.88	39.46	14.42	3.736		
1,600.00	1,589.65	1,604.85	1,580.52	7.67	8.51	-9.66	-208.38	-26.61	56.21	40.97	15.24	3.689		
1,700.00	1,688.64	1,695.12	1,679.14	8.10	8.97	-9.79	-224.62	-28.90	58.54	42.52	16.02	3.654		
1,800.00	1,787.64	1,804.90	1,777.75	8.53	9.55	-9.90	-240.86	-31.20	60.87	43.97	16.90	3.602		
1,900.00	1,886.63	1,904.93	1,876.37	8.97	10.07	-10.01	-257.09	-33.49	63.19	45.45	17.74	3.562		
2,000.00	1,985.63	2,004.96	1,974.99	9.41	10.60	-10.11	-273.33	-35.78	65.52	46.93	18.59	3.524		
2,100.00	2,084.62	2,104.98	2,073.61	9.85	11.13	-10.20	-289.57	-38.08	67.85	48.40	19.45	3.488		
2,200.00	2,183.61	2,205.01	2,172.23	10.30	11.67	-10.29	-305.80	-40.37	70.18	49.87	20.31	3.455		
2,300.00	2,282.61	2,305.04	2,270.85	10.75	12.21	-10.37	-322.04	-42.66	72.51	51.33	21.18	3.423		
2,400.00	2,381.60	2,405.07	2,369.47	11.20	12.75	-10.45	-338.28	-44.96	74.84	52.78	22.05	3.393		
2,500.00	2,480.60	2,505.09	2,468.09	11.66	13.29	-10.52	-354.51	-47.25	77.17	54.24	22.93	3.365		
2,600.00	2,579.59	2,605.12	2,566.70	12.11	13.83	-10.59	-370.75	-49.55	79.50	55.69	23.81	3.339		
2,700.00	2,678.58	2,705.15	2,665.32	12.57	14.37	-10.65	-386.99	-51.84	81.82	57.13	24.69	3.314		
2,800.00	2,777.58	2,805.17	2,763.94	13.02	14.92	-10.71	-403.22	-54.13	84.15	58.58	25.58	3.290		
2,900.00	2,876.57	2,905.20	2,862.56	13.48	15.47	-10.77	-419.46	-56.43	86.48	60.02	26.47	3.268		
3,000.00	2,975.57	3,005.23	2,961.18	13.94	16.01	-10.82	-435.70	-58.72	88.81	61.46	27.36	3.247		
3,100.00	3,074.56	3,105.26	3,059.80	14.40	16.56	-10.87	-451.93	-61.01	91.14	62.89	28.25	3.226		
3,200.00	3,173.55	3,205.28	3,158.42	14.87	17.11	-10.92	-468.17	-63.31	93.47	64.33	29.14	3.207		
3,300.00	3,272.55	3,305.31	3,257.04	15.33	17.66	-10.97	-484.41	-65.60	95.80	65.76	30.04	3.189		
3,400.00	3,371.54	3,405.34	3,355.66	15.79	18.21	-11.01	-500.64	-67.90	98.13	67.20	30.94	3.172		
3,500.00	3,470.54	3,505.36	3,454.27	16.26	18.77	-11.06	-516.88	-70.19	100.46	68.63	31.83	3.156		
3,600.00	3,569.53	3,605.39	3,552.89	16.72	19.32	-11.10	-533.12	-72.48	102.79	70.06	32.73	3.140		
3,700.00	3,668.53	3,705.42	3,651.51	17.19	19.87	-11.13	-549.36	-74.78	105.12	71.49	33.64	3.125		
3,800.00	3,767.52	3,794.55	3,750.13	17.65	20.36	-11.17	-565.59	-77.07	107.45	72.96	34.49	3.116		
3,900.00	3,866.51	3,894.53	3,848.75	18.12	20.92	-11.21	-581.83	-79.36	109.78	74.39	35.39	3.102		
4,000.00	3,965.51	4,005.50	3,947.37	18.59	21.53	-11.24	-598.07	-81.66	112.11	75.77	36.35	3.085		
4,100.00	4,064.50	4,094.47	4,045.99	19.05	22.02	-11.27	-614.30	-83.95	114.44	77.24	37.20	3.076		
4,200.00	4,163.50	4,205.55	4,144.61	19.52	22.64	-11.30	-630.54	-86.25	116.77	78.62	38.16	3.060		
4,300.00	4,262.49	4,305.58	4,243.22	19.99	23.19	-11.33	-646.78	-88.54	119.10	80.04	39.06	3.049		
4,400.00	4,361.48	4,405.61	4,341.84	20.46	23.75	-11.36	-663.01	-90.83	121.43	81.46	39.97	3.038		
4,500.00	4,460.48	4,505.64	4,440.46	20.92	24.31	-11.39	-679.25	-93.13	123.76	82.89	40.88	3.028		
4,600.00	4,559.47	4,605.66	4,539.08	21.39	24.86	-11.42	-695.49	-95.42	126.09	84.31	41.79	3.018		
4,700.00	4,658.47	4,694.31	4,637.70	21.86	25.35	-11.44	-711.72	-97.72	128.42	85.78	42.64	3.012		
4,800.00	4,757.46	4,805.72	4,736.32	22.33	25.97	-11.47	-727.96	-100.01	130.75	87.15	43.61	2.999		
4,900.00	4,856.45	4,905.74	4,834.94	22.80	26.53	-11.49	-744.20	-102.30	133.08	88.57	44.52	2.990		
5,000.00	4,955.45	5,005.77	4,933.56	23.27	27.09	-11.51	-760.43	-104.60	135.42	89.99	45.43	2.981		
5,100.00	5,054.44	5,105.80	5,032.18	23.74	27.64	-11.53	-776.67	-106.89	137.75	91.41	46.34	2.973		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,205.83	5,130.79	24.21	28.20	-11.56	-792.91	-109.18	140.08	92.83	47.25	2.965		
5,300.00	5,252.43	5,305.85	5,229.41	24.68	28.76	-11.58	-809.14	-111.48	142.41	94.25	48.16	2.957		
5,400.00	5,351.42	5,405.88	5,328.03	25.15	29.31	-11.60	-825.38	-113.77	144.74	95.66	49.07	2.949		
5,500.00	5,450.42	5,505.91	5,426.65	25.62	29.87	-11.62	-841.62	-116.07	147.07	97.08	49.99	2.942		
5,600.00	5,549.41	5,605.94	5,525.27	26.09	30.43	-11.64	-857.85	-118.36	149.40	98.50	50.90	2.935		
5,700.00	5,648.41	5,705.96	5,623.89	26.56	30.99	-11.65	-874.09	-120.65	151.73	99.92	51.81	2.928		
5,800.00	5,747.40	5,805.99	5,722.51	27.03	31.55	-11.67	-890.33	-122.95	154.06	101.33	52.73	2.922		
5,900.00	5,846.40	5,906.02	5,821.13	27.51	32.10	-11.69	-906.57	-125.24	156.39	102.75	53.64	2.916		
6,000.00	5,945.39	6,006.04	5,919.74	27.98	32.66	-11.71	-922.80	-127.53	158.72	104.17	54.55	2.909		
6,100.00	6,044.38	6,093.93	6,018.36	28.45	33.15	-11.72	-939.04	-129.83	161.05	105.64	55.41	2.906		
6,200.00	6,143.38	6,206.10	6,116.98	28.92	33.78	-11.74	-955.28	-132.12	163.38	107.00	56.38	2.898		
6,300.00	6,242.37	6,293.88	6,215.60	29.39	34.27	-11.75	-971.51	-134.42	165.71	108.47	57.24	2.895		
6,400.00	6,341.37	6,406.15	6,314.22	29.86	34.89	-11.77	-987.75	-136.71	168.04	109.83	58.21	2.887		
6,500.00	6,440.36	6,506.18	6,412.84	30.34	35.45	-11.78	-1,003.99	-139.00	170.37	111.24	59.13	2.881		
6,600.00	6,538.90	6,606.51	6,511.16	30.80	36.01	-53.06	-1,020.17	-141.29	172.98	112.83	60.15	2.876		
6,700.00	6,634.88	6,690.94	6,607.29	31.25	36.49	-75.92	-1,036.00	-143.53	177.96	116.48	61.48	2.895		
6,800.00	6,725.92	6,791.71	6,706.42	31.68	37.05	-91.84	-1,052.35	-150.22	188.86	125.50	63.36	2.981		
6,900.00	6,809.79	6,900.32	6,810.72	32.07	37.66	-103.55	-1,069.67	-174.50	204.27	139.36	64.90	3.147		
7,000.00	6,884.42	7,016.31	6,915.85	32.43	38.30	-112.39	-1,087.27	-219.83	222.17	156.97	65.21	3.407		
7,100.00	6,947.98	7,140.43	7,017.33	32.77	38.99	-119.06	-1,104.42	-288.84	240.52	176.75	63.76	3.772		
7,200.00	6,998.89	7,272.96	7,108.90	33.18	39.74	-123.97	-1,120.12	-383.02	257.29	196.70	60.59	4.246		
7,300.00	7,035.91	7,413.36	7,182.70	33.76	40.64	-127.34	-1,133.05	-501.42	270.68	214.29	56.39	4.800		
7,400.00	7,058.12	7,559.98	7,230.52	34.61	41.83	-129.32	-1,141.84	-639.40	279.19	226.57	52.62	5.306		
7,500.00	7,064.98	7,708.32	7,245.99	35.68	43.42	-129.96	-1,145.37	-786.55	281.83	230.54	51.29	5.495		
7,600.00	7,064.59	7,808.32	7,245.46	36.95	44.77	-129.97	-1,145.96	-886.55	281.57	227.77	53.80	5.234		
7,700.00	7,064.20	7,908.32	7,244.93	38.40	46.35	-129.98	-1,146.54	-986.54	281.31	224.69	56.62	4.969		
7,800.00	7,063.80	8,008.32	7,244.40	40.00	48.14	-129.99	-1,147.13	-1,086.54	281.05	221.35	59.70	4.708		
7,900.00	7,063.41	8,108.32	7,243.87	41.75	50.14	-129.99	-1,147.71	-1,186.54	280.79	217.76	63.02	4.455		
8,000.00	7,063.02	8,208.31	7,243.34	43.62	52.29	-130.00	-1,148.30	-1,286.53	280.52	213.99	66.54	4.216		
8,100.00	7,062.62	8,308.31	7,242.81	45.59	54.58	-130.01	-1,148.88	-1,386.53	280.26	210.04	70.22	3.991		
8,200.00	7,062.23	8,408.31	7,242.28	47.65	56.99	-130.02	-1,149.47	-1,486.53	280.00	205.96	74.04	3.782		
8,300.00	7,061.84	8,508.31	7,241.76	49.79	59.50	-130.03	-1,150.05	-1,586.52	279.74	201.76	77.98	3.587		
8,400.00	7,061.45	8,608.31	7,241.23	52.00	62.10	-130.04	-1,150.63	-1,686.52	279.48	197.45	82.03	3.407		
8,500.00	7,061.05	8,708.31	7,240.70	54.27	64.77	-130.05	-1,151.22	-1,786.52	279.22	193.06	86.16	3.241		
8,600.00	7,060.66	8,808.31	7,240.17	56.60	67.50	-130.06	-1,151.80	-1,886.51	278.96	188.59	90.37	3.087		
8,700.00	7,060.27	8,908.31	7,239.64	58.97	70.29	-130.06	-1,152.39	-1,986.51	278.70	184.06	94.64	2.945		
8,800.00	7,059.87	9,008.31	7,239.11	61.38	73.13	-130.07	-1,152.97	-2,086.51	278.43	179.47	98.97	2.813		
8,900.00	7,059.48	9,108.31	7,238.58	63.83	76.02	-130.08	-1,153.56	-2,186.50	278.17	174.82	103.35	2.692		
9,000.00	7,059.09	9,208.31	7,238.05	66.32	78.94	-130.09	-1,154.14	-2,286.50	277.91	170.14	107.77	2.579		
9,100.00	7,058.69	9,308.31	7,237.53	68.83	81.89	-130.10	-1,154.72	-2,386.50	277.65	165.42	112.23	2.474		
9,200.00	7,058.30	9,408.31	7,237.00	71.37	84.87	-130.11	-1,155.31	-2,486.49	277.39	160.66	116.73	2.376		
9,300.00	7,057.91	9,508.31	7,236.47	73.93	87.88	-130.12	-1,155.89	-2,586.49	277.13	155.87	121.25	2.286		
9,400.00	7,057.51	9,608.31	7,235.94	76.51	90.92	-130.13	-1,156.48	-2,686.48	276.87	151.06	125.81	2.201		
9,500.00	7,057.12	9,708.31	7,235.41	79.11	93.97	-130.13	-1,157.06	-2,786.48	276.61	146.23	130.38	2.122		
9,600.00	7,056.73	9,808.31	7,234.88	81.73	97.04	-130.14	-1,157.65	-2,886.48	276.34	141.37	134.98	2.047		
9,700.00	7,056.33	9,908.31	7,234.35	84.37	100.13	-130.15	-1,158.23	-2,986.48	276.08	136.49	139.59	1.978		
9,800.00	7,055.94	10,008.31	7,233.82	87.01	103.24	-130.16	-1,158.81	-3,086.47	275.82	131.60	144.22	1.912		
9,900.00	7,055.55	10,108.31	7,233.30	89.68	106.36	-130.17	-1,159.40	-3,186.47	275.56	126.69	148.87	1.851		
10,000.00	7,055.15	10,208.31	7,232.77	92.35	109.49	-130.18	-1,159.98	-3,286.46	275.30	121.77	153.53	1.793		
10,100.00	7,054.76	10,308.31	7,232.24	95.03	112.64	-130.19	-1,160.57	-3,386.46	275.04	116.84	158.20	1.739		
10,200.00	7,054.37	10,408.31	7,231.71	97.73	115.80	-130.20	-1,161.15	-3,486.46	274.78	111.89	162.89	1.687		
10,300.00	7,053.98	10,508.31	7,231.18	100.43	118.96	-130.21	-1,161.74	-3,586.45	274.52	106.93	167.58	1.638		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	7,053.58	10,608.31	7,230.65	103.14	122.14	-130.22	-1,162.32	-3,686.45	274.26	101.97	172.29	1.592	
10,500.00	7,053.19	10,708.31	7,230.12	105.86	125.32	-130.22	-1,162.91	-3,786.45	273.99	97.00	177.00	1.548	
10,600.00	7,052.80	10,808.31	7,229.60	108.59	128.51	-130.23	-1,163.49	-3,886.44	273.73	92.02	181.72	1.506	
10,700.00	7,052.40	10,908.31	7,229.07	111.32	131.71	-130.24	-1,164.07	-3,986.44	273.47	87.03	186.44	1.467 Level 3	
10,800.00	7,052.01	11,008.31	7,228.54	114.06	134.91	-130.25	-1,164.66	-4,086.44	273.21	82.03	191.18	1.429 Level 3	
10,900.00	7,051.62	11,108.30	7,228.01	116.80	138.13	-130.26	-1,165.24	-4,186.43	272.95	77.03	195.92	1.393 Level 3	
11,000.00	7,051.22	11,208.30	7,227.48	119.55	141.34	-130.27	-1,165.83	-4,286.43	272.69	72.03	200.66	1.359 Level 3	
11,100.00	7,050.83	11,308.30	7,226.95	122.31	144.57	-130.28	-1,166.41	-4,386.43	272.43	67.02	205.41	1.326 Level 3	
11,200.00	7,050.44	11,408.30	7,226.42	125.07	147.79	-130.29	-1,167.00	-4,486.42	272.17	62.00	210.16	1.295 Level 3	
11,300.00	7,050.04	11,508.30	7,225.89	127.83	151.02	-130.30	-1,167.58	-4,586.42	271.91	56.98	214.92	1.265 Level 3	
11,400.00	7,049.65	11,608.30	7,225.37	130.60	154.26	-130.31	-1,168.16	-4,686.42	271.64	51.96	219.68	1.237 Level 2	
11,500.00	7,049.26	11,708.30	7,224.84	133.37	157.50	-130.32	-1,168.75	-4,786.41	271.38	46.94	224.45	1.209 Level 2	
11,600.00	7,048.86	11,808.30	7,224.31	136.15	160.75	-130.32	-1,169.33	-4,886.41	271.12	41.91	229.21	1.183 Level 2	
11,700.00	7,048.47	11,908.30	7,223.78	138.93	163.99	-130.33	-1,169.92	-4,986.41	270.86	36.88	233.98	1.158 Level 2	
11,800.00	7,048.08	12,008.30	7,223.25	141.71	167.25	-130.34	-1,170.50	-5,086.40	270.60	31.84	238.76	1.133 Level 2	
11,900.00	7,047.68	12,108.30	7,222.72	144.49	170.50	-130.35	-1,171.09	-5,186.40	270.34	26.80	243.53	1.110 Level 2	
12,000.00	7,047.29	12,208.30	7,222.19	147.28	173.76	-130.36	-1,171.67	-5,286.40	270.08	21.77	248.31	1.088 Level 2	
12,100.00	7,046.90	12,308.30	7,221.66	150.07	177.02	-130.37	-1,172.25	-5,386.39	269.82	16.72	253.09	1.066 Level 2	
12,200.00	7,046.51	12,408.30	7,221.14	152.87	180.28	-130.38	-1,172.84	-5,486.39	269.56	11.68	257.87	1.045 Level 2	
12,300.00	7,046.11	12,508.30	7,220.61	155.66	183.55	-130.39	-1,173.42	-5,586.39	269.29	6.64	262.66	1.025 Level 2	
12,400.00	7,045.72	12,608.30	7,220.08	158.46	186.82	-130.40	-1,174.01	-5,686.38	269.03	1.59	267.44	1.006 Level 2	
12,500.00	7,045.33	12,708.30	7,219.55	161.26	190.09	-130.41	-1,174.59	-5,786.38	268.77	-3.45	272.23	0.987 Level 1	
12,600.00	7,044.93	12,808.30	7,219.02	164.06	193.36	-130.42	-1,175.18	-5,886.37	268.51	-8.50	277.01	0.969 Level 1	
12,700.00	7,044.54	12,908.30	7,218.49	166.86	196.63	-130.43	-1,175.76	-5,986.37	268.25	-13.55	281.80	0.952 Level 1	
12,800.00	7,044.15	13,008.30	7,217.96	169.67	199.91	-130.44	-1,176.35	-6,086.37	267.99	-18.60	286.59	0.935 Level 1	
12,900.00	7,043.75	13,108.30	7,217.43	172.48	203.19	-130.45	-1,176.93	-6,186.36	267.73	-23.65	291.38	0.919 Level 1	
13,000.00	7,043.36	13,208.30	7,216.91	175.28	206.47	-130.46	-1,177.51	-6,286.36	267.47	-28.71	296.17	0.903 Level 1	
13,100.00	7,042.97	13,308.30	7,216.38	178.09	209.75	-130.47	-1,178.10	-6,386.36	267.21	-33.76	300.96	0.888 Level 1	
13,200.00	7,042.57	13,408.30	7,215.85	180.91	213.04	-130.48	-1,178.68	-6,486.35	266.95	-38.81	305.76	0.873 Level 1	
13,300.00	7,042.18	13,508.30	7,215.32	183.72	216.32	-130.48	-1,179.27	-6,586.35	266.68	-43.86	310.55	0.859 Level 1	
13,400.00	7,041.79	13,608.30	7,214.79	186.53	219.61	-130.49	-1,179.85	-6,686.35	266.42	-48.92	315.34	0.845 Level 1	
13,500.00	7,041.39	13,708.30	7,214.26	189.35	222.90	-130.50	-1,180.44	-6,786.34	266.16	-53.97	320.13	0.831 Level 1	
13,600.00	7,041.00	13,808.30	7,213.73	192.17	226.18	-130.51	-1,181.02	-6,886.34	265.90	-59.03	324.93	0.818 Level 1	
13,700.00	7,040.61	13,908.30	7,213.21	194.99	229.48	-130.52	-1,181.60	-6,986.34	265.64	-64.08	329.72	0.806 Level 1	
13,800.00	7,040.21	14,008.29	7,212.68	197.81	232.77	-130.53	-1,182.19	-7,086.33	265.38	-69.13	334.51	0.793 Level 1	
13,900.00	7,039.82	14,108.29	7,212.15	200.63	236.06	-130.54	-1,182.77	-7,186.33	265.12	-74.19	339.31	0.781 Level 1	
14,000.00	7,039.43	14,208.29	7,211.62	203.45	239.35	-130.55	-1,183.36	-7,286.33	264.86	-79.24	344.10	0.770 Level 1	
14,100.00	7,039.03	14,308.29	7,211.09	206.27	242.65	-130.56	-1,183.94	-7,386.32	264.60	-84.30	348.90	0.758 Level 1	
14,200.00	7,038.64	14,408.29	7,210.56	209.09	245.95	-130.57	-1,184.53	-7,486.32	264.34	-89.35	353.69	0.747 Level 1	
14,300.00	7,038.25	14,508.29	7,210.03	211.92	249.24	-130.58	-1,185.11	-7,586.32	264.08	-94.41	358.48	0.737 Level 1	
14,400.00	7,037.86	14,608.29	7,209.50	214.74	252.54	-130.59	-1,185.70	-7,686.31	263.82	-99.46	363.27	0.726 Level 1	
14,500.00	7,037.46	14,708.29	7,208.98	217.57	255.84	-130.60	-1,186.28	-7,786.31	263.55	-104.51	368.07	0.716 Level 1	
14,600.00	7,037.07	14,808.29	7,208.45	220.40	259.14	-130.61	-1,186.86	-7,886.31	263.29	-109.57	372.86	0.706 Level 1	
14,700.00	7,036.68	14,908.29	7,207.92	223.23	262.44	-130.62	-1,187.45	-7,986.30	263.03	-114.62	377.65	0.696 Level 1	
14,800.00	7,036.28	15,008.29	7,207.39	226.05	265.74	-130.63	-1,188.03	-8,086.30	262.77	-119.67	382.44	0.687 Level 1	
14,871.88	7,036.00	15,080.17	7,207.01	228.09	268.12	-130.64	-1,188.45	-8,158.18	262.58	-123.30	385.89	0.680 Level 1, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	0.48	99.82	0.83	99.82					
100.00	100.00	101.00	100.00	3.28	3.28	0.48	99.82	0.83	99.82	93.25	6.57	15.195		
200.00	200.00	201.00	200.00	3.34	3.34	0.48	99.82	0.83	99.82	93.15	6.67	14.955		
300.00	300.00	301.00	300.00	3.44	3.45	0.48	99.82	0.83	99.82	92.93	6.89	14.486 CC, ES		
400.00	399.98	400.98	399.98	3.60	3.61	170.78	99.82	0.83	101.55	94.34	7.20	14.101		
500.00	499.84	500.87	499.87	3.79	3.81	171.22	99.82	0.83	106.71	99.12	7.60	14.050		
600.00	599.45	604.44	603.42	4.02	4.05	171.61	98.01	0.24	113.58	105.51	8.07	14.075		
700.00	698.70	708.27	707.09	4.29	4.31	171.70	92.63	-1.52	120.43	111.82	8.61	13.983		
800.00	797.70	808.73	807.24	4.59	4.60	171.61	85.19	-3.97	126.99	117.79	9.19	13.812		
900.00	896.69	908.52	906.72	4.92	4.90	171.53	77.75	-6.41	133.50	123.69	9.82	13.601		
1,000.00	995.68	1,008.31	1,006.20	5.27	5.23	171.46	70.31	-8.85	140.02	129.54	10.48	13.363		
1,100.00	1,094.68	1,108.09	1,105.68	5.64	5.57	171.40	62.87	-11.29	146.54	135.36	11.17	13.115		
1,200.00	1,193.67	1,207.88	1,205.16	6.03	5.93	171.34	55.43	-13.73	153.05	141.16	11.90	12.866		
1,300.00	1,292.67	1,307.67	1,304.64	6.42	6.30	171.28	47.99	-16.17	159.57	146.93	12.64	12.623		
1,400.00	1,391.66	1,407.46	1,404.12	6.83	6.69	171.23	40.55	-18.61	166.09	152.68	13.41	12.389		
1,500.00	1,490.66	1,507.24	1,503.60	7.25	7.07	171.18	33.11	-21.05	172.60	158.42	14.19	12.168		
1,600.00	1,589.65	1,607.03	1,603.08	7.67	7.47	171.14	25.67	-23.49	179.12	164.14	14.98	11.958		
1,700.00	1,688.64	1,706.82	1,702.56	8.10	7.87	171.10	18.23	-25.93	185.64	169.85	15.78	11.762		
1,800.00	1,787.64	1,806.61	1,802.04	8.53	8.28	171.06	10.79	-28.37	192.15	175.56	16.60	11.577		
1,900.00	1,886.63	1,906.39	1,901.52	8.97	8.69	171.02	3.35	-30.82	198.67	181.25	17.42	11.405		
2,000.00	1,985.63	2,006.18	2,001.00	9.41	9.11	170.99	-4.09	-33.26	205.19	186.94	18.25	11.243		
2,100.00	2,084.62	2,105.97	2,100.48	9.85	9.53	170.96	-11.53	-35.70	211.71	192.62	19.09	11.092		
2,200.00	2,183.61	2,205.75	2,199.96	10.30	9.95	170.93	-18.97	-38.14	218.22	198.30	19.93	10.951		
2,300.00	2,282.61	2,305.54	2,299.44	10.75	10.37	170.90	-26.41	-40.58	224.74	203.97	20.77	10.818		
2,400.00	2,381.60	2,405.33	2,398.92	11.20	10.80	170.88	-33.84	-43.02	231.26	209.63	21.62	10.694		
2,500.00	2,480.60	2,505.12	2,498.40	11.66	11.23	170.85	-41.28	-45.46	237.78	215.30	22.48	10.578		
2,600.00	2,579.59	2,604.90	2,597.88	12.11	11.66	170.83	-48.72	-47.90	244.29	220.96	23.34	10.468		
2,700.00	2,678.58	2,704.69	2,697.36	12.57	12.09	170.81	-56.16	-50.34	250.81	226.61	24.20	10.365		
2,800.00	2,777.58	2,804.48	2,796.84	13.02	12.52	170.78	-63.60	-52.78	257.33	232.27	25.06	10.268		
2,900.00	2,876.57	2,904.27	2,896.32	13.48	12.95	170.76	-71.04	-55.22	263.85	237.92	25.93	10.177		
3,000.00	2,975.57	3,004.05	2,995.80	13.94	13.39	170.75	-78.48	-57.66	270.36	243.57	26.79	10.090		
3,100.00	3,074.56	3,103.84	3,095.28	14.40	13.82	170.73	-85.92	-60.10	276.88	249.22	27.66	10.008		
3,200.00	3,173.55	3,203.63	3,194.75	14.87	14.26	170.71	-93.36	-62.55	283.40	254.86	28.54	9.931		
3,300.00	3,272.55	3,303.41	3,294.23	15.33	14.70	170.69	-100.80	-64.99	289.92	260.51	29.41	9.858		
3,400.00	3,371.54	3,403.20	3,393.71	15.79	15.14	170.68	-108.24	-67.43	296.44	266.15	30.29	9.788		
3,500.00	3,470.54	3,502.99	3,493.19	16.26	15.58	170.66	-115.68	-69.87	302.95	271.79	31.16	9.722		
3,600.00	3,569.53	3,602.78	3,592.67	16.72	16.02	170.65	-123.12	-72.31	309.47	277.43	32.04	9.659		
3,700.00	3,668.53	3,702.56	3,692.15	17.19	16.46	170.63	-130.56	-74.75	315.99	283.07	32.92	9.599		
3,800.00	3,767.52	3,802.35	3,791.63	17.65	16.90	170.62	-138.00	-77.19	322.51	288.71	33.80	9.542		
3,900.00	3,866.51	3,902.14	3,891.11	18.12	17.34	170.61	-145.44	-79.63	329.03	294.35	34.68	9.488		
4,000.00	3,965.51	4,001.93	3,990.59	18.59	17.78	170.60	-152.87	-82.07	335.54	299.98	35.56	9.436		
4,100.00	4,064.50	4,101.71	4,090.07	19.05	18.22	170.58	-160.31	-84.51	342.06	305.62	36.44	9.386		
4,200.00	4,163.50	4,201.50	4,189.55	19.52	18.67	170.57	-167.75	-86.95	348.58	311.25	37.33	9.339		
4,300.00	4,262.49	4,301.29	4,289.03	19.99	19.11	170.56	-175.19	-89.39	355.10	316.89	38.21	9.293		
4,400.00	4,361.48	4,401.08	4,388.51	20.46	19.55	170.55	-182.63	-91.83	361.62	322.52	39.09	9.250		
4,500.00	4,460.48	4,500.86	4,487.99	20.92	20.00	170.54	-190.07	-94.28	368.13	328.15	39.98	9.208		
4,600.00	4,559.47	4,600.65	4,587.47	21.39	20.44	170.53	-197.51	-96.72	374.65	333.79	40.87	9.168		
4,700.00	4,658.47	4,700.44	4,686.95	21.86	20.89	170.52	-204.95	-99.16	381.17	339.42	41.75	9.129		
4,800.00	4,757.46	4,800.22	4,786.43	22.33	21.33	170.51	-212.39	-101.60	387.69	345.05	42.64	9.092		
4,900.00	4,856.45	4,900.01	4,885.91	22.80	21.78	170.50	-219.83	-104.04	394.21	350.68	43.53	9.057		
5,000.00	4,955.45	5,000.20	4,985.39	23.27	22.22	170.49	-227.27	-106.48	400.72	356.31	44.42	9.022		
5,100.00	5,054.44	5,100.41	5,084.87	23.74	22.67	170.49	-234.71	-108.92	407.24	361.94	45.31	8.988		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,200.63	5,184.35	24.21	23.12	170.48	-242.15	-111.36	413.76	367.56	46.20	8.956		
5,300.00	5,252.43	5,300.84	5,283.83	24.68	23.57	170.47	-249.59	-113.80	420.28	373.19	47.09	8.925		
5,400.00	5,351.42	5,398.95	5,383.31	25.15	24.01	170.46	-257.03	-116.24	426.80	378.83	47.97	8.897		
5,500.00	5,450.42	5,501.26	5,482.79	25.62	24.46	170.46	-264.47	-118.68	433.32	384.44	48.87	8.866		
5,600.00	5,549.41	5,598.52	5,582.27	26.09	24.90	170.45	-271.91	-121.12	439.83	390.08	49.75	8.841		
5,700.00	5,648.41	5,698.31	5,681.75	26.56	25.34	170.44	-279.34	-123.56	446.35	395.71	50.64	8.814		
5,800.00	5,747.40	5,801.90	5,781.23	27.03	25.81	170.43	-286.78	-126.01	452.87	401.32	51.55	8.785		
5,900.00	5,846.40	5,902.11	5,880.71	27.51	26.26	170.43	-294.22	-128.45	459.39	406.95	52.44	8.760		
6,000.00	5,945.39	6,002.33	5,980.19	27.98	26.71	170.42	-301.66	-130.89	465.91	412.57	53.34	8.735		
6,100.00	6,044.38	6,102.54	6,079.67	28.45	27.16	170.42	-309.10	-133.33	472.42	418.20	54.23	8.712		
6,200.00	6,143.38	6,202.75	6,179.15	28.92	27.60	170.41	-316.54	-135.77	478.94	423.82	55.12	8.689		
6,300.00	6,242.37	6,302.97	6,278.63	29.39	28.05	170.40	-323.98	-138.21	485.46	429.44	56.02	8.666		
6,400.00	6,341.37	6,403.18	6,378.11	29.86	28.50	170.40	-331.42	-140.65	491.98	435.07	56.91	8.645		
6,500.00	6,440.36	6,503.39	6,477.58	30.34	28.95	170.39	-338.86	-143.09	498.50	440.69	57.81	8.624		
6,600.00	6,538.90	6,596.10	6,576.77	30.80	29.37	131.16	-346.28	-145.52	505.11	446.45	58.66	8.611		
6,700.00	6,634.88	6,696.15	6,676.39	31.25	29.82	116.22	-353.75	-150.23	512.29	452.76	59.53	8.606		
6,800.00	6,725.92	6,800.75	6,778.68	31.68	30.28	110.96	-361.54	-170.04	520.01	459.61	60.40	8.610		
6,900.00	6,809.79	6,909.35	6,879.95	32.07	30.74	108.91	-369.40	-208.08	527.92	466.68	61.24	8.621		
7,000.00	6,884.42	7,022.12	6,976.70	32.43	31.18	108.20	-377.08	-265.22	535.64	473.61	62.04	8.634		
7,100.00	6,947.98	7,139.02	7,064.75	32.77	31.63	108.08	-384.26	-341.53	542.76	479.91	62.85	8.635		
7,200.00	6,998.89	7,259.77	7,139.50	33.18	32.18	108.21	-390.61	-435.91	548.82	485.00	63.82	8.599		
7,300.00	7,035.91	7,383.74	7,196.37	33.76	33.00	108.40	-395.74	-545.73	553.43	488.28	65.16	8.494		
7,400.00	7,058.12	7,510.00	7,231.39	34.61	34.15	108.52	-399.33	-666.77	556.26	489.21	67.04	8.297		
7,500.00	7,064.98	7,635.58	7,241.97	35.68	35.56	108.52	-401.14	-791.68	557.10	487.57	69.53	8.012		
7,600.00	7,064.59	7,735.58	7,241.58	36.95	36.89	108.52	-401.92	-891.68	557.13	485.03	72.10	7.727		
7,700.00	7,064.20	7,835.58	7,241.19	38.40	38.38	108.52	-402.70	-991.68	557.15	482.19	74.96	7.432		
7,800.00	7,063.80	7,935.58	7,240.79	40.00	40.01	108.52	-403.48	-1,091.67	557.18	479.08	78.10	7.134		
7,900.00	7,063.41	8,035.58	7,240.40	41.75	41.78	108.52	-404.26	-1,191.67	557.21	475.72	81.49	6.838		
8,000.00	7,063.02	8,135.58	7,240.01	43.62	43.67	108.52	-405.05	-1,291.67	557.24	472.15	85.09	6.549		
8,100.00	7,062.62	8,235.58	7,239.61	45.59	45.65	108.52	-405.83	-1,391.66	557.27	468.39	88.87	6.270		
8,200.00	7,062.23	8,335.58	7,239.22	47.65	47.73	108.52	-406.61	-1,491.66	557.29	464.47	92.83	6.004		
8,300.00	7,061.84	8,435.58	7,238.83	49.79	49.88	108.52	-407.39	-1,591.65	557.32	460.40	96.92	5.750		
8,400.00	7,061.45	8,535.58	7,238.43	52.00	52.10	108.52	-408.18	-1,691.65	557.35	456.20	101.15	5.510		
8,500.00	7,061.05	8,635.58	7,238.04	54.27	54.38	108.51	-408.96	-1,791.65	557.38	451.89	105.49	5.284		
8,600.00	7,060.66	8,735.58	7,237.65	56.60	56.71	108.51	-409.74	-1,891.64	557.41	447.48	109.93	5.071		
8,700.00	7,060.27	8,835.58	7,237.25	58.97	59.09	108.51	-410.52	-1,991.64	557.43	442.98	114.45	4.870		
8,800.00	7,059.87	8,935.58	7,236.86	61.38	61.51	108.51	-411.30	-2,091.63	557.46	438.41	119.05	4.682		
8,900.00	7,059.48	9,035.58	7,236.47	63.83	63.97	108.51	-412.09	-2,191.63	557.49	433.76	123.73	4.506		
9,000.00	7,059.09	9,135.58	7,236.07	66.32	66.46	108.51	-412.87	-2,291.63	557.52	429.06	128.46	4.340		
9,100.00	7,058.69	9,235.58	7,235.68	68.83	68.97	108.51	-413.65	-2,391.62	557.55	424.30	133.25	4.184		
9,200.00	7,058.30	9,335.58	7,235.29	71.37	71.52	108.51	-414.43	-2,491.62	557.57	419.49	138.08	4.038		
9,300.00	7,057.91	9,435.58	7,234.89	73.93	74.08	108.51	-415.22	-2,591.62	557.60	414.64	142.97	3.900		
9,400.00	7,057.51	9,535.58	7,234.50	76.51	76.67	108.51	-416.00	-2,691.61	557.63	409.74	147.89	3.771		
9,500.00	7,057.12	9,635.58	7,234.11	79.11	79.27	108.50	-416.78	-2,791.61	557.66	404.81	152.84	3.649		
9,600.00	7,056.73	9,735.58	7,233.71	81.73	81.90	108.50	-417.56	-2,891.60	557.68	399.85	157.83	3.533		
9,700.00	7,056.33	9,835.58	7,233.32	84.37	84.53	108.50	-418.34	-2,991.60	557.71	394.86	162.85	3.425		
9,800.00	7,055.94	9,935.58	7,232.93	87.01	87.18	108.50	-419.13	-3,091.60	557.74	389.84	167.90	3.322		
9,900.00	7,055.55	10,035.58	7,232.53	89.68	89.85	108.50	-419.91	-3,191.59	557.77	384.80	172.97	3.225		
10,000.00	7,055.15	10,135.58	7,232.14	92.35	92.52	108.50	-420.69	-3,291.59	557.80	379.73	178.06	3.133		
10,100.00	7,054.76	10,235.58	7,231.75	95.03	95.21	108.50	-421.47	-3,391.58	557.82	374.65	183.18	3.045		
10,200.00	7,054.37	10,335.58	7,231.36	97.73	97.91	108.50	-422.26	-3,491.58	557.85	369.54	188.31	2.962		
10,300.00	7,053.98	10,435.58	7,230.96	100.43	100.61	108.50	-423.04	-3,591.58	557.88	364.42	193.46	2.884		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	10,535.58	7,230.57	103.14	103.33	108.50	-423.82	-3,691.57	557.91	359.28	198.63	2.809		
10,500.00	7,053.19	10,635.58	7,230.18	105.86	106.05	108.49	-424.60	-3,791.57	557.94	354.13	203.81	2.738		
10,600.00	7,052.80	10,735.58	7,229.78	108.59	108.77	108.49	-425.38	-3,891.57	557.96	348.96	209.00	2.670		
10,700.00	7,052.40	10,835.58	7,229.39	111.32	111.51	108.49	-426.17	-3,991.56	557.99	343.78	214.21	2.605		
10,800.00	7,052.01	10,935.58	7,229.00	114.06	114.25	108.49	-426.95	-4,091.56	558.02	338.59	219.43	2.543		
10,900.00	7,051.62	11,035.58	7,228.60	116.80	117.00	108.49	-427.73	-4,191.55	558.05	333.39	224.66	2.484		
11,000.00	7,051.22	11,135.58	7,228.21	119.55	119.75	108.49	-428.51	-4,291.55	558.08	328.17	229.90	2.427		
11,100.00	7,050.83	11,235.58	7,227.82	122.31	122.50	108.49	-429.30	-4,391.55	558.10	322.95	235.15	2.373		
11,200.00	7,050.44	11,335.58	7,227.42	125.07	125.26	108.49	-430.08	-4,491.54	558.13	317.72	240.41	2.322		
11,300.00	7,050.04	11,435.58	7,227.03	127.83	128.03	108.49	-430.86	-4,591.54	558.16	312.48	245.68	2.272		
11,400.00	7,049.65	11,535.58	7,226.64	130.60	130.80	108.49	-431.64	-4,691.53	558.19	307.23	250.96	2.224		
11,500.00	7,049.26	11,635.58	7,226.24	133.37	133.57	108.48	-432.42	-4,791.53	558.22	301.97	256.24	2.178		
11,600.00	7,048.86	11,735.58	7,225.85	136.15	136.35	108.48	-433.21	-4,891.53	558.24	296.71	261.53	2.135		
11,700.00	7,048.47	11,835.58	7,225.46	138.93	139.13	108.48	-433.99	-4,991.52	558.27	291.44	266.83	2.092		
11,800.00	7,048.08	11,935.58	7,225.06	141.71	141.91	108.48	-434.77	-5,091.52	558.30	286.17	272.13	2.052		
11,900.00	7,047.68	12,035.58	7,224.67	144.49	144.70	108.48	-435.55	-5,191.52	558.33	280.89	277.44	2.012		
12,000.00	7,047.29	12,135.58	7,224.28	147.28	147.48	108.48	-436.34	-5,291.51	558.36	275.60	282.76	1.975		
12,100.00	7,046.90	12,235.58	7,223.88	150.07	150.28	108.48	-437.12	-5,391.51	558.38	270.31	288.08	1.938		
12,200.00	7,046.51	12,335.58	7,223.49	152.87	153.07	108.48	-437.90	-5,491.50	558.41	265.01	293.40	1.903		
12,300.00	7,046.11	12,435.58	7,223.10	155.66	155.87	108.48	-438.68	-5,591.50	558.44	259.71	298.73	1.869		
12,400.00	7,045.72	12,535.58	7,222.70	158.46	158.66	108.48	-439.46	-5,691.50	558.47	254.40	304.06	1.837		
12,500.00	7,045.33	12,635.58	7,222.31	161.26	161.46	108.48	-440.25	-5,791.49	558.50	249.09	309.40	1.805		
12,600.00	7,044.93	12,735.58	7,221.92	164.06	164.27	108.47	-441.03	-5,891.49	558.52	243.78	314.74	1.775		
12,700.00	7,044.54	12,835.58	7,221.52	166.86	167.07	108.47	-441.81	-5,991.49	558.55	238.46	320.09	1.745		
12,800.00	7,044.15	12,935.58	7,221.13	169.67	169.88	108.47	-442.59	-6,091.48	558.58	233.14	325.44	1.716		
12,900.00	7,043.75	13,035.58	7,220.74	172.48	172.68	108.47	-443.38	-6,191.48	558.61	227.82	330.79	1.689		
13,000.00	7,043.36	13,135.58	7,220.34	175.28	175.49	108.47	-444.16	-6,291.47	558.64	222.49	336.14	1.662		
13,100.00	7,042.97	13,235.58	7,219.95	178.09	178.30	108.47	-444.94	-6,391.47	558.66	217.16	341.50	1.636		
13,200.00	7,042.57	13,335.58	7,219.56	180.91	181.12	108.47	-445.72	-6,491.47	558.69	211.83	346.87	1.611		
13,300.00	7,042.18	13,435.58	7,219.16	183.72	183.93	108.47	-446.50	-6,591.46	558.72	206.49	352.23	1.586		
13,400.00	7,041.79	13,535.58	7,218.77	186.53	186.75	108.47	-447.29	-6,691.46	558.75	201.15	357.60	1.563		
13,500.00	7,041.39	13,635.58	7,218.38	189.35	189.56	108.47	-448.07	-6,791.45	558.77	195.81	362.97	1.539		
13,600.00	7,041.00	13,735.58	7,217.98	192.17	192.38	108.46	-448.85	-6,891.45	558.80	190.46	368.34	1.517		
13,700.00	7,040.61	13,835.58	7,217.59	194.99	195.20	108.46	-449.63	-6,991.45	558.83	185.12	373.72	1.495 Level 3		
13,800.00	7,040.21	13,935.58	7,217.20	197.81	198.02	108.46	-450.41	-7,091.44	558.86	179.77	379.09	1.474 Level 3		
13,900.00	7,039.82	14,035.58	7,216.80	200.63	200.84	108.46	-451.20	-7,191.44	558.89	174.42	384.47	1.454 Level 3		
14,000.00	7,039.43	14,135.58	7,216.41	203.45	203.66	108.46	-451.98	-7,291.44	558.91	169.06	389.85	1.434 Level 3		
14,100.00	7,039.03	14,235.58	7,216.02	206.27	206.49	108.46	-452.76	-7,391.43	558.94	163.71	395.24	1.414 Level 3		
14,200.00	7,038.64	14,335.58	7,215.62	209.09	209.31	108.46	-453.54	-7,491.43	558.97	158.35	400.62	1.395 Level 3		
14,300.00	7,038.25	14,435.58	7,215.23	211.92	212.13	108.46	-454.33	-7,591.42	559.00	152.99	406.01	1.377 Level 3		
14,400.00	7,037.86	14,535.58	7,214.84	214.74	214.96	108.46	-455.11	-7,691.42	559.03	147.63	411.40	1.359 Level 3		
14,500.00	7,037.46	14,635.58	7,214.44	217.57	217.79	108.46	-455.89	-7,791.42	559.05	142.27	416.79	1.341 Level 3		
14,600.00	7,037.07	14,735.58	7,214.05	220.40	220.61	108.45	-456.67	-7,891.41	559.08	136.90	422.18	1.324 Level 3		
14,700.00	7,036.68	14,835.58	7,213.66	223.23	223.44	108.45	-457.45	-7,991.41	559.11	131.54	427.57	1.308 Level 3		
14,800.00	7,036.28	14,935.58	7,213.26	226.05	226.27	108.45	-458.24	-8,091.40	559.14	126.17	432.97	1.291 Level 3		
14,871.88	7,036.00	15,007.46	7,212.98	228.09	228.31	108.45	-458.80	-8,163.28	559.16	122.31	436.85	1.280 Level 3, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	0.60	80.15	0.83	80.16					
100.00	100.00	101.00	100.00	3.28	3.28	0.60	80.15	0.83	80.16	73.59	6.57	12.201		
200.00	200.00	201.00	200.00	3.34	3.34	0.60	80.15	0.83	80.16	73.48	6.67	12.009		
300.00	300.00	301.00	300.00	3.44	3.45	0.60	80.15	0.83	80.16	73.26	6.89	11.632 CC		
400.00	399.98	400.98	399.98	3.60	3.61	170.94	80.15	0.83	81.88	74.68	7.20	11.370		
500.00	499.84	500.84	499.84	3.79	3.81	171.47	80.15	0.83	87.05	79.46	7.60	11.461		
600.00	599.45	601.14	600.14	4.02	4.05	172.21	80.08	0.82	95.60	87.54	8.07	11.852		
700.00	698.70	704.23	703.19	4.29	4.30	172.85	77.53	0.22	105.21	96.62	8.60	12.239		
800.00	797.70	807.79	806.55	4.59	4.59	173.19	71.34	-1.23	113.24	104.05	9.19	12.317		
900.00	896.69	911.28	909.54	4.92	4.91	173.17	61.55	-3.51	117.75	107.91	9.84	11.967		
1,000.00	995.68	1,011.23	1,008.88	5.27	5.24	173.05	50.76	-6.03	120.91	110.41	10.50	11.515		
1,100.00	1,094.68	1,111.18	1,108.21	5.64	5.58	172.93	39.97	-8.56	124.07	112.88	11.19	11.084		
1,200.00	1,193.67	1,211.13	1,207.54	6.03	5.94	172.82	29.18	-11.08	127.23	115.31	11.92	10.678		
1,300.00	1,292.67	1,311.08	1,306.88	6.42	6.32	172.71	18.39	-13.60	130.39	117.73	12.66	10.298		
1,400.00	1,391.66	1,411.03	1,406.21	6.83	6.71	172.60	7.60	-16.12	133.55	120.12	13.43	9.946		
1,500.00	1,490.66	1,510.98	1,505.54	7.25	7.10	172.51	-3.19	-18.64	136.71	122.50	14.21	9.621		
1,600.00	1,589.65	1,610.93	1,604.88	7.67	7.51	172.41	-13.98	-21.16	139.87	124.87	15.01	9.322		
1,700.00	1,688.64	1,710.88	1,704.21	8.10	7.92	172.32	-24.77	-23.68	143.03	127.22	15.81	9.045		
1,800.00	1,787.64	1,810.83	1,803.55	8.53	8.33	172.24	-35.56	-26.21	146.19	129.56	16.63	8.791		
1,900.00	1,886.63	1,910.78	1,902.88	8.97	8.75	172.16	-46.35	-28.73	149.36	131.90	17.46	8.556		
2,000.00	1,985.63	2,010.72	2,002.21	9.41	9.18	172.08	-57.14	-31.25	152.52	134.23	18.29	8.338		
2,100.00	2,084.62	2,110.67	2,101.55	9.85	9.60	172.00	-67.93	-33.77	155.68	136.55	19.13	8.137		
2,200.00	2,183.61	2,210.62	2,200.88	10.30	10.03	171.93	-78.72	-36.29	158.85	138.87	19.98	7.951		
2,300.00	2,282.61	2,310.57	2,300.21	10.75	10.47	171.86	-89.51	-38.81	162.01	141.18	20.83	7.778		
2,400.00	2,381.60	2,410.52	2,399.55	11.20	10.90	171.79	-100.31	-41.33	165.17	143.49	21.68	7.617		
2,500.00	2,480.60	2,510.47	2,498.88	11.66	11.34	171.73	-111.10	-43.86	168.34	145.79	22.54	7.467		
2,600.00	2,579.59	2,610.42	2,598.21	12.11	11.78	171.67	-121.89	-46.38	171.50	148.09	23.41	7.327		
2,700.00	2,678.58	2,710.37	2,697.55	12.57	12.22	171.61	-132.68	-48.90	174.66	150.39	24.27	7.196		
2,800.00	2,777.58	2,810.32	2,796.88	13.02	12.66	171.55	-143.47	-51.42	177.83	152.69	25.14	7.073		
2,900.00	2,876.57	2,910.27	2,896.22	13.48	13.11	171.49	-154.26	-53.94	180.99	154.98	26.01	6.958		
3,000.00	2,975.57	3,010.22	2,995.55	13.94	13.55	171.44	-165.05	-56.46	184.16	157.27	26.89	6.849		
3,100.00	3,074.56	3,110.17	3,094.88	14.40	14.00	171.39	-175.84	-58.98	187.32	159.56	27.76	6.747		
3,200.00	3,173.55	3,210.12	3,194.22	14.87	14.45	171.34	-186.63	-61.51	190.49	161.85	28.64	6.651		
3,300.00	3,272.55	3,310.07	3,293.55	15.33	14.90	171.29	-197.42	-64.03	193.65	164.13	29.52	6.560		
3,400.00	3,371.54	3,410.02	3,392.88	15.79	15.34	171.24	-208.21	-66.55	196.82	166.42	30.40	6.474		
3,500.00	3,470.54	3,509.97	3,492.22	16.26	15.79	171.20	-219.00	-69.07	199.98	168.70	31.28	6.393		
3,600.00	3,569.53	3,609.92	3,591.55	16.72	16.25	171.15	-229.79	-71.59	203.15	170.98	32.17	6.316		
3,700.00	3,668.53	3,709.87	3,690.88	17.19	16.70	171.11	-240.58	-74.11	206.31	173.26	33.05	6.242		
3,800.00	3,767.52	3,809.82	3,790.22	17.65	17.15	171.07	-251.37	-76.63	209.48	175.54	33.94	6.173		
3,900.00	3,866.51	3,909.77	3,889.55	18.12	17.60	171.03	-262.16	-79.16	212.64	177.82	34.82	6.106		
4,000.00	3,965.51	4,009.72	3,988.89	18.59	18.05	170.99	-272.95	-81.68	215.81	180.10	35.71	6.043		
4,100.00	4,064.50	4,109.67	4,088.22	19.05	18.51	170.95	-283.74	-84.20	218.98	182.38	36.60	5.983		
4,200.00	4,163.50	4,209.62	4,187.55	19.52	18.96	170.91	-294.53	-86.72	222.14	184.65	37.49	5.925		
4,300.00	4,262.49	4,309.57	4,286.89	19.99	19.41	170.88	-305.32	-89.24	225.31	186.93	38.38	5.870		
4,400.00	4,361.48	4,409.52	4,386.22	20.46	19.87	170.84	-316.11	-91.76	228.48	189.20	39.27	5.818		
4,500.00	4,460.48	4,509.47	4,485.55	20.92	20.32	170.81	-326.90	-94.28	231.64	191.48	40.16	5.768		
4,600.00	4,559.47	4,609.42	4,584.89	21.39	20.78	170.78	-337.69	-96.81	234.81	193.75	41.06	5.719		
4,700.00	4,658.47	4,709.37	4,684.22	21.86	21.23	170.74	-348.48	-99.33	237.97	196.03	41.95	5.673		
4,800.00	4,757.46	4,809.32	4,783.55	22.33	21.69	170.71	-359.27	-101.85	241.14	198.30	42.84	5.629		
4,900.00	4,856.45	4,909.27	4,882.89	22.80	22.15	170.68	-370.06	-104.37	244.31	200.57	43.74	5.586		
5,000.00	4,955.45	5,009.22	4,982.22	23.27	22.60	170.65	-380.85	-106.89	247.47	202.84	44.63	5.545		
5,100.00	5,054.44	5,109.17	5,081.56	23.74	23.06	170.62	-391.64	-109.41	250.64	205.12	45.52	5.506		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,153.44	5,209.12	5,180.89	24.21	23.52	170.60	-402.43	-111.93	253.81	207.39	46.42	5.468		
5,300.00	5,252.43	5,309.07	5,280.22	24.68	23.97	170.57	-413.22	-114.46	256.98	209.66	47.32	5.431		
5,400.00	5,351.42	5,409.02	5,379.56	25.15	24.43	170.54	-424.01	-116.98	260.14	211.93	48.21	5.396		
5,500.00	5,450.42	5,508.97	5,478.89	25.62	24.89	170.52	-434.80	-119.50	263.31	214.20	49.11	5.362		
5,600.00	5,549.41	5,608.92	5,578.22	26.09	25.34	170.49	-445.59	-122.02	266.48	216.47	50.01	5.329		
5,700.00	5,648.41	5,708.87	5,677.56	26.56	25.80	170.47	-456.38	-124.54	269.64	218.74	50.90	5.297		
5,800.00	5,747.40	5,808.82	5,776.89	27.03	26.26	170.44	-467.17	-127.06	272.81	221.01	51.80	5.267		
5,900.00	5,846.40	5,908.77	5,876.22	27.51	26.72	170.42	-477.97	-129.58	275.98	223.28	52.70	5.237		
6,000.00	5,945.39	6,008.72	5,975.56	27.98	27.18	170.39	-488.76	-132.10	279.14	225.55	53.60	5.208		
6,100.00	6,044.38	6,108.67	6,074.89	28.45	27.63	170.37	-499.55	-134.63	282.31	227.82	54.49	5.181		
6,200.00	6,143.38	6,208.62	6,174.22	28.92	28.09	170.35	-510.34	-137.15	285.48	230.09	55.39	5.154		
6,300.00	6,242.37	6,308.56	6,273.56	29.39	28.55	170.33	-521.13	-139.67	288.65	232.36	56.29	5.128		
6,400.00	6,341.37	6,408.51	6,372.89	29.86	29.01	170.31	-531.92	-142.19	291.81	234.62	57.19	5.103		
6,500.00	6,440.36	6,508.46	6,472.23	30.34	29.47	170.29	-542.71	-144.71	294.98	236.89	58.09	5.078		
6,600.00	6,538.90	6,608.79	6,571.78	30.80	29.93	131.30	-553.54	-149.94	298.19	239.21	58.98	5.056		
6,700.00	6,634.88	6,710.03	6,670.36	31.25	30.38	115.43	-564.39	-169.73	301.41	241.55	59.86	5.036		
6,800.00	6,725.92	6,812.03	6,765.26	31.68	30.82	109.03	-574.98	-205.29	304.53	243.83	60.71	5.016		
6,900.00	6,809.79	6,914.75	6,853.88	32.07	31.22	105.89	-585.00	-256.04	307.47	245.92	61.55	4.996		
7,000.00	6,884.42	7,018.15	6,933.72	32.43	31.61	104.17	-594.19	-320.92	310.13	247.69	62.44	4.967		
7,100.00	6,947.98	7,122.15	7,002.42	32.77	32.00	103.16	-602.28	-398.41	312.43	248.97	63.47	4.923		
7,200.00	6,998.89	7,226.63	7,057.89	33.18	32.50	102.55	-609.02	-486.55	314.30	249.56	64.74	4.855		
7,300.00	7,035.91	7,331.47	7,098.40	33.76	33.23	102.17	-614.21	-582.99	315.67	249.31	66.36	4.757		
7,400.00	7,058.12	7,436.55	7,122.68	34.61	34.21	101.95	-617.68	-685.04	316.50	248.13	68.37	4.629		
7,500.00	7,064.98	7,541.44	7,129.97	35.68	35.39	101.84	-619.33	-789.55	316.76	246.02	70.74	4.478		
7,600.00	7,064.59	7,641.44	7,129.54	36.95	36.71	101.83	-620.11	-889.54	316.79	243.41	73.38	4.317		
7,700.00	7,064.20	7,741.44	7,129.11	38.40	38.19	101.82	-620.89	-989.54	316.82	240.50	76.32	4.151		
7,800.00	7,063.80	7,841.44	7,128.67	40.00	39.83	101.81	-621.67	-1,089.54	316.84	237.30	79.54	3.983		
7,900.00	7,063.41	7,941.44	7,128.24	41.75	41.60	101.81	-622.44	-1,189.53	316.87	233.85	83.02	3.817		
8,000.00	7,063.02	8,041.44	7,127.80	43.62	43.48	101.80	-623.22	-1,289.53	316.89	230.17	86.72	3.654		
8,100.00	7,062.62	8,141.44	7,127.37	45.59	45.47	101.79	-624.00	-1,389.52	316.92	226.29	90.62	3.497		
8,200.00	7,062.23	8,241.44	7,126.94	47.65	47.54	101.78	-624.78	-1,489.52	316.94	222.25	94.69	3.347		
8,300.00	7,061.84	8,341.44	7,126.50	49.79	49.70	101.77	-625.55	-1,589.52	316.97	218.05	98.92	3.204		
8,400.00	7,061.45	8,441.44	7,126.07	52.00	51.92	101.76	-626.33	-1,689.51	316.99	213.72	103.27	3.070		
8,500.00	7,061.05	8,541.44	7,125.63	54.27	54.20	101.75	-627.11	-1,789.51	317.02	209.28	107.74	2.942		
8,600.00	7,060.66	8,641.44	7,125.20	56.60	56.54	101.75	-627.89	-1,889.50	317.04	204.73	112.31	2.823		
8,700.00	7,060.27	8,741.44	7,124.77	58.97	58.92	101.74	-628.66	-1,989.50	317.07	200.09	116.98	2.711		
8,800.00	7,059.87	8,841.44	7,124.33	61.38	61.34	101.73	-629.44	-2,089.50	317.09	195.37	121.72	2.605		
8,900.00	7,059.48	8,941.44	7,123.90	63.83	63.80	101.72	-630.22	-2,189.49	317.12	190.59	126.53	2.506		
9,000.00	7,059.09	9,041.44	7,123.46	66.32	66.29	101.71	-630.99	-2,289.49	317.14	185.73	131.41	2.413		
9,100.00	7,058.69	9,141.44	7,123.03	68.83	68.81	101.70	-631.77	-2,389.48	317.17	180.82	136.35	2.326		
9,200.00	7,058.30	9,241.44	7,122.60	71.37	71.35	101.70	-632.55	-2,489.48	317.20	175.86	141.33	2.244		
9,300.00	7,057.91	9,341.44	7,122.16	73.93	73.92	101.69	-633.33	-2,589.48	317.22	170.86	146.36	2.167		
9,400.00	7,057.51	9,441.44	7,121.73	76.51	76.51	101.68	-634.10	-2,689.47	317.25	165.81	151.43	2.095		
9,500.00	7,057.12	9,541.44	7,121.30	79.11	79.12	101.67	-634.88	-2,789.47	317.27	160.73	156.54	2.027		
9,600.00	7,056.73	9,641.44	7,120.86	81.73	81.74	101.66	-635.66	-2,889.46	317.30	155.61	161.69	1.962		
9,700.00	7,056.33	9,741.44	7,120.43	84.37	84.38	101.65	-636.44	-2,989.46	317.32	150.46	166.86	1.902		
9,800.00	7,055.94	9,841.44	7,119.99	87.01	87.03	101.64	-637.21	-3,089.46	317.35	145.29	172.06	1.844		
9,900.00	7,055.55	9,941.44	7,119.56	89.68	89.70	101.64	-637.99	-3,189.45	317.37	140.09	177.29	1.790		
10,000.00	7,055.15	10,041.44	7,119.13	92.35	92.37	101.63	-638.77	-3,289.45	317.40	134.86	182.54	1.739		
10,100.00	7,054.76	10,141.44	7,118.69	95.03	95.06	101.62	-639.55	-3,389.45	317.42	129.62	187.81	1.690		
10,200.00	7,054.37	10,241.44	7,118.26	97.73	97.76	101.61	-640.32	-3,489.44	317.45	124.35	193.10	1.644		
10,300.00	7,053.98	10,341.44	7,117.82	100.43	100.47	101.60	-641.10	-3,589.44	317.47	119.07	198.41	1.600		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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+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	
10,400.00	7,053.58	10,441.44	7,117.39	103.14	103.18	101.59	-641.88	-3,689.43	317.50	113.77	203.73	1.558	
10,500.00	7,053.19	10,541.44	7,116.96	105.86	105.90	101.59	-642.66	-3,789.43	317.53	108.45	209.07	1.519	
10,600.00	7,052.80	10,641.44	7,116.52	108.59	108.63	101.58	-643.43	-3,889.43	317.55	103.13	214.43	1.481	Level 3
10,700.00	7,052.40	10,741.44	7,116.09	111.32	111.37	101.57	-644.21	-3,989.42	317.58	97.78	219.79	1.445	Level 3
10,800.00	7,052.01	10,841.44	7,115.65	114.06	114.11	101.56	-644.99	-4,089.42	317.60	92.43	225.17	1.410	Level 3
10,900.00	7,051.62	10,941.44	7,115.22	116.80	116.85	101.55	-645.76	-4,189.41	317.63	87.06	230.57	1.378	Level 3
11,000.00	7,051.22	11,041.44	7,114.79	119.55	119.61	101.54	-646.54	-4,289.41	317.65	81.68	235.97	1.346	Level 3
11,100.00	7,050.83	11,141.44	7,114.35	122.31	122.36	101.53	-647.32	-4,389.41	317.68	76.30	241.38	1.316	Level 3
11,200.00	7,050.44	11,241.44	7,113.92	125.07	125.13	101.53	-648.10	-4,489.40	317.70	70.90	246.80	1.287	Level 3
11,300.00	7,050.04	11,341.44	7,113.48	127.83	127.89	101.52	-648.87	-4,589.40	317.73	65.50	252.23	1.260	Level 3
11,400.00	7,049.65	11,441.44	7,113.05	130.60	130.66	101.51	-649.65	-4,689.39	317.76	60.08	257.67	1.233	Level 2
11,500.00	7,049.26	11,541.44	7,112.62	133.37	133.44	101.50	-650.43	-4,789.39	317.78	54.66	263.12	1.208	Level 2
11,600.00	7,048.86	11,641.44	7,112.18	136.15	136.21	101.49	-651.21	-4,889.39	317.81	49.23	268.57	1.183	Level 2
11,700.00	7,048.47	11,741.44	7,111.75	138.93	138.99	101.48	-651.98	-4,989.38	317.83	43.80	274.04	1.160	Level 2
11,800.00	7,048.08	11,841.44	7,111.32	141.71	141.78	101.48	-652.76	-5,089.38	317.86	38.36	279.50	1.137	Level 2
11,900.00	7,047.68	11,941.44	7,110.88	144.49	144.56	101.47	-653.54	-5,189.37	317.88	32.91	284.98	1.115	Level 2
12,000.00	7,047.29	12,041.44	7,110.45	147.28	147.35	101.46	-654.32	-5,289.37	317.91	27.45	290.46	1.095	Level 2
12,100.00	7,046.90	12,141.44	7,110.01	150.07	150.14	101.45	-655.09	-5,389.37	317.93	21.99	295.94	1.074	Level 2
12,200.00	7,046.51	12,241.44	7,109.58	152.87	152.94	101.44	-655.87	-5,489.36	317.96	16.53	301.43	1.055	Level 2
12,300.00	7,046.11	12,341.44	7,109.15	155.66	155.74	101.43	-656.65	-5,589.36	317.99	11.06	306.93	1.036	Level 2
12,400.00	7,045.72	12,441.44	7,108.71	158.46	158.53	101.42	-657.43	-5,689.35	318.01	5.58	312.43	1.018	Level 2
12,500.00	7,045.33	12,541.44	7,108.28	161.26	161.34	101.42	-658.20	-5,789.35	318.04	0.11	317.93	1.000	Level 2
12,600.00	7,044.93	12,641.44	7,107.84	164.06	164.14	101.41	-658.98	-5,889.35	318.06	-5.38	323.44	0.983	Level 1
12,700.00	7,044.54	12,741.44	7,107.41	166.86	166.94	101.40	-659.76	-5,989.34	318.09	-10.86	328.95	0.967	Level 1
12,800.00	7,044.15	12,841.44	7,106.98	169.67	169.75	101.39	-660.53	-6,089.34	318.11	-16.36	334.47	0.951	Level 1
12,900.00	7,043.75	12,941.44	7,106.54	172.48	172.56	101.38	-661.31	-6,189.33	318.14	-21.85	339.99	0.936	Level 1
13,000.00	7,043.36	13,041.44	7,106.11	175.28	175.37	101.37	-662.09	-6,289.33	318.16	-27.35	345.51	0.921	Level 1
13,100.00	7,042.97	13,141.44	7,105.67	178.09	178.18	101.37	-662.87	-6,389.33	318.19	-32.85	351.04	0.906	Level 1
13,200.00	7,042.57	13,241.44	7,105.24	180.91	180.99	101.36	-663.64	-6,489.32	318.22	-38.35	356.57	0.892	Level 1
13,300.00	7,042.18	13,341.44	7,104.81	183.72	183.81	101.35	-664.42	-6,589.32	318.24	-43.86	362.10	0.879	Level 1
13,400.00	7,041.79	13,441.44	7,104.37	186.53	186.62	101.34	-665.20	-6,689.31	318.27	-49.37	367.64	0.866	Level 1
13,500.00	7,041.39	13,541.44	7,103.94	189.35	189.44	101.33	-665.98	-6,789.31	318.29	-54.89	373.18	0.853	Level 1
13,600.00	7,041.00	13,641.44	7,103.50	192.17	192.26	101.32	-666.75	-6,889.31	318.32	-60.40	378.72	0.841	Level 1
13,700.00	7,040.61	13,741.44	7,103.07	194.99	195.08	101.32	-667.53	-6,989.30	318.34	-65.92	384.27	0.828	Level 1
13,800.00	7,040.21	13,841.44	7,102.64	197.81	197.90	101.31	-668.31	-7,089.30	318.37	-71.44	389.82	0.817	Level 1
13,900.00	7,039.82	13,941.44	7,102.20	200.63	200.72	101.30	-669.09	-7,189.29	318.40	-76.97	395.37	0.805	Level 1
14,000.00	7,039.43	14,041.44	7,101.77	203.45	203.54	101.29	-669.86	-7,289.29	318.42	-82.50	400.92	0.794	Level 1
14,100.00	7,039.03	14,141.44	7,101.33	206.27	206.36	101.28	-670.64	-7,389.29	318.45	-88.02	406.47	0.783	Level 1
14,200.00	7,038.64	14,241.44	7,100.90	209.09	209.19	101.27	-671.42	-7,489.28	318.47	-93.56	412.03	0.773	Level 1
14,300.00	7,038.25	14,341.44	7,100.47	211.92	212.01	101.27	-672.20	-7,589.28	318.50	-99.09	417.59	0.763	Level 1
14,400.00	7,037.86	14,441.44	7,100.03	214.74	214.84	101.26	-672.97	-7,689.27	318.52	-104.62	423.15	0.753	Level 1
14,500.00	7,037.46	14,541.44	7,099.60	217.57	217.67	101.25	-673.75	-7,789.27	318.55	-110.16	428.71	0.743	Level 1
14,600.00	7,037.07	14,641.44	7,099.17	220.40	220.49	101.24	-674.53	-7,889.27	318.58	-115.70	434.28	0.734	Level 1
14,700.00	7,036.68	14,741.44	7,098.73	223.23	223.32	101.23	-675.30	-7,989.26	318.60	-121.24	439.84	0.724	Level 1
14,800.00	7,036.28	14,841.44	7,098.30	226.05	226.15	101.22	-676.08	-8,089.26	318.63	-126.78	445.41	0.715	Level 1
14,871.88	7,036.00	14,913.32	7,097.99	228.09	228.19	101.22	-676.64	-8,161.14	318.65	-130.77	449.41	0.709	Level 1, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	0.00	0.00	3.28	3.28	-179.60	-119.85	-0.83	119.86					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-119.85	-0.83	119.86	113.29	6.57	18.245		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-119.85	-0.83	119.86	113.18	6.67	17.958 CC, ES		
300.00	300.00	295.96	295.94	3.44	3.43	-179.55	-121.45	-0.96	121.53	114.64	6.89	17.638		
400.00	399.98	391.79	391.65	3.60	3.58	-9.36	-126.25	-1.33	124.81	117.61	7.21	17.321		
500.00	499.84	487.53	487.04	3.79	3.77	-9.47	-134.23	-1.94	127.99	120.38	7.61	16.819		
600.00	599.45	583.16	582.02	4.02	3.99	-9.72	-145.36	-2.79	131.07	122.97	8.10	16.188		
700.00	698.70	678.71	676.48	4.29	4.25	-10.09	-159.64	-3.89	134.03	125.38	8.65	15.493		
800.00	797.70	774.10	770.26	4.59	4.55	-10.48	-177.02	-5.22	138.38	129.12	9.26	14.943		
900.00	896.69	869.11	863.04	4.92	4.88	-10.73	-197.41	-6.79	146.03	136.12	9.91	14.739		
1,000.00	995.68	963.54	954.54	5.27	5.25	-10.85	-220.71	-8.57	156.96	146.36	10.59	14.818		
1,100.00	1,094.68	1,057.20	1,044.47	5.64	5.64	-10.84	-246.77	-10.57	171.13	159.83	11.30	15.149		
1,200.00	1,193.67	1,153.55	1,136.23	6.03	6.07	-10.77	-276.04	-12.82	187.92	175.90	12.02	15.637		
1,300.00	1,292.67	1,252.08	1,230.01	6.42	6.53	-10.69	-306.21	-15.13	204.97	192.20	12.77	16.050		
1,400.00	1,391.66	1,350.62	1,323.78	6.83	7.01	-10.63	-336.37	-17.45	222.01	208.46	13.55	16.386		
1,500.00	1,490.66	1,449.16	1,417.56	7.25	7.50	-10.57	-366.54	-19.76	239.05	224.71	14.35	16.660		
1,600.00	1,589.65	1,547.69	1,511.34	7.67	8.00	-10.53	-396.71	-22.08	256.10	240.93	15.17	16.885		
1,700.00	1,688.64	1,646.23	1,605.11	8.10	8.51	-10.49	-426.87	-24.39	273.14	257.14	16.00	17.071		
1,800.00	1,787.64	1,744.76	1,698.89	8.53	9.03	-10.45	-457.04	-26.71	290.19	273.34	16.85	17.224		
1,900.00	1,886.63	1,843.30	1,792.67	8.97	9.56	-10.42	-487.21	-29.02	307.23	289.53	17.71	17.353		
2,000.00	1,985.63	1,941.84	1,886.44	9.41	10.08	-10.39	-517.38	-31.34	324.28	305.70	18.57	17.460		
2,100.00	2,084.62	2,040.37	1,980.22	9.85	10.62	-10.36	-547.54	-33.65	341.32	321.87	19.45	17.550		
2,200.00	2,183.61	2,138.91	2,074.00	10.30	11.15	-10.34	-577.71	-35.97	358.37	338.04	20.33	17.626		
2,300.00	2,282.61	2,237.45	2,167.77	10.75	11.69	-10.32	-607.88	-38.28	375.41	354.19	21.22	17.690		
2,400.00	2,381.60	2,335.98	2,261.55	11.20	12.24	-10.30	-638.04	-40.60	392.46	370.34	22.12	17.745		
2,500.00	2,480.60	2,434.52	2,355.33	11.66	12.78	-10.28	-668.21	-42.91	409.50	386.49	23.02	17.792		
2,600.00	2,579.59	2,533.06	2,449.10	12.11	13.33	-10.27	-698.38	-45.22	426.55	402.63	23.92	17.832		
2,700.00	2,678.58	2,631.59	2,542.88	12.57	13.88	-10.25	-728.54	-47.54	443.59	418.76	24.83	17.866		
2,800.00	2,777.58	2,730.13	2,636.66	13.02	14.43	-10.24	-758.71	-49.85	460.64	434.90	25.74	17.895		
2,900.00	2,876.57	2,828.67	2,730.43	13.48	14.98	-10.22	-788.88	-52.17	477.68	451.03	26.66	17.921		
3,000.00	2,975.57	2,927.20	2,824.21	13.94	15.54	-10.21	-819.04	-54.48	494.73	467.16	27.57	17.942		
3,100.00	3,074.56	3,025.74	2,917.99	14.40	16.09	-10.20	-849.21	-56.80	511.77	483.28	28.49	17.961		
3,200.00	3,173.55	3,124.28	3,011.76	14.87	16.65	-10.19	-879.38	-59.11	528.82	499.40	29.42	17.977		
3,300.00	3,272.55	3,222.81	3,105.54	15.33	17.20	-10.18	-909.54	-61.43	545.86	515.52	30.34	17.991		
3,400.00	3,371.54	3,321.35	3,199.32	15.79	17.76	-10.17	-939.71	-63.74	562.91	531.64	31.27	18.003		
3,500.00	3,470.54	3,419.89	3,293.09	16.26	18.32	-10.16	-969.88	-66.06	579.95	547.76	32.20	18.013		
3,600.00	3,569.53	3,518.42	3,386.87	16.72	18.88	-10.15	-1,000.04	-68.37	597.00	563.87	33.13	18.022		
3,700.00	3,668.53	3,616.96	3,480.65	17.19	19.44	-10.15	-1,030.21	-70.69	614.05	579.99	34.06	18.030		
3,800.00	3,767.52	3,715.50	3,574.42	17.65	20.00	-10.14	-1,060.38	-73.00	631.09	596.10	34.99	18.036		
3,900.00	3,866.51	3,814.03	3,668.20	18.12	20.56	-10.13	-1,090.54	-75.32	648.14	612.21	35.92	18.042		
4,000.00	3,965.51	3,912.57	3,761.98	18.59	21.12	-10.12	-1,120.71	-77.63	665.18	628.32	36.86	18.047		
4,100.00	4,064.50	4,011.11	3,855.75	19.05	21.68	-10.12	-1,150.88	-79.94	682.23	644.43	37.80	18.051		
4,200.00	4,163.50	4,109.64	3,949.53	19.52	22.25	-10.11	-1,181.04	-82.26	699.27	660.54	38.73	18.054		
4,300.00	4,262.49	4,208.18	4,043.31	19.99	22.81	-10.11	-1,211.21	-84.57	716.32	676.65	39.67	18.057		
4,400.00	4,361.48	4,306.71	4,137.08	20.46	23.37	-10.10	-1,241.38	-86.89	733.36	692.75	40.61	18.059		
4,500.00	4,460.48	4,405.25	4,230.86	20.92	23.94	-10.10	-1,271.54	-89.20	750.41	708.86	41.55	18.061		
4,600.00	4,559.47	4,503.79	4,324.64	21.39	24.50	-10.09	-1,301.71	-91.52	767.45	724.96	42.49	18.062		
4,700.00	4,658.47	4,602.32	4,418.41	21.86	25.06	-10.09	-1,331.88	-93.83	784.50	741.07	43.43	18.063		
4,800.00	4,757.46	4,700.86	4,512.19	22.33	25.63	-10.08	-1,362.04	-96.15	801.55	757.17	44.37	18.064		
4,900.00	4,856.45	4,800.60	4,605.97	22.80	26.20	-10.08	-1,392.21	-98.46	818.59	773.27	45.32	18.062		
5,000.00	4,955.45	4,897.93	4,699.74	23.27	26.76	-10.07	-1,422.38	-100.78	835.64	789.38	46.26	18.064		
5,100.00	5,054.44	5,003.53	4,793.52	23.74	27.36	-10.07	-1,452.54	-103.09	852.68	805.44	47.24	18.051		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,104.99	4,887.30	24.21	27.95	-10.06	-1,482.71	-105.41	869.73	821.53	48.20	18.045		
5,300.00	5,252.43	5,206.46	4,981.07	24.68	28.53	-10.06	-1,512.88	-107.72	886.77	837.62	49.16	18.040		
5,400.00	5,351.42	5,307.92	5,074.85	25.15	29.11	-10.06	-1,543.04	-110.04	903.82	853.70	50.12	18.034		
5,500.00	5,450.42	5,409.38	5,168.62	25.62	29.69	-10.05	-1,573.21	-112.35	920.86	869.79	51.08	18.029		
5,600.00	5,549.41	5,489.15	5,262.40	26.09	30.15	-10.05	-1,603.38	-114.67	937.91	885.98	51.93	18.062		
5,700.00	5,648.41	5,587.69	5,356.18	26.56	30.72	-10.05	-1,633.54	-116.98	954.95	902.08	52.87	18.061		
5,800.00	5,747.40	5,686.23	5,449.95	27.03	31.29	-10.04	-1,663.71	-119.29	972.00	918.18	53.82	18.060		
5,900.00	5,846.40	5,784.76	5,543.73	27.51	31.85	-10.04	-1,693.88	-121.61	989.05	934.28	54.77	18.059		
6,000.00	5,945.39	5,883.30	5,637.51	27.98	32.42	-10.04	-1,724.04	-123.92	1,006.09	950.37	55.72	18.057		
6,100.00	6,044.38	5,981.84	5,731.28	28.45	32.99	-10.04	-1,754.21	-126.24	1,023.14	966.47	56.66	18.056		
6,200.00	6,143.38	6,080.37	5,825.06	28.92	33.55	-10.03	-1,784.38	-128.55	1,040.18	982.57	57.61	18.055		
6,300.00	6,242.37	6,178.91	5,918.84	29.39	34.12	-10.03	-1,814.55	-130.87	1,057.23	998.67	58.56	18.054		
6,400.00	6,341.37	6,277.45	6,012.61	29.86	34.69	-10.03	-1,844.71	-133.18	1,074.27	1,014.76	59.51	18.052		
6,500.00	6,440.36	6,375.98	6,106.39	30.34	35.25	-10.03	-1,874.88	-135.50	1,091.32	1,030.86	60.46	18.051		
6,600.00	6,538.90	6,474.23	6,199.90	30.80	35.82	-48.37	-1,904.96	-137.81	1,108.31	1,046.90	61.41	18.047		
6,700.00	6,634.88	6,570.33	6,291.36	31.25	36.37	-64.39	-1,934.38	-140.06	1,125.18	1,062.81	62.37	18.042		
6,800.00	6,725.92	6,661.92	6,378.51	31.68	36.90	-71.49	-1,962.42	-142.21	1,142.36	1,079.04	63.31	18.043		
6,900.00	6,809.79	6,746.73	6,459.23	32.07	37.39	-75.59	-1,988.38	-144.21	1,160.75	1,096.48	64.27	18.060		
7,000.00	6,884.42	6,841.95	6,549.64	32.43	37.94	-78.73	-2,017.49	-150.13	1,181.12	1,115.66	65.45	18.045		
7,100.00	6,947.98	6,959.25	6,658.32	32.77	38.57	-81.53	-2,052.64	-176.07	1,202.44	1,135.54	66.89	17.975		
7,200.00	6,998.89	7,100.40	6,780.28	33.18	39.24	-84.21	-2,092.30	-234.31	1,223.52	1,155.14	68.38	17.893		
7,300.00	7,035.91	7,275.84	6,910.03	33.76	39.93	-86.91	-2,134.85	-343.59	1,242.48	1,172.78	69.70	17.826		
7,400.00	7,058.12	7,494.56	7,024.25	34.61	40.61	-89.30	-2,172.97	-524.88	1,256.45	1,185.45	70.99	17.699		
7,500.00	7,064.98	7,749.95	7,074.96	35.68	41.45	-90.45	-2,191.19	-772.78	1,261.96	1,188.61	73.35	17.205		
7,600.00	7,064.59	7,855.64	7,074.68	36.95	42.02	-90.46	-2,191.92	-878.46	1,261.82	1,185.93	75.89	16.626		
7,700.00	7,064.20	7,955.64	7,074.36	38.40	42.83	-90.46	-2,192.58	-978.46	1,261.68	1,182.96	78.72	16.028		
7,800.00	7,063.80	8,055.64	7,074.03	40.00	43.92	-90.46	-2,193.25	-1,078.46	1,261.54	1,179.69	81.85	15.413		
7,900.00	7,063.41	8,155.64	7,073.71	41.75	45.26	-90.47	-2,193.92	-1,178.45	1,261.39	1,176.15	85.24	14.798		
8,000.00	7,063.02	8,255.64	7,073.38	43.62	46.80	-90.47	-2,194.59	-1,278.45	1,261.25	1,172.37	88.88	14.191		
8,100.00	7,062.62	8,355.64	7,073.06	45.59	48.51	-90.47	-2,195.25	-1,378.45	1,261.11	1,168.39	92.72	13.601		
8,200.00	7,062.23	8,455.64	7,072.73	47.65	50.35	-90.48	-2,195.92	-1,478.45	1,260.96	1,164.21	96.75	13.033		
8,300.00	7,061.84	8,555.64	7,072.41	49.79	52.30	-90.48	-2,196.59	-1,578.44	1,260.82	1,159.88	100.94	12.491		
8,400.00	7,061.45	8,655.64	7,072.08	52.00	54.35	-90.48	-2,197.26	-1,678.44	1,260.68	1,155.40	105.28	11.975		
8,500.00	7,061.05	8,755.64	7,071.76	54.27	56.47	-90.49	-2,197.92	-1,778.44	1,260.53	1,150.79	109.74	11.487		
8,600.00	7,060.66	8,855.64	7,071.43	56.60	58.66	-90.49	-2,198.59	-1,878.43	1,260.39	1,146.08	114.31	11.026		
8,700.00	7,060.27	8,955.64	7,071.11	58.97	60.91	-90.49	-2,199.26	-1,978.43	1,260.24	1,141.26	118.98	10.592		
8,800.00	7,059.87	9,055.64	7,070.79	61.38	63.21	-90.50	-2,199.93	-2,078.43	1,260.10	1,136.36	123.74	10.183		
8,900.00	7,059.48	9,155.64	7,070.46	63.83	65.56	-90.50	-2,200.59	-2,178.43	1,259.96	1,131.38	128.58	9.799		
9,000.00	7,059.09	9,255.64	7,070.14	66.32	67.94	-90.50	-2,201.26	-2,278.42	1,259.81	1,126.33	133.49	9.438		
9,100.00	7,058.69	9,355.64	7,069.81	68.83	70.37	-90.51	-2,201.93	-2,378.42	1,259.67	1,121.21	138.46	9.098		
9,200.00	7,058.30	9,455.64	7,069.49	71.37	72.83	-90.51	-2,202.60	-2,478.42	1,259.53	1,116.04	143.48	8.778		
9,300.00	7,057.91	9,555.64	7,069.16	73.93	75.31	-90.51	-2,203.26	-2,578.41	1,259.38	1,110.83	148.56	8.478		
9,400.00	7,057.51	9,655.64	7,068.84	76.51	77.83	-90.52	-2,203.93	-2,678.41	1,259.24	1,105.56	153.67	8.194		
9,500.00	7,057.12	9,755.63	7,068.51	79.11	80.36	-90.52	-2,204.60	-2,778.41	1,259.09	1,100.26	158.84	7.927		
9,600.00	7,056.73	9,855.63	7,068.19	81.73	82.92	-90.52	-2,205.27	-2,878.41	1,258.95	1,094.92	164.03	7.675		
9,700.00	7,056.33	9,955.63	7,067.86	84.37	85.50	-90.52	-2,205.93	-2,978.40	1,258.81	1,089.54	169.26	7.437		
9,800.00	7,055.94	10,055.63	7,067.54	87.01	88.09	-90.53	-2,206.60	-3,078.40	1,258.66	1,084.14	174.52	7.212		
9,900.00	7,055.55	10,155.63	7,067.21	89.68	90.70	-90.53	-2,207.27	-3,178.40	1,258.52	1,078.71	179.81	6.999		
10,000.00	7,055.15	10,255.63	7,066.89	92.35	93.33	-90.53	-2,207.94	-3,278.39	1,258.38	1,073.25	185.13	6.797		
10,100.00	7,054.76	10,355.63	7,066.56	95.03	95.97	-90.54	-2,208.60	-3,378.39	1,258.23	1,067.77	190.46	6.606		
10,200.00	7,054.37	10,455.63	7,066.24	97.73	98.62	-90.54	-2,209.27	-3,478.39	1,258.09	1,062.27	195.82	6.425		
10,300.00	7,053.98	10,555.63	7,065.91	100.43	101.28	-90.54	-2,209.94	-3,578.39	1,257.95	1,056.75	201.20	6.252		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	10,655.63	7,065.59	103.14	103.96	-90.55	-2,210.61	-3,678.38	1,257.80	1,051.20	206.60	6.088		
10,500.00	7,053.19	10,755.63	7,065.26	105.86	106.64	-90.55	-2,211.27	-3,778.38	1,257.66	1,045.65	212.01	5.932		
10,600.00	7,052.80	10,855.63	7,064.94	108.59	109.33	-90.55	-2,211.94	-3,878.38	1,257.52	1,040.08	217.44	5.783		
10,700.00	7,052.40	10,955.63	7,064.61	111.32	112.03	-90.56	-2,212.61	-3,978.37	1,257.37	1,034.49	222.88	5.641		
10,800.00	7,052.01	11,055.63	7,064.29	114.06	114.74	-90.56	-2,213.28	-4,078.37	1,257.23	1,028.89	228.34	5.506		
10,900.00	7,051.62	11,155.63	7,063.96	116.80	117.46	-90.56	-2,213.94	-4,178.37	1,257.08	1,023.28	233.81	5.377		
11,000.00	7,051.22	11,255.63	7,063.64	119.55	120.18	-90.57	-2,214.61	-4,278.36	1,256.94	1,017.65	239.29	5.253		
11,100.00	7,050.83	11,355.63	7,063.31	122.31	122.91	-90.57	-2,215.28	-4,378.36	1,256.80	1,012.02	244.78	5.134		
11,200.00	7,050.44	11,455.63	7,062.99	125.07	125.64	-90.57	-2,215.95	-4,478.36	1,256.65	1,006.37	250.28	5.021		
11,300.00	7,050.04	11,555.63	7,062.66	127.83	128.38	-90.58	-2,216.61	-4,578.36	1,256.51	1,000.72	255.79	4.912		
11,400.00	7,049.65	11,655.63	7,062.34	130.60	131.13	-90.58	-2,217.28	-4,678.35	1,256.37	995.06	261.31	4.808		
11,500.00	7,049.26	11,755.63	7,062.01	133.37	133.88	-90.58	-2,217.95	-4,778.35	1,256.22	989.38	266.84	4.708		
11,600.00	7,048.86	11,855.63	7,061.69	136.15	136.63	-90.59	-2,218.62	-4,878.35	1,256.08	983.71	272.37	4.612		
11,700.00	7,048.47	11,955.63	7,061.36	138.93	139.39	-90.59	-2,219.28	-4,978.34	1,255.94	978.02	277.92	4.519		
11,800.00	7,048.08	12,055.63	7,061.04	141.71	142.15	-90.59	-2,219.95	-5,078.34	1,255.79	972.33	283.47	4.430		
11,900.00	7,047.68	12,155.63	7,060.71	144.49	144.92	-90.59	-2,220.62	-5,178.34	1,255.65	966.63	289.02	4.344		
12,000.00	7,047.29	12,255.63	7,060.39	147.28	147.69	-90.60	-2,221.29	-5,278.34	1,255.51	960.92	294.58	4.262		
12,100.00	7,046.90	12,355.63	7,060.06	150.07	150.46	-90.60	-2,221.95	-5,378.33	1,255.36	955.21	300.15	4.182		
12,200.00	7,046.51	12,455.63	7,059.74	152.87	153.24	-90.60	-2,222.62	-5,478.33	1,255.22	949.49	305.73	4.106		
12,300.00	7,046.11	12,555.63	7,059.41	155.66	156.02	-90.61	-2,223.29	-5,578.33	1,255.07	943.77	311.30	4.032		
12,400.00	7,045.72	12,655.63	7,059.09	158.46	158.80	-90.61	-2,223.96	-5,678.32	1,254.93	938.04	316.89	3.960		
12,500.00	7,045.33	12,755.63	7,058.76	161.26	161.58	-90.61	-2,224.62	-5,778.32	1,254.79	932.31	322.48	3.891		
12,600.00	7,044.93	12,855.63	7,058.44	164.06	164.37	-90.62	-2,225.29	-5,878.32	1,254.64	926.58	328.07	3.824		
12,700.00	7,044.54	12,955.63	7,058.11	166.86	167.16	-90.62	-2,225.96	-5,978.32	1,254.50	920.84	333.67	3.760		
12,800.00	7,044.15	13,055.63	7,057.79	169.67	169.95	-90.62	-2,226.63	-6,078.31	1,254.36	915.09	339.27	3.697		
12,900.00	7,043.75	13,155.63	7,057.46	172.48	172.75	-90.63	-2,227.29	-6,178.31	1,254.21	909.34	344.87	3.637		
13,000.00	7,043.36	13,255.63	7,057.14	175.28	175.54	-90.63	-2,227.96	-6,278.31	1,254.07	903.59	350.48	3.578		
13,100.00	7,042.97	13,355.63	7,056.81	178.09	178.34	-90.63	-2,228.63	-6,378.30	1,253.93	897.84	356.09	3.521		
13,200.00	7,042.57	13,455.63	7,056.49	180.91	181.14	-90.64	-2,229.30	-6,478.30	1,253.78	892.08	361.71	3.466		
13,300.00	7,042.18	13,555.63	7,056.16	183.72	183.94	-90.64	-2,229.96	-6,578.30	1,253.64	886.32	367.32	3.413		
13,400.00	7,041.79	13,655.63	7,055.84	186.53	186.75	-90.64	-2,230.63	-6,678.30	1,253.50	880.55	372.94	3.361		
13,500.00	7,041.39	13,755.63	7,055.51	189.35	189.55	-90.65	-2,231.30	-6,778.29	1,253.35	874.79	378.57	3.311		
13,600.00	7,041.00	13,855.63	7,055.19	192.17	192.36	-90.65	-2,231.97	-6,878.29	1,253.21	869.02	384.19	3.262		
13,700.00	7,040.61	13,955.63	7,054.86	194.99	195.17	-90.65	-2,232.63	-6,978.29	1,253.07	863.24	389.82	3.214		
13,800.00	7,040.21	14,055.63	7,054.54	197.81	197.98	-90.66	-2,233.30	-7,078.28	1,252.92	857.47	395.45	3.168		
13,900.00	7,039.82	14,155.63	7,054.22	200.63	200.79	-90.66	-2,233.97	-7,178.28	1,252.78	851.69	401.09	3.123		
14,000.00	7,039.43	14,255.63	7,053.89	203.45	203.60	-90.66	-2,234.64	-7,278.28	1,252.64	845.91	406.72	3.080		
14,100.00	7,039.03	14,355.63	7,053.57	206.27	206.41	-90.67	-2,235.30	-7,378.28	1,252.49	840.13	412.36	3.037		
14,200.00	7,038.64	14,455.63	7,053.24	209.09	209.23	-90.67	-2,235.97	-7,478.27	1,252.35	834.35	418.00	2.996		
14,300.00	7,038.25	14,555.63	7,052.92	211.92	212.04	-90.67	-2,236.64	-7,578.27	1,252.21	828.56	423.65	2.956		
14,400.00	7,037.86	14,655.63	7,052.59	214.74	214.86	-90.67	-2,237.31	-7,678.27	1,252.06	822.77	429.29	2.917		
14,500.00	7,037.46	14,755.63	7,052.27	217.57	217.68	-90.68	-2,237.97	-7,778.26	1,251.92	816.98	434.94	2.878		
14,600.00	7,037.07	14,855.63	7,051.94	220.40	220.50	-90.68	-2,238.64	-7,878.26	1,251.77	811.19	440.58	2.841		
14,700.00	7,036.68	14,955.63	7,051.62	223.23	223.32	-90.68	-2,239.31	-7,978.26	1,251.63	805.40	446.23	2.805		
14,800.00	7,036.28	15,055.63	7,051.29	226.05	226.14	-90.69	-2,239.98	-8,078.26	1,251.49	799.60	451.89	2.769		
14,871.88	7,036.00	15,127.51	7,051.06	228.09	228.17	-90.69	-2,240.46	-8,150.13	1,251.38	795.44	455.95	2.745 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	-179.52	-200.00	-1.67	200.01					
100.00	100.00	101.00	100.00	3.28	3.28	-179.52	-200.00	-1.67	200.01	193.44	6.57	30.445		
200.00	200.00	199.00	200.00	3.34	3.34	-179.52	-200.00	-1.67	200.01	193.34	6.67	29.972	CC, ES	
300.00	300.00	292.51	293.50	3.44	3.43	-179.50	-201.50	-1.75	201.61	194.72	6.89	29.282		
400.00	399.98	385.85	386.72	3.60	3.57	-9.36	-206.02	-2.00	204.74	197.54	7.19	28.459		
500.00	499.84	479.10	479.66	3.79	3.75	-9.47	-213.57	-2.41	207.68	200.09	7.59	27.365		
600.00	599.45	572.27	572.22	4.02	3.96	-9.69	-224.12	-2.99	210.43	202.36	8.06	26.092		
700.00	698.70	665.36	664.32	4.29	4.21	-10.00	-237.66	-3.73	212.99	204.38	8.61	24.743		
800.00	797.70	758.32	755.79	4.59	4.50	-10.35	-254.16	-4.63	216.86	207.65	9.21	23.558		
900.00	896.69	850.95	846.37	4.92	4.82	-10.64	-273.53	-5.69	223.95	214.11	9.84	22.756		
1,000.00	995.68	943.07	935.77	5.27	5.17	-10.85	-295.69	-6.91	234.26	223.75	10.51	22.282		
1,100.00	1,094.68	1,034.49	1,023.74	5.64	5.54	-10.99	-320.51	-8.27	247.74	236.53	11.21	22.108		
1,200.00	1,193.67	1,125.04	1,110.05	6.03	5.94	-11.06	-347.84	-9.76	264.35	252.44	11.91	22.192		
1,300.00	1,292.67	1,214.55	1,194.47	6.42	6.37	-11.08	-377.52	-11.39	284.05	271.42	12.63	22.498		
1,400.00	1,391.66	1,302.86	1,276.82	6.83	6.81	-11.06	-409.36	-13.13	306.76	293.42	13.34	22.994		
1,500.00	1,490.66	1,389.84	1,356.92	7.25	7.27	-11.00	-443.20	-14.98	332.44	318.38	14.06	23.652		
1,600.00	1,589.65	1,484.09	1,442.97	7.67	7.80	-10.92	-481.61	-17.09	360.06	345.22	14.84	24.267		
1,700.00	1,688.64	1,580.19	1,530.68	8.10	8.35	-10.85	-520.81	-19.23	387.72	372.07	15.66	24.767		
1,800.00	1,787.64	1,676.28	1,618.39	8.53	8.91	-10.79	-560.01	-21.38	415.39	398.90	16.49	25.189		
1,900.00	1,886.63	1,772.38	1,706.10	8.97	9.48	-10.74	-599.22	-23.53	443.06	425.72	17.34	25.547		
2,000.00	1,985.63	1,868.47	1,793.81	9.41	10.06	-10.69	-638.42	-25.67	470.73	452.52	18.21	25.853		
2,100.00	2,084.62	1,964.57	1,881.52	9.85	10.65	-10.65	-677.62	-27.82	498.39	479.31	19.08	26.116		
2,200.00	2,183.61	2,060.67	1,969.23	10.30	11.25	-10.61	-716.82	-29.97	526.06	506.09	19.97	26.342		
2,300.00	2,282.61	2,156.76	2,056.94	10.75	11.84	-10.58	-756.03	-32.11	553.73	532.87	20.87	26.539		
2,400.00	2,381.60	2,252.86	2,144.64	11.20	12.45	-10.55	-795.23	-34.26	581.40	559.63	21.77	26.710		
2,500.00	2,480.60	2,348.95	2,232.35	11.66	13.05	-10.52	-834.43	-36.40	609.07	586.39	22.68	26.859		
2,600.00	2,579.59	2,445.05	2,320.06	12.11	13.66	-10.50	-873.63	-38.55	636.74	613.15	23.59	26.990		
2,700.00	2,678.58	2,541.14	2,407.77	12.57	14.27	-10.47	-912.84	-40.70	664.41	639.89	24.51	27.106		
2,800.00	2,777.58	2,637.24	2,495.48	13.02	14.89	-10.45	-952.04	-42.84	692.07	666.64	25.44	27.208		
2,900.00	2,876.57	2,733.33	2,583.19	13.48	15.51	-10.43	-991.24	-44.99	719.74	693.38	26.37	27.299		
3,000.00	2,975.57	2,829.43	2,670.90	13.94	16.12	-10.41	-1,030.44	-47.14	747.41	720.12	27.30	27.379		
3,100.00	3,074.56	2,925.53	2,758.61	14.40	16.74	-10.40	-1,069.65	-49.28	775.08	746.85	28.23	27.452		
3,200.00	3,173.55	3,021.62	2,846.32	14.87	17.37	-10.38	-1,108.85	-51.43	802.75	773.58	29.17	27.517		
3,300.00	3,272.55	3,117.72	2,934.03	15.33	17.99	-10.37	-1,148.05	-53.58	830.42	800.31	30.12	27.575		
3,400.00	3,371.54	3,213.81	3,021.74	15.79	18.61	-10.35	-1,187.25	-55.72	858.09	827.03	31.06	27.627		
3,500.00	3,470.54	3,309.91	3,109.45	16.26	19.24	-10.34	-1,226.46	-57.87	885.76	853.75	32.01	27.675		
3,600.00	3,569.53	3,406.00	3,197.16	16.72	19.87	-10.33	-1,265.66	-60.02	913.43	880.47	32.96	27.717		
3,700.00	3,668.53	3,502.10	3,284.86	17.19	20.49	-10.32	-1,304.86	-62.16	941.10	907.19	33.91	27.756		
3,800.00	3,767.52	3,598.20	3,372.57	17.65	21.12	-10.31	-1,344.06	-64.31	968.77	933.91	34.86	27.792		
3,900.00	3,866.51	3,694.29	3,460.28	18.12	21.75	-10.30	-1,383.27	-66.45	996.44	960.63	35.81	27.824		
4,000.00	3,965.51	3,809.61	3,547.99	18.59	22.50	-10.29	-1,422.47	-68.60	1,024.11	987.23	36.87	27.774		
4,100.00	4,064.50	3,886.48	3,635.70	19.05	23.01	-10.28	-1,461.67	-70.75	1,051.78	1,014.05	37.72	27.880		
4,200.00	4,163.50	3,982.58	3,723.41	19.52	23.64	-10.27	-1,500.87	-72.89	1,079.45	1,040.76	38.68	27.905		
4,300.00	4,262.49	4,078.67	3,811.12	19.99	24.27	-10.26	-1,540.08	-75.04	1,107.12	1,067.48	39.64	27.928		
4,400.00	4,361.48	4,174.77	3,898.83	20.46	24.90	-10.25	-1,579.28	-77.19	1,134.79	1,094.18	40.60	27.949		
4,500.00	4,460.48	4,270.86	3,986.54	20.92	25.53	-10.25	-1,618.48	-79.33	1,162.46	1,120.89	41.56	27.968		
4,600.00	4,559.47	4,366.96	4,074.25	21.39	26.17	-10.24	-1,657.68	-81.48	1,190.13	1,147.60	42.53	27.985		
4,700.00	4,658.47	4,463.06	4,161.96	21.86	26.80	-10.23	-1,696.89	-83.63	1,217.80	1,174.31	43.49	28.002		
4,800.00	4,757.46	4,559.15	4,249.67	22.33	27.43	-10.22	-1,736.09	-85.77	1,245.47	1,201.01	44.45	28.017		
4,900.00	4,856.45	4,655.25	4,337.38	22.80	28.07	-10.22	-1,775.29	-87.92	1,273.14	1,227.72	45.42	28.031		
5,000.00	4,955.45	4,751.34	4,425.09	23.27	28.70	-10.21	-1,814.49	-90.06	1,300.81	1,254.42	46.39	28.043		
5,100.00	5,054.44	4,847.44	4,512.79	23.74	29.33	-10.21	-1,853.70	-92.21	1,328.48	1,281.12	47.35	28.055		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	4,943.53	4,600.50	24.21	29.97	-10.20	-1,892.90	-94.36	1,356.15	1,307.83	48.32	28.066		
5,300.00	5,252.43	5,039.63	4,688.21	24.68	30.60	-10.20	-1,932.10	-96.50	1,383.82	1,334.53	49.29	28.077		
5,400.00	5,351.42	5,135.72	4,775.92	25.15	31.24	-10.19	-1,971.30	-98.65	1,411.49	1,361.23	50.26	28.086		
5,500.00	5,450.42	5,231.82	4,863.63	25.62	31.87	-10.19	-2,010.51	-100.80	1,439.16	1,387.93	51.22	28.095		
5,600.00	5,549.41	5,327.92	4,951.34	26.09	32.51	-10.18	-2,049.71	-102.94	1,466.82	1,414.63	52.19	28.103		
5,700.00	5,648.41	5,424.01	5,039.05	26.56	33.15	-10.18	-2,088.91	-105.09	1,494.49	1,441.33	53.16	28.111		
5,800.00	5,747.40	5,520.11	5,126.76	27.03	33.78	-10.17	-2,128.11	-107.24	1,522.16	1,468.03	54.14	28.118		
5,900.00	5,846.40	5,616.20	5,214.47	27.51	34.42	-10.17	-2,167.32	-109.38	1,549.83	1,494.73	55.11	28.125		
6,000.00	5,945.39	5,712.30	5,302.18	27.98	35.05	-10.17	-2,206.52	-111.53	1,577.50	1,521.43	56.08	28.131		
6,100.00	6,044.38	5,808.39	5,389.89	28.45	35.69	-10.16	-2,245.72	-113.68	1,605.17	1,548.12	57.05	28.136		
6,200.00	6,143.38	5,904.49	5,477.60	28.92	36.33	-10.16	-2,284.92	-115.82	1,632.84	1,574.82	58.02	28.142		
6,300.00	6,242.37	6,000.59	5,565.31	29.39	36.96	-10.15	-2,324.13	-117.97	1,660.51	1,601.52	59.00	28.147		
6,400.00	6,341.37	6,103.32	5,653.02	29.86	37.64	-10.15	-2,363.33	-120.11	1,688.18	1,628.18	60.01	28.134		
6,500.00	6,440.36	6,207.22	5,740.72	30.34	38.33	-10.15	-2,402.53	-122.26	1,715.85	1,654.83	61.02	28.118		
6,600.00	6,538.90	6,288.60	5,828.18	30.80	38.87	-47.45	-2,441.62	-124.40	1,743.44	1,681.52	61.92	28.157		
6,700.00	6,634.88	6,382.32	5,913.73	31.25	39.49	-62.10	-2,479.86	-126.49	1,770.60	1,707.70	62.89	28.154		
6,800.00	6,725.92	6,471.65	5,995.26	31.68	40.09	-67.68	-2,516.30	-128.49	1,797.18	1,733.33	63.85	28.147		
6,900.00	6,809.79	6,554.38	6,070.77	32.07	40.63	-70.27	-2,550.05	-130.34	1,823.38	1,758.58	64.80	28.137		
7,000.00	6,884.42	6,628.47	6,138.40	32.43	41.13	-71.52	-2,580.28	-131.99	1,849.60	1,783.83	65.78	28.120		
7,100.00	6,947.98	6,707.89	6,196.48	32.77	41.65	-71.91	-2,606.24	-133.41	1,876.33	1,809.44	66.89	28.051		
7,200.00	6,998.89	6,743.71	6,243.58	33.18	41.89	-71.59	-2,627.29	-134.57	1,904.02	1,836.11	67.91	28.036		
7,300.00	7,035.91	6,782.02	6,278.54	33.76	42.14	-70.54	-2,642.92	-135.42	1,932.97	1,863.84	69.13	27.962		
7,400.00	7,058.12	6,806.08	6,300.51	34.61	42.30	-68.76	-2,652.73	-135.96	1,963.22	1,892.78	70.43	27.874		
7,500.00	7,064.98	6,815.32	6,308.94	35.68	42.37	-66.35	-2,656.50	-136.17	1,994.51	1,922.73	71.78	27.787		
7,600.00	7,064.59	6,817.53	6,310.95	36.95	42.38	-66.42	-2,657.40	-136.22	2,028.49	1,955.32	73.18	27.720		
7,700.00	7,064.20	6,819.73	6,312.97	38.40	42.39	-66.49	-2,658.30	-136.26	2,066.76	1,992.12	74.65	27.688		
7,800.00	7,063.80	6,807.64	6,313.41	40.00	42.39	-92.17	-3,037.10	-1,074.90	2,106.85	2,023.04	83.82	25.136		
7,900.00	7,063.41	6,807.64	6,313.41	41.75	50.18	-92.16	-3,037.69	-1,174.89	2,106.62	2,019.49	87.13	24.177		
8,000.00	7,063.02	6,807.64	6,313.41	43.62	51.16	-92.16	-3,038.27	-1,274.89	2,106.39	2,015.70	90.69	23.226		
8,100.00	7,062.62	6,807.64	6,313.41	45.59	52.40	-92.15	-3,038.86	-1,374.89	2,106.16	2,011.71	94.46	22.297		
8,200.00	7,062.23	6,807.64	6,313.41	47.65	53.87	-92.15	-3,039.45	-1,474.88	2,105.93	2,007.52	98.41	21.399		
8,300.00	7,061.84	6,807.64	6,313.41	49.79	55.54	-92.15	-3,040.04	-1,574.88	2,105.71	2,003.17	102.53	20.537		
8,400.00	7,061.45	6,807.64	6,313.41	52.00	57.35	-92.14	-3,040.62	-1,674.88	2,105.48	1,998.68	106.80	19.714		
8,500.00	7,061.05	6,807.64	6,313.41	54.27	59.28	-92.14	-3,041.21	-1,774.87	2,105.25	1,994.05	111.19	18.933		
8,600.00	7,060.66	6,807.64	6,313.41	56.60	61.31	-92.14	-3,041.80	-1,874.87	2,105.02	1,989.31	115.71	18.193		
8,700.00	7,060.27	6,807.64	6,313.41	58.97	63.43	-92.13	-3,042.39	-1,974.86	2,104.79	1,984.47	120.32	17.494		
8,800.00	7,059.87	6,807.64	6,313.41	61.38	65.61	-92.13	-3,042.98	-2,074.86	2,104.56	1,979.54	125.02	16.834		
8,900.00	7,059.48	6,807.64	6,313.41	63.83	67.86	-92.12	-3,043.56	-2,174.86	2,104.33	1,974.53	129.81	16.211		
9,000.00	7,059.09	6,807.64	6,313.41	66.32	70.15	-92.12	-3,044.15	-2,274.85	2,104.10	1,969.44	134.66	15.625		
9,100.00	7,058.69	6,807.64	6,313.41	68.83	72.49	-92.12	-3,044.74	-2,374.85	2,103.87	1,964.29	139.58	15.072		
9,200.00	7,058.30	6,807.64	6,313.41	71.37	74.87	-92.11	-3,045.33	-2,474.85	2,103.64	1,959.08	144.56	14.552		
9,300.00	7,057.91	6,807.64	6,313.41	73.93	77.29	-92.11	-3,045.92	-2,574.84	2,103.41	1,953.82	149.60	14.061		
9,400.00	7,057.51	6,807.64	6,313.41	76.51	79.73	-92.11	-3,046.50	-2,674.84	2,103.19	1,948.51	154.67	13.597		
9,500.00	7,057.12	6,807.64	6,313.41	79.11	82.21	-92.10	-3,047.09	-2,774.84	2,102.96	1,943.16	159.80	13.160		
9,600.00	7,056.73	6,807.64	6,313.41	81.73	84.71	-92.10	-3,047.68	-2,874.83	2,102.73	1,937.77	164.96	12.747		
9,700.00	7,056.33	6,807.64	6,313.41	84.37	87.23	-92.09	-3,048.27	-2,974.83	2,102.50	1,932.34	170.15	12.356		
9,800.00	7,055.94	6,807.64	6,313.41	87.01	89.78	-92.09	-3,048.86	-3,074.83	2,102.27	1,926.89	175.38	11.987		
9,900.00	7,055.55	6,807.64	6,313.41	89.68	92.35	-92.09	-3,049.44	-3,174.82	2,102.04	1,921.40	180.64	11.637		
10,000.00	7,055.15	6,807.64	6,313.41	92.35	94.93	-92.08	-3,050.03	-3,274.82	2,101.81	1,915.88	185.93	11.305		
10,100.00	7,054.76	6,807.64	6,313.41	95.03	97.53	-92.08	-3,050.62	-3,374.82	2,101.58	1,910.35	191.24	10.989		
10,200.00	7,054.37	6,807.64	6,313.41	97.73	100.14	-92.07	-3,051.21	-3,474.81	2,101.35	1,904.78	196.57	10.690		
10,300.00	7,053.98	6,807.64	6,313.41	100.43	102.77	-92.07	-3,051.80	-3,574.81	2,101.12	1,899.20	201.92	10.406		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	11,007.65	7,129.34	103.14	105.40	-92.07	-3,052.38	-3,674.80	2,100.89	1,893.60	207.29	10.135		
10,500.00	7,053.19	11,107.65	7,128.80	105.86	108.06	-92.06	-3,052.97	-3,774.80	2,100.67	1,887.98	212.69	9.877		
10,600.00	7,052.80	11,207.65	7,128.26	108.59	110.72	-92.06	-3,053.56	-3,874.80	2,100.44	1,882.34	218.09	9.631		
10,700.00	7,052.40	11,307.65	7,127.72	111.32	113.39	-92.06	-3,054.15	-3,974.79	2,100.21	1,876.69	223.51	9.396		
10,800.00	7,052.01	11,407.65	7,127.18	114.06	116.07	-92.05	-3,054.74	-4,074.79	2,099.98	1,871.03	228.95	9.172		
10,900.00	7,051.62	11,507.65	7,126.64	116.80	118.76	-92.05	-3,055.32	-4,174.79	2,099.75	1,865.35	234.40	8.958		
11,000.00	7,051.22	11,607.65	7,126.10	119.55	121.45	-92.04	-3,055.91	-4,274.78	2,099.52	1,859.66	239.86	8.753		
11,100.00	7,050.83	11,707.65	7,125.56	122.31	124.16	-92.04	-3,056.50	-4,374.78	2,099.29	1,853.95	245.34	8.557		
11,200.00	7,050.44	11,792.35	7,125.02	125.07	126.45	-92.04	-3,057.09	-4,474.78	2,099.06	1,848.66	250.40	8.383		
11,300.00	7,050.04	11,907.65	7,124.47	127.83	129.59	-92.03	-3,057.67	-4,574.77	2,098.83	1,842.52	256.32	8.188		
11,400.00	7,049.65	12,007.65	7,123.93	130.60	132.31	-92.03	-3,058.26	-4,674.77	2,098.61	1,836.78	261.82	8.015		
11,500.00	7,049.26	12,107.65	7,123.39	133.37	135.04	-92.03	-3,058.85	-4,774.77	2,098.38	1,831.04	267.33	7.849		
11,600.00	7,048.86	12,192.35	7,122.85	136.15	137.35	-92.02	-3,059.44	-4,874.76	2,098.15	1,825.71	272.44	7.701		
11,700.00	7,048.47	12,307.65	7,122.31	138.93	140.51	-92.02	-3,060.03	-4,974.76	2,097.92	1,819.53	278.38	7.536		
11,800.00	7,048.08	12,392.35	7,121.77	141.71	142.84	-92.01	-3,060.61	-5,074.75	2,097.69	1,814.19	283.50	7.399		
11,900.00	7,047.68	12,507.65	7,121.23	144.49	146.01	-92.01	-3,061.20	-5,174.75	2,097.46	1,808.00	289.46	7.246		
12,000.00	7,047.29	12,607.66	7,120.69	147.28	148.76	-92.01	-3,061.79	-5,274.75	2,097.23	1,802.22	295.02	7.109		
12,100.00	7,046.90	12,707.66	7,120.15	150.07	151.52	-92.00	-3,062.38	-5,374.74	2,097.00	1,796.43	300.57	6.977		
12,200.00	7,046.51	12,792.34	7,119.61	152.87	153.85	-92.00	-3,062.97	-5,474.74	2,096.77	1,791.06	305.71	6.859		
12,300.00	7,046.11	12,907.66	7,119.06	155.66	157.04	-91.99	-3,063.55	-5,574.74	2,096.55	1,784.84	311.70	6.726		
12,400.00	7,045.72	13,007.66	7,118.52	158.46	159.81	-91.99	-3,064.14	-5,674.73	2,096.32	1,779.04	317.27	6.607		
12,500.00	7,045.33	13,107.66	7,117.98	161.26	162.58	-91.99	-3,064.73	-5,774.73	2,096.09	1,773.24	322.85	6.492		
12,600.00	7,044.93	13,207.66	7,117.44	164.06	165.35	-91.98	-3,065.32	-5,874.73	2,095.86	1,767.42	328.44	6.381		
12,700.00	7,044.54	13,292.34	7,116.90	166.86	167.70	-91.98	-3,065.91	-5,974.72	2,095.63	1,762.03	333.60	6.282		
12,800.00	7,044.15	13,407.66	7,116.36	169.67	170.91	-91.98	-3,066.49	-6,074.72	2,095.40	1,755.79	339.61	6.170		
12,900.00	7,043.75	13,507.66	7,115.82	172.48	173.69	-91.97	-3,067.08	-6,174.72	2,095.17	1,749.96	345.21	6.069		
13,000.00	7,043.36	13,607.66	7,115.28	175.28	176.48	-91.97	-3,067.67	-6,274.71	2,094.94	1,744.13	350.81	5.972		
13,100.00	7,042.97	13,707.66	7,114.74	178.09	179.26	-91.96	-3,068.26	-6,374.71	2,094.72	1,738.30	356.41	5.877		
13,200.00	7,042.57	13,792.34	7,114.19	180.91	181.62	-91.96	-3,068.85	-6,474.71	2,094.49	1,732.89	361.59	5.792		
13,300.00	7,042.18	13,892.34	7,113.65	183.72	184.42	-91.96	-3,069.43	-6,574.70	2,094.26	1,727.06	367.20	5.703		
13,400.00	7,041.79	14,007.66	7,113.11	186.53	187.64	-91.95	-3,070.02	-6,674.70	2,094.03	1,721.79	373.24	5.610		
13,500.00	7,041.39	14,107.66	7,112.57	189.35	190.43	-91.95	-3,070.61	-6,774.69	2,093.80	1,714.94	378.86	5.527		
13,600.00	7,041.00	14,207.66	7,112.03	192.17	193.23	-91.94	-3,071.20	-6,874.69	2,093.57	1,709.09	384.48	5.445		
13,700.00	7,040.61	14,307.66	7,111.49	194.99	196.03	-91.94	-3,071.79	-6,974.69	2,093.34	1,703.24	390.10	5.366		
13,800.00	7,040.21	14,407.66	7,110.95	197.81	198.83	-91.94	-3,072.37	-7,074.68	2,093.11	1,697.39	395.73	5.289		
13,900.00	7,039.82	14,507.66	7,110.41	200.63	201.63	-91.93	-3,072.96	-7,174.68	2,092.89	1,691.53	401.36	5.215		
14,000.00	7,039.43	14,607.66	7,109.87	203.45	204.44	-91.93	-3,073.55	-7,274.68	2,092.66	1,685.67	406.99	5.142		
14,100.00	7,039.03	14,707.66	7,109.32	206.27	207.24	-91.93	-3,074.14	-7,374.67	2,092.43	1,679.81	412.62	5.071		
14,200.00	7,038.64	14,792.34	7,108.78	209.09	209.62	-91.92	-3,074.72	-7,474.67	2,092.20	1,674.38	417.82	5.007		
14,300.00	7,038.25	14,907.66	7,108.24	211.92	212.86	-91.92	-3,075.31	-7,574.67	2,091.97	1,668.08	423.89	4.935		
14,400.00	7,037.86	15,007.66	7,107.70	214.74	215.67	-91.91	-3,075.90	-7,674.66	2,091.74	1,662.21	429.53	4.870		
14,500.00	7,037.46	15,107.66	7,107.16	217.57	218.48	-91.91	-3,076.49	-7,774.66	2,091.51	1,656.34	435.17	4.806		
14,600.00	7,037.07	15,207.66	7,106.62	220.40	221.29	-91.91	-3,077.08	-7,874.66	2,091.29	1,650.47	440.81	4.744		
14,700.00	7,036.68	15,307.67	7,106.08	223.23	224.10	-91.90	-3,077.66	-7,974.65	2,091.06	1,644.60	446.46	4.684		
14,800.00	7,036.28	15,392.34	7,105.54	226.05	226.48	-91.90	-3,078.25	-8,074.65	2,090.83	1,639.16	451.67	4.629		
14,871.88	7,036.00	15,464.22	7,105.15	228.09	228.51	-91.90	-3,078.67	-8,146.53	2,090.66	1,634.93	455.73	4.587 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	0.51	220.04	1.95	220.04					
100.00	100.00	101.00	100.00	3.28	3.28	0.51	220.04	1.95	220.04	213.48	6.57	33.494		
200.00	200.00	201.00	200.00	3.34	3.34	0.51	220.04	1.95	220.04	213.37	6.67	32.966		
300.00	300.00	301.00	300.00	3.44	3.45	0.51	220.04	1.95	220.04	213.15	6.89	31.932 CC, ES		
400.00	399.98	400.98	399.98	3.60	3.61	170.73	220.04	1.95	221.77	214.57	7.20	30.797		
500.00	499.84	500.84	499.84	3.79	3.81	170.92	220.04	1.95	226.93	219.34	7.60	29.878		
600.00	599.45	600.45	599.45	4.02	4.05	171.23	220.04	1.95	235.54	227.48	8.07	29.194		
700.00	698.70	699.99	699.97	4.29	4.30	171.50	221.47	1.60	249.14	240.55	8.59	28.997		
800.00	797.70	782.38	781.25	4.59	4.56	171.67	225.68	0.60	267.70	258.54	9.16	29.216		
900.00	896.69	871.66	870.25	4.92	4.85	171.66	232.55	-1.05	289.23	279.47	9.76	29.633		
1,000.00	995.68	962.46	960.51	5.27	5.15	171.53	242.16	-3.35	313.54	303.16	10.39	30.184		
1,100.00	1,094.68	1,059.27	1,056.67	5.64	5.49	171.37	253.10	-5.97	338.56	327.51	11.06	30.616		
1,200.00	1,193.67	1,156.09	1,152.83	6.03	5.83	171.24	264.03	-8.59	363.59	351.83	11.76	30.929		
1,300.00	1,292.67	1,252.91	1,248.99	6.42	6.19	171.12	274.96	-11.21	388.61	376.13	12.48	31.146		
1,400.00	1,391.66	1,349.72	1,345.15	6.83	6.56	171.02	285.90	-13.83	413.64	400.42	13.22	31.295		
1,500.00	1,490.66	1,446.54	1,441.31	7.25	6.94	170.93	296.83	-16.45	438.66	424.69	13.97	31.392		
1,600.00	1,589.65	1,543.35	1,537.47	7.67	7.32	170.84	307.76	-19.07	463.69	448.94	14.74	31.450		
1,700.00	1,688.64	1,640.17	1,633.63	8.10	7.71	170.77	318.70	-21.69	488.72	473.19	15.53	31.479		
1,800.00	1,787.64	1,736.98	1,729.79	8.53	8.11	170.71	329.63	-24.30	513.75	497.43	16.32	31.485		
1,900.00	1,886.63	1,833.80	1,825.95	8.97	8.51	170.65	340.57	-26.92	538.77	521.66	17.12	31.476		
2,000.00	1,985.63	1,930.61	1,922.12	9.41	8.91	170.59	351.50	-29.54	563.80	545.88	17.92	31.454		
2,100.00	2,084.62	2,027.43	2,018.28	9.85	9.32	170.54	362.43	-32.16	588.83	570.10	18.74	31.423		
2,200.00	2,183.61	2,124.25	2,114.44	10.30	9.73	170.50	373.37	-34.78	613.87	594.31	19.56	31.386		
2,300.00	2,282.61	2,221.06	2,210.60	10.75	10.14	170.45	384.30	-37.40	638.90	618.51	20.38	31.344		
2,400.00	2,381.60	2,317.88	2,306.76	11.20	10.55	170.41	395.23	-40.02	663.93	642.71	21.21	31.299		
2,500.00	2,480.60	2,414.69	2,402.92	11.66	10.97	170.38	406.17	-42.64	688.96	666.91	22.05	31.252		
2,600.00	2,579.59	2,511.51	2,499.08	12.11	11.39	170.34	417.10	-45.26	713.99	691.11	22.88	31.203		
2,700.00	2,678.58	2,608.32	2,595.24	12.57	11.80	170.31	428.03	-47.88	739.02	715.30	23.72	31.154		
2,800.00	2,777.58	2,705.14	2,691.40	13.02	12.22	170.28	438.97	-50.49	764.05	739.49	24.56	31.105		
2,900.00	2,876.57	2,801.95	2,787.56	13.48	12.65	170.26	449.90	-53.11	789.09	763.68	25.41	31.056		
3,000.00	2,975.57	2,898.77	2,883.72	13.94	13.07	170.23	460.83	-55.73	814.12	787.86	26.26	31.007		
3,100.00	3,074.56	2,995.59	2,979.88	14.40	13.49	170.21	471.77	-58.35	839.15	812.05	27.11	30.959		
3,200.00	3,173.55	3,107.60	3,076.04	14.87	13.98	170.18	482.70	-60.97	864.18	836.16	28.02	30.839		
3,300.00	3,272.55	3,189.22	3,172.20	15.33	14.34	170.16	493.64	-63.59	889.22	860.41	28.81	30.866		
3,400.00	3,371.54	3,286.03	3,268.36	15.79	14.77	170.14	504.57	-66.21	914.25	884.59	29.66	30.821		
3,500.00	3,470.54	3,382.85	3,364.52	16.26	15.20	170.12	515.50	-68.83	939.28	908.76	30.52	30.777		
3,600.00	3,569.53	3,479.66	3,460.68	16.72	15.62	170.10	526.44	-71.45	964.32	932.94	31.38	30.734		
3,700.00	3,668.53	3,576.48	3,556.84	17.19	16.05	170.09	537.37	-74.07	989.35	957.12	32.23	30.692		
3,800.00	3,767.52	3,673.29	3,653.01	17.65	16.48	170.07	548.30	-76.68	1,014.38	981.29	33.09	30.652		
3,900.00	3,866.51	3,770.11	3,749.17	18.12	16.91	170.06	559.24	-79.30	1,039.42	1,005.46	33.95	30.612		
4,000.00	3,965.51	3,866.93	3,845.33	18.59	17.34	170.04	570.17	-81.92	1,064.45	1,029.63	34.82	30.574		
4,100.00	4,064.50	3,963.74	3,941.49	19.05	17.77	170.03	581.10	-84.54	1,089.48	1,053.81	35.68	30.537		
4,200.00	4,163.50	4,060.56	4,037.65	19.52	18.20	170.01	592.04	-87.16	1,114.52	1,077.98	36.54	30.500		
4,300.00	4,262.49	4,157.37	4,133.81	19.99	18.63	170.00	602.97	-89.78	1,139.55	1,102.15	37.41	30.465		
4,400.00	4,361.48	4,254.19	4,229.97	20.46	19.06	169.99	613.90	-92.40	1,164.58	1,126.31	38.27	30.431		
4,500.00	4,460.48	4,351.00	4,326.13	20.92	19.49	169.97	624.84	-95.02	1,189.62	1,150.48	39.14	30.398		
4,600.00	4,559.47	4,447.82	4,422.29	21.39	19.92	169.96	635.77	-97.64	1,214.65	1,174.65	40.00	30.366		
4,700.00	4,658.47	4,544.63	4,518.45	21.86	20.36	169.95	646.70	-100.25	1,239.69	1,198.82	40.87	30.334		
4,800.00	4,757.46	4,641.45	4,614.61	22.33	20.79	169.94	657.64	-102.87	1,264.72	1,222.99	41.73	30.304		
4,900.00	4,856.45	4,738.27	4,710.77	22.80	21.22	169.93	668.57	-105.49	1,289.75	1,247.15	42.60	30.274		
5,000.00	4,955.45	4,835.08	4,806.93	23.27	21.65	169.92	679.51	-108.11	1,314.79	1,271.32	43.47	30.245		
5,100.00	5,054.44	4,931.90	4,903.09	23.74	22.09	169.91	690.44	-110.73	1,339.82	1,295.48	44.34	30.218		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,028.71	4,999.25	24.21	22.52	169.90	701.37	-113.35	1,364.86	1,319.65	45.21	30.190		
5,300.00	5,252.43	5,125.53	5,095.41	24.68	22.95	169.89	712.31	-115.97	1,389.89	1,343.81	46.08	30.164		
5,400.00	5,351.42	5,222.34	5,191.57	25.15	23.39	169.89	723.24	-118.59	1,414.92	1,367.98	46.95	30.138		
5,500.00	5,450.42	5,319.16	5,287.73	25.62	23.82	169.88	734.17	-121.21	1,439.96	1,392.14	47.82	30.113		
5,600.00	5,549.41	5,415.97	5,383.90	26.09	24.26	169.87	745.11	-123.83	1,464.99	1,416.30	48.69	30.089		
5,700.00	5,648.41	5,512.79	5,480.06	26.56	24.69	169.86	756.04	-126.44	1,490.03	1,440.47	49.56	30.065		
5,800.00	5,747.40	5,609.61	5,576.22	27.03	25.12	169.86	766.97	-129.06	1,515.06	1,464.63	50.43	30.042		
5,900.00	5,846.40	5,706.42	5,672.38	27.51	25.56	169.85	777.91	-131.68	1,540.09	1,488.79	51.30	30.019		
6,000.00	5,945.39	5,803.24	5,768.54	27.98	25.99	169.84	788.84	-134.30	1,565.13	1,512.95	52.18	29.998		
6,100.00	6,044.38	5,900.05	5,864.70	28.45	26.43	169.83	799.77	-136.92	1,590.16	1,537.12	53.05	29.976		
6,200.00	6,143.38	6,003.13	5,960.86	28.92	26.89	169.83	810.71	-139.54	1,615.20	1,561.25	53.95	29.940		
6,300.00	6,242.37	6,093.68	6,057.02	29.39	27.30	169.82	821.64	-142.16	1,640.23	1,585.44	54.79	29.935		
6,400.00	6,341.37	6,209.50	6,153.18	29.86	27.82	169.82	832.58	-144.78	1,665.27	1,609.51	55.75	29.869		
6,500.00	6,440.36	6,287.31	6,249.34	30.34	28.17	169.81	843.51	-147.40	1,690.30	1,633.76	56.54	29.896		
6,600.00	6,538.90	6,384.14	6,345.51	30.80	28.60	128.53	854.44	-150.12	1,715.28	1,657.86	57.41	29.876		
6,700.00	6,634.88	6,483.76	6,443.65	31.25	29.05	110.22	865.53	-162.37	1,739.74	1,681.44	58.31	29.838		
6,800.00	6,725.92	6,585.78	6,540.93	31.68	29.50	101.55	876.41	-190.70	1,763.08	1,703.86	59.21	29.776		
6,900.00	6,809.79	6,690.48	6,634.80	32.07	29.96	96.37	886.79	-235.63	1,784.70	1,724.56	60.15	29.673		
7,000.00	6,884.42	6,798.07	6,722.31	32.43	30.45	92.87	896.32	-297.26	1,804.07	1,742.91	61.15	29.500		
7,100.00	6,947.98	6,908.55	6,800.15	32.77	31.02	90.38	904.64	-375.03	1,820.67	1,758.34	62.32	29.213		
7,200.00	6,998.89	7,021.73	6,864.84	33.18	31.77	88.61	911.36	-467.47	1,834.05	1,770.29	63.76	28.764		
7,300.00	7,035.91	7,137.12	6,913.01	33.76	32.73	87.40	916.11	-572.05	1,843.85	1,778.29	65.56	28.124		
7,400.00	7,058.12	7,254.02	6,941.92	34.61	33.93	86.69	918.60	-685.12	1,849.78	1,782.02	67.76	27.298		
7,500.00	7,064.98	7,369.48	6,949.97	35.68	35.31	86.44	918.71	-800.15	1,851.68	1,781.39	70.30	26.341		
7,600.00	7,064.59	7,469.48	6,949.67	36.95	36.69	86.44	917.97	-900.14	1,851.75	1,778.77	72.99	25.371		
7,700.00	7,064.20	7,569.48	6,949.37	38.40	38.21	86.44	917.24	-1,000.14	1,851.82	1,775.82	75.99	24.368		
7,800.00	7,063.80	7,669.48	6,949.07	40.00	39.89	86.45	916.50	-1,100.14	1,851.89	1,772.59	79.30	23.352		
7,900.00	7,063.41	7,769.48	6,948.77	41.75	41.69	86.45	915.76	-1,200.14	1,851.95	1,769.09	82.87	22.348		
8,000.00	7,063.02	7,869.48	6,948.47	43.62	43.60	86.45	915.02	-1,300.13	1,852.02	1,765.36	86.67	21.369		
8,100.00	7,062.62	7,969.48	6,948.18	45.59	45.62	86.46	914.28	-1,400.13	1,852.09	1,761.42	90.67	20.428		
8,200.00	7,062.23	8,069.48	6,947.88	47.65	47.72	86.46	913.55	-1,500.13	1,852.16	1,757.32	94.84	19.529		
8,300.00	7,061.84	8,169.48	6,947.58	49.79	49.89	86.46	912.81	-1,600.12	1,852.23	1,753.06	99.17	18.678		
8,400.00	7,061.45	8,269.48	6,947.28	52.00	52.13	86.47	912.07	-1,700.12	1,852.29	1,748.67	103.63	17.875		
8,500.00	7,061.05	8,369.48	6,946.98	54.27	54.43	86.47	911.33	-1,800.12	1,852.36	1,744.16	108.20	17.119		
8,600.00	7,060.66	8,469.48	6,946.68	56.60	56.78	86.47	910.60	-1,900.11	1,852.43	1,739.54	112.89	16.410		
8,700.00	7,060.27	8,569.48	6,946.39	58.97	59.18	86.48	909.86	-2,000.11	1,852.50	1,734.84	117.66	15.745		
8,800.00	7,059.87	8,669.48	6,946.09	61.38	61.61	86.48	909.12	-2,100.11	1,852.57	1,730.06	122.51	15.122		
8,900.00	7,059.48	8,769.48	6,945.79	63.83	64.08	86.48	908.38	-2,200.10	1,852.63	1,725.20	127.43	14.538		
9,000.00	7,059.09	8,869.48	6,945.49	66.32	66.58	86.48	907.64	-2,300.10	1,852.70	1,720.28	132.42	13.991		
9,100.00	7,058.69	8,969.48	6,945.19	68.83	69.11	86.49	906.91	-2,400.10	1,852.77	1,715.31	137.46	13.478		
9,200.00	7,058.30	9,069.48	6,944.89	71.37	71.66	86.49	906.17	-2,500.09	1,852.84	1,710.28	142.55	12.997		
9,300.00	7,057.91	9,169.48	6,944.60	73.93	74.24	86.49	905.43	-2,600.09	1,852.91	1,705.21	147.69	12.546		
9,400.00	7,057.51	9,269.48	6,944.30	76.51	76.83	86.50	904.69	-2,700.09	1,852.97	1,700.10	152.87	12.121		
9,500.00	7,057.12	9,369.48	6,944.00	79.11	79.45	86.50	903.96	-2,800.08	1,853.04	1,694.96	158.09	11.722		
9,600.00	7,056.73	9,469.48	6,943.70	81.73	82.08	86.50	903.22	-2,900.08	1,853.11	1,689.78	163.33	11.346		
9,700.00	7,056.33	9,569.48	6,943.40	84.37	84.72	86.51	902.48	-3,000.08	1,853.18	1,684.57	168.61	10.991		
9,800.00	7,055.94	9,669.48	6,943.10	87.01	87.38	86.51	901.74	-3,100.07	1,853.25	1,679.33	173.92	10.656		
9,900.00	7,055.55	9,769.48	6,942.80	89.68	90.05	86.51	901.00	-3,200.07	1,853.32	1,674.07	179.25	10.339		
10,000.00	7,055.15	9,869.48	6,942.51	92.35	92.73	86.52	900.27	-3,300.07	1,853.38	1,668.78	184.60	10.040		
10,100.00	7,054.76	9,969.48	6,942.21	95.03	95.42	86.52	899.53	-3,400.06	1,853.45	1,663.48	189.97	9.756		
10,200.00	7,054.37	10,069.48	6,941.91	97.73	98.12	86.52	898.79	-3,500.06	1,853.52	1,658.15	195.37	9.487		
10,300.00	7,053.98	10,169.48	6,941.61	100.43	100.83	86.52	898.05	-3,600.06	1,853.59	1,652.81	200.78	9.232		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	7,053.58	10,269.48	6,941.31	103.14	103.55	86.53	897.32	-3,700.05	1,853.66	1,647.45	206.20	8.990		
10,500.00	7,053.19	10,369.48	6,941.01	105.86	106.28	86.53	896.58	-3,800.05	1,853.72	1,642.08	211.64	8.759		
10,600.00	7,052.80	10,469.48	6,940.72	108.59	109.01	86.53	895.84	-3,900.05	1,853.79	1,636.69	217.10	8.539		
10,700.00	7,052.40	10,569.48	6,940.42	111.32	111.75	86.54	895.10	-4,000.04	1,853.86	1,631.29	222.57	8.330		
10,800.00	7,052.01	10,669.48	6,940.12	114.06	114.49	86.54	894.36	-4,100.04	1,853.93	1,625.88	228.04	8.130		
10,900.00	7,051.62	10,769.48	6,939.82	116.80	117.24	86.54	893.63	-4,200.04	1,854.00	1,620.46	233.54	7.939		
11,000.00	7,051.22	10,869.48	6,939.52	119.55	120.00	86.55	892.89	-4,300.03	1,854.06	1,615.03	239.04	7.756		
11,100.00	7,050.83	10,969.48	6,939.22	122.31	122.75	86.55	892.15	-4,400.03	1,854.13	1,609.59	244.55	7.582		
11,200.00	7,050.44	11,069.48	6,938.93	125.07	125.52	86.55	891.41	-4,500.03	1,854.20	1,604.13	250.07	7.415		
11,300.00	7,050.04	11,169.48	6,938.63	127.83	128.29	86.56	890.68	-4,600.02	1,854.27	1,598.68	255.59	7.255		
11,400.00	7,049.65	11,269.48	6,938.33	130.60	131.06	86.56	889.94	-4,700.02	1,854.34	1,593.21	261.13	7.101		
11,500.00	7,049.26	11,369.48	6,938.03	133.37	133.83	86.56	889.20	-4,800.02	1,854.40	1,587.73	266.67	6.954		
11,600.00	7,048.86	11,469.48	6,937.73	136.15	136.61	86.56	888.46	-4,900.02	1,854.47	1,582.25	272.22	6.812		
11,700.00	7,048.47	11,569.48	6,937.43	138.93	139.40	86.57	887.72	-5,000.01	1,854.54	1,576.76	277.78	6.676		
11,800.00	7,048.08	11,669.48	6,937.14	141.71	142.18	86.57	886.99	-5,100.01	1,854.61	1,571.27	283.34	6.546		
11,900.00	7,047.68	11,769.48	6,936.84	144.49	144.97	86.57	886.25	-5,200.01	1,854.68	1,565.77	288.91	6.420		
12,000.00	7,047.29	11,869.48	6,936.54	147.28	147.76	86.58	885.51	-5,300.00	1,854.75	1,560.26	294.48	6.298		
12,100.00	7,046.90	11,969.48	6,936.24	150.07	150.55	86.58	884.77	-5,400.00	1,854.81	1,554.75	300.06	6.181		
12,200.00	7,046.51	12,069.48	6,935.94	152.87	153.35	86.58	884.04	-5,500.00	1,854.88	1,549.24	305.64	6.069		
12,300.00	7,046.11	12,169.48	6,935.64	155.66	156.15	86.59	883.30	-5,599.99	1,854.95	1,543.72	311.23	5.960		
12,400.00	7,045.72	12,269.48	6,935.35	158.46	158.95	86.59	882.56	-5,699.99	1,855.02	1,538.19	316.82	5.855		
12,500.00	7,045.33	12,369.48	6,935.05	161.26	161.75	86.59	881.82	-5,799.99	1,855.09	1,532.67	322.42	5.754		
12,600.00	7,044.93	12,469.48	6,934.75	164.06	164.55	86.59	881.08	-5,899.98	1,855.15	1,527.13	328.02	5.656		
12,700.00	7,044.54	12,569.48	6,934.45	166.86	167.36	86.60	880.35	-5,999.98	1,855.22	1,521.60	333.62	5.561		
12,800.00	7,044.15	12,669.48	6,934.15	169.67	170.17	86.60	879.61	-6,099.98	1,855.29	1,516.06	339.23	5.469		
12,900.00	7,043.75	12,769.48	6,933.85	172.48	172.98	86.60	878.87	-6,199.97	1,855.36	1,510.52	344.84	5.380		
13,000.00	7,043.36	12,869.48	6,933.56	175.28	175.79	86.61	878.13	-6,299.97	1,855.43	1,504.97	350.46	5.294		
13,100.00	7,042.97	12,969.48	6,933.26	178.09	178.60	86.61	877.40	-6,399.97	1,855.50	1,499.42	356.08	5.211		
13,200.00	7,042.57	13,069.48	6,932.96	180.91	181.41	86.61	876.66	-6,499.96	1,855.56	1,493.87	361.70	5.130		
13,300.00	7,042.18	13,169.48	6,932.66	183.72	184.23	86.62	875.92	-6,599.96	1,855.63	1,488.31	367.32	5.052		
13,400.00	7,041.79	13,269.48	6,932.36	186.53	187.05	86.62	875.18	-6,699.96	1,855.70	1,482.76	372.94	4.976		
13,500.00	7,041.39	13,369.48	6,932.06	189.35	189.86	86.62	874.44	-6,799.95	1,855.77	1,477.20	378.57	4.902		
13,600.00	7,041.00	13,469.48	6,931.77	192.17	192.68	86.63	873.71	-6,899.95	1,855.84	1,471.63	384.20	4.830		
13,700.00	7,040.61	13,569.48	6,931.47	194.99	195.50	86.63	872.97	-6,999.95	1,855.91	1,466.07	389.84	4.761		
13,800.00	7,040.21	13,669.48	6,931.17	197.81	198.32	86.63	872.23	-7,099.94	1,855.97	1,460.50	395.47	4.693		
13,900.00	7,039.82	13,769.48	6,930.87	200.63	201.15	86.63	871.49	-7,199.94	1,856.04	1,454.93	401.11	4.627		
14,000.00	7,039.43	13,869.48	6,930.57	203.45	203.97	86.64	870.76	-7,299.94	1,856.11	1,449.36	406.75	4.563		
14,100.00	7,039.03	13,969.48	6,930.27	206.27	206.79	86.64	870.02	-7,399.93	1,856.18	1,443.79	412.39	4.501		
14,200.00	7,038.64	14,069.48	6,929.97	209.09	209.62	86.64	869.28	-7,499.93	1,856.25	1,438.21	418.03	4.440		
14,300.00	7,038.25	14,169.48	6,929.68	211.92	212.45	86.65	868.54	-7,599.93	1,856.31	1,432.64	423.68	4.381		
14,400.00	7,037.86	14,269.48	6,929.38	214.74	215.27	86.65	867.81	-7,699.92	1,856.38	1,427.06	429.32	4.324		
14,500.00	7,037.46	14,369.48	6,929.08	217.57	218.10	86.65	867.07	-7,799.92	1,856.45	1,421.48	434.97	4.268		
14,600.00	7,037.07	14,469.48	6,928.78	220.40	220.93	86.66	866.33	-7,899.92	1,856.52	1,415.90	440.62	4.213		
14,700.00	7,036.68	14,569.48	6,928.48	223.23	223.76	86.66	865.59	-7,999.91	1,856.59	1,410.31	446.28	4.160		
14,800.00	7,036.28	14,669.48	6,928.18	226.05	226.59	86.66	864.85	-8,099.91	1,856.66	1,404.73	451.93	4.108		
14,800.01	7,036.28	14,669.48	6,928.18	226.05	226.59	86.66	864.85	-8,099.92	1,856.66	1,404.73	451.93	4.108		
14,871.88	7,036.00	14,732.12	6,928.00	228.09	228.36	86.66	864.39	-8,162.56	1,856.73	1,401.01	455.72	4.074 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.46	240.08	1.95	240.09					
100.00	100.00	101.00	100.00	3.28	3.28	0.46	240.08	1.95	240.09	233.52	6.57	36.545		
200.00	200.00	201.00	200.00	3.34	3.34	0.46	240.08	1.95	240.09	233.41	6.67	35.969		
300.00	300.00	301.00	300.00	3.44	3.45	0.46	240.08	1.95	240.09	233.20	6.89	34.840 CC, ES		
400.00	399.98	400.98	399.98	3.60	3.61	170.68	240.08	1.95	241.81	234.61	7.20	33.580		
500.00	499.84	500.84	499.84	3.79	3.81	170.86	240.08	1.95	246.98	239.38	7.60	32.517		
600.00	599.45	600.45	599.45	4.02	4.05	171.14	240.08	1.95	255.59	247.52	8.07	31.678		
700.00	698.70	699.28	699.27	4.29	4.29	171.41	241.52	1.72	269.20	260.61	8.59	31.337		
800.00	797.70	798.97	779.85	4.59	4.56	171.64	245.72	1.04	287.80	278.64	9.16	31.423		
900.00	896.69	899.54	868.15	4.92	4.84	171.74	252.59	-0.07	309.40	299.64	9.75	31.719		
1,000.00	995.68	996.86	954.94	5.27	5.13	171.73	262.00	-1.58	333.94	323.57	10.37	32.197		
1,100.00	1,094.68	1,042.79	1,040.03	5.64	5.43	171.65	273.80	-3.48	361.34	350.34	11.00	32.846		
1,200.00	1,193.67	1,135.51	1,131.54	6.03	5.77	171.51	288.52	-5.85	390.81	379.14	11.67	33.489		
1,300.00	1,292.67	1,231.03	1,225.81	6.42	6.12	171.39	303.78	-8.31	420.37	407.99	12.38	33.964		
1,400.00	1,391.66	1,326.56	1,320.07	6.83	6.48	171.28	319.03	-10.77	449.94	436.83	13.10	34.336		
1,500.00	1,490.66	1,422.08	1,414.34	7.25	6.86	171.18	334.29	-13.23	479.51	465.66	13.85	34.626		
1,600.00	1,589.65	1,517.61	1,508.61	7.67	7.24	171.10	349.55	-15.68	509.08	494.47	14.61	34.851		
1,700.00	1,688.64	1,613.14	1,602.88	8.10	7.64	171.02	364.80	-18.14	538.64	523.27	15.38	35.025		
1,800.00	1,787.64	1,708.66	1,697.14	8.53	8.03	170.96	380.06	-20.60	568.22	552.05	16.16	35.159		
1,900.00	1,886.63	1,804.19	1,791.41	8.97	8.44	170.90	395.32	-23.06	597.79	580.83	16.95	35.261		
2,000.00	1,985.63	1,900.29	1,885.68	9.41	8.85	170.84	410.58	-25.51	627.36	609.60	17.76	35.333		
2,100.00	2,084.62	2,004.76	1,979.95	9.85	9.30	170.79	425.83	-27.97	656.93	638.33	18.60	35.317		
2,200.00	2,183.61	2,109.23	2,074.21	10.30	9.75	170.75	441.09	-30.43	686.50	667.05	19.45	35.290		
2,300.00	2,282.61	2,186.29	2,168.48	10.75	10.09	170.71	456.35	-32.89	716.08	695.88	20.19	35.463		
2,400.00	2,381.60	2,281.82	2,262.75	11.20	10.51	170.67	471.60	-35.34	745.65	724.63	21.02	35.480		
2,500.00	2,480.60	2,377.34	2,357.02	11.66	10.93	170.63	486.86	-37.80	775.22	753.38	21.84	35.489		
2,600.00	2,579.59	2,472.87	2,451.29	12.11	11.35	170.60	502.12	-40.26	804.80	782.12	22.68	35.492		
2,700.00	2,678.58	2,568.40	2,545.55	12.57	11.78	170.57	517.38	-42.72	834.37	810.86	23.51	35.490		
2,800.00	2,777.58	2,663.92	2,639.82	13.02	12.20	170.54	532.63	-45.17	863.95	839.60	24.35	35.483		
2,900.00	2,876.57	2,759.45	2,734.09	13.48	12.63	170.52	547.89	-47.63	893.52	868.33	25.19	35.473		
3,000.00	2,975.57	2,854.97	2,828.36	13.94	13.06	170.49	563.15	-50.09	923.09	897.06	26.03	35.460		
3,100.00	3,074.56	2,950.50	2,922.62	14.40	13.49	170.47	578.40	-52.55	952.67	925.79	26.88	35.445		
3,200.00	3,173.55	3,046.02	3,016.89	14.87	13.92	170.45	593.66	-55.00	982.24	954.52	27.72	35.428		
3,300.00	3,272.55	3,141.55	3,111.16	15.33	14.36	170.43	608.92	-57.46	1,011.82	983.24	28.57	35.410		
3,400.00	3,371.54	3,237.08	3,205.43	15.79	14.79	170.41	624.18	-59.92	1,041.39	1,011.97	29.43	35.391		
3,500.00	3,470.54	3,332.60	3,299.69	16.26	15.22	170.39	639.43	-62.38	1,070.97	1,040.69	30.28	35.371		
3,600.00	3,569.53	3,428.13	3,393.96	16.72	15.66	170.37	654.69	-64.83	1,100.54	1,069.41	31.13	35.351		
3,700.00	3,668.53	3,523.65	3,488.23	17.19	16.10	170.35	669.95	-67.29	1,130.12	1,098.13	31.99	35.330		
3,800.00	3,767.52	3,619.18	3,582.50	17.65	16.53	170.34	685.21	-69.75	1,159.69	1,126.85	32.84	35.309		
3,900.00	3,866.51	3,714.71	3,676.76	18.12	16.97	170.32	700.46	-72.21	1,189.27	1,155.57	33.70	35.288		
4,000.00	3,965.51	3,810.23	3,771.03	18.59	17.41	170.31	715.72	-74.66	1,218.85	1,184.29	34.56	35.267		
4,100.00	4,064.50	3,905.76	3,865.30	19.05	17.84	170.30	730.98	-77.12	1,248.42	1,213.00	35.42	35.246		
4,200.00	4,163.50	4,001.28	3,959.57	19.52	18.28	170.28	746.23	-79.58	1,278.00	1,241.72	36.28	35.225		
4,300.00	4,262.49	4,103.19	4,053.83	19.99	18.75	170.27	761.49	-82.04	1,307.57	1,270.40	37.17	35.177		
4,400.00	4,361.48	4,207.66	4,148.10	20.46	19.23	170.26	776.75	-84.49	1,337.15	1,299.08	38.07	35.120		
4,500.00	4,460.48	4,287.86	4,242.37	20.92	19.60	170.25	792.01	-86.95	1,366.72	1,327.86	38.87	35.164		
4,600.00	4,559.47	4,383.39	4,336.64	21.39	20.04	170.24	807.26	-89.41	1,396.30	1,356.57	39.73	35.144		
4,700.00	4,658.47	4,478.91	4,430.91	21.86	20.48	170.23	822.52	-91.87	1,425.88	1,385.28	40.60	35.124		
4,800.00	4,757.46	4,574.44	4,525.17	22.33	20.92	170.22	837.78	-94.32	1,455.45	1,413.99	41.46	35.105		
4,900.00	4,856.45	4,669.97	4,619.44	22.80	21.36	170.21	853.03	-96.78	1,485.03	1,442.70	42.33	35.086		
5,000.00	4,955.45	4,765.49	4,713.71	23.27	21.80	170.20	868.29	-99.24	1,514.60	1,471.41	43.19	35.067		
5,100.00	5,054.44	4,861.02	4,807.98	23.74	22.24	170.19	883.55	-101.70	1,544.18	1,500.12	44.06	35.048		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,153.44	4,956.54	4,902.24	24.21	22.69	170.18	898.81	-104.15	1,573.76	1,528.83	44.93	35.030		
5,300.00	5,252.43	5,052.07	4,996.51	24.68	23.13	170.17	914.06	-106.61	1,603.33	1,557.54	45.79	35.012		
5,400.00	5,351.42	5,147.60	5,090.78	25.15	23.57	170.17	929.32	-109.07	1,632.91	1,586.25	46.66	34.995		
5,500.00	5,450.42	5,243.12	5,185.05	25.62	24.01	170.16	944.58	-111.53	1,662.49	1,614.96	47.53	34.978		
5,600.00	5,549.41	5,338.65	5,279.31	26.09	24.45	170.15	959.83	-113.98	1,692.06	1,643.66	48.40	34.961		
5,700.00	5,648.41	5,434.17	5,373.58	26.56	24.90	170.14	975.09	-116.44	1,721.64	1,672.37	49.27	34.944		
5,800.00	5,747.40	5,529.70	5,467.85	27.03	25.34	170.14	990.35	-118.90	1,751.21	1,701.08	50.14	34.928		
5,900.00	5,846.40	5,625.23	5,562.12	27.51	25.78	170.13	1,005.61	-121.36	1,780.79	1,729.78	51.01	34.912		
6,000.00	5,945.39	5,720.75	5,656.38	27.98	26.22	170.12	1,020.86	-123.81	1,810.37	1,758.49	51.88	34.896		
6,100.00	6,044.38	5,816.28	5,750.65	28.45	26.67	170.12	1,036.12	-126.27	1,839.94	1,787.19	52.75	34.881		
6,200.00	6,143.38	5,911.80	5,844.92	28.92	27.11	170.11	1,051.38	-128.73	1,869.52	1,815.90	53.62	34.866		
6,300.00	6,242.37	6,007.33	5,939.19	29.39	27.55	170.11	1,066.63	-131.19	1,899.10	1,844.60	54.49	34.851		
6,400.00	6,341.37	6,102.85	6,033.45	29.86	28.00	170.10	1,081.89	-133.64	1,928.67	1,873.31	55.36	34.836		
6,500.00	6,440.36	6,198.38	6,127.72	30.34	28.44	170.10	1,097.15	-136.10	1,958.25	1,902.01	56.24	34.822		
6,600.00	6,538.90	6,306.38	6,221.71	30.80	28.94	128.38	1,112.36	-138.55	1,987.78	1,930.62	57.16	34.774		
6,700.00	6,634.88	6,386.77	6,313.63	31.25	29.32	109.78	1,127.24	-140.95	2,016.92	1,958.98	57.95	34.805		
6,800.00	6,725.92	6,475.51	6,401.21	31.68	29.73	101.14	1,141.41	-143.23	2,045.43	1,986.67	58.76	34.813		
6,900.00	6,809.79	6,557.68	6,482.29	32.07	30.11	96.14	1,154.54	-145.34	2,073.33	2,013.81	59.52	34.833		
7,000.00	6,884.42	6,652.19	6,575.45	32.43	30.55	93.16	1,169.54	-149.88	2,100.72	2,040.26	60.45	34.749		
7,100.00	6,947.98	6,791.87	6,709.98	32.77	31.19	91.87	1,190.42	-179.86	2,126.18	2,064.33	61.85	34.376		
7,200.00	6,998.89	6,974.01	6,870.19	33.18	31.97	91.67	1,213.70	-261.96	2,148.06	2,084.46	63.60	33.775		
7,300.00	7,035.91	7,300.00	7,020.83	33.76	33.61	91.92	1,233.09	-413.03	2,163.94	2,097.52	66.42	32.579		
7,400.00	7,058.12	7,400.00	7,131.78	34.61	34.49	92.18	1,241.90	-685.66	2,170.67	2,102.35	68.32	31.773		
7,500.00	7,064.98	7,663.72	7,139.69	35.68	37.51	91.98	1,237.20	-862.20	2,169.15	2,096.63	72.52	29.912		
7,600.00	7,064.59	7,763.68	7,139.25	36.95	38.92	91.98	1,233.74	-962.10	2,166.50	2,091.25	75.25	28.790		
7,700.00	7,064.20	7,863.65	7,138.82	38.40	40.47	91.98	1,230.28	-1,062.00	2,163.85	2,085.54	78.30	27.634		
7,800.00	7,063.80	7,963.61	7,138.38	40.00	42.16	91.98	1,226.82	-1,161.91	2,161.20	2,079.56	81.64	26.471		
7,900.00	7,063.41	8,063.58	7,137.95	41.75	43.98	91.99	1,223.36	-1,261.81	2,158.55	2,073.32	85.23	25.325		
8,000.00	7,063.02	8,163.54	7,137.52	43.62	45.89	91.99	1,219.91	-1,361.72	2,155.90	2,066.86	89.04	24.212		
8,100.00	7,062.62	8,263.51	7,137.08	45.59	47.90	91.99	1,216.45	-1,461.62	2,153.25	2,060.20	93.05	23.141		
8,200.00	7,062.23	8,363.47	7,136.65	47.65	49.99	91.99	1,212.99	-1,561.53	2,150.60	2,053.38	97.22	22.120		
8,300.00	7,061.84	8,463.44	7,136.22	49.79	52.15	91.99	1,209.53	-1,661.43	2,147.96	2,046.41	101.55	21.153		
8,400.00	7,061.45	8,563.40	7,135.78	52.00	54.38	91.99	1,206.07	-1,761.33	2,145.31	2,039.31	106.00	20.239		
8,500.00	7,061.05	8,663.37	7,135.35	54.27	56.66	91.99	1,202.61	-1,861.24	2,142.66	2,032.09	110.57	19.379		
8,600.00	7,060.66	8,763.33	7,134.92	56.60	58.99	92.00	1,199.15	-1,961.14	2,140.01	2,024.77	115.24	18.571		
8,700.00	7,060.27	8,863.30	7,134.48	58.97	61.37	92.00	1,195.69	-2,061.05	2,137.36	2,017.37	119.99	17.812		
8,800.00	7,059.87	8,963.26	7,134.05	61.38	63.78	92.00	1,192.23	-2,160.95	2,134.71	2,009.88	124.83	17.101		
8,900.00	7,059.48	9,063.23	7,133.61	63.83	66.23	92.00	1,188.77	-2,260.85	2,132.06	2,002.32	129.74	16.433		
9,000.00	7,059.09	9,163.19	7,133.18	66.32	68.71	92.00	1,185.31	-2,360.76	2,129.41	1,994.70	134.71	15.807		
9,100.00	7,058.69	9,263.16	7,132.75	68.83	71.21	92.00	1,181.85	-2,460.66	2,126.76	1,987.03	139.74	15.220		
9,200.00	7,058.30	9,363.12	7,132.31	71.37	73.74	92.00	1,178.40	-2,560.57	2,124.12	1,979.30	144.81	14.668		
9,300.00	7,057.91	9,463.08	7,131.88	73.93	76.30	92.00	1,174.94	-2,660.47	2,121.47	1,971.53	149.93	14.149		
9,400.00	7,057.51	9,563.05	7,131.45	76.51	78.87	92.01	1,171.48	-2,760.37	2,118.82	1,963.72	155.10	13.661		
9,500.00	7,057.12	9,663.01	7,131.01	79.11	81.46	92.01	1,168.02	-2,860.28	2,116.17	1,955.88	160.29	13.202		
9,600.00	7,056.73	9,762.98	7,130.58	81.73	84.07	92.01	1,164.56	-2,960.18	2,113.52	1,948.00	165.52	12.769		
9,700.00	7,056.33	9,862.94	7,130.15	84.37	86.69	92.01	1,161.10	-3,060.09	2,110.87	1,940.09	170.79	12.360		
9,800.00	7,055.94	9,962.91	7,129.71	87.01	89.33	92.01	1,157.64	-3,159.99	2,108.22	1,932.15	176.08	11.973		
9,900.00	7,055.55	10,062.87	7,129.28	89.68	91.98	92.01	1,154.18	-3,259.89	2,105.57	1,924.19	181.39	11.608		
10,000.00	7,055.15	10,162.84	7,128.84	92.35	94.64	92.01	1,150.72	-3,359.80	2,102.93	1,916.20	186.73	11.262		
10,100.00	7,054.76	10,262.80	7,128.41	95.03	97.32	92.02	1,147.26	-3,459.70	2,100.28	1,908.19	192.08	10.934		
10,200.00	7,054.37	10,362.77	7,127.98	97.73	100.00	92.02	1,143.80	-3,559.61	2,097.63	1,900.17	197.46	10.623		
10,300.00	7,053.98	10,462.73	7,127.54	100.43	102.69	92.02	1,140.34	-3,659.51	2,094.98	1,892.13	202.85	10.328		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,053.58	10,562.70	7,127.11	103.14	105.39	92.02	1,136.89	-3,759.42	2,092.33	1,884.07	208.26	10.046		
10,500.00	7,053.19	10,662.66	7,126.68	105.86	108.09	92.02	1,133.43	-3,859.32	2,089.68	1,875.99	213.69	9.779		
10,600.00	7,052.80	10,762.63	7,126.24	108.59	110.81	92.02	1,129.97	-3,959.22	2,087.03	1,867.90	219.13	9.524		
10,700.00	7,052.40	10,862.59	7,125.81	111.32	113.53	92.02	1,126.51	-4,059.13	2,084.38	1,859.80	224.58	9.281		
10,800.00	7,052.01	10,962.56	7,125.38	114.06	116.25	92.03	1,123.05	-4,159.03	2,081.74	1,851.69	230.05	9.049		
10,900.00	7,051.62	11,062.52	7,124.94	116.80	118.98	92.03	1,119.59	-4,258.94	2,079.09	1,843.56	235.52	8.828		
11,000.00	7,051.22	11,162.49	7,124.51	119.55	121.72	92.03	1,116.13	-4,358.84	2,076.44	1,835.43	241.01	8.616		
11,100.00	7,050.83	11,262.45	7,124.07	122.31	124.46	92.03	1,112.67	-4,458.74	2,073.79	1,827.28	246.51	8.413		
11,200.00	7,050.44	11,362.42	7,123.64	125.07	127.21	92.03	1,109.21	-4,558.65	2,071.14	1,819.13	252.01	8.218		
11,300.00	7,050.04	11,462.38	7,123.21	127.83	129.96	92.03	1,105.75	-4,658.55	2,068.49	1,810.97	257.52	8.032		
11,400.00	7,049.65	11,562.35	7,122.77	130.60	132.72	92.04	1,102.29	-4,758.46	2,065.84	1,802.80	263.05	7.854		
11,500.00	7,049.26	11,662.31	7,122.34	133.37	135.48	92.04	1,098.84	-4,858.36	2,063.19	1,794.62	268.58	7.682		
11,600.00	7,048.86	11,762.28	7,121.91	136.15	138.24	92.04	1,095.38	-4,958.26	2,060.54	1,786.43	274.11	7.517		
11,700.00	7,048.47	11,862.24	7,121.47	138.93	141.00	92.04	1,091.92	-5,058.17	2,057.90	1,778.24	279.65	7.359		
11,800.00	7,048.08	11,962.21	7,121.04	141.71	143.77	92.04	1,088.46	-5,158.07	2,055.25	1,770.04	285.20	7.206		
11,900.00	7,047.68	12,062.17	7,120.61	144.49	146.55	92.04	1,085.00	-5,257.98	2,052.60	1,761.84	290.76	7.059		
12,000.00	7,047.29	12,162.14	7,120.17	147.28	149.32	92.04	1,081.54	-5,357.88	2,049.95	1,753.63	296.32	6.918		
12,100.00	7,046.90	12,262.10	7,119.74	150.07	152.10	92.05	1,078.08	-5,457.79	2,047.30	1,745.42	301.88	6.782		
12,200.00	7,046.51	12,362.07	7,119.30	152.87	154.88	92.05	1,074.62	-5,557.69	2,044.65	1,737.20	307.45	6.650		
12,300.00	7,046.11	12,462.03	7,118.87	155.66	157.66	92.05	1,071.16	-5,657.59	2,042.00	1,728.97	313.03	6.523		
12,400.00	7,045.72	12,562.00	7,118.44	158.46	160.45	92.05	1,067.70	-5,757.50	2,039.35	1,720.75	318.61	6.401		
12,500.00	7,045.33	12,661.96	7,118.00	161.26	163.23	92.05	1,064.24	-5,857.40	2,036.71	1,712.51	324.19	6.282		
12,600.00	7,044.93	12,761.93	7,117.57	164.06	166.02	92.05	1,060.78	-5,957.31	2,034.06	1,704.28	329.78	6.168		
12,700.00	7,044.54	12,861.89	7,117.14	166.86	168.81	92.05	1,057.33	-6,057.21	2,031.41	1,696.04	335.37	6.057		
12,800.00	7,044.15	12,961.86	7,116.70	169.67	171.61	92.06	1,053.87	-6,157.11	2,028.76	1,687.79	340.97	5.950		
12,900.00	7,043.75	13,061.82	7,116.27	172.48	174.40	92.06	1,050.41	-6,257.02	2,026.11	1,679.54	346.57	5.846		
13,000.00	7,043.36	13,161.79	7,115.84	175.28	177.20	92.06	1,046.95	-6,356.92	2,023.46	1,671.29	352.17	5.746		
13,100.00	7,042.97	13,261.75	7,115.40	178.09	180.00	92.06	1,043.49	-6,456.83	2,020.81	1,663.04	357.77	5.648		
13,200.00	7,042.57	13,361.72	7,114.97	180.91	182.79	92.06	1,040.03	-6,556.73	2,018.16	1,654.78	363.38	5.554		
13,300.00	7,042.18	13,461.68	7,114.53	183.72	185.60	92.06	1,036.57	-6,656.63	2,015.52	1,646.52	368.99	5.462		
13,400.00	7,041.79	13,561.65	7,114.10	186.53	188.40	92.07	1,033.11	-6,756.54	2,012.87	1,638.26	374.60	5.373		
13,500.00	7,041.39	13,661.61	7,113.67	189.35	191.20	92.07	1,029.65	-6,856.44	2,010.22	1,630.00	380.22	5.287		
13,600.00	7,041.00	13,761.58	7,113.23	192.17	194.01	92.07	1,026.19	-6,956.35	2,007.57	1,621.73	385.84	5.203		
13,700.00	7,040.61	13,861.54	7,112.80	194.99	196.81	92.07	1,022.73	-7,056.25	2,004.92	1,613.46	391.46	5.122		
13,800.00	7,040.21	13,961.51	7,112.37	197.81	199.62	92.07	1,019.27	-7,156.15	2,002.27	1,605.19	397.08	5.042		
13,900.00	7,039.82	14,061.47	7,111.93	200.63	202.43	92.07	1,015.82	-7,256.06	1,999.62	1,596.91	402.71	4.965		
14,000.00	7,039.43	14,161.44	7,111.50	203.45	205.24	92.07	1,012.36	-7,355.96	1,996.97	1,588.64	408.34	4.891		
14,100.00	7,039.03	14,261.40	7,111.07	206.27	208.05	92.08	1,008.90	-7,455.87	1,994.33	1,580.36	413.97	4.818		
14,200.00	7,038.64	14,361.37	7,110.63	209.09	210.86	92.08	1,005.44	-7,555.77	1,991.68	1,572.08	419.60	4.747		
14,300.00	7,038.25	14,461.33	7,110.20	211.92	213.67	92.08	1,001.98	-7,655.68	1,989.03	1,563.80	425.23	4.678		
14,400.00	7,037.86	14,561.29	7,109.77	214.74	216.49	92.08	998.52	-7,755.58	1,986.38	1,555.52	430.86	4.610		
14,500.00	7,037.46	14,661.26	7,109.33	217.57	219.30	92.08	995.06	-7,855.48	1,983.73	1,547.23	436.50	4.545		
14,600.00	7,037.07	14,761.22	7,108.90	220.40	222.12	92.08	991.60	-7,955.39	1,981.08	1,538.94	442.14	4.481		
14,700.00	7,036.68	14,861.19	7,108.46	223.23	224.93	92.09	988.14	-8,055.29	1,978.43	1,530.65	447.78	4.418		
14,800.00	7,036.28	14,961.15	7,108.03	226.05	227.75	92.09	984.68	-8,155.20	1,975.78	1,522.36	453.42	4.358		
14,860.34	7,036.05	14,969.16	7,108.00	227.76	227.97	92.09	984.41	-8,163.20	1,974.88	1,519.51	455.37	4.337		
14,871.88	7,036.00	14,969.16	7,108.00	228.09	227.97	92.09	984.41	-8,163.20	1,974.91	1,519.25	455.66	4.334 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	0.53	119.86	1.11	119.87					
100.00	100.00	101.00	100.00	3.28	3.28	0.53	119.86	1.11	119.87	113.30	6.57	18.245		
200.00	200.00	201.00	200.00	3.34	3.34	0.53	119.86	1.11	119.87	113.19	6.67	17.958		
300.00	300.00	301.00	300.00	3.44	3.45	0.53	119.86	1.11	119.87	112.97	6.89	17.394 CC, ES		
400.00	399.98	401.01	400.01	3.60	3.61	170.81	119.86	1.11	121.59	114.39	7.20	16.885		
500.00	499.84	504.48	503.45	3.79	3.81	170.66	118.36	-0.07	125.30	117.70	7.60	16.491		
600.00	599.45	604.68	603.58	4.02	4.03	170.19	115.22	-2.54	130.75	122.69	8.06	16.229		
700.00	698.70	704.28	703.10	4.29	4.29	170.00	112.08	-5.01	139.62	131.03	8.58	16.267		
800.00	797.70	803.70	802.43	4.59	4.58	169.99	108.94	-7.48	150.42	141.25	9.16	16.414		
900.00	896.69	903.11	901.77	4.92	4.89	169.98	105.81	-9.95	161.23	151.44	9.79	16.471		
1,000.00	995.68	1,002.53	1,001.10	5.27	5.21	169.97	102.67	-12.41	172.04	161.59	10.45	16.460		
1,100.00	1,094.68	1,101.94	1,100.44	5.64	5.56	169.96	99.54	-14.88	182.85	171.70	11.15	16.403		
1,200.00	1,193.67	1,201.35	1,199.77	6.03	5.91	169.95	96.40	-17.35	193.66	181.79	11.87	16.316		
1,300.00	1,292.67	1,300.77	1,299.10	6.42	6.28	169.95	93.27	-19.82	204.47	191.85	12.61	16.211		
1,400.00	1,391.66	1,400.18	1,398.44	6.83	6.66	169.94	90.13	-22.28	215.28	201.90	13.37	16.096		
1,500.00	1,490.66	1,500.40	1,497.77	7.25	7.04	169.94	86.99	-24.75	226.09	211.93	14.15	15.973		
1,600.00	1,589.65	1,600.99	1,597.11	7.67	7.44	169.93	83.86	-27.22	236.90	221.95	14.95	15.847		
1,700.00	1,688.64	1,701.58	1,696.44	8.10	7.84	169.93	80.72	-29.68	247.71	231.95	15.75	15.723		
1,800.00	1,787.64	1,802.16	1,795.77	8.53	8.24	169.93	77.59	-32.15	258.52	241.95	16.57	15.602		
1,900.00	1,886.63	1,902.75	1,895.11	8.97	8.65	169.92	74.45	-34.62	269.33	251.93	17.39	15.485		
2,000.00	1,985.63	2,003.33	1,994.44	9.41	9.06	169.92	71.32	-37.09	280.14	261.91	18.22	15.373		
2,100.00	2,084.62	2,103.92	2,093.78	9.85	9.48	169.92	68.18	-39.55	290.95	271.89	19.06	15.266		
2,200.00	2,183.61	2,204.51	2,193.11	10.30	9.90	169.92	65.05	-42.02	301.75	281.86	19.90	15.164		
2,300.00	2,282.61	2,305.09	2,292.44	10.75	10.32	169.91	61.91	-44.49	312.56	291.82	20.75	15.066		
2,400.00	2,381.60	2,405.68	2,391.78	11.20	10.74	169.91	58.78	-46.96	323.37	301.78	21.60	14.974		
2,500.00	2,480.60	2,506.26	2,491.11	11.66	11.16	169.91	55.64	-49.42	334.18	311.73	22.45	14.886		
2,600.00	2,579.59	2,606.85	2,590.45	12.11	11.59	169.91	52.51	-51.89	344.99	321.69	23.31	14.802		
2,700.00	2,678.58	2,707.44	2,689.78	12.57	12.02	169.90	49.37	-54.36	355.80	331.64	24.17	14.723		
2,800.00	2,777.58	2,808.02	2,789.11	13.02	12.44	169.90	46.24	-56.82	366.61	341.58	25.03	14.647		
2,900.00	2,876.57	2,908.61	2,888.45	13.48	12.87	169.90	43.10	-59.29	377.42	351.53	25.89	14.575		
3,000.00	2,975.57	3,009.19	2,987.78	13.94	13.31	169.90	39.97	-61.76	388.23	361.47	26.76	14.507		
3,100.00	3,074.56	3,109.78	3,087.12	14.40	13.74	169.90	36.83	-64.23	399.04	371.41	27.63	14.442		
3,200.00	3,173.55	3,189.63	3,186.45	14.87	14.08	169.90	33.69	-66.69	409.85	381.44	28.41	14.425		
3,300.00	3,272.55	3,289.05	3,285.78	15.33	14.51	169.90	30.56	-69.16	420.66	391.38	29.28	14.367		
3,400.00	3,371.54	3,388.46	3,385.12	15.79	14.94	169.89	27.42	-71.63	431.47	401.32	30.15	14.312		
3,500.00	3,470.54	3,487.88	3,484.45	16.26	15.37	169.89	24.29	-74.10	442.28	411.26	31.02	14.259		
3,600.00	3,569.53	3,587.29	3,583.79	16.72	15.80	169.89	21.15	-76.56	453.09	421.20	31.89	14.208		
3,700.00	3,668.53	3,686.71	3,683.12	17.19	16.23	169.89	18.02	-79.03	463.90	431.14	32.76	14.160		
3,800.00	3,767.52	3,786.12	3,782.45	17.65	16.66	169.89	14.88	-81.50	474.71	441.08	33.63	14.114		
3,900.00	3,866.51	3,885.53	3,881.79	18.12	17.09	169.89	11.75	-83.96	485.52	451.01	34.51	14.069		
4,000.00	3,965.51	3,984.95	3,981.12	18.59	17.52	169.89	8.61	-86.43	496.33	460.95	35.38	14.027		
4,100.00	4,064.50	4,084.36	4,080.45	19.05	17.95	169.89	5.48	-88.90	507.14	470.88	36.26	13.986		
4,200.00	4,163.50	4,183.78	4,179.79	19.52	18.39	169.89	2.34	-91.37	517.95	480.81	37.14	13.947		
4,300.00	4,262.49	4,283.19	4,279.12	19.99	18.82	169.89	-0.79	-93.83	528.76	490.75	38.01	13.910		
4,400.00	4,361.48	4,382.60	4,378.46	20.46	19.25	169.88	-3.93	-96.30	539.57	500.68	38.89	13.873		
4,500.00	4,460.48	4,482.02	4,477.79	20.92	19.69	169.88	-7.06	-98.77	550.38	510.61	39.77	13.839		
4,600.00	4,559.47	4,581.43	4,577.12	21.39	20.12	169.88	-10.20	-101.23	561.19	520.54	40.65	13.805		
4,700.00	4,658.47	4,680.85	4,676.46	21.86	20.56	169.88	-13.33	-103.70	572.00	530.47	41.53	13.773		
4,800.00	4,757.46	4,780.26	4,775.79	22.33	20.99	169.88	-16.47	-106.17	582.81	540.40	42.41	13.742		
4,900.00	4,856.45	4,879.67	4,875.13	22.80	21.43	169.88	-19.61	-108.64	593.62	550.33	43.29	13.712		
5,000.00	4,955.45	4,979.09	4,974.46	23.27	21.86	169.88	-22.74	-111.10	604.43	560.26	44.17	13.683		
5,100.00	5,054.44	5,078.50	5,073.79	23.74	22.30	169.88	-25.88	-113.57	615.24	570.18	45.05	13.655		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,177.92	5,173.13	24.21	22.73	169.88	-29.01	-116.04	626.05	580.11	45.94	13.629		
5,300.00	5,252.43	5,277.33	5,272.46	24.68	23.17	169.88	-32.15	-118.51	636.86	590.04	46.82	13.603		
5,400.00	5,351.42	5,376.74	5,371.80	25.15	23.60	169.88	-35.28	-120.97	647.67	599.97	47.70	13.577		
5,500.00	5,450.42	5,476.16	5,471.13	25.62	24.04	169.88	-38.42	-123.44	658.48	609.89	48.58	13.553		
5,600.00	5,549.41	5,575.57	5,570.46	26.09	24.48	169.88	-41.55	-125.91	669.29	619.82	49.47	13.530		
5,700.00	5,648.41	5,674.99	5,669.80	26.56	24.91	169.88	-44.69	-128.37	680.10	629.75	50.35	13.507		
5,800.00	5,747.40	5,774.40	5,769.13	27.03	25.35	169.88	-47.82	-130.84	690.91	639.67	51.24	13.485		
5,900.00	5,846.40	5,873.81	5,868.47	27.51	25.79	169.88	-50.96	-133.31	701.72	649.60	52.12	13.463		
6,000.00	5,945.39	5,973.23	5,967.80	27.98	26.22	169.88	-54.09	-135.78	712.53	659.52	53.01	13.443		
6,100.00	6,044.38	6,072.64	6,067.13	28.45	26.66	169.87	-57.23	-138.24	723.34	669.45	53.89	13.422		
6,200.00	6,143.38	6,172.06	6,166.47	28.92	27.10	169.87	-60.36	-140.71	734.15	679.37	54.78	13.403		
6,300.00	6,242.37	6,271.47	6,265.80	29.39	27.53	169.87	-63.50	-143.18	744.96	689.30	55.66	13.384		
6,400.00	6,341.37	6,370.88	6,365.14	29.86	27.97	169.87	-66.64	-145.65	755.77	699.22	56.55	13.365		
6,500.00	6,440.36	6,470.35	6,464.51	30.34	28.41	169.84	-69.77	-148.60	766.58	709.14	57.43	13.347		
6,600.00	6,538.90	6,569.41	6,562.42	30.80	28.84	129.16	-72.94	-162.59	777.36	719.05	58.31	13.330		
6,700.00	6,634.88	6,667.70	6,656.26	31.25	29.27	111.36	-76.06	-191.30	787.94	728.77	59.17	13.316		
6,800.00	6,725.92	6,765.31	6,743.99	31.68	29.68	103.18	-79.08	-233.77	798.04	738.04	60.00	13.300		
6,900.00	6,809.79	6,862.34	6,823.76	32.07	30.09	98.42	-81.92	-288.79	807.41	746.57	60.84	13.270		
7,000.00	6,884.42	6,958.89	6,893.92	32.43	30.54	95.28	-84.53	-354.93	815.81	754.06	61.75	13.211		
7,100.00	6,947.98	7,055.05	6,953.07	32.77	31.08	93.08	-86.85	-430.59	823.03	760.21	62.81	13.102		
7,200.00	6,998.89	7,150.90	7,000.04	33.18	31.76	91.53	-88.83	-514.02	828.88	764.76	64.12	12.927		
7,300.00	7,035.91	7,246.52	7,033.90	33.76	32.59	90.49	-90.44	-603.32	833.22	767.48	65.74	12.674		
7,400.00	7,058.12	7,341.96	7,054.00	34.61	33.59	89.87	-91.65	-696.53	835.93	768.23	67.70	12.347		
7,500.00	7,064.98	7,437.56	7,059.97	35.68	34.73	89.66	-92.42	-791.85	836.96	766.98	69.98	11.961		
7,600.00	7,064.59	7,537.56	7,059.54	36.95	36.11	89.65	-93.02	-891.84	837.17	764.51	72.66	11.521		
7,700.00	7,064.20	7,637.56	7,059.10	38.40	37.63	89.65	-93.62	-991.84	837.39	761.71	75.67	11.066		
7,800.00	7,063.80	7,737.56	7,058.67	40.00	39.30	89.65	-94.21	-1,091.84	837.60	758.62	78.98	10.605		
7,900.00	7,063.41	7,837.56	7,058.24	41.75	41.11	89.65	-94.81	-1,191.83	837.81	755.26	82.56	10.148		
8,000.00	7,063.02	7,937.56	7,057.80	43.62	43.03	89.64	-95.41	-1,291.83	838.03	751.66	86.36	9.704		
8,100.00	7,062.62	8,037.56	7,057.37	45.59	45.05	89.64	-96.01	-1,391.83	838.24	747.87	90.37	9.276		
8,200.00	7,062.23	8,137.56	7,056.93	47.65	47.16	89.64	-96.61	-1,491.83	838.45	743.90	94.55	8.868		
8,300.00	7,061.84	8,237.55	7,056.50	49.79	49.34	89.63	-97.21	-1,591.82	838.67	739.78	98.89	8.481		
8,400.00	7,061.45	8,337.55	7,056.07	52.00	51.59	89.63	-97.81	-1,691.82	838.88	735.52	103.36	8.116		
8,500.00	7,061.05	8,437.55	7,055.63	54.27	53.89	89.63	-98.41	-1,791.82	839.09	731.15	107.95	7.773		
8,600.00	7,060.66	8,537.55	7,055.20	56.60	56.25	89.63	-99.00	-1,891.81	839.31	726.67	112.64	7.451		
8,700.00	7,060.27	8,637.55	7,054.76	58.97	58.65	89.62	-99.60	-1,991.81	839.52	722.10	117.42	7.150		
8,800.00	7,059.87	8,737.55	7,054.33	61.38	61.10	89.62	-100.20	-2,091.81	839.73	717.45	122.28	6.867		
8,900.00	7,059.48	8,837.55	7,053.90	63.83	63.57	89.62	-100.80	-2,191.80	839.95	712.73	127.22	6.602		
9,000.00	7,059.09	8,937.55	7,053.46	66.32	66.08	89.62	-101.40	-2,291.80	840.16	707.95	132.21	6.355		
9,100.00	7,058.69	9,037.55	7,053.03	68.83	68.61	89.61	-102.00	-2,391.80	840.37	703.11	137.27	6.122		
9,200.00	7,058.30	9,137.55	7,052.59	71.37	71.17	89.61	-102.60	-2,491.80	840.59	698.22	142.37	5.904		
9,300.00	7,057.91	9,237.55	7,052.16	73.93	73.76	89.61	-103.20	-2,591.79	840.80	693.28	147.52	5.700		
9,400.00	7,057.51	9,337.55	7,051.73	76.51	76.36	89.61	-103.79	-2,691.79	841.01	688.30	152.71	5.507		
9,500.00	7,057.12	9,437.55	7,051.29	79.11	78.98	89.60	-104.39	-2,791.79	841.22	683.29	157.93	5.326		
9,600.00	7,056.73	9,537.55	7,050.86	81.73	81.61	89.60	-104.99	-2,891.78	841.44	678.25	163.19	5.156		
9,700.00	7,056.33	9,637.55	7,050.42	84.37	84.26	89.60	-105.59	-2,991.78	841.65	673.17	168.48	4.996		
9,800.00	7,055.94	9,737.55	7,049.99	87.01	86.92	89.59	-106.19	-3,091.78	841.86	668.07	173.79	4.844		
9,900.00	7,055.55	9,837.55	7,049.56	89.68	89.60	89.59	-106.79	-3,191.77	842.08	662.94	179.13	4.701		
10,000.00	7,055.15	9,937.55	7,049.12	92.35	92.29	89.59	-107.39	-3,291.77	842.29	657.79	184.50	4.565		
10,100.00	7,054.76	10,037.55	7,048.69	95.03	94.98	89.59	-107.99	-3,391.77	842.50	652.62	189.88	4.437		
10,200.00	7,054.37	10,137.55	7,048.26	97.73	97.69	89.58	-108.58	-3,491.77	842.72	647.44	195.28	4.315		
10,300.00	7,053.98	10,237.55	7,047.82	100.43	100.40	89.58	-109.18	-3,591.76	842.93	642.23	200.70	4.200		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	7,053.58	10,337.55	7,047.39	103.14	103.12	89.58	-109.78	-3,691.76	843.14	637.01	206.14	4.090	
10,500.00	7,053.19	10,437.55	7,046.95	105.86	105.85	89.58	-110.38	-3,791.76	843.36	631.77	211.59	3.986	
10,600.00	7,052.80	10,537.55	7,046.52	108.59	108.59	89.57	-110.98	-3,891.75	843.57	626.52	217.05	3.886	
10,700.00	7,052.40	10,637.55	7,046.09	111.32	111.33	89.57	-111.58	-3,991.75	843.78	621.25	222.53	3.792	
10,800.00	7,052.01	10,737.55	7,045.65	114.06	114.08	89.57	-112.18	-4,091.75	844.00	615.98	228.02	3.701	
10,900.00	7,051.62	10,837.55	7,045.22	116.80	116.83	89.57	-112.78	-4,191.75	844.21	610.69	233.52	3.615	
11,000.00	7,051.22	10,937.55	7,044.78	119.55	119.59	89.56	-113.37	-4,291.74	844.42	605.40	239.03	3.533	
11,100.00	7,050.83	11,037.55	7,044.35	122.31	122.35	89.56	-113.97	-4,391.74	844.64	600.09	244.55	3.454	
11,200.00	7,050.44	11,137.55	7,043.92	125.07	125.12	89.56	-114.57	-4,491.74	844.85	594.78	250.07	3.378	
11,300.00	7,050.04	11,237.55	7,043.48	127.83	127.89	89.55	-115.17	-4,591.73	845.06	589.45	255.61	3.306	
11,400.00	7,049.65	11,337.55	7,043.05	130.60	130.67	89.55	-115.77	-4,691.73	845.28	584.12	261.16	3.237	
11,500.00	7,049.26	11,437.55	7,042.61	133.37	133.44	89.55	-116.37	-4,791.73	845.49	578.78	266.71	3.170	
11,600.00	7,048.86	11,537.55	7,042.18	136.15	136.23	89.55	-116.97	-4,891.72	845.70	573.44	272.27	3.106	
11,700.00	7,048.47	11,637.55	7,041.75	138.93	139.01	89.54	-117.57	-4,991.72	845.92	568.09	277.83	3.045	
11,800.00	7,048.08	11,737.55	7,041.31	141.71	141.80	89.54	-118.17	-5,091.72	846.13	562.73	283.40	2.986	
11,900.00	7,047.68	11,837.55	7,040.88	144.49	144.59	89.54	-118.76	-5,191.72	846.34	557.37	288.98	2.929	
12,000.00	7,047.29	11,937.55	7,040.44	147.28	147.38	89.54	-119.36	-5,291.71	846.56	552.00	294.56	2.874	
12,100.00	7,046.90	12,037.55	7,040.01	150.07	150.18	89.53	-119.96	-5,391.71	846.77	546.62	300.15	2.821	
12,200.00	7,046.51	12,137.55	7,039.58	152.87	152.97	89.53	-120.56	-5,491.71	846.98	541.25	305.74	2.770	
12,300.00	7,046.11	12,237.55	7,039.14	155.66	155.78	89.53	-121.16	-5,591.70	847.20	535.86	311.33	2.721	
12,400.00	7,045.72	12,337.55	7,038.71	158.46	158.58	89.53	-121.76	-5,691.70	847.41	530.47	316.93	2.674	
12,500.00	7,045.33	12,437.55	7,038.27	161.26	161.38	89.52	-122.36	-5,791.70	847.62	525.08	322.54	2.628	
12,600.00	7,044.93	12,537.54	7,037.84	164.06	164.19	89.52	-122.96	-5,891.69	847.84	519.69	328.15	2.584	
12,700.00	7,044.54	12,637.54	7,037.41	166.86	167.00	89.52	-123.55	-5,991.69	848.05	514.29	333.76	2.541	
12,800.00	7,044.15	12,737.54	7,036.97	169.67	169.81	89.51	-124.15	-6,091.69	848.26	508.89	339.38	2.499	
12,900.00	7,043.75	12,837.54	7,036.54	172.48	172.62	89.51	-124.75	-6,191.69	848.48	503.48	344.99	2.459	
13,000.00	7,043.36	12,937.54	7,036.10	175.28	175.43	89.51	-125.35	-6,291.68	848.69	498.07	350.62	2.421	
13,100.00	7,042.97	13,037.54	7,035.67	178.09	178.24	89.51	-125.95	-6,391.68	848.90	492.66	356.24	2.383	
13,200.00	7,042.57	13,137.54	7,035.24	180.91	181.06	89.50	-126.55	-6,491.68	849.12	487.25	361.87	2.346	
13,300.00	7,042.18	13,237.54	7,034.80	183.72	183.88	89.50	-127.15	-6,591.67	849.33	481.83	367.50	2.311	
13,400.00	7,041.79	13,337.54	7,034.37	186.53	186.69	89.50	-127.75	-6,691.67	849.54	476.41	373.13	2.277	
13,500.00	7,041.39	13,437.54	7,033.93	189.35	189.51	89.50	-128.34	-6,791.67	849.76	470.99	378.77	2.243	
13,600.00	7,041.00	13,537.54	7,033.50	192.17	192.33	89.49	-128.94	-6,891.67	849.97	465.56	384.41	2.211	
13,700.00	7,040.61	13,637.54	7,033.07	194.99	195.16	89.49	-129.54	-6,991.66	850.18	460.13	390.05	2.180	
13,800.00	7,040.21	13,737.54	7,032.63	197.81	197.98	89.49	-130.14	-7,091.66	850.40	454.70	395.69	2.149	
13,900.00	7,039.82	13,837.54	7,032.20	200.63	200.80	89.49	-130.74	-7,191.66	850.61	449.27	401.34	2.119	
14,000.00	7,039.43	13,937.54	7,031.76	203.45	203.63	89.48	-131.34	-7,291.65	850.82	443.84	406.98	2.091	
14,100.00	7,039.03	14,037.54	7,031.33	206.27	206.45	89.48	-131.94	-7,391.65	851.04	438.40	412.63	2.062	
14,200.00	7,038.64	14,137.54	7,030.90	209.09	209.28	89.48	-132.54	-7,491.65	851.25	432.97	418.28	2.035	
14,300.00	7,038.25	14,237.54	7,030.46	211.92	212.11	89.48	-133.13	-7,591.64	851.46	427.53	423.93	2.008	
14,400.00	7,037.86	14,337.54	7,030.03	214.74	214.94	89.47	-133.73	-7,691.64	851.68	422.09	429.59	1.983	
14,500.00	7,037.46	14,437.54	7,029.59	217.57	217.76	89.47	-134.33	-7,791.64	851.89	416.65	435.24	1.957	
14,600.00	7,037.07	14,537.54	7,029.16	220.40	220.59	89.47	-134.93	-7,891.64	852.10	411.20	440.90	1.933	
14,700.00	7,036.68	14,637.54	7,028.73	223.23	223.43	89.47	-135.53	-7,991.63	852.32	405.76	446.56	1.909	
14,800.00	7,036.28	14,737.54	7,028.29	226.05	226.26	89.46	-136.13	-8,091.63	852.53	400.31	452.22	1.885	
14,871.88	7,036.00	14,809.42	7,027.98	228.09	228.29	89.46	-136.56	-8,163.51	852.68	396.39	456.29	1.869 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	0.46	139.89	1.11	139.90					
100.00	100.00	101.00	100.00	3.28	3.28	0.46	139.89	1.11	139.90	133.33	6.57	21.295		
200.00	200.00	201.00	200.00	3.34	3.34	0.46	139.89	1.11	139.90	133.22	6.67	20.959		
300.00	300.00	301.00	300.00	3.44	3.45	0.46	139.89	1.11	139.90	133.01	6.89	20.301 CC, ES		
400.00	399.98	400.98	399.98	3.60	3.61	170.72	139.89	1.11	141.62	134.42	7.20	19.667		
500.00	499.84	500.84	499.84	3.79	3.81	171.03	139.89	1.11	146.79	139.19	7.60	19.326		
600.00	599.45	600.52	599.51	4.02	4.04	170.91	139.89	-0.50	155.37	147.31	8.06	19.274		
700.00	698.70	700.21	698.75	4.29	4.30	170.67	139.89	-2.99	167.37	158.78	8.59	19.481		
800.00	797.70	801.18	797.74	4.59	4.59	170.60	139.89	-5.46	181.30	172.12	9.18	19.753		
900.00	896.69	902.16	896.73	4.92	4.91	170.55	139.89	-7.93	195.24	185.43	9.81	19.906		
1,000.00	995.68	1,003.13	995.73	5.27	5.24	170.50	139.89	-10.41	209.18	198.70	10.48	19.966		
1,100.00	1,094.68	1,104.11	1,094.72	5.64	5.59	170.46	139.89	-12.88	223.12	211.94	11.18	19.961		
1,200.00	1,193.67	1,205.09	1,193.71	6.03	5.95	170.42	139.89	-15.36	237.06	225.15	11.90	19.913		
1,300.00	1,292.67	1,306.06	1,292.70	6.42	6.33	170.39	139.89	-17.83	251.00	238.34	12.65	19.837		
1,400.00	1,391.66	1,407.04	1,391.70	6.83	6.71	170.36	139.89	-20.31	264.94	251.52	13.42	19.742		
1,500.00	1,490.66	1,508.02	1,490.69	7.25	7.10	170.33	139.89	-22.78	278.88	264.67	14.20	19.637		
1,600.00	1,589.65	1,608.99	1,589.68	7.67	7.49	170.31	139.89	-25.25	292.81	277.82	15.00	19.525		
1,700.00	1,688.64	1,709.97	1,688.67	8.10	7.89	170.29	139.89	-27.73	306.75	290.95	15.80	19.412		
1,800.00	1,787.64	1,789.05	1,787.67	8.53	8.21	170.27	139.89	-30.20	320.69	304.16	16.53	19.402		
1,900.00	1,886.63	1,888.08	1,886.66	8.97	8.61	170.25	139.89	-32.68	334.63	317.29	17.34	19.295		
2,000.00	1,985.63	1,987.10	1,985.65	9.41	9.01	170.23	139.89	-35.15	348.57	330.41	18.16	19.190		
2,100.00	2,084.62	2,086.13	2,084.65	9.85	9.42	170.22	139.89	-37.63	362.51	343.52	18.99	19.088		
2,200.00	2,183.61	2,185.15	2,183.64	10.30	9.83	170.20	139.89	-40.10	376.45	356.63	19.82	18.990		
2,300.00	2,282.61	2,284.17	2,282.63	10.75	10.24	170.19	139.89	-42.57	390.39	369.73	20.66	18.895		
2,400.00	2,381.60	2,383.20	2,381.62	11.20	10.65	170.18	139.89	-45.05	404.33	382.83	21.50	18.804		
2,500.00	2,480.60	2,482.22	2,480.62	11.66	11.07	170.16	139.89	-47.52	418.27	395.92	22.35	18.717		
2,600.00	2,579.59	2,581.24	2,579.61	12.11	11.48	170.15	139.89	-50.00	432.21	409.01	23.19	18.634		
2,700.00	2,678.58	2,680.27	2,678.60	12.57	11.90	170.14	139.89	-52.47	446.15	422.10	24.05	18.555		
2,800.00	2,777.58	2,779.29	2,777.59	13.02	12.32	170.13	139.89	-54.95	460.09	435.19	24.90	18.478		
2,900.00	2,876.57	2,878.32	2,876.59	13.48	12.74	170.12	139.89	-57.42	474.03	448.27	25.75	18.406		
3,000.00	2,975.57	2,977.34	2,975.58	13.94	13.16	170.12	139.89	-59.89	487.97	461.36	26.61	18.336		
3,100.00	3,074.56	3,076.36	3,074.57	14.40	13.58	170.11	139.89	-62.37	501.91	474.44	27.47	18.270		
3,200.00	3,173.55	3,175.39	3,173.57	14.87	14.00	170.10	139.89	-64.84	515.85	487.51	28.33	18.207		
3,300.00	3,272.55	3,274.41	3,272.56	15.33	14.43	170.09	139.89	-67.32	529.79	500.59	29.20	18.146		
3,400.00	3,371.54	3,373.43	3,371.55	15.79	14.85	170.09	139.89	-69.79	543.73	513.67	30.06	18.088		
3,500.00	3,470.54	3,472.46	3,470.54	16.26	15.28	170.08	139.89	-72.27	557.67	526.74	30.93	18.032		
3,600.00	3,569.53	3,571.48	3,569.54	16.72	15.70	170.07	139.89	-74.74	571.60	539.81	31.79	17.979		
3,700.00	3,668.53	3,670.50	3,668.53	17.19	16.13	170.07	139.89	-77.21	585.54	552.88	32.66	17.928		
3,800.00	3,767.52	3,769.53	3,767.52	17.65	16.56	170.06	139.89	-79.69	599.48	565.95	33.53	17.879		
3,900.00	3,866.51	3,868.55	3,866.51	18.12	16.98	170.06	139.89	-82.16	613.42	579.02	34.40	17.832		
4,000.00	3,965.51	3,967.58	3,965.51	18.59	17.41	170.05	139.89	-84.64	627.36	592.09	35.27	17.787		
4,100.00	4,064.50	4,066.60	4,064.50	19.05	17.84	170.05	139.89	-87.11	641.30	605.16	36.14	17.743		
4,200.00	4,163.50	4,165.62	4,163.49	19.52	18.27	170.04	139.89	-89.59	655.24	618.23	37.02	17.702		
4,300.00	4,262.49	4,264.65	4,262.49	19.99	18.70	170.04	139.89	-92.06	669.18	631.29	37.89	17.662		
4,400.00	4,361.48	4,363.67	4,361.48	20.46	19.13	170.03	139.89	-94.53	683.12	644.36	38.76	17.623		
4,500.00	4,460.48	4,462.69	4,460.47	20.92	19.55	170.03	139.89	-97.01	697.06	657.42	39.64	17.586		
4,600.00	4,559.47	4,561.72	4,559.46	21.39	19.98	170.03	139.89	-99.48	711.00	670.49	40.51	17.550		
4,700.00	4,658.47	4,660.74	4,658.46	21.86	20.41	170.02	139.89	-101.96	724.94	683.55	41.39	17.516		
4,800.00	4,757.46	4,759.76	4,757.45	22.33	20.84	170.02	139.89	-104.43	738.88	696.62	42.26	17.482		
4,900.00	4,856.45	4,858.79	4,856.44	22.80	21.27	170.01	139.89	-106.91	752.82	709.68	43.14	17.450		
5,000.00	4,955.45	4,957.81	4,955.43	23.27	21.71	170.01	139.89	-109.38	766.76	722.74	44.02	17.419		
5,100.00	5,054.44	5,056.84	5,054.43	23.74	22.14	170.01	139.89	-111.85	780.70	735.80	44.90	17.389		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,155.86	5,153.42	24.21	22.57	170.00	139.89	-114.33	794.64	748.87	45.77	17.360		
5,300.00	5,252.43	5,254.88	5,252.41	24.68	23.00	170.00	139.89	-116.80	808.58	761.93	46.65	17.332		
5,400.00	5,351.42	5,353.91	5,351.41	25.15	23.43	170.00	139.89	-119.28	822.52	774.99	47.53	17.305		
5,500.00	5,450.42	5,452.93	5,450.40	25.62	23.86	170.00	139.89	-121.75	836.46	788.05	48.41	17.279		
5,600.00	5,549.41	5,551.95	5,549.39	26.09	24.29	169.99	139.89	-124.23	850.40	801.11	49.29	17.253		
5,700.00	5,648.41	5,650.98	5,648.38	26.56	24.73	169.99	139.89	-126.70	864.34	814.17	50.17	17.229		
5,800.00	5,747.40	5,750.00	5,747.38	27.03	25.16	169.99	139.89	-129.17	878.28	827.23	51.05	17.205		
5,900.00	5,846.40	5,849.02	5,846.37	27.51	25.59	169.99	139.89	-131.65	892.22	840.29	51.93	17.181		
6,000.00	5,945.39	5,948.05	5,945.36	27.98	26.02	169.98	139.89	-134.12	906.16	853.35	52.81	17.159		
6,100.00	6,044.38	6,047.07	6,044.35	28.45	26.45	169.98	139.89	-136.60	920.10	866.41	53.69	17.137		
6,200.00	6,143.38	6,146.10	6,143.35	28.92	26.89	169.98	139.89	-139.07	934.04	879.47	54.57	17.116		
6,300.00	6,242.37	6,245.12	6,242.34	29.39	27.32	169.98	139.89	-141.55	947.98	892.52	55.45	17.095		
6,400.00	6,341.37	6,344.14	6,341.33	29.86	27.75	169.97	139.89	-144.02	961.92	905.58	56.33	17.075		
6,500.00	6,440.36	6,443.17	6,440.33	30.34	28.18	169.97	139.89	-146.50	975.86	918.64	57.22	17.056		
6,600.00	6,538.90	6,543.05	6,540.15	30.80	28.62	129.76	139.88	-149.74	989.78	931.68	58.10	17.035		
6,700.00	6,634.88	6,646.30	6,642.06	31.25	29.08	112.59	139.62	-165.62	1,003.31	944.30	59.01	17.002		
6,800.00	6,725.92	6,751.29	6,741.66	31.68	29.55	104.99	139.02	-198.42	1,016.05	956.12	59.93	16.955		
6,900.00	6,809.79	6,857.99	6,835.98	32.07	30.04	100.76	138.10	-248.05	1,027.65	966.79	60.86	16.886		
7,000.00	6,884.42	6,966.31	6,921.89	32.43	30.56	98.08	136.86	-313.79	1,037.80	975.94	61.86	16.777		
7,100.00	6,947.98	7,076.05	6,996.29	32.77	31.18	96.27	135.32	-394.25	1,046.23	983.21	63.01	16.603		
7,200.00	6,998.89	7,186.89	7,056.31	33.18	31.93	95.02	133.53	-487.26	1,052.69	988.26	64.43	16.338		
7,300.00	7,035.91	7,298.45	7,099.53	33.76	32.88	94.19	131.54	-589.93	1,057.01	990.81	66.20	15.967		
7,400.00	7,058.12	7,410.28	7,124.21	34.61	34.04	93.69	129.43	-698.83	1,059.07	990.70	68.37	15.491		
7,500.00	7,064.98	7,519.49	7,129.92	35.68	35.36	93.52	127.30	-807.76	1,058.85	987.99	70.85	14.945		
7,600.00	7,064.59	7,619.48	7,129.56	36.95	36.73	93.52	125.34	-907.74	1,057.71	984.17	73.53	14.384		
7,700.00	7,064.20	7,719.48	7,129.19	38.40	38.26	93.53	123.39	-1,007.71	1,056.57	980.02	76.55	13.802		
7,800.00	7,063.80	7,819.47	7,128.83	40.00	39.94	93.53	121.43	-1,107.68	1,055.43	975.57	79.86	13.216		
7,900.00	7,063.41	7,919.46	7,128.46	41.75	41.74	93.54	119.48	-1,207.66	1,054.29	970.86	83.42	12.638		
8,000.00	7,063.02	8,019.46	7,128.09	43.62	43.66	93.55	117.52	-1,307.63	1,053.15	965.93	87.22	12.075		
8,100.00	7,062.62	8,119.45	7,127.73	45.59	45.68	93.55	115.56	-1,407.60	1,052.01	960.79	91.21	11.534		
8,200.00	7,062.23	8,219.44	7,127.36	47.65	47.78	93.56	113.61	-1,507.57	1,050.87	955.49	95.38	11.018		
8,300.00	7,061.84	8,319.44	7,127.00	49.79	49.95	93.56	111.65	-1,607.55	1,049.73	950.03	99.70	10.529		
8,400.00	7,061.45	8,419.43	7,126.63	52.00	52.20	93.57	109.70	-1,707.52	1,048.59	944.44	104.15	10.068		
8,500.00	7,061.05	8,519.42	7,126.26	54.27	54.49	93.57	107.74	-1,807.50	1,047.45	938.73	108.72	9.635		
8,600.00	7,060.66	8,619.42	7,125.90	56.60	56.84	93.58	105.79	-1,907.47	1,046.31	932.92	113.39	9.228		
8,700.00	7,060.27	8,719.41	7,125.53	58.97	59.24	93.58	103.83	-2,007.45	1,045.17	927.02	118.15	8.846		
8,800.00	7,059.87	8,819.40	7,125.16	61.38	61.67	93.59	101.88	-2,107.42	1,044.03	921.03	122.99	8.489		
8,900.00	7,059.48	8,919.40	7,124.80	63.83	64.14	93.59	99.92	-2,207.39	1,042.89	914.98	127.90	8.154		
9,000.00	7,059.09	9,019.39	7,124.43	66.32	66.64	93.60	97.97	-2,307.37	1,041.75	908.87	132.88	7.840		
9,100.00	7,058.69	9,119.38	7,124.07	68.83	69.16	93.60	96.01	-2,407.34	1,040.61	902.70	137.91	7.546		
9,200.00	7,058.30	9,219.38	7,123.70	71.37	71.71	93.61	94.06	-2,507.31	1,039.47	896.47	142.99	7.269		
9,300.00	7,057.91	9,319.37	7,123.33	73.93	74.28	93.62	92.10	-2,607.29	1,038.33	890.21	148.12	7.010		
9,400.00	7,057.51	9,419.36	7,122.97	76.51	76.88	93.62	90.14	-2,707.26	1,037.19	883.90	153.28	6.766		
9,500.00	7,057.12	9,519.36	7,122.60	79.11	79.49	93.63	88.19	-2,807.23	1,036.05	877.56	158.49	6.537		
9,600.00	7,056.73	9,619.35	7,122.24	81.73	82.11	93.63	86.23	-2,907.21	1,034.91	871.18	163.72	6.321		
9,700.00	7,056.33	9,719.34	7,121.87	84.37	84.76	93.64	84.28	-3,007.18	1,033.77	864.77	168.99	6.117		
9,800.00	7,055.94	9,819.34	7,121.50	87.01	87.41	93.64	82.32	-3,107.16	1,032.63	858.34	174.28	5.925		
9,900.00	7,055.55	9,919.33	7,121.14	89.68	90.08	93.65	80.37	-3,207.13	1,031.49	851.88	179.60	5.743		
10,000.00	7,055.15	10,019.33	7,120.77	92.35	92.76	93.65	78.41	-3,307.10	1,030.35	845.40	184.94	5.571		
10,100.00	7,054.76	10,119.32	7,120.40	95.03	95.44	93.66	76.46	-3,407.08	1,029.21	838.90	190.31	5.408		
10,200.00	7,054.37	10,219.31	7,120.04	97.73	98.14	93.67	74.50	-3,507.05	1,028.07	832.38	195.69	5.254		
10,300.00	7,053.98	10,319.31	7,119.67	100.43	100.85	93.67	72.55	-3,607.02	1,026.93	825.84	201.09	5.107		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	10,419.30	7,119.31	103.14	103.56	93.68	70.59	-3,707.00	1,025.79	819.29	206.50	4.967		
10,500.00	7,053.19	10,519.29	7,118.94	105.86	106.28	93.68	68.63	-3,806.97	1,024.65	812.72	211.93	4.835		
10,600.00	7,052.80	10,619.29	7,118.57	108.59	109.01	93.69	66.68	-3,906.95	1,023.51	806.13	217.37	4.709		
10,700.00	7,052.40	10,719.28	7,118.21	111.32	111.75	93.69	64.72	-4,006.92	1,022.37	799.54	222.83	4.588		
10,800.00	7,052.01	10,819.27	7,117.84	114.06	114.49	93.70	62.77	-4,106.89	1,021.23	792.93	228.30	4.473		
10,900.00	7,051.62	10,919.27	7,117.48	116.80	117.23	93.70	60.81	-4,206.87	1,020.09	786.31	233.78	4.364		
11,000.00	7,051.22	11,019.26	7,117.11	119.55	119.98	93.71	58.86	-4,306.84	1,018.95	779.68	239.27	4.259		
11,100.00	7,050.83	11,119.25	7,116.74	122.31	122.74	93.72	56.90	-4,406.81	1,017.81	773.04	244.76	4.158		
11,200.00	7,050.44	11,219.25	7,116.38	125.07	125.50	93.72	54.95	-4,506.79	1,016.67	766.40	250.27	4.062		
11,300.00	7,050.04	11,319.24	7,116.01	127.83	128.26	93.73	52.99	-4,606.76	1,015.53	759.74	255.79	3.970		
11,400.00	7,049.65	11,419.23	7,115.64	130.60	131.03	93.73	51.04	-4,706.73	1,014.39	753.08	261.31	3.882		
11,500.00	7,049.26	11,519.23	7,115.28	133.37	133.80	93.74	49.08	-4,806.71	1,013.25	746.41	266.84	3.797		
11,600.00	7,048.86	11,619.22	7,114.91	136.15	136.58	93.74	47.12	-4,906.68	1,012.11	739.73	272.38	3.716		
11,700.00	7,048.47	11,719.21	7,114.55	138.93	139.36	93.75	45.17	-5,006.66	1,010.97	733.05	277.92	3.638		
11,800.00	7,048.08	11,819.21	7,114.18	141.71	142.14	93.76	43.21	-5,106.63	1,009.83	726.36	283.47	3.562		
11,900.00	7,047.68	11,919.20	7,113.81	144.49	144.92	93.76	41.26	-5,206.60	1,008.69	719.66	289.03	3.490		
12,000.00	7,047.29	12,019.19	7,113.45	147.28	147.71	93.77	39.30	-5,306.58	1,007.55	712.96	294.59	3.420		
12,100.00	7,046.90	12,119.19	7,113.08	150.07	150.50	93.77	37.35	-5,406.55	1,006.41	706.25	300.16	3.353		
12,200.00	7,046.51	12,219.18	7,112.72	152.87	153.29	93.78	35.39	-5,506.52	1,005.27	699.54	305.73	3.288		
12,300.00	7,046.11	12,319.17	7,112.35	155.66	156.08	93.79	33.44	-5,606.50	1,004.13	692.83	311.30	3.226		
12,400.00	7,045.72	12,419.17	7,111.98	158.46	158.88	93.79	31.48	-5,706.47	1,002.99	686.11	316.88	3.165		
12,500.00	7,045.33	12,519.16	7,111.62	161.26	161.68	93.80	29.53	-5,806.44	1,001.85	679.38	322.47	3.107		
12,600.00	7,044.93	12,619.15	7,111.25	164.06	164.48	93.80	27.57	-5,906.42	1,000.71	672.66	328.06	3.050		
12,700.00	7,044.54	12,719.15	7,110.88	166.86	167.28	93.81	25.62	-6,006.39	999.57	665.93	333.65	2.996		
12,800.00	7,044.15	12,819.14	7,110.52	169.67	170.08	93.81	23.66	-6,106.37	998.43	659.19	339.24	2.943		
12,900.00	7,043.75	12,919.14	7,110.15	172.48	172.89	93.82	21.70	-6,206.34	997.29	652.45	344.84	2.892		
13,000.00	7,043.36	13,019.13	7,109.79	175.28	175.69	93.83	19.75	-6,306.31	996.15	645.71	350.44	2.843		
13,100.00	7,042.97	13,119.12	7,109.42	178.09	178.50	93.83	17.79	-6,406.29	995.02	638.97	356.05	2.795		
13,200.00	7,042.57	13,219.12	7,109.05	180.91	181.31	93.84	15.84	-6,506.26	993.88	632.22	361.65	2.748		
13,300.00	7,042.18	13,319.11	7,108.69	183.72	184.12	93.84	13.88	-6,606.23	992.74	625.47	367.26	2.703		
13,400.00	7,041.79	13,419.10	7,108.32	186.53	186.93	93.85	11.93	-6,706.21	991.60	618.72	372.88	2.659		
13,500.00	7,041.39	13,519.10	7,107.96	189.35	189.75	93.86	9.97	-6,806.18	990.46	611.97	378.49	2.617		
13,600.00	7,041.00	13,619.09	7,107.59	192.17	192.56	93.86	8.02	-6,906.16	989.32	605.21	384.11	2.576		
13,700.00	7,040.61	13,719.08	7,107.22	194.99	195.38	93.87	6.06	-7,006.13	988.18	598.45	389.73	2.536		
13,800.00	7,040.21	13,819.08	7,106.86	197.81	198.20	93.87	4.11	-7,106.10	987.04	591.69	395.35	2.497		
13,900.00	7,039.82	13,919.07	7,106.49	200.63	201.01	93.88	2.15	-7,206.08	985.90	584.93	400.97	2.459		
14,000.00	7,039.43	14,019.06	7,106.12	203.45	203.83	93.89	0.19	-7,306.05	984.76	578.16	406.60	2.422		
14,100.00	7,039.03	14,119.06	7,105.76	206.27	206.65	93.89	-1.76	-7,406.02	983.62	571.39	412.23	2.386		
14,200.00	7,038.64	14,219.05	7,105.39	209.09	209.47	93.90	-3.72	-7,506.00	982.48	564.62	417.86	2.351		
14,300.00	7,038.25	14,319.04	7,105.03	211.92	212.30	93.90	-5.67	-7,605.97	981.34	557.85	423.49	2.317		
14,400.00	7,037.86	14,419.04	7,104.66	214.74	215.12	93.91	-7.63	-7,705.94	980.20	551.08	429.12	2.284		
14,500.00	7,037.46	14,519.03	7,104.29	217.57	217.94	93.92	-9.58	-7,805.92	979.06	544.31	434.75	2.252		
14,600.00	7,037.07	14,619.02	7,103.93	220.40	220.77	93.92	-11.54	-7,905.89	977.92	537.53	440.39	2.221		
14,700.00	7,036.68	14,719.02	7,103.56	223.23	223.59	93.93	-13.49	-8,005.87	976.78	530.76	446.03	2.190		
14,800.00	7,036.28	14,819.01	7,103.20	226.05	226.42	93.94	-15.45	-8,105.84	975.64	523.98	451.67	2.160		
14,860.64	7,036.04	14,879.65	7,102.97	227.77	228.13	93.94	-16.63	-8,166.47	974.95	519.87	455.09	2.142 SF		
14,871.88	7,036.00	14,872.41	7,103.00	228.09	227.93	93.94	-16.49	-8,159.23	975.00	519.90	455.10	2.142		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 41-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	60.00	3.28	3.28	-114.70	-4,135.77	-8,993.76	9,899.29					
100.00	100.00	40.00	100.00	3.28	3.35	-114.70	-4,135.77	-8,993.76	9,899.11	9,892.47	6.64	1,491.231		
200.00	200.00	140.00	200.00	3.34	4.54	-114.70	-4,135.77	-8,993.76	9,899.11	9,891.23	7.88	1,256.383		
300.00	300.00	240.00	300.00	3.44	7.40	-114.70	-4,135.77	-8,993.76	9,899.11	9,888.26	10.84	912.824		
400.00	399.98	339.98	399.98	3.60	10.64	55.48	-4,135.77	-8,993.76	9,898.12	9,883.88	14.24	695.255		
500.00	499.84	439.84	499.84	3.79	14.00	55.55	-4,135.77	-8,993.76	9,895.15	9,877.37	17.78	556.418		
600.00	599.45	539.45	599.45	4.02	17.40	55.68	-4,135.77	-8,993.76	9,890.22	9,868.80	21.41	461.837		
700.00	698.70	638.70	698.70	4.29	20.81	55.85	-4,135.77	-8,993.76	9,883.32	9,858.23	25.10	393.801		
800.00	797.70	737.70	797.70	4.59	24.23	55.93	-4,135.77	-8,993.76	9,875.34	9,846.52	28.82	342.696		
900.00	896.69	836.69	896.69	4.92	27.66	55.99	-4,135.77	-8,993.76	9,867.37	9,834.80	32.57	302.957		
1,000.00	995.68	935.68	995.68	5.27	31.09	56.06	-4,135.77	-8,993.76	9,859.40	9,823.05	36.35	271.225		
1,100.00	1,094.68	1,034.68	1,094.68	5.64	34.53	56.13	-4,135.77	-8,993.76	9,851.46	9,811.30	40.15	245.339		
1,200.00	1,193.67	1,133.67	1,193.67	6.03	37.97	56.20	-4,135.77	-8,993.76	9,843.52	9,799.55	43.98	223.843		
1,300.00	1,292.67	1,232.67	1,292.67	6.42	41.42	56.26	-4,135.77	-8,993.76	9,835.60	9,787.79	47.81	205.722		
1,400.00	1,391.66	1,331.66	1,391.66	6.83	44.86	56.33	-4,135.77	-8,993.76	9,827.70	9,776.04	51.66	190.251		
1,500.00	1,490.66	1,430.66	1,490.66	7.25	48.31	56.40	-4,135.77	-8,993.76	9,819.81	9,764.30	55.51	176.893		
1,600.00	1,589.65	1,529.65	1,589.65	7.67	51.76	56.47	-4,135.77	-8,993.76	9,811.93	9,752.55	59.38	165.249		
1,700.00	1,688.64	1,628.64	1,688.64	8.10	55.21	56.54	-4,135.77	-8,993.76	9,804.07	9,740.82	63.25	155.011		
1,800.00	1,787.64	1,727.64	1,787.64	8.53	58.66	56.61	-4,135.77	-8,993.76	9,796.22	9,729.10	67.12	145.942		
1,900.00	1,886.63	1,826.63	1,886.63	8.97	62.11	56.68	-4,135.77	-8,993.76	9,788.38	9,717.38	71.01	137.854		
2,000.00	1,985.63	1,925.63	1,985.63	9.41	65.56	56.74	-4,135.77	-8,993.76	9,780.56	9,705.67	74.89	130.597		
2,100.00	2,084.62	2,024.62	2,084.62	9.85	69.01	56.81	-4,135.77	-8,993.76	9,772.76	9,693.98	78.78	124.050		
2,200.00	2,183.61	2,123.61	2,183.61	10.30	72.46	56.88	-4,135.77	-8,993.76	9,764.97	9,682.29	82.67	118.116		
2,300.00	2,282.61	2,222.61	2,282.61	10.75	75.92	56.95	-4,135.77	-8,993.76	9,757.19	9,670.62	86.57	112.711		
2,400.00	2,381.60	2,321.60	2,381.60	11.20	79.37	57.02	-4,135.77	-8,993.76	9,749.42	9,658.96	90.47	107.769		
2,500.00	2,480.60	2,420.60	2,480.60	11.66	82.82	57.09	-4,135.77	-8,993.76	9,741.67	9,647.31	94.37	103.233		
2,600.00	2,579.59	2,519.59	2,579.59	12.11	86.28	57.16	-4,135.77	-8,993.76	9,733.94	9,635.67	98.27	99.055		
2,700.00	2,678.58	2,618.58	2,678.58	12.57	89.73	57.23	-4,135.77	-8,993.76	9,726.22	9,624.05	102.17	95.195		
2,800.00	2,777.58	2,717.58	2,777.58	13.02	93.18	57.30	-4,135.77	-8,993.76	9,718.51	9,612.44	106.08	91.618		
2,900.00	2,876.57	2,816.57	2,876.57	13.48	96.64	57.37	-4,135.77	-8,993.76	9,710.82	9,600.84	109.98	88.294		
3,000.00	2,975.57	2,915.57	2,975.57	13.94	100.09	57.44	-4,135.77	-8,993.76	9,703.15	9,589.26	113.89	85.197		
3,100.00	3,074.56	3,014.56	3,074.56	14.40	103.54	57.51	-4,135.77	-8,993.76	9,695.48	9,577.68	117.80	82.305		
3,200.00	3,173.55	3,113.55	3,173.55	14.87	107.00	57.58	-4,135.77	-8,993.76	9,687.84	9,566.13	121.71	79.598		
3,300.00	3,272.55	3,212.55	3,272.55	15.33	110.45	57.65	-4,135.77	-8,993.76	9,680.20	9,554.58	125.62	77.059		
3,400.00	3,371.54	3,311.54	3,371.54	15.79	113.91	57.72	-4,135.77	-8,993.76	9,672.58	9,543.05	129.53	74.673		
3,500.00	3,470.54	3,410.54	3,470.54	16.26	117.36	57.79	-4,135.77	-8,993.76	9,664.98	9,531.54	133.44	72.427		
3,600.00	3,569.53	3,509.53	3,569.53	16.72	120.82	57.86	-4,135.77	-8,993.76	9,657.39	9,520.03	137.36	70.308		
3,700.00	3,668.53	3,608.53	3,668.53	17.19	124.27	57.93	-4,135.77	-8,993.76	9,649.82	9,508.55	141.27	68.307		
3,800.00	3,767.52	3,707.52	3,767.52	17.65	127.73	58.00	-4,135.77	-8,993.76	9,642.26	9,497.07	145.19	66.413		
3,900.00	3,866.51	3,806.51	3,866.51	18.12	131.18	58.07	-4,135.77	-8,993.76	9,634.71	9,485.61	149.10	64.618		
4,000.00	3,965.51	3,905.51	3,965.51	18.59	134.64	58.14	-4,135.77	-8,993.76	9,627.18	9,474.17	153.02	62.916		
4,100.00	4,064.50	4,004.50	4,064.50	19.05	138.09	58.21	-4,135.77	-8,993.76	9,619.67	9,462.74	156.93	61.298		
4,200.00	4,163.50	4,103.50	4,163.50	19.52	141.55	58.28	-4,135.77	-8,993.76	9,612.17	9,451.32	160.85	59.758		
4,300.00	4,262.49	4,202.49	4,262.49	19.99	145.00	58.36	-4,135.77	-8,993.76	9,604.69	9,439.92	164.77	58.292		
4,400.00	4,361.48	4,301.48	4,361.48	20.46	148.46	58.43	-4,135.77	-8,993.76	9,597.22	9,428.53	168.69	56.894		
4,500.00	4,460.48	4,400.48	4,460.48	20.92	151.91	58.50	-4,135.77	-8,993.76	9,589.76	9,417.16	172.60	55.559		
4,600.00	4,559.47	4,500.53	4,559.47	21.39	155.40	58.57	-4,135.77	-8,993.76	9,582.32	9,405.76	176.56	54.273		
4,700.00	4,658.47	4,601.53	4,658.47	21.86	158.93	58.64	-4,135.77	-8,993.76	9,574.90	9,394.35	180.55	53.032		
4,800.00	4,757.46	4,702.54	4,757.46	22.33	162.45	58.71	-4,135.77	-8,993.76	9,567.49	9,382.95	184.54	51.846		
4,900.00	4,856.45	4,803.55	4,856.45	22.80	165.98	58.79	-4,135.77	-8,993.76	9,560.09	9,371.57	188.53	50.709		
5,000.00	4,955.45	4,904.55	4,955.45	23.27	169.50	58.86	-4,135.77	-8,993.76	9,552.71	9,360.20	192.52	49.620		
5,100.00	5,054.44	5,005.56	5,054.44	23.74	173.03	58.93	-4,135.77	-8,993.76	9,545.35	9,348.84	196.51	48.575		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,153.44	5,106.56	5,153.44	24.21	176.56	59.00	-4,135.77	-8,993.76	9,538.00	9,337.50	200.50	47.572		
5,300.00	5,252.43	5,207.57	5,252.43	24.68	180.08	59.07	-4,135.77	-8,993.76	9,530.67	9,326.18	204.49	46.607		
5,400.00	5,351.42	5,308.58	5,351.42	25.15	183.61	59.15	-4,135.77	-8,993.76	9,523.35	9,314.87	208.48	45.680		
5,500.00	5,450.42	5,409.58	5,450.42	25.62	187.13	59.22	-4,135.77	-8,993.76	9,516.05	9,303.58	212.47	44.787		
5,600.00	5,549.41	5,489.41	5,549.41	26.09	189.92	59.29	-4,135.77	-8,993.76	9,508.76	9,293.04	215.72	44.078		
5,700.00	5,648.41	5,588.41	5,648.41	26.56	193.37	59.36	-4,135.77	-8,993.76	9,501.49	9,281.85	219.65	43.258		
5,800.00	5,747.40	5,687.40	5,747.40	27.03	196.83	59.44	-4,135.77	-8,993.76	9,494.24	9,270.67	223.57	42.467		
5,900.00	5,846.40	5,786.40	5,846.40	27.51	200.28	59.51	-4,135.77	-8,993.76	9,487.00	9,259.51	227.49	41.703		
6,000.00	5,945.39	5,885.39	5,945.39	27.98	203.74	59.58	-4,135.77	-8,993.76	9,479.77	9,248.36	231.41	40.965		
6,100.00	6,044.38	5,984.38	6,044.38	28.45	207.20	59.66	-4,135.77	-8,993.76	9,472.56	9,237.23	235.33	40.252		
6,200.00	6,143.38	6,083.38	6,143.38	28.92	210.65	59.73	-4,135.77	-8,993.76	9,465.37	9,226.11	239.26	39.562		
6,300.00	6,242.37	6,182.37	6,242.37	29.39	214.11	59.80	-4,135.77	-8,993.76	9,458.19	9,215.01	243.18	38.894		
6,400.00	6,341.37	6,281.37	6,341.37	29.86	217.56	59.88	-4,135.77	-8,993.76	9,451.03	9,203.93	247.10	38.247		
6,500.00	6,440.36	6,380.36	6,440.36	30.34	221.02	59.95	-4,135.77	-8,993.76	9,443.88	9,192.86	251.03	37.621		
6,600.00	6,538.90	6,478.90	6,538.90	30.80	224.46	20.23	-4,135.77	-8,993.76	9,430.86	9,175.93	254.93	36.995		
6,700.00	6,634.88	6,574.88	6,634.88	31.25	227.81	2.87	-4,135.77	-8,993.76	9,403.50	9,144.79	258.71	36.348		
6,800.00	6,725.92	6,665.92	6,725.92	31.68	230.99	-5.59	-4,135.77	-8,993.76	9,362.40	9,100.12	262.28	35.696		
6,900.00	6,809.79	6,749.79	6,809.79	32.07	233.91	-11.59	-4,135.77	-8,993.76	9,308.58	9,043.02	265.56	35.053		
7,000.00	6,884.42	6,824.42	6,884.42	32.43	236.52	-17.32	-4,135.77	-8,993.76	9,243.36	8,974.91	268.46	34.432		
7,100.00	6,947.98	6,887.98	6,947.98	32.77	238.74	-24.13	-4,135.77	-8,993.76	9,168.39	8,897.48	270.91	33.844		
7,200.00	6,998.89	6,938.89	6,998.89	33.18	240.51	-33.49	-4,135.77	-8,993.76	9,085.52	8,812.67	272.85	33.298		
7,300.00	7,035.91	6,975.91	7,035.91	33.76	241.81	-47.39	-4,135.77	-8,993.76	8,996.85	8,722.58	274.27	32.803		
7,400.00	7,058.12	7,001.88	7,058.12	34.61	242.71	-67.53	-4,135.77	-8,993.76	8,904.58	8,629.33	275.25	32.350		
7,500.00	7,064.98	7,004.98	7,064.98	35.68	242.82	-90.59	-4,135.77	-8,993.76	8,811.04	8,535.61	275.43	31.991		
7,600.00	7,064.59	7,004.59	7,064.59	36.95	242.81	-90.58	-4,135.77	-8,993.76	8,717.68	8,442.18	275.49	31.644		
7,700.00	7,064.20	7,004.20	7,064.20	38.40	242.79	-90.58	-4,135.77	-8,993.76	8,624.46	8,348.86	275.60	31.293		
7,800.00	7,063.80	7,003.80	7,063.80	40.00	242.78	-90.57	-4,135.77	-8,993.76	8,531.40	8,255.65	275.75	30.939		
7,900.00	7,063.41	7,003.41	7,063.41	41.75	242.77	-90.56	-4,135.77	-8,993.76	8,438.50	8,162.56	275.94	30.580		
8,000.00	7,063.02	7,003.02	7,063.02	43.62	242.75	-90.55	-4,135.77	-8,993.76	8,345.77	8,069.58	276.18	30.218		
8,100.00	7,062.62	7,002.62	7,062.62	45.59	242.74	-90.55	-4,135.77	-8,993.76	8,253.20	7,976.73	276.47	29.852		
8,200.00	7,062.23	7,002.23	7,062.23	47.65	242.73	-90.54	-4,135.77	-8,993.76	8,160.81	7,884.00	276.81	29.482		
8,300.00	7,061.84	7,001.84	7,061.84	49.79	242.71	-90.53	-4,135.77	-8,993.76	8,068.60	7,791.40	277.20	29.108		
8,400.00	7,061.45	7,001.45	7,061.45	52.00	242.70	-90.53	-4,135.77	-8,993.76	7,976.57	7,698.94	277.64	28.730		
8,500.00	7,061.05	7,001.05	7,061.05	54.27	242.68	-90.52	-4,135.77	-8,993.76	7,884.74	7,606.61	278.13	28.349		
8,600.00	7,060.66	7,000.66	7,060.66	56.60	242.67	-90.51	-4,135.77	-8,993.76	7,793.12	7,514.43	278.68	27.964		
8,700.00	7,060.27	7,000.27	7,060.27	58.97	242.66	-90.50	-4,135.77	-8,993.76	7,701.70	7,422.40	279.29	27.576		
8,800.00	7,059.87	7,000.13	7,059.87	61.38	242.65	-90.50	-4,135.77	-8,993.76	7,610.49	7,330.53	279.97	27.183		
8,900.00	7,059.48	7,000.52	7,059.48	63.83	242.67	-90.49	-4,135.77	-8,993.76	7,519.51	7,238.79	280.72	26.786		
9,000.00	7,059.09	7,000.91	7,059.09	66.32	242.68	-90.48	-4,135.77	-8,993.76	7,428.77	7,147.23	281.54	26.386		
9,100.00	7,058.69	7,001.31	7,058.69	68.83	242.69	-90.48	-4,135.77	-8,993.76	7,338.26	7,055.85	282.41	25.984		
9,200.00	7,058.30	7,001.70	7,058.30	71.37	242.71	-90.47	-4,135.77	-8,993.76	7,248.00	6,964.65	283.35	25.580		
9,300.00	7,057.91	7,002.09	7,057.91	73.93	242.72	-90.46	-4,135.77	-8,993.76	7,158.00	6,873.65	284.35	25.173		
9,400.00	7,057.51	7,002.49	7,057.51	76.51	242.73	-90.45	-4,135.77	-8,993.76	7,068.27	6,782.86	285.42	24.765		
9,500.00	7,057.12	7,002.88	7,057.12	79.11	242.75	-90.45	-4,135.77	-8,993.76	6,978.82	6,692.27	286.55	24.355		
9,600.00	7,056.73	7,003.27	7,056.73	81.73	242.76	-90.44	-4,135.77	-8,993.76	6,889.66	6,601.92	287.74	23.944		
9,700.00	7,056.33	7,003.67	7,056.33	84.37	242.78	-90.43	-4,135.77	-8,993.76	6,800.80	6,511.80	289.00	23.532		
9,800.00	7,055.94	7,004.06	7,055.94	87.01	242.79	-90.43	-4,135.77	-8,993.76	6,712.26	6,421.92	290.33	23.119		
9,900.00	7,055.55	7,004.45	7,055.55	89.68	242.80	-90.42	-4,135.77	-8,993.76	6,624.04	6,332.31	291.73	22.706		
10,000.00	7,055.15	7,004.85	7,055.15	92.35	242.82	-90.41	-4,135.77	-8,993.76	6,536.16	6,242.96	293.19	22.293		
10,100.00	7,054.76	7,005.24	7,054.76	95.03	242.83	-90.40	-4,135.77	-8,993.76	6,448.63	6,153.90	294.73	21.880		
10,200.00	7,054.37	7,005.63	7,054.37	97.73	242.84	-90.40	-4,135.77	-8,993.76	6,361.47	6,065.14	296.33	21.467		
10,300.00	7,053.98	7,006.03	7,053.98	100.43	242.86	-90.39	-4,135.77	-8,993.76	6,274.69	5,976.69	298.01	21.056		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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 Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	7,053.58	7,006.42	7,053.58	103.14	242.87	-90.38	-4,135.77	-8,993.76	6,188.31	5,888.56	299.75	20.645		
10,500.00	7,053.19	7,006.81	7,053.19	105.86	242.88	-90.38	-4,135.77	-8,993.76	6,102.35	5,800.78	301.57	20.235		
10,600.00	7,052.80	7,007.20	7,052.80	108.59	242.90	-90.37	-4,135.77	-8,993.76	6,016.82	5,713.35	303.47	19.827		
10,700.00	7,052.40	7,007.60	7,052.40	111.32	242.91	-90.36	-4,135.77	-8,993.76	5,931.75	5,626.31	305.44	19.420		
10,800.00	7,052.01	7,007.99	7,052.01	114.06	242.93	-90.35	-4,135.77	-8,993.76	5,847.14	5,539.66	307.49	19.016		
10,900.00	7,051.62	7,008.38	7,051.62	116.80	242.94	-90.35	-4,135.77	-8,993.76	5,763.04	5,453.42	309.61	18.614		
11,000.00	7,051.22	7,008.78	7,051.22	119.55	242.95	-90.34	-4,135.77	-8,993.76	5,679.44	5,367.62	311.82	18.214		
11,100.00	7,050.83	7,009.17	7,050.83	122.31	242.97	-90.33	-4,135.77	-8,993.76	5,596.38	5,282.28	314.10	17.817		
11,200.00	7,050.44	7,009.56	7,050.44	125.07	242.98	-90.33	-4,135.77	-8,993.76	5,513.89	5,197.42	316.47	17.423		
11,300.00	7,050.04	7,009.96	7,050.04	127.83	242.99	-90.32	-4,135.77	-8,993.76	5,431.98	5,113.06	318.92	17.032		
11,400.00	7,049.65	6,989.65	7,049.65	130.60	242.29	-90.31	-4,135.77	-8,993.76	5,350.69	5,029.96	320.74	16.682		
11,500.00	7,049.26	6,989.26	7,049.26	133.37	242.27	-90.30	-4,135.77	-8,993.76	5,270.05	4,946.71	323.34	16.299		
11,600.00	7,048.86	6,988.86	7,048.86	136.15	242.26	-90.30	-4,135.77	-8,993.76	5,190.07	4,864.05	326.02	15.919		
11,700.00	7,048.47	6,988.47	7,048.47	138.93	242.24	-90.29	-4,135.77	-8,993.76	5,110.80	4,782.01	328.80	15.544		
11,800.00	7,048.08	6,988.08	7,048.08	141.71	242.23	-90.28	-4,135.77	-8,993.76	5,032.28	4,700.61	331.67	15.173		
11,900.00	7,047.68	6,987.68	7,047.68	144.49	242.22	-90.27	-4,135.77	-8,993.76	4,954.52	4,619.89	334.63	14.806		
12,000.00	7,047.29	6,987.29	7,047.29	147.28	242.20	-90.27	-4,135.77	-8,993.76	4,877.57	4,539.89	337.69	14.444		
12,100.00	7,046.90	6,986.90	7,046.90	150.07	242.19	-90.26	-4,135.77	-8,993.76	4,801.48	4,460.64	340.84	14.087		
12,200.00	7,046.51	6,986.51	7,046.51	152.87	242.18	-90.25	-4,135.77	-8,993.76	4,726.27	4,382.18	344.09	13.736		
12,300.00	7,046.11	6,986.11	7,046.11	155.66	242.16	-90.25	-4,135.77	-8,993.76	4,652.00	4,304.56	347.44	13.389		
12,400.00	7,045.72	6,985.72	7,045.72	158.46	242.15	-90.24	-4,135.77	-8,993.76	4,578.71	4,227.82	350.89	13.049		
12,500.00	7,045.33	6,985.33	7,045.33	161.26	242.13	-90.23	-4,135.77	-8,993.76	4,506.45	4,152.01	354.44	12.714		
12,600.00	7,044.93	6,984.93	7,044.93	164.06	242.12	-90.22	-4,135.77	-8,993.76	4,435.26	4,077.17	358.09	12.386		
12,700.00	7,044.54	6,984.54	7,044.54	166.86	242.11	-90.22	-4,135.77	-8,993.76	4,365.20	4,003.36	361.85	12.064		
12,800.00	7,044.15	6,984.15	7,044.15	169.67	242.09	-90.21	-4,135.77	-8,993.76	4,296.33	3,930.63	365.70	11.748		
12,900.00	7,043.75	6,983.75	7,043.75	172.48	242.08	-90.20	-4,135.77	-8,993.76	4,228.70	3,859.05	369.65	11.440		
13,000.00	7,043.36	6,983.36	7,043.36	175.28	242.07	-90.20	-4,135.77	-8,993.76	4,162.38	3,788.67	373.71	11.138		
13,100.00	7,042.97	6,982.97	7,042.97	178.09	242.05	-90.19	-4,135.77	-8,993.76	4,097.42	3,719.56	377.86	10.844		
13,200.00	7,042.57	6,982.57	7,042.57	180.91	242.04	-90.18	-4,135.77	-8,993.76	4,033.90	3,651.79	382.11	10.557		
13,300.00	7,042.18	6,982.18	7,042.18	183.72	242.03	-90.17	-4,135.77	-8,993.76	3,971.87	3,585.43	386.45	10.278		
13,400.00	7,041.79	6,981.79	7,041.79	186.53	242.01	-90.17	-4,135.77	-8,993.76	3,911.42	3,520.55	390.88	10.007		
13,500.00	7,041.39	6,981.39	7,041.39	189.35	242.00	-90.16	-4,135.77	-8,993.76	3,852.62	3,457.23	395.39	9.744		
13,600.00	7,041.00	6,981.00	7,041.00	192.17	241.98	-90.15	-4,135.77	-8,993.76	3,795.54	3,395.57	399.98	9.489		
13,700.00	7,040.61	6,980.61	7,040.61	194.99	241.97	-90.15	-4,135.77	-8,993.76	3,740.27	3,335.63	404.64	9.243		
13,800.00	7,040.21	6,980.21	7,040.21	197.81	241.96	-90.14	-4,135.77	-8,993.76	3,686.88	3,277.51	409.37	9.006		
13,900.00	7,039.82	6,979.82	7,039.82	200.63	241.94	-90.13	-4,135.77	-8,993.76	3,635.46	3,221.31	414.15	8.778		
14,000.00	7,039.43	6,979.43	7,039.43	203.45	241.93	-90.12	-4,135.77	-8,993.76	3,586.09	3,167.11	418.98	8.559		
14,100.00	7,039.03	6,979.03	7,039.03	206.27	241.92	-90.12	-4,135.77	-8,993.76	3,538.85	3,115.01	423.84	8.350		
14,200.00	7,038.64	6,978.64	7,038.64	209.09	241.90	-90.11	-4,135.77	-8,993.76	3,493.84	3,065.12	428.72	8.149		
14,300.00	7,038.25	6,978.25	7,038.25	211.92	241.89	-90.10	-4,135.77	-8,993.76	3,451.14	3,017.53	433.61	7.959		
14,400.00	7,037.86	6,977.86	7,037.86	214.74	241.87	-90.10	-4,135.77	-8,993.76	3,410.84	2,972.35	438.50	7.779		
14,500.00	7,037.46	6,977.46	7,037.46	217.57	241.86	-90.09	-4,135.77	-8,993.76	3,373.03	2,929.67	443.36	7.608		
14,600.00	7,037.07	6,977.07	7,037.07	220.40	241.85	-90.08	-4,135.77	-8,993.76	3,337.78	2,889.60	448.18	7.447		
14,700.00	7,036.68	6,976.68	7,036.68	223.23	241.83	-90.07	-4,135.77	-8,993.76	3,305.18	2,852.25	452.94	7.297		
14,800.00	7,036.28	6,976.28	7,036.28	226.05	241.82	-90.07	-4,135.77	-8,993.76	3,275.31	2,817.69	457.62	7.157		
14,871.88	7,036.00	6,976.00	7,036.00	228.09	241.81	-90.06	-4,135.77	-8,993.76	3,255.57	2,794.65	460.93	7.063 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	677.72	710.52	3.28	4.35	-107.45	-2,809.45	-8,935.07	9,393.26					
100.00	100.00	724.00	756.32	3.28	4.49	-107.49	-2,813.98	-8,930.17	9,386.01	9,378.26	7.75	1,211.402		
200.00	200.00	724.00	756.32	3.34	4.49	-107.49	-2,813.98	-8,930.17	9,379.54	9,371.75	7.79	1,204.227		
300.00	300.00	724.00	756.32	3.44	4.49	-107.49	-2,813.98	-8,930.17	9,374.14	9,366.26	7.89	1,188.463		
400.00	399.98	766.41	798.23	3.60	4.63	62.72	-2,819.02	-8,926.13	9,368.36	9,360.19	8.17	1,146.605		
500.00	499.84	818.00	849.05	3.79	4.81	62.80	-2,826.98	-8,922.20	9,362.66	9,354.12	8.53	1,097.339		
600.00	599.45	818.00	849.05	4.02	4.81	62.93	-2,826.98	-8,922.20	9,355.46	9,346.71	8.76	1,068.110		
700.00	698.70	818.00	849.05	4.29	4.81	63.06	-2,826.98	-8,922.20	9,347.75	9,338.73	9.03	1,035.731		
800.00	797.70	818.00	849.05	4.59	4.81	63.07	-2,826.98	-8,922.20	9,340.21	9,330.89	9.32	1,001.639		
900.00	896.69	818.00	849.05	4.92	4.81	63.07	-2,826.98	-8,922.20	9,333.73	9,324.08	9.65	967.031		
1,000.00	995.68	818.00	849.05	5.27	4.81	63.07	-2,826.98	-8,922.20	9,328.32	9,318.32	10.00	932.640		
1,100.00	1,094.68	870.55	900.67	5.64	5.00	63.05	-2,836.45	-8,919.52	9,323.00	9,312.44	10.56	882.808		
1,200.00	1,193.67	912.00	941.33	6.03	5.15	63.04	-2,844.42	-8,918.49	9,319.33	9,308.24	11.10	839.710		
1,300.00	1,292.67	912.00	941.33	6.42	5.15	63.04	-2,844.42	-8,918.49	9,316.13	9,304.64	11.49	810.619		
1,400.00	1,391.66	912.00	941.33	6.83	5.15	63.04	-2,844.42	-8,918.49	9,314.00	9,302.10	11.90	782.894		
1,500.00	1,490.66	912.00	941.33	7.25	5.15	63.04	-2,844.42	-8,918.49	9,312.94	9,300.63	12.31	756.584		
1,548.58	1,538.75	912.00	941.33	7.45	5.15	63.04	-2,844.42	-8,918.49	9,312.81	9,300.30	12.51	744.311		
1,600.00	1,589.65	912.00	941.33	7.67	5.15	63.04	-2,844.42	-8,918.49	9,312.95	9,300.23	12.73	731.691		
1,700.00	1,688.64	958.68	987.10	8.10	5.32	63.02	-2,853.55	-8,918.62	9,313.23	9,299.90	13.33	698.624		
1,800.00	1,787.64	1,006.00	1,033.51	8.53	5.50	63.01	-2,862.66	-8,920.27	9,315.22	9,301.28	13.94	668.035		
1,900.00	1,886.63	1,006.00	1,033.51	8.97	5.50	63.01	-2,862.66	-8,920.27	9,317.45	9,303.08	14.37	648.191		
2,000.00	1,985.63	1,006.00	1,033.51	9.41	5.50	63.01	-2,862.66	-8,920.27	9,320.75	9,305.94	14.81	629.470		
2,100.00	2,084.62	1,006.00	1,033.51	9.85	5.50	63.01	-2,862.66	-8,920.27	9,325.12	9,309.88	15.24	611.810		
2,200.00	2,183.61	1,006.00	1,033.51	10.30	5.50	63.01	-2,862.66	-8,920.27	9,330.56	9,314.89	15.68	595.153		
2,300.00	2,282.61	1,057.78	1,084.28	10.75	5.69	63.00	-2,872.20	-8,923.67	9,336.32	9,320.01	16.32	572.208		
2,400.00	2,381.60	1,101.00	1,126.68	11.20	5.85	62.99	-2,879.63	-8,927.64	9,343.41	9,326.48	16.93	552.034		
2,500.00	2,480.60	1,101.00	1,126.68	11.66	5.85	62.99	-2,879.63	-8,927.64	9,351.03	9,333.67	17.36	538.598		
2,600.00	2,579.59	1,101.00	1,126.68	12.11	5.85	62.99	-2,879.63	-8,927.64	9,359.72	9,341.92	17.80	525.896		
2,700.00	2,678.58	1,101.00	1,126.68	12.57	5.85	62.99	-2,879.63	-8,927.64	9,369.47	9,351.24	18.23	513.883		
2,800.00	2,777.58	1,150.20	1,174.79	13.02	6.04	62.99	-2,888.24	-8,933.22	9,379.56	9,360.69	18.87	497.110		
2,900.00	2,876.57	1,197.00	1,220.30	13.48	6.23	62.98	-2,897.25	-8,939.39	9,391.04	9,371.55	19.50	481.673		
3,000.00	2,975.57	1,197.00	1,220.30	13.94	6.23	62.98	-2,897.25	-8,939.39	9,402.93	9,383.01	19.93	471.844		
3,100.00	3,074.56	1,197.00	1,220.30	14.40	6.23	62.98	-2,897.25	-8,939.39	9,415.87	9,395.51	20.36	462.526		
3,200.00	3,173.55	1,197.00	1,220.30	14.87	6.23	62.98	-2,897.25	-8,939.39	9,429.85	9,409.07	20.78	453.690		
3,300.00	3,272.55	1,244.52	1,266.23	15.33	6.43	62.97	-2,907.14	-8,946.46	9,444.28	9,422.85	21.42	440.837		
3,400.00	3,371.54	1,292.00	1,311.86	15.79	6.64	62.96	-2,917.71	-8,954.28	9,459.93	9,437.87	22.07	428.727		
3,500.00	3,470.54	1,292.00	1,311.86	16.26	6.64	62.96	-2,917.71	-8,954.28	9,476.02	9,453.54	22.49	421.419		
3,600.00	3,569.53	1,292.00	1,311.86	16.72	6.64	62.96	-2,917.71	-8,954.28	9,493.14	9,470.24	22.90	414.477		
3,700.00	3,668.53	1,292.00	1,311.86	17.19	6.64	62.96	-2,917.71	-8,954.28	9,511.28	9,487.96	23.32	407.879		
3,800.00	3,767.52	1,343.06	1,360.59	17.65	6.90	62.95	-2,929.83	-8,963.52	9,529.75	9,505.77	23.98	397.423		
3,900.00	3,866.51	1,387.00	1,402.23	18.12	7.12	62.93	-2,940.88	-8,972.17	9,549.44	9,524.83	24.61	387.959		
4,000.00	3,965.51	1,387.00	1,402.23	18.59	7.12	62.93	-2,940.88	-8,972.17	9,569.63	9,544.61	25.02	382.463		
4,100.00	4,064.50	1,447.19	1,459.01	19.05	7.46	62.91	-2,956.69	-8,984.39	9,590.60	9,564.85	25.75	372.400		
4,200.00	4,163.50	1,481.00	1,490.84	19.52	7.66	62.89	-2,965.82	-8,991.20	9,611.91	9,585.57	26.33	364.996		
4,300.00	4,262.49	1,539.14	1,545.37	19.99	8.03	62.86	-2,982.12	-9,003.03	9,633.67	9,606.59	27.08	355.809		
4,400.00	4,361.48	4,400.00	1,638.53	20.46	31.05	62.79	-3,012.31	-9,023.21	9,655.88	9,603.19	52.69	183.244		
4,500.00	4,460.48	1,732.67	1,725.31	20.92	9.39	62.72	-3,042.26	-9,041.18	9,677.81	9,648.73	29.08	332.777		
4,600.00	4,559.47	1,760.00	1,750.48	21.39	9.60	62.70	-3,051.55	-9,046.34	9,700.27	9,670.61	29.66	327.077		
4,700.00	4,658.47	2,463.05	2,383.21	21.86	15.95	61.71	-3,340.96	-9,140.76	9,720.02	9,684.20	35.82	271.362		
4,800.00	4,757.46	2,513.00	2,428.24	22.33	16.42	61.63	-3,361.93	-9,146.00	9,737.40	9,700.74	36.66	265.608		
4,900.00	4,856.45	2,513.00	2,428.24	22.80	16.42	61.63	-3,361.93	-9,146.00	9,755.38	9,718.32	37.06	263.219		
5,000.00	4,955.45	2,567.22	2,477.11	23.27	16.94	61.55	-3,384.53	-9,152.28	9,773.99	9,736.05	37.93	257.661		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,054.44	2,608.00	2,513.91	23.74	17.33	61.50	-3,401.37	-9,157.36	9,793.21	9,754.53	38.69	253.150		
5,200.00	5,153.44	2,653.08	2,554.55	24.21	17.76	61.43	-3,419.97	-9,163.22	9,813.00	9,773.53	39.47	248.597		
5,300.00	5,252.43	2,703.00	2,599.44	24.68	18.24	61.36	-3,440.76	-9,169.91	9,833.33	9,793.03	40.30	243.990		
5,400.00	5,351.42	2,703.00	2,599.44	25.15	18.24	61.36	-3,440.76	-9,169.91	9,854.36	9,813.68	40.68	242.213		
5,500.00	5,450.42	2,752.69	2,643.89	25.62	18.74	61.29	-3,461.84	-9,176.89	9,875.91	9,834.40	41.52	237.883		
5,600.00	5,549.41	2,798.00	2,684.12	26.09	19.20	61.22	-3,481.57	-9,183.63	9,898.35	9,856.05	42.30	233.979		
5,700.00	5,648.41	2,798.00	2,684.12	26.56	19.20	61.22	-3,481.57	-9,183.63	9,921.37	9,878.69	42.67	232.490		
5,800.00	5,747.40	3,118.98	2,968.89	27.03	22.49	60.74	-3,622.26	-9,229.32	9,943.21	9,897.16	46.05	215.907		
5,900.00	5,846.40	5,900.00	3,035.89	27.51	51.09	60.64	-3,654.22	-9,240.00	9,964.98	9,894.16	70.82	140.699		
6,000.00	5,945.39	3,470.13	3,282.36	27.98	26.06	60.23	-3,773.86	-9,274.65	9,985.32	9,935.24	50.08	199.399		
7,000.00	6,884.42	7,037.00	6,624.97	32.43	52.59	-19.91	-4,765.56	-9,546.68	9,993.00	9,915.35	77.65	128.692		
7,100.00	6,947.98	7,099.83	6,687.76	32.77	52.77	-26.72	-4,767.08	-9,547.85	9,920.50	9,842.46	78.04	127.123		
7,200.00	6,998.89	7,158.79	6,746.70	33.18	52.94	-35.82	-4,768.36	-9,548.97	9,839.97	9,761.62	78.34	125.598		
7,300.00	7,035.91	7,202.33	6,790.23	33.76	53.06	-48.76	-4,769.21	-9,549.80	9,753.43	9,674.88	78.55	124.167		
7,400.00	7,058.12	7,229.39	6,817.28	34.61	53.14	-66.62	-4,769.70	-9,550.33	9,663.09	9,584.42	78.67	122.830		
7,500.00	7,064.98	7,239.30	6,827.19	35.68	53.17	-86.91	-4,769.88	-9,550.52	9,571.21	9,492.49	78.72	121.585		
7,600.00	7,064.59	7,241.07	6,828.95	36.95	53.18	-86.94	-4,769.91	-9,550.56	9,479.40	9,400.63	78.77	120.346		
7,700.00	7,064.20	7,242.84	6,830.72	38.40	53.18	-86.97	-4,769.94	-9,550.59	9,387.75	9,308.89	78.86	119.041		
7,800.00	7,063.80	7,244.61	6,832.50	40.00	53.19	-86.99	-4,769.97	-9,550.63	9,296.28	9,217.28	79.00	117.670		
7,900.00	7,063.41	7,246.39	6,834.27	41.75	53.19	-87.02	-4,770.00	-9,550.66	9,204.98	9,125.79	79.19	116.234		
8,000.00	7,063.02	7,248.16	6,836.05	43.62	53.20	-87.05	-4,770.03	-9,550.70	9,113.87	9,034.43	79.44	114.732		
8,100.00	7,062.62	7,249.94	6,837.82	45.59	53.20	-87.08	-4,770.06	-9,550.73	9,022.94	8,943.21	79.73	113.168		
8,200.00	7,062.23	7,251.72	6,839.60	47.65	53.21	-87.10	-4,770.09	-9,550.77	8,932.21	8,852.13	80.08	111.541		
8,300.00	7,061.84	7,253.51	6,841.39	49.79	53.21	-87.13	-4,770.12	-9,550.80	8,841.67	8,761.19	80.48	109.856		
8,400.00	7,061.45	7,255.29	6,843.17	52.00	53.22	-87.16	-4,770.15	-9,550.84	8,751.35	8,670.40	80.94	108.115		
8,500.00	7,061.05	7,257.08	6,844.96	54.27	53.22	-87.18	-4,770.18	-9,550.87	8,661.23	8,579.77	81.46	106.322		
8,600.00	7,060.66	7,258.87	6,846.74	56.60	53.23	-87.21	-4,770.21	-9,550.91	8,571.34	8,489.30	82.04	104.479		
8,700.00	7,060.27	7,260.66	6,848.53	58.97	53.23	-87.24	-4,770.24	-9,550.94	8,481.67	8,398.99	82.67	102.593		
8,800.00	7,059.87	7,262.45	6,850.33	61.38	53.24	-87.27	-4,770.26	-9,550.98	8,392.23	8,308.86	83.37	100.667		
8,900.00	7,059.48	7,264.24	6,852.12	63.83	53.24	-87.29	-4,770.29	-9,551.01	8,303.03	8,218.91	84.12	98.705		
9,000.00	7,059.09	7,266.04	6,853.92	66.32	53.25	-87.32	-4,770.32	-9,551.05	8,214.08	8,129.15	84.93	96.714		
9,100.00	7,058.69	7,267.84	6,855.72	68.83	53.25	-87.35	-4,770.35	-9,551.08	8,125.39	8,039.59	85.80	94.697		
9,200.00	7,058.30	7,269.64	6,857.52	71.37	53.26	-87.37	-4,770.38	-9,551.12	8,036.97	7,950.23	86.74	92.660		
9,300.00	7,057.91	7,271.44	6,859.32	73.93	53.26	-87.40	-4,770.41	-9,551.16	7,948.81	7,861.08	87.73	90.607		
9,400.00	7,057.51	7,273.25	6,861.12	76.51	53.27	-87.43	-4,770.44	-9,551.19	7,860.94	7,772.16	88.78	88.543		
9,500.00	7,057.12	7,275.06	6,862.93	79.11	53.27	-87.46	-4,770.47	-9,551.23	7,773.37	7,683.47	89.89	86.473		
9,600.00	7,056.73	7,276.87	6,864.74	81.73	53.28	-87.48	-4,770.50	-9,551.26	7,686.09	7,595.03	91.07	84.402		
9,700.00	7,056.33	7,278.68	6,866.55	84.37	53.28	-87.51	-4,770.52	-9,551.30	7,599.13	7,506.84	92.30	82.333		
9,800.00	7,055.94	7,280.49	6,868.36	87.01	53.29	-87.54	-4,770.55	-9,551.33	7,512.50	7,418.91	93.59	80.270		
9,900.00	7,055.55	7,282.31	6,870.18	89.68	53.29	-87.57	-4,770.58	-9,551.37	7,426.20	7,331.25	94.94	78.217		
10,000.00	7,055.15	7,284.13	6,872.00	92.35	53.30	-87.59	-4,770.61	-9,551.41	7,340.24	7,243.89	96.36	76.178		
10,100.00	7,054.76	7,285.95	6,873.82	95.03	53.30	-87.62	-4,770.64	-9,551.44	7,254.65	7,156.82	97.83	74.155		
10,200.00	7,054.37	7,287.77	6,875.64	97.73	53.31	-87.65	-4,770.66	-9,551.48	7,169.43	7,070.06	99.37	72.152		
10,300.00	7,053.98	7,289.59	6,877.46	100.43	53.32	-87.68	-4,770.69	-9,551.51	7,084.59	6,983.63	100.96	70.172		
10,400.00	7,053.58	7,291.42	6,879.29	103.14	53.32	-87.70	-4,770.72	-9,551.55	7,000.16	6,897.54	102.62	68.216		
10,500.00	7,053.19	7,293.25	6,881.11	105.86	53.33	-87.73	-4,770.75	-9,551.59	6,916.14	6,811.80	104.34	66.287		
10,600.00	7,052.80	7,295.08	6,882.94	108.59	53.33	-87.76	-4,770.78	-9,551.62	6,832.55	6,726.43	106.12	64.387		
10,700.00	7,052.40	7,296.91	6,884.78	111.32	53.34	-87.79	-4,770.80	-9,551.66	6,749.40	6,641.44	107.96	62.517		
10,800.00	7,052.01	7,298.74	6,886.61	114.06	53.34	-87.82	-4,770.83	-9,551.70	6,666.72	6,556.85	109.87	60.679		
10,900.00	7,051.62	7,300.58	6,888.45	116.80	53.35	-87.84	-4,770.86	-9,551.73	6,584.52	6,472.68	111.84	58.875		
11,000.00	7,051.22	7,302.42	6,890.28	119.55	53.35	-87.87	-4,770.88	-9,551.77	6,502.82	6,388.94	113.87	57.106		
11,100.00	7,050.83	7,304.26	6,892.12	122.31	53.36	-87.90	-4,770.91	-9,551.81	6,421.63	6,305.66	115.97	55.372		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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
11,200.00	7,050.44	7,306.10	6,893.97	125.07	53.36	-87.93	-4,770.94	-9,551.84	6,340.98	6,222.84	118.14	53.674	
11,300.00	7,050.04	7,307.95	6,895.81	127.83	53.37	-87.96	-4,770.97	-9,551.88	6,260.89	6,140.52	120.37	52.013	
11,400.00	7,049.65	7,309.80	6,897.66	130.60	53.37	-87.98	-4,770.99	-9,551.92	6,181.38	6,058.71	122.67	50.389	
11,500.00	7,049.26	7,311.65	6,899.51	133.37	53.38	-88.01	-4,771.02	-9,551.95	6,102.47	5,977.43	125.04	48.804	
11,600.00	7,048.86	7,313.50	6,901.36	136.15	53.38	-88.04	-4,771.05	-9,551.99	6,024.19	5,896.71	127.48	47.257	
11,700.00	7,048.47	7,315.35	6,903.21	138.93	53.39	-88.07	-4,771.07	-9,552.03	5,946.55	5,816.57	129.99	45.748	
11,800.00	7,048.08	7,317.21	6,905.07	141.71	53.39	-88.10	-4,771.10	-9,552.06	5,869.60	5,737.03	132.56	44.277	
11,900.00	7,047.68	7,319.06	6,906.93	144.49	53.40	-88.12	-4,771.12	-9,552.10	5,793.34	5,658.13	135.21	42.846	
12,000.00	7,047.29	7,320.93	6,908.78	147.28	53.41	-88.15	-4,771.15	-9,552.14	5,717.82	5,579.88	137.94	41.452	
12,100.00	7,046.90	7,322.79	6,910.65	150.07	53.41	-88.18	-4,771.18	-9,552.18	5,643.06	5,502.33	140.73	40.098	
12,200.00	7,046.51	7,324.65	6,912.51	152.87	53.42	-88.21	-4,771.20	-9,552.21	5,569.09	5,425.49	143.60	38.781	
12,300.00	7,046.11	7,326.52	6,914.38	155.66	53.42	-88.24	-4,771.23	-9,552.25	5,495.95	5,349.40	146.55	37.503	
12,400.00	7,045.72	7,328.39	6,916.25	158.46	53.43	-88.27	-4,771.25	-9,552.29	5,423.66	5,274.09	149.57	36.262	
12,500.00	7,045.33	7,330.26	6,918.12	161.26	53.43	-88.29	-4,771.28	-9,552.33	5,352.26	5,199.59	152.67	35.059	
12,600.00	7,044.93	7,332.13	6,919.99	164.06	53.44	-88.32	-4,771.30	-9,552.36	5,281.79	5,125.95	155.84	33.892	
12,700.00	7,044.54	7,334.01	6,921.86	166.86	53.44	-88.35	-4,771.33	-9,552.40	5,212.29	5,053.20	159.09	32.763	
12,800.00	7,044.15	7,335.89	6,923.74	169.67	53.45	-88.38	-4,771.35	-9,552.44	5,143.79	4,981.37	162.42	31.670	
12,900.00	7,043.75	7,337.77	6,925.62	172.48	53.45	-88.41	-4,771.38	-9,552.48	5,076.33	4,910.51	165.82	30.613	
13,000.00	7,043.36	7,339.65	6,927.50	175.28	53.46	-88.44	-4,771.40	-9,552.51	5,009.96	4,840.66	169.30	29.592	
13,100.00	7,042.97	7,341.53	6,929.39	178.09	53.46	-88.47	-4,771.43	-9,552.55	4,944.73	4,771.86	172.86	28.605	
13,200.00	7,042.57	7,343.42	6,931.27	180.91	53.47	-88.49	-4,771.45	-9,552.59	4,880.67	4,704.17	176.50	27.653	
13,300.00	7,042.18	7,345.31	6,933.16	183.72	53.48	-88.52	-4,771.48	-9,552.63	4,817.83	4,637.62	180.21	26.735	
13,400.00	7,041.79	7,347.20	6,935.05	186.53	53.48	-88.55	-4,771.50	-9,552.67	4,756.27	4,572.27	183.99	25.851	
13,500.00	7,041.39	7,349.09	6,936.94	189.35	53.49	-88.58	-4,771.53	-9,552.70	4,696.02	4,508.18	187.85	24.999	
13,600.00	7,041.00	7,350.99	6,938.84	192.17	53.49	-88.61	-4,771.55	-9,552.74	4,637.15	4,445.38	191.77	24.180	
13,700.00	7,040.61	7,352.89	6,940.74	194.99	53.50	-88.64	-4,771.58	-9,552.78	4,579.71	4,383.94	195.77	23.393	
13,800.00	7,040.21	7,354.79	6,942.64	197.81	53.50	-88.67	-4,771.60	-9,552.82	4,523.75	4,323.91	199.83	22.637	
13,900.00	7,039.82	7,356.69	6,944.54	200.63	53.51	-88.70	-4,771.62	-9,552.86	4,469.32	4,265.36	203.96	21.913	
14,000.00	7,039.43	7,358.59	6,946.44	203.45	53.51	-88.72	-4,771.65	-9,552.90	4,416.49	4,208.34	208.15	21.218	
14,100.00	7,039.03	7,360.50	6,948.35	206.27	53.52	-88.75	-4,771.67	-9,552.93	4,365.31	4,152.92	212.39	20.553	
14,200.00	7,038.64	7,362.41	6,950.26	209.09	53.53	-88.78	-4,771.69	-9,552.97	4,315.83	4,099.15	216.68	19.918	
14,300.00	7,038.25	7,364.32	6,952.17	211.92	53.53	-88.81	-4,771.72	-9,553.01	4,268.13	4,047.11	221.02	19.311	
14,400.00	7,037.86	7,366.23	6,954.08	214.74	53.54	-88.84	-4,771.74	-9,553.05	4,222.26	3,996.86	225.40	18.732	
14,500.00	7,037.46	7,368.15	6,955.99	217.57	53.54	-88.87	-4,771.76	-9,553.09	4,178.27	3,948.46	229.82	18.181	
14,600.00	7,037.07	7,370.07	6,957.91	220.40	53.55	-88.90	-4,771.79	-9,553.13	4,136.24	3,901.98	234.26	17.657	
14,700.00	7,036.68	7,371.99	6,959.83	223.23	53.55	-88.93	-4,771.81	-9,553.17	4,096.21	3,857.49	238.72	17.159	
14,800.00	7,036.28	7,373.91	6,961.75	226.05	53.56	-88.96	-4,771.83	-9,553.21	4,058.25	3,815.06	243.19	16.687	
14,871.88	7,036.00	7,375.29	6,963.14	228.09	53.56	-88.98	-4,771.85	-9,553.23	4,032.28	3,785.87	246.41	16.364 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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	63.00	3.28	3.28	-129.58	-4,062.97	-4,915.53	6,377.63					
100.00	100.00	48.34	111.34	3.28	3.28	-129.57	-4,062.81	-4,915.61	6,377.29	6,370.72	6.57	971.186		
200.00	200.00	179.54	242.52	3.34	3.33	-129.56	-4,061.00	-4,916.39	6,376.87	6,370.20	6.67	956.450		
300.00	300.00	275.97	338.94	3.44	3.43	-129.54	-4,059.13	-4,917.08	6,376.18	6,369.31	6.87	927.853		
400.00	399.98	373.91	436.86	3.60	3.57	40.66	-4,057.57	-4,917.64	6,374.28	6,367.12	7.17	889.449		
500.00	499.84	477.38	540.32	3.79	3.77	40.76	-4,056.12	-4,918.03	6,369.71	6,362.16	7.55	843.358		
600.00	599.45	595.16	658.08	4.02	4.04	40.93	-4,054.52	-4,918.18	6,362.35	6,354.30	8.06	789.809		
700.00	698.70	683.84	746.76	4.29	4.27	41.14	-4,053.40	-4,918.12	6,352.28	6,343.73	8.56	742.478		
800.00	797.70	784.22	847.13	4.59	4.55	41.24	-4,052.34	-4,918.02	6,340.85	6,331.71	9.14	693.808		
900.00	896.69	873.08	935.99	4.92	4.82	41.32	-4,051.42	-4,917.95	6,329.45	6,319.72	9.73	650.470		
1,000.00	995.68	965.55	1,028.45	5.27	5.12	41.41	-4,050.53	-4,918.01	6,318.23	6,307.86	10.37	609.341		
1,100.00	1,094.68	1,071.47	1,134.37	5.64	5.48	41.50	-4,049.50	-4,918.10	6,307.04	6,295.96	11.08	569.072		
1,200.00	1,193.67	1,165.05	1,227.94	6.03	5.80	41.59	-4,048.54	-4,918.12	6,295.78	6,284.00	11.78	534.376		
1,300.00	1,292.67	1,250.85	1,313.75	6.42	6.11	41.67	-4,047.71	-4,918.30	6,284.72	6,272.24	12.47	503.864		
1,400.00	1,391.66	1,337.39	1,400.28	6.83	6.43	41.75	-4,047.13	-4,918.51	6,273.88	6,260.70	13.18	475.909		
1,500.00	1,490.66	1,433.13	1,496.02	7.25	6.78	41.84	-4,046.74	-4,918.74	6,263.21	6,249.27	13.94	449.287		
1,600.00	1,589.65	1,538.03	1,600.92	7.67	7.18	41.94	-4,046.26	-4,918.90	6,252.47	6,237.72	14.74	424.045		
1,700.00	1,688.64	1,636.35	1,699.24	8.10	7.56	42.02	-4,045.99	-4,918.92	6,241.75	6,226.21	15.54	401.749		
1,800.00	1,787.64	1,737.00	1,799.88	8.53	7.95	42.11	-4,045.62	-4,918.95	6,230.99	6,214.64	16.35	381.185		
1,900.00	1,886.63	1,824.25	1,887.14	8.97	8.29	42.19	-4,045.40	-4,918.97	6,220.32	6,203.21	17.11	363.487		
2,000.00	1,985.63	1,900.00	1,962.89	9.41	8.59	42.26	-4,045.38	-4,919.16	6,209.98	6,192.13	17.84	348.073		
2,100.00	2,084.62	1,987.91	2,050.79	9.85	8.94	42.34	-4,045.49	-4,919.58	6,199.92	6,181.30	18.62	332.964		
2,200.00	2,183.61	2,081.98	2,144.86	10.30	9.31	42.43	-4,045.70	-4,920.13	6,190.01	6,170.58	19.43	318.597		
2,300.00	2,282.61	2,179.97	2,242.85	10.75	9.70	42.51	-4,045.97	-4,920.71	6,180.17	6,159.91	20.26	305.076		
2,400.00	2,381.60	2,271.81	2,334.69	11.20	10.07	42.60	-4,046.13	-4,921.39	6,170.39	6,149.32	21.07	292.892		
2,500.00	2,480.60	2,370.07	2,432.95	11.66	10.47	42.69	-4,046.31	-4,922.23	6,160.72	6,138.82	21.91	281.240		
2,600.00	2,579.59	2,465.44	2,528.31	12.11	10.86	42.78	-4,046.47	-4,923.05	6,151.07	6,128.33	22.74	270.541		
2,700.00	2,678.58	2,557.60	2,620.46	12.57	11.23	42.87	-4,046.66	-4,923.94	6,141.53	6,117.97	23.56	260.706		
2,800.00	2,777.58	2,644.88	2,707.74	13.02	11.59	42.95	-4,046.72	-4,925.02	6,132.14	6,107.78	24.36	251.710		
2,900.00	2,876.57	2,730.67	2,793.52	13.48	11.94	43.03	-4,046.89	-4,926.25	6,123.01	6,097.84	25.16	243.332		
3,000.00	2,975.57	2,821.42	2,884.26	13.94	12.32	43.12	-4,047.21	-4,927.63	6,114.05	6,088.07	25.99	235.281		
3,100.00	3,074.56	2,913.14	2,975.97	14.40	12.70	43.21	-4,047.77	-4,929.00	6,105.24	6,078.42	26.82	227.679		
3,200.00	3,173.55	3,005.77	3,068.58	14.87	13.08	43.30	-4,048.40	-4,930.47	6,096.56	6,068.91	27.65	220.493		
3,300.00	3,272.55	3,149.24	3,212.04	15.33	13.67	43.43	-4,049.27	-4,932.53	6,087.80	6,059.11	28.69	212.196		
3,400.00	3,371.54	3,271.21	3,334.00	15.79	14.18	43.55	-4,049.55	-4,933.23	6,078.04	6,048.40	29.64	205.031		
3,500.00	3,470.54	3,380.72	3,443.51	16.26	14.64	43.65	-4,049.69	-4,933.94	6,068.35	6,037.79	30.55	198.627		
3,600.00	3,569.53	3,476.85	3,539.64	16.72	15.04	43.74	-4,049.75	-4,934.41	6,058.50	6,027.10	31.41	192.905		
3,700.00	3,668.53	3,557.70	3,620.49	17.19	15.38	43.82	-4,049.94	-4,934.89	6,048.86	6,016.66	32.20	187.839		
3,800.00	3,767.52	3,635.79	3,698.58	17.65	15.70	43.90	-4,050.11	-4,935.71	6,039.58	6,006.59	32.99	183.083		
3,900.00	3,866.51	3,716.62	3,779.39	18.12	16.04	43.98	-4,050.29	-4,936.89	6,030.65	5,996.86	33.79	178.496		
4,000.00	3,965.51	3,805.23	3,867.99	18.59	16.41	44.07	-4,050.57	-4,938.37	6,021.96	5,987.34	34.62	173.967		
4,100.00	4,064.50	3,895.66	3,958.41	19.05	16.79	44.16	-4,051.09	-4,939.88	6,013.44	5,977.99	35.45	169.614		
4,200.00	4,163.50	3,965.42	4,028.15	19.52	17.09	44.22	-4,051.75	-4,941.13	6,005.25	5,969.04	36.21	165.850		
4,300.00	4,262.49	4,036.86	4,099.57	19.99	17.39	44.29	-4,052.70	-4,942.65	5,997.57	5,960.60	36.97	162.223		
4,400.00	4,361.48	4,110.65	4,173.32	20.46	17.70	44.36	-4,054.06	-4,944.33	5,990.33	5,952.58	37.74	158.714		
4,500.00	4,460.48	4,181.89	4,244.52	20.92	18.00	44.43	-4,055.67	-4,946.13	5,983.55	5,945.04	38.50	155.399		
4,600.00	4,559.47	4,312.44	4,375.00	21.39	18.55	44.55	-4,058.66	-4,949.52	5,976.88	5,937.37	39.51	151.271		
4,700.00	4,658.47	4,425.36	4,487.86	21.86	19.03	44.66	-4,060.57	-4,952.29	5,969.74	5,929.30	40.45	147.600		
4,800.00	4,757.46	4,552.20	4,614.66	22.33	19.56	44.78	-4,062.08	-4,955.44	5,962.38	5,920.94	41.44	143.891		
4,900.00	4,856.45	4,701.19	4,763.62	22.80	20.19	44.93	-4,063.35	-4,958.09	5,954.23	5,911.71	42.52	140.045		
5,000.00	4,955.45	4,823.68	4,886.10	23.27	20.71	45.05	-4,064.11	-4,959.53	5,945.48	5,901.99	43.49	136.712		
5,100.00	5,054.44	4,921.86	4,984.27	23.74	21.13	45.15	-4,064.72	-4,960.54	5,936.64	5,892.27	44.37	133.812		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,153.44	5,032.45	5,094.86	24.21	21.59	45.26	-4,065.11	-4,961.74	5,927.72	5,882.43	45.29	130.880		
5,300.00	5,252.43	5,141.30	5,203.69	24.68	22.05	45.37	-4,065.13	-4,962.89	5,918.59	5,872.38	46.21	128.080		
5,400.00	5,351.42	5,244.32	5,306.71	25.15	22.49	45.48	-4,064.70	-4,964.21	5,909.42	5,862.31	47.11	125.448		
5,500.00	5,450.42	5,337.85	5,400.23	25.62	22.89	45.59	-4,064.20	-4,965.39	5,900.19	5,852.23	47.97	123.007		
5,600.00	5,549.41	5,430.87	5,493.24	26.09	23.28	45.69	-4,064.02	-4,966.67	5,891.26	5,842.44	48.82	120.663		
5,700.00	5,648.41	5,541.04	5,603.40	26.56	23.75	45.81	-4,063.57	-4,967.92	5,882.02	5,832.27	49.75	118.232		
5,800.00	5,747.40	5,615.75	5,678.10	27.03	24.07	45.88	-4,063.64	-4,968.76	5,873.10	5,822.56	50.54	116.214		
5,900.00	5,846.40	5,698.74	5,761.09	27.51	24.42	45.97	-4,063.88	-4,969.92	5,864.52	5,813.17	51.36	114.191		
6,000.00	5,945.39	5,797.03	5,859.37	27.98	24.84	46.07	-4,064.27	-4,971.40	5,856.11	5,803.88	52.24	112.105		
6,100.00	6,044.38	5,875.99	5,938.31	28.45	25.17	46.16	-4,064.59	-4,972.74	5,847.89	5,794.85	53.04	110.250		
6,200.00	6,143.38	5,967.95	6,030.25	28.92	25.56	46.26	-4,064.73	-4,974.78	5,839.97	5,786.07	53.90	108.350		
6,300.00	6,242.37	6,078.21	6,140.48	29.39	26.03	46.38	-4,064.84	-4,977.20	5,832.02	5,777.19	54.83	106.368		
6,400.00	6,341.37	6,164.52	6,226.78	29.86	26.40	46.48	-4,064.97	-4,978.98	5,824.03	5,768.37	55.66	104.630		
6,500.00	6,440.36	6,244.19	6,306.42	30.34	26.74	46.57	-4,064.87	-4,981.10	5,816.38	5,759.91	56.47	102.996		
6,600.00	6,538.90	6,333.52	6,395.72	30.80	27.12	46.65	-4,065.26	-4,983.47	5,803.82	5,746.51	57.31	101.269		
6,700.00	6,634.88	6,436.14	6,498.29	31.25	27.56	-11.17	-4,065.39	-4,986.32	5,778.46	5,720.29	58.17	99.330		
6,800.00	6,725.92	6,523.73	6,585.85	31.68	27.93	-20.37	-4,065.45	-4,988.80	5,740.96	5,682.01	58.94	97.403		
6,900.00	6,809.79	6,603.00	6,665.09	32.07	28.27	-27.35	-4,065.89	-4,990.88	5,692.33	5,632.70	59.63	95.464		
7,000.00	6,884.42	6,662.34	6,724.41	32.43	28.52	-34.16	-4,066.25	-4,992.57	5,633.93	5,573.74	60.19	93.606		
7,100.00	6,947.98	6,713.86	6,775.90	32.77	28.74	-41.86	-4,066.39	-4,994.32	5,567.31	5,506.63	60.67	91.760		
7,200.00	6,998.89	6,755.35	6,817.36	33.18	28.92	-51.09	-4,066.39	-4,995.94	5,494.17	5,433.08	61.09	89.939		
7,300.00	7,035.91	6,786.90	6,848.88	33.76	29.05	-62.15	-4,066.32	-4,997.29	5,416.37	5,354.92	61.45	88.137		
7,400.00	7,058.12	6,800.01	6,861.98	34.61	29.11	-74.47	-4,066.28	-4,997.88	5,335.93	5,274.17	61.77	86.390		
7,500.00	7,064.98	6,814.57	6,876.51	35.68	29.17	-86.83	-4,066.23	-4,998.56	5,254.90	5,192.78	62.12	84.592		
7,600.00	7,064.59	6,817.53	6,879.48	36.95	29.18	-86.89	-4,066.22	-4,998.70	5,174.59	5,112.08	62.52	82.770		
7,700.00	7,064.20	6,820.53	6,882.47	38.40	29.20	-86.94	-4,066.22	-4,998.84	5,094.98	5,031.95	63.03	80.831		
7,800.00	7,063.80	6,823.55	6,885.49	40.00	29.21	-87.00	-4,066.21	-4,998.98	5,016.10	4,952.43	63.67	78.785		
7,900.00	7,063.41	6,826.60	6,888.53	41.75	29.22	-87.05	-4,066.20	-4,999.13	4,937.97	4,873.54	64.43	76.640		
8,000.00	7,063.02	6,829.67	6,891.60	43.62	29.23	-87.11	-4,066.19	-4,999.27	4,860.65	4,795.33	65.32	74.410		
8,100.00	7,062.62	6,832.77	6,894.70	45.59	29.25	-87.17	-4,066.19	-4,999.42	4,784.16	4,717.82	66.35	72.109		
8,200.00	7,062.23	6,835.90	6,897.83	47.65	29.26	-87.22	-4,066.18	-4,999.57	4,708.56	4,641.05	67.50	69.752		
8,300.00	7,061.84	6,839.06	6,900.98	49.79	29.27	-87.28	-4,066.18	-4,999.72	4,633.87	4,565.07	68.80	67.356		
8,400.00	7,061.45	6,842.25	6,904.17	52.00	29.29	-87.34	-4,066.17	-4,999.88	4,560.15	4,489.93	70.22	64.937		
8,500.00	7,061.05	6,845.47	6,907.38	54.27	29.30	-87.40	-4,066.17	-5,000.04	4,487.45	4,415.66	71.79	62.512		
8,600.00	7,060.66	6,848.72	6,910.63	56.60	29.32	-87.46	-4,066.17	-5,000.19	4,415.81	4,342.33	73.48	60.095		
8,700.00	7,060.27	6,851.99	6,913.90	58.97	29.33	-87.52	-4,066.17	-5,000.36	4,345.28	4,269.98	75.31	57.701		
8,800.00	7,059.87	6,855.30	6,917.20	61.38	29.34	-87.58	-4,066.16	-5,000.52	4,275.93	4,198.67	77.26	55.342		
8,900.00	7,059.48	6,858.64	6,920.54	63.83	29.36	-87.64	-4,066.16	-5,000.68	4,207.81	4,128.46	79.35	53.029		
9,000.00	7,059.09	6,862.01	6,923.90	66.32	29.37	-87.70	-4,066.16	-5,000.85	4,140.98	4,059.42	81.56	50.773		
9,100.00	7,058.69	6,865.41	6,927.30	68.83	29.39	-87.77	-4,066.16	-5,001.02	4,075.51	3,991.61	83.89	48.580		
9,200.00	7,058.30	6,868.85	6,930.73	71.37	29.40	-87.83	-4,066.16	-5,001.19	4,011.45	3,925.10	86.35	46.458		
9,300.00	7,057.91	6,872.31	6,934.19	73.93	29.42	-87.89	-4,066.16	-5,001.37	3,948.88	3,859.97	88.92	44.411		
9,400.00	7,057.51	6,875.81	6,937.69	76.51	29.43	-87.96	-4,066.17	-5,001.55	3,887.88	3,796.28	91.60	42.443		
9,500.00	7,057.12	6,879.35	6,941.22	79.11	29.45	-88.02	-4,066.17	-5,001.72	3,828.51	3,734.11	94.40	40.557		
9,600.00	7,056.73	6,882.92	6,944.78	81.73	29.46	-88.09	-4,066.17	-5,001.91	3,770.85	3,673.56	97.30	38.756		
9,700.00	7,056.33	6,886.52	6,948.38	84.37	29.48	-88.16	-4,066.18	-5,002.09	3,714.99	3,614.69	100.30	37.039		
9,800.00	7,055.94	6,890.16	6,952.02	87.01	29.49	-88.22	-4,066.18	-5,002.28	3,661.00	3,557.61	103.40	35.407		
9,900.00	7,055.55	6,893.83	6,955.68	89.68	29.51	-88.29	-4,066.19	-5,002.47	3,608.98	3,502.39	106.59	33.859		
10,000.00	7,055.15	6,900.01	6,961.86	92.35	29.53	-88.40	-4,066.20	-5,002.79	3,558.99	3,449.12	109.87	32.393		
10,100.00	7,054.76	6,900.01	6,961.86	95.03	29.53	-88.40	-4,066.20	-5,002.79	3,511.14	3,397.93	113.21	31.015		
10,200.00	7,054.37	6,900.01	6,961.86	97.73	29.53	-88.40	-4,066.20	-5,002.79	3,465.51	3,348.90	116.61	29.718		
10,300.00	7,053.98	6,908.04	6,969.87	100.43	29.57	-88.55	-4,066.22	-5,003.21	3,422.19	3,302.08	120.11	28.493		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,400.00	7,053.58	6,911.55	6,973.38	103.14	29.58	-88.62	-4,066.23	-5,003.40	3,381.26	3,257.63	123.64	27.349		
10,500.00	7,053.19	6,915.13	6,976.95	105.86	29.60	-88.68	-4,066.24	-5,003.59	3,342.82	3,215.62	127.21	26.279		
10,600.00	7,052.80	6,918.76	6,980.57	108.59	29.61	-88.75	-4,066.26	-5,003.79	3,306.96	3,176.16	130.80	25.282		
10,700.00	7,052.40	6,922.44	6,984.26	111.32	29.63	-88.82	-4,066.27	-5,003.99	3,273.75	3,139.33	134.42	24.354		
10,800.00	7,052.01	6,926.19	6,988.00	114.06	29.65	-88.89	-4,066.29	-5,004.20	3,243.28	3,105.24	138.04	23.495		
10,900.00	7,051.62	6,930.00	6,991.80	116.80	29.66	-88.96	-4,066.30	-5,004.41	3,215.63	3,073.98	141.65	22.700		
11,000.00	7,051.22	6,933.87	6,995.66	119.55	29.68	-89.03	-4,066.32	-5,004.62	3,190.87	3,045.62	145.24	21.969		
11,100.00	7,050.83	6,937.80	6,999.59	122.31	29.70	-89.10	-4,066.34	-5,004.84	3,169.06	3,020.26	148.80	21.298		
11,200.00	7,050.44	6,941.80	7,003.59	125.07	29.71	-89.17	-4,066.36	-5,005.07	3,150.27	2,997.97	152.30	20.685		
11,300.00	7,050.04	6,945.87	7,007.65	127.83	29.73	-89.25	-4,066.39	-5,005.30	3,134.56	2,978.82	155.74	20.127		
11,400.00	7,049.65	6,950.01	7,011.77	130.60	29.75	-89.33	-4,066.41	-5,005.54	3,121.96	2,962.86	159.10	19.623		
11,500.00	7,049.26	6,954.21	7,015.97	133.37	29.77	-89.40	-4,066.44	-5,005.78	3,112.52	2,950.16	162.36	19.170		
11,600.00	7,048.86	6,958.49	7,020.24	136.15	29.78	-89.48	-4,066.47	-5,006.03	3,106.26	2,940.74	165.52	18.766		
11,700.00	7,048.47	6,962.84	7,024.59	138.93	29.80	-89.56	-4,066.50	-5,006.29	3,103.21	2,934.64	168.57	18.409		
11,744.99	7,048.29	6,964.83	7,026.57	140.18	29.81	-89.60	-4,066.51	-5,006.40	3,102.89	2,932.99	169.90	18.264 CC		
11,800.00	7,048.08	6,967.27	7,029.01	141.71	29.82	-89.64	-4,066.53	-5,006.55	3,103.37	2,931.89	171.48	18.097 ES		
11,900.00	7,047.68	6,971.78	7,033.51	144.49	29.84	-89.73	-4,066.57	-5,006.82	3,106.75	2,932.49	174.26	17.828		
12,000.00	7,047.29	6,976.37	7,038.09	147.28	29.86	-89.81	-4,066.60	-5,007.10	3,113.32	2,936.43	176.89	17.600		
12,100.00	7,046.90	6,981.04	7,042.75	150.07	29.88	-89.90	-4,066.64	-5,007.38	3,123.08	2,943.71	179.37	17.411		
12,200.00	7,046.51	6,985.79	7,047.50	152.87	29.90	-89.99	-4,066.69	-5,007.67	3,135.98	2,954.29	181.69	17.260		
12,300.00	7,046.11	6,990.63	7,052.33	155.66	29.92	-90.07	-4,066.73	-5,007.97	3,152.01	2,968.15	183.85	17.144		
12,400.00	7,045.72	6,995.57	7,057.25	158.46	29.94	-90.17	-4,066.78	-5,008.28	3,171.09	2,985.24	185.85	17.063		
12,500.00	7,045.33	7,000.59	7,062.27	161.26	29.96	-90.26	-4,066.83	-5,008.59	3,193.19	3,005.50	187.68	17.014		
12,600.00	7,044.93	7,005.68	7,067.35	164.06	29.99	-90.35	-4,066.89	-5,008.91	3,218.23	3,028.87	189.36	16.996 SF		
12,700.00	7,044.54	7,010.78	7,072.43	166.86	30.01	-90.45	-4,066.94	-5,009.24	3,246.15	3,055.28	190.87	17.007		
12,800.00	7,044.15	7,015.88	7,077.52	169.67	30.03	-90.54	-4,067.00	-5,009.56	3,276.88	3,084.66	192.22	17.047		
12,900.00	7,043.75	7,020.99	7,082.62	172.48	30.05	-90.63	-4,067.06	-5,009.88	3,310.34	3,116.91	193.42	17.114		
13,000.00	7,043.36	7,026.09	7,087.72	175.28	30.07	-90.73	-4,067.12	-5,010.20	3,346.44	3,151.96	194.48	17.207		
13,100.00	7,042.97	7,031.21	7,092.82	178.09	30.09	-90.82	-4,067.18	-5,010.53	3,385.10	3,189.71	195.39	17.325		
13,200.00	7,042.57	7,036.33	7,097.93	180.91	30.12	-90.92	-4,067.24	-5,010.85	3,426.24	3,230.06	196.17	17.465		
13,300.00	7,042.18	7,041.45	7,103.04	183.72	30.14	-91.01	-4,067.30	-5,011.17	3,469.76	3,272.93	196.83	17.629		
13,400.00	7,041.79	7,046.58	7,108.16	186.53	30.16	-91.11	-4,067.37	-5,011.50	3,515.58	3,318.22	197.36	17.813		
13,500.00	7,041.39	7,051.71	7,113.28	189.35	30.18	-91.20	-4,067.43	-5,011.82	3,563.61	3,365.83	197.78	18.018		
13,600.00	7,041.00	7,056.85	7,118.40	192.17	30.20	-91.29	-4,067.50	-5,012.15	3,613.76	3,415.66	198.10	18.242		
13,700.00	7,040.61	7,061.99	7,123.53	194.99	30.23	-91.39	-4,067.57	-5,012.47	3,665.95	3,467.63	198.32	18.485		
13,800.00	7,040.21	7,067.13	7,128.67	197.81	30.25	-91.48	-4,067.64	-5,012.80	3,720.08	3,521.63	198.45	18.745		
13,900.00	7,039.82	7,072.28	7,133.81	200.63	30.27	-91.58	-4,067.72	-5,013.13	3,776.08	3,577.57	198.51	19.023		
14,000.00	7,039.43	7,077.44	7,138.95	203.45	30.29	-91.67	-4,067.79	-5,013.45	3,833.86	3,635.38	198.48	19.316		
14,100.00	7,039.03	7,082.60	7,144.10	206.27	30.31	-91.77	-4,067.87	-5,013.78	3,893.34	3,694.95	198.39	19.625		
14,200.00	7,038.64	7,087.76	7,149.25	209.09	30.34	-91.86	-4,067.94	-5,014.11	3,954.45	3,756.22	198.24	19.948		
14,300.00	7,038.25	7,092.93	7,154.41	211.92	30.36	-91.96	-4,068.02	-5,014.44	4,017.12	3,819.09	198.03	20.286		
14,400.00	7,037.86	7,098.10	7,159.57	214.74	30.38	-92.05	-4,068.10	-5,014.77	4,081.26	3,883.49	197.77	20.636		
14,500.00	7,037.46	7,103.78	7,165.24	217.57	30.40	-92.16	-4,068.19	-5,015.13	4,146.82	3,949.35	197.47	21.000		
14,600.00	7,037.07	7,109.75	7,171.20	220.40	30.43	-92.27	-4,068.29	-5,015.51	4,213.72	4,016.59	197.13	21.375		
14,700.00	7,036.68	7,115.72	7,177.15	223.23	30.46	-92.38	-4,068.38	-5,015.89	4,281.90	4,085.14	196.76	21.762		
14,800.00	7,036.28	7,121.69	7,183.11	226.05	30.48	-92.49	-4,068.48	-5,016.27	4,351.31	4,154.95	196.35	22.160		
14,871.88	7,036.00	7,125.98	7,187.39	228.09	30.50	-92.57	-4,068.54	-5,016.54	4,401.92	4,205.87	196.05	22.453		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	25.00	72.00	3.28	3.28	-147.63	-5,193.26	-3,292.47	6,149.43				
100.00	100.00	90.90	137.90	3.28	3.28	-147.63	-5,193.10	-3,292.34	6,148.93	6,142.36	6.57	936.182	
200.00	200.00	192.63	239.63	3.34	3.33	-147.62	-5,192.35	-3,292.16	6,148.20	6,141.53	6.67	922.313	
300.00	300.00	263.54	310.53	3.44	3.39	-147.62	-5,191.85	-3,292.37	6,147.77	6,140.93	6.84	899.013	
400.00	399.98	354.46	401.45	3.60	3.51	22.55	-5,191.76	-3,292.49	6,146.14	6,139.03	7.11	864.505	
500.00	499.84	1,509.75	1,542.67	3.79	7.70	23.89	-5,044.94	-3,324.38	6,124.80	6,113.42	11.37	538.535	
600.00	599.45	1,575.27	1,606.49	4.02	8.05	24.22	-5,030.35	-3,326.83	6,100.26	6,088.36	11.90	512.663	
700.00	698.70	1,654.48	1,683.61	4.29	8.49	24.62	-5,012.64	-3,330.31	6,072.99	6,060.45	12.53	484.508	
800.00	797.70	1,713.28	1,740.89	4.59	8.81	24.76	-4,999.67	-3,333.09	6,044.48	6,031.38	13.10	461.481	
900.00	896.69	1,843.57	1,867.78	4.92	9.55	25.05	-4,970.75	-3,339.45	6,015.99	6,001.94	14.05	428.246	
1,000.00	995.68	1,936.87	1,958.57	5.27	10.09	25.26	-4,949.73	-3,344.01	5,987.32	5,972.48	14.84	403.416	
1,100.00	1,094.68	2,030.17	2,049.36	5.64	10.63	25.47	-4,928.70	-3,348.57	5,958.73	5,943.07	15.66	380.518	
1,200.00	1,193.67	2,123.48	2,140.14	6.03	11.18	25.69	-4,907.68	-3,353.12	5,930.22	5,913.72	16.50	359.445	
1,300.00	1,292.67	2,216.78	2,230.93	6.42	11.74	25.91	-4,886.65	-3,357.68	5,901.79	5,884.44	17.35	340.067	
1,400.00	1,391.66	2,310.09	2,321.72	6.83	12.30	26.12	-4,865.63	-3,362.24	5,873.45	5,855.22	18.23	322.245	
1,500.00	1,490.66	2,403.39	2,412.51	7.25	12.86	26.34	-4,844.60	-3,366.80	5,845.19	5,826.07	19.11	305.843	
1,600.00	1,589.65	2,503.31	2,503.30	7.67	13.46	26.57	-4,823.58	-3,371.36	5,817.01	5,796.96	20.04	290.208	
1,700.00	1,688.64	2,590.00	2,594.09	8.10	13.99	26.79	-4,802.55	-3,375.92	5,788.92	5,768.00	20.92	276.780	
1,800.00	1,787.64	2,683.30	2,684.88	8.53	14.56	27.02	-4,781.53	-3,380.48	5,760.92	5,739.09	21.83	263.884	
1,900.00	1,886.63	2,776.60	2,775.67	8.97	15.13	27.25	-4,760.50	-3,385.04	5,733.01	5,710.25	22.76	251.942	
2,000.00	1,985.63	2,869.91	2,866.46	9.41	15.71	27.48	-4,739.48	-3,389.60	5,705.18	5,681.50	23.69	240.861	
2,100.00	2,084.62	2,963.21	2,957.25	9.85	16.28	27.71	-4,718.45	-3,394.16	5,677.45	5,652.83	24.62	230.560	
2,200.00	2,183.61	3,056.52	3,048.04	10.30	16.86	27.95	-4,697.43	-3,398.72	5,649.82	5,624.25	25.57	220.966	
2,300.00	2,282.61	3,149.82	3,138.83	10.75	17.44	28.19	-4,676.40	-3,403.28	5,622.27	5,595.75	26.52	212.014	
2,400.00	2,381.60	3,243.12	3,229.62	11.20	18.02	28.43	-4,655.38	-3,407.84	5,594.82	5,567.35	27.47	203.646	
2,500.00	2,480.60	3,336.43	3,320.41	11.66	18.60	28.67	-4,634.35	-3,412.40	5,567.47	5,539.04	28.43	195.811	
2,600.00	2,579.59	3,429.73	3,411.20	12.11	19.18	28.91	-4,613.33	-3,416.96	5,540.22	5,510.83	29.40	188.462	
2,700.00	2,678.58	3,523.03	3,501.99	12.57	19.76	29.16	-4,592.30	-3,421.51	5,513.07	5,482.71	30.37	181.557	
2,800.00	2,777.58	3,616.34	3,592.78	13.02	20.35	29.41	-4,571.28	-3,426.07	5,486.02	5,454.68	31.34	175.059	
2,900.00	2,876.57	3,709.64	3,683.57	13.48	20.93	29.66	-4,550.25	-3,430.63	5,459.07	5,426.76	32.31	168.936	
3,000.00	2,975.57	3,802.95	3,774.36	13.94	21.51	29.91	-4,529.23	-3,435.19	5,432.23	5,398.94	33.29	163.158	
3,100.00	3,074.56	10,701.62	7,244.60	14.40	120.25	-13.84	-3,712.07	21.71	5,349.69	5,257.11	92.58	57.783	
3,200.00	3,173.55	10,702.59	7,244.67	14.87	120.28	-13.76	-3,712.08	17.50	5,264.09	5,170.46	93.63	56.224	
3,300.00	3,272.55	10,693.20	7,244.74	15.33	119.98	-13.67	-3,712.10	13.30	5,178.99	5,084.50	94.49	54.813	
3,400.00	3,371.54	10,689.00	7,244.82	15.79	119.85	-13.58	-3,712.11	9.09	5,094.43	4,998.95	95.49	53.352	
3,500.00	3,470.54	10,684.79	7,244.89	16.26	119.72	-13.49	-3,712.13	4.88	5,010.44	4,913.92	96.52	51.910	
3,600.00	3,569.53	10,680.58	7,244.97	16.72	119.58	-13.41	-3,712.14	0.67	4,927.04	4,829.45	97.59	50.486	
3,700.00	3,668.53	10,676.37	7,245.04	17.19	119.45	-13.32	-3,712.15	-3.53	4,844.27	4,745.57	98.70	49.082	
3,800.00	3,767.52	10,672.16	7,245.11	17.65	119.32	-13.23	-3,712.17	-7.74	4,762.15	4,662.32	99.84	47.700	
3,900.00	3,866.51	10,667.96	7,245.19	18.12	119.18	-13.14	-3,712.18	-11.95	4,680.73	4,579.72	101.01	46.339	
4,000.00	3,965.51	10,663.75	7,245.26	18.59	119.05	-13.06	-3,712.20	-16.15	4,600.04	4,497.82	102.22	45.002	
4,100.00	4,064.50	10,659.54	7,245.34	19.05	118.92	-12.97	-3,712.21	-20.36	4,520.11	4,416.65	103.46	43.688	
4,200.00	4,163.50	10,655.33	7,245.41	19.52	118.78	-12.88	-3,712.22	-24.57	4,440.99	4,336.25	104.74	42.399	
4,300.00	4,262.49	10,651.13	7,245.48	19.99	118.65	-12.79	-3,712.24	-28.77	4,362.73	4,256.67	106.06	41.136	
4,400.00	4,361.48	10,646.92	7,245.56	20.46	118.52	-12.70	-3,712.25	-32.98	4,285.36	4,177.96	107.40	39.900	
4,500.00	4,460.48	10,642.71	7,245.63	20.92	118.39	-12.62	-3,712.27	-37.19	4,208.95	4,100.17	108.79	38.691	
4,600.00	4,559.47	10,638.50	7,245.71	21.39	118.25	-12.53	-3,712.28	-41.40	4,133.54	4,023.34	110.20	37.510	
4,700.00	4,658.47	10,634.29	7,245.78	21.86	118.12	-12.44	-3,712.29	-45.60	4,059.19	3,947.54	111.65	36.357	
4,800.00	4,757.46	10,630.09	7,245.85	22.33	117.99	-12.35	-3,712.31	-49.81	3,985.95	3,872.83	113.12	35.235	
4,900.00	4,856.45	10,625.88	7,245.93	22.80	117.85	-12.27	-3,712.32	-54.02	3,913.90	3,799.26	114.63	34.143	
5,000.00	4,955.45	10,621.67	7,246.00	23.27	117.72	-12.18	-3,712.34	-58.22	3,843.09	3,726.92	116.17	33.083	
5,100.00	5,054.44	10,617.46	7,246.08	23.74	117.59	-12.09	-3,712.35	-62.43	3,773.60	3,655.87	117.73	32.054	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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-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	5,153.44	10,613.26	7,246.15	24.21	117.45	-12.00	-3,712.36	-66.64	3,705.49	3,586.19	119.31	31.058		
5,300.00	5,252.43	10,609.05	7,246.22	24.68	117.32	-11.91	-3,712.38	-70.85	3,638.86	3,517.95	120.91	30.095		
5,400.00	5,351.42	10,604.84	7,246.30	25.15	117.19	-11.83	-3,712.39	-75.05	3,573.78	3,451.25	122.53	29.167		
5,500.00	5,450.42	10,600.63	7,246.37	25.62	117.05	-11.74	-3,712.41	-79.26	3,510.34	3,386.18	124.16	28.273		
5,600.00	5,549.41	10,603.58	7,246.45	26.09	117.15	-11.65	-3,712.42	-83.47	3,448.62	3,322.63	125.99	27.372		
5,700.00	5,648.41	10,592.22	7,246.52	26.56	116.79	-11.56	-3,712.43	-87.67	3,388.73	3,261.30	127.43	26.593		
5,800.00	5,747.40	10,588.01	7,246.59	27.03	116.66	-11.47	-3,712.45	-91.88	3,330.76	3,201.70	129.06	25.808		
5,900.00	5,846.40	10,583.80	7,246.67	27.51	116.52	-11.39	-3,712.46	-96.09	3,274.81	3,144.14	130.67	25.061		
6,000.00	5,945.39	10,579.59	7,246.74	27.98	116.39	-11.30	-3,712.48	-100.29	3,220.99	3,088.72	132.27	24.351		
6,100.00	6,044.38	10,575.39	7,246.82	28.45	116.26	-11.21	-3,712.49	-104.50	3,169.40	3,035.57	133.84	23.681		
6,200.00	6,143.38	10,571.18	7,246.89	28.92	116.12	-11.12	-3,712.50	-108.71	3,120.16	2,984.80	135.36	23.050		
6,300.00	6,242.37	10,566.97	7,246.96	29.39	115.99	-11.03	-3,712.52	-112.92	3,073.39	2,936.55	136.84	22.459		
6,400.00	6,341.37	10,562.76	7,247.04	29.86	115.86	-10.95	-3,712.53	-117.12	3,029.18	2,890.92	138.26	21.910		
6,500.00	6,440.36	10,558.56	7,247.11	30.34	115.73	-10.86	-3,712.55	-121.33	2,987.67	2,848.06	139.60	21.401		
6,600.00	6,538.90	10,548.06	7,247.30	30.80	115.40	-10.74	-3,712.58	-131.82	2,949.12	2,808.45	140.66	20.966		
6,700.00	6,634.88	10,522.24	7,247.75	31.25	114.58	-10.69	-3,712.67	-157.64	2,914.32	2,773.20	141.11	20.652		
6,800.00	6,725.92	10,481.64	7,248.47	31.68	113.30	-10.73	-3,712.80	-198.23	2,883.87	2,742.93	140.94	20.462		
6,900.00	6,809.79	10,427.26	7,249.42	32.07	111.59	-10.81	-3,712.99	-252.60	2,858.07	2,717.89	140.18	20.389		
7,000.00	6,884.42	10,356.96	7,250.53	32.43	109.39	-10.82	-3,713.22	-322.90	2,836.92	2,698.14	138.79	20.441		
7,100.00	6,947.98	10,277.50	7,250.62	32.77	106.90	-10.64	-3,713.49	-402.35	2,820.14	2,683.07	137.07	20.575		
7,200.00	6,998.89	10,191.89	7,250.62	33.18	104.23	-10.75	-3,713.77	-487.97	2,807.55	2,672.35	135.20	20.766		
7,300.00	7,035.91	10,100.72	7,250.62	33.76	101.40	-10.37	-3,714.08	-580.58	2,798.79	2,665.54	133.25	21.004		
7,400.00	7,058.12	10,001.95	7,250.62	34.61	98.34	-10.69	-3,714.41	-677.90	2,793.54	2,662.34	131.20	21.292		
7,500.00	7,064.98	9,902.30	7,250.62	35.68	95.28	-10.81	-3,714.74	-777.55	2,791.58	2,662.32	129.26	21.597		
7,600.00	7,064.59	9,802.30	7,250.62	36.95	92.22	-10.82	-3,715.07	-877.55	2,791.13	2,663.65	127.48	21.895		
7,700.00	7,064.20	9,702.30	7,250.62	38.40	89.18	-10.83	-3,715.41	-977.55	2,790.68	2,664.79	125.89	22.168		
7,800.00	7,063.80	9,602.30	7,250.62	40.00	86.17	-10.84	-3,715.74	-1,077.55	2,790.23	2,665.76	124.47	22.417		
7,900.00	7,063.41	9,502.31	7,250.62	41.75	83.18	-10.85	-3,716.07	-1,177.54	2,789.78	2,666.58	123.20	22.643		
8,000.00	7,063.02	9,402.31	7,250.62	43.62	80.21	-10.86	-3,716.41	-1,277.54	2,789.33	2,667.25	122.08	22.848		
8,100.00	7,062.62	9,302.31	7,250.62	45.59	77.28	-10.87	-3,716.74	-1,377.54	2,788.88	2,667.80	121.09	23.032		
8,200.00	7,062.23	9,202.31	7,250.62	47.65	74.38	-10.88	-3,717.08	-1,477.54	2,788.43	2,668.22	120.21	23.196		
8,300.00	7,061.84	9,102.31	7,250.62	49.79	71.52	-10.88	-3,717.41	-1,577.53	2,787.98	2,668.53	119.45	23.340		
8,400.00	7,061.45	9,002.32	7,250.62	52.00	68.71	-10.89	-3,717.74	-1,677.53	2,787.53	2,668.74	118.79	23.465		
8,500.00	7,061.05	8,902.32	7,250.62	54.27	65.94	-10.90	-3,718.08	-1,777.53	2,787.08	2,668.84	118.24	23.571		
8,600.00	7,060.66	8,802.32	7,250.62	56.60	63.24	-10.91	-3,718.41	-1,877.53	2,786.63	2,668.84	117.79	23.658		
8,700.00	7,060.27	8,702.32	7,250.62	58.97	60.60	-10.92	-3,718.75	-1,977.52	2,786.18	2,668.74	117.44	23.724		
8,800.00	7,059.87	8,602.32	7,250.62	61.38	58.05	-10.93	-3,719.08	-2,077.52	2,785.73	2,668.53	117.20	23.769		
8,900.00	7,059.48	8,502.32	7,250.62	63.83	55.59	-10.94	-3,719.41	-2,177.52	2,785.28	2,668.22	117.07	23.792		
9,000.00	7,059.09	8,402.33	7,250.62	66.32	53.25	-10.94	-3,719.75	-2,277.52	2,784.83	2,667.78	117.05	23.791		
9,100.00	7,058.69	8,302.33	7,250.62	68.83	51.05	-10.95	-3,720.08	-2,377.51	2,784.38	2,667.22	117.16	23.765		
9,200.00	7,058.30	8,202.33	7,250.62	71.37	49.03	-10.96	-3,720.42	-2,477.51	2,783.93	2,666.52	117.42	23.710		
9,300.00	7,057.91	8,102.33	7,250.62	73.93	47.25	-10.97	-3,720.75	-2,577.51	2,783.49	2,665.66	117.82	23.624		
9,400.00	7,057.51	8,002.33	7,250.62	76.51	45.76	-10.98	-3,721.08	-2,677.51	2,783.04	2,664.64	118.40	23.505		
9,500.00	7,057.12	7,902.34	7,250.62	79.11	44.62	-10.99	-3,721.42	-2,777.50	2,782.59	2,663.42	119.17	23.350		
9,600.00	7,056.73	7,802.34	7,250.62	81.73	43.84	-11.00	-3,721.75	-2,877.50	2,782.14	2,661.98	120.15	23.155		
9,694.91	7,056.35	7,719.92	7,250.37	84.23	43.42	-11.00	-3,722.09	-2,959.92	2,781.78	2,660.27	121.51	22.893 CC		
9,700.00	7,056.33	7,716.90	7,250.28	84.37	43.41	-11.00	-3,722.12	-2,962.93	2,781.78	2,660.17	121.61	22.875		
9,800.00	7,055.94	7,652.02	7,244.96	87.01	43.18	-11.00	-3,723.56	-3,027.56	2,782.61	2,659.10	123.51	22.530 ES		
9,900.00	7,055.55	7,600.00	7,236.09	89.68	43.03	-11.01	-3,725.79	-3,078.75	2,784.92	2,659.27	125.65	22.165		
10,000.00	7,055.15	7,544.92	7,222.29	92.35	42.90	-11.03	-3,729.17	-3,131.95	2,788.85	2,661.06	127.79	21.824		
10,100.00	7,054.76	7,500.00	7,207.75	95.03	42.81	-11.03	-3,732.68	-3,174.29	2,794.52	2,664.46	130.06	21.487		
10,200.00	7,054.37	7,452.02	7,189.05	97.73	42.71	-11.03	-3,737.16	-3,218.24	2,802.04	2,669.74	132.31	21.179		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER PLAN												Offset Site Error:	0.00 ft
Survey Program: 25-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.00	7,053.98	7,400.00	7,165.20	100.43	42.61	-92.26	-3,742.84	-3,264.10	2,811.55	2,677.03	134.53	20.900	
10,400.00	7,053.58	7,352.01	7,140.03	103.14	42.51	-91.74	-3,748.81	-3,304.50	2,823.25	2,686.49	136.76	20.643	
10,500.00	7,053.19	7,317.32	7,120.02	105.86	42.43	-91.33	-3,753.54	-3,332.44	2,837.24	2,698.21	139.03	20.408	
10,600.00	7,052.80	7,280.47	7,097.17	108.59	42.34	-90.86	-3,758.93	-3,360.85	2,853.64	2,712.42	141.23	20.206	
10,700.00	7,052.40	7,252.01	7,078.46	111.32	42.27	-90.48	-3,763.33	-3,381.82	2,872.54	2,729.18	143.36	20.037	
10,800.00	7,052.01	7,208.36	7,048.03	114.06	42.16	-89.87	-3,770.49	-3,412.27	2,894.04	2,748.66	145.38	19.906	
10,900.00	7,051.62	7,200.00	7,041.96	116.80	42.13	-89.74	-3,771.91	-3,417.86	2,918.09	2,770.70	147.39	19.798	
11,000.00	7,051.22	7,167.31	7,017.61	119.55	42.03	-89.25	-3,777.63	-3,438.89	2,944.76	2,795.51	149.25	19.731	
11,100.00	7,050.83	7,152.01	7,005.86	122.31	41.99	-89.02	-3,780.38	-3,448.29	2,974.10	2,823.08	151.02	19.693	
11,200.00	7,050.44	7,124.51	6,984.18	125.07	41.90	-88.58	-3,785.46	-3,464.44	3,006.01	2,853.34	152.68	19.689 SF	
11,300.00	7,050.04	7,100.00	6,964.32	127.83	41.82	-88.18	-3,790.11	-3,478.01	3,040.55	2,886.33	154.22	19.716	
11,400.00	7,049.65	7,100.00	6,964.32	130.60	41.82	-88.18	-3,790.11	-3,478.01	3,077.66	2,921.98	155.68	19.769	
11,500.00	7,049.26	7,072.76	6,941.65	133.37	41.72	-87.73	-3,795.41	-3,492.17	3,117.15	2,960.13	157.01	19.853	
11,600.00	7,048.86	7,052.01	6,924.01	136.15	41.65	-87.38	-3,799.53	-3,502.27	3,159.15	3,000.91	158.24	19.965	
11,700.00	7,048.47	7,049.69	6,922.02	138.93	41.64	-87.34	-3,799.99	-3,503.36	3,203.48	3,044.10	159.37	20.100	
11,800.00	7,048.08	7,032.22	6,906.89	141.71	41.57	-87.04	-3,803.53	-3,511.35	3,250.09	3,089.69	160.40	20.262	
11,900.00	7,047.68	7,010.76	6,888.02	144.49	41.48	-86.67	-3,807.93	-3,520.58	3,298.98	3,137.65	161.33	20.449	
12,000.00	7,047.29	7,010.76	6,888.02	147.28	41.48	-86.67	-3,807.93	-3,520.58	3,349.89	3,187.71	162.17	20.656	
12,100.00	7,046.90	7,000.00	6,878.45	150.07	41.44	-86.48	-3,810.16	-3,524.96	3,402.90	3,239.97	162.93	20.886	
12,200.00	7,046.51	7,000.00	6,878.45	152.87	41.44	-86.48	-3,810.16	-3,524.96	3,457.93	3,294.33	163.60	21.137	
12,300.00	7,046.11	6,981.74	6,862.04	155.66	41.36	-86.16	-3,813.99	-3,532.01	3,514.74	3,350.54	164.19	21.406	
12,400.00	7,045.72	6,973.54	6,854.61	158.46	41.32	-86.02	-3,815.72	-3,535.01	3,573.40	3,408.69	164.71	21.695	
12,500.00	7,045.33	6,952.01	6,834.94	161.26	41.23	-85.63	-3,820.31	-3,542.44	3,633.92	3,468.76	165.16	22.002	
12,600.00	7,044.93	6,952.01	6,834.94	164.06	41.23	-85.63	-3,820.31	-3,542.44	3,695.86	3,530.31	165.55	22.325	
12,700.00	7,044.54	6,952.01	6,834.94	166.86	41.23	-85.63	-3,820.31	-3,542.44	3,759.45	3,593.57	165.88	22.664	
12,800.00	7,044.15	6,952.01	6,834.94	169.67	41.23	-85.63	-3,820.31	-3,542.44	3,824.59	3,658.44	166.15	23.019	
12,900.00	7,043.75	6,952.01	6,834.94	172.48	41.23	-85.63	-3,820.31	-3,542.44	3,891.21	3,724.84	166.37	23.389	
13,000.00	7,043.36	6,952.01	6,834.94	175.28	41.23	-85.63	-3,820.31	-3,542.44	3,959.24	3,792.70	166.54	23.774	
13,100.00	7,042.97	6,928.12	6,812.83	178.09	41.12	-85.20	-3,825.46	-3,549.87	4,028.19	3,861.50	166.69	24.166	
13,200.00	7,042.57	6,922.97	6,808.02	180.91	41.09	-85.11	-3,826.57	-3,551.37	4,098.62	3,931.84	166.79	24.574	
13,300.00	7,042.18	6,900.00	6,786.47	183.72	40.98	-84.69	-3,831.59	-3,557.53	4,170.46	4,003.60	166.86	24.994	
13,400.00	7,041.79	6,900.00	6,786.47	186.53	40.98	-84.69	-3,831.59	-3,557.53	4,243.08	4,076.19	166.88	25.425	
13,500.00	7,041.39	6,900.00	6,786.47	189.35	40.98	-84.69	-3,831.59	-3,557.53	4,316.79	4,149.90	166.88	25.867	
13,600.00	7,041.00	6,900.00	6,786.47	192.17	40.98	-84.69	-3,831.59	-3,557.53	4,391.54	4,224.68	166.85	26.320	
13,700.00	7,040.61	6,900.00	6,786.47	194.99	40.98	-84.69	-3,831.59	-3,557.53	4,467.28	4,300.48	166.80	26.782	
13,800.00	7,040.21	6,900.00	6,786.47	197.81	40.98	-84.69	-3,831.59	-3,557.53	4,543.95	4,377.23	166.72	27.255	
13,900.00	7,039.82	6,900.00	6,786.47	200.63	40.98	-84.69	-3,831.59	-3,557.53	4,621.52	4,454.90	166.63	27.736	
14,000.00	7,039.43	6,900.00	6,786.47	203.45	40.98	-84.69	-3,831.59	-3,557.53	4,699.94	4,533.43	166.51	28.226	
14,100.00	7,039.03	6,900.00	6,786.47	206.27	40.98	-84.69	-3,831.59	-3,557.53	4,779.16	4,612.78	166.38	28.724	
14,200.00	7,038.64	6,900.00	6,786.47	209.09	40.98	-84.69	-3,831.59	-3,557.53	4,859.15	4,692.91	166.24	29.230	
14,300.00	7,038.25	6,900.00	6,786.47	211.92	40.98	-84.69	-3,831.59	-3,557.53	4,939.87	4,773.79	166.08	29.743	
14,400.00	7,037.86	6,877.10	6,764.78	214.74	40.87	-84.28	-3,836.63	-3,562.87	5,020.88	4,854.93	165.96	30.254	
14,500.00	7,037.46	6,874.25	6,762.07	217.57	40.85	-84.22	-3,837.26	-3,563.48	5,102.85	4,937.06	165.79	30.780	
14,600.00	7,037.07	6,852.01	6,740.83	220.40	40.74	-83.82	-3,842.20	-3,567.80	5,185.73	5,020.10	165.63	31.309	
14,700.00	7,036.68	6,852.01	6,740.83	223.23	40.74	-83.82	-3,842.20	-3,567.80	5,268.83	5,103.39	165.44	31.847	
14,800.00	7,036.28	6,852.01	6,740.83	226.05	40.74	-83.82	-3,842.20	-3,567.80	5,352.52	5,187.27	165.25	32.391	
14,871.88	7,036.00	6,852.01	6,740.83	228.09	40.74	-83.82	-3,842.20	-3,567.80	5,413.01	5,247.91	165.11	32.785	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	72.00	3.28	3.28	-147.53	-5,173.22	-3,292.47	6,132.52					
100.00	100.00	1,209.69	1,240.26	3.28	6.80	-146.47	-5,014.95	-3,323.65	6,123.44	6,113.45	10.00	612.473		
200.00	200.00	1,332.49	1,358.60	3.34	7.52	-146.24	-4,982.98	-3,331.07	6,104.79	6,094.13	10.67	572.323		
300.00	300.00	1,430.97	1,453.56	3.44	8.12	-146.06	-4,957.37	-3,336.04	6,085.67	6,074.40	11.27	540.134		
400.00	399.98	1,547.48	1,566.13	3.60	8.83	24.47	-4,927.75	-3,341.03	6,065.17	6,053.15	12.02	504.728		
500.00	499.84	1,606.91	1,623.61	3.79	9.20	24.79	-4,912.81	-3,343.29	6,041.58	6,029.08	12.50	483.321		
600.00	599.45	1,684.61	1,698.90	4.02	9.67	25.17	-4,893.84	-3,346.20	6,015.52	6,002.39	13.12	458.383		
700.00	698.70	1,838.94	1,848.02	4.29	10.65	25.79	-4,854.63	-3,352.79	5,985.95	5,971.73	14.22	420.968		
800.00	797.70	1,930.84	1,936.61	4.59	11.24	26.05	-4,830.57	-3,357.06	5,954.41	5,939.40	15.00	396.845		
900.00	896.69	2,022.74	2,025.20	4.92	11.84	26.28	-4,806.52	-3,361.33	5,922.94	5,907.13	15.81	374.615		
1,000.00	995.68	2,114.63	2,113.79	5.27	12.45	26.52	-4,782.47	-3,365.60	5,891.58	5,874.94	16.64	353.972		
1,100.00	1,094.68	2,206.53	2,202.38	5.64	13.06	26.75	-4,758.42	-3,369.86	5,860.31	5,842.81	17.50	334.861		
1,200.00	1,193.67	2,298.43	2,290.97	6.03	13.67	27.00	-4,734.36	-3,374.13	5,829.14	5,810.77	18.38	317.196		
1,300.00	1,292.67	2,390.32	2,379.56	6.42	14.28	27.24	-4,710.31	-3,378.40	5,798.08	5,778.81	19.27	300.879		
1,400.00	1,391.66	2,482.22	2,468.15	6.83	14.90	27.48	-4,686.26	-3,382.67	5,767.11	5,746.93	20.18	285.802		
1,500.00	1,490.66	2,574.11	2,556.74	7.25	15.52	27.73	-4,662.20	-3,386.93	5,736.25	5,715.15	21.10	271.862		
1,600.00	1,589.65	2,666.01	2,645.33	7.67	16.13	27.98	-4,638.15	-3,391.20	5,705.50	5,683.46	22.03	258.959		
1,700.00	1,688.64	2,757.91	2,733.92	8.10	16.75	28.24	-4,614.10	-3,395.47	5,674.85	5,651.87	22.98	246.999		
1,800.00	1,787.64	2,849.80	2,822.51	8.53	17.38	28.49	-4,590.05	-3,399.74	5,644.31	5,620.38	23.93	235.897		
1,900.00	1,886.63	2,941.70	2,911.10	8.97	18.00	28.75	-4,565.99	-3,404.01	5,613.88	5,588.99	24.89	225.573		
2,000.00	1,985.63	3,036.42	2,999.69	9.41	18.64	29.01	-4,541.94	-3,408.27	5,583.56	5,557.69	25.87	215.819		
2,100.00	2,084.62	3,125.49	3,088.28	9.85	19.25	29.28	-4,517.89	-3,412.54	5,553.36	5,526.53	26.83	206.989		
2,200.00	2,183.61	3,217.39	3,176.87	10.30	19.87	29.54	-4,493.84	-3,416.81	5,523.28	5,495.47	27.81	198.606		
2,300.00	2,282.61	3,309.28	3,265.46	10.75	20.50	29.81	-4,469.78	-3,421.08	5,493.31	5,464.51	28.80	190.759		
2,400.00	2,381.60	3,401.18	3,354.05	11.20	21.12	30.08	-4,445.73	-3,425.34	5,463.47	5,433.68	29.79	183.402		
2,500.00	2,480.60	3,493.08	3,442.64	11.66	21.75	30.36	-4,421.68	-3,429.61	5,433.74	5,402.95	30.79	176.493		
2,600.00	2,579.59	3,584.97	3,531.23	12.11	22.38	30.64	-4,397.63	-3,433.88	5,404.14	5,372.35	31.79	169.994		
2,700.00	2,678.58	3,676.87	3,619.82	12.57	23.01	30.92	-4,373.57	-3,438.15	5,374.67	5,341.87	32.80	163.874		
2,800.00	2,777.58	10,479.26	7,076.95	13.02	117.71	-12.08	-3,449.14	-67.60	5,317.43	5,230.39	87.04	61.089		
2,900.00	2,876.57	10,476.98	7,076.95	13.48	117.64	-12.03	-3,449.13	-69.89	5,229.39	5,141.49	87.90	59.491		
3,000.00	2,975.57	10,474.69	7,076.95	13.94	117.57	-11.97	-3,449.13	-72.18	5,141.79	5,052.99	88.80	57.906		
3,100.00	3,074.56	10,472.40	7,076.94	14.40	117.49	-11.92	-3,449.12	-74.46	5,054.65	4,964.92	89.72	56.335		
3,200.00	3,173.55	10,470.12	7,076.94	14.87	117.42	-11.87	-3,449.12	-76.75	4,967.99	4,877.30	90.69	54.779		
3,300.00	3,272.55	10,467.83	7,076.94	15.33	117.35	-11.82	-3,449.11	-79.04	4,881.84	4,790.14	91.69	53.240		
3,400.00	3,371.54	10,465.54	7,076.94	15.79	117.28	-11.77	-3,449.11	-81.32	4,796.22	4,703.49	92.74	51.719		
3,500.00	3,470.54	10,463.25	7,076.94	16.26	117.21	-11.71	-3,449.10	-83.61	4,711.18	4,617.36	93.81	50.218		
3,600.00	3,569.53	10,460.97	7,076.93	16.72	117.13	-11.66	-3,449.09	-85.90	4,626.72	4,531.79	94.93	48.737		
3,700.00	3,668.53	10,458.68	7,076.93	17.19	117.06	-11.61	-3,449.09	-88.19	4,542.90	4,446.82	96.09	47.278		
3,800.00	3,767.52	10,456.39	7,076.93	17.65	116.99	-11.56	-3,449.08	-90.47	4,459.75	4,362.46	97.29	45.842		
3,900.00	3,866.51	10,454.11	7,076.93	18.12	116.92	-11.50	-3,449.08	-92.76	4,377.30	4,278.78	98.52	44.430		
4,000.00	3,965.51	10,451.82	7,076.92	18.59	116.85	-11.45	-3,449.07	-95.05	4,295.59	4,195.79	99.80	43.043		
4,100.00	4,064.50	10,449.53	7,076.92	19.05	116.77	-11.40	-3,449.07	-97.33	4,214.67	4,113.56	101.11	41.682		
4,200.00	4,163.50	10,447.24	7,076.92	19.52	116.70	-11.35	-3,449.06	-99.62	4,134.59	4,032.11	102.47	40.349		
4,300.00	4,262.49	10,444.96	7,076.92	19.99	116.63	-11.29	-3,449.05	-101.91	4,055.38	3,951.51	103.87	39.043		
4,400.00	4,361.48	10,442.67	7,076.91	20.46	116.56	-11.24	-3,449.05	-104.20	3,977.12	3,871.81	105.31	37.767		
4,500.00	4,460.48	10,440.38	7,076.91	20.92	116.49	-11.19	-3,449.04	-106.48	3,899.84	3,793.06	106.78	36.521		
4,600.00	4,559.47	10,438.10	7,076.91	21.39	116.41	-11.14	-3,449.04	-108.77	3,823.62	3,715.32	108.30	35.305		
4,700.00	4,658.47	10,435.81	7,076.91	21.86	116.34	-11.08	-3,449.03	-111.06	3,748.51	3,638.66	109.86	34.122		
4,800.00	4,757.46	10,436.52	7,076.91	22.33	116.36	-11.03	-3,449.03	-113.34	3,674.59	3,563.07	111.52	32.949		
4,900.00	4,856.45	10,438.81	7,076.90	22.80	116.44	-10.98	-3,449.02	-115.63	3,601.93	3,488.66	113.27	31.800		
5,000.00	4,955.45	10,441.09	7,076.90	23.27	116.51	-10.93	-3,449.02	-117.92	3,530.60	3,415.55	115.05	30.687		
5,100.00	5,054.44	10,426.66	7,076.90	23.74	116.05	-10.88	-3,449.01	-120.21	3,460.70	3,344.27	116.43	29.724		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	10,424.37	7,076.90	24.21	115.98	-10.82	-3,449.00	-122.49	3,392.29	3,274.15	118.15	28.713		
5,300.00	5,252.43	10,422.09	7,076.89	24.68	115.91	-10.77	-3,449.00	-124.78	3,325.49	3,205.60	119.89	27.738		
5,400.00	5,351.42	10,419.80	7,076.89	25.15	115.84	-10.72	-3,448.99	-127.07	3,260.38	3,138.74	121.65	26.802		
5,500.00	5,450.42	10,417.51	7,076.89	25.62	115.77	-10.67	-3,448.99	-129.35	3,197.08	3,073.66	123.42	25.904		
5,600.00	5,549.41	10,415.22	7,076.89	26.09	115.69	-10.61	-3,448.98	-131.64	3,135.68	3,010.49	125.20	25.046		
5,700.00	5,648.41	10,412.94	7,076.88	26.56	115.62	-10.56	-3,448.98	-133.93	3,076.31	2,949.34	126.97	24.228		
5,800.00	5,747.40	10,410.65	7,076.88	27.03	115.55	-10.51	-3,448.97	-136.22	3,019.08	2,890.35	128.74	23.451		
5,900.00	5,846.40	10,408.36	7,076.88	27.51	115.48	-10.46	-3,448.96	-138.50	2,964.12	2,833.64	130.48	22.716		
6,000.00	5,945.39	10,406.08	7,076.88	27.98	115.41	-10.40	-3,448.96	-140.79	2,911.56	2,779.36	132.20	22.024		
6,100.00	6,044.38	10,403.79	7,076.88	28.45	115.33	-10.35	-3,448.95	-143.08	2,861.52	2,727.65	133.87	21.375		
6,200.00	6,143.38	10,401.50	7,076.87	28.92	115.26	-10.30	-3,448.95	-145.36	2,814.15	2,678.67	135.49	20.771		
6,300.00	6,242.37	10,400.79	7,076.87	29.39	115.24	-10.25	-3,448.94	-147.65	2,769.58	2,632.50	137.08	20.204		
6,400.00	6,341.37	10,403.07	7,076.87	29.86	115.31	-10.19	-3,448.94	-149.94	2,727.95	2,589.26	138.68	19.670		
6,500.00	6,440.36	10,394.64	7,076.87	30.34	115.05	-10.14	-3,448.93	-152.23	2,689.39	2,549.53	139.86	19.229		
6,600.00	6,538.90	10,386.06	7,076.86	30.80	114.78	-10.08	-3,448.91	-160.81	2,654.12	2,513.21	140.90	18.837		
6,700.00	6,634.88	10,362.10	7,076.83	31.25	114.03	-71.29	-3,448.85	-184.77	2,622.77	2,481.47	141.30	18.562		
6,800.00	6,725.92	10,323.26	7,076.80	31.68	112.81	-79.93	-3,448.75	-223.61	2,595.85	2,454.81	141.05	18.404		
6,900.00	6,809.79	10,270.50	7,076.74	32.07	111.16	-84.60	-3,448.62	-276.36	2,573.53	2,433.35	140.18	18.359		
7,000.00	6,884.42	10,205.13	7,076.68	32.43	109.12	-87.26	-3,448.46	-341.74	2,555.67	2,416.87	138.79	18.413		
7,100.00	6,947.98	10,141.30	7,076.60	32.77	107.13	-88.75	-3,448.27	-418.12	2,541.89	2,404.48	137.42	18.498		
7,200.00	6,998.89	10,043.23	7,076.52	33.18	104.08	-89.54	-3,448.06	-503.64	2,531.71	2,396.71	135.01	18.752		
7,300.00	7,035.91	9,950.69	7,076.43	33.76	101.23	-89.94	-3,447.83	-596.18	2,524.61	2,391.71	132.91	18.995		
7,400.00	7,058.12	9,853.40	7,076.33	34.61	98.24	-90.14	-3,447.59	-693.46	2,520.15	2,389.31	130.83	19.262		
7,500.00	7,064.98	9,753.77	7,076.23	35.68	95.19	-90.26	-3,447.35	-793.09	2,518.03	2,389.16	128.87	19.539		
7,600.00	7,064.59	9,653.78	7,076.13	36.95	92.16	-90.27	-3,447.10	-893.09	2,516.97	2,389.88	127.09	19.804		
7,700.00	7,064.20	9,553.78	7,076.03	38.40	89.14	-90.27	-3,446.85	-993.08	2,515.92	2,390.41	125.50	20.047		
7,800.00	7,063.80	9,453.79	7,075.93	40.00	86.16	-90.28	-3,446.60	-1,093.07	2,514.86	2,390.78	124.08	20.268		
7,900.00	7,063.41	9,353.79	7,075.83	41.75	83.20	-90.29	-3,446.36	-1,193.07	2,513.80	2,390.99	122.81	20.468		
8,000.00	7,063.02	9,253.80	7,075.73	43.62	80.27	-90.29	-3,446.11	-1,293.06	2,512.74	2,391.05	121.69	20.649		
8,100.00	7,062.62	9,153.71	7,075.16	45.59	77.37	-90.29	-3,445.86	-1,393.15	2,511.68	2,391.00	120.69	20.812		
8,200.00	7,062.23	9,053.72	7,074.33	47.65	74.52	-90.28	-3,445.62	-1,493.13	2,510.62	2,390.81	119.81	20.955		
8,300.00	7,061.84	8,953.73	7,073.51	49.79	71.71	-90.27	-3,445.37	-1,593.12	2,509.56	2,390.52	119.04	21.081		
8,400.00	7,061.45	8,853.73	7,072.68	52.00	68.95	-90.26	-3,445.12	-1,693.11	2,508.50	2,390.11	118.39	21.189		
8,500.00	7,061.05	8,753.74	7,071.85	54.27	66.26	-90.25	-3,444.87	-1,793.10	2,507.44	2,389.61	117.83	21.280		
8,600.00	7,060.66	8,653.75	7,071.03	56.60	63.64	-90.24	-3,444.63	-1,893.09	2,506.38	2,389.00	117.38	21.352		
8,700.00	7,060.27	8,553.75	7,070.20	58.97	61.11	-90.23	-3,444.38	-1,993.08	2,505.32	2,388.28	117.04	21.406		
8,800.00	7,059.87	8,453.76	7,069.37	61.38	58.68	-90.22	-3,444.13	-2,093.07	2,504.26	2,387.46	116.80	21.441		
8,900.00	7,059.48	8,353.77	7,068.54	63.83	56.38	-90.21	-3,443.89	-2,193.06	2,503.20	2,386.52	116.67	21.455		
9,000.00	7,059.09	8,253.77	7,067.72	66.32	54.25	-90.20	-3,443.64	-2,293.05	2,502.14	2,385.47	116.67	21.447		
9,100.00	7,058.69	8,153.78	7,066.89	68.83	52.32	-90.19	-3,443.39	-2,393.04	2,501.08	2,384.28	116.79	21.415		
9,200.00	7,058.30	8,053.79	7,066.06	71.37	50.65	-90.18	-3,443.14	-2,493.03	2,500.02	2,382.95	117.06	21.356		
9,300.00	7,057.91	7,953.79	7,065.24	73.93	49.28	-90.17	-3,442.90	-2,593.02	2,498.96	2,381.46	117.49	21.269		
9,400.00	7,057.51	7,853.80	7,064.41	76.51	48.23	-90.16	-3,442.65	-2,693.01	2,497.89	2,379.80	118.10	21.151		
9,500.00	7,057.12	7,753.81	7,063.58	79.11	47.48	-90.15	-3,442.40	-2,793.00	2,496.83	2,377.93	118.91	20.998		
9,600.00	7,056.73	7,653.81	7,062.75	81.73	46.98	-90.14	-3,442.15	-2,892.99	2,495.77	2,375.84	119.94	20.809		
9,700.00	7,056.33	7,579.68	7,061.65	84.37	46.72	-90.12	-3,442.10	-2,967.11	2,494.98	2,373.36	121.62	20.515		
9,701.13	7,056.33	7,579.12	7,061.62	84.40	46.72	-90.12	-3,442.11	-2,967.67	2,494.98	2,373.34	121.64	20.511 CC		
9,800.00	7,055.94	7,535.02	7,058.05	87.01	46.60	-90.04	-3,442.87	-3,011.61	2,495.98	2,372.15	123.83	20.156 ES		
9,900.00	7,055.55	7,482.12	7,049.91	89.68	46.47	-89.86	-3,444.83	-3,063.83	2,499.03	2,373.10	125.93	19.845		
10,000.00	7,055.15	7,435.02	7,039.17	92.35	46.37	-89.62	-3,447.53	-3,109.60	2,504.21	2,376.11	128.11	19.548		
10,100.00	7,054.76	7,400.00	7,029.08	95.03	46.29	-89.39	-3,450.11	-3,143.02	2,511.64	2,381.22	130.42	19.259		
10,200.00	7,054.37	7,350.00	7,011.63	97.73	46.19	-89.00	-3,454.62	-3,189.65	2,521.29	2,388.76	132.52	19.025		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,053.98	7,300.00	6,990.71	100.43	46.08	-88.53	-3,460.08	-3,234.72	2,533.38	2,398.76	134.62	18.819		
10,400.00	7,053.58	7,268.37	6,975.74	103.14	46.01	-88.19	-3,464.01	-3,262.30	2,547.93	2,411.09	136.85	18.619		
10,500.00	7,053.19	7,235.01	6,958.54	105.86	45.94	-87.81	-3,468.55	-3,290.51	2,565.08	2,426.14	138.94	18.462		
10,600.00	7,052.80	7,200.00	6,938.98	108.59	45.85	-87.37	-3,473.72	-3,319.09	2,584.87	2,443.90	140.97	18.336		
10,700.00	7,052.40	7,168.77	6,920.28	111.32	45.77	-86.95	-3,478.67	-3,343.60	2,607.37	2,464.43	142.94	18.241		
10,800.00	7,052.01	7,140.25	6,902.21	114.06	45.69	-86.55	-3,483.48	-3,365.13	2,632.60	2,487.79	144.81	18.179		
10,900.00	7,051.62	7,113.84	6,884.66	116.80	45.62	-86.17	-3,488.15	-3,384.31	2,660.58	2,513.98	146.60	18.148		
11,000.00	7,051.22	7,100.00	6,875.16	119.55	45.57	-85.96	-3,490.68	-3,394.05	2,691.38	2,543.05	148.33	18.145 SF		
11,100.00	7,050.83	7,066.80	6,851.57	122.31	45.47	-85.44	-3,496.97	-3,416.53	2,724.78	2,574.91	149.87	18.181		
11,200.00	7,050.44	7,050.00	6,839.20	125.07	45.42	-85.17	-3,500.28	-3,427.41	2,760.95	2,609.60	151.35	18.242		
11,300.00	7,050.04	7,035.01	6,827.94	127.83	45.36	-84.93	-3,503.29	-3,436.83	2,799.79	2,647.07	152.73	18.332		
11,400.00	7,049.65	7,000.00	6,800.83	130.60	45.24	-84.34	-3,510.54	-3,457.75	2,841.19	2,687.26	153.93	18.458		
11,500.00	7,049.26	7,000.00	6,800.83	133.37	45.24	-84.34	-3,510.54	-3,457.75	2,885.10	2,729.98	155.12	18.599		
11,600.00	7,048.86	6,976.31	6,781.87	136.15	45.15	-83.93	-3,515.62	-3,471.02	2,931.41	2,775.27	156.15	18.773		
11,700.00	7,048.47	6,950.00	6,760.27	138.93	45.05	-83.47	-3,521.41	-3,484.88	2,980.22	2,823.16	157.06	18.975		
11,800.00	7,048.08	6,950.00	6,760.27	141.71	45.05	-83.47	-3,521.41	-3,484.88	3,031.12	2,873.19	157.93	19.193		
11,900.00	7,047.68	6,935.01	6,747.73	144.49	44.98	-83.21	-3,524.78	-3,492.36	3,084.29	2,925.61	158.68	19.438		
12,000.00	7,047.29	6,935.01	6,747.73	147.28	44.98	-83.21	-3,524.78	-3,492.36	3,139.63	2,980.28	159.35	19.702		
12,100.00	7,046.90	6,913.04	6,729.05	150.07	44.89	-82.81	-3,529.80	-3,502.77	3,196.82	3,036.90	159.92	19.990		
12,200.00	7,046.51	6,900.00	6,717.80	152.87	44.83	-82.57	-3,532.83	-3,508.64	3,256.00	3,095.58	160.42	20.297		
12,300.00	7,046.11	6,900.00	6,717.80	155.66	44.83	-82.57	-3,532.83	-3,508.64	3,317.03	3,156.18	160.85	20.621		
12,400.00	7,045.72	6,900.00	6,717.80	158.46	44.83	-82.57	-3,532.83	-3,508.64	3,379.92	3,218.70	161.22	20.965		
12,500.00	7,045.33	6,875.27	6,696.16	161.26	44.72	-82.12	-3,538.65	-3,519.09	3,444.13	3,282.62	161.51	21.324		
12,600.00	7,044.93	6,850.00	6,673.66	164.06	44.60	-81.65	-3,544.70	-3,528.87	3,510.30	3,348.56	161.75	21.703		
12,700.00	7,044.54	6,850.00	6,673.66	166.86	44.60	-81.65	-3,544.70	-3,528.87	3,577.61	3,415.67	161.94	22.092		
12,800.00	7,044.15	6,850.00	6,673.66	169.67	44.60	-81.65	-3,544.70	-3,528.87	3,646.42	3,484.33	162.09	22.497		
12,900.00	7,043.75	6,850.00	6,673.66	172.48	44.60	-81.65	-3,544.70	-3,528.87	3,716.64	3,554.46	162.18	22.916		
13,000.00	7,043.36	6,835.01	6,660.14	175.28	44.53	-81.37	-3,548.34	-3,534.22	3,788.12	3,625.88	162.24	23.348		
13,100.00	7,042.97	6,835.01	6,660.14	178.09	44.53	-81.37	-3,548.34	-3,534.22	3,860.81	3,698.55	162.26	23.793		
13,200.00	7,042.57	6,835.01	6,660.14	180.91	44.53	-81.37	-3,548.34	-3,534.22	3,934.70	3,772.45	162.25	24.251		
13,300.00	7,042.18	6,835.01	6,660.14	183.72	44.53	-81.37	-3,548.34	-3,534.22	4,009.72	3,847.51	162.20	24.720		
13,400.00	7,041.79	6,815.89	6,642.73	186.53	44.43	-81.01	-3,553.04	-3,540.58	4,085.53	3,923.37	162.15	25.196		
13,500.00	7,041.39	6,800.00	6,628.13	189.35	44.35	-80.71	-3,556.98	-3,545.45	4,162.55	4,000.47	162.07	25.683		
13,600.00	7,041.00	6,800.00	6,628.13	192.17	44.35	-80.71	-3,556.98	-3,545.45	4,240.34	4,078.38	161.96	26.181		
13,700.00	7,040.61	6,800.00	6,628.13	194.99	44.35	-80.71	-3,556.98	-3,545.45	4,319.05	4,157.22	161.83	26.689		
13,800.00	7,040.21	6,800.00	6,628.13	197.81	44.35	-80.71	-3,556.98	-3,545.45	4,398.62	4,236.94	161.68	27.206		
13,900.00	7,039.82	6,800.00	6,628.13	200.63	44.35	-80.71	-3,556.98	-3,545.45	4,479.01	4,317.50	161.52	27.731		
14,000.00	7,039.43	6,800.00	6,628.13	203.45	44.35	-80.71	-3,556.98	-3,545.45	4,560.18	4,398.84	161.34	28.265		
14,100.00	7,039.03	6,800.00	6,628.13	206.27	44.35	-80.71	-3,556.98	-3,545.45	4,642.09	4,480.94	161.15	28.806		
14,200.00	7,038.64	6,800.00	6,628.13	209.09	44.35	-80.71	-3,556.98	-3,545.45	4,724.69	4,563.73	160.95	29.355		
14,300.00	7,038.25	6,777.44	6,607.20	211.92	44.23	-80.29	-3,562.62	-3,551.71	4,807.55	4,646.76	160.79	29.900		
14,400.00	7,037.86	6,774.00	6,603.99	214.74	44.21	-80.22	-3,563.49	-3,552.59	4,891.30	4,730.72	160.58	30.459		
14,500.00	7,037.46	6,750.56	6,582.01	217.57	44.08	-79.78	-3,569.43	-3,558.15	4,975.96	4,815.56	160.40	31.022		
14,600.00	7,037.07	6,750.56	6,582.01	220.40	44.08	-79.78	-3,569.43	-3,558.15	5,060.76	4,900.57	160.18	31.593		
14,700.00	7,036.68	6,750.56	6,582.01	223.23	44.08	-79.78	-3,569.43	-3,558.15	5,146.10	4,986.14	159.96	32.171		
14,800.00	7,036.28	6,750.56	6,582.01	226.05	44.08	-79.78	-3,569.43	-3,558.15	5,231.97	5,072.23	159.74	32.754		
14,871.88	7,036.00	6,750.56	6,582.01	228.09	44.08	-79.78	-3,569.43	-3,558.15	5,293.99	5,134.42	159.57	33.176		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	65.00	3.28	3.28	-124.07	-4,290.69	-6,343.80	7,658.85					
100.00	100.00	35.00	100.00	3.28	3.34	-124.07	-4,290.69	-6,343.80	7,658.58	7,651.96	6.62	1,156.687		
200.00	200.00	135.00	200.00	3.34	4.42	-124.07	-4,290.69	-6,343.80	7,658.58	7,650.82	7.76	986.917		
300.00	300.00	235.00	300.00	3.44	7.24	-124.07	-4,290.69	-6,343.80	7,658.58	7,647.89	10.69	716.529		
400.00	399.98	334.98	399.98	3.60	10.48	46.10	-4,290.69	-6,343.80	7,657.37	7,643.30	14.07	544.199		
500.00	499.84	434.84	499.84	3.79	13.83	46.19	-4,290.69	-6,343.80	7,653.74	7,636.12	17.61	434.509		
600.00	599.45	534.45	599.45	4.02	17.23	46.32	-4,290.69	-6,343.80	7,647.70	7,626.46	21.24	359.983		
700.00	698.70	633.70	698.70	4.29	20.64	46.51	-4,290.69	-6,343.80	7,639.26	7,614.34	24.93	306.481		
800.00	797.70	732.70	797.70	4.59	24.06	46.59	-4,290.69	-6,343.80	7,629.49	7,600.85	28.64	266.363		
900.00	896.69	831.69	896.69	4.92	27.49	46.67	-4,290.69	-6,343.80	7,619.72	7,587.33	32.39	235.222		
1,000.00	995.68	930.68	995.68	5.27	30.92	46.75	-4,290.69	-6,343.80	7,609.97	7,573.80	36.17	210.384		
1,100.00	1,094.68	1,029.68	1,094.68	5.64	34.36	46.83	-4,290.69	-6,343.80	7,600.23	7,560.26	39.97	190.141		
1,200.00	1,193.67	1,128.67	1,193.67	6.03	37.80	46.90	-4,290.69	-6,343.80	7,590.50	7,546.72	43.79	173.344		
1,300.00	1,292.67	1,227.67	1,292.67	6.42	41.24	46.98	-4,290.69	-6,343.80	7,580.79	7,533.17	47.62	159.193		
1,400.00	1,391.66	1,326.66	1,391.66	6.83	44.69	47.06	-4,290.69	-6,343.80	7,571.10	7,519.63	51.46	147.117		
1,500.00	1,490.66	1,425.66	1,490.66	7.25	48.14	47.14	-4,290.69	-6,343.80	7,561.41	7,506.10	55.32	136.696		
1,600.00	1,589.65	1,524.65	1,589.65	7.67	51.58	47.22	-4,290.69	-6,343.80	7,551.74	7,492.57	59.18	127.615		
1,700.00	1,688.64	1,623.64	1,688.64	8.10	55.03	47.29	-4,290.69	-6,343.80	7,542.09	7,479.04	63.04	119.633		
1,800.00	1,787.64	1,722.64	1,787.64	8.53	58.48	47.37	-4,290.69	-6,343.80	7,532.45	7,465.53	66.92	112.565		
1,900.00	1,886.63	1,821.63	1,886.63	8.97	61.93	47.45	-4,290.69	-6,343.80	7,522.82	7,452.03	70.79	106.263		
2,000.00	1,985.63	1,920.63	1,985.63	9.41	65.39	47.53	-4,290.69	-6,343.80	7,513.21	7,438.53	74.68	100.611		
2,100.00	2,084.62	2,019.62	2,084.62	9.85	68.84	47.61	-4,290.69	-6,343.80	7,503.61	7,425.05	78.56	95.512		
2,200.00	2,183.61	2,118.61	2,183.61	10.30	72.29	47.69	-4,290.69	-6,343.80	7,494.03	7,411.57	82.45	90.891		
2,300.00	2,282.61	2,217.61	2,282.61	10.75	75.74	47.77	-4,290.69	-6,343.80	7,484.46	7,398.11	86.34	86.684		
2,400.00	2,381.60	2,316.60	2,381.60	11.20	79.20	47.85	-4,290.69	-6,343.80	7,474.90	7,384.66	90.24	82.837		
2,500.00	2,480.60	2,415.60	2,480.60	11.66	82.65	47.93	-4,290.69	-6,343.80	7,465.36	7,371.23	94.13	79.307		
2,600.00	2,579.59	2,514.59	2,579.59	12.11	86.10	48.01	-4,290.69	-6,343.80	7,455.84	7,357.80	98.03	76.056		
2,700.00	2,678.58	2,613.58	2,678.58	12.57	89.55	48.09	-4,290.69	-6,343.80	7,446.32	7,344.39	101.93	73.053		
2,800.00	2,777.58	2,712.58	2,777.58	13.02	93.01	48.17	-4,290.69	-6,343.80	7,436.83	7,331.00	105.83	70.270		
2,900.00	2,876.57	2,811.57	2,876.57	13.48	96.46	48.25	-4,290.69	-6,343.80	7,427.35	7,317.61	109.74	67.684		
3,000.00	2,975.57	2,910.57	2,975.57	13.94	99.92	48.33	-4,290.69	-6,343.80	7,417.88	7,304.24	113.64	65.275		
3,100.00	3,074.56	3,009.56	3,074.56	14.40	103.37	48.41	-4,290.69	-6,343.80	7,408.43	7,290.88	117.55	63.026		
3,200.00	3,173.55	3,108.55	3,173.55	14.87	106.82	48.49	-4,290.69	-6,343.80	7,398.99	7,277.54	121.45	60.921		
3,300.00	3,272.55	3,207.55	3,272.55	15.33	110.28	48.58	-4,290.69	-6,343.80	7,389.57	7,264.21	125.36	58.947		
3,400.00	3,371.54	3,306.54	3,371.54	15.79	113.73	48.66	-4,290.69	-6,343.80	7,380.17	7,250.90	129.27	57.092		
3,500.00	3,470.54	3,405.54	3,470.54	16.26	117.19	48.74	-4,290.69	-6,343.80	7,370.77	7,237.60	133.18	55.346		
3,600.00	3,569.53	3,504.53	3,569.53	16.72	120.64	48.82	-4,290.69	-6,343.80	7,361.40	7,224.31	137.09	53.699		
3,700.00	3,668.53	3,603.53	3,668.53	17.19	124.10	48.91	-4,290.69	-6,343.80	7,352.04	7,211.04	141.00	52.143		
3,800.00	3,767.52	3,702.52	3,767.52	17.65	127.55	48.99	-4,290.69	-6,343.80	7,342.69	7,197.78	144.91	50.671		
3,900.00	3,866.51	3,801.51	3,866.51	18.12	131.01	49.07	-4,290.69	-6,343.80	7,333.36	7,184.54	148.82	49.276		
4,000.00	3,965.51	3,900.51	3,965.51	18.59	134.46	49.15	-4,290.69	-6,343.80	7,324.05	7,171.31	152.73	47.953		
4,100.00	4,064.50	4,000.50	4,064.50	19.05	137.95	49.24	-4,290.69	-6,343.80	7,314.75	7,158.07	156.68	46.686		
4,200.00	4,163.50	4,101.50	4,163.50	19.52	141.48	49.32	-4,290.69	-6,343.80	7,305.47	7,144.80	160.67	45.470		
4,300.00	4,262.49	4,202.51	4,262.49	19.99	145.00	49.40	-4,290.69	-6,343.80	7,296.20	7,131.55	164.65	44.314		
4,400.00	4,361.48	4,303.52	4,361.48	20.46	148.53	49.49	-4,290.69	-6,343.80	7,286.95	7,118.31	168.63	43.212		
4,500.00	4,460.48	4,404.52	4,460.48	20.92	152.05	49.57	-4,290.69	-6,343.80	7,277.71	7,105.09	172.62	42.160		
4,600.00	4,559.47	4,505.53	4,559.47	21.39	155.58	49.66	-4,290.69	-6,343.80	7,268.49	7,091.88	176.60	41.157		
4,700.00	4,658.47	4,606.53	4,658.47	21.86	159.10	49.74	-4,290.69	-6,343.80	7,259.28	7,078.69	180.59	40.197		
4,800.00	4,757.46	4,707.54	4,757.46	22.33	162.63	49.83	-4,290.69	-6,343.80	7,250.10	7,065.52	184.58	39.280		
4,900.00	4,856.45	4,808.55	4,856.45	22.80	166.15	49.91	-4,290.69	-6,343.80	7,240.92	7,052.36	188.56	38.400		
5,000.00	4,955.45	4,909.55	4,955.45	23.27	169.68	50.00	-4,290.69	-6,343.80	7,231.77	7,039.21	192.55	37.558		
5,100.00	5,054.44	4,989.44	5,054.44	23.74	172.47	50.08	-4,290.69	-6,343.80	7,222.62	7,026.82	195.80	36.888		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,088.44	5,153.44	24.21	175.92	50.17	-4,290.69	-6,343.80	7,213.50	7,013.78	199.72	36.118		
5,300.00	5,252.43	5,187.43	5,252.43	24.68	179.38	50.25	-4,290.69	-6,343.80	7,204.39	7,000.76	203.64	35.379		
5,400.00	5,351.42	5,286.42	5,351.42	25.15	182.83	50.34	-4,290.69	-6,343.80	7,195.30	6,987.75	207.55	34.667		
5,500.00	5,450.42	5,385.42	5,450.42	25.62	186.29	50.43	-4,290.69	-6,343.80	7,186.22	6,974.75	211.47	33.982		
5,600.00	5,549.41	5,484.41	5,549.41	26.09	189.74	50.51	-4,290.69	-6,343.80	7,177.16	6,961.77	215.39	33.322		
5,700.00	5,648.41	5,583.41	5,648.41	26.56	193.20	50.60	-4,290.69	-6,343.80	7,168.12	6,948.81	219.31	32.685		
5,800.00	5,747.40	5,682.40	5,747.40	27.03	196.65	50.69	-4,290.69	-6,343.80	7,159.10	6,935.87	223.23	32.071		
5,900.00	5,846.40	5,781.40	5,846.40	27.51	200.11	50.77	-4,290.69	-6,343.80	7,150.09	6,922.94	227.15	31.478		
6,000.00	5,945.39	5,880.39	5,945.39	27.98	203.57	50.86	-4,290.69	-6,343.80	7,141.09	6,910.03	231.07	30.905		
6,100.00	6,044.38	5,979.38	6,044.38	28.45	207.02	50.95	-4,290.69	-6,343.80	7,132.12	6,897.13	234.99	30.351		
6,200.00	6,143.38	6,078.38	6,143.38	28.92	210.48	51.04	-4,290.69	-6,343.80	7,123.16	6,884.25	238.91	29.816		
6,300.00	6,242.37	6,177.37	6,242.37	29.39	213.93	51.12	-4,290.69	-6,343.80	7,114.22	6,871.39	242.83	29.298		
6,400.00	6,341.37	6,276.37	6,341.37	29.86	217.39	51.21	-4,290.69	-6,343.80	7,105.29	6,858.54	246.75	28.796		
6,500.00	6,440.36	6,375.36	6,440.36	30.34	220.84	51.30	-4,290.69	-6,343.80	7,096.38	6,845.72	250.67	28.310		
6,600.00	6,538.90	6,473.90	6,538.90	30.80	224.28	11.37	-4,290.69	-6,343.80	7,087.99	6,832.43	254.56	27.820		
6,700.00	6,634.88	6,569.88	6,634.88	31.25	227.63	-6.39	-4,290.69	-6,343.80	7,079.48	6,819.44	258.44	27.306		
6,800.00	6,725.92	6,660.92	6,725.92	31.68	230.81	-15.48	-4,290.69	-6,343.80	7,071.84	6,807.44	262.31	26.800		
6,900.00	6,809.79	6,744.79	6,809.79	32.07	233.74	-22.34	-4,290.69	-6,343.80	7,064.71	6,795.31	266.17	26.303		
7,000.00	6,884.42	6,819.42	6,884.42	32.43	236.34	-29.15	-4,290.69	-6,343.80	7,058.12	6,783.14	270.01	25.816		
7,100.00	6,947.98	6,882.98	6,947.98	32.77	238.56	-37.14	-4,290.69	-6,343.80	7,052.06	6,771.06	273.84	25.339		
7,200.00	6,998.89	6,933.89	6,998.89	33.18	240.34	-47.24	-4,290.69	-6,343.80	7,046.44	6,759.44	277.56	24.871		
7,300.00	7,035.91	6,970.91	7,035.91	33.76	241.63	-60.08	-4,290.69	-6,343.80	7,041.26	6,747.26	281.24	24.419		
7,400.00	7,058.12	7,006.88	7,058.12	34.61	242.89	-75.28	-4,290.69	-6,343.80	7,036.51	6,735.51	284.88	23.981		
7,500.00	7,064.98	7,000.02	7,064.98	35.68	242.65	-90.38	-4,290.69	-6,343.80	7,032.20	6,724.20	288.47	23.586		
7,600.00	7,064.59	7,000.41	7,064.59	36.95	242.66	-90.37	-4,290.69	-6,343.80	7,028.43	6,713.43	291.99	23.252		
7,700.00	7,064.20	7,000.80	7,064.20	38.40	242.68	-90.37	-4,290.69	-6,343.80	7,025.10	6,703.10	295.44	22.913		
7,800.00	7,063.80	7,001.20	7,063.80	40.00	242.69	-90.36	-4,290.69	-6,343.80	7,022.20	6,693.60	298.76	22.570		
7,900.00	7,063.41	7,001.59	7,063.41	41.75	242.70	-90.35	-4,290.69	-6,343.80	7,019.73	6,684.73	301.95	22.221		
8,000.00	7,063.02	7,001.98	7,063.02	43.62	242.72	-90.35	-4,290.69	-6,343.80	7,017.69	6,676.31	305.00	21.868		
8,100.00	7,062.62	7,002.38	7,062.62	45.59	242.73	-90.34	-4,290.69	-6,343.80	7,015.98	6,668.44	307.91	21.511		
8,200.00	7,062.23	7,002.77	7,062.23	47.65	242.74	-90.33	-4,290.69	-6,343.80	7,014.58	6,661.04	310.68	21.150		
8,300.00	7,061.84	7,003.16	7,061.84	49.79	242.76	-90.32	-4,290.69	-6,343.80	7,013.48	6,654.13	313.32	20.785		
8,400.00	7,061.45	7,003.56	7,061.45	52.00	242.77	-90.32	-4,290.69	-6,343.80	7,012.57	6,647.70	315.84	20.417		
8,500.00	7,061.05	7,003.95	7,061.05	54.27	242.78	-90.31	-4,290.69	-6,343.80	7,011.84	6,641.74	318.24	20.047		
8,600.00	7,060.66	7,004.34	7,060.66	56.60	242.80	-90.30	-4,290.69	-6,343.80	7,011.27	6,636.14	320.52	19.674		
8,700.00	7,060.27	7,004.73	7,060.27	58.97	242.81	-90.30	-4,290.69	-6,343.80	7,010.84	6,630.87	322.68	19.300		
8,800.00	7,059.87	7,005.13	7,059.87	61.38	242.83	-90.29	-4,290.69	-6,343.80	7,010.54	6,625.91	324.72	18.924		
8,900.00	7,059.48	7,005.52	7,059.48	63.83	242.84	-90.28	-4,290.69	-6,343.80	7,010.27	6,621.24	326.64	18.548		
9,000.00	7,059.09	7,005.91	7,059.09	66.32	242.85	-90.28	-4,290.69	-6,343.80	7,010.02	6,616.85	328.44	18.172		
9,100.00	7,058.69	7,006.31	7,058.69	68.83	242.87	-90.27	-4,290.69	-6,343.80	7,009.79	6,612.64	330.12	17.796		
9,200.00	7,058.30	7,006.70	7,058.30	71.37	242.88	-90.26	-4,290.69	-6,343.80	7,009.58	6,608.61	331.68	17.421		
9,300.00	7,057.91	7,007.09	7,057.91	73.93	242.89	-90.26	-4,290.69	-6,343.80	7,009.39	6,604.74	333.12	17.048		
9,400.00	7,057.51	7,007.49	7,057.51	76.51	242.91	-90.25	-4,290.69	-6,343.80	7,009.21	6,600.94	334.44	16.677		
9,500.00	7,057.12	7,007.88	7,057.12	79.11	242.92	-90.24	-4,290.69	-6,343.80	7,009.04	6,597.29	335.64	16.309		
9,600.00	7,056.73	7,008.27	7,056.73	81.73	242.94	-90.24	-4,290.69	-6,343.80	7,008.88	6,593.78	336.72	15.943		
9,700.00	7,056.33	7,008.67	7,056.33	84.37	242.95	-90.23	-4,290.69	-6,343.80	7,008.73	6,590.31	337.68	15.582		
9,800.00	7,055.94	7,009.06	7,055.94	87.01	242.96	-90.22	-4,290.69	-6,343.80	7,008.59	6,586.88	338.52	15.224		
9,900.00	7,055.55	7,009.45	7,055.55	89.68	242.98	-90.22	-4,290.69	-6,343.80	7,008.46	6,583.58	339.24	14.870		
10,000.00	7,055.15	7,009.85	7,055.15	92.35	242.99	-90.21	-4,290.69	-6,343.80	7,008.34	6,580.31	339.84	14.522		
10,100.00	7,054.76	7,009.76	7,054.76	95.03	242.29	-90.20	-4,290.69	-6,343.80	7,008.22	6,577.07	340.32	14.174		
10,200.00	7,054.37	7,009.37	7,054.37	97.73	242.28	-90.20	-4,290.69	-6,343.80	7,008.11	6,573.96	340.68	13.874		
10,300.00	7,053.98	7,008.98	7,053.98	100.43	242.26	-90.19	-4,290.69	-6,343.80	7,008.00	6,570.88	340.92	13.542		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	6,988.58	7,053.58	103.14	242.25	-90.18	-4,290.69	-6,343.80	4,266.25	3,943.47	322.78	13.217		
10,500.00	7,053.19	6,988.19	7,053.19	105.86	242.23	-90.18	-4,290.69	-6,343.80	4,204.06	3,878.14	325.92	12.899		
10,600.00	7,052.80	6,987.80	7,052.80	108.59	242.22	-90.17	-4,290.69	-6,343.80	4,143.34	3,814.19	329.15	12.588		
10,700.00	7,052.40	6,987.40	7,052.40	111.32	242.21	-90.16	-4,290.69	-6,343.80	4,084.17	3,751.71	332.47	12.284		
10,800.00	7,052.01	6,987.01	7,052.01	114.06	242.19	-90.16	-4,290.69	-6,343.80	4,026.62	3,690.75	335.87	11.989		
10,900.00	7,051.62	6,986.62	7,051.62	116.80	242.18	-90.15	-4,290.69	-6,343.80	3,970.75	3,631.40	339.35	11.701		
11,000.00	7,051.22	6,986.22	7,051.22	119.55	242.17	-90.14	-4,290.69	-6,343.80	3,916.64	3,573.73	342.91	11.422		
11,100.00	7,050.83	6,985.83	7,050.83	122.31	242.15	-90.13	-4,290.69	-6,343.80	3,864.35	3,517.82	346.54	11.151		
11,200.00	7,050.44	6,985.44	7,050.44	125.07	242.14	-90.13	-4,290.69	-6,343.80	3,813.98	3,463.74	350.23	10.890		
11,300.00	7,050.04	6,985.04	7,050.04	127.83	242.13	-90.12	-4,290.69	-6,343.80	3,765.58	3,411.60	353.98	10.638		
11,400.00	7,049.65	6,984.65	7,049.65	130.60	242.11	-90.11	-4,290.69	-6,343.80	3,719.25	3,361.46	357.79	10.395		
11,500.00	7,049.26	6,984.26	7,049.26	133.37	242.10	-90.11	-4,290.69	-6,343.80	3,675.05	3,313.41	361.63	10.162		
11,600.00	7,048.86	6,983.86	7,048.86	136.15	242.08	-90.10	-4,290.69	-6,343.80	3,633.07	3,267.55	365.52	9.940		
11,700.00	7,048.47	6,983.47	7,048.47	138.93	242.07	-90.09	-4,290.69	-6,343.80	3,593.38	3,223.96	369.42	9.727		
11,800.00	7,048.08	6,983.08	7,048.08	141.71	242.06	-90.09	-4,290.69	-6,343.80	3,556.06	3,182.72	373.34	9.525		
11,900.00	7,047.68	6,982.68	7,047.68	144.49	242.04	-90.08	-4,290.69	-6,343.80	3,521.18	3,143.92	377.26	9.333		
12,000.00	7,047.29	6,982.29	7,047.29	147.28	242.03	-90.07	-4,290.69	-6,343.80	3,488.83	3,107.65	381.18	9.153		
12,100.00	7,046.90	6,981.90	7,046.90	150.07	242.02	-90.07	-4,290.69	-6,343.80	3,459.06	3,073.99	385.07	8.983		
12,200.00	7,046.51	6,981.51	7,046.51	152.87	242.00	-90.06	-4,290.69	-6,343.80	3,431.95	3,043.02	388.93	8.824		
12,300.00	7,046.11	6,981.11	7,046.11	155.66	241.99	-90.05	-4,290.69	-6,343.80	3,407.56	3,014.82	392.74	8.676		
12,400.00	7,045.72	6,980.72	7,045.72	158.46	241.97	-90.05	-4,290.69	-6,343.80	3,385.95	2,989.46	396.49	8.540		
12,500.00	7,045.33	6,980.33	7,045.33	161.26	241.96	-90.04	-4,290.69	-6,343.80	3,367.17	2,967.00	400.17	8.414		
12,600.00	7,044.93	6,979.93	7,044.93	164.06	241.95	-90.03	-4,290.69	-6,343.80	3,351.27	2,947.52	403.76	8.300		
12,700.00	7,044.54	6,979.54	7,044.54	166.86	241.93	-90.03	-4,290.69	-6,343.80	3,338.30	2,931.05	407.24	8.197		
12,800.00	7,044.15	6,979.15	7,044.15	169.67	241.92	-90.02	-4,290.69	-6,343.80	3,328.27	2,917.66	410.62	8.106		
12,900.00	7,043.75	6,978.75	7,043.75	172.48	241.91	-90.01	-4,290.69	-6,343.80	3,321.23	2,907.37	413.87	8.025		
13,000.00	7,043.36	6,978.36	7,043.36	175.28	241.89	-90.01	-4,290.69	-6,343.80	3,317.19	2,900.21	416.98	7.955		
13,084.09	7,043.03	6,978.03	7,043.03	177.65	241.88	-90.00	-4,290.69	-6,343.80	3,316.13	2,896.64	419.48	7.905 CC		
13,100.00	7,042.97	6,977.97	7,042.97	178.09	241.88	-90.00	-4,290.69	-6,343.80	3,316.17	2,896.22	419.95	7.897		
13,200.00	7,042.57	6,977.57	7,042.57	180.91	241.86	-89.99	-4,290.69	-6,343.80	3,318.15	2,895.40	422.76	7.849 ES		
13,300.00	7,042.18	6,977.18	7,042.18	183.72	241.85	-89.99	-4,290.69	-6,343.80	3,323.15	2,897.74	425.41	7.812		
13,400.00	7,041.79	6,976.79	7,041.79	186.53	241.84	-89.98	-4,290.69	-6,343.80	3,331.14	2,903.25	427.89	7.785		
13,500.00	7,041.39	6,976.39	7,041.39	189.35	241.82	-89.97	-4,290.69	-6,343.80	3,342.11	2,911.91	430.19	7.769		
13,600.00	7,041.00	6,976.00	7,041.00	192.17	241.81	-89.96	-4,290.69	-6,343.80	3,356.02	2,923.69	432.33	7.763 SF		
13,700.00	7,040.61	6,975.61	7,040.61	194.99	241.80	-89.96	-4,290.69	-6,343.80	3,372.84	2,938.56	434.28	7.767		
13,800.00	7,040.21	6,975.21	7,040.21	197.81	241.78	-89.95	-4,290.69	-6,343.80	3,392.53	2,956.47	436.06	7.780		
13,900.00	7,039.82	6,974.82	7,039.82	200.63	241.77	-89.94	-4,290.69	-6,343.80	3,415.03	2,977.37	437.66	7.803		
14,000.00	7,039.43	6,974.43	7,039.43	203.45	241.75	-89.94	-4,290.69	-6,343.80	3,440.29	3,001.21	439.08	7.835		
14,100.00	7,039.03	6,974.03	7,039.03	206.27	241.74	-89.93	-4,290.69	-6,343.80	3,468.25	3,027.91	440.34	7.876		
14,200.00	7,038.64	6,973.64	7,038.64	209.09	241.73	-89.92	-4,290.69	-6,343.80	3,498.85	3,057.42	441.43	7.926		
14,300.00	7,038.25	6,973.25	7,038.25	211.92	241.71	-89.92	-4,290.69	-6,343.80	3,532.01	3,089.66	442.36	7.985		
14,400.00	7,037.86	6,972.86	7,037.86	214.74	241.70	-89.91	-4,290.69	-6,343.80	3,567.67	3,124.54	443.13	8.051		
14,500.00	7,037.46	6,972.46	7,037.46	217.57	241.69	-89.90	-4,290.69	-6,343.80	3,605.76	3,161.99	443.76	8.125		
14,600.00	7,037.07	6,972.07	7,037.07	220.40	241.67	-89.90	-4,290.69	-6,343.80	3,646.18	3,201.93	444.25	8.207		
14,700.00	7,036.68	6,971.68	7,036.68	223.23	241.66	-89.89	-4,290.69	-6,343.80	3,688.88	3,244.27	444.61	8.297		
14,800.00	7,036.28	6,971.28	7,036.28	226.05	241.64	-89.88	-4,290.69	-6,343.80	3,733.77	3,288.92	444.85	8.393		
14,871.88	7,036.00	6,971.00	7,036.00	228.09	241.63	-89.88	-4,290.69	-6,343.80	3,767.34	3,322.40	444.94	8.467		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	18.00	3.28	3.28	-68.46	2,508.33	-6,356.23	6,833.28					
100.00	100.00	82.00	100.00	3.28	3.58	-68.46	2,508.33	-6,356.23	6,833.26	6,826.40	6.86	995.608		
200.00	200.00	182.00	200.00	3.34	5.66	-68.46	2,508.33	-6,356.23	6,833.26	6,824.27	8.99	759.818		
300.00	300.00	282.00	300.00	3.44	8.74	-68.46	2,508.33	-6,356.23	6,833.26	6,821.08	12.18	560.885		
400.00	399.98	381.98	399.98	3.60	12.04	101.69	2,508.33	-6,356.23	6,833.61	6,817.97	15.64	436.937		
500.00	499.84	481.84	499.84	3.79	15.43	101.72	2,508.33	-6,356.23	6,834.68	6,815.46	19.21	355.752		
600.00	599.45	581.45	599.45	4.02	18.84	101.75	2,508.33	-6,356.23	6,836.45	6,813.60	22.86	299.118		
700.00	698.70	680.70	698.70	4.29	22.26	101.80	2,508.33	-6,356.23	6,838.96	6,812.42	26.55	257.634		
800.00	797.70	779.70	797.70	4.59	25.68	101.91	2,508.33	-6,356.23	6,841.89	6,811.62	30.27	226.017		
900.00	896.69	878.69	896.69	4.92	29.12	102.03	2,508.33	-6,356.23	6,844.86	6,810.82	34.03	201.126		
1,000.00	995.68	977.68	995.68	5.27	32.55	102.14	2,508.33	-6,356.23	6,847.85	6,810.03	37.82	181.060		
1,100.00	1,094.68	1,076.68	1,094.68	5.64	35.99	102.26	2,508.33	-6,356.23	6,850.87	6,809.24	41.63	164.562		
1,200.00	1,193.67	1,175.67	1,193.67	6.03	39.43	102.37	2,508.33	-6,356.23	6,853.91	6,808.46	45.46	150.775		
1,300.00	1,292.67	1,274.67	1,292.67	6.42	42.88	102.49	2,508.33	-6,356.23	6,856.99	6,807.69	49.30	139.089		
1,400.00	1,391.66	1,373.66	1,391.66	6.83	46.33	102.60	2,508.33	-6,356.23	6,860.09	6,806.94	53.15	129.066		
1,500.00	1,490.66	1,472.66	1,490.66	7.25	49.77	102.71	2,508.33	-6,356.23	6,863.22	6,806.21	57.01	120.377		
1,600.00	1,589.65	1,571.65	1,589.65	7.67	53.22	102.83	2,508.33	-6,356.23	6,866.38	6,805.49	60.88	112.778		
1,700.00	1,688.64	1,670.64	1,688.64	8.10	56.67	102.94	2,508.33	-6,356.23	6,869.56	6,804.80	64.76	106.076		
1,800.00	1,787.64	1,769.64	1,787.64	8.53	60.12	103.06	2,508.33	-6,356.23	6,872.78	6,804.13	68.64	100.123		
1,900.00	1,886.63	1,868.63	1,886.63	8.97	63.57	103.17	2,508.33	-6,356.23	6,876.02	6,803.49	72.53	94.802		
2,000.00	1,985.63	1,967.63	1,985.63	9.41	67.02	103.28	2,508.33	-6,356.23	6,879.29	6,802.87	76.42	90.018		
2,100.00	2,084.62	2,066.62	2,084.62	9.85	70.48	103.40	2,508.33	-6,356.23	6,882.58	6,802.27	80.32	85.694		
2,200.00	2,183.61	2,165.61	2,183.61	10.30	73.93	103.51	2,508.33	-6,356.23	6,885.91	6,801.69	84.21	81.767		
2,300.00	2,282.61	2,264.61	2,282.61	10.75	77.38	103.62	2,508.33	-6,356.23	6,889.26	6,801.14	88.11	78.186		
2,400.00	2,381.60	2,363.60	2,381.60	11.20	80.83	103.74	2,508.33	-6,356.23	6,892.64	6,800.62	92.02	74.906		
2,500.00	2,480.60	2,462.60	2,480.60	11.66	84.29	103.85	2,508.33	-6,356.23	6,896.04	6,800.12	95.92	71.893		
2,600.00	2,579.59	2,561.59	2,579.59	12.11	87.74	103.96	2,508.33	-6,356.23	6,899.47	6,799.65	99.83	69.114		
2,700.00	2,678.58	2,660.58	2,678.58	12.57	91.19	104.08	2,508.33	-6,356.23	6,902.94	6,799.20	103.74	66.543		
2,800.00	2,777.58	2,759.58	2,777.58	13.02	94.65	104.19	2,508.33	-6,356.23	6,906.42	6,798.78	107.65	64.159		
2,900.00	2,876.57	2,858.57	2,876.57	13.48	98.10	104.30	2,508.33	-6,356.23	6,909.94	6,798.38	111.56	61.941		
3,000.00	2,975.57	2,957.57	2,975.57	13.94	101.56	104.41	2,508.33	-6,356.23	6,913.48	6,798.01	115.47	59.873		
3,100.00	3,074.56	3,056.56	3,074.56	14.40	105.01	104.53	2,508.33	-6,356.23	6,917.05	6,797.67	119.38	57.940		
3,200.00	3,173.55	3,155.55	3,173.55	14.87	108.46	104.64	2,508.33	-6,356.23	6,920.64	6,797.35	123.30	56.130		
3,300.00	3,272.55	3,254.55	3,272.55	15.33	111.92	104.75	2,508.33	-6,356.23	6,924.27	6,797.06	127.21	54.431		
3,400.00	3,371.54	3,353.54	3,371.54	15.79	115.37	104.86	2,508.33	-6,356.23	6,927.92	6,796.79	131.13	52.834		
3,500.00	3,470.54	3,452.54	3,470.54	16.26	118.83	104.98	2,508.33	-6,356.23	6,931.60	6,796.55	135.04	51.329		
3,600.00	3,569.53	3,551.53	3,569.53	16.72	122.28	105.09	2,508.33	-6,356.23	6,935.30	6,796.34	138.96	49.909		
3,700.00	3,668.53	3,650.53	3,668.53	17.19	125.74	105.20	2,508.33	-6,356.23	6,939.03	6,796.15	142.88	48.566		
3,800.00	3,767.52	3,749.52	3,767.52	17.65	129.19	105.31	2,508.33	-6,356.23	6,942.79	6,795.99	146.80	47.296		
3,900.00	3,866.51	3,848.51	3,866.51	18.12	132.65	105.42	2,508.33	-6,356.23	6,946.57	6,795.86	150.71	46.091		
4,000.00	3,965.51	3,947.51	3,965.51	18.59	136.10	105.53	2,508.33	-6,356.23	6,950.38	6,795.75	154.63	44.947		
4,100.00	4,064.50	4,046.50	4,064.50	19.05	139.56	105.64	2,508.33	-6,356.23	6,954.22	6,795.67	158.55	43.861		
4,200.00	4,163.50	4,145.50	4,163.50	19.52	143.01	105.76	2,508.33	-6,356.23	6,958.09	6,795.61	162.47	42.826		
4,300.00	4,262.49	4,244.49	4,262.49	19.99	146.47	105.87	2,508.33	-6,356.23	6,961.98	6,795.58	166.39	41.841		
4,400.00	4,361.48	4,343.48	4,361.48	20.46	149.92	105.98	2,508.33	-6,356.23	6,965.90	6,795.58	170.31	40.900		
4,500.00	4,460.48	4,442.48	4,460.48	20.92	153.38	106.09	2,508.33	-6,356.23	6,969.84	6,795.61	174.23	40.003		
4,600.00	4,559.47	4,541.47	4,559.47	21.39	156.83	106.20	2,508.33	-6,356.23	6,973.81	6,795.66	178.16	39.145		
4,700.00	4,658.47	4,640.47	4,658.47	21.86	160.29	106.31	2,508.33	-6,356.23	6,977.81	6,795.73	182.08	38.323		
4,800.00	4,757.46	4,739.46	4,757.46	22.33	163.74	106.42	2,508.33	-6,356.23	6,981.83	6,795.83	186.00	37.537		
4,900.00	4,856.45	4,838.45	4,856.45	22.80	167.20	106.53	2,508.33	-6,356.23	6,985.88	6,795.96	189.92	36.783		
5,000.00	4,955.45	4,937.45	4,955.45	23.27	170.65	106.64	2,508.33	-6,356.23	6,989.96	6,796.12	193.84	36.060		
5,100.00	5,054.44	5,036.44	5,054.44	23.74	174.11	106.75	2,508.33	-6,356.23	6,994.06	6,796.30	197.76	35.366		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,135.44	5,153.44	24.21	177.56	106.86	2,508.33	-6,356.23	6,998.19	6,796.50	201.69	34.698		
5,300.00	5,252.43	5,234.43	5,252.43	24.68	181.02	106.97	2,508.33	-6,356.23	7,002.34	6,796.73	205.61	34.057		
5,400.00	5,351.42	5,333.42	5,351.42	25.15	184.47	107.08	2,508.33	-6,356.23	7,006.52	6,796.99	209.53	33.439		
5,500.00	5,450.42	5,432.42	5,450.42	25.62	187.93	107.19	2,508.33	-6,356.23	7,010.73	6,797.28	213.45	32.844		
5,600.00	5,549.41	5,531.41	5,549.41	26.09	191.38	107.30	2,508.33	-6,356.23	7,014.96	6,797.59	217.38	32.271		
5,700.00	5,648.41	5,630.41	5,648.41	26.56	194.84	107.41	2,508.33	-6,356.23	7,019.22	6,797.92	221.30	31.718		
5,800.00	5,747.40	5,729.40	5,747.40	27.03	198.30	107.52	2,508.33	-6,356.23	7,023.51	6,798.29	225.22	31.185		
5,900.00	5,846.40	5,828.40	5,846.40	27.51	201.75	107.63	2,508.33	-6,356.23	7,027.82	6,798.67	229.15	30.670		
6,000.00	5,945.39	5,927.39	5,945.39	27.98	205.21	107.74	2,508.33	-6,356.23	7,032.16	6,799.09	233.07	30.172		
6,100.00	6,044.38	6,026.38	6,044.38	28.45	208.66	107.84	2,508.33	-6,356.23	7,036.52	6,799.53	236.99	29.691		
6,200.00	6,143.38	6,125.38	6,143.38	28.92	212.12	107.95	2,508.33	-6,356.23	7,040.91	6,799.99	240.92	29.226		
6,300.00	6,242.37	6,224.37	6,242.37	29.39	215.57	108.06	2,508.33	-6,356.23	7,045.32	6,800.48	244.84	28.775		
6,400.00	6,341.37	6,323.37	6,341.37	29.86	219.03	108.17	2,508.33	-6,356.23	7,049.76	6,801.00	248.76	28.339		
6,500.00	6,440.36	6,422.36	6,440.36	30.34	222.48	108.28	2,508.33	-6,356.23	7,054.22	6,801.54	252.69	27.917		
6,600.00	6,538.90	6,520.90	6,538.90	30.80	225.92	69.07	2,508.33	-6,356.23	7,053.18	6,796.58	256.59	27.488		
6,700.00	6,634.88	6,616.88	6,634.88	31.25	229.27	53.43	2,508.33	-6,356.23	7,038.55	6,778.16	260.40	27.030		
6,800.00	6,725.92	6,707.92	6,725.92	31.68	232.45	48.04	2,508.33	-6,356.23	7,010.71	6,746.71	264.01	26.555		
6,900.00	6,809.79	6,808.21	6,809.79	32.07	235.95	46.83	2,508.33	-6,356.23	6,970.42	6,702.50	267.92	26.017		
7,000.00	6,884.42	6,886.42	6,884.42	32.43	237.98	48.18	2,508.33	-6,356.23	6,918.77	6,648.42	270.35	25.592		
7,100.00	6,947.98	6,929.98	6,947.98	32.77	240.20	51.72	2,508.33	-6,356.23	6,857.10	6,584.13	272.96	25.121		
7,200.00	6,998.89	6,980.89	6,998.89	33.18	241.98	57.56	2,508.33	-6,356.23	6,787.02	6,511.87	275.15	24.667		
7,300.00	7,035.91	7,017.91	7,035.91	33.76	243.27	66.02	2,508.33	-6,356.23	6,710.33	6,433.45	276.88	24.236		
7,400.00	7,058.12	7,040.12	7,058.12	34.61	244.05	77.29	2,508.33	-6,356.23	6,628.94	6,350.82	278.12	23.835		
7,500.00	7,064.98	7,046.98	7,064.98	35.68	244.29	90.36	2,508.33	-6,356.23	6,544.89	6,266.02	278.87	23.469		
7,600.00	7,064.59	7,046.59	7,064.59	36.95	244.27	90.35	2,508.33	-6,356.23	6,460.45	6,181.02	279.42	23.121		
7,700.00	7,064.20	7,046.20	7,064.20	38.40	244.26	90.35	2,508.33	-6,356.23	6,376.45	6,096.39	280.06	22.768		
7,800.00	7,063.80	7,045.80	7,063.80	40.00	244.25	90.34	2,508.33	-6,356.23	6,292.92	6,012.14	280.78	22.412		
7,900.00	7,063.41	7,045.41	7,063.41	41.75	244.23	90.33	2,508.33	-6,356.23	6,209.88	5,928.29	281.59	22.053		
8,000.00	7,063.02	7,045.02	7,063.02	43.62	244.22	90.33	2,508.33	-6,356.23	6,127.35	5,844.86	282.49	21.691		
8,100.00	7,062.62	7,044.62	7,062.62	45.59	244.20	90.32	2,508.33	-6,356.23	6,045.34	5,761.87	283.47	21.326		
8,200.00	7,062.23	7,044.23	7,062.23	47.65	244.19	90.31	2,508.33	-6,356.23	5,963.88	5,679.34	284.54	20.959		
8,300.00	7,061.84	7,043.84	7,061.84	49.79	244.18	90.31	2,508.33	-6,356.23	5,882.99	5,597.29	285.71	20.591		
8,400.00	7,061.45	7,043.45	7,061.45	52.00	244.16	90.30	2,508.33	-6,356.23	5,802.70	5,515.74	286.96	20.221		
8,500.00	7,061.05	7,043.05	7,061.05	54.27	244.15	90.29	2,508.33	-6,356.23	5,723.03	5,434.73	288.30	19.851		
8,600.00	7,060.66	7,042.66	7,060.66	56.60	244.14	90.29	2,508.33	-6,356.23	5,644.01	5,354.28	289.73	19.480		
8,700.00	7,060.27	7,042.27	7,060.27	58.97	244.12	90.28	2,508.33	-6,356.23	5,565.66	5,274.41	291.26	19.109		
8,800.00	7,059.87	7,041.87	7,059.87	61.38	244.11	90.27	2,508.33	-6,356.23	5,488.02	5,195.15	292.87	18.739		
8,900.00	7,059.48	7,041.48	7,059.48	63.83	244.10	90.27	2,508.33	-6,356.23	5,411.11	5,116.53	294.57	18.369		
9,000.00	7,059.09	7,041.09	7,059.09	66.32	244.08	90.26	2,508.33	-6,356.23	5,334.96	5,038.60	296.37	18.001		
9,100.00	7,058.69	7,040.69	7,058.69	68.83	244.07	90.25	2,508.33	-6,356.23	5,259.62	4,961.37	298.25	17.635		
9,200.00	7,058.30	7,040.30	7,058.30	71.37	244.05	90.25	2,508.33	-6,356.23	5,185.11	4,884.88	300.22	17.271		
9,300.00	7,057.91	7,039.91	7,057.91	73.93	244.04	90.24	2,508.33	-6,356.23	5,111.47	4,809.18	302.28	16.910		
9,400.00	7,057.51	7,039.51	7,057.51	76.51	244.03	90.24	2,508.33	-6,356.23	5,038.73	4,734.30	304.43	16.551		
9,500.00	7,057.12	7,039.12	7,057.12	79.11	244.01	90.23	2,508.33	-6,356.23	4,966.95	4,660.28	306.67	16.196		
9,600.00	7,056.73	7,038.73	7,056.73	81.73	244.00	90.22	2,508.33	-6,356.23	4,896.15	4,587.16	309.00	15.845		
9,700.00	7,056.33	7,038.33	7,056.33	84.37	243.99	90.22	2,508.33	-6,356.23	4,826.39	4,514.98	311.41	15.498		
9,800.00	7,055.94	7,037.94	7,055.94	87.01	243.97	90.21	2,508.33	-6,356.23	4,757.71	4,443.80	313.91	15.156		
9,900.00	7,055.55	7,037.55	7,055.55	89.68	243.96	90.20	2,508.33	-6,356.23	4,690.15	4,373.66	316.50	14.819		
10,000.00	7,055.15	7,037.15	7,055.15	92.35	243.94	90.20	2,508.33	-6,356.23	4,623.77	4,304.60	319.17	14.487		
10,100.00	7,054.76	7,036.76	7,054.76	95.03	243.93	90.19	2,508.33	-6,356.23	4,558.62	4,236.70	321.93	14.160		
10,200.00	7,054.37	7,036.37	7,054.37	97.73	243.92	90.18	2,508.33	-6,356.23	4,494.75	4,169.98	324.77	13.840		
10,300.00	7,053.98	7,035.98	7,053.98	100.43	243.90	90.18	2,508.33	-6,356.23	4,432.21	4,104.53	327.69	13.526		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	7,035.58	7,053.58	103.14	243.89	90.17	2,508.33	-6,356.23	4,371.07	4,040.38	330.69	13.218		
10,500.00	7,053.19	7,035.19	7,053.19	105.86	243.88	90.16	2,508.33	-6,356.23	4,311.38	3,977.62	333.76	12.917		
10,600.00	7,052.80	7,034.80	7,052.80	108.59	243.86	90.16	2,508.33	-6,356.23	4,253.20	3,916.29	336.92	12.624		
10,700.00	7,052.40	7,034.40	7,052.40	111.32	243.85	90.15	2,508.33	-6,356.23	4,196.60	3,856.46	340.14	12.338		
10,800.00	7,052.01	7,034.01	7,052.01	114.06	243.83	90.14	2,508.33	-6,356.23	4,141.65	3,798.21	343.43	12.060		
10,900.00	7,051.62	7,033.62	7,051.62	116.80	243.82	90.14	2,508.33	-6,356.23	4,088.39	3,741.61	346.79	11.789		
11,000.00	7,051.22	7,033.22	7,051.22	119.55	243.81	90.13	2,508.33	-6,356.23	4,036.92	3,686.72	350.20	11.527		
11,100.00	7,050.83	7,032.83	7,050.83	122.31	243.79	90.13	2,508.33	-6,356.23	3,987.29	3,633.62	353.67	11.274		
11,200.00	7,050.44	7,032.44	7,050.44	125.07	243.78	90.12	2,508.33	-6,356.23	3,939.57	3,582.38	357.19	11.029		
11,300.00	7,050.04	7,032.04	7,050.04	127.83	243.77	90.11	2,508.33	-6,356.23	3,893.83	3,533.08	360.75	10.794		
11,400.00	7,049.65	7,031.65	7,049.65	130.60	243.75	90.11	2,508.33	-6,356.23	3,850.15	3,485.81	364.34	10.567		
11,500.00	7,049.26	7,031.26	7,049.26	133.37	243.74	90.10	2,508.33	-6,356.23	3,808.60	3,440.63	367.96	10.350		
11,600.00	7,048.86	7,030.86	7,048.86	136.15	243.72	90.09	2,508.33	-6,356.23	3,769.24	3,397.63	371.61	10.143		
11,700.00	7,048.47	7,030.47	7,048.47	138.93	243.71	90.09	2,508.33	-6,356.23	3,732.14	3,356.89	375.26	9.946		
11,800.00	7,048.08	7,030.08	7,048.08	141.71	243.70	90.08	2,508.33	-6,356.23	3,697.38	3,318.47	378.91	9.758		
11,900.00	7,047.68	7,029.68	7,047.68	144.49	243.68	90.07	2,508.33	-6,356.23	3,665.02	3,282.47	382.55	9.581		
12,000.00	7,047.29	7,029.29	7,047.29	147.28	243.67	90.07	2,508.33	-6,356.23	3,635.12	3,248.95	386.17	9.413		
12,100.00	7,046.90	7,028.90	7,046.90	150.07	243.66	90.06	2,508.33	-6,356.23	3,607.75	3,217.99	389.76	9.256		
12,200.00	7,046.51	7,028.51	7,046.51	152.87	243.64	90.05	2,508.33	-6,356.23	3,582.96	3,189.65	393.31	9.110		
12,300.00	7,046.11	7,028.11	7,046.11	155.66	243.63	90.05	2,508.33	-6,356.23	3,560.80	3,164.00	396.80	8.974		
12,400.00	7,045.72	7,027.72	7,045.72	158.46	243.61	90.04	2,508.33	-6,356.23	3,541.33	3,141.11	400.23	8.848		
12,500.00	7,045.33	7,027.33	7,045.33	161.26	243.60	90.04	2,508.33	-6,356.23	3,524.60	3,121.02	403.58	8.733		
12,600.00	7,044.93	7,026.93	7,044.93	164.06	243.59	90.03	2,508.33	-6,356.23	3,510.63	3,103.79	406.84	8.629		
12,700.00	7,044.54	7,026.54	7,044.54	166.86	243.57	90.02	2,508.33	-6,356.23	3,499.46	3,089.46	410.01	8.535		
12,800.00	7,044.15	7,026.15	7,044.15	169.67	243.56	90.02	2,508.33	-6,356.23	3,491.13	3,078.07	413.06	8.452		
12,900.00	7,043.75	7,025.75	7,043.75	172.48	243.55	90.01	2,508.33	-6,356.23	3,485.64	3,069.65	416.00	8.379		
13,000.00	7,043.36	7,025.36	7,043.36	175.28	243.53	90.00	2,508.33	-6,356.23	3,483.02	3,064.22	418.81	8.317		
13,041.33	7,043.20	7,025.20	7,043.20	176.45	243.53	90.00	2,508.33	-6,356.23	3,482.78	3,062.85	419.93	8.294 CC		
13,100.00	7,042.97	7,024.97	7,042.97	178.09	243.52	90.00	2,508.33	-6,356.23	3,483.27	3,061.79	421.48	8.264 ES		
13,200.00	7,042.57	7,024.57	7,042.57	180.91	243.50	89.99	2,508.33	-6,356.23	3,486.39	3,062.38	424.01	8.222		
13,300.00	7,042.18	7,024.18	7,042.18	183.72	243.49	89.98	2,508.33	-6,356.23	3,492.37	3,065.98	426.40	8.190		
13,400.00	7,041.79	7,023.79	7,041.79	186.53	243.48	89.98	2,508.33	-6,356.23	3,501.20	3,072.57	428.63	8.168		
13,500.00	7,041.39	7,023.39	7,041.39	189.35	243.46	89.97	2,508.33	-6,356.23	3,512.85	3,082.15	430.70	8.156		
13,600.00	7,041.00	7,023.00	7,041.00	192.17	243.45	89.96	2,508.33	-6,356.23	3,527.30	3,094.68	432.62	8.153 SF		
13,700.00	7,040.61	7,022.61	7,040.61	194.99	243.44	89.96	2,508.33	-6,356.23	3,544.51	3,110.14	434.38	8.160		
13,800.00	7,040.21	7,022.21	7,040.21	197.81	243.42	89.95	2,508.33	-6,356.23	3,564.45	3,128.47	435.98	8.176		
13,900.00	7,039.82	7,021.82	7,039.82	200.63	243.41	89.94	2,508.33	-6,356.23	3,587.07	3,149.65	437.42	8.200		
14,000.00	7,039.43	7,021.43	7,039.43	203.45	243.40	89.94	2,508.33	-6,356.23	3,612.31	3,173.60	438.71	8.234		
14,100.00	7,039.03	7,021.03	7,039.03	206.27	243.38	89.93	2,508.33	-6,356.23	3,640.13	3,200.28	439.84	8.276		
14,200.00	7,038.64	7,020.64	7,038.64	209.09	243.37	89.93	2,508.33	-6,356.23	3,670.46	3,229.62	440.83	8.326		
14,300.00	7,038.25	7,020.25	7,038.25	211.92	243.35	89.92	2,508.33	-6,356.23	3,703.24	3,261.56	441.68	8.385		
14,400.00	7,037.86	7,019.86	7,037.86	214.74	243.34	89.91	2,508.33	-6,356.23	3,738.41	3,296.03	442.38	8.451		
14,500.00	7,037.46	7,019.46	7,037.46	217.57	243.33	89.91	2,508.33	-6,356.23	3,775.90	3,332.95	442.96	8.524		
14,600.00	7,037.07	7,019.07	7,037.07	220.40	243.31	89.90	2,508.33	-6,356.23	3,815.65	3,372.24	443.40	8.605		
14,700.00	7,036.68	7,018.68	7,036.68	223.23	243.30	89.89	2,508.33	-6,356.23	3,857.58	3,413.84	443.73	8.693		
14,800.00	7,036.28	7,018.28	7,036.28	226.05	243.29	89.89	2,508.33	-6,356.23	3,901.62	3,457.66	443.95	8.788		
14,871.88	7,036.00	7,018.00	7,036.00	228.09	243.28	89.88	2,508.33	-6,356.23	3,934.54	3,490.50	444.04	8.861		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	15.00	3.28	3.28	-72.72	2,443.19	-7,852.49	8,223.81					
100.00	100.00	85.00	100.00	3.28	3.60	-72.72	2,443.19	-7,852.49	8,223.79	8,216.91	6.88	1,194.509		
200.00	200.00	185.00	200.00	3.34	5.74	-72.72	2,443.19	-7,852.49	8,223.79	8,214.72	9.08	905.811		
300.00	300.00	285.00	300.00	3.44	8.84	-72.72	2,443.19	-7,852.49	8,223.79	8,211.51	12.28	669.682		
400.00	399.98	384.98	399.98	3.60	12.15	97.44	2,443.19	-7,852.49	8,224.02	8,208.28	15.74	522.472		
500.00	499.84	484.84	499.84	3.79	15.53	97.46	2,443.19	-7,852.49	8,224.70	8,205.39	19.31	425.838		
600.00	599.45	584.45	599.45	4.02	18.94	97.50	2,443.19	-7,852.49	8,225.84	8,202.88	22.96	358.295		
700.00	698.70	683.70	698.70	4.29	22.36	97.55	2,443.19	-7,852.49	8,227.45	8,200.80	26.65	308.737		
800.00	797.70	782.70	797.70	4.59	25.79	97.65	2,443.19	-7,852.49	8,229.34	8,198.96	30.38	270.921		
900.00	896.69	881.69	896.69	4.92	29.22	97.74	2,443.19	-7,852.49	8,231.25	8,197.11	34.14	241.123		
1,000.00	995.68	980.68	995.68	5.27	32.66	97.84	2,443.19	-7,852.49	8,233.19	8,195.26	37.93	217.085		
1,100.00	1,094.68	1,079.68	1,094.68	5.64	36.10	97.94	2,443.19	-7,852.49	8,235.15	8,193.41	41.74	197.313		
1,200.00	1,193.67	1,178.67	1,193.67	6.03	39.54	98.03	2,443.19	-7,852.49	8,237.13	8,191.57	45.56	180.780		
1,300.00	1,292.67	1,277.67	1,292.67	6.42	42.98	98.13	2,443.19	-7,852.49	8,239.14	8,189.74	49.41	166.763		
1,400.00	1,391.66	1,376.66	1,391.66	6.83	46.43	98.23	2,443.19	-7,852.49	8,241.18	8,187.92	53.26	154.736		
1,500.00	1,490.66	1,475.66	1,490.66	7.25	49.88	98.32	2,443.19	-7,852.49	8,243.23	8,186.11	57.12	144.308		
1,600.00	1,589.65	1,574.65	1,589.65	7.67	53.33	98.42	2,443.19	-7,852.49	8,245.31	8,184.32	60.99	135.184		
1,700.00	1,688.64	1,673.64	1,688.64	8.10	56.78	98.52	2,443.19	-7,852.49	8,247.42	8,182.54	64.87	127.136		
1,800.00	1,787.64	1,772.64	1,787.64	8.53	60.23	98.61	2,443.19	-7,852.49	8,249.54	8,180.79	68.75	119.987		
1,900.00	1,886.63	1,871.63	1,886.63	8.97	63.68	98.71	2,443.19	-7,852.49	8,251.69	8,179.05	72.64	113.594		
2,000.00	1,985.63	1,970.63	1,985.63	9.41	67.13	98.80	2,443.19	-7,852.49	8,253.87	8,177.34	76.53	107.846		
2,100.00	2,084.62	2,069.62	2,084.62	9.85	70.58	98.90	2,443.19	-7,852.49	8,256.07	8,175.64	80.43	102.650		
2,200.00	2,183.61	2,168.61	2,183.61	10.30	74.03	99.00	2,443.19	-7,852.49	8,258.29	8,173.96	84.33	97.931		
2,300.00	2,282.61	2,267.61	2,282.61	10.75	77.49	99.09	2,443.19	-7,852.49	8,260.54	8,172.31	88.23	93.626		
2,400.00	2,381.60	2,366.60	2,381.60	11.20	80.94	99.19	2,443.19	-7,852.49	8,262.81	8,170.67	92.13	89.684		
2,500.00	2,480.60	2,465.60	2,480.60	11.66	84.39	99.28	2,443.19	-7,852.49	8,265.10	8,169.06	96.04	86.061		
2,600.00	2,579.59	2,564.59	2,579.59	12.11	87.85	99.38	2,443.19	-7,852.49	8,267.42	8,167.47	99.95	82.719		
2,700.00	2,678.58	2,663.58	2,678.58	12.57	91.30	99.48	2,443.19	-7,852.49	8,269.76	8,165.90	103.85	79.628		
2,800.00	2,777.58	2,762.58	2,777.58	13.02	94.75	99.57	2,443.19	-7,852.49	8,272.12	8,164.36	107.77	76.761		
2,900.00	2,876.57	2,861.57	2,876.57	13.48	98.21	99.67	2,443.19	-7,852.49	8,274.51	8,162.83	111.68	74.093		
3,000.00	2,975.57	2,960.57	2,975.57	13.94	101.66	99.76	2,443.19	-7,852.49	8,276.92	8,161.33	115.59	71.606		
3,100.00	3,074.56	3,059.56	3,074.56	14.40	105.12	99.86	2,443.19	-7,852.49	8,279.35	8,159.85	119.50	69.281		
3,200.00	3,173.55	3,158.55	3,173.55	14.87	108.57	99.95	2,443.19	-7,852.49	8,281.81	8,158.39	123.42	67.103		
3,300.00	3,272.55	3,257.55	3,272.55	15.33	112.02	100.05	2,443.19	-7,852.49	8,284.29	8,156.96	127.34	65.059		
3,400.00	3,371.54	3,356.54	3,371.54	15.79	115.48	100.14	2,443.19	-7,852.49	8,286.80	8,155.54	131.25	63.136		
3,500.00	3,470.54	3,455.54	3,470.54	16.26	118.93	100.24	2,443.19	-7,852.49	8,289.32	8,154.16	135.17	61.325		
3,600.00	3,569.53	3,554.53	3,569.53	16.72	122.39	100.33	2,443.19	-7,852.49	8,291.88	8,152.79	139.09	59.616		
3,700.00	3,668.53	3,653.53	3,668.53	17.19	125.84	100.43	2,443.19	-7,852.49	8,294.45	8,151.44	143.01	58.000		
3,800.00	3,767.52	3,752.52	3,767.52	17.65	129.30	100.53	2,443.19	-7,852.49	8,297.05	8,150.12	146.93	56.471		
3,900.00	3,866.51	3,851.51	3,866.51	18.12	132.75	100.62	2,443.19	-7,852.49	8,299.67	8,148.82	150.85	55.021		
4,000.00	3,965.51	3,950.51	3,965.51	18.59	136.21	100.72	2,443.19	-7,852.49	8,302.32	8,147.55	154.77	53.644		
4,100.00	4,064.50	4,049.50	4,064.50	19.05	139.66	100.81	2,443.19	-7,852.49	8,304.98	8,146.30	158.69	52.336		
4,200.00	4,163.50	4,148.50	4,163.50	19.52	143.12	100.91	2,443.19	-7,852.49	8,307.67	8,145.07	162.61	51.090		
4,300.00	4,262.49	4,247.49	4,262.49	19.99	146.57	101.00	2,443.19	-7,852.49	8,310.39	8,143.86	166.53	49.904		
4,400.00	4,361.48	4,346.48	4,361.48	20.46	150.03	101.09	2,443.19	-7,852.49	8,313.13	8,142.68	170.45	48.771		
4,500.00	4,460.48	4,445.48	4,460.48	20.92	153.48	101.19	2,443.19	-7,852.49	8,315.89	8,141.51	174.37	47.690		
4,600.00	4,559.47	4,544.47	4,559.47	21.39	156.94	101.28	2,443.19	-7,852.49	8,318.67	8,140.38	178.30	46.657		
4,700.00	4,658.47	4,643.47	4,658.47	21.86	160.39	101.38	2,443.19	-7,852.49	8,321.48	8,139.26	182.22	45.668		
4,800.00	4,757.46	4,742.46	4,757.46	22.33	163.85	101.47	2,443.19	-7,852.49	8,324.31	8,138.17	186.14	44.721		
4,900.00	4,856.45	4,841.45	4,856.45	22.80	167.30	101.57	2,443.19	-7,852.49	8,327.16	8,137.10	190.06	43.812		
5,000.00	4,955.45	4,940.45	4,955.45	23.27	170.76	101.66	2,443.19	-7,852.49	8,330.04	8,136.05	193.99	42.941		
5,100.00	5,054.44	5,039.44	5,054.44	23.74	174.21	101.76	2,443.19	-7,852.49	8,332.94	8,135.03	197.91	42.105		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 14-9(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,153.44	5,138.44	5,153.44	24.21	177.67	101.85	2,443.19	-7,852.49	8,335.86	8,134.02	201.83	41.301		
5,300.00	5,252.43	5,237.43	5,252.43	24.68	181.12	101.95	2,443.19	-7,852.49	8,338.80	8,133.05	205.76	40.527		
5,400.00	5,351.42	5,336.42	5,351.42	25.15	184.58	102.04	2,443.19	-7,852.49	8,341.77	8,132.09	209.68	39.783		
5,500.00	5,450.42	5,435.42	5,450.42	25.62	188.03	102.13	2,443.19	-7,852.49	8,344.76	8,131.16	213.61	39.066		
5,600.00	5,549.41	5,534.41	5,549.41	26.09	191.49	102.23	2,443.19	-7,852.49	8,347.78	8,130.25	217.53	38.375		
5,700.00	5,648.41	5,633.41	5,648.41	26.56	194.94	102.32	2,443.19	-7,852.49	8,350.81	8,129.36	221.46	37.709		
5,800.00	5,747.40	5,732.40	5,747.40	27.03	198.40	102.42	2,443.19	-7,852.49	8,353.87	8,128.50	225.38	37.066		
5,900.00	5,846.40	5,831.40	5,846.40	27.51	201.86	102.51	2,443.19	-7,852.49	8,356.96	8,127.65	229.30	36.445		
6,000.00	5,945.39	5,930.39	5,945.39	27.98	205.31	102.60	2,443.19	-7,852.49	8,360.06	8,126.83	233.23	35.845		
6,100.00	6,044.38	6,029.38	6,044.38	28.45	208.77	102.70	2,443.19	-7,852.49	8,363.19	8,126.04	237.15	35.265		
6,200.00	6,143.38	6,128.38	6,143.38	28.92	212.22	102.79	2,443.19	-7,852.49	8,366.34	8,125.26	241.08	34.704		
6,300.00	6,242.37	6,227.37	6,242.37	29.39	215.68	102.88	2,443.19	-7,852.49	8,369.52	8,124.51	245.00	34.161		
6,400.00	6,341.37	6,326.37	6,341.37	29.86	219.13	102.98	2,443.19	-7,852.49	8,372.71	8,123.78	248.93	33.635		
6,500.00	6,440.36	6,425.36	6,440.36	30.34	222.59	103.07	2,443.19	-7,852.49	8,375.93	8,123.08	252.85	33.126		
6,600.00	6,538.90	6,523.90	6,538.90	30.80	226.03	63.88	2,443.19	-7,852.49	8,373.38	8,116.62	256.76	32.611		
6,700.00	6,634.88	6,619.88	6,634.88	31.25	229.38	48.17	2,443.19	-7,852.49	8,356.65	8,096.08	260.57	32.071		
6,800.00	6,725.92	6,710.92	6,725.92	31.68	232.56	42.63	2,443.19	-7,852.49	8,326.11	8,061.94	264.18	31.517		
6,900.00	6,809.79	6,805.21	6,809.79	32.07	235.85	41.20	2,443.19	-7,852.49	8,282.58	8,014.71	267.87	30.920		
7,000.00	6,884.42	6,869.42	6,884.42	32.43	238.09	42.29	2,443.19	-7,852.49	8,227.16	7,956.67	270.50	30.415		
7,100.00	6,947.98	6,932.98	6,947.98	32.77	240.31	45.61	2,443.19	-7,852.49	8,161.29	7,888.20	273.08	29.886		
7,200.00	6,998.89	6,983.89	6,998.89	33.18	242.08	51.49	2,443.19	-7,852.49	8,086.61	7,811.39	275.22	29.382		
7,300.00	7,035.91	7,020.91	7,035.91	33.76	243.38	60.66	2,443.19	-7,852.49	8,005.01	7,728.14	276.88	28.912		
7,400.00	7,058.12	7,043.12	7,058.12	34.61	244.15	73.94	2,443.19	-7,852.49	7,918.52	7,640.49	278.03	28.481		
7,500.00	7,064.98	7,049.98	7,064.98	35.68	244.39	90.46	2,443.19	-7,852.49	7,829.25	7,550.60	278.65	28.097		
7,600.00	7,064.59	7,049.59	7,064.59	36.95	244.38	90.46	2,443.19	-7,852.49	7,739.48	7,460.43	279.06	27.734		
7,700.00	7,064.20	7,049.20	7,064.20	38.40	244.36	90.45	2,443.19	-7,852.49	7,649.97	7,370.45	279.52	27.368		
7,800.00	7,063.80	7,048.80	7,063.80	40.00	244.35	90.44	2,443.19	-7,852.49	7,560.72	7,280.67	280.05	26.998		
7,900.00	7,063.41	7,048.41	7,063.41	41.75	244.34	90.44	2,443.19	-7,852.49	7,471.74	7,191.10	280.63	26.625		
8,000.00	7,063.02	7,048.02	7,063.02	43.62	244.32	90.43	2,443.19	-7,852.49	7,383.04	7,101.76	281.28	26.248		
8,100.00	7,062.62	7,047.62	7,062.62	45.59	244.31	90.42	2,443.19	-7,852.49	7,294.63	7,012.64	281.99	25.869		
8,200.00	7,062.23	7,047.23	7,062.23	47.65	244.30	90.42	2,443.19	-7,852.49	7,206.53	6,923.77	282.76	25.486		
8,300.00	7,061.84	7,046.84	7,061.84	49.79	244.28	90.41	2,443.19	-7,852.49	7,118.74	6,835.14	283.60	25.102		
8,400.00	7,061.45	7,046.45	7,061.45	52.00	244.27	90.40	2,443.19	-7,852.49	7,031.28	6,746.78	284.50	24.714		
8,500.00	7,061.05	7,046.05	7,061.05	54.27	244.25	90.40	2,443.19	-7,852.49	6,944.15	6,658.68	285.47	24.325		
8,600.00	7,060.66	7,045.66	7,060.66	56.60	244.24	90.39	2,443.19	-7,852.49	6,857.38	6,570.87	286.51	23.934		
8,700.00	7,060.27	7,045.27	7,060.27	58.97	244.23	90.38	2,443.19	-7,852.49	6,770.97	6,483.36	287.61	23.542		
8,800.00	7,059.87	7,044.87	7,059.87	61.38	244.21	90.38	2,443.19	-7,852.49	6,684.94	6,396.15	288.79	23.148		
8,900.00	7,059.48	7,044.48	7,059.48	63.83	244.20	90.37	2,443.19	-7,852.49	6,599.31	6,309.28	290.03	22.754		
9,000.00	7,059.09	7,044.09	7,059.09	66.32	244.19	90.36	2,443.19	-7,852.49	6,514.08	6,222.74	291.34	22.359		
9,100.00	7,058.69	7,043.69	7,058.69	68.83	244.17	90.36	2,443.19	-7,852.49	6,429.28	6,136.56	292.73	21.963		
9,200.00	7,058.30	7,043.30	7,058.30	71.37	244.16	90.35	2,443.19	-7,852.49	6,344.92	6,050.75	294.18	21.568		
9,300.00	7,057.91	7,042.91	7,057.91	73.93	244.14	90.34	2,443.19	-7,852.49	6,261.03	5,965.32	295.70	21.173		
9,400.00	7,057.51	7,042.51	7,057.51	76.51	244.13	90.34	2,443.19	-7,852.49	6,177.61	5,880.31	297.30	20.779		
9,500.00	7,057.12	7,042.12	7,057.12	79.11	244.12	90.33	2,443.19	-7,852.49	6,094.69	5,795.72	298.97	20.386		
9,600.00	7,056.73	7,041.73	7,056.73	81.73	244.10	90.32	2,443.19	-7,852.49	6,012.29	5,711.58	300.71	19.994		
9,700.00	7,056.33	7,041.33	7,056.33	84.37	244.09	90.32	2,443.19	-7,852.49	5,930.44	5,627.91	302.52	19.603		
9,800.00	7,055.94	7,040.94	7,055.94	87.01	244.08	90.31	2,443.19	-7,852.49	5,849.14	5,544.73	304.41	19.214		
9,900.00	7,055.55	7,040.55	7,055.55	89.68	244.06	90.30	2,443.19	-7,852.49	5,768.44	5,462.06	306.38	18.828		
10,000.00	7,055.15	7,040.15	7,055.15	92.35	244.05	90.30	2,443.19	-7,852.49	5,688.34	5,379.93	308.42	18.444		
10,100.00	7,054.76	7,039.76	7,054.76	95.03	244.04	90.29	2,443.19	-7,852.49	5,608.89	5,298.36	310.53	18.062		
10,200.00	7,054.37	7,039.37	7,054.37	97.73	244.02	90.28	2,443.19	-7,852.49	5,530.10	5,217.37	312.73	17.683		
10,300.00	7,053.98	7,038.98	7,053.98	100.43	244.01	90.28	2,443.19	-7,852.49	5,452.01	5,137.01	315.00	17.308		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	7,038.58	7,053.58	103.14	243.99	90.27	2,443.19	-7,852.49	5,374.65	5,057.29	317.35	16.936		
10,500.00	7,053.19	7,038.19	7,053.19	105.86	243.98	90.27	2,443.19	-7,852.49	5,298.04	4,978.26	319.79	16.567		
10,600.00	7,052.80	7,037.80	7,052.80	108.59	243.97	90.26	2,443.19	-7,852.49	5,222.23	4,899.93	322.30	16.203		
10,700.00	7,052.40	7,037.40	7,052.40	111.32	243.95	90.25	2,443.19	-7,852.49	5,147.24	4,822.34	324.89	15.843		
10,800.00	7,052.01	7,037.01	7,052.01	114.06	243.94	90.25	2,443.19	-7,852.49	5,073.11	4,745.54	327.57	15.487		
10,900.00	7,051.62	7,036.62	7,051.62	116.80	243.93	90.24	2,443.19	-7,852.49	4,999.88	4,669.55	330.33	15.136		
11,000.00	7,051.22	7,036.22	7,051.22	119.55	243.91	90.23	2,443.19	-7,852.49	4,927.60	4,594.43	333.17	14.790		
11,100.00	7,050.83	7,035.83	7,050.83	122.31	243.90	90.23	2,443.19	-7,852.49	4,856.30	4,520.20	336.10	14.449		
11,200.00	7,050.44	7,035.44	7,050.44	125.07	243.88	90.22	2,443.19	-7,852.49	4,786.02	4,446.92	339.10	14.114		
11,300.00	7,050.04	7,035.04	7,050.04	127.83	243.87	90.21	2,443.19	-7,852.49	4,716.82	4,374.62	342.20	13.784		
11,400.00	7,049.65	7,034.65	7,049.65	130.60	243.86	90.21	2,443.19	-7,852.49	4,648.74	4,303.37	345.37	13.460		
11,500.00	7,049.26	7,034.26	7,049.26	133.37	243.84	90.20	2,443.19	-7,852.49	4,581.83	4,233.20	348.63	13.142		
11,600.00	7,048.86	7,033.86	7,048.86	136.15	243.83	90.19	2,443.19	-7,852.49	4,516.15	4,164.18	351.97	12.831		
11,700.00	7,048.47	7,033.47	7,048.47	138.93	243.82	90.19	2,443.19	-7,852.49	4,451.74	4,096.35	355.39	12.526		
11,800.00	7,048.08	7,033.08	7,048.08	141.71	243.80	90.18	2,443.19	-7,852.49	4,388.66	4,029.77	358.89	12.228		
11,900.00	7,047.68	7,032.68	7,047.68	144.49	243.79	90.17	2,443.19	-7,852.49	4,326.98	3,964.51	362.47	11.938		
12,000.00	7,047.29	7,032.29	7,047.29	147.28	243.77	90.17	2,443.19	-7,852.49	4,266.75	3,900.63	366.12	11.654		
12,100.00	7,046.90	7,031.90	7,046.90	150.07	243.76	90.16	2,443.19	-7,852.49	4,208.03	3,838.19	369.84	11.378		
12,200.00	7,046.51	7,031.51	7,046.51	152.87	243.75	90.15	2,443.19	-7,852.49	4,150.90	3,777.26	373.63	11.110		
12,300.00	7,046.11	7,031.11	7,046.11	155.66	243.73	90.15	2,443.19	-7,852.49	4,095.40	3,717.92	377.49	10.849		
12,400.00	7,045.72	7,030.72	7,045.72	158.46	243.72	90.14	2,443.19	-7,852.49	4,041.62	3,660.22	381.40	10.597		
12,500.00	7,045.33	7,030.33	7,045.33	161.26	243.71	90.13	2,443.19	-7,852.49	3,989.63	3,604.26	385.37	10.353		
12,600.00	7,044.93	7,029.93	7,044.93	164.06	243.69	90.13	2,443.19	-7,852.49	3,939.48	3,550.10	389.38	10.117		
12,700.00	7,044.54	7,029.54	7,044.54	166.86	243.68	90.12	2,443.19	-7,852.49	3,891.26	3,497.83	393.43	9.891		
12,800.00	7,044.15	7,029.15	7,044.15	169.67	243.66	90.11	2,443.19	-7,852.49	3,845.03	3,447.52	397.52	9.673		
12,900.00	7,043.75	7,028.75	7,043.75	172.48	243.65	90.11	2,443.19	-7,852.49	3,800.88	3,399.25	401.62	9.464		
13,000.00	7,043.36	7,028.36	7,043.36	175.28	243.64	90.10	2,443.19	-7,852.49	3,758.86	3,353.12	405.75	9.264		
13,100.00	7,042.97	7,027.97	7,042.97	178.09	243.62	90.09	2,443.19	-7,852.49	3,719.07	3,309.20	409.87	9.074		
13,200.00	7,042.57	7,027.57	7,042.57	180.91	243.61	90.09	2,443.19	-7,852.49	3,681.55	3,267.57	413.99	8.893		
13,300.00	7,042.18	7,027.18	7,042.18	183.72	243.60	90.08	2,443.19	-7,852.49	3,646.40	3,228.32	418.08	8.722		
13,400.00	7,041.79	7,026.79	7,041.79	186.53	243.58	90.07	2,443.19	-7,852.49	3,613.67	3,191.52	422.15	8.560		
13,500.00	7,041.39	7,026.39	7,041.39	189.35	243.57	90.07	2,443.19	-7,852.49	3,583.43	3,157.27	426.17	8.409		
13,600.00	7,041.00	7,026.00	7,041.00	192.17	243.55	90.06	2,443.19	-7,852.49	3,555.75	3,125.63	430.13	8.267		
13,700.00	7,040.61	7,025.61	7,040.61	194.99	243.54	90.06	2,443.19	-7,852.49	3,530.69	3,096.67	434.02	8.135		
13,800.00	7,040.21	7,025.21	7,040.21	197.81	243.53	90.05	2,443.19	-7,852.49	3,508.30	3,070.47	437.83	8.013		
13,900.00	7,039.82	7,024.82	7,039.82	200.63	243.51	90.04	2,443.19	-7,852.49	3,488.63	3,047.10	441.53	7.901		
14,000.00	7,039.43	7,024.43	7,039.43	203.45	243.50	90.04	2,443.19	-7,852.49	3,471.73	3,026.61	445.13	7.799		
14,100.00	7,039.03	7,024.03	7,039.03	206.27	243.49	90.03	2,443.19	-7,852.49	3,457.65	3,009.05	448.60	7.708		
14,200.00	7,038.64	7,023.64	7,038.64	209.09	243.47	90.02	2,443.19	-7,852.49	3,446.40	2,994.47	451.93	7.626		
14,300.00	7,038.25	7,023.25	7,038.25	211.92	243.46	90.02	2,443.19	-7,852.49	3,438.04	2,982.92	455.11	7.554		
14,400.00	7,037.86	7,022.86	7,037.86	214.74	243.44	90.01	2,443.19	-7,852.49	3,432.56	2,974.42	458.14	7.492		
14,500.00	7,037.46	7,022.46	7,037.46	217.57	243.43	90.00	2,443.19	-7,852.49	3,429.99	2,969.00	461.00	7.440		
14,538.08	7,037.31	7,022.31	7,037.31	218.65	243.43	90.00	2,443.19	-7,852.49	3,429.78	2,967.75	462.04	7.423 CC		
14,600.00	7,037.07	7,022.07	7,037.07	220.40	243.42	90.00	2,443.19	-7,852.49	3,430.34	2,966.67	463.67	7.398 ES		
14,700.00	7,036.68	7,021.68	7,036.68	223.23	243.40	89.99	2,443.19	-7,852.49	3,433.60	2,967.43	466.17	7.366		
14,800.00	7,036.28	7,021.28	7,036.28	226.05	243.39	89.98	2,443.19	-7,852.49	3,439.77	2,971.29	468.47	7.342		
14,871.88	7,036.00	7,021.00	7,036.00	228.09	243.38	89.98	2,443.19	-7,852.49	3,445.99	2,975.98	470.01	7.332 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2.00	0.00	3.28	3.28	-54.80	2,558.79	-3,627.95	4,439.53				
100.00	100.00	102.00	100.00	3.28	3.75	-54.80	2,558.79	-3,627.95	4,439.53	4,432.50	7.03	631.195	
200.00	200.00	202.00	200.00	3.34	6.24	-54.80	2,558.79	-3,627.95	4,439.53	4,429.95	9.58	463.646	
300.00	300.00	302.00	300.00	3.44	9.39	-54.80	2,558.79	-3,627.95	4,439.53	4,426.70	12.83	345.925	
400.00	399.98	401.98	399.98	3.60	12.72	115.35	2,558.79	-3,627.95	4,440.28	4,423.96	16.31	272.190	
500.00	499.84	501.84	499.84	3.79	16.11	115.37	2,558.79	-3,627.95	4,442.52	4,422.63	19.90	223.293	
600.00	599.45	601.45	599.45	4.02	19.53	115.41	2,558.79	-3,627.95	4,446.27	4,422.73	23.54	188.847	
700.00	698.70	700.70	698.70	4.29	22.95	115.45	2,558.79	-3,627.95	4,451.54	4,424.30	27.24	163.437	
800.00	797.70	800.30	797.70	4.59	26.40	115.61	2,558.79	-3,627.95	4,457.68	4,426.70	30.98	143.866	
900.00	896.69	901.31	896.69	4.92	29.90	115.77	2,558.79	-3,627.95	4,463.86	4,429.05	34.81	128.218	
1,000.00	995.68	1,002.32	995.68	5.27	33.41	115.93	2,558.79	-3,627.95	4,470.08	4,431.41	38.67	115.592	
1,100.00	1,094.68	1,103.32	1,094.68	5.64	36.92	116.09	2,558.79	-3,627.95	4,476.34	4,433.79	42.55	105.205	
1,200.00	1,193.67	1,204.33	1,193.67	6.03	40.43	116.25	2,558.79	-3,627.95	4,482.63	4,436.19	46.44	96.518	
1,300.00	1,292.67	1,305.33	1,292.67	6.42	43.95	116.42	2,558.79	-3,627.95	4,488.96	4,438.61	50.35	89.152	
1,400.00	1,391.66	1,406.34	1,391.66	6.83	47.46	116.58	2,558.79	-3,627.95	4,495.32	4,441.05	54.27	82.831	
1,500.00	1,490.66	1,507.34	1,490.66	7.25	50.98	116.74	2,558.79	-3,627.95	4,501.72	4,443.52	58.20	77.349	
1,600.00	1,589.65	1,608.35	1,589.65	7.67	54.50	116.89	2,558.79	-3,627.95	4,508.15	4,446.02	62.14	72.552	
1,700.00	1,688.64	1,709.36	1,688.64	8.10	58.02	117.05	2,558.79	-3,627.95	4,514.62	4,448.54	66.08	68.321	
1,800.00	1,787.64	1,789.64	1,787.64	8.53	60.82	117.21	2,558.79	-3,627.95	4,521.13	4,451.82	69.31	65.234	
1,900.00	1,886.63	1,888.63	1,886.63	8.97	64.27	117.37	2,558.79	-3,627.95	4,527.67	4,454.48	73.19	61.862	
2,000.00	1,985.63	1,987.63	1,985.63	9.41	67.72	117.53	2,558.79	-3,627.95	4,534.24	4,457.16	77.08	58.828	
2,100.00	2,084.62	2,086.62	2,084.62	9.85	71.17	117.68	2,558.79	-3,627.95	4,540.85	4,459.88	80.97	56.083	
2,200.00	2,183.61	2,185.61	2,183.61	10.30	74.63	117.84	2,558.79	-3,627.95	4,547.49	4,462.63	84.86	53.588	
2,300.00	2,282.61	2,284.61	2,282.61	10.75	78.08	118.00	2,558.79	-3,627.95	4,554.17	4,465.41	88.76	51.311	
2,400.00	2,381.60	2,383.60	2,381.60	11.20	81.53	118.15	2,558.79	-3,627.95	4,560.88	4,468.22	92.65	49.224	
2,500.00	2,480.60	2,482.60	2,480.60	11.66	84.99	118.31	2,558.79	-3,627.95	4,567.62	4,471.07	96.56	47.306	
2,600.00	2,579.59	2,581.59	2,579.59	12.11	88.44	118.46	2,558.79	-3,627.95	4,574.40	4,473.95	100.46	45.536	
2,700.00	2,678.58	2,680.58	2,678.58	12.57	91.89	118.62	2,558.79	-3,627.95	4,581.22	4,476.85	104.36	43.898	
2,800.00	2,777.58	2,779.58	2,777.58	13.02	95.35	118.77	2,558.79	-3,627.95	4,588.06	4,479.80	108.27	42.378	
2,900.00	2,876.57	2,878.57	2,876.57	13.48	98.80	118.92	2,558.79	-3,627.95	4,594.94	4,482.77	112.17	40.963	
3,000.00	2,975.57	2,977.57	2,975.57	13.94	102.25	119.08	2,558.79	-3,627.95	4,601.85	4,485.77	116.08	39.644	
3,100.00	3,074.56	3,076.56	3,074.56	14.40	105.71	119.23	2,558.79	-3,627.95	4,608.80	4,488.81	119.99	38.411	
3,200.00	3,173.55	3,175.55	3,173.55	14.87	109.16	119.38	2,558.79	-3,627.95	4,615.78	4,491.88	123.90	37.255	
3,300.00	3,272.55	3,274.55	3,272.55	15.33	112.62	119.53	2,558.79	-3,627.95	4,622.79	4,494.98	127.81	36.170	
3,400.00	3,371.54	3,373.54	3,371.54	15.79	116.07	119.69	2,558.79	-3,627.95	4,629.83	4,498.12	131.72	35.150	
3,500.00	3,470.54	3,472.54	3,470.54	16.26	119.53	119.84	2,558.79	-3,627.95	4,636.91	4,501.28	135.63	34.188	
3,600.00	3,569.53	3,571.53	3,569.53	16.72	122.98	119.99	2,558.79	-3,627.95	4,644.02	4,504.48	139.54	33.281	
3,700.00	3,668.53	3,670.53	3,668.53	17.19	126.44	120.14	2,558.79	-3,627.95	4,651.16	4,507.71	143.45	32.423	
3,800.00	3,767.52	3,769.52	3,767.52	17.65	129.89	120.29	2,558.79	-3,627.95	4,658.33	4,510.97	147.37	31.611	
3,900.00	3,866.51	3,868.51	3,866.51	18.12	133.34	120.43	2,558.79	-3,627.95	4,665.54	4,514.26	151.28	30.841	
4,000.00	3,965.51	3,967.51	3,965.51	18.59	136.80	120.58	2,558.79	-3,627.95	4,672.77	4,517.58	155.19	30.109	
4,100.00	4,064.50	4,066.50	4,064.50	19.05	140.25	120.73	2,558.79	-3,627.95	4,680.04	4,520.93	159.11	29.414	
4,200.00	4,163.50	4,165.50	4,163.50	19.52	143.71	120.88	2,558.79	-3,627.95	4,687.34	4,524.32	163.02	28.753	
4,300.00	4,262.49	4,264.49	4,262.49	19.99	147.16	121.03	2,558.79	-3,627.95	4,694.67	4,527.74	166.94	28.123	
4,400.00	4,361.48	4,363.48	4,361.48	20.46	150.62	121.17	2,558.79	-3,627.95	4,702.03	4,531.18	170.85	27.521	
4,500.00	4,460.48	4,462.48	4,460.48	20.92	154.07	121.32	2,558.79	-3,627.95	4,709.43	4,534.66	174.77	26.947	
4,600.00	4,559.47	4,561.47	4,559.47	21.39	157.53	121.46	2,558.79	-3,627.95	4,716.85	4,538.17	178.68	26.398	
4,700.00	4,658.47	4,660.47	4,658.47	21.86	160.99	121.61	2,558.79	-3,627.95	4,724.31	4,541.71	182.60	25.873	
4,800.00	4,757.46	4,759.46	4,757.46	22.33	164.44	121.75	2,558.79	-3,627.95	4,731.79	4,545.28	186.51	25.370	
4,900.00	4,856.45	4,858.45	4,856.45	22.80	167.90	121.90	2,558.79	-3,627.95	4,739.31	4,548.88	190.43	24.887	
5,000.00	4,955.45	4,957.45	4,955.45	23.27	171.35	122.04	2,558.79	-3,627.95	4,746.85	4,552.51	194.35	24.425	
5,100.00	5,054.44	5,056.44	5,054.44	23.74	174.81	122.19	2,558.79	-3,627.95	4,754.43	4,556.17	198.26	23.981	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,155.44	5,153.44	24.21	178.26	122.33	2,558.79	-3,627.95	4,762.03	4,559.86	202.18	23.554		
5,300.00	5,252.43	5,254.43	5,252.43	24.68	181.72	122.47	2,558.79	-3,627.95	4,769.67	4,563.58	206.09	23.143		
5,400.00	5,351.42	5,353.42	5,351.42	25.15	185.17	122.61	2,558.79	-3,627.95	4,777.33	4,567.32	210.01	22.748		
5,500.00	5,450.42	5,452.42	5,450.42	25.62	188.63	122.76	2,558.79	-3,627.95	4,785.03	4,571.10	213.93	22.368		
5,600.00	5,549.41	5,551.41	5,549.41	26.09	192.08	122.90	2,558.79	-3,627.95	4,792.75	4,574.91	217.84	22.001		
5,700.00	5,648.41	5,650.41	5,648.41	26.56	195.54	123.04	2,558.79	-3,627.95	4,800.51	4,578.75	221.76	21.647		
5,800.00	5,747.40	5,749.40	5,747.40	27.03	198.99	123.18	2,558.79	-3,627.95	4,808.29	4,582.61	225.68	21.306		
5,900.00	5,846.40	5,848.40	5,846.40	27.51	202.45	123.32	2,558.79	-3,627.95	4,816.10	4,586.51	229.59	20.977		
6,000.00	5,945.39	5,947.39	5,945.39	27.98	205.90	123.46	2,558.79	-3,627.95	4,823.94	4,590.43	233.51	20.658		
6,100.00	6,044.38	6,046.38	6,044.38	28.45	209.36	123.60	2,558.79	-3,627.95	4,831.81	4,594.38	237.43	20.351		
6,200.00	6,143.38	6,145.38	6,143.38	28.92	212.82	123.73	2,558.79	-3,627.95	4,839.71	4,598.36	241.35	20.053		
6,300.00	6,242.37	6,244.37	6,242.37	29.39	216.27	123.87	2,558.79	-3,627.95	4,847.64	4,602.37	245.26	19.765		
6,400.00	6,341.37	6,343.37	6,341.37	29.86	219.73	124.01	2,558.79	-3,627.95	4,855.59	4,606.41	249.18	19.486		
6,500.00	6,440.36	6,442.36	6,440.36	30.34	223.18	124.15	2,558.79	-3,627.95	4,863.57	4,610.48	253.10	19.216		
6,600.00	6,538.90	6,540.90	6,538.90	30.80	226.62	84.76	2,558.79	-3,627.95	4,867.08	4,610.09	257.00	18.938		
6,700.00	6,634.88	6,636.88	6,634.88	31.25	229.97	69.06	2,558.79	-3,627.95	4,859.56	4,598.76	260.80	18.633		
6,800.00	6,725.92	6,727.92	6,725.92	31.68	233.15	63.73	2,558.79	-3,627.95	4,841.29	4,576.88	264.41	18.310		
6,900.00	6,809.79	6,811.79	6,809.79	32.07	236.08	62.58	2,558.79	-3,627.95	4,812.95	4,545.19	267.76	17.975		
7,000.00	6,884.42	6,886.42	6,884.42	32.43	238.68	63.83	2,558.79	-3,627.95	4,775.50	4,504.71	270.80	17.635		
7,100.00	6,947.98	6,949.98	6,947.98	32.77	240.90	66.83	2,558.79	-3,627.95	4,730.13	4,456.65	273.49	17.296		
7,200.00	6,998.89	7,000.89	6,998.89	33.18	242.68	71.26	2,558.79	-3,627.95	4,678.23	4,402.43	275.80	16.962		
7,300.00	7,035.91	7,037.91	7,035.91	33.76	243.97	76.88	2,558.79	-3,627.95	4,621.31	4,343.57	277.73	16.639		
7,400.00	7,058.12	7,060.12	7,058.12	34.61	244.75	83.39	2,558.79	-3,627.95	4,560.95	4,281.69	279.27	16.332		
7,500.00	7,064.98	7,066.98	7,064.98	35.68	244.99	90.18	2,558.79	-3,627.95	4,498.77	4,218.39	280.38	16.045		
7,600.00	7,064.59	7,066.59	7,064.59	36.95	244.97	90.17	2,558.79	-3,627.95	4,436.93	4,155.56	281.37	15.769		
7,700.00	7,064.20	7,066.20	7,064.20	38.40	244.96	90.17	2,558.79	-3,627.95	4,376.51	4,093.99	282.52	15.491		
7,800.00	7,063.80	7,065.80	7,063.80	40.00	244.94	90.16	2,558.79	-3,627.95	4,317.56	4,033.74	283.82	15.212		
7,900.00	7,063.41	7,065.41	7,063.41	41.75	244.93	90.15	2,558.79	-3,627.95	4,260.14	3,974.88	285.26	14.934		
8,000.00	7,063.02	7,065.02	7,063.02	43.62	244.92	90.15	2,558.79	-3,627.95	4,204.31	3,917.46	286.85	14.657		
8,100.00	7,062.62	7,064.62	7,062.62	45.59	244.90	90.14	2,558.79	-3,627.95	4,150.14	3,861.57	288.57	14.382		
8,200.00	7,062.23	7,064.23	7,062.23	47.65	244.89	90.14	2,558.79	-3,627.95	4,097.70	3,807.27	290.43	14.109		
8,300.00	7,061.84	7,063.84	7,061.84	49.79	244.88	90.13	2,558.79	-3,627.95	4,047.05	3,754.64	292.41	13.840		
8,400.00	7,061.45	7,063.45	7,061.45	52.00	244.86	90.12	2,558.79	-3,627.95	3,998.26	3,703.76	294.50	13.576		
8,500.00	7,061.05	7,063.05	7,061.05	54.27	244.85	90.12	2,558.79	-3,627.95	3,951.40	3,654.69	296.71	13.317		
8,600.00	7,060.66	7,062.66	7,060.66	56.60	244.83	90.11	2,558.79	-3,627.95	3,906.54	3,607.52	299.01	13.065		
8,700.00	7,060.27	7,062.27	7,060.27	58.97	244.82	90.10	2,558.79	-3,627.95	3,863.74	3,562.33	301.41	12.819		
8,800.00	7,059.87	7,061.87	7,059.87	61.38	244.81	90.10	2,558.79	-3,627.95	3,823.08	3,519.19	303.89	12.580		
8,900.00	7,059.48	7,061.48	7,059.48	63.83	244.79	90.09	2,558.79	-3,627.95	3,784.63	3,478.18	306.45	12.350		
9,000.00	7,059.09	7,061.09	7,059.09	66.32	244.78	90.08	2,558.79	-3,627.95	3,748.45	3,439.38	309.07	12.128		
9,100.00	7,058.69	7,060.69	7,058.69	68.83	244.77	90.08	2,558.79	-3,627.95	3,714.61	3,402.86	311.75	11.915		
9,200.00	7,058.30	7,060.30	7,058.30	71.37	244.75	90.07	2,558.79	-3,627.95	3,683.18	3,368.69	314.48	11.712		
9,300.00	7,057.91	7,059.91	7,057.91	73.93	244.74	90.06	2,558.79	-3,627.95	3,654.21	3,336.96	317.25	11.518		
9,400.00	7,057.51	7,059.51	7,057.51	76.51	244.72	90.06	2,558.79	-3,627.95	3,627.77	3,307.72	320.05	11.335		
9,500.00	7,057.12	7,059.12	7,057.12	79.11	244.71	90.05	2,558.79	-3,627.95	3,603.91	3,281.04	322.87	11.162		
9,600.00	7,056.73	7,058.73	7,056.73	81.73	244.70	90.05	2,558.79	-3,627.95	3,582.69	3,256.98	325.70	11.000		
9,700.00	7,056.33	7,058.33	7,056.33	84.37	244.68	90.04	2,558.79	-3,627.95	3,564.14	3,235.61	328.53	10.849		
9,800.00	7,055.94	7,057.94	7,055.94	87.01	244.67	90.03	2,558.79	-3,627.95	3,548.32	3,216.97	331.35	10.709		
9,900.00	7,055.55	7,057.55	7,055.55	89.68	244.66	90.03	2,558.79	-3,627.95	3,535.25	3,201.10	334.15	10.580		
10,000.00	7,055.15	7,057.15	7,055.15	92.35	244.64	90.02	2,558.79	-3,627.95	3,524.98	3,188.06	336.92	10.462		
10,100.00	7,054.76	7,056.76	7,054.76	95.03	244.63	90.01	2,558.79	-3,627.95	3,517.52	3,177.87	339.65	10.356		
10,200.00	7,054.37	7,056.37	7,054.37	97.73	244.61	90.01	2,558.79	-3,627.95	3,512.89	3,170.55	342.34	10.262		
10,300.00	7,053.98	7,055.98	7,053.98	100.43	244.60	90.00	2,558.79	-3,627.95	3,511.10	3,166.14	344.96	10.178		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,312.71	7,053.93	7,055.93	7,053.93	100.78	244.60	90.00	2,558.79	-3,627.95	3,511.08	3,165.79	345.29	10.168	CC	
10,400.00	7,053.58	7,055.58	7,053.58	103.14	244.59	89.99	2,558.79	-3,627.95	3,512.17	3,164.64	347.53	10.106	ES	
10,500.00	7,053.19	7,055.19	7,053.19	105.86	244.57	89.99	2,558.79	-3,627.95	3,516.07	3,166.05	350.02	10.045		
10,600.00	7,052.80	7,054.80	7,052.80	108.59	244.56	89.98	2,558.79	-3,627.95	3,522.81	3,170.38	352.44	9.996		
10,700.00	7,052.40	7,054.40	7,052.40	111.32	244.55	89.98	2,558.79	-3,627.95	3,532.38	3,177.61	354.77	9.957		
10,800.00	7,052.01	7,054.01	7,052.01	114.06	244.53	89.97	2,558.79	-3,627.95	3,544.73	3,187.72	357.01	9.929		
10,900.00	7,051.62	7,053.62	7,051.62	116.80	244.52	89.96	2,558.79	-3,627.95	3,559.86	3,200.70	359.16	9.912		
11,000.00	7,051.22	7,053.22	7,051.22	119.55	244.50	89.96	2,558.79	-3,627.95	3,577.72	3,216.50	361.21	9.905	SF	
11,100.00	7,050.83	7,052.83	7,050.83	122.31	244.49	89.95	2,558.79	-3,627.95	3,598.26	3,235.10	363.17	9.908		
11,200.00	7,050.44	7,052.44	7,050.44	125.07	244.48	89.94	2,558.79	-3,627.95	3,621.46	3,256.44	365.02	9.921		
11,300.00	7,050.04	7,052.04	7,050.04	127.83	244.46	89.94	2,558.79	-3,627.95	3,647.25	3,280.48	366.77	9.944		
11,400.00	7,049.65	7,051.65	7,049.65	130.60	244.45	89.93	2,558.79	-3,627.95	3,675.58	3,307.16	368.42	9.977		
11,500.00	7,049.26	7,051.26	7,049.26	133.37	244.44	89.92	2,558.79	-3,627.95	3,706.39	3,336.42	369.97	10.018		
11,600.00	7,048.86	7,050.86	7,048.86	136.15	244.42	89.92	2,558.79	-3,627.95	3,739.62	3,368.21	371.41	10.069		
11,700.00	7,048.47	7,050.47	7,048.47	138.93	244.41	89.91	2,558.79	-3,627.95	3,775.21	3,402.45	372.76	10.128		
11,800.00	7,048.08	7,050.08	7,048.08	141.71	244.40	89.90	2,558.79	-3,627.95	3,813.09	3,439.08	374.01	10.195		
11,900.00	7,047.68	7,049.68	7,047.68	144.49	244.38	89.90	2,558.79	-3,627.95	3,853.20	3,478.03	375.17	10.271		
12,000.00	7,047.29	7,049.29	7,047.29	147.28	244.37	89.89	2,558.79	-3,627.95	3,895.46	3,519.22	376.23	10.354		
12,100.00	7,046.90	7,048.90	7,046.90	150.07	244.35	89.89	2,558.79	-3,627.95	3,939.80	3,562.59	377.21	10.445		
12,200.00	7,046.51	7,048.51	7,046.51	152.87	244.34	89.88	2,558.79	-3,627.95	3,986.16	3,608.06	378.11	10.542		
12,300.00	7,046.11	7,048.11	7,046.11	155.66	244.33	89.87	2,558.79	-3,627.95	4,034.47	3,655.55	378.92	10.647		
12,400.00	7,045.72	7,047.72	7,045.72	158.46	244.31	89.87	2,558.79	-3,627.95	4,084.65	3,705.00	379.65	10.759		
12,500.00	7,045.33	7,047.33	7,045.33	161.26	244.30	89.86	2,558.79	-3,627.95	4,136.65	3,756.33	380.32	10.877		
12,600.00	7,044.93	7,046.93	7,044.93	164.06	244.29	89.85	2,558.79	-3,627.95	4,190.38	3,809.47	380.91	11.001		
12,700.00	7,044.54	7,046.54	7,044.54	166.86	244.27	89.85	2,558.79	-3,627.95	4,245.79	3,864.36	381.44	11.131		
12,800.00	7,044.15	7,046.15	7,044.15	169.67	244.26	89.84	2,558.79	-3,627.95	4,302.81	3,920.91	381.90	11.267		
12,900.00	7,043.75	7,045.75	7,043.75	172.48	244.24	89.83	2,558.79	-3,627.95	4,361.38	3,979.07	382.31	11.408		
13,000.00	7,043.36	7,045.36	7,043.36	175.28	244.23	89.83	2,558.79	-3,627.95	4,421.44	4,038.77	382.66	11.554		
13,100.00	7,042.97	7,044.97	7,042.97	178.09	244.22	89.82	2,558.79	-3,627.95	4,482.92	4,099.95	382.97	11.706		
13,200.00	7,042.57	7,044.57	7,042.57	180.91	244.20	89.81	2,558.79	-3,627.95	4,545.77	4,162.55	383.22	11.862		
13,300.00	7,042.18	7,044.18	7,042.18	183.72	244.19	89.81	2,558.79	-3,627.95	4,609.93	4,226.50	383.43	12.023		
13,400.00	7,041.79	7,043.79	7,041.79	186.53	244.18	89.80	2,558.79	-3,627.95	4,675.35	4,291.74	383.61	12.188		
13,500.00	7,041.39	7,043.39	7,041.39	189.35	244.16	89.80	2,558.79	-3,627.95	4,741.98	4,358.24	383.74	12.357		
13,600.00	7,041.00	7,043.00	7,041.00	192.17	244.15	89.79	2,558.79	-3,627.95	4,809.76	4,425.92	383.84	12.531		
13,700.00	7,040.61	7,042.61	7,040.61	194.99	244.13	89.78	2,558.79	-3,627.95	4,878.65	4,494.75	383.91	12.708		
13,800.00	7,040.21	7,042.21	7,040.21	197.81	244.12	89.78	2,558.79	-3,627.95	4,948.60	4,564.66	383.94	12.889		
13,900.00	7,039.82	7,041.82	7,039.82	200.63	244.11	89.77	2,558.79	-3,627.95	5,019.58	4,635.62	383.95	13.073		
14,000.00	7,039.43	7,041.43	7,039.43	203.45	244.09	89.76	2,558.79	-3,627.95	5,091.52	4,707.58	383.94	13.261		
14,100.00	7,039.03	7,041.03	7,039.03	206.27	244.08	89.76	2,558.79	-3,627.95	5,164.40	4,780.50	383.90	13.452		
14,200.00	7,038.64	7,040.64	7,038.64	209.09	244.07	89.75	2,558.79	-3,627.95	5,238.17	4,854.33	383.84	13.647		
14,300.00	7,038.25	7,040.25	7,038.25	211.92	244.05	89.74	2,558.79	-3,627.95	5,312.81	4,929.04	383.76	13.844		
14,400.00	7,037.86	7,039.86	7,037.86	214.74	244.04	89.74	2,558.79	-3,627.95	5,388.26	5,004.59	383.67	14.044		
14,500.00	7,037.46	7,039.46	7,037.46	217.57	244.02	89.73	2,558.79	-3,627.95	5,464.50	5,080.95	383.56	14.247		
14,600.00	7,037.07	7,039.07	7,037.07	220.40	244.01	89.72	2,558.79	-3,627.95	5,541.50	5,158.07	383.43	14.452		
14,700.00	7,036.68	7,038.68	7,036.68	223.23	244.00	89.72	2,558.79	-3,627.95	5,619.23	5,235.93	383.29	14.660		
14,800.00	7,036.28	7,038.28	7,036.28	226.05	243.98	89.71	2,558.79	-3,627.95	5,697.64	5,314.50	383.14	14.871		
14,871.88	7,036.00	7,038.00	7,036.00	228.09	243.97	89.71	2,558.79	-3,627.95	5,754.42	5,371.40	383.03	15.023		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	38.00	3.28	3.28	-62.42	2,529.85	-4,843.30	5,464.35					
100.00	100.00	62.00	100.00	3.28	3.45	-62.42	2,529.85	-4,843.30	5,464.22	5,457.48	6.74	810.878		
200.00	200.00	162.00	200.00	3.34	5.10	-62.42	2,529.85	-4,843.30	5,464.22	5,455.78	8.44	647.378		
300.00	300.00	262.00	300.00	3.44	8.10	-62.42	2,529.85	-4,843.30	5,464.22	5,452.68	11.54	473.499		
400.00	399.98	361.98	399.98	3.60	11.37	107.74	2,529.85	-4,843.30	5,464.75	5,449.78	14.97	365.056		
500.00	499.84	461.84	499.84	3.79	14.75	107.76	2,529.85	-4,843.30	5,466.35	5,447.82	18.53	294.990		
600.00	599.45	561.45	599.45	4.02	18.15	107.80	2,529.85	-4,843.30	5,469.02	5,446.85	22.17	246.701		
700.00	698.70	660.70	698.70	4.29	21.57	107.84	2,529.85	-4,843.30	5,472.78	5,446.92	25.86	211.669		
800.00	797.70	759.70	797.70	4.59	24.99	107.98	2,529.85	-4,843.30	5,477.17	5,447.59	29.58	185.170		
900.00	896.69	858.69	896.69	4.92	28.42	108.12	2,529.85	-4,843.30	5,481.59	5,448.25	33.34	164.425		
1,000.00	995.68	957.68	995.68	5.27	31.86	108.26	2,529.85	-4,843.30	5,486.05	5,448.92	37.12	147.775		
1,100.00	1,094.68	1,056.68	1,094.68	5.64	35.30	108.40	2,529.85	-4,843.30	5,490.53	5,449.60	40.93	134.136		
1,200.00	1,193.67	1,155.67	1,193.67	6.03	38.74	108.53	2,529.85	-4,843.30	5,495.06	5,450.30	44.76	122.773		
1,300.00	1,292.67	1,254.67	1,292.67	6.42	42.18	108.67	2,529.85	-4,843.30	5,499.61	5,451.01	48.60	113.166		
1,400.00	1,391.66	1,353.66	1,391.66	6.83	45.63	108.81	2,529.85	-4,843.30	5,504.20	5,451.75	52.45	104.944		
1,500.00	1,490.66	1,452.66	1,490.66	7.25	49.08	108.95	2,529.85	-4,843.30	5,508.82	5,452.51	56.31	97.832		
1,600.00	1,589.65	1,551.65	1,589.65	7.67	52.53	109.09	2,529.85	-4,843.30	5,513.47	5,453.29	60.18	91.620		
1,700.00	1,688.64	1,650.64	1,688.64	8.10	55.97	109.23	2,529.85	-4,843.30	5,518.16	5,454.10	64.05	86.150		
1,800.00	1,787.64	1,749.64	1,787.64	8.53	59.43	109.36	2,529.85	-4,843.30	5,522.87	5,454.94	67.93	81.298		
1,900.00	1,886.63	1,848.63	1,886.63	8.97	62.88	109.50	2,529.85	-4,843.30	5,527.62	5,455.80	71.82	76.966		
2,000.00	1,985.63	1,947.63	1,985.63	9.41	66.33	109.64	2,529.85	-4,843.30	5,532.40	5,456.70	75.71	73.075		
2,100.00	2,084.62	2,046.62	2,084.62	9.85	69.78	109.77	2,529.85	-4,843.30	5,537.22	5,457.62	79.60	69.562		
2,200.00	2,183.61	2,145.61	2,183.61	10.30	73.23	109.91	2,529.85	-4,843.30	5,542.06	5,458.56	83.50	66.374		
2,300.00	2,282.61	2,244.61	2,282.61	10.75	76.68	110.05	2,529.85	-4,843.30	5,546.94	5,459.54	87.40	63.469		
2,400.00	2,381.60	2,343.60	2,381.60	11.20	80.14	110.18	2,529.85	-4,843.30	5,551.85	5,460.55	91.30	60.811		
2,500.00	2,480.60	2,442.60	2,480.60	11.66	83.59	110.32	2,529.85	-4,843.30	5,556.79	5,461.59	95.20	58.370		
2,600.00	2,579.59	2,541.59	2,579.59	12.11	87.04	110.45	2,529.85	-4,843.30	5,561.76	5,462.66	99.10	56.120		
2,700.00	2,678.58	2,640.58	2,678.58	12.57	90.50	110.59	2,529.85	-4,843.30	5,566.76	5,463.75	103.01	54.041		
2,800.00	2,777.58	2,739.58	2,777.58	13.02	93.95	110.72	2,529.85	-4,843.30	5,571.80	5,464.88	106.92	52.113		
2,900.00	2,876.57	2,838.57	2,876.57	13.48	97.40	110.86	2,529.85	-4,843.30	5,576.87	5,466.04	110.83	50.320		
3,000.00	2,975.57	2,937.57	2,975.57	13.94	100.86	110.99	2,529.85	-4,843.30	5,581.96	5,467.23	114.74	48.650		
3,100.00	3,074.56	3,036.56	3,074.56	14.40	104.31	111.13	2,529.85	-4,843.30	5,587.09	5,468.44	118.65	47.089		
3,200.00	3,173.55	3,135.55	3,173.55	14.87	107.77	111.26	2,529.85	-4,843.30	5,592.25	5,469.69	122.56	45.628		
3,300.00	3,272.55	3,234.55	3,272.55	15.33	111.22	111.39	2,529.85	-4,843.30	5,597.44	5,470.97	126.47	44.258		
3,400.00	3,371.54	3,333.54	3,371.54	15.79	114.68	111.53	2,529.85	-4,843.30	5,602.67	5,472.28	130.39	42.969		
3,500.00	3,470.54	3,432.54	3,470.54	16.26	118.13	111.66	2,529.85	-4,843.30	5,607.92	5,473.62	134.30	41.756		
3,600.00	3,569.53	3,531.53	3,569.53	16.72	121.58	111.79	2,529.85	-4,843.30	5,613.20	5,474.98	138.22	40.612		
3,700.00	3,668.53	3,630.53	3,668.53	17.19	125.04	111.93	2,529.85	-4,843.30	5,618.52	5,476.38	142.13	39.530		
3,800.00	3,767.52	3,729.52	3,767.52	17.65	128.49	112.06	2,529.85	-4,843.30	5,623.86	5,477.81	146.05	38.507		
3,900.00	3,866.51	3,828.51	3,866.51	18.12	131.95	112.19	2,529.85	-4,843.30	5,629.24	5,479.27	149.96	37.537		
4,000.00	3,965.51	3,927.51	3,965.51	18.59	135.40	112.32	2,529.85	-4,843.30	5,634.64	5,480.76	153.88	36.617		
4,100.00	4,064.50	4,026.50	4,064.50	19.05	138.86	112.46	2,529.85	-4,843.30	5,640.08	5,482.28	157.80	35.742		
4,200.00	4,163.50	4,125.50	4,163.50	19.52	142.31	112.59	2,529.85	-4,843.30	5,645.54	5,483.83	161.72	34.910		
4,300.00	4,262.49	4,224.49	4,262.49	19.99	145.77	112.72	2,529.85	-4,843.30	5,651.04	5,485.40	165.63	34.118		
4,400.00	4,361.48	4,323.48	4,361.48	20.46	149.22	112.85	2,529.85	-4,843.30	5,656.57	5,487.01	169.55	33.362		
4,500.00	4,460.48	4,422.48	4,460.48	20.92	152.68	112.98	2,529.85	-4,843.30	5,662.12	5,488.65	173.47	32.640		
4,600.00	4,559.47	4,521.47	4,559.47	21.39	156.13	113.11	2,529.85	-4,843.30	5,667.71	5,490.32	177.39	31.951		
4,700.00	4,658.47	4,620.47	4,658.47	21.86	159.59	113.24	2,529.85	-4,843.30	5,673.32	5,492.02	181.31	31.291		
4,800.00	4,757.46	4,719.46	4,757.46	22.33	163.04	113.37	2,529.85	-4,843.30	5,678.97	5,493.74	185.23	30.659		
4,900.00	4,856.45	4,818.45	4,856.45	22.80	166.50	113.50	2,529.85	-4,843.30	5,684.65	5,495.50	189.15	30.054		
5,000.00	4,955.45	4,917.45	4,955.45	23.27	169.95	113.63	2,529.85	-4,843.30	5,690.35	5,497.28	193.07	29.473		
5,100.00	5,054.44	5,016.44	5,054.44	23.74	173.41	113.76	2,529.85	-4,843.30	5,696.08	5,499.10	196.99	28.916		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,115.44	5,153.44	24.21	176.87	113.89	2,529.85	-4,843.30	5,701.85	5,500.94	200.91	28.381		
5,300.00	5,252.43	5,214.43	5,252.43	24.68	180.32	114.02	2,529.85	-4,843.30	5,707.64	5,502.81	204.83	27.866		
5,400.00	5,351.42	5,313.42	5,351.42	25.15	183.78	114.15	2,529.85	-4,843.30	5,713.46	5,504.72	208.75	27.370		
5,500.00	5,450.42	5,412.42	5,450.42	25.62	187.23	114.27	2,529.85	-4,843.30	5,719.31	5,506.65	212.67	26.893		
5,600.00	5,549.41	5,511.41	5,549.41	26.09	190.69	114.40	2,529.85	-4,843.30	5,725.19	5,508.61	216.59	26.434		
5,700.00	5,648.41	5,610.41	5,648.41	26.56	194.14	114.53	2,529.85	-4,843.30	5,731.10	5,510.59	220.51	25.991		
5,800.00	5,747.40	5,709.40	5,747.40	27.03	197.60	114.66	2,529.85	-4,843.30	5,737.04	5,512.61	224.43	25.563		
5,900.00	5,846.40	5,808.40	5,846.40	27.51	201.05	114.79	2,529.85	-4,843.30	5,743.01	5,514.66	228.35	25.150		
6,000.00	5,945.39	5,907.39	5,945.39	27.98	204.51	114.91	2,529.85	-4,843.30	5,749.00	5,516.73	232.27	24.752		
6,100.00	6,044.38	6,006.38	6,044.38	28.45	207.96	115.04	2,529.85	-4,843.30	5,755.02	5,518.84	236.19	24.366		
6,200.00	6,143.38	6,105.38	6,143.38	28.92	211.42	115.17	2,529.85	-4,843.30	5,761.08	5,520.97	240.11	23.994		
6,300.00	6,242.37	6,204.37	6,242.37	29.39	214.87	115.29	2,529.85	-4,843.30	5,767.16	5,523.13	244.03	23.633		
6,400.00	6,341.37	6,303.37	6,341.37	29.86	218.33	115.42	2,529.85	-4,843.30	5,773.27	5,525.31	247.95	23.284		
6,500.00	6,440.36	6,402.36	6,440.36	30.34	221.79	115.54	2,529.85	-4,843.30	5,779.40	5,527.53	251.87	22.946		
6,600.00	6,538.90	6,500.90	6,538.90	30.80	225.23	76.28	2,529.85	-4,843.30	5,780.46	5,524.68	255.78	22.600		
6,700.00	6,634.88	6,603.12	6,634.88	31.25	228.79	60.66	2,529.85	-4,843.30	5,786.98	5,509.18	259.80	22.206		
6,800.00	6,725.92	6,687.92	6,725.92	31.68	231.75	55.37	2,529.85	-4,843.30	5,745.30	5,482.10	263.19	21.829		
6,900.00	6,809.79	6,771.79	6,809.79	32.07	234.68	54.30	2,529.85	-4,843.30	5,710.14	5,443.60	266.54	21.423		
7,000.00	6,884.42	6,846.42	6,884.42	32.43	237.29	55.76	2,529.85	-4,843.30	5,664.52	5,394.96	269.56	21.014		
7,100.00	6,947.98	6,909.98	6,947.98	32.77	239.50	59.22	2,529.85	-4,843.30	5,609.73	5,337.52	272.21	20.608		
7,200.00	6,998.89	6,960.89	6,998.89	33.18	241.28	64.58	2,529.85	-4,843.30	5,547.27	5,272.81	274.46	20.212		
7,300.00	7,035.91	7,002.09	7,035.91	33.76	242.72	71.77	2,529.85	-4,843.30	5,478.82	5,202.39	276.43	19.820		
7,400.00	7,058.12	7,020.12	7,058.12	34.61	243.35	80.61	2,529.85	-4,843.30	5,406.15	5,128.49	277.67	19.470		
7,500.00	7,064.98	7,026.98	7,064.98	35.68	243.59	90.26	2,529.85	-4,843.30	5,331.12	5,052.52	278.59	19.136		
7,600.00	7,064.59	7,026.59	7,064.59	36.95	243.58	90.25	2,529.85	-4,843.30	5,255.96	4,976.61	279.36	18.814		
7,700.00	7,064.20	7,026.20	7,064.20	38.40	243.56	90.25	2,529.85	-4,843.30	5,181.65	4,901.41	280.24	18.490		
7,800.00	7,063.80	7,025.80	7,063.80	40.00	243.55	90.24	2,529.85	-4,843.30	5,108.22	4,826.97	281.25	18.163		
7,900.00	7,063.41	7,025.41	7,063.41	41.75	243.53	90.23	2,529.85	-4,843.30	5,035.70	4,753.32	282.38	17.833		
8,000.00	7,063.02	7,025.02	7,063.02	43.62	243.52	90.23	2,529.85	-4,843.30	4,964.13	4,680.51	283.62	17.503		
8,100.00	7,062.62	7,024.62	7,062.62	45.59	243.51	90.22	2,529.85	-4,843.30	4,893.56	4,608.57	284.99	17.171		
8,200.00	7,062.23	7,024.23	7,062.23	47.65	243.49	90.21	2,529.85	-4,843.30	4,824.04	4,537.56	286.48	16.839		
8,300.00	7,061.84	7,023.84	7,061.84	49.79	243.48	90.21	2,529.85	-4,843.30	4,755.59	4,467.52	288.08	16.508		
8,400.00	7,061.45	7,023.45	7,061.45	52.00	243.47	90.20	2,529.85	-4,843.30	4,688.29	4,398.49	289.79	16.178		
8,500.00	7,061.05	7,023.05	7,061.05	54.27	243.45	90.20	2,529.85	-4,843.30	4,622.16	4,330.54	291.62	15.850		
8,600.00	7,060.66	7,022.66	7,060.66	56.60	243.44	90.19	2,529.85	-4,843.30	4,557.27	4,263.71	293.56	15.524		
8,700.00	7,060.27	7,022.27	7,060.27	58.97	243.42	90.18	2,529.85	-4,843.30	4,493.67	4,198.07	295.61	15.202		
8,800.00	7,059.87	7,021.87	7,059.87	61.38	243.41	90.18	2,529.85	-4,843.30	4,431.42	4,133.66	297.76	14.883		
8,900.00	7,059.48	7,021.48	7,059.48	63.83	243.40	90.17	2,529.85	-4,843.30	4,370.56	4,070.55	300.01	14.568		
9,000.00	7,059.09	7,021.09	7,059.09	66.32	243.38	90.16	2,529.85	-4,843.30	4,311.17	4,008.81	302.36	14.259		
9,100.00	7,058.69	7,020.69	7,058.69	68.83	243.37	90.16	2,529.85	-4,843.30	4,253.30	3,948.50	304.80	13.954		
9,200.00	7,058.30	7,020.30	7,058.30	71.37	243.36	90.15	2,529.85	-4,843.30	4,197.01	3,889.68	307.33	13.656		
9,300.00	7,057.91	7,019.91	7,057.91	73.93	243.34	90.14	2,529.85	-4,843.30	4,142.37	3,832.42	309.95	13.365		
9,400.00	7,057.51	7,019.51	7,057.51	76.51	243.33	90.14	2,529.85	-4,843.30	4,089.45	3,776.79	312.65	13.080		
9,500.00	7,057.12	7,019.12	7,057.12	79.11	243.31	90.13	2,529.85	-4,843.30	4,038.31	3,722.87	315.43	12.802		
9,600.00	7,056.73	7,018.73	7,056.73	81.73	243.30	90.12	2,529.85	-4,843.30	3,989.02	3,670.74	318.29	12.533		
9,700.00	7,056.33	7,018.33	7,056.33	84.37	243.29	90.12	2,529.85	-4,843.30	3,941.65	3,620.45	321.20	12.271		
9,800.00	7,055.94	7,017.94	7,055.94	87.01	243.27	90.11	2,529.85	-4,843.30	3,896.28	3,572.09	324.19	12.019		
9,900.00	7,055.55	7,017.55	7,055.55	89.68	243.26	90.11	2,529.85	-4,843.30	3,852.97	3,525.75	327.22	11.775		
10,000.00	7,055.15	7,017.15	7,055.15	92.35	243.25	90.10	2,529.85	-4,843.30	3,811.78	3,481.48	330.30	11.540		
10,100.00	7,054.76	7,016.76	7,054.76	95.03	243.23	90.09	2,529.85	-4,843.30	3,772.80	3,439.38	333.43	11.315		
10,200.00	7,054.37	7,016.37	7,054.37	97.73	243.22	90.09	2,529.85	-4,843.30	3,736.09	3,399.51	336.58	11.100		
10,300.00	7,053.98	7,015.98	7,053.98	100.43	243.20	90.08	2,529.85	-4,843.30	3,701.72	3,361.96	339.76	10.895		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	7,015.58	7,053.58	103.14	243.19	90.07	2,529.85	-4,843.30	3,669.76	3,326.80	342.96	10.700		
10,500.00	7,053.19	7,015.19	7,053.19	105.86	243.18	90.07	2,529.85	-4,843.30	3,640.25	3,294.09	346.16	10.516		
10,600.00	7,052.80	7,014.80	7,052.80	108.59	243.16	90.06	2,529.85	-4,843.30	3,613.28	3,263.92	349.36	10.342		
10,700.00	7,052.40	7,014.40	7,052.40	111.32	243.15	90.05	2,529.85	-4,843.30	3,588.89	3,236.34	352.55	10.180		
10,800.00	7,052.01	7,014.01	7,052.01	114.06	243.14	90.05	2,529.85	-4,843.30	3,567.14	3,211.43	355.71	10.028		
10,900.00	7,051.62	7,013.62	7,051.62	116.80	243.12	90.04	2,529.85	-4,843.30	3,548.08	3,189.23	358.84	9.888		
11,000.00	7,051.22	7,013.22	7,051.22	119.55	243.11	90.03	2,529.85	-4,843.30	3,531.74	3,169.81	361.93	9.758		
11,100.00	7,050.83	7,012.83	7,050.83	122.31	243.09	90.03	2,529.85	-4,843.30	3,518.17	3,153.21	364.97	9.640		
11,200.00	7,050.44	7,012.44	7,050.44	125.07	243.08	90.02	2,529.85	-4,843.30	3,507.41	3,139.47	367.94	9.533		
11,300.00	7,050.04	7,012.04	7,050.04	127.83	243.07	90.01	2,529.85	-4,843.30	3,499.46	3,128.63	370.84	9.437		
11,400.00	7,049.65	7,011.65	7,049.65	130.60	243.05	90.01	2,529.85	-4,843.30	3,494.37	3,120.71	373.65	9.352		
11,500.00	7,049.26	7,011.26	7,049.26	133.37	243.04	90.00	2,529.85	-4,843.30	3,492.13	3,115.74	376.38	9.278		
11,528.26	7,049.15	7,011.15	7,049.15	134.16	243.04	90.00	2,529.85	-4,843.30	3,492.01	3,114.88	377.14	9.259 CC		
11,600.00	7,048.86	7,010.86	7,048.86	136.15	243.03	90.00	2,529.85	-4,843.30	3,492.75	3,113.74	379.01	9.215 ES		
11,700.00	7,048.47	7,010.47	7,048.47	138.93	243.01	89.99	2,529.85	-4,843.30	3,496.23	3,114.70	381.54	9.164		
11,800.00	7,048.08	7,010.08	7,048.08	141.71	243.00	89.98	2,529.85	-4,843.30	3,502.57	3,118.62	383.95	9.122		
11,900.00	7,047.68	7,009.68	7,047.68	144.49	242.99	89.98	2,529.85	-4,843.30	3,511.74	3,125.49	386.25	9.092		
12,000.00	7,047.29	7,009.29	7,047.29	147.28	242.97	89.97	2,529.85	-4,843.30	3,523.73	3,135.30	388.43	9.072		
12,100.00	7,046.90	7,008.90	7,046.90	150.07	242.96	89.96	2,529.85	-4,843.30	3,538.51	3,148.02	390.49	9.062 SF		
12,200.00	7,046.51	7,008.51	7,046.51	152.87	242.94	89.96	2,529.85	-4,843.30	3,556.03	3,163.61	392.42	9.062		
12,300.00	7,046.11	7,008.11	7,046.11	155.66	242.93	89.95	2,529.85	-4,843.30	3,576.27	3,182.05	394.22	9.072		
12,400.00	7,045.72	7,007.72	7,045.72	158.46	242.92	89.94	2,529.85	-4,843.30	3,599.17	3,203.27	395.90	9.091		
12,500.00	7,045.33	7,007.33	7,045.33	161.26	242.90	89.94	2,529.85	-4,843.30	3,624.69	3,227.24	397.45	9.120		
12,600.00	7,044.93	7,006.93	7,044.93	164.06	242.89	89.93	2,529.85	-4,843.30	3,652.77	3,253.89	398.88	9.158		
12,700.00	7,044.54	7,006.54	7,044.54	166.86	242.88	89.92	2,529.85	-4,843.30	3,683.35	3,283.17	400.18	9.204		
12,800.00	7,044.15	7,006.15	7,044.15	169.67	242.86	89.92	2,529.85	-4,843.30	3,716.37	3,315.01	401.37	9.259		
12,900.00	7,043.75	7,005.75	7,043.75	172.48	242.85	89.91	2,529.85	-4,843.30	3,751.77	3,349.34	402.43	9.323		
13,000.00	7,043.36	7,005.36	7,043.36	175.28	242.83	89.91	2,529.85	-4,843.30	3,789.47	3,386.09	403.39	9.394		
13,100.00	7,042.97	7,004.97	7,042.97	178.09	242.82	89.90	2,529.85	-4,843.30	3,829.42	3,425.19	404.23	9.473		
13,200.00	7,042.57	7,004.57	7,042.57	180.91	242.81	89.89	2,529.85	-4,843.30	3,871.54	3,466.57	404.97	9.560		
13,300.00	7,042.18	7,004.18	7,042.18	183.72	242.79	89.89	2,529.85	-4,843.30	3,915.76	3,510.14	405.61	9.654		
13,400.00	7,041.79	7,003.79	7,041.79	186.53	242.78	89.88	2,529.85	-4,843.30	3,962.01	3,555.84	406.16	9.755		
13,500.00	7,041.39	7,003.39	7,041.39	189.35	242.77	89.87	2,529.85	-4,843.30	4,010.22	3,603.60	406.62	9.862		
13,600.00	7,041.00	7,003.00	7,041.00	192.17	242.75	89.87	2,529.85	-4,843.30	4,060.32	3,653.32	407.00	9.976		
13,700.00	7,040.61	7,002.61	7,040.61	194.99	242.74	89.86	2,529.85	-4,843.30	4,112.24	3,704.95	407.29	10.097		
13,800.00	7,040.21	7,002.21	7,040.21	197.81	242.72	89.85	2,529.85	-4,843.30	4,165.92	3,758.40	407.52	10.223		
13,900.00	7,039.82	7,001.82	7,039.82	200.63	242.71	89.85	2,529.85	-4,843.30	4,221.28	3,813.61	407.67	10.355		
14,000.00	7,039.43	7,001.43	7,039.43	203.45	242.70	89.84	2,529.85	-4,843.30	4,278.26	3,870.50	407.76	10.492		
14,100.00	7,039.03	7,001.03	7,039.03	206.27	242.68	89.83	2,529.85	-4,843.30	4,336.80	3,929.01	407.80	10.635		
14,200.00	7,038.64	7,000.64	7,038.64	209.09	242.67	89.83	2,529.85	-4,843.30	4,396.84	3,989.07	407.77	10.783		
14,300.00	7,038.25	7,000.25	7,038.25	211.92	242.66	89.82	2,529.85	-4,843.30	4,458.31	4,050.61	407.70	10.935		
14,400.00	7,037.86	7,000.14	7,037.86	214.74	242.65	89.81	2,529.85	-4,843.30	4,521.16	4,113.56	407.60	11.092		
14,500.00	7,037.46	7,000.54	7,037.46	217.57	242.67	89.81	2,529.85	-4,843.30	4,585.33	4,177.86	407.46	11.253		
14,600.00	7,037.07	7,000.93	7,037.07	220.40	242.68	89.80	2,529.85	-4,843.30	4,650.76	4,243.46	407.30	11.419		
14,700.00	7,036.68	7,001.32	7,036.68	223.23	242.69	89.80	2,529.85	-4,843.30	4,717.40	4,310.31	407.09	11.588		
14,800.00	7,036.28	7,001.72	7,036.28	226.05	242.71	89.79	2,529.85	-4,843.30	4,785.21	4,378.35	406.86	11.761		
14,871.88	7,036.00	7,002.00	7,036.00	228.09	242.72	89.78	2,529.85	-4,843.30	4,834.64	4,427.97	406.67	11.888		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	65.00	3.28	3.28	-122.79	-4,091.78	-6,350.42	7,554.78				
100.00	100.00	35.00	100.00	3.28	3.34	-122.79	-4,091.78	-6,350.42	7,554.50	7,547.88	6.62	1,140.969	
200.00	200.00	135.00	200.00	3.34	4.42	-122.79	-4,091.78	-6,350.42	7,554.50	7,546.74	7.76	973.506	
300.00	300.00	235.00	300.00	3.44	7.24	-122.79	-4,091.78	-6,350.42	7,554.50	7,543.82	10.69	706.792	
400.00	399.98	334.98	399.98	3.60	10.48	47.38	-4,091.78	-6,350.42	7,553.32	7,539.25	14.07	536.805	
500.00	499.84	434.84	499.84	3.79	13.83	47.46	-4,091.78	-6,350.42	7,549.78	7,532.16	17.61	428.609	
600.00	599.45	534.45	599.45	4.02	17.23	47.60	-4,091.78	-6,350.42	7,543.88	7,522.64	21.24	355.099	
700.00	698.70	633.70	698.70	4.29	20.64	47.79	-4,091.78	-6,350.42	7,535.65	7,510.72	24.93	302.325	
800.00	797.70	732.70	797.70	4.59	24.06	47.88	-4,091.78	-6,350.42	7,526.10	7,497.46	28.64	262.753	
900.00	896.69	831.69	896.69	4.92	27.49	47.96	-4,091.78	-6,350.42	7,516.57	7,484.17	32.39	232.035	
1,000.00	995.68	930.68	995.68	5.27	30.92	48.04	-4,091.78	-6,350.42	7,507.05	7,470.88	36.17	207.534	
1,100.00	1,094.68	1,029.68	1,094.68	5.64	34.36	48.12	-4,091.78	-6,350.42	7,497.54	7,457.57	39.97	187.566	
1,200.00	1,193.67	1,128.67	1,193.67	6.03	37.80	48.20	-4,091.78	-6,350.42	7,488.05	7,444.26	43.79	170.997	
1,300.00	1,292.67	1,227.67	1,292.67	6.42	41.24	48.28	-4,091.78	-6,350.42	7,478.58	7,430.95	47.62	157.039	
1,400.00	1,391.66	1,326.66	1,391.66	6.83	44.69	48.36	-4,091.78	-6,350.42	7,469.11	7,417.65	51.47	145.128	
1,500.00	1,490.66	1,425.66	1,490.66	7.25	48.14	48.44	-4,091.78	-6,350.42	7,459.67	7,404.35	55.32	134.849	
1,600.00	1,589.65	1,524.65	1,589.65	7.67	51.58	48.52	-4,091.78	-6,350.42	7,450.24	7,391.06	59.18	125.891	
1,700.00	1,688.64	1,623.64	1,688.64	8.10	55.03	48.60	-4,091.78	-6,350.42	7,440.82	7,377.77	63.05	118.019	
1,800.00	1,787.64	1,722.64	1,787.64	8.53	58.48	48.68	-4,091.78	-6,350.42	7,431.42	7,364.50	66.92	111.047	
1,900.00	1,886.63	1,821.63	1,886.63	8.97	61.93	48.77	-4,091.78	-6,350.42	7,422.03	7,351.23	70.80	104.832	
2,000.00	1,985.63	1,920.63	1,985.63	9.41	65.39	48.85	-4,091.78	-6,350.42	7,412.66	7,337.98	74.68	99.256	
2,100.00	2,084.62	2,019.62	2,084.62	9.85	68.84	48.93	-4,091.78	-6,350.42	7,403.31	7,324.74	78.57	94.228	
2,200.00	2,183.61	2,118.61	2,183.61	10.30	72.29	49.01	-4,091.78	-6,350.42	7,393.96	7,311.51	82.46	89.670	
2,300.00	2,282.61	2,217.61	2,282.61	10.75	75.74	49.09	-4,091.78	-6,350.42	7,384.64	7,298.29	86.35	85.520	
2,400.00	2,381.60	2,316.60	2,381.60	11.20	79.20	49.18	-4,091.78	-6,350.42	7,375.33	7,285.08	90.24	81.726	
2,500.00	2,480.60	2,415.60	2,480.60	11.66	82.65	49.26	-4,091.78	-6,350.42	7,366.03	7,271.89	94.14	78.244	
2,600.00	2,579.59	2,514.59	2,579.59	12.11	86.10	49.34	-4,091.78	-6,350.42	7,356.75	7,258.71	98.04	75.038	
2,700.00	2,678.58	2,613.58	2,678.58	12.57	89.55	49.43	-4,091.78	-6,350.42	7,347.49	7,245.55	101.94	72.076	
2,800.00	2,777.58	2,712.58	2,777.58	13.02	93.01	49.51	-4,091.78	-6,350.42	7,338.24	7,232.40	105.84	69.331	
2,900.00	2,876.57	2,811.57	2,876.57	13.48	96.46	49.59	-4,091.78	-6,350.42	7,329.01	7,219.26	109.75	66.781	
3,000.00	2,975.57	2,910.57	2,975.57	13.94	99.92	49.68	-4,091.78	-6,350.42	7,319.79	7,206.14	113.65	64.406	
3,100.00	3,074.56	3,009.56	3,074.56	14.40	103.37	49.76	-4,091.78	-6,350.42	7,310.59	7,193.03	117.56	62.187	
3,200.00	3,173.55	3,108.55	3,173.55	14.87	106.82	49.84	-4,091.78	-6,350.42	7,301.41	7,179.94	121.46	60.111	
3,300.00	3,272.55	3,207.55	3,272.55	15.33	110.28	49.93	-4,091.78	-6,350.42	7,292.24	7,166.86	125.37	58.164	
3,400.00	3,371.54	3,306.54	3,371.54	15.79	113.73	50.01	-4,091.78	-6,350.42	7,283.08	7,153.80	129.28	56.335	
3,500.00	3,470.54	3,405.54	3,470.54	16.26	117.19	50.10	-4,091.78	-6,350.42	7,273.95	7,140.75	133.19	54.613	
3,600.00	3,569.53	3,504.53	3,569.53	16.72	120.64	50.18	-4,091.78	-6,350.42	7,264.82	7,127.72	137.10	52.988	
3,700.00	3,668.53	3,603.53	3,668.53	17.19	124.10	50.27	-4,091.78	-6,350.42	7,255.72	7,114.71	141.01	51.454	
3,800.00	3,767.52	3,702.52	3,767.52	17.65	127.55	50.35	-4,091.78	-6,350.42	7,246.63	7,101.70	144.93	50.003	
3,900.00	3,866.51	3,801.51	3,866.51	18.12	131.01	50.44	-4,091.78	-6,350.42	7,237.56	7,088.72	148.84	48.627	
4,000.00	3,965.51	3,900.51	3,965.51	18.59	134.46	50.53	-4,091.78	-6,350.42	7,228.50	7,075.75	152.75	47.322	
4,100.00	4,064.50	4,000.50	4,064.50	19.05	137.95	50.61	-4,091.78	-6,350.42	7,219.46	7,062.76	156.70	46.072	
4,200.00	4,163.50	4,101.50	4,163.50	19.52	141.48	50.70	-4,091.78	-6,350.42	7,210.44	7,049.75	160.68	44.873	
4,300.00	4,262.49	4,202.51	4,262.49	19.99	145.00	50.79	-4,091.78	-6,350.42	7,201.43	7,036.76	164.67	43.733	
4,400.00	4,361.48	4,303.52	4,361.48	20.46	148.53	50.87	-4,091.78	-6,350.42	7,192.44	7,023.78	168.65	42.646	
4,500.00	4,460.48	4,404.52	4,460.48	20.92	152.05	50.96	-4,091.78	-6,350.42	7,183.46	7,010.82	172.64	41.610	
4,600.00	4,559.47	4,452.00	4,517.00	21.39	153.71	51.01	-4,091.78	-6,350.42	7,174.63	6,999.87	174.76	41.053	
4,700.00	4,658.47	4,452.00	4,517.00	21.86	153.71	51.01	-4,091.78	-6,350.42	7,166.96	6,991.75	175.22	40.903	
4,800.00	4,757.46	4,452.00	4,517.00	22.33	153.71	51.01	-4,091.78	-6,350.42	7,160.68	6,985.04	175.64	40.770	
4,900.00	4,856.45	4,452.00	4,517.00	22.80	153.71	51.01	-4,091.78	-6,350.42	7,155.79	6,979.77	176.02	40.652	
5,000.00	4,955.45	4,452.00	4,517.00	23.27	153.71	51.01	-4,091.78	-6,350.42	7,152.30	6,975.92	176.38	40.551	
5,100.00	5,054.44	4,452.00	4,517.00	23.74	153.71	51.01	-4,091.78	-6,350.42	7,150.20	6,973.50	176.70	40.466	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	4,452.00	4,517.00	24.21	153.71	51.01	-4,091.78	-6,350.42	7,149.50	6,972.51	176.99	40.396		
5,200.01	5,153.45	4,452.00	4,517.00	24.21	153.71	51.01	-4,091.78	-6,350.42	7,149.50	6,972.51	176.99	40.396		
5,300.00	5,252.43	4,452.00	4,517.00	24.68	153.71	51.01	-4,091.78	-6,350.42	7,150.20	6,972.96	177.24	40.342		
5,400.00	5,351.42	4,452.00	4,517.00	25.15	153.71	51.01	-4,091.78	-6,350.42	7,152.30	6,974.84	177.46	40.305		
5,500.00	5,450.42	4,452.00	4,517.00	25.62	153.71	51.01	-4,091.78	-6,350.42	7,155.79	6,978.15	177.64	40.282		
5,600.00	5,549.41	4,452.00	4,517.00	26.09	153.71	51.01	-4,091.78	-6,350.42	7,160.68	6,982.89	177.79	40.276		
5,700.00	5,648.41	4,452.00	4,517.00	26.56	153.71	51.01	-4,091.78	-6,350.42	7,166.96	6,989.05	177.91	40.285		
5,800.00	5,747.40	4,452.00	4,517.00	27.03	153.71	51.01	-4,091.78	-6,350.42	7,174.63	6,996.64	177.99	40.310		
5,900.00	5,846.40	4,452.00	4,517.00	27.51	153.71	51.01	-4,091.78	-6,350.42	7,183.68	7,005.65	178.04	40.350		
6,000.00	5,945.39	4,452.00	4,517.00	27.98	153.71	51.01	-4,091.78	-6,350.42	7,194.12	7,016.07	178.05	40.405		
6,100.00	6,044.38	4,452.00	4,517.00	28.45	153.71	51.01	-4,091.78	-6,350.42	7,205.92	7,027.89	178.03	40.476		
6,200.00	6,143.38	4,452.00	4,517.00	28.92	153.71	51.01	-4,091.78	-6,350.42	7,219.09	7,041.11	177.98	40.562		
6,300.00	6,242.37	4,452.00	4,517.00	29.39	153.71	51.01	-4,091.78	-6,350.42	7,233.62	7,055.73	177.89	40.663		
6,400.00	6,341.37	4,452.00	4,517.00	29.86	153.71	51.01	-4,091.78	-6,350.42	7,249.50	7,071.73	177.78	40.779		
6,500.00	6,440.36	4,452.00	4,517.00	30.34	153.71	51.01	-4,091.78	-6,350.42	7,266.73	7,089.10	177.63	40.910		
6,600.00	6,538.90	4,452.00	4,517.00	30.80	153.71	12.09	-4,091.78	-6,350.42	7,279.80	7,102.36	177.44	41.028		
6,700.00	6,634.88	4,452.00	4,517.00	31.25	153.71	-4.36	-4,091.78	-6,350.42	7,280.53	7,103.34	177.19	41.089		
6,800.00	6,725.92	4,452.00	4,517.00	31.68	153.71	-11.81	-4,091.78	-6,350.42	7,268.84	7,091.94	176.90	41.091		
6,900.00	6,809.79	4,452.00	4,517.00	32.07	153.71	-16.53	-4,091.78	-6,350.42	7,244.94	7,068.37	176.57	41.031		
7,000.00	6,884.42	4,452.00	4,517.00	32.43	153.71	-20.43	-4,091.78	-6,350.42	7,209.31	7,033.09	176.23	40.909		
7,100.00	6,947.98	4,452.00	4,517.00	32.77	153.71	-24.36	-4,091.78	-6,350.42	7,162.67	6,986.79	175.88	40.725		
7,200.00	6,998.89	4,452.00	4,517.00	33.18	153.71	-28.88	-4,091.78	-6,350.42	7,105.95	6,930.40	175.55	40.478		
7,300.00	7,035.91	4,452.00	4,517.00	33.76	153.71	-34.49	-4,091.78	-6,350.42	7,040.33	6,865.05	175.28	40.167		
7,400.00	7,058.12	4,452.00	4,517.00	34.61	153.71	-41.78	-4,091.78	-6,350.42	6,967.19	6,792.11	175.08	39.793		
7,500.00	7,064.98	4,452.00	4,517.00	35.68	153.71	-50.98	-4,091.78	-6,350.42	6,888.14	6,713.14	175.00	39.360		
7,600.00	7,064.59	4,452.00	4,517.00	36.95	153.71	-50.98	-4,091.78	-6,350.42	6,807.10	6,632.10	175.01	38.896		
7,700.00	7,064.20	4,452.00	4,517.00	38.40	153.71	-50.98	-4,091.78	-6,350.42	6,726.58	6,551.51	175.07	38.422		
7,800.00	7,063.80	4,452.00	4,517.00	40.00	153.71	-50.98	-4,091.78	-6,350.42	6,646.58	6,471.38	175.20	37.936		
7,900.00	7,063.41	4,452.00	4,517.00	41.75	153.71	-50.98	-4,091.78	-6,350.42	6,567.13	6,391.73	175.40	37.440		
8,000.00	7,063.02	4,452.00	4,517.00	43.62	153.71	-50.98	-4,091.78	-6,350.42	6,488.25	6,312.58	175.67	36.934		
8,100.00	7,062.62	4,452.00	4,517.00	45.59	153.71	-50.98	-4,091.78	-6,350.42	6,409.96	6,233.95	176.01	36.418		
8,200.00	7,062.23	4,452.00	4,517.00	47.65	153.71	-50.98	-4,091.78	-6,350.42	6,332.28	6,155.86	176.42	35.892		
8,300.00	7,061.84	4,452.00	4,517.00	49.79	153.71	-50.98	-4,091.78	-6,350.42	6,255.24	6,078.33	176.91	35.359		
8,400.00	7,061.45	4,452.00	4,517.00	52.00	153.71	-50.98	-4,091.78	-6,350.42	6,178.85	6,001.39	177.47	34.817		
8,500.00	7,061.05	4,452.00	4,517.00	54.27	153.71	-50.98	-4,091.78	-6,350.42	6,103.15	5,925.05	178.10	34.269		
8,600.00	7,060.66	4,452.00	4,517.00	56.60	153.71	-50.98	-4,091.78	-6,350.42	6,028.15	5,849.35	178.80	33.715		
8,700.00	7,060.27	4,452.00	4,517.00	58.97	153.71	-50.98	-4,091.78	-6,350.42	5,953.89	5,774.32	179.57	33.156		
8,800.00	7,059.87	4,452.00	4,517.00	61.38	153.71	-50.98	-4,091.78	-6,350.42	5,880.39	5,699.97	180.42	32.593		
8,900.00	7,059.48	4,452.00	4,517.00	63.83	153.71	-50.98	-4,091.78	-6,350.42	5,807.68	5,626.35	181.34	32.027		
9,000.00	7,059.09	4,452.00	4,517.00	66.32	153.71	-50.98	-4,091.78	-6,350.42	5,735.80	5,553.47	182.32	31.459		
9,100.00	7,058.69	4,452.00	4,517.00	68.83	153.71	-50.98	-4,091.78	-6,350.42	5,664.77	5,481.39	183.38	30.891		
9,200.00	7,058.30	4,452.00	4,517.00	71.37	153.71	-50.98	-4,091.78	-6,350.42	5,594.62	5,410.12	184.50	30.323		
9,300.00	7,057.91	4,452.00	4,517.00	73.93	153.71	-50.98	-4,091.78	-6,350.42	5,525.39	5,339.70	185.69	29.756		
9,400.00	7,057.51	4,452.00	4,517.00	76.51	153.71	-50.98	-4,091.78	-6,350.42	5,457.12	5,270.18	186.94	29.191		
9,500.00	7,057.12	4,452.00	4,517.00	79.11	153.71	-50.98	-4,091.78	-6,350.42	5,389.84	5,201.58	188.26	28.629		
9,600.00	7,056.73	4,452.00	4,517.00	81.73	153.71	-50.98	-4,091.78	-6,350.42	5,323.58	5,133.94	189.64	28.072		
9,700.00	7,056.33	4,452.00	4,517.00	84.37	153.71	-50.98	-4,091.78	-6,350.42	5,258.40	5,067.31	191.08	27.519		
9,800.00	7,055.94	4,452.00	4,517.00	87.01	153.71	-50.98	-4,091.78	-6,350.42	5,194.32	5,001.73	192.59	26.971		
9,900.00	7,055.55	4,452.00	4,517.00	89.68	153.71	-50.98	-4,091.78	-6,350.42	5,131.39	4,937.24	194.15	26.430		
10,000.00	7,055.15	4,452.00	4,517.00	92.35	153.71	-50.98	-4,091.78	-6,350.42	5,069.65	4,873.88	195.77	25.896		
10,100.00	7,054.76	4,452.00	4,517.00	95.03	153.71	-50.98	-4,091.78	-6,350.42	5,009.14	4,811.70	197.45	25.370		
10,200.00	7,054.37	4,452.00	4,517.00	97.73	153.71	-50.98	-4,091.78	-6,350.42	4,949.92	4,750.74	199.18	24.852		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,053.98	4,452.00	4,517.00	100.43	153.71	-50.98	-4,091.78	-6,350.42	4,892.03	4,691.06	200.96	24.343		
10,400.00	7,053.58	4,452.00	4,517.00	103.14	153.71	-50.98	-4,091.78	-6,350.42	4,835.51	4,632.70	202.80	23.843		
10,500.00	7,053.19	4,452.00	4,517.00	105.86	153.71	-50.98	-4,091.78	-6,350.42	4,780.41	4,575.71	204.69	23.354		
10,600.00	7,052.80	4,452.00	4,517.00	108.59	153.71	-50.98	-4,091.78	-6,350.42	4,726.79	4,520.15	206.64	22.875		
10,700.00	7,052.40	4,452.00	4,517.00	111.32	153.71	-50.98	-4,091.78	-6,350.42	4,674.69	4,466.06	208.63	22.407		
10,800.00	7,052.01	4,452.00	4,517.00	114.06	153.71	-50.98	-4,091.78	-6,350.42	4,624.16	4,413.50	210.66	21.951		
10,900.00	7,051.62	4,452.00	4,517.00	116.80	153.71	-50.98	-4,091.78	-6,350.42	4,575.27	4,362.52	212.74	21.506		
11,000.00	7,051.22	4,452.00	4,517.00	119.55	153.71	-50.98	-4,091.78	-6,350.42	4,528.05	4,313.19	214.87	21.074		
11,100.00	7,050.83	4,452.00	4,517.00	122.31	153.71	-50.98	-4,091.78	-6,350.42	4,482.57	4,265.54	217.04	20.654		
11,200.00	7,050.44	4,452.00	4,517.00	125.07	153.71	-50.98	-4,091.78	-6,350.42	4,438.88	4,219.64	219.24	20.246		
11,300.00	7,050.04	4,452.00	4,517.00	127.83	153.71	-50.98	-4,091.78	-6,350.42	4,397.03	4,175.54	221.49	19.852		
11,400.00	7,049.65	4,452.00	4,517.00	130.60	153.71	-50.98	-4,091.78	-6,350.42	4,357.07	4,133.31	223.76	19.472		
11,500.00	7,049.26	4,452.00	4,517.00	133.37	153.71	-50.98	-4,091.78	-6,350.42	4,319.06	4,092.98	226.08	19.105		
11,600.00	7,048.86	4,452.00	4,517.00	136.15	153.71	-50.98	-4,091.78	-6,350.42	4,283.04	4,054.63	228.42	18.751		
11,700.00	7,048.47	4,452.00	4,517.00	138.93	153.71	-50.98	-4,091.78	-6,350.42	4,249.08	4,018.29	230.78	18.412		
11,800.00	7,048.08	4,452.00	4,517.00	141.71	153.71	-50.98	-4,091.78	-6,350.42	4,217.21	3,984.03	233.17	18.086		
11,900.00	7,047.68	4,452.00	4,517.00	144.49	153.71	-50.98	-4,091.78	-6,350.42	4,187.48	3,951.90	235.58	17.775		
12,000.00	7,047.29	4,452.00	4,517.00	147.28	153.71	-50.98	-4,091.78	-6,350.42	4,159.95	3,921.94	238.01	17.478		
12,100.00	7,046.90	4,452.00	4,517.00	150.07	153.71	-50.98	-4,091.78	-6,350.42	4,134.66	3,894.21	240.45	17.195		
12,200.00	7,046.51	4,452.00	4,517.00	152.87	153.71	-50.98	-4,091.78	-6,350.42	4,111.64	3,868.74	242.91	16.927		
12,300.00	7,046.11	4,452.00	4,517.00	155.66	153.71	-50.98	-4,091.78	-6,350.42	4,090.94	3,845.58	245.36	16.673		
12,400.00	7,045.72	4,452.00	4,517.00	158.46	153.71	-50.98	-4,091.78	-6,350.42	4,072.59	3,824.77	247.82	16.434		
12,500.00	7,045.33	4,452.00	4,517.00	161.26	153.71	-50.98	-4,091.78	-6,350.42	4,056.62	3,806.35	250.28	16.208		
12,600.00	7,044.93	4,452.00	4,517.00	164.06	153.71	-50.98	-4,091.78	-6,350.42	4,043.07	3,790.34	252.73	15.998		
12,700.00	7,044.54	4,452.00	4,517.00	166.86	153.71	-50.98	-4,091.78	-6,350.42	4,031.95	3,776.78	255.16	15.801		
12,800.00	7,044.15	4,452.00	4,517.00	169.67	153.71	-50.98	-4,091.78	-6,350.42	4,023.28	3,765.69	257.59	15.619		
12,900.00	7,043.75	4,452.00	4,517.00	172.48	153.71	-50.98	-4,091.78	-6,350.42	4,017.09	3,757.10	259.99	15.451		
13,000.00	7,043.36	4,452.00	4,517.00	175.28	153.71	-50.98	-4,091.78	-6,350.42	4,013.37	3,751.01	262.36	15.297		
13,099.03	7,042.97	4,452.00	4,517.00	178.07	153.71	-50.98	-4,091.78	-6,350.42	4,012.15	3,747.47	264.69	15.158 CC		
13,100.00	7,042.97	4,452.00	4,517.00	178.09	153.71	-50.98	-4,091.78	-6,350.42	4,012.15	3,747.44	264.71	15.157		
13,200.00	7,042.57	4,452.00	4,517.00	180.91	153.71	-50.98	-4,091.78	-6,350.42	4,013.42	3,746.40	267.02	15.030 ES		
13,300.00	7,042.18	4,452.00	4,517.00	183.72	153.71	-50.98	-4,091.78	-6,350.42	4,017.18	3,747.89	269.29	14.918		
13,400.00	7,041.79	4,452.00	4,517.00	186.53	153.71	-50.98	-4,091.78	-6,350.42	4,023.42	3,751.91	271.52	14.818		
13,500.00	7,041.39	4,452.00	4,517.00	189.35	153.71	-50.98	-4,091.78	-6,350.42	4,032.14	3,758.44	273.70	14.732		
13,600.00	7,041.00	4,452.00	4,517.00	192.17	153.71	-50.98	-4,091.78	-6,350.42	4,043.31	3,767.48	275.83	14.659		
13,700.00	7,040.61	4,452.00	4,517.00	194.99	153.71	-50.98	-4,091.78	-6,350.42	4,056.91	3,779.01	277.90	14.599		
13,800.00	7,040.21	4,452.00	4,517.00	197.81	153.71	-50.98	-4,091.78	-6,350.42	4,072.93	3,793.02	279.91	14.551		
13,900.00	7,039.82	4,452.00	4,517.00	200.63	153.71	-50.98	-4,091.78	-6,350.42	4,091.32	3,809.47	281.86	14.516		
14,000.00	7,039.43	4,452.00	4,517.00	203.45	153.71	-50.98	-4,091.78	-6,350.42	4,112.07	3,828.33	283.74	14.492		
14,100.00	7,039.03	4,452.00	4,517.00	206.27	153.71	-50.98	-4,091.78	-6,350.42	4,135.13	3,849.58	285.55	14.481 SF		
14,200.00	7,038.64	4,452.00	4,517.00	209.09	153.71	-50.98	-4,091.78	-6,350.42	4,160.47	3,873.17	287.30	14.482		
14,300.00	7,038.25	4,452.00	4,517.00	211.92	153.71	-50.98	-4,091.78	-6,350.42	4,188.04	3,899.08	288.97	14.493		
14,400.00	7,037.86	4,452.00	4,517.00	214.74	153.71	-50.98	-4,091.78	-6,350.42	4,217.81	3,927.24	290.56	14.516		
14,500.00	7,037.46	4,452.00	4,517.00	217.57	153.71	-50.98	-4,091.78	-6,350.42	4,249.72	3,957.63	292.08	14.550		
14,600.00	7,037.07	4,452.00	4,517.00	220.40	153.71	-50.98	-4,091.78	-6,350.42	4,283.72	3,990.19	293.53	14.594		
14,700.00	7,036.68	4,452.00	4,517.00	223.23	153.71	-50.98	-4,091.78	-6,350.42	4,319.78	4,024.87	294.90	14.648		
14,800.00	7,036.28	4,452.00	4,517.00	226.05	153.71	-50.98	-4,091.78	-6,350.42	4,357.83	4,061.63	296.20	14.713		
14,871.88	7,036.00	4,452.00	4,517.00	228.09	153.71	-50.98	-4,091.78	-6,350.42	4,386.38	4,089.30	297.08	14.765		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1,306.28	3.28	7.39	-106.85	-2,669.13	-8,814.05	9,301.51					
100.00	100.00	1,403.44	1,332.40	3.28	7.52	-106.83	-2,666.10	-8,811.26	9,287.90	9,277.65	10.25	905.891		
200.00	200.00	1,442.43	1,370.91	3.34	7.71	-106.81	-2,661.43	-8,807.41	9,274.96	9,264.50	10.45	887.269		
300.00	300.00	1,496.18	1,424.03	3.44	7.97	-106.78	-2,654.68	-8,802.59	9,262.63	9,251.86	10.78	859.509		
400.00	399.98	1,660.00	1,585.91	3.60	8.77	63.71	-2,635.31	-8,786.72	9,248.97	9,237.33	11.64	794.594		
500.00	499.84	1,703.15	1,628.57	3.79	8.98	64.01	-2,630.66	-8,782.16	9,233.83	9,221.83	12.00	769.407		
600.00	599.45	1,755.00	1,679.96	4.02	9.23	64.35	-2,625.40	-8,777.80	9,218.56	9,206.12	12.44	740.764		
700.00	698.70	1,911.58	1,834.93	4.29	10.00	64.86	-2,607.82	-8,764.00	9,201.81	9,188.41	13.41	686.442		
800.00	797.70	2,017.97	1,939.92	4.59	10.54	65.04	-2,593.40	-8,754.64	9,183.43	9,169.24	14.19	647.339		
900.00	896.69	2,321.00	2,238.53	4.92	12.15	65.48	-2,552.79	-8,722.96	9,162.98	9,147.06	15.93	575.330		
1,000.00	995.68	1,000.00	2,429.28	5.27	5.28	65.76	-2,525.96	-8,700.08	9,141.81	9,131.39	10.42	877.339		
1,100.00	1,094.68	2,555.61	2,469.22	5.64	13.44	65.82	-2,520.64	-8,694.98	9,120.41	9,102.68	17.73	514.413		
1,200.00	1,193.67	1,200.00	2,550.39	6.03	6.37	65.94	-2,510.50	-8,685.35	9,099.87	9,087.84	12.03	756.471		
1,300.00	1,292.67	2,792.00	2,701.94	6.42	14.74	66.16	-2,490.61	-8,666.35	9,078.54	9,058.94	19.60	463.256		
1,400.00	1,391.66	2,792.00	2,701.94	6.83	14.74	66.16	-2,490.61	-8,666.35	9,057.74	9,037.74	20.00	452.950		
1,500.00	1,490.66	2,792.00	2,701.94	7.25	14.74	66.16	-2,490.61	-8,666.35	9,038.00	9,017.59	20.41	442.871		
1,600.00	1,589.65	2,839.70	2,748.97	7.67	14.99	66.22	-2,484.79	-8,661.00	9,018.61	8,997.57	21.05	428.529		
1,700.00	1,688.64	2,887.00	2,795.81	8.10	15.23	66.29	-2,479.79	-8,656.66	9,000.70	8,979.01	21.69	414.990		
1,800.00	1,787.64	1,800.00	2,829.17	8.53	9.77	66.33	-2,476.07	-8,653.62	8,983.09	8,965.92	17.17	523.053		
1,900.00	1,886.63	3,075.00	2,981.70	8.97	16.21	66.55	-2,457.88	-8,639.19	8,965.13	8,941.70	23.43	382.687		
2,000.00	1,985.63	3,212.13	3,117.06	9.41	16.93	66.76	-2,440.39	-8,625.95	8,946.73	8,922.22	24.51	364.994		
2,100.00	2,084.62	3,310.69	3,214.45	9.85	17.46	66.90	-2,428.61	-8,616.35	8,928.60	8,903.18	25.42	351.260		
2,200.00	2,183.61	3,402.56	3,305.17	10.30	17.94	67.03	-2,417.40	-8,607.14	8,910.19	8,883.89	26.30	338.818		
2,300.00	2,282.61	3,481.12	3,382.78	10.75	18.36	67.15	-2,407.92	-8,599.57	8,892.21	8,865.09	27.12	327.888		
2,400.00	2,381.60	3,543.00	3,443.90	11.20	18.69	67.24	-2,400.38	-8,593.51	8,874.24	8,846.37	27.87	318.441		
2,500.00	2,480.60	4,488.00	4,367.51	11.66	24.30	68.82	-2,252.00	-8,467.01	8,850.41	8,817.55	32.86	269.331		
2,600.00	2,579.59	4,534.64	4,412.75	12.11	24.60	68.90	-2,244.36	-8,458.59	8,823.98	8,790.41	33.57	262.867		
2,700.00	2,678.58	4,583.00	4,459.81	12.57	24.90	68.98	-2,236.77	-8,450.44	8,798.51	8,764.23	34.29	256.614		
2,800.00	2,777.58	4,583.00	4,459.81	13.02	24.90	68.98	-2,236.77	-8,450.44	8,773.64	8,738.86	34.78	252.254		
2,900.00	2,876.57	4,583.00	4,459.81	13.48	24.90	68.98	-2,236.77	-8,450.44	8,749.83	8,714.56	35.28	248.042		
3,000.00	2,975.57	4,583.00	4,459.81	13.94	24.90	68.98	-2,236.77	-8,450.44	8,727.11	8,691.34	35.77	243.975		
3,100.00	3,074.56	4,635.75	4,511.40	14.40	25.21	69.06	-2,229.18	-8,442.51	8,704.57	8,668.07	36.51	238.431		
3,200.00	3,173.55	4,678.00	4,552.95	14.87	25.46	69.13	-2,223.82	-8,437.08	8,683.58	8,646.38	37.20	233.441		
3,300.00	3,272.55	4,678.00	4,552.95	15.33	25.46	69.13	-2,223.82	-8,437.08	8,663.11	8,625.41	37.69	229.823		
3,400.00	3,371.54	4,678.00	4,552.95	15.79	25.46	69.13	-2,223.82	-8,437.08	8,643.74	8,605.55	38.19	226.334		
3,500.00	3,470.54	4,736.81	4,610.98	16.26	25.78	69.21	-2,217.12	-8,430.31	8,625.00	8,586.06	38.95	221.456		
3,600.00	3,569.53	4,772.00	4,645.77	16.72	25.96	69.26	-2,213.42	-8,426.46	8,607.00	8,567.41	39.60	217.355		
3,700.00	3,668.53	4,829.43	4,702.60	17.19	26.26	69.35	-2,207.72	-8,420.45	8,589.60	8,549.26	40.34	212.909		
3,800.00	3,767.52	4,867.00	4,739.81	17.65	26.45	69.40	-2,204.18	-8,416.66	8,572.77	8,531.77	41.00	209.077		
3,900.00	3,866.51	4,912.65	4,785.07	18.12	26.68	69.46	-2,200.07	-8,412.31	8,556.59	8,514.90	41.69	205.226		
4,000.00	3,965.51	4,961.00	4,833.06	18.59	26.92	69.52	-2,195.96	-8,408.11	8,541.19	8,498.79	42.40	201.463		
4,100.00	4,064.50	5,000.50	4,872.29	19.05	27.11	69.58	-2,192.76	-8,404.89	8,526.41	8,483.36	43.06	198.028		
4,200.00	4,163.50	5,056.00	4,927.46	19.52	27.37	69.65	-2,188.46	-8,400.52	8,512.14	8,468.35	43.79	194.404		
4,300.00	4,262.49	5,056.00	4,927.46	19.99	27.37	69.65	-2,188.46	-8,400.52	8,498.73	8,454.45	44.27	191.955		
4,400.00	4,361.48	5,112.23	4,983.40	20.46	27.63	69.72	-2,184.43	-8,396.63	8,485.80	8,440.80	45.00	188.570		
4,500.00	4,460.48	5,150.00	5,021.04	20.92	27.80	69.77	-2,181.98	-8,394.52	8,473.93	8,428.29	45.65	185.638		
4,600.00	4,559.47	5,192.43	5,063.33	21.39	27.99	69.82	-2,179.45	-8,392.40	8,462.78	8,416.47	46.31	182.747		
4,700.00	4,658.47	5,243.00	5,113.77	21.86	28.20	69.88	-2,176.75	-8,389.92	8,452.07	8,405.07	47.00	179.820		
4,800.00	4,757.46	5,284.30	5,154.99	22.33	28.37	69.93	-2,174.79	-8,388.10	8,442.02	8,394.37	47.65	177.157		
4,900.00	4,856.45	5,336.00	5,206.61	22.80	28.59	69.99	-2,172.66	-8,386.36	8,432.85	8,384.50	48.34	174.432		
5,000.00	4,955.45	5,358.44	5,229.03	23.27	28.67	70.01	-2,171.86	-8,385.74	8,424.32	8,375.41	48.91	172.245		
5,100.00	5,054.44	5,414.17	5,284.73	23.74	28.89	70.07	-2,170.31	-8,384.34	8,416.43	8,366.83	49.61	169.660		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,153.44	5,476.45	5,346.97	24.21	29.13	70.14	-2,169.05	-8,382.98	8,409.05	8,358.72	50.33	167.073		
5,300.00	5,252.43	5,541.20	5,411.70	24.68	29.37	70.20	-2,167.54	-8,381.88	8,402.09	8,351.03	51.06	164.538		
5,400.00	5,351.42	5,605.91	5,476.37	25.15	29.62	70.27	-2,165.79	-8,381.08	8,395.56	8,343.76	51.80	162.084		
5,500.00	5,450.42	5,670.55	5,540.98	25.62	29.86	70.35	-2,163.80	-8,380.59	8,389.46	8,336.93	52.53	159.709		
5,600.00	5,549.41	5,737.10	5,607.49	26.09	30.11	70.42	-2,161.54	-8,380.40	8,383.78	8,330.51	53.27	157.384		
5,700.00	5,648.41	5,806.96	5,677.32	26.56	30.37	70.50	-2,159.18	-8,380.45	8,378.48	8,324.46	54.02	155.088		
5,800.00	5,747.40	5,876.87	5,747.19	27.03	30.63	70.58	-2,156.92	-8,380.72	8,373.55	8,318.78	54.78	152.864		
5,900.00	5,846.40	5,946.82	5,817.10	27.51	30.89	70.66	-2,154.75	-8,381.21	8,368.99	8,313.46	55.53	150.708		
6,000.00	5,945.39	6,029.37	5,899.61	27.98	31.19	70.75	-2,152.31	-8,382.05	8,364.78	8,308.44	56.34	148.477		
6,100.00	6,044.38	6,139.74	6,009.93	28.45	31.60	70.87	-2,149.20	-8,383.11	8,360.57	8,303.31	57.26	146.011		
6,200.00	6,143.38	6,250.15	6,120.31	28.92	32.01	71.00	-2,146.27	-8,383.98	8,356.26	8,298.07	58.18	143.621		
6,300.00	6,242.37	6,347.12	6,217.23	29.39	32.37	71.10	-2,143.61	-8,384.67	8,351.89	8,292.83	59.06	141.423		
6,400.00	6,341.37	6,439.33	6,309.38	29.86	32.72	71.21	-2,140.39	-8,385.51	8,347.62	8,287.71	59.91	139.330		
6,500.00	6,440.36	6,531.29	6,401.25	30.34	33.07	71.32	-2,136.48	-8,386.53	8,343.47	8,282.70	60.77	137.300		
6,600.00	6,538.90	6,661.64	6,531.42	30.80	33.59	31.95	-2,129.67	-8,388.04	8,333.06	8,271.25	61.81	134.821		
6,700.00	6,634.88	6,808.06	6,677.51	31.25	34.18	15.28	-2,120.04	-8,389.21	8,306.96	8,244.05	62.90	132.062		
6,800.00	6,725.92	6,892.79	6,761.99	31.68	34.53	7.81	-2,113.59	-8,389.71	8,265.95	8,202.26	63.69	129.791		
6,900.00	6,809.79	6,952.40	6,821.42	32.07	34.78	3.27	-2,108.90	-8,390.24	8,211.60	8,147.29	64.31	127.679		
7,000.00	6,884.42	7,005.77	6,874.61	32.43	35.01	-0.32	-2,104.60	-8,390.88	8,145.20	8,080.34	64.86	125.585		
7,100.00	6,947.98	7,051.62	6,920.30	32.77	35.20	-4.03	-2,100.85	-8,391.55	8,068.30	8,002.99	65.30	123.550		
7,200.00	6,998.89	7,088.82	6,957.37	33.18	35.35	-8.99	-2,097.75	-8,392.17	7,982.70	7,917.06	65.64	121.607		
7,300.00	7,035.91	7,129.00	6,997.40	33.76	35.52	-17.76	-2,094.37	-8,392.93	7,890.47	7,824.54	65.93	119.680		
7,400.00	7,058.12	7,134.71	7,003.08	34.61	35.55	-38.43	-2,093.89	-8,393.04	7,793.79	7,727.80	66.00	118.092		
7,500.00	7,064.98	7,142.45	7,010.80	35.68	35.58	-88.74	-2,093.24	-8,393.19	7,695.06	7,629.03	66.03	116.543		
7,600.00	7,064.59	7,143.81	7,012.16	36.95	35.58	-88.81	-2,093.12	-8,393.22	7,596.10	7,530.09	66.01	115.067		
7,700.00	7,064.20	7,145.17	7,013.51	38.40	35.59	-88.88	-2,093.01	-8,393.25	7,497.18	7,431.17	66.01	113.579		
7,800.00	7,063.80	7,146.53	7,014.86	40.00	35.59	-88.95	-2,092.90	-8,393.27	7,398.28	7,332.27	66.01	112.080		
7,900.00	7,063.41	7,147.89	7,016.22	41.75	35.60	-89.02	-2,092.79	-8,393.30	7,299.41	7,233.39	66.02	110.569		
8,000.00	7,063.02	7,149.25	7,017.57	43.62	35.61	-89.09	-2,092.68	-8,393.33	7,200.57	7,134.54	66.03	109.046		
8,100.00	7,062.62	7,150.60	7,018.92	45.59	35.61	-89.16	-2,092.56	-8,393.36	7,101.76	7,035.71	66.06	107.509		
8,200.00	7,062.23	7,151.96	7,020.28	47.65	35.62	-89.23	-2,092.45	-8,393.38	7,002.99	6,936.90	66.09	105.960		
8,300.00	7,061.84	7,153.32	7,021.63	49.79	35.62	-89.30	-2,092.34	-8,393.41	6,904.25	6,838.12	66.13	104.397		
8,400.00	7,061.45	7,154.67	7,022.98	52.00	35.63	-89.37	-2,092.23	-8,393.44	6,805.55	6,739.36	66.19	102.820		
8,500.00	7,061.05	7,156.03	7,024.33	54.27	35.63	-89.44	-2,092.12	-8,393.46	6,706.89	6,640.63	66.25	101.229		
8,600.00	7,060.66	7,157.38	7,025.68	56.60	35.64	-89.51	-2,092.01	-8,393.49	6,608.27	6,541.93	66.33	99.623		
8,700.00	7,060.27	7,158.73	7,027.02	58.97	35.64	-89.58	-2,091.90	-8,393.52	6,509.68	6,443.26	66.42	98.003		
8,800.00	7,059.87	7,160.09	7,028.37	61.38	35.65	-89.65	-2,091.79	-8,393.54	6,411.15	6,344.62	66.53	96.367		
8,900.00	7,059.48	7,161.44	7,029.72	63.83	35.66	-89.72	-2,091.68	-8,393.57	6,312.65	6,246.01	66.65	94.716		
9,000.00	7,059.09	7,162.79	7,031.07	66.32	35.66	-89.79	-2,091.57	-8,393.60	6,214.21	6,147.43	66.78	93.049		
9,100.00	7,058.69	7,164.14	7,032.41	68.83	35.67	-89.86	-2,091.46	-8,393.62	6,115.82	6,048.88	66.94	91.366		
9,200.00	7,058.30	7,165.49	7,033.76	71.37	35.67	-89.93	-2,091.36	-8,393.65	6,017.47	5,950.37	67.11	89.667		
9,300.00	7,057.91	7,166.84	7,035.10	73.93	35.68	-90.00	-2,091.25	-8,393.68	5,919.19	5,851.89	67.30	87.951		
9,400.00	7,057.51	7,168.19	7,036.44	76.51	35.68	-90.07	-2,091.14	-8,393.70	5,820.96	5,753.45	67.51	86.219		
9,500.00	7,057.12	7,169.53	7,037.79	79.11	35.69	-90.14	-2,091.03	-8,393.73	5,722.79	5,655.04	67.75	84.471		
9,600.00	7,056.73	7,170.88	7,039.13	81.73	35.69	-90.21	-2,090.93	-8,393.76	5,624.69	5,556.68	68.01	82.706		
9,700.00	7,056.33	7,172.23	7,040.47	84.37	35.70	-90.28	-2,090.82	-8,393.78	5,526.65	5,458.36	68.29	80.925		
9,800.00	7,055.94	7,173.57	7,041.81	87.01	35.70	-90.35	-2,090.71	-8,393.81	5,428.69	5,360.08	68.61	79.128		
9,900.00	7,055.55	7,174.92	7,043.15	89.68	35.71	-90.42	-2,090.61	-8,393.84	5,330.80	5,261.85	68.95	77.315		
10,000.00	7,055.15	7,176.26	7,044.49	92.35	35.72	-90.49	-2,090.50	-8,393.86	5,232.99	5,163.67	69.32	75.486		
10,100.00	7,054.76	7,177.60	7,045.83	95.03	35.72	-90.56	-2,090.39	-8,393.89	5,135.27	5,065.53	69.73	73.643		
10,200.00	7,054.37	7,178.95	7,047.17	97.73	35.73	-90.63	-2,090.29	-8,393.91	5,037.63	4,967.45	70.18	71.785		
10,300.00	7,053.98	7,180.29	7,048.51	100.43	35.73	-90.70	-2,090.18	-8,393.94	4,940.09	4,869.43	70.66	69.913		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
10,400.00	7,053.58	7,181.63	7,049.84	103.14	35.74	-90.77	-2,090.08	-8,393.97	4,842.65	4,771.46	71.19	68.029	
10,500.00	7,053.19	7,182.97	7,051.18	105.86	35.74	-90.84	-2,089.97	-8,393.99	4,745.31	4,673.55	71.75	66.133	
10,600.00	7,052.80	7,184.31	7,052.52	108.59	35.75	-90.91	-2,089.87	-8,394.02	4,648.09	4,575.71	72.37	64.226	
10,700.00	7,052.40	7,185.65	7,053.85	111.32	35.75	-90.98	-2,089.76	-8,394.05	4,550.98	4,477.94	73.04	62.310	
10,800.00	7,052.01	7,186.99	7,055.19	114.06	35.76	-91.05	-2,089.66	-8,394.07	4,454.00	4,380.25	73.76	60.386	
10,900.00	7,051.62	7,188.33	7,056.52	116.80	35.76	-91.12	-2,089.56	-8,394.10	4,357.16	4,282.63	74.54	58.456	
11,000.00	7,051.22	7,189.67	7,057.85	119.55	35.77	-91.19	-2,089.45	-8,394.13	4,260.47	4,185.09	75.38	56.521	
11,100.00	7,050.83	7,191.00	7,059.19	122.31	35.78	-91.26	-2,089.35	-8,394.15	4,163.93	4,087.65	76.29	54.584	
11,200.00	7,050.44	7,192.34	7,060.52	125.07	35.78	-91.33	-2,089.25	-8,394.18	4,067.56	3,990.30	77.26	52.646	
11,300.00	7,050.04	7,193.67	7,061.85	127.83	35.79	-91.40	-2,089.15	-8,394.20	3,971.37	3,893.05	78.32	50.710	
11,400.00	7,049.65	7,195.01	7,063.18	130.60	35.79	-91.47	-2,089.04	-8,394.23	3,875.36	3,795.91	79.45	48.777	
11,500.00	7,049.26	7,196.34	7,064.51	133.37	35.80	-91.54	-2,088.94	-8,394.26	3,779.57	3,698.90	80.67	46.852	
11,600.00	7,048.86	7,197.68	7,065.84	136.15	35.80	-91.61	-2,088.84	-8,394.28	3,684.00	3,602.01	81.99	44.935	
11,700.00	7,048.47	7,199.01	7,067.17	138.93	35.81	-91.68	-2,088.74	-8,394.31	3,588.67	3,505.27	83.40	43.030	
11,800.00	7,048.08	7,200.34	7,068.49	141.71	35.81	-91.75	-2,088.64	-8,394.33	3,493.60	3,408.68	84.92	41.140	
11,900.00	7,047.68	7,201.67	7,069.82	144.49	35.82	-91.82	-2,088.54	-8,394.36	3,398.81	3,312.25	86.56	39.267	
12,000.00	7,047.29	7,203.00	7,071.15	147.28	35.82	-91.88	-2,088.44	-8,394.39	3,304.33	3,216.01	88.32	37.414	
12,100.00	7,046.90	7,204.33	7,072.47	150.07	35.83	-91.95	-2,088.34	-8,394.41	3,210.18	3,119.97	90.21	35.585	
12,200.00	7,046.51	7,205.66	7,073.80	152.87	35.83	-92.02	-2,088.24	-8,394.44	3,116.40	3,024.15	92.25	33.782	
12,300.00	7,046.11	7,206.99	7,075.12	155.66	35.84	-92.09	-2,088.14	-8,394.46	3,023.01	2,928.57	94.45	32.008	
12,400.00	7,045.72	7,208.32	7,076.45	158.46	35.85	-92.16	-2,088.04	-8,394.49	2,930.06	2,833.26	96.81	30.267	
12,500.00	7,045.33	7,209.65	7,077.77	161.26	35.85	-92.23	-2,087.94	-8,394.52	2,837.59	2,738.24	99.35	28.560	
12,600.00	7,044.93	7,210.97	7,079.09	164.06	35.86	-92.30	-2,087.84	-8,394.54	2,745.65	2,643.55	102.10	26.893	
12,700.00	7,044.54	7,212.30	7,080.42	166.86	35.86	-92.37	-2,087.74	-8,394.57	2,654.29	2,549.24	105.05	25.266	
12,800.00	7,044.15	7,213.62	7,081.74	169.67	35.87	-92.44	-2,087.64	-8,394.59	2,563.57	2,455.33	108.24	23.684	
12,900.00	7,043.75	7,214.95	7,083.06	172.48	35.87	-92.51	-2,087.55	-8,394.62	2,473.57	2,361.88	111.68	22.148	
13,000.00	7,043.36	7,216.27	7,084.38	175.28	35.88	-92.58	-2,087.45	-8,394.65	2,384.36	2,268.96	115.40	20.661	
13,100.00	7,042.97	7,217.59	7,085.70	178.09	35.88	-92.65	-2,087.35	-8,394.67	2,296.04	2,176.63	119.42	19.227	
13,200.00	7,042.57	7,218.92	7,087.02	180.91	35.89	-92.72	-2,087.25	-8,394.70	2,208.72	2,084.97	123.76	17.847	
13,300.00	7,042.18	7,220.24	7,088.33	183.72	35.89	-92.78	-2,087.16	-8,394.72	2,122.52	1,994.07	128.45	16.524	
13,400.00	7,041.79	7,221.56	7,089.65	186.53	35.90	-92.85	-2,087.06	-8,394.75	2,037.57	1,904.05	133.52	15.260	
13,500.00	7,041.39	7,222.88	7,090.97	189.35	35.90	-92.92	-2,086.96	-8,394.78	1,954.05	1,815.05	139.01	14.057	
13,600.00	7,041.00	7,224.20	7,092.28	192.17	35.91	-92.99	-2,086.87	-8,394.80	1,872.15	1,727.22	144.93	12.917	
13,700.00	7,040.61	7,225.52	7,093.60	194.99	35.92	-93.06	-2,086.77	-8,394.83	1,792.08	1,640.75	151.33	11.842	
13,800.00	7,040.21	7,226.84	7,094.91	197.81	35.92	-93.13	-2,086.68	-8,394.85	1,714.11	1,555.88	158.23	10.833	
13,900.00	7,039.82	7,228.16	7,096.23	200.63	35.93	-93.20	-2,086.58	-8,394.88	1,638.53	1,472.88	165.65	9.891	
14,000.00	7,039.43	7,229.47	7,097.54	203.45	35.93	-93.27	-2,086.49	-8,394.90	1,565.69	1,392.09	173.60	9.019	
14,100.00	7,039.03	7,230.79	7,098.86	206.27	35.94	-93.33	-2,086.39	-8,394.93	1,495.99	1,313.91	182.08	8.216	
14,200.00	7,038.64	7,232.11	7,100.17	209.09	35.94	-93.40	-2,086.30	-8,394.96	1,429.88	1,238.84	191.05	7.484	
14,300.00	7,038.25	7,233.42	7,101.48	211.92	35.95	-93.47	-2,086.20	-8,394.98	1,367.90	1,167.45	200.45	6.824	
14,400.00	7,037.86	7,234.74	7,102.79	214.74	35.95	-93.54	-2,086.11	-8,395.01	1,310.63	1,100.43	210.19	6.235	
14,500.00	7,037.46	7,236.05	7,104.10	217.57	35.96	-93.61	-2,086.01	-8,395.03	1,258.70	1,038.60	220.10	5.719	
14,600.00	7,037.07	7,237.36	7,105.41	220.40	35.96	-93.68	-2,085.92	-8,395.06	1,212.81	982.84	229.96	5.274	
14,700.00	7,036.68	7,238.68	7,106.72	223.23	35.97	-93.75	-2,085.83	-8,395.08	1,173.66	934.17	239.49	4.901	
14,800.00	7,036.28	7,239.99	7,108.03	226.05	35.97	-93.82	-2,085.74	-8,395.11	1,141.95	893.59	248.36	4.598	
14,871.88	7,036.00	7,240.93	7,108.97	228.09	35.98	-93.86	-2,085.67	-8,395.13	1,124.11	869.99	254.11	4.424 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	29.00	3.28	3.28	-81.80	1,317.93	-9,143.35	9,237.89					
100.00	100.00	71.00	100.00	3.28	3.51	-81.80	1,317.93	-9,143.35	9,237.84	9,231.05	6.79	1,360.299		
200.00	200.00	171.00	200.00	3.34	5.35	-81.80	1,317.93	-9,143.35	9,237.84	9,229.16	8.69	1,063.646		
300.00	300.00	271.00	300.00	3.44	8.38	-81.80	1,317.93	-9,143.35	9,237.84	9,226.02	11.83	780.995		
400.00	399.98	370.98	399.98	3.60	11.68	88.36	1,317.93	-9,143.35	9,237.79	9,222.52	15.27	604.935		
500.00	499.84	470.84	499.84	3.79	15.05	88.40	1,317.93	-9,143.35	9,237.65	9,218.81	18.84	490.407		
600.00	599.45	570.45	599.45	4.02	18.46	88.46	1,317.93	-9,143.35	9,237.41	9,214.93	22.48	410.972		
700.00	698.70	669.70	698.70	4.29	21.88	88.54	1,317.93	-9,143.35	9,237.08	9,210.92	26.17	353.030		
800.00	797.70	768.70	797.70	4.59	25.30	88.63	1,317.93	-9,143.35	9,236.73	9,206.84	29.89	309.018		
900.00	896.69	867.69	896.69	4.92	28.73	88.71	1,317.93	-9,143.35	9,236.40	9,202.75	33.65	274.471		
1,000.00	995.68	966.68	995.68	5.27	32.17	88.80	1,317.93	-9,143.35	9,236.09	9,198.65	37.44	246.688		
1,100.00	1,094.68	1,065.68	1,094.68	5.64	35.61	88.89	1,317.93	-9,143.35	9,235.80	9,194.55	41.25	223.894		
1,200.00	1,193.67	1,164.67	1,193.67	6.03	39.05	88.98	1,317.93	-9,143.35	9,235.54	9,190.46	45.08	204.876		
1,300.00	1,292.67	1,263.67	1,292.67	6.42	42.50	89.06	1,317.93	-9,143.35	9,235.29	9,186.37	48.92	188.780		
1,400.00	1,391.66	1,362.66	1,391.66	6.83	45.94	89.15	1,317.93	-9,143.35	9,235.07	9,182.29	52.77	174.991		
1,500.00	1,490.66	1,461.66	1,490.66	7.25	49.39	89.24	1,317.93	-9,143.35	9,234.87	9,178.23	56.64	163.051		
1,600.00	1,589.65	1,560.65	1,589.65	7.67	52.84	89.32	1,317.93	-9,143.35	9,234.69	9,174.18	60.51	152.617		
1,700.00	1,688.64	1,659.64	1,688.64	8.10	56.29	89.41	1,317.93	-9,143.35	9,234.53	9,170.14	64.39	143.422		
1,800.00	1,787.64	1,758.64	1,787.64	8.53	59.74	89.50	1,317.93	-9,143.35	9,234.39	9,166.12	68.27	135.262		
1,900.00	1,886.63	1,857.63	1,886.63	8.97	63.19	89.58	1,317.93	-9,143.35	9,234.28	9,162.12	72.16	127.971		
2,000.00	1,985.63	1,956.63	1,985.63	9.41	66.64	89.67	1,317.93	-9,143.35	9,234.18	9,158.13	76.05	121.420		
2,100.00	2,084.62	2,055.62	2,084.62	9.85	70.09	89.76	1,317.93	-9,143.35	9,234.11	9,154.16	79.95	115.502		
2,200.00	2,183.61	2,154.61	2,183.61	10.30	73.55	89.84	1,317.93	-9,143.35	9,234.06	9,150.22	83.85	110.130		
2,300.00	2,282.61	2,253.61	2,282.61	10.75	77.00	89.93	1,317.93	-9,143.35	9,234.03	9,146.29	87.75	105.233		
2,379.44	2,361.25	2,332.25	2,361.25	11.11	79.74	90.00	1,317.93	-9,143.35	9,234.03	9,143.18	90.85	101.640		
2,400.00	2,381.60	2,352.60	2,381.60	11.20	80.45	90.02	1,317.93	-9,143.35	9,234.03	9,142.38	91.65	100.750		
2,500.00	2,480.60	2,451.60	2,480.60	11.66	83.90	90.10	1,317.93	-9,143.35	9,234.04	9,138.48	95.56	96.631		
2,600.00	2,579.59	2,550.59	2,579.59	12.11	87.36	90.19	1,317.93	-9,143.35	9,234.08	9,134.61	99.47	92.835		
2,700.00	2,678.58	2,649.58	2,678.58	12.57	90.81	90.28	1,317.93	-9,143.35	9,234.14	9,130.76	103.38	89.324		
2,800.00	2,777.58	2,748.58	2,777.58	13.02	94.26	90.37	1,317.93	-9,143.35	9,234.22	9,126.93	107.29	86.068		
2,900.00	2,876.57	2,847.57	2,876.57	13.48	97.72	90.45	1,317.93	-9,143.35	9,234.32	9,123.12	111.20	83.041		
3,000.00	2,975.57	2,946.57	2,975.57	13.94	101.17	90.54	1,317.93	-9,143.35	9,234.45	9,119.33	115.12	80.218		
3,100.00	3,074.56	3,045.56	3,074.56	14.40	104.63	90.63	1,317.93	-9,143.35	9,234.59	9,115.56	119.03	77.581		
3,200.00	3,173.55	3,144.55	3,173.55	14.87	108.08	90.71	1,317.93	-9,143.35	9,234.76	9,111.81	122.95	75.111		
3,300.00	3,272.55	3,243.55	3,272.55	15.33	111.54	90.80	1,317.93	-9,143.35	9,234.95	9,108.08	126.86	72.794		
3,400.00	3,371.54	3,342.54	3,371.54	15.79	114.99	90.89	1,317.93	-9,143.35	9,235.16	9,104.37	130.78	70.615		
3,500.00	3,470.54	3,441.54	3,470.54	16.26	118.44	90.97	1,317.93	-9,143.35	9,235.39	9,100.69	134.70	68.562		
3,600.00	3,569.53	3,540.53	3,569.53	16.72	121.90	91.06	1,317.93	-9,143.35	9,235.64	9,097.02	138.62	66.626		
3,700.00	3,668.53	3,639.53	3,668.53	17.19	125.35	91.15	1,317.93	-9,143.35	9,235.92	9,093.38	142.54	64.795		
3,800.00	3,767.52	3,738.52	3,767.52	17.65	128.81	91.23	1,317.93	-9,143.35	9,236.21	9,089.75	146.46	63.063		
3,900.00	3,866.51	3,837.51	3,866.51	18.12	132.26	91.32	1,317.93	-9,143.35	9,236.53	9,086.15	150.38	61.421		
4,000.00	3,965.51	3,936.51	3,965.51	18.59	135.72	91.41	1,317.93	-9,143.35	9,236.87	9,082.57	154.30	59.862		
4,100.00	4,064.50	4,035.50	4,064.50	19.05	139.17	91.49	1,317.93	-9,143.35	9,237.24	9,079.01	158.22	58.381		
4,200.00	4,163.50	4,134.50	4,163.50	19.52	142.63	91.58	1,317.93	-9,143.35	9,237.62	9,075.47	162.15	56.971		
4,300.00	4,262.49	4,233.49	4,262.49	19.99	146.08	91.67	1,317.93	-9,143.35	9,238.02	9,071.96	166.07	55.627		
4,400.00	4,361.48	4,332.48	4,361.48	20.46	149.54	91.76	1,317.93	-9,143.35	9,238.45	9,068.46	169.99	54.346		
4,500.00	4,460.48	4,431.48	4,460.48	20.92	152.99	91.84	1,317.93	-9,143.35	9,238.90	9,064.98	173.92	53.123		
4,600.00	4,559.47	4,530.47	4,559.47	21.39	156.45	91.93	1,317.93	-9,143.35	9,239.37	9,061.53	177.84	51.953		
4,700.00	4,658.47	4,629.47	4,658.47	21.86	159.90	92.02	1,317.93	-9,143.35	9,239.86	9,058.10	181.76	50.834		
4,800.00	4,757.46	4,728.46	4,757.46	22.33	163.36	92.10	1,317.93	-9,143.35	9,240.38	9,054.69	185.69	49.763		
4,900.00	4,856.45	4,827.45	4,856.45	22.80	166.81	92.19	1,317.93	-9,143.35	9,240.91	9,051.30	189.61	48.736		
5,000.00	4,955.45	4,926.45	4,955.45	23.27	170.27	92.28	1,317.93	-9,143.35	9,241.47	9,047.93	193.54	47.750		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,054.44	5,025.44	5,054.44	23.74	173.72	92.36	1,317.93	-9,143.35	9,242.05	9,044.58	197.46	46.804		
5,200.00	5,153.44	5,124.44	5,153.44	24.21	177.18	92.45	1,317.93	-9,143.35	9,242.65	9,041.26	201.39	45.895		
5,300.00	5,252.43	5,223.43	5,252.43	24.68	180.63	92.54	1,317.93	-9,143.35	9,243.27	9,037.96	205.31	45.020		
5,400.00	5,351.42	5,322.42	5,351.42	25.15	184.09	92.62	1,317.93	-9,143.35	9,243.91	9,034.67	209.24	44.179		
5,500.00	5,450.42	5,421.42	5,450.42	25.62	187.55	92.71	1,317.93	-9,143.35	9,244.58	9,031.41	213.16	43.368		
5,600.00	5,549.41	5,520.41	5,549.41	26.09	191.00	92.80	1,317.93	-9,143.35	9,245.26	9,028.17	217.09	42.587		
5,700.00	5,648.41	5,619.41	5,648.41	26.56	194.46	92.88	1,317.93	-9,143.35	9,245.97	9,024.95	221.02	41.834		
5,800.00	5,747.40	5,718.40	5,747.40	27.03	197.91	92.97	1,317.93	-9,143.35	9,246.70	9,021.76	224.94	41.107		
5,900.00	5,846.40	5,817.40	5,846.40	27.51	201.37	93.06	1,317.93	-9,143.35	9,247.45	9,018.58	228.87	40.405		
6,000.00	5,945.39	5,916.39	5,945.39	27.98	204.82	93.14	1,317.93	-9,143.35	9,248.22	9,015.43	232.80	39.727		
6,100.00	6,044.38	6,015.38	6,044.38	28.45	208.28	93.23	1,317.93	-9,143.35	9,249.02	9,012.30	236.72	39.071		
6,200.00	6,143.38	6,114.38	6,143.38	28.92	211.73	93.32	1,317.93	-9,143.35	9,249.84	9,009.19	240.65	38.437		
6,300.00	6,242.37	6,213.37	6,242.37	29.39	215.19	93.40	1,317.93	-9,143.35	9,250.67	9,006.10	244.58	37.823		
6,400.00	6,341.37	6,312.37	6,341.37	29.86	218.64	93.49	1,317.93	-9,143.35	9,251.53	9,003.03	248.50	37.229		
6,500.00	6,440.36	6,411.36	6,440.36	30.34	222.10	93.58	1,317.93	-9,143.35	9,252.41	8,999.98	252.43	36.653		
6,600.00	6,538.90	6,509.90	6,538.90	30.80	225.54	93.67	1,317.93	-9,143.35	9,253.30	8,997.06	256.34	36.074		
6,700.00	6,637.89	6,608.89	6,637.89	31.25	228.99	93.76	1,317.93	-9,143.35	9,254.20	8,994.15	260.24	35.499		
6,800.00	6,736.88	6,707.88	6,736.88	31.68	232.44	93.85	1,317.93	-9,143.35	9,255.10	8,991.24	264.15	34.925		
6,900.00	6,835.87	6,806.87	6,835.87	32.09	235.89	93.94	1,317.93	-9,143.35	9,256.00	8,988.33	268.06	34.351		
7,000.00	6,934.86	6,905.86	6,934.86	32.49	239.34	94.03	1,317.93	-9,143.35	9,256.90	8,985.42	271.97	33.777		
7,100.00	7,033.85	7,004.85	7,033.85	32.88	242.79	94.12	1,317.93	-9,143.35	9,257.80	8,982.51	275.88	33.203		
7,200.00	7,132.84	7,103.84	7,132.84	33.25	246.24	94.21	1,317.93	-9,143.35	9,258.70	8,979.60	279.79	32.629		
7,300.00	7,231.83	7,202.83	7,231.83	33.62	249.69	94.30	1,317.93	-9,143.35	9,259.60	8,976.69	283.70	32.055		
7,400.00	7,330.82	7,301.82	7,330.82	33.99	253.14	94.39	1,317.93	-9,143.35	9,260.50	8,973.78	287.61	31.481		
7,500.00	7,429.81	7,400.81	7,429.81	34.36	256.59	94.48	1,317.93	-9,143.35	9,261.40	8,970.87	291.52	30.907		
7,600.00	7,528.80	7,499.80	7,528.80	34.73	260.04	94.57	1,317.93	-9,143.35	9,262.30	8,967.96	295.43	30.333		
7,700.00	7,627.79	7,598.79	7,627.79	35.09	263.49	94.66	1,317.93	-9,143.35	9,263.20	8,965.05	299.34	29.759		
7,800.00	7,726.78	7,697.78	7,726.78	35.46	266.94	94.75	1,317.93	-9,143.35	9,264.10	8,962.14	303.25	29.185		
7,900.00	7,825.77	7,796.77	7,825.77	35.83	270.39	94.84	1,317.93	-9,143.35	9,265.00	8,959.23	307.16	28.611		
8,000.00	7,924.76	7,895.76	7,924.76	36.19	273.84	94.93	1,317.93	-9,143.35	9,265.90	8,956.32	311.07	28.037		
8,100.00	8,023.75	8,000.00	8,023.75	36.56	277.29	95.02	1,317.93	-9,143.35	9,266.80	8,953.41	314.98	27.463		
8,200.00	8,122.74	8,100.00	8,122.74	36.93	280.74	95.11	1,317.93	-9,143.35	9,267.70	8,950.50	318.89	26.889		
8,300.00	8,221.73	8,200.00	8,221.73	37.30	284.19	95.20	1,317.93	-9,143.35	9,268.60	8,947.59	322.80	26.315		
8,400.00	8,320.72	8,300.00	8,320.72	37.67	287.64	95.29	1,317.93	-9,143.35	9,269.50	8,944.68	326.71	25.741		
8,500.00	8,419.71	8,400.00	8,419.71	38.04	291.09	95.38	1,317.93	-9,143.35	9,270.40	8,941.77	330.62	25.167		
8,600.00	8,518.70	8,500.00	8,518.70	38.41	294.54	95.47	1,317.93	-9,143.35	9,271.30	8,938.86	334.53	24.593		
8,700.00	8,617.69	8,600.00	8,617.69	38.78	297.99	95.56	1,317.93	-9,143.35	9,272.20	8,935.95	338.44	24.019		
8,800.00	8,716.68	8,700.00	8,716.68	39.15	301.44	95.65	1,317.93	-9,143.35	9,273.10	8,933.04	342.35	23.445		
8,900.00	8,815.67	8,800.00	8,815.67	39.52	304.89	95.74	1,317.93	-9,143.35	9,274.00	8,930.13	346.26	22.871		
9,000.00	8,914.66	8,900.00	8,914.66	39.89	308.34	95.83	1,317.93	-9,143.35	9,274.90	8,927.22	350.17	22.297		
9,100.00	9,013.65	9,000.00	9,013.65	40.26	311.79	95.92	1,317.93	-9,143.35	9,275.80	8,924.31	354.08	21.723		
9,200.00	9,112.64	9,100.00	9,112.64	40.63	315.24	96.01	1,317.93	-9,143.35	9,276.70	8,921.40	357.99	21.149		
9,300.00	9,211.63	9,200.00	9,211.63	41.00	318.69	96.10	1,317.93	-9,143.35	9,277.60	8,918.49	361.90	20.575		
9,400.00	9,310.62	9,300.00	9,310.62	41.37	322.14	96.19	1,317.93	-9,143.35	9,278.50	8,915.58	365.81	20.001		
9,500.00	9,409.61	9,400.00	9,409.61	41.74	325.59	96.28	1,317.93	-9,143.35	9,279.40	8,912.67	369.72	19.427		
9,600.00	9,508.60	9,500.00	9,508.60	42.11	329.04	96.37	1,317.93	-9,143.35	9,280.30	8,909.76	373.63	18.853		
9,700.00	9,607.59	9,600.00	9,607.59	42.48	332.49	96.46	1,317.93	-9,143.35	9,281.20	8,906.85	377.54	18.279		
9,800.00	9,706.58	9,700.00	9,706.58	42.85	335.94	96.55	1,317.93	-9,143.35	9,282.10	8,903.94	381.45	17.705		
9,900.00	9,805.57	9,800.00	9,805.57	43.22	339.39	96.64	1,317.93	-9,143.35	9,283.00	8,901.03	385.36	17.131		
10,000.00	9,904.56	9,900.00	9,904.56	43.59	342.84	96.73	1,317.93	-9,143.35	9,283.90	8,898.12	389.27	16.557		
10,100.00	10,003.55	10,000.00	10,003.55	43.96	346.29	96.82	1,317.93	-9,143.35	9,284.80	8,895.21	393.18	15.983		
10,200.00	10,102.54	10,100.00	10,102.54	44.33	349.74	96.91	1,317.93	-9,143.35	9,285.70	8,892.30	397.09	15.409		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,053.98	7,024.98	7,053.98	100.43	243.52	90.54	1,317.93	-9,143.35	6,002.40	5,706.62	295.78	20.293		
10,400.00	7,053.58	7,024.58	7,053.58	103.14	243.51	90.53	1,317.93	-9,143.35	5,910.26	5,613.17	297.09	19.894		
10,500.00	7,053.19	7,024.19	7,053.19	105.86	243.49	90.52	1,317.93	-9,143.35	5,818.39	5,519.92	298.46	19.494		
10,600.00	7,052.80	7,023.80	7,052.80	108.59	243.48	90.51	1,317.93	-9,143.35	5,726.78	5,426.89	299.90	19.096		
10,700.00	7,052.40	7,023.40	7,052.40	111.32	243.46	90.50	1,317.93	-9,143.35	5,635.46	5,334.07	301.39	18.698		
10,800.00	7,052.01	7,023.01	7,052.01	114.06	243.45	90.49	1,317.93	-9,143.35	5,544.44	5,241.49	302.96	18.301		
10,900.00	7,051.62	7,022.62	7,051.62	116.80	243.44	90.48	1,317.93	-9,143.35	5,453.74	5,149.15	304.59	17.905		
11,000.00	7,051.22	7,022.22	7,051.22	119.55	243.42	90.47	1,317.93	-9,143.35	5,363.36	5,057.07	306.29	17.510		
11,100.00	7,050.83	7,021.83	7,050.83	122.31	243.41	90.46	1,317.93	-9,143.35	5,273.34	4,965.26	308.07	17.117		
11,200.00	7,050.44	7,021.44	7,050.44	125.07	243.40	90.45	1,317.93	-9,143.35	5,183.67	4,873.75	309.93	16.725		
11,300.00	7,050.04	7,021.04	7,050.04	127.83	243.38	90.44	1,317.93	-9,143.35	5,094.40	4,782.54	311.86	16.336		
11,400.00	7,049.65	7,020.65	7,049.65	130.60	243.37	90.43	1,317.93	-9,143.35	5,005.53	4,691.65	313.88	15.947		
11,500.00	7,049.26	7,020.26	7,049.26	133.37	243.35	90.42	1,317.93	-9,143.35	4,917.08	4,601.10	315.98	15.562		
11,600.00	7,048.86	7,019.86	7,048.86	136.15	243.34	90.41	1,317.93	-9,143.35	4,829.09	4,510.92	318.16	15.178		
11,700.00	7,048.47	7,019.47	7,048.47	138.93	243.33	90.40	1,317.93	-9,143.35	4,741.57	4,421.13	320.44	14.797		
11,800.00	7,048.08	7,019.08	7,048.08	141.71	243.31	90.39	1,317.93	-9,143.35	4,654.56	4,331.74	322.82	14.418		
11,900.00	7,047.68	7,018.68	7,047.68	144.49	243.30	90.38	1,317.93	-9,143.35	4,568.07	4,242.78	325.29	14.043		
12,000.00	7,047.29	7,018.29	7,047.29	147.28	243.29	90.37	1,317.93	-9,143.35	4,482.15	4,154.29	327.87	13.671		
12,100.00	7,046.90	7,017.90	7,046.90	150.07	243.27	90.36	1,317.93	-9,143.35	4,396.83	4,066.28	330.55	13.302		
12,200.00	7,046.51	7,017.51	7,046.51	152.87	243.26	90.35	1,317.93	-9,143.35	4,312.14	3,978.80	333.34	12.936		
12,300.00	7,046.11	7,017.11	7,046.11	155.66	243.24	90.34	1,317.93	-9,143.35	4,228.11	3,891.87	336.24	12.575		
12,400.00	7,045.72	7,016.72	7,045.72	158.46	243.23	90.33	1,317.93	-9,143.35	4,144.80	3,805.53	339.26	12.217		
12,500.00	7,045.33	7,016.33	7,045.33	161.26	243.22	90.32	1,317.93	-9,143.35	4,062.23	3,719.83	342.40	11.864		
12,600.00	7,044.93	7,015.93	7,044.93	164.06	243.20	90.32	1,317.93	-9,143.35	3,980.47	3,634.80	345.67	11.515		
12,700.00	7,044.54	7,015.54	7,044.54	166.86	243.19	90.31	1,317.93	-9,143.35	3,899.56	3,550.49	349.07	11.171		
12,800.00	7,044.15	7,015.15	7,044.15	169.67	243.18	90.30	1,317.93	-9,143.35	3,819.55	3,466.95	352.60	10.833		
12,900.00	7,043.75	7,014.75	7,043.75	172.48	243.16	90.29	1,317.93	-9,143.35	3,740.50	3,384.24	356.26	10.499		
13,000.00	7,043.36	7,014.36	7,043.36	175.28	243.15	90.28	1,317.93	-9,143.35	3,662.48	3,302.41	360.07	10.172		
13,100.00	7,042.97	7,013.97	7,042.97	178.09	243.13	90.27	1,317.93	-9,143.35	3,585.55	3,221.52	364.02	9.850		
13,200.00	7,042.57	7,013.57	7,042.57	180.91	243.12	90.26	1,317.93	-9,143.35	3,509.78	3,141.66	368.12	9.534		
13,300.00	7,042.18	7,013.18	7,042.18	183.72	243.11	90.25	1,317.93	-9,143.35	3,435.25	3,062.89	372.36	9.226		
13,400.00	7,041.79	7,012.79	7,041.79	186.53	243.09	90.24	1,317.93	-9,143.35	3,362.04	2,985.28	376.76	8.924		
13,500.00	7,041.39	7,012.39	7,041.39	189.35	243.08	90.23	1,317.93	-9,143.35	3,290.25	2,908.94	381.31	8.629		
13,600.00	7,041.00	7,012.00	7,041.00	192.17	243.07	90.22	1,317.93	-9,143.35	3,219.96	2,833.96	386.00	8.342		
13,700.00	7,040.61	7,011.61	7,040.61	194.99	243.05	90.21	1,317.93	-9,143.35	3,151.28	2,760.43	390.85	8.063		
13,800.00	7,040.21	7,011.21	7,040.21	197.81	243.04	90.20	1,317.93	-9,143.35	3,084.30	2,688.47	395.84	7.792		
13,900.00	7,039.82	7,010.82	7,039.82	200.63	243.02	90.19	1,317.93	-9,143.35	3,019.16	2,618.19	400.97	7.530		
14,000.00	7,039.43	7,010.43	7,039.43	203.45	243.01	90.18	1,317.93	-9,143.35	2,955.97	2,549.74	406.23	7.277		
14,100.00	7,039.03	7,010.03	7,039.03	206.27	243.00	90.17	1,317.93	-9,143.35	2,894.85	2,483.23	411.61	7.033		
14,200.00	7,038.64	7,009.64	7,038.64	209.09	242.98	90.16	1,317.93	-9,143.35	2,835.94	2,418.83	417.10	6.799		
14,300.00	7,038.25	7,009.25	7,038.25	211.92	242.97	90.15	1,317.93	-9,143.35	2,779.38	2,356.68	422.69	6.575		
14,400.00	7,037.86	7,008.86	7,037.86	214.74	242.96	90.14	1,317.93	-9,143.35	2,725.31	2,296.96	428.35	6.362		
14,500.00	7,037.46	7,008.46	7,037.46	217.57	242.94	90.13	1,317.93	-9,143.35	2,673.90	2,239.83	434.07	6.160		
14,600.00	7,037.07	7,008.07	7,037.07	220.40	242.93	90.12	1,317.93	-9,143.35	2,625.28	2,185.47	439.81	5.969		
14,700.00	7,036.68	7,007.68	7,036.68	223.23	242.92	90.11	1,317.93	-9,143.35	2,579.63	2,134.08	445.55	5.790		
14,800.00	7,036.28	7,007.28	7,036.28	226.05	242.90	90.10	1,317.93	-9,143.35	2,537.11	2,085.86	451.25	5.622		
14,871.88	7,036.00	7,007.00	7,036.00	228.09	242.89	90.09	1,317.93	-9,143.35	2,508.55	2,053.25	455.30	5.510 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	15.36	1.36	3.28	3.28	2.88	2,364.33	118.75	2,367.31					
100.00	100.00	125.93	111.93	3.28	3.30	2.87	2,364.05	118.37	2,367.04	2,360.46	6.58	359.675		
200.00	200.00	234.93	220.92	3.34	3.37	2.86	2,363.24	118.24	2,366.29	2,359.58	6.71	352.538		
300.00	300.00	332.08	318.07	3.44	3.50	2.86	2,362.39	118.21	2,365.42	2,358.48	6.94	340.777		
319.83	319.83	350.09	336.08	3.47	3.52	173.01	2,362.27	118.15	2,365.34	2,358.35	7.00	338.146	CC, ES	
400.00	399.98	422.46	408.45	3.60	3.65	173.00	2,361.91	117.66	2,366.58	2,359.34	7.24	326.695		
500.00	499.84	511.75	497.74	3.79	3.83	172.99	2,361.83	116.88	2,371.65	2,364.03	7.62	311.299		
600.00	599.45	603.07	589.05	4.02	4.05	172.97	2,362.11	116.01	2,380.56	2,372.49	8.07	295.071		
700.00	698.70	692.39	678.37	4.29	4.28	172.96	2,362.71	115.57	2,393.30	2,384.73	8.57	279.236		
800.00	797.70	812.64	798.62	4.59	4.63	173.01	2,363.25	115.61	2,407.79	2,398.58	9.21	261.425		
900.00	896.69	893.62	879.59	4.92	4.88	173.04	2,363.61	115.78	2,422.25	2,412.48	9.77	247.816		
1,000.00	995.68	1,013.83	999.81	5.27	5.27	173.10	2,363.97	116.11	2,436.62	2,426.12	10.50	232.050		
1,100.00	1,094.68	1,109.03	1,095.00	5.64	5.59	173.15	2,363.92	116.57	2,450.64	2,439.47	11.18	219.291		
1,200.00	1,193.67	1,201.43	1,187.40	6.03	5.91	173.20	2,364.01	117.30	2,464.83	2,452.97	11.86	207.761		
1,300.00	1,292.67	1,316.86	1,302.82	6.42	6.33	173.26	2,363.88	118.00	2,478.80	2,466.15	12.66	195.825		
1,400.00	1,391.66	1,405.36	1,391.33	6.83	6.66	173.30	2,363.80	118.09	2,492.76	2,479.39	13.37	186.469		
1,500.00	1,490.66	1,517.90	1,503.87	7.25	7.08	173.35	2,363.48	118.31	2,506.55	2,492.36	14.19	176.687		
1,600.00	1,589.65	1,623.50	1,609.46	7.67	7.48	173.39	2,362.74	118.46	2,519.92	2,504.93	14.99	168.099		
1,700.00	1,688.64	1,723.47	1,709.43	8.10	7.87	173.42	2,361.99	118.09	2,533.20	2,517.42	15.78	160.500		
1,800.00	1,787.64	1,823.60	1,809.55	8.53	8.26	173.44	2,361.11	117.30	2,546.35	2,529.76	16.59	153.529		
1,900.00	1,886.63	1,912.58	1,898.53	8.97	8.61	173.46	2,360.62	116.54	2,559.81	2,542.46	17.35	147.555		
2,000.00	1,985.63	2,021.70	2,007.64	9.41	9.04	173.48	2,359.84	115.72	2,573.10	2,554.90	18.20	141.358		
2,100.00	2,084.62	2,108.94	2,094.88	9.85	9.39	173.49	2,359.36	114.70	2,586.55	2,567.58	18.97	136.355		
2,200.00	2,183.61	2,200.62	2,186.54	10.30	9.76	173.50	2,359.20	113.62	2,600.36	2,580.60	19.76	131.606		
2,300.00	2,282.61	2,279.88	2,265.80	10.75	10.08	173.51	2,359.45	112.93	2,614.68	2,594.19	20.50	127.574		
2,400.00	2,381.60	2,365.42	2,351.33	11.20	10.43	173.52	2,360.29	112.16	2,629.66	2,608.40	21.26	123.677		
2,500.00	2,480.60	2,450.21	2,436.11	11.66	10.77	173.52	2,361.55	110.93	2,645.10	2,623.07	22.03	120.079		
2,600.00	2,579.59	2,534.34	2,520.21	12.11	11.12	173.52	2,363.29	109.69	2,661.11	2,638.32	22.79	116.756		
2,700.00	2,678.58	2,630.25	2,616.07	12.57	11.51	173.52	2,365.71	108.17	2,677.57	2,653.95	23.61	113.388		
2,800.00	2,777.58	2,741.03	2,726.82	13.02	11.97	173.52	2,367.98	106.47	2,693.54	2,669.03	24.51	109.895		
2,900.00	2,876.57	2,839.79	2,825.55	13.48	12.38	173.51	2,370.06	104.65	2,709.56	2,684.21	25.35	106.879		
3,000.00	2,975.57	2,949.41	2,935.11	13.94	12.83	173.49	2,372.01	102.13	2,725.23	2,698.98	26.25	103.825		
3,100.00	3,074.56	3,042.83	3,028.50	14.40	13.22	173.48	2,373.51	100.19	2,740.77	2,713.70	27.07	101.253		
3,200.00	3,173.55	3,135.92	3,121.55	14.87	13.61	173.47	2,375.40	98.41	2,756.70	2,728.82	27.89	98.849		
3,300.00	3,272.55	3,233.13	3,218.74	15.33	14.01	173.47	2,377.20	96.80	2,772.50	2,743.77	28.73	96.505		
3,400.00	3,371.54	3,310.00	3,295.57	15.79	14.33	173.47	2,379.07	95.59	2,788.86	2,759.40	29.47	94.638		
3,500.00	3,470.54	3,388.72	3,374.25	16.26	14.66	173.47	2,381.56	94.53	2,805.96	2,775.75	30.22	92.862		
3,600.00	3,569.53	3,516.01	3,501.47	16.72	15.19	173.49	2,385.31	93.82	2,822.89	2,791.68	31.21	90.437		
3,700.00	3,668.53	3,603.46	3,588.90	17.19	15.56	173.51	2,387.65	93.48	2,839.56	2,807.55	32.01	88.712		
3,800.00	3,767.52	3,744.90	3,730.31	17.65	16.15	173.53	2,390.18	92.28	2,855.21	2,822.13	33.08	86.312		
3,900.00	3,866.51	3,845.26	3,830.65	18.12	16.57	173.54	2,391.64	91.23	2,870.64	2,836.69	33.94	84.570		
4,000.00	3,965.51	3,969.54	3,954.89	18.59	17.09	173.52	2,392.87	88.54	2,885.56	2,850.63	34.93	82.611		
4,100.00	4,064.50	4,078.22	4,063.53	19.05	17.55	173.50	2,393.17	85.66	2,899.73	2,863.89	35.84	80.913		
4,200.00	4,163.50	4,165.99	4,151.27	19.52	17.92	173.48	2,393.46	83.31	2,913.96	2,877.32	36.64	79.524		
4,300.00	4,262.49	4,256.93	4,242.20	19.99	18.30	173.47	2,394.12	81.50	2,928.62	2,891.15	37.46	78.174		
4,400.00	4,361.48	4,344.49	4,329.74	20.46	18.67	173.47	2,394.92	80.07	2,943.49	2,905.22	38.27	76.923		
4,500.00	4,460.48	4,429.26	4,414.50	20.92	19.03	173.48	2,396.13	79.27	2,958.90	2,919.84	39.05	75.765		
4,600.00	4,559.47	4,519.39	4,504.60	21.39	19.41	173.49	2,397.68	78.28	2,974.59	2,934.72	39.87	74.609		
4,700.00	4,658.47	4,600.01	4,585.19	21.86	19.75	173.49	2,399.51	77.06	2,990.80	2,950.16	40.63	73.604		
4,800.00	4,757.46	4,726.30	4,711.44	22.33	20.28	173.48	2,402.14	74.82	3,006.80	2,965.16	41.64	72.205		
4,900.00	4,856.45	4,845.26	4,830.36	22.80	20.79	173.47	2,403.79	72.20	3,022.11	2,979.50	42.61	70.923		
5,000.00	4,955.45	4,947.60	4,932.66	23.27	21.22	173.45	2,404.58	69.56	3,036.77	2,993.28	43.49	69.821		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,054.44	5,042.54	5,027.55	23.74	21.62	173.42	2,405.65	66.81	3,051.77	3,007.43	44.34	68.830		
5,200.00	5,153.44	5,144.16	5,129.14	24.21	22.05	173.41	2,406.50	64.53	3,066.53	3,021.31	45.22	67.818		
5,300.00	5,252.43	5,232.16	5,217.13	24.68	22.42	173.41	2,407.44	63.38	3,081.56	3,035.54	46.02	66.954		
5,400.00	5,351.42	5,326.04	5,311.00	25.15	22.82	173.42	2,408.69	62.15	3,096.86	3,049.99	46.86	66.083		
5,500.00	5,450.42	5,424.68	5,409.62	25.62	23.24	173.43	2,410.01	61.51	3,112.20	3,064.47	47.73	65.208		
5,600.00	5,549.41	5,517.40	5,502.33	26.09	23.63	173.46	2,411.30	61.25	3,127.61	3,079.05	48.56	64.407		
5,700.00	5,648.41	5,598.50	5,583.43	26.56	23.98	173.48	2,412.74	61.33	3,143.43	3,094.10	49.33	63.725		
5,800.00	5,747.40	5,720.56	5,705.46	27.03	24.49	173.53	2,414.80	62.28	3,159.21	3,108.89	50.32	62.781		
5,900.00	5,846.40	5,846.82	5,831.72	27.51	25.03	173.58	2,415.82	62.91	3,174.08	3,122.74	51.33	61.831		
6,000.00	5,945.39	5,974.90	5,959.79	27.98	25.57	173.61	2,415.93	62.73	3,188.24	3,135.89	52.35	60.898		
6,100.00	6,044.38	6,090.37	6,075.26	28.45	26.06	173.64	2,415.08	62.22	3,201.54	3,148.23	53.30	60.061		
6,200.00	6,143.38	6,193.55	6,178.43	28.92	26.49	173.66	2,414.04	61.68	3,214.57	3,160.38	54.19	59.318		
6,300.00	6,242.37	6,286.38	6,271.25	29.39	26.89	173.67	2,413.14	61.09	3,227.64	3,172.61	55.03	58.654		
6,400.00	6,341.37	6,377.10	6,361.97	29.86	27.27	173.68	2,412.50	60.15	3,240.95	3,185.09	55.85	58.026		
6,500.00	6,440.36	6,456.09	6,440.95	30.34	27.61	173.69	2,412.27	59.06	3,254.64	3,198.02	56.62	57.485		
6,600.00	6,538.90	6,551.04	6,535.89	30.80	28.01	133.21	2,412.57	57.75	3,269.32	3,211.85	57.46	56.895		
6,700.00	6,634.88	6,661.46	6,646.30	31.25	28.48	115.78	2,412.45	56.41	3,284.44	3,226.06	58.38	56.261		
6,800.00	6,725.92	6,759.52	6,744.35	31.68	28.90	108.03	2,412.13	54.78	3,300.12	3,240.90	59.22	55.731		
6,900.00	6,809.79	6,846.38	6,831.20	32.07	29.27	103.68	2,411.71	53.41	3,316.55	3,256.56	59.99	55.282		
7,000.00	6,884.42	6,920.67	6,905.47	32.43	29.59	100.76	2,411.35	52.24	3,334.06	3,273.33	60.73	54.898		
7,100.00	6,947.98	6,982.00	6,966.80	32.77	29.85	98.48	2,411.07	51.53	3,352.93	3,291.46	61.47	54.547		
7,200.00	6,998.89	7,035.46	7,020.26	33.18	30.07	96.53	2,410.82	51.17	3,373.32	3,311.05	62.27	54.170		
7,300.00	7,035.91	7,076.05	7,060.84	33.76	30.25	94.62	2,410.56	51.01	3,395.25	3,332.10	63.15	53.763		
7,400.00	7,058.12	7,100.32	7,085.12	34.61	30.35	92.57	2,410.38	50.97	3,418.66	3,354.56	64.10	53.337		
7,500.00	7,064.98	7,111.53	7,096.33	35.68	30.40	90.48	2,410.29	50.96	3,443.27	3,378.16	65.10	52.889		
7,600.00	7,064.59	7,111.08	7,095.88	36.95	30.40	90.47	2,410.29	50.96	3,469.74	3,403.56	66.18	52.430		
7,700.00	7,064.20	7,110.63	7,095.43	38.40	30.39	90.46	2,410.30	50.96	3,498.87	3,431.50	67.37	51.936		
7,800.00	7,063.80	7,110.18	7,094.98	40.00	30.39	90.46	2,410.30	50.96	3,530.59	3,461.94	68.65	51.426		
7,900.00	7,063.41	7,109.73	7,094.52	41.75	30.39	90.45	2,410.30	50.96	3,564.84	3,494.83	70.01	50.919		
8,000.00	7,063.02	7,109.28	7,094.07	43.62	30.39	90.44	2,410.31	50.96	3,601.54	3,530.12	71.42	50.428		
8,100.00	7,062.62	7,108.83	7,093.63	45.59	30.39	90.43	2,410.31	50.96	3,640.62	3,567.75	72.87	49.964		
8,200.00	7,062.23	7,108.38	7,093.18	47.65	30.38	90.43	2,410.32	50.96	3,682.00	3,607.66	74.33	49.534		
8,300.00	7,061.84	7,107.93	7,092.73	49.79	30.38	90.42	2,410.32	50.96	3,725.60	3,649.79	75.81	49.145		
8,400.00	7,061.45	7,107.48	7,092.28	52.00	30.38	90.41	2,410.32	50.96	3,771.35	3,694.07	77.28	48.799		
8,500.00	7,061.05	7,107.03	7,091.83	54.27	30.38	90.40	2,410.33	50.96	3,819.17	3,740.43	78.75	48.499		
8,600.00	7,060.66	7,106.59	7,091.39	56.60	30.38	90.40	2,410.33	50.96	3,868.99	3,788.80	80.19	48.245		
8,700.00	7,060.27	7,106.14	7,090.94	58.97	30.37	90.39	2,410.33	50.96	3,920.73	3,839.11	81.62	48.037		
8,800.00	7,059.87	7,105.70	7,090.49	61.38	30.37	90.38	2,410.34	50.96	3,974.30	3,891.29	83.02	47.874		
8,900.00	7,059.48	7,105.25	7,090.05	63.83	30.37	90.37	2,410.34	50.96	4,029.65	3,945.27	84.38	47.755		
9,000.00	7,059.09	7,104.80	7,089.60	66.32	30.37	90.36	2,410.35	50.96	4,086.70	4,000.98	85.71	47.678		
9,100.00	7,058.69	7,104.36	7,089.16	68.83	30.37	90.36	2,410.35	50.96	4,145.37	4,058.36	87.01	47.642 SF		
9,200.00	7,058.30	7,103.92	7,088.71	71.37	30.36	90.35	2,410.35	50.97	4,205.60	4,117.33	88.27	47.644		
9,300.00	7,057.91	7,103.47	7,088.27	73.93	30.36	90.34	2,410.36	50.97	4,267.33	4,177.84	89.49	47.684		
9,400.00	7,057.51	7,103.03	7,087.83	76.51	30.36	90.33	2,410.36	50.97	4,330.48	4,239.81	90.67	47.759		
9,500.00	7,057.12	7,102.59	7,087.38	79.11	30.36	90.33	2,410.36	50.97	4,395.01	4,303.19	91.82	47.866		
9,600.00	7,056.73	7,102.14	7,086.94	81.73	30.36	90.32	2,410.37	50.97	4,460.84	4,367.91	92.92	48.005		
9,700.00	7,056.33	7,101.70	7,086.50	84.37	30.36	90.31	2,410.37	50.97	4,527.92	4,433.93	93.99	48.174		
9,800.00	7,055.94	7,101.26	7,086.06	87.01	30.35	90.30	2,410.38	50.97	4,596.20	4,501.18	95.02	48.370		
9,900.00	7,055.55	7,100.82	7,085.62	89.68	30.35	90.30	2,410.38	50.97	4,665.63	4,569.61	96.01	48.593		
10,000.00	7,055.15	7,100.38	7,085.18	92.35	30.35	90.29	2,410.38	50.97	4,736.14	4,639.17	96.97	48.840		
10,100.00	7,054.76	7,099.97	7,084.77	95.03	30.35	90.28	2,410.39	50.97	4,807.71	4,709.81	97.90	49.111		
10,200.00	7,054.37	7,099.72	7,084.52	97.73	30.35	90.28	2,410.39	50.97	4,880.27	4,781.49	98.79	49.403		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,053.98	7,099.47	7,084.27	100.43	30.35	90.27	2,410.39	50.97	4,953.79	4,854.15	99.64	49.716		
10,400.00	7,053.58	7,099.23	7,084.02	103.14	30.34	90.27	2,410.39	50.97	5,028.23	4,927.76	100.47	50.048		
10,500.00	7,053.19	7,098.98	7,083.78	105.86	30.34	90.26	2,410.39	50.97	5,103.53	5,002.27	101.26	50.399		
10,600.00	7,052.80	7,098.74	7,083.54	108.59	30.34	90.26	2,410.39	50.97	5,179.68	5,077.65	102.03	50.768		
10,700.00	7,052.40	7,098.50	7,083.30	111.32	30.34	90.26	2,410.40	50.97	5,256.62	5,153.85	102.76	51.152		
10,800.00	7,052.01	7,098.27	7,083.06	114.06	30.34	90.25	2,410.40	50.97	5,334.33	5,230.85	103.47	51.552		
10,900.00	7,051.62	7,098.03	7,082.83	116.80	30.34	90.25	2,410.40	50.97	5,412.76	5,308.61	104.16	51.967		
11,000.00	7,051.22	7,097.80	7,082.60	119.55	30.34	90.24	2,410.40	50.97	5,491.90	5,387.09	104.82	52.396		
11,100.00	7,050.83	7,097.58	7,082.37	122.31	30.34	90.24	2,410.40	50.97	5,571.72	5,466.26	105.45	52.837		
11,200.00	7,050.44	7,097.35	7,082.15	125.07	30.34	90.24	2,410.41	50.97	5,652.17	5,546.11	106.06	53.291		
11,300.00	7,050.04	7,097.13	7,081.92	127.83	30.34	90.23	2,410.41	50.97	5,733.24	5,626.58	106.65	53.757		
11,400.00	7,049.65	7,096.91	7,081.70	130.60	30.34	90.23	2,410.41	50.97	5,814.89	5,707.67	107.22	54.233		
11,500.00	7,049.26	7,096.69	7,081.48	133.37	30.33	90.23	2,410.41	50.97	5,897.12	5,789.35	107.77	54.720		
11,600.00	7,048.86	7,096.47	7,081.27	136.15	30.33	90.22	2,410.41	50.97	5,979.88	5,871.58	108.30	55.218		
11,700.00	7,048.47	7,096.26	7,081.05	138.93	30.33	90.22	2,410.41	50.97	6,063.17	5,954.36	108.81	55.724		
11,800.00	7,048.08	7,096.04	7,080.84	141.71	30.33	90.21	2,410.42	50.97	6,146.95	6,037.65	109.30	56.239		
11,900.00	7,047.68	7,095.83	7,080.63	144.49	30.33	90.21	2,410.42	50.97	6,231.21	6,121.43	109.78	56.763		
12,000.00	7,047.29	7,095.63	7,080.42	147.28	30.33	90.21	2,410.42	50.97	6,315.93	6,205.69	110.23	57.295		
12,100.00	7,046.90	7,095.42	7,080.22	150.07	30.33	90.20	2,410.42	50.98	6,401.09	6,290.41	110.68	57.835		
12,200.00	7,046.51	7,095.22	7,080.01	152.87	30.33	90.20	2,410.42	50.98	6,486.67	6,375.57	111.11	58.382		
12,300.00	7,046.11	7,095.02	7,079.81	155.66	30.33	90.20	2,410.42	50.98	6,572.67	6,461.14	111.52	58.935		
12,400.00	7,045.72	7,094.82	7,079.61	158.46	30.33	90.19	2,410.43	50.98	6,659.05	6,547.12	111.92	59.496		
12,500.00	7,045.33	7,094.62	7,079.42	161.26	30.33	90.19	2,410.43	50.98	6,745.81	6,633.49	112.31	60.062		
12,600.00	7,044.93	7,094.42	7,079.22	164.06	30.32	90.19	2,410.43	50.98	6,832.93	6,720.24	112.69	60.635		
12,700.00	7,044.54	7,094.23	7,079.03	166.86	30.32	90.18	2,410.43	50.98	6,920.40	6,807.34	113.05	61.213		
12,800.00	7,044.15	7,094.04	7,078.83	169.67	30.32	90.18	2,410.43	50.98	7,008.20	6,894.79	113.41	61.796		
12,900.00	7,043.75	7,093.85	7,078.64	172.48	30.32	90.18	2,410.43	50.98	7,096.33	6,982.58	113.75	62.385		
13,000.00	7,043.36	7,093.66	7,078.46	175.28	30.32	90.17	2,410.43	50.98	7,184.77	7,070.69	114.08	62.979		
13,100.00	7,042.97	7,093.47	7,078.27	178.09	30.32	90.17	2,410.44	50.98	7,273.51	7,159.10	114.40	63.577		
13,200.00	7,042.57	7,093.29	7,078.09	180.91	30.32	90.17	2,410.44	50.98	7,362.53	7,247.81	114.72	64.180		
13,300.00	7,042.18	7,093.11	7,077.90	183.72	30.32	90.16	2,410.44	50.98	7,451.84	7,336.82	115.02	64.787		
13,400.00	7,041.79	7,092.92	7,077.72	186.53	30.32	90.16	2,410.44	50.98	7,541.41	7,426.09	115.32	65.398		
13,500.00	7,041.39	7,092.74	7,077.54	189.35	30.32	90.16	2,410.44	50.98	7,631.24	7,515.64	115.60	66.013		
13,600.00	7,041.00	7,092.57	7,077.37	192.17	30.32	90.15	2,410.44	50.98	7,721.32	7,605.44	115.88	66.631		
13,700.00	7,040.61	7,092.39	7,077.19	194.99	30.32	90.15	2,410.44	50.98	7,811.65	7,695.49	116.15	67.253		
13,800.00	7,040.21	7,092.22	7,077.01	197.81	30.32	90.15	2,410.44	50.98	7,902.20	7,785.79	116.42	67.879		
13,900.00	7,039.82	7,092.04	7,076.84	200.63	30.31	90.15	2,410.45	50.98	7,992.99	7,876.31	116.67	68.507		
14,000.00	7,039.43	7,091.87	7,076.67	203.45	30.31	90.14	2,410.45	50.98	8,083.98	7,967.06	116.92	69.139		
14,100.00	7,039.03	7,091.70	7,076.50	206.27	30.31	90.14	2,410.45	50.98	8,175.19	8,058.03	117.17	69.774		
14,200.00	7,038.64	7,091.54	7,076.33	209.09	30.31	90.14	2,410.45	50.98	8,266.61	8,149.20	117.40	70.411		
14,300.00	7,038.25	7,091.37	7,076.17	211.92	30.31	90.13	2,410.45	50.98	8,358.22	8,240.58	117.64	71.051		
14,400.00	7,037.86	7,091.20	7,076.00	214.74	30.31	90.13	2,410.45	50.98	8,450.02	8,332.15	117.86	71.694		
14,500.00	7,037.46	7,091.04	7,075.84	217.57	30.31	90.13	2,410.45	50.98	8,542.00	8,423.92	118.08	72.339		
14,600.00	7,037.07	7,090.88	7,075.68	220.40	30.31	90.13	2,410.45	50.98	8,634.16	8,515.86	118.30	72.987		
14,700.00	7,036.68	7,090.72	7,075.52	223.23	30.31	90.12	2,410.46	50.98	8,726.50	8,607.99	118.51	73.636		
14,800.00	7,036.28	7,090.56	7,075.36	226.05	30.31	90.12	2,410.46	50.98	8,819.00	8,700.29	118.71	74.288		
14,871.88	7,036.00	7,090.45	7,075.24	228.09	30.31	90.12	2,410.46	50.98	8,885.59	8,766.73	118.86	74.758		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	59.00	3.28	3.28	-165.56	-4,059.79	-1,045.14	4,192.58					
100.00	100.00	41.00	100.00	3.28	3.36	-165.56	-4,059.79	-1,045.14	4,192.16	4,185.52	6.64	631.170		
200.00	200.00	141.00	200.00	3.34	4.57	-165.56	-4,059.79	-1,045.14	4,192.16	4,184.26	7.90	530.434		
300.00	300.00	241.00	300.00	3.44	7.43	-165.56	-4,059.79	-1,045.14	4,192.16	4,181.29	10.88	385.458		
400.00	399.98	340.98	399.98	3.60	10.67	4.59	-4,059.79	-1,045.14	4,190.42	4,176.15	14.27	293.643		
500.00	499.84	440.84	499.84	3.79	14.03	4.61	-4,059.79	-1,045.14	4,185.21	4,167.39	17.82	234.854		
600.00	599.45	540.45	599.45	4.02	17.43	4.63	-4,059.79	-1,045.14	4,176.52	4,155.06	21.45	194.674		
700.00	698.70	639.70	698.70	4.29	20.85	4.66	-4,059.79	-1,045.14	4,164.37	4,139.24	25.14	165.675		
800.00	797.70	738.70	797.70	4.59	24.27	4.68	-4,059.79	-1,045.14	4,150.28	4,121.43	28.85	143.859		
900.00	896.69	837.69	896.69	4.92	27.69	4.70	-4,059.79	-1,045.14	4,136.18	4,103.58	32.59	126.907		
1,000.00	995.68	936.68	995.68	5.27	31.13	4.71	-4,059.79	-1,045.14	4,122.07	4,085.71	36.36	113.366		
1,100.00	1,094.68	1,035.68	1,094.68	5.64	34.57	4.73	-4,059.79	-1,045.14	4,107.97	4,067.82	40.15	102.315		
1,200.00	1,193.67	1,134.67	1,193.67	6.03	38.01	4.75	-4,059.79	-1,045.14	4,093.87	4,049.92	43.96	93.134		
1,300.00	1,292.67	1,233.67	1,292.67	6.42	41.45	4.76	-4,059.79	-1,045.14	4,079.77	4,032.00	47.78	85.393		
1,400.00	1,391.66	1,332.66	1,391.66	6.83	44.90	4.78	-4,059.79	-1,045.14	4,065.67	4,014.06	51.61	78.780		
1,500.00	1,490.66	1,431.66	1,490.66	7.25	48.35	4.80	-4,059.79	-1,045.14	4,051.57	3,996.12	55.45	73.070		
1,600.00	1,589.65	1,530.65	1,589.65	7.67	51.79	4.81	-4,059.79	-1,045.14	4,037.47	3,978.18	59.30	68.090		
1,700.00	1,688.64	1,629.64	1,688.64	8.10	55.24	4.83	-4,059.79	-1,045.14	4,023.37	3,960.22	63.15	63.711		
1,800.00	1,787.64	1,728.64	1,787.64	8.53	58.69	4.85	-4,059.79	-1,045.14	4,009.27	3,942.26	67.01	59.830		
1,900.00	1,886.63	1,827.63	1,886.63	8.97	62.14	4.86	-4,059.79	-1,045.14	3,995.18	3,924.30	70.88	56.369		
2,000.00	1,985.63	1,926.63	1,985.63	9.41	65.60	4.88	-4,059.79	-1,045.14	3,981.08	3,906.33	74.75	53.262		
2,100.00	2,084.62	2,025.62	2,084.62	9.85	69.05	4.90	-4,059.79	-1,045.14	3,966.98	3,888.36	78.62	50.459		
2,200.00	2,183.61	2,124.61	2,183.61	10.30	72.50	4.92	-4,059.79	-1,045.14	3,952.88	3,870.39	82.49	47.918		
2,300.00	2,282.61	2,223.61	2,282.61	10.75	75.95	4.93	-4,059.79	-1,045.14	3,938.79	3,852.41	86.37	45.603		
2,400.00	2,381.60	2,322.60	2,381.60	11.20	79.40	4.95	-4,059.79	-1,045.14	3,924.69	3,834.44	90.25	43.486		
2,500.00	2,480.60	2,421.60	2,480.60	11.66	82.86	4.97	-4,059.79	-1,045.14	3,910.59	3,816.46	94.14	41.542		
2,600.00	2,579.59	2,520.59	2,579.59	12.11	86.31	4.99	-4,059.79	-1,045.14	3,896.50	3,798.48	98.02	39.752		
2,700.00	2,678.58	2,619.58	2,678.58	12.57	89.76	5.00	-4,059.79	-1,045.14	3,882.40	3,780.49	101.91	38.098		
2,800.00	2,777.58	2,718.58	2,777.58	13.02	93.22	5.02	-4,059.79	-1,045.14	3,868.31	3,762.51	105.79	36.564		
2,900.00	2,876.57	2,817.57	2,876.57	13.48	96.67	5.04	-4,059.79	-1,045.14	3,854.21	3,744.53	109.68	35.139		
3,000.00	2,975.57	2,916.57	2,975.57	13.94	100.13	5.06	-4,059.79	-1,045.14	3,840.12	3,726.54	113.57	33.812		
3,100.00	3,074.56	3,015.56	3,074.56	14.40	103.58	5.08	-4,059.79	-1,045.14	3,826.02	3,708.56	117.47	32.571		
3,200.00	3,173.55	3,114.55	3,173.55	14.87	107.03	5.10	-4,059.79	-1,045.14	3,811.93	3,690.57	121.36	31.411		
3,300.00	3,272.55	3,213.55	3,272.55	15.33	110.49	5.12	-4,059.79	-1,045.14	3,797.84	3,672.58	125.25	30.322		
3,400.00	3,371.54	3,312.54	3,371.54	15.79	113.94	5.14	-4,059.79	-1,045.14	3,783.74	3,654.60	129.15	29.298		
3,500.00	3,470.54	3,411.54	3,470.54	16.26	117.40	5.15	-4,059.79	-1,045.14	3,769.65	3,636.61	133.04	28.334		
3,600.00	3,569.53	3,510.53	3,569.53	16.72	120.85	5.17	-4,059.79	-1,045.14	3,755.56	3,618.62	136.94	27.425		
3,700.00	3,668.53	3,609.53	3,668.53	17.19	124.31	5.19	-4,059.79	-1,045.14	3,741.47	3,600.63	140.83	26.567		
3,800.00	3,767.52	3,708.52	3,767.52	17.65	127.76	5.21	-4,059.79	-1,045.14	3,727.38	3,582.65	144.73	25.754		
3,900.00	3,866.51	3,807.51	3,866.51	18.12	131.22	5.23	-4,059.79	-1,045.14	3,713.29	3,564.66	148.63	24.984		
4,000.00	3,965.51	3,906.51	3,965.51	18.59	134.67	5.25	-4,059.79	-1,045.14	3,699.20	3,546.67	152.53	24.253		
4,100.00	4,064.50	4,005.50	4,064.50	19.05	138.13	5.27	-4,059.79	-1,045.14	3,685.11	3,528.68	156.42	23.558		
4,200.00	4,163.50	4,104.50	4,163.50	19.52	141.58	5.29	-4,059.79	-1,045.14	3,671.02	3,510.69	160.32	22.897		
4,300.00	4,262.49	4,203.49	4,262.49	19.99	145.04	5.31	-4,059.79	-1,045.14	3,656.93	3,492.71	164.22	22.268		
4,400.00	4,361.48	4,302.48	4,361.48	20.46	148.49	5.33	-4,059.79	-1,045.14	3,642.84	3,474.72	168.12	21.668		
4,500.00	4,460.48	4,401.48	4,460.48	20.92	151.95	5.36	-4,059.79	-1,045.14	3,628.75	3,456.73	172.02	21.095		
4,600.00	4,559.47	4,500.47	4,559.47	21.39	155.40	5.38	-4,059.79	-1,045.14	3,614.66	3,438.74	175.92	20.547		
4,700.00	4,658.47	4,600.47	4,658.47	21.86	158.89	5.40	-4,059.79	-1,045.14	3,600.58	3,420.72	179.86	20.019		
4,800.00	4,757.46	4,701.46	4,757.46	22.33	162.42	5.42	-4,059.79	-1,045.14	3,586.49	3,402.66	183.83	19.509		
4,900.00	4,856.45	4,802.45	4,856.45	22.80	165.94	5.44	-4,059.79	-1,045.14	3,572.41	3,384.60	187.81	19.022		
5,000.00	4,955.45	4,903.45	4,955.45	23.27	169.47	5.46	-4,059.79	-1,045.14	3,558.32	3,366.54	191.78	18.554		
5,100.00	5,054.44	5,004.44	5,054.44	23.74	173.00	5.48	-4,059.79	-1,045.14	3,544.24	3,348.49	195.75	18.106		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,105.56	5,153.44	24.21	176.52	5.51	-4,059.79	-1,045.14	3,530.15	3,330.43	199.72	17.675	
5,300.00	5,252.43	5,206.57	5,252.43	24.68	180.05	5.53	-4,059.79	-1,045.14	3,516.07	3,312.37	203.69	17.261	
5,400.00	5,351.42	5,307.58	5,351.42	25.15	183.57	5.55	-4,059.79	-1,045.14	3,501.98	3,294.32	207.67	16.863	
5,500.00	5,450.42	5,408.58	5,450.42	25.62	187.10	5.57	-4,059.79	-1,045.14	3,487.90	3,276.26	211.64	16.480	
5,600.00	5,549.41	5,509.59	5,549.41	26.09	190.62	5.59	-4,059.79	-1,045.14	3,473.82	3,258.20	215.61	16.111	
5,700.00	5,648.41	5,589.41	5,648.41	26.56	193.41	5.62	-4,059.79	-1,045.14	3,459.74	3,240.89	218.85	15.809	
5,800.00	5,747.40	5,688.40	5,747.40	27.03	196.86	5.64	-4,059.79	-1,045.14	3,445.65	3,222.90	222.75	15.469	
5,900.00	5,846.40	5,787.40	5,846.40	27.51	200.32	5.66	-4,059.79	-1,045.14	3,431.57	3,204.92	226.65	15.140	
6,000.00	5,945.39	5,886.39	5,945.39	27.98	203.78	5.69	-4,059.79	-1,045.14	3,417.49	3,186.94	230.56	14.823	
6,100.00	6,044.38	5,985.38	6,044.38	28.45	207.23	5.71	-4,059.79	-1,045.14	3,403.41	3,168.95	234.46	14.516	
6,200.00	6,143.38	6,084.38	6,143.38	28.92	210.69	5.73	-4,059.79	-1,045.14	3,389.34	3,150.97	238.37	14.219	
6,300.00	6,242.37	6,183.37	6,242.37	29.39	214.14	5.76	-4,059.79	-1,045.14	3,375.26	3,132.99	242.27	13.932	
6,400.00	6,341.37	6,282.37	6,341.37	29.86	217.60	5.78	-4,059.79	-1,045.14	3,361.18	3,115.00	246.17	13.654	
6,500.00	6,440.36	6,381.36	6,440.36	30.34	221.05	5.81	-4,059.79	-1,045.14	3,347.10	3,097.02	250.08	13.384	
6,600.00	6,538.90	6,479.90	6,538.90	30.80	224.49	-34.93	-4,059.79	-1,045.14	3,331.34	3,077.38	253.96	13.117	
6,700.00	6,634.88	6,575.88	6,634.88	31.25	227.84	-53.50	-4,059.79	-1,045.14	3,311.75	3,054.01	257.74	12.849	
6,800.00	6,725.92	6,666.92	6,725.92	31.68	231.02	-63.08	-4,059.79	-1,045.14	3,289.05	3,027.72	261.32	12.586	
6,900.00	6,809.79	6,750.79	6,809.79	32.07	233.95	-69.74	-4,059.79	-1,045.14	3,264.23	2,999.59	264.65	12.334	
7,000.00	6,884.42	6,825.42	6,884.42	32.43	236.55	-75.13	-4,059.79	-1,045.14	3,238.51	2,970.84	267.66	12.099	
7,100.00	6,947.98	6,888.98	6,947.98	32.77	238.77	-79.71	-4,059.79	-1,045.14	3,213.20	2,942.84	270.36	11.885	
7,200.00	6,998.89	6,939.89	6,998.89	33.18	240.55	-83.55	-4,059.79	-1,045.14	3,189.64	2,916.90	272.74	11.695	
7,300.00	7,035.91	6,976.91	7,035.91	33.76	241.84	-86.61	-4,059.79	-1,045.14	3,169.11	2,894.30	274.81	11.532	
7,400.00	7,058.12	7,000.88	7,058.12	34.61	242.68	-88.79	-4,059.79	-1,045.14	3,152.66	2,876.03	276.62	11.397	
7,500.00	7,064.98	7,005.98	7,064.98	35.68	242.86	-90.02	-4,059.79	-1,045.14	3,141.08	2,863.10	277.98	11.300	
7,600.00	7,064.59	7,005.59	7,064.59	36.95	242.84	-90.01	-4,059.79	-1,045.14	3,133.63	2,854.30	279.33	11.218	
7,700.00	7,064.20	7,005.20	7,064.20	38.40	242.83	-90.01	-4,059.79	-1,045.14	3,129.36	2,848.49	280.87	11.142	
7,783.69	7,063.87	7,004.87	7,063.87	39.74	242.82	-90.00	-4,059.79	-1,045.14	3,128.24	2,845.94	282.30	11.081 CC	
7,800.00	7,063.80	7,004.80	7,063.80	40.00	242.81	-90.00	-4,059.79	-1,045.14	3,128.28	2,845.71	282.57	11.071 ES	
7,900.00	7,063.41	7,004.41	7,063.41	41.75	242.80	-89.99	-4,059.79	-1,045.14	3,130.40	2,846.00	284.41	11.007	
8,000.00	7,063.02	7,004.02	7,063.02	43.62	242.79	-89.98	-4,059.79	-1,045.14	3,135.71	2,849.37	286.34	10.951	
8,100.00	7,062.62	7,003.62	7,062.62	45.59	242.77	-89.98	-4,059.79	-1,045.14	3,144.19	2,855.85	288.35	10.904	
8,200.00	7,062.23	7,003.23	7,062.23	47.65	242.76	-89.97	-4,059.79	-1,045.14	3,155.82	2,865.41	290.41	10.867	
8,300.00	7,061.84	7,002.84	7,061.84	49.79	242.75	-89.96	-4,059.79	-1,045.14	3,170.56	2,878.06	292.50	10.840	
8,400.00	7,061.45	7,002.45	7,061.45	52.00	242.73	-89.96	-4,059.79	-1,045.14	3,188.37	2,893.77	294.61	10.822	
8,500.00	7,061.05	7,002.05	7,061.05	54.27	242.72	-89.95	-4,059.79	-1,045.14	3,209.20	2,912.49	296.71	10.816 SF	
8,600.00	7,060.66	7,001.66	7,060.66	56.60	242.71	-89.94	-4,059.79	-1,045.14	3,232.99	2,934.20	298.79	10.820	
8,700.00	7,060.27	7,001.27	7,060.27	58.97	242.69	-89.93	-4,059.79	-1,045.14	3,259.68	2,958.83	300.85	10.835	
8,800.00	7,059.87	7,000.87	7,059.87	61.38	242.68	-89.93	-4,059.79	-1,045.14	3,289.19	2,986.32	302.87	10.860	
8,900.00	7,059.48	7,000.48	7,059.48	63.83	242.66	-89.92	-4,059.79	-1,045.14	3,321.45	3,016.61	304.84	10.896	
9,000.00	7,059.09	7,000.09	7,059.09	66.32	242.65	-89.91	-4,059.79	-1,045.14	3,356.38	3,049.62	306.76	10.942	
9,100.00	7,058.69	7,000.31	7,058.69	68.83	242.66	-89.91	-4,059.79	-1,045.14	3,393.90	3,085.26	308.64	10.996	
9,200.00	7,058.30	7,000.70	7,058.30	71.37	242.67	-89.90	-4,059.79	-1,045.14	3,433.92	3,123.46	310.46	11.061	
9,300.00	7,057.91	7,001.09	7,057.91	73.93	242.69	-89.89	-4,059.79	-1,045.14	3,476.36	3,164.14	312.21	11.135	
9,400.00	7,057.51	7,001.49	7,057.51	76.51	242.70	-89.88	-4,059.79	-1,045.14	3,521.12	3,207.22	313.90	11.217	
9,500.00	7,057.12	7,001.88	7,057.12	79.11	242.71	-89.88	-4,059.79	-1,045.14	3,568.13	3,252.61	315.52	11.309	
9,600.00	7,056.73	7,002.27	7,056.73	81.73	242.73	-89.87	-4,059.79	-1,045.14	3,617.30	3,300.23	317.07	11.408	
9,700.00	7,056.33	7,002.67	7,056.33	84.37	242.74	-89.86	-4,059.79	-1,045.14	3,668.53	3,349.97	318.55	11.516	
9,800.00	7,055.94	7,003.06	7,055.94	87.01	242.75	-89.85	-4,059.79	-1,045.14	3,721.74	3,401.77	319.97	11.632	
9,900.00	7,055.55	7,003.45	7,055.55	89.68	242.77	-89.85	-4,059.79	-1,045.14	3,776.85	3,455.54	321.31	11.754	
10,000.00	7,055.15	7,003.85	7,055.15	92.35	242.78	-89.84	-4,059.79	-1,045.14	3,833.78	3,511.18	322.59	11.884	
10,100.00	7,054.76	7,004.24	7,054.76	95.03	242.80	-89.83	-4,059.79	-1,045.14	3,892.44	3,568.63	323.81	12.021	
10,200.00	7,054.37	7,004.63	7,054.37	97.73	242.81	-89.83	-4,059.79	-1,045.14	3,952.77	3,627.80	324.97	12.164	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.98	7,005.03	7,053.98	100.43	242.82	-89.82	-4,059.79	-1,045.14	4,014.67	3,688.61	326.07	12.312		
10,400.00	7,053.58	7,005.42	7,053.58	103.14	242.84	-89.81	-4,059.79	-1,045.14	4,078.10	3,750.99	327.11	12.467		
10,500.00	7,053.19	7,005.81	7,053.19	105.86	242.85	-89.80	-4,059.79	-1,045.14	4,142.96	3,814.87	328.09	12.627		
10,600.00	7,052.80	7,006.20	7,052.80	108.59	242.86	-89.80	-4,059.79	-1,045.14	4,209.20	3,880.17	329.03	12.793		
10,700.00	7,052.40	7,006.60	7,052.40	111.32	242.88	-89.79	-4,059.79	-1,045.14	4,276.75	3,946.84	329.91	12.963		
10,800.00	7,052.01	7,006.99	7,052.01	114.06	242.89	-89.78	-4,059.79	-1,045.14	4,345.56	4,014.81	330.75	13.138		
10,900.00	7,051.62	7,007.38	7,051.62	116.80	242.90	-89.78	-4,059.79	-1,045.14	4,415.56	4,084.01	331.55	13.318		
11,000.00	7,051.22	7,007.78	7,051.22	119.55	242.92	-89.77	-4,059.79	-1,045.14	4,486.69	4,154.39	332.30	13.502		
11,100.00	7,050.83	7,008.17	7,050.83	122.31	242.93	-89.76	-4,059.79	-1,045.14	4,558.91	4,225.90	333.01	13.690		
11,200.00	7,050.44	7,008.56	7,050.44	125.07	242.95	-89.75	-4,059.79	-1,045.14	4,632.16	4,298.47	333.69	13.882		
11,300.00	7,050.04	7,008.96	7,050.04	127.83	242.96	-89.75	-4,059.79	-1,045.14	4,706.39	4,372.07	334.32	14.077		
11,400.00	7,049.65	7,009.35	7,049.65	130.60	242.97	-89.74	-4,059.79	-1,045.14	4,781.57	4,446.64	334.93	14.276		
11,500.00	7,049.26	7,009.74	7,049.26	133.37	242.99	-89.73	-4,059.79	-1,045.14	4,857.64	4,522.14	335.50	14.479		
11,600.00	7,048.86	6,989.86	7,048.86	136.15	242.29	-89.73	-4,059.79	-1,045.14	4,934.56	4,599.23	335.34	14.715		
11,700.00	7,048.47	6,989.47	7,048.47	138.93	242.28	-89.72	-4,059.79	-1,045.14	5,012.30	4,676.48	335.82	14.925		
11,800.00	7,048.08	6,989.08	7,048.08	141.71	242.27	-89.71	-4,059.79	-1,045.14	5,090.81	4,754.53	336.28	15.139		
11,900.00	7,047.68	6,988.68	7,047.68	144.49	242.25	-89.70	-4,059.79	-1,045.14	5,170.07	4,833.36	336.72	15.354		
12,000.00	7,047.29	6,988.29	7,047.29	147.28	242.24	-89.70	-4,059.79	-1,045.14	5,250.04	4,912.91	337.13	15.573		
12,100.00	7,046.90	6,987.90	7,046.90	150.07	242.22	-89.69	-4,059.79	-1,045.14	5,330.68	4,993.16	337.52	15.794		
12,200.00	7,046.51	6,987.51	7,046.51	152.87	242.21	-89.68	-4,059.79	-1,045.14	5,411.97	5,074.08	337.88	16.017		
12,300.00	7,046.11	6,987.11	7,046.11	155.66	242.20	-89.67	-4,059.79	-1,045.14	5,493.87	5,155.64	338.23	16.243		
12,400.00	7,045.72	6,986.72	7,045.72	158.46	242.18	-89.67	-4,059.79	-1,045.14	5,576.37	5,237.81	338.56	16.471		
12,500.00	7,045.33	6,986.33	7,045.33	161.26	242.17	-89.66	-4,059.79	-1,045.14	5,659.43	5,320.56	338.87	16.701		
12,600.00	7,044.93	6,985.93	7,044.93	164.06	242.16	-89.65	-4,059.79	-1,045.14	5,743.03	5,403.86	339.17	16.933		
12,700.00	7,044.54	6,985.54	7,044.54	166.86	242.14	-89.65	-4,059.79	-1,045.14	5,827.15	5,487.70	339.45	17.167		
12,800.00	7,044.15	6,985.15	7,044.15	169.67	242.13	-89.64	-4,059.79	-1,045.14	5,911.76	5,572.05	339.71	17.402		
12,900.00	7,043.75	6,984.75	7,043.75	172.48	242.11	-89.63	-4,059.79	-1,045.14	5,996.84	5,656.88	339.96	17.640		
13,000.00	7,043.36	6,984.36	7,043.36	175.28	242.10	-89.62	-4,059.79	-1,045.14	6,082.38	5,742.18	340.20	17.879		
13,100.00	7,042.97	6,983.97	7,042.97	178.09	242.09	-89.62	-4,059.79	-1,045.14	6,168.36	5,827.93	340.43	18.119		
13,200.00	7,042.57	6,983.57	7,042.57	180.91	242.07	-89.61	-4,059.79	-1,045.14	6,254.75	5,914.10	340.64	18.362		
13,300.00	7,042.18	6,983.18	7,042.18	183.72	242.06	-89.60	-4,059.79	-1,045.14	6,341.54	6,000.69	340.85	18.605		
13,400.00	7,041.79	6,982.79	7,041.79	186.53	242.05	-89.60	-4,059.79	-1,045.14	6,428.71	6,087.67	341.04	18.850		
13,500.00	7,041.39	6,982.39	7,041.39	189.35	242.03	-89.59	-4,059.79	-1,045.14	6,516.26	6,175.03	341.23	19.097		
13,600.00	7,041.00	6,982.00	7,041.00	192.17	242.02	-89.58	-4,059.79	-1,045.14	6,604.15	6,262.75	341.40	19.344		
13,700.00	7,040.61	6,981.61	7,040.61	194.99	242.01	-89.57	-4,059.79	-1,045.14	6,692.39	6,350.82	341.57	19.593		
13,800.00	7,040.21	6,981.21	7,040.21	197.81	241.99	-89.57	-4,059.79	-1,045.14	6,780.95	6,439.23	341.73	19.843		
13,900.00	7,039.82	6,980.82	7,039.82	200.63	241.98	-89.56	-4,059.79	-1,045.14	6,869.83	6,527.95	341.88	20.094		
14,000.00	7,039.43	6,980.43	7,039.43	203.45	241.96	-89.55	-4,059.79	-1,045.14	6,959.01	6,616.99	342.02	20.347		
14,100.00	7,039.03	6,980.03	7,039.03	206.27	241.95	-89.55	-4,059.79	-1,045.14	7,048.48	6,706.32	342.16	20.600		
14,200.00	7,038.64	6,979.64	7,038.64	209.09	241.94	-89.54	-4,059.79	-1,045.14	7,138.23	6,795.94	342.29	20.854		
14,300.00	7,038.25	6,979.25	7,038.25	211.92	241.92	-89.53	-4,059.79	-1,045.14	7,228.25	6,885.83	342.42	21.109		
14,400.00	7,037.86	6,978.86	7,037.86	214.74	241.91	-89.52	-4,059.79	-1,045.14	7,318.52	6,975.98	342.54	21.366		
14,500.00	7,037.46	6,978.46	7,037.46	217.57	241.90	-89.52	-4,059.79	-1,045.14	7,409.05	7,066.40	342.65	21.623		
14,600.00	7,037.07	6,978.07	7,037.07	220.40	241.88	-89.51	-4,059.79	-1,045.14	7,499.82	7,157.05	342.76	21.881		
14,700.00	7,036.68	6,977.68	7,036.68	223.23	241.87	-89.50	-4,059.79	-1,045.14	7,590.82	7,247.95	342.87	22.139		
14,800.00	7,036.28	6,977.28	7,036.28	226.05	241.85	-89.49	-4,059.79	-1,045.14	7,682.04	7,339.07	342.97	22.399		
14,871.88	7,036.00	6,977.00	7,036.00	228.09	241.84	-89.49	-4,059.79	-1,045.14	7,747.75	7,404.71	343.04	22.586		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	4.00	0.00	3.28	3.28	-41.11	1,330.84	-1,161.17	1,766.19					
100.00	100.00	104.00	100.00	3.28	3.78	-41.11	1,330.84	-1,161.17	1,766.19	1,759.13	7.07	249.892		
200.00	200.00	204.00	200.00	3.34	6.30	-41.11	1,330.84	-1,161.17	1,766.19	1,756.56	9.63	183.315		
300.00	300.00	304.00	300.00	3.44	9.45	-41.11	1,330.84	-1,161.17	1,766.19	1,753.29	12.90	136.922 CC		
400.00	399.98	404.02	399.98	3.60	12.79	129.07	1,330.84	-1,161.17	1,767.29	1,750.91	16.38	107.879		
500.00	499.84	504.16	499.84	3.79	16.19	129.15	1,330.84	-1,161.17	1,770.60	1,750.62	19.98	88.637 ES		
600.00	599.45	604.55	599.45	4.02	19.64	129.28	1,330.84	-1,161.17	1,776.12	1,752.47	23.65	75.093		
700.00	698.70	705.30	698.70	4.29	23.11	129.47	1,330.84	-1,161.17	1,783.89	1,756.49	27.40	65.112		
800.00	797.70	806.30	797.70	4.59	26.61	129.80	1,330.84	-1,161.17	1,792.96	1,761.77	31.19	57.481		
900.00	896.69	907.31	896.69	4.92	30.11	130.15	1,330.84	-1,161.17	1,802.10	1,767.09	35.02	51.461		
1,000.00	995.68	1,008.32	995.68	5.27	33.62	130.49	1,330.84	-1,161.17	1,811.31	1,772.44	38.87	46.598		
1,100.00	1,094.68	1,109.32	1,094.68	5.64	37.13	130.82	1,330.84	-1,161.17	1,820.58	1,777.84	42.74	42.593		
1,200.00	1,193.67	1,189.67	1,193.67	6.03	39.92	131.16	1,330.84	-1,161.17	1,829.92	1,784.00	45.91	39.855		
1,300.00	1,292.67	1,288.67	1,292.67	6.42	43.37	131.49	1,330.84	-1,161.17	1,839.31	1,789.56	49.75	36.973		
1,400.00	1,391.66	1,387.66	1,391.66	6.83	46.81	131.81	1,330.84	-1,161.17	1,848.77	1,795.18	53.59	34.498		
1,500.00	1,490.66	1,486.66	1,490.66	7.25	50.26	132.14	1,330.84	-1,161.17	1,858.28	1,800.84	57.44	32.350		
1,600.00	1,589.65	1,585.65	1,589.65	7.67	53.71	132.46	1,330.84	-1,161.17	1,867.86	1,806.55	61.30	30.469		
1,700.00	1,688.64	1,684.64	1,688.64	8.10	57.16	132.77	1,330.84	-1,161.17	1,877.49	1,812.32	65.17	28.809		
1,800.00	1,787.64	1,783.64	1,787.64	8.53	60.61	133.09	1,330.84	-1,161.17	1,887.18	1,818.14	69.04	27.334		
1,900.00	1,886.63	1,882.63	1,886.63	8.97	64.06	133.40	1,330.84	-1,161.17	1,896.92	1,824.00	72.92	26.015		
2,000.00	1,985.63	1,981.63	1,985.63	9.41	67.51	133.71	1,330.84	-1,161.17	1,906.72	1,829.92	76.80	24.828		
2,100.00	2,084.62	2,080.62	2,084.62	9.85	70.96	134.01	1,330.84	-1,161.17	1,916.58	1,835.90	80.68	23.755		
2,200.00	2,183.61	2,179.61	2,183.61	10.30	74.42	134.31	1,330.84	-1,161.17	1,926.48	1,841.92	84.57	22.780		
2,300.00	2,282.61	2,278.61	2,282.61	10.75	77.87	134.61	1,330.84	-1,161.17	1,936.44	1,847.99	88.46	21.892		
2,400.00	2,381.60	2,377.60	2,381.60	11.20	81.32	134.90	1,330.84	-1,161.17	1,946.46	1,854.11	92.35	21.078		
2,500.00	2,480.60	2,476.60	2,480.60	11.66	84.78	135.20	1,330.84	-1,161.17	1,956.52	1,860.28	96.24	20.330		
2,600.00	2,579.59	2,575.59	2,579.59	12.11	88.23	135.48	1,330.84	-1,161.17	1,966.63	1,866.50	100.13	19.640		
2,700.00	2,678.58	2,674.58	2,678.58	12.57	91.68	135.77	1,330.84	-1,161.17	1,976.80	1,872.77	104.03	19.002		
2,800.00	2,777.58	2,773.58	2,777.58	13.02	95.14	136.05	1,330.84	-1,161.17	1,987.01	1,879.08	107.93	18.411		
2,900.00	2,876.57	2,872.57	2,876.57	13.48	98.59	136.33	1,330.84	-1,161.17	1,997.27	1,885.44	111.82	17.861		
3,000.00	2,975.57	2,971.57	2,975.57	13.94	102.04	136.61	1,330.84	-1,161.17	2,007.58	1,891.85	115.72	17.348		
3,100.00	3,074.56	3,070.56	3,074.56	14.40	105.50	136.89	1,330.84	-1,161.17	2,017.93	1,898.31	119.62	16.869		
3,200.00	3,173.55	3,169.55	3,173.55	14.87	108.95	137.16	1,330.84	-1,161.17	2,028.33	1,904.81	123.52	16.420		
3,300.00	3,272.55	3,268.55	3,272.55	15.33	112.41	137.43	1,330.84	-1,161.17	2,038.77	1,911.35	127.43	16.000		
3,400.00	3,371.54	3,367.54	3,371.54	15.79	115.86	137.69	1,330.84	-1,161.17	2,049.26	1,917.94	131.33	15.604		
3,500.00	3,470.54	3,466.54	3,470.54	16.26	119.32	137.96	1,330.84	-1,161.17	2,059.80	1,924.57	135.23	15.232		
3,600.00	3,569.53	3,565.53	3,569.53	16.72	122.77	138.22	1,330.84	-1,161.17	2,070.37	1,931.24	139.13	14.880		
3,700.00	3,668.53	3,664.53	3,668.53	17.19	126.23	138.48	1,330.84	-1,161.17	2,080.99	1,937.95	143.04	14.548		
3,800.00	3,767.52	3,763.52	3,767.52	17.65	129.68	138.73	1,330.84	-1,161.17	2,091.65	1,944.71	146.94	14.234		
3,900.00	3,866.51	3,862.51	3,866.51	18.12	133.14	138.99	1,330.84	-1,161.17	2,102.35	1,951.51	150.85	13.937		
4,000.00	3,965.51	3,961.51	3,965.51	18.59	136.59	139.24	1,330.84	-1,161.17	2,113.10	1,958.34	154.75	13.655		
4,100.00	4,064.50	4,060.50	4,064.50	19.05	140.05	139.48	1,330.84	-1,161.17	2,123.88	1,965.22	158.66	13.387		
4,200.00	4,163.50	4,159.50	4,163.50	19.52	143.50	139.73	1,330.84	-1,161.17	2,134.70	1,972.14	162.56	13.132		
4,300.00	4,262.49	4,258.49	4,262.49	19.99	146.96	139.97	1,330.84	-1,161.17	2,145.56	1,979.09	166.47	12.889		
4,400.00	4,361.48	4,357.48	4,361.48	20.46	150.41	140.21	1,330.84	-1,161.17	2,156.46	1,986.08	170.37	12.657		
4,500.00	4,460.48	4,456.48	4,460.48	20.92	153.87	140.45	1,330.84	-1,161.17	2,167.39	1,993.11	174.28	12.436		
4,600.00	4,559.47	4,555.47	4,559.47	21.39	157.32	140.69	1,330.84	-1,161.17	2,178.36	2,000.18	178.19	12.225		
4,700.00	4,658.47	4,654.47	4,658.47	21.86	160.78	140.92	1,330.84	-1,161.17	2,189.37	2,007.28	182.09	12.023		
4,800.00	4,757.46	4,753.46	4,757.46	22.33	164.23	141.15	1,330.84	-1,161.17	2,200.42	2,014.42	186.00	11.830		
4,900.00	4,856.45	4,852.45	4,856.45	22.80	167.69	141.38	1,330.84	-1,161.17	2,211.50	2,021.59	189.91	11.645		
5,000.00	4,955.45	4,951.45	4,955.45	23.27	171.14	141.61	1,330.84	-1,161.17	2,222.61	2,028.80	193.81	11.468		
5,100.00	5,054.44	5,050.44	5,054.44	23.74	174.60	141.83	1,330.84	-1,161.17	2,233.76	2,036.04	197.72	11.298		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,149.44	5,153.44	24.21	178.05	142.06	1,330.84	-1,161.17	2,244.95	2,043.32	201.63	11.134		
5,300.00	5,252.43	5,248.43	5,252.43	24.68	181.51	142.28	1,330.84	-1,161.17	2,256.16	2,050.63	205.53	10.977		
5,400.00	5,351.42	5,347.42	5,351.42	25.15	184.96	142.49	1,330.84	-1,161.17	2,267.41	2,057.97	209.44	10.826		
5,500.00	5,450.42	5,446.42	5,450.42	25.62	188.42	142.71	1,330.84	-1,161.17	2,278.69	2,065.35	213.35	10.681		
5,600.00	5,549.41	5,545.41	5,549.41	26.09	191.87	142.92	1,330.84	-1,161.17	2,290.01	2,072.75	217.25	10.541		
5,700.00	5,648.41	5,644.41	5,648.41	26.56	195.33	143.14	1,330.84	-1,161.17	2,301.35	2,080.19	221.16	10.406		
5,800.00	5,747.40	5,743.40	5,747.40	27.03	198.78	143.35	1,330.84	-1,161.17	2,312.73	2,087.66	225.07	10.276		
5,900.00	5,846.40	5,842.40	5,846.40	27.51	202.24	143.55	1,330.84	-1,161.17	2,324.13	2,095.16	228.98	10.150		
6,000.00	5,945.39	5,941.39	5,945.39	27.98	205.69	143.76	1,330.84	-1,161.17	2,335.57	2,102.69	232.88	10.029		
6,100.00	6,044.38	6,040.38	6,044.38	28.45	209.15	143.96	1,330.84	-1,161.17	2,347.04	2,110.25	236.79	9.912		
6,200.00	6,143.38	6,139.38	6,143.38	28.92	212.61	144.16	1,330.84	-1,161.17	2,358.53	2,117.83	240.70	9.799		
6,300.00	6,242.37	6,238.37	6,242.37	29.39	216.06	144.36	1,330.84	-1,161.17	2,370.05	2,125.45	244.61	9.689		
6,400.00	6,341.37	6,337.37	6,341.37	29.86	219.52	144.56	1,330.84	-1,161.17	2,381.61	2,133.09	248.51	9.583		
6,500.00	6,440.36	6,436.36	6,440.36	30.34	222.97	144.76	1,330.84	-1,161.17	2,393.19	2,140.77	252.42	9.481		
6,600.00	6,538.90	6,534.90	6,538.90	30.80	226.41	105.04	1,330.84	-1,161.17	2,402.14	2,145.83	256.31	9.372		
6,700.00	6,634.88	6,630.88	6,634.88	31.25	229.76	88.99	1,330.84	-1,161.17	2,404.64	2,144.54	260.10	9.245		
6,800.00	6,725.92	6,721.92	6,725.92	31.68	232.94	83.23	1,330.84	-1,161.17	2,401.04	2,137.35	263.69	9.105		
6,900.00	6,809.79	6,805.79	6,809.79	32.07	235.87	81.42	1,330.84	-1,161.17	2,392.11	2,125.08	267.03	8.958		
7,000.00	6,884.42	6,880.42	6,884.42	32.43	238.47	81.59	1,330.84	-1,161.17	2,378.86	2,108.79	270.07	8.808		
7,100.00	6,947.98	6,943.98	6,947.98	32.77	240.69	82.84	1,330.84	-1,161.17	2,362.50	2,089.71	272.79	8.660		
7,200.00	6,998.89	6,995.11	6,998.89	33.18	242.83	84.65	1,330.84	-1,161.17	2,344.34	2,068.79	275.55	8.508		
7,300.00	7,035.91	7,031.91	7,035.91	33.76	243.76	86.63	1,330.84	-1,161.17	2,325.64	2,048.38	277.26	8.388		
7,400.00	7,058.12	7,054.12	7,058.12	34.61	244.54	88.50	1,330.84	-1,161.17	2,307.55	2,028.57	278.99	8.271		
7,500.00	7,064.98	7,060.98	7,064.98	35.68	244.78	90.04	1,330.84	-1,161.17	2,290.97	2,010.63	280.34	8.172		
7,600.00	7,064.59	7,060.59	7,064.59	36.95	244.76	90.03	1,330.84	-1,161.17	2,277.58	1,995.98	281.59	8.088		
7,700.00	7,064.20	7,060.20	7,064.20	38.40	244.75	90.02	1,330.84	-1,161.17	2,268.52	1,985.51	283.00	8.016		
7,800.00	7,063.80	7,059.80	7,063.80	40.00	244.73	90.01	1,330.84	-1,161.17	2,263.84	1,979.30	284.54	7.956		
7,855.96	7,063.58	7,059.58	7,063.58	40.98	244.73	90.00	1,330.84	-1,161.17	2,263.15	1,977.69	285.46	7.928		
7,900.00	7,063.41	7,059.41	7,063.41	41.75	244.72	90.00	1,330.84	-1,161.17	2,263.58	1,977.40	286.18	7.910		
8,000.00	7,063.02	7,059.02	7,063.02	43.62	244.71	89.99	1,330.84	-1,161.17	2,267.73	1,979.84	287.88	7.877		
8,100.00	7,062.62	7,058.62	7,062.62	45.59	244.69	89.98	1,330.84	-1,161.17	2,276.27	1,986.64	289.63	7.859		
8,200.00	7,062.23	7,058.23	7,062.23	47.65	244.68	89.97	1,330.84	-1,161.17	2,289.15	1,997.75	291.40	7.856 SF		
8,300.00	7,061.84	7,057.84	7,061.84	49.79	244.67	89.96	1,330.84	-1,161.17	2,306.30	2,013.15	293.15	7.867		
8,400.00	7,061.45	7,057.45	7,061.45	52.00	244.65	89.95	1,330.84	-1,161.17	2,327.62	2,032.74	294.88	7.893		
8,500.00	7,061.05	7,057.05	7,061.05	54.27	244.64	89.94	1,330.84	-1,161.17	2,353.00	2,056.44	296.56	7.934		
8,600.00	7,060.66	7,056.66	7,060.66	56.60	244.62	89.93	1,330.84	-1,161.17	2,382.32	2,084.13	298.19	7.989		
8,700.00	7,060.27	7,056.27	7,060.27	58.97	244.61	89.92	1,330.84	-1,161.17	2,415.42	2,115.67	299.74	8.058		
8,800.00	7,059.87	7,055.87	7,059.87	61.38	244.60	89.91	1,330.84	-1,161.17	2,452.15	2,150.93	301.22	8.141		
8,900.00	7,059.48	7,055.48	7,059.48	63.83	244.58	89.90	1,330.84	-1,161.17	2,492.36	2,189.73	302.62	8.236		
9,000.00	7,059.09	7,055.09	7,059.09	66.32	244.57	89.89	1,330.84	-1,161.17	2,535.87	2,231.93	303.94	8.343		
9,100.00	7,058.69	7,054.69	7,058.69	68.83	244.56	89.88	1,330.84	-1,161.17	2,582.53	2,277.36	305.17	8.463		
9,200.00	7,058.30	7,054.30	7,058.30	71.37	244.54	89.87	1,330.84	-1,161.17	2,632.16	2,325.84	306.31	8.593		
9,300.00	7,057.91	7,053.91	7,057.91	73.93	244.53	89.86	1,330.84	-1,161.17	2,684.60	2,377.22	307.38	8.734		
9,400.00	7,057.51	7,053.51	7,057.51	76.51	244.52	89.85	1,330.84	-1,161.17	2,739.68	2,431.32	308.36	8.885		
9,500.00	7,057.12	7,053.12	7,057.12	79.11	244.50	89.84	1,330.84	-1,161.17	2,797.26	2,488.00	309.27	9.045		
9,600.00	7,056.73	7,052.73	7,056.73	81.73	244.49	89.83	1,330.84	-1,161.17	2,857.18	2,547.08	310.10	9.214		
9,700.00	7,056.33	7,052.33	7,056.33	84.37	244.47	89.82	1,330.84	-1,161.17	2,919.29	2,608.43	310.86	9.391		
9,800.00	7,055.94	7,051.94	7,055.94	87.01	244.46	89.81	1,330.84	-1,161.17	2,983.47	2,671.90	311.56	9.576		
9,900.00	7,055.55	7,051.55	7,055.55	89.68	244.45	89.80	1,330.84	-1,161.17	3,049.57	2,737.37	312.20	9.768		
10,000.00	7,055.15	7,051.15	7,055.15	92.35	244.43	89.79	1,330.84	-1,161.17	3,117.48	2,804.69	312.79	9.967		
10,100.00	7,054.76	7,050.76	7,054.76	95.03	244.42	89.78	1,330.84	-1,161.17	3,187.08	2,873.76	313.32	10.172		
10,200.00	7,054.37	7,050.37	7,054.37	97.73	244.41	89.77	1,330.84	-1,161.17	3,258.26	2,944.46	313.81	10.383		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.98	7,049.98	7,053.98	100.43	244.39	89.76	1,330.84	-1,161.17	3,330.93	3,016.68	314.25	10.600		
10,400.00	7,053.58	7,049.58	7,053.58	103.14	244.38	89.75	1,330.84	-1,161.17	3,404.98	3,090.33	314.65	10.821		
10,500.00	7,053.19	7,049.19	7,053.19	105.86	244.36	89.74	1,330.84	-1,161.17	3,480.33	3,165.31	315.02	11.048		
10,600.00	7,052.80	7,048.80	7,052.80	108.59	244.35	89.73	1,330.84	-1,161.17	3,556.89	3,241.55	315.35	11.279		
10,700.00	7,052.40	7,048.40	7,052.40	111.32	244.34	89.72	1,330.84	-1,161.17	3,634.60	3,318.95	315.65	11.515		
10,800.00	7,052.01	7,048.01	7,052.01	114.06	244.32	89.71	1,330.84	-1,161.17	3,713.37	3,397.44	315.92	11.754		
10,900.00	7,051.62	7,047.62	7,051.62	116.80	244.31	89.70	1,330.84	-1,161.17	3,793.14	3,476.97	316.17	11.997		
11,000.00	7,051.22	7,047.22	7,051.22	119.55	244.30	89.69	1,330.84	-1,161.17	3,873.85	3,557.45	316.39	12.244		
11,100.00	7,050.83	7,046.83	7,050.83	122.31	244.28	89.68	1,330.84	-1,161.17	3,955.44	3,638.84	316.60	12.494		
11,200.00	7,050.44	7,046.44	7,050.44	125.07	244.27	89.67	1,330.84	-1,161.17	4,037.86	3,721.07	316.78	12.746		
11,300.00	7,050.04	7,046.04	7,050.04	127.83	244.25	89.66	1,330.84	-1,161.17	4,121.05	3,804.10	316.95	13.002		
11,400.00	7,049.65	7,045.65	7,049.65	130.60	244.24	89.65	1,330.84	-1,161.17	4,204.98	3,887.88	317.10	13.261		
11,500.00	7,049.26	7,045.26	7,049.26	133.37	244.23	89.64	1,330.84	-1,161.17	4,289.60	3,972.36	317.24	13.522		
11,600.00	7,048.86	7,044.86	7,048.86	136.15	244.21	89.63	1,330.84	-1,161.17	4,374.87	4,057.51	317.36	13.785		
11,700.00	7,048.47	7,044.47	7,048.47	138.93	244.20	89.62	1,330.84	-1,161.17	4,460.75	4,143.27	317.47	14.051		
11,800.00	7,048.08	7,044.08	7,048.08	141.71	244.19	89.61	1,330.84	-1,161.17	4,547.20	4,229.63	317.57	14.319		
11,900.00	7,047.68	7,043.68	7,047.68	144.49	244.17	89.60	1,330.84	-1,161.17	4,634.21	4,316.54	317.67	14.588		
12,000.00	7,047.29	7,043.29	7,047.29	147.28	244.16	89.59	1,330.84	-1,161.17	4,721.72	4,403.97	317.75	14.860		
12,100.00	7,046.90	7,042.90	7,046.90	150.07	244.14	89.58	1,330.84	-1,161.17	4,809.73	4,491.90	317.82	15.133		
12,200.00	7,046.51	7,042.51	7,046.51	152.87	244.13	89.57	1,330.84	-1,161.17	4,898.19	4,580.30	317.89	15.408		
12,300.00	7,046.11	7,042.11	7,046.11	155.66	244.12	89.56	1,330.84	-1,161.17	4,987.09	4,669.14	317.95	15.685		
12,400.00	7,045.72	7,041.72	7,045.72	158.46	244.10	89.55	1,330.84	-1,161.17	5,076.40	4,758.40	318.01	15.963		
12,500.00	7,045.33	7,041.33	7,045.33	161.26	244.09	89.54	1,330.84	-1,161.17	5,166.10	4,848.05	318.05	16.243		
12,600.00	7,044.93	7,040.93	7,044.93	164.06	244.08	89.53	1,330.84	-1,161.17	5,256.18	4,938.08	318.10	16.524		
12,700.00	7,044.54	7,040.54	7,044.54	166.86	244.06	89.52	1,330.84	-1,161.17	5,346.61	5,028.47	318.14	16.806		
12,800.00	7,044.15	7,040.15	7,044.15	169.67	244.05	89.51	1,330.84	-1,161.17	5,437.37	5,119.20	318.18	17.089		
12,900.00	7,043.75	7,039.75	7,043.75	172.48	244.03	89.50	1,330.84	-1,161.17	5,528.46	5,210.25	318.21	17.374		
13,000.00	7,043.36	7,039.36	7,043.36	175.28	244.02	89.49	1,330.84	-1,161.17	5,619.84	5,301.60	318.24	17.659		
13,100.00	7,042.97	7,038.97	7,042.97	178.09	244.01	89.48	1,330.84	-1,161.17	5,711.51	5,393.25	318.26	17.946		
13,200.00	7,042.57	7,038.57	7,042.57	180.91	243.99	89.47	1,330.84	-1,161.17	5,803.46	5,485.18	318.29	18.233		
13,300.00	7,042.18	7,038.18	7,042.18	183.72	243.98	89.46	1,330.84	-1,161.17	5,895.68	5,577.37	318.31	18.522		
13,400.00	7,041.79	7,037.79	7,041.79	186.53	243.97	89.45	1,330.84	-1,161.17	5,988.14	5,669.81	318.33	18.811		
13,500.00	7,041.39	7,037.39	7,041.39	189.35	243.95	89.44	1,330.84	-1,161.17	6,080.84	5,762.49	318.34	19.101		
13,600.00	7,041.00	7,037.00	7,041.00	192.17	243.94	89.43	1,330.84	-1,161.17	6,173.76	5,855.40	318.36	19.392		
13,700.00	7,040.61	7,036.61	7,040.61	194.99	243.93	89.42	1,330.84	-1,161.17	6,266.91	5,948.53	318.37	19.684		
13,800.00	7,040.21	7,036.21	7,040.21	197.81	243.91	89.41	1,330.84	-1,161.17	6,360.26	6,041.88	318.39	19.976		
13,900.00	7,039.82	7,035.82	7,039.82	200.63	243.90	89.40	1,330.84	-1,161.17	6,453.82	6,135.42	318.40	20.270		
14,000.00	7,039.43	7,035.43	7,039.43	203.45	243.88	89.39	1,330.84	-1,161.17	6,547.56	6,229.15	318.41	20.563		
14,100.00	7,039.03	7,035.03	7,039.03	206.27	243.87	89.38	1,330.84	-1,161.17	6,641.48	6,323.06	318.42	20.858		
14,200.00	7,038.64	7,034.64	7,038.64	209.09	243.86	89.37	1,330.84	-1,161.17	6,735.58	6,417.15	318.43	21.153		
14,300.00	7,038.25	7,034.25	7,038.25	211.92	243.84	89.36	1,330.84	-1,161.17	6,829.85	6,511.41	318.44	21.448		
14,400.00	7,037.86	7,033.86	7,037.86	214.74	243.83	89.35	1,330.84	-1,161.17	6,924.28	6,605.84	318.45	21.744		
14,500.00	7,037.46	7,033.46	7,037.46	217.57	243.82	89.34	1,330.84	-1,161.17	7,018.86	6,700.41	318.45	22.040		
14,600.00	7,037.07	7,033.07	7,037.07	220.40	243.80	89.33	1,330.84	-1,161.17	7,113.60	6,795.13	318.46	22.337		
14,700.00	7,036.68	7,032.68	7,036.68	223.23	243.79	89.32	1,330.84	-1,161.17	7,208.47	6,890.00	318.47	22.635		
14,800.00	7,036.28	7,032.28	7,036.28	226.05	243.77	89.31	1,330.84	-1,161.17	7,303.48	6,985.00	318.48	22.933		
14,871.88	7,036.00	7,032.00	7,036.00	228.09	243.76	89.30	1,330.84	-1,161.17	7,371.86	7,053.37	318.48	23.147		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	18.00	3.28	3.28	-88.62	26.62	-1,102.82	1,103.29					
100.00	100.00	82.00	100.00	3.28	3.58	-88.62	26.62	-1,102.82	1,103.14	1,096.28	6.86	160.728		
200.00	200.00	182.00	200.00	3.34	5.66	-88.62	26.62	-1,102.82	1,103.14	1,094.15	8.99	122.663		
300.00	300.00	282.00	300.00	3.44	8.74	-88.62	26.62	-1,102.82	1,103.14	1,090.96	12.18	90.548		
400.00	399.98	381.98	399.98	3.60	12.04	81.63	26.62	-1,102.82	1,102.89	1,087.25	15.64	70.518		
500.00	499.84	481.84	499.84	3.79	15.43	81.91	26.62	-1,102.82	1,102.14	1,082.93	19.21	57.368		
600.00	599.45	581.45	599.45	4.02	18.84	82.38	26.62	-1,102.82	1,100.94	1,078.09	22.86	48.171		
700.00	698.70	680.70	698.70	4.29	22.26	83.04	26.62	-1,102.82	1,099.38	1,072.84	26.54	41.416		
800.00	797.70	779.70	797.70	4.59	25.68	83.77	26.62	-1,102.82	1,097.74	1,067.47	30.27	36.263		
900.00	896.69	878.69	896.69	4.92	29.12	84.49	26.62	-1,102.82	1,096.28	1,062.25	34.03	32.212		
1,000.00	995.68	977.68	995.68	5.27	32.55	85.22	26.62	-1,102.82	1,095.00	1,057.18	37.82	28.951		
1,100.00	1,094.68	1,076.68	1,094.68	5.64	35.99	85.95	26.62	-1,102.82	1,093.90	1,052.27	41.63	26.275		
1,200.00	1,193.67	1,175.67	1,193.67	6.03	39.43	86.69	26.62	-1,102.82	1,092.99	1,047.52	45.46	24.042		
1,300.00	1,292.67	1,274.67	1,292.67	6.42	42.88	87.42	26.62	-1,102.82	1,092.25	1,042.95	49.30	22.154		
1,400.00	1,391.66	1,373.66	1,391.66	6.83	46.33	88.16	26.62	-1,102.82	1,091.70	1,038.54	53.16	20.537		
1,500.00	1,490.66	1,472.66	1,490.66	7.25	49.77	88.89	26.62	-1,102.82	1,091.33	1,034.31	57.02	19.139		
1,600.00	1,589.65	1,571.65	1,589.65	7.67	53.22	89.63	26.62	-1,102.82	1,091.15	1,030.25	60.89	17.919		
1,650.94	1,640.08	1,622.08	1,640.08	7.89	54.98	90.00	26.62	-1,102.82	1,091.12	1,028.25	62.87	17.356		
1,700.00	1,688.64	1,670.64	1,688.64	8.10	56.67	90.36	26.62	-1,102.82	1,091.14	1,026.37	64.77	16.846		
1,800.00	1,787.64	1,769.64	1,787.64	8.53	60.12	91.10	26.62	-1,102.82	1,091.33	1,022.67	68.65	15.896		
1,900.00	1,886.63	1,868.63	1,886.63	8.97	63.57	91.83	26.62	-1,102.82	1,091.69	1,019.15	72.54	15.049		
2,000.00	1,985.63	1,967.63	1,985.63	9.41	67.02	92.57	26.62	-1,102.82	1,092.24	1,015.80	76.43	14.290		
2,100.00	2,084.62	2,066.62	2,084.62	9.85	70.48	93.30	26.62	-1,102.82	1,092.97	1,012.64	80.33	13.606		
2,200.00	2,183.61	2,165.61	2,183.61	10.30	73.93	94.03	26.62	-1,102.82	1,093.88	1,009.65	84.23	12.987		
2,300.00	2,282.61	2,264.61	2,282.61	10.75	77.38	94.76	26.62	-1,102.82	1,094.98	1,006.85	88.13	12.425		
2,400.00	2,381.60	2,363.60	2,381.60	11.20	80.83	95.49	26.62	-1,102.82	1,096.26	1,004.22	92.03	11.911		
2,500.00	2,480.60	2,462.60	2,480.60	11.66	84.29	96.22	26.62	-1,102.82	1,097.71	1,001.78	95.94	11.442		
2,600.00	2,579.59	2,561.59	2,579.59	12.11	87.74	96.95	26.62	-1,102.82	1,099.35	999.51	99.85	11.011		
2,700.00	2,678.58	2,660.58	2,678.58	12.57	91.19	97.67	26.62	-1,102.82	1,101.17	997.42	103.75	10.613		
2,800.00	2,777.58	2,759.58	2,777.58	13.02	94.65	98.39	26.62	-1,102.82	1,103.17	995.50	107.66	10.246		
2,900.00	2,876.57	2,858.57	2,876.57	13.48	98.10	99.11	26.62	-1,102.82	1,105.34	993.77	111.57	9.907		
3,000.00	2,975.57	2,957.57	2,975.57	13.94	101.56	99.82	26.62	-1,102.82	1,107.69	992.20	115.49	9.592		
3,100.00	3,074.56	3,056.56	3,074.56	14.40	105.01	100.54	26.62	-1,102.82	1,110.22	990.82	119.40	9.298		
3,200.00	3,173.55	3,155.55	3,173.55	14.87	108.46	101.25	26.62	-1,102.82	1,112.91	989.60	123.31	9.025		
3,300.00	3,272.55	3,254.55	3,272.55	15.33	111.92	101.95	26.62	-1,102.82	1,115.79	988.56	127.22	8.770		
3,400.00	3,371.54	3,353.54	3,371.54	15.79	115.37	102.65	26.62	-1,102.82	1,118.83	987.69	131.14	8.532		
3,500.00	3,470.54	3,452.54	3,470.54	16.26	118.83	103.35	26.62	-1,102.82	1,122.05	986.99	135.05	8.308		
3,600.00	3,569.53	3,551.53	3,569.53	16.72	122.28	104.05	26.62	-1,102.82	1,125.43	986.46	138.97	8.099		
3,700.00	3,668.53	3,650.53	3,668.53	17.19	125.74	104.74	26.62	-1,102.82	1,128.98	986.10	142.88	7.902		
3,800.00	3,767.52	3,749.52	3,767.52	17.65	129.19	105.42	26.62	-1,102.82	1,132.69	985.90	146.80	7.716		
3,900.00	3,866.51	3,848.51	3,866.51	18.12	132.65	106.10	26.62	-1,102.82	1,136.57	985.86	150.71	7.541		
4,000.00	3,965.51	3,947.51	3,965.51	18.59	136.10	106.78	26.62	-1,102.82	1,140.61	985.99	154.62	7.377		
4,100.00	4,064.50	4,046.50	4,064.50	19.05	139.56	107.45	26.62	-1,102.82	1,144.82	986.28	158.54	7.221		
4,200.00	4,163.50	4,145.50	4,163.50	19.52	143.01	108.12	26.62	-1,102.82	1,149.18	986.72	162.45	7.074		
4,300.00	4,262.49	4,244.49	4,262.49	19.99	146.47	108.78	26.62	-1,102.82	1,153.70	987.33	166.37	6.935		
4,400.00	4,361.48	4,343.48	4,361.48	20.46	149.92	109.44	26.62	-1,102.82	1,158.37	988.09	170.28	6.803		
4,500.00	4,460.48	4,442.48	4,460.48	20.92	153.38	110.09	26.62	-1,102.82	1,163.20	989.00	174.20	6.677		
4,600.00	4,559.47	4,541.47	4,559.47	21.39	156.83	110.73	26.62	-1,102.82	1,168.18	990.06	178.11	6.559		
4,700.00	4,658.47	4,640.47	4,658.47	21.86	160.29	111.37	26.62	-1,102.82	1,173.30	991.28	182.03	6.446		
4,800.00	4,757.46	4,739.46	4,757.46	22.33	163.74	112.01	26.62	-1,102.82	1,178.58	992.64	185.94	6.338		
4,900.00	4,856.45	4,838.45	4,856.45	22.80	167.20	112.64	26.62	-1,102.82	1,184.00	994.14	189.86	6.236		
5,000.00	4,955.45	4,937.45	4,955.45	23.27	170.65	113.26	26.62	-1,102.82	1,189.56	995.79	193.77	6.139		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-24(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,054.44	5,036.44	5,054.44	23.74	174.11	113.88	26.62	-1,102.82	1,195.27	997.59	197.68	6.046		
5,200.00	5,153.44	5,135.44	5,153.44	24.21	177.56	114.49	26.62	-1,102.82	1,201.12	999.52	201.60	5.958		
5,300.00	5,252.43	5,234.43	5,252.43	24.68	181.02	115.10	26.62	-1,102.82	1,207.10	1,001.59	205.51	5.874		
5,400.00	5,351.42	5,333.42	5,351.42	25.15	184.47	115.70	26.62	-1,102.82	1,213.22	1,003.79	209.42	5.793		
5,500.00	5,450.42	5,432.42	5,450.42	25.62	187.93	116.29	26.62	-1,102.82	1,219.47	1,006.13	213.33	5.716		
5,600.00	5,549.41	5,531.41	5,549.41	26.09	191.38	116.88	26.62	-1,102.82	1,225.85	1,008.61	217.25	5.643		
5,700.00	5,648.41	5,630.41	5,648.41	26.56	194.84	117.46	26.62	-1,102.82	1,232.37	1,011.21	221.16	5.572		
5,800.00	5,747.40	5,729.40	5,747.40	27.03	198.30	118.04	26.62	-1,102.82	1,239.01	1,013.93	225.07	5.505		
5,900.00	5,846.40	5,828.40	5,846.40	27.51	201.75	118.61	26.62	-1,102.82	1,245.77	1,016.79	228.98	5.440		
6,000.00	5,945.39	5,927.39	5,945.39	27.98	205.21	119.17	26.62	-1,102.82	1,252.66	1,019.77	232.89	5.379		
6,100.00	6,044.38	6,026.38	6,044.38	28.45	208.66	119.73	26.62	-1,102.82	1,259.67	1,022.86	236.80	5.319		
6,200.00	6,143.38	6,125.38	6,143.38	28.92	212.12	120.28	26.62	-1,102.82	1,266.80	1,026.08	240.72	5.263		
6,300.00	6,242.37	6,224.37	6,242.37	29.39	215.57	120.83	26.62	-1,102.82	1,274.04	1,029.42	244.63	5.208		
6,400.00	6,341.37	6,323.37	6,341.37	29.86	219.03	121.37	26.62	-1,102.82	1,281.41	1,032.87	248.54	5.156		
6,500.00	6,440.36	6,422.36	6,440.36	30.34	222.48	121.90	26.62	-1,102.82	1,288.88	1,036.44	252.45	5.106		
6,600.00	6,538.90	6,520.90	6,538.90	30.80	225.92	83.07	26.62	-1,102.82	1,291.83	1,035.49	256.34	5.040		
6,700.00	6,634.88	6,616.88	6,634.88	31.25	229.27	68.24	26.62	-1,102.82	1,283.70	1,023.58	260.12	4.935		
6,800.00	6,725.92	6,707.92	6,725.92	31.68	232.45	64.06	26.62	-1,102.82	1,265.27	1,001.57	263.70	4.798		
6,900.00	6,809.79	6,808.21	6,809.79	32.07	235.95	64.31	26.62	-1,102.82	1,237.86	970.27	267.59	4.626		
7,000.00	6,884.42	6,866.42	6,884.42	32.43	237.98	67.08	26.62	-1,102.82	1,203.28	933.26	270.02	4.456		
7,100.00	6,947.98	6,929.98	6,947.98	32.77	240.20	71.46	26.62	-1,102.82	1,163.71	891.03	272.68	4.268		
7,200.00	6,998.89	6,980.89	6,998.89	33.18	241.98	76.68	26.62	-1,102.82	1,121.65	846.65	274.99	4.079		
7,300.00	7,035.91	7,017.91	7,035.91	33.76	243.27	81.98	26.62	-1,102.82	1,079.78	802.80	276.98	3.898		
7,400.00	7,058.12	7,040.12	7,058.12	34.61	244.05	86.65	26.62	-1,102.82	1,040.73	762.08	278.64	3.735		
7,500.00	7,064.98	7,046.98	7,064.98	35.68	244.29	90.07	26.62	-1,102.82	1,006.83	726.87	279.96	3.596		
7,600.00	7,064.59	7,046.59	7,064.59	36.95	244.27	90.05	26.62	-1,102.82	980.85	699.65	281.20	3.488		
7,700.00	7,064.20	7,046.20	7,064.20	38.40	244.26	90.03	26.62	-1,102.82	964.59	682.01	282.58	3.414		
7,800.00	7,063.80	7,045.80	7,063.80	40.00	244.25	90.00	26.62	-1,102.82	958.54	674.52	284.01	3.375		
7,808.20	7,063.77	7,045.77	7,063.77	40.15	244.24	90.00	26.62	-1,102.82	958.50	674.36	284.14	3.373 CC, ES, SF		
7,900.00	7,063.41	7,045.41	7,063.41	41.75	244.23	89.98	26.62	-1,102.82	962.89	677.47	285.42	3.374		
8,000.00	7,063.02	7,045.02	7,063.02	43.62	244.22	89.95	26.62	-1,102.82	977.50	690.80	286.70	3.409		
8,100.00	7,062.62	7,044.62	7,062.62	45.59	244.20	89.93	26.62	-1,102.82	1,001.93	714.12	287.82	3.481		
8,200.00	7,062.23	7,044.23	7,062.23	47.65	244.19	89.91	26.62	-1,102.82	1,035.49	746.76	288.73	3.586		
8,300.00	7,061.84	7,043.84	7,061.84	49.79	244.18	89.88	26.62	-1,102.82	1,077.31	787.87	289.44	3.722		
8,400.00	7,061.45	7,043.45	7,061.45	52.00	244.16	89.86	26.62	-1,102.82	1,126.48	836.52	289.95	3.885		
8,500.00	7,061.05	7,043.05	7,061.05	54.27	244.15	89.84	26.62	-1,102.82	1,182.08	891.77	290.31	4.072		
8,600.00	7,060.66	7,042.66	7,060.66	56.60	244.14	89.81	26.62	-1,102.82	1,243.25	952.72	290.52	4.279		
8,700.00	7,060.27	7,042.27	7,060.27	58.97	244.12	89.79	26.62	-1,102.82	1,309.21	1,018.57	290.64	4.505		
8,800.00	7,059.87	7,041.87	7,059.87	61.38	244.11	89.77	26.62	-1,102.82	1,379.27	1,088.60	290.67	4.745		
8,900.00	7,059.48	7,041.48	7,059.48	63.83	244.10	89.74	26.62	-1,102.82	1,452.84	1,162.19	290.65	4.999		
9,000.00	7,059.09	7,041.09	7,059.09	66.32	244.08	89.72	26.62	-1,102.82	1,529.41	1,238.83	290.58	5.263		
9,100.00	7,058.69	7,040.69	7,058.69	68.83	244.07	89.70	26.62	-1,102.82	1,608.56	1,318.08	290.48	5.538		
9,200.00	7,058.30	7,040.30	7,058.30	71.37	244.05	89.67	26.62	-1,102.82	1,689.91	1,399.55	290.36	5.820		
9,300.00	7,057.91	7,039.91	7,057.91	73.93	244.04	89.65	26.62	-1,102.82	1,773.18	1,482.95	290.23	6.110		
9,400.00	7,057.51	7,039.51	7,057.51	76.51	244.03	89.63	26.62	-1,102.82	1,858.10	1,568.00	290.10	6.405		
9,500.00	7,057.12	7,039.12	7,057.12	79.11	244.01	89.60	26.62	-1,102.82	1,944.45	1,654.49	289.96	6.706		
9,600.00	7,056.73	7,038.73	7,056.73	81.73	244.00	89.58	26.62	-1,102.82	2,032.05	1,742.23	289.82	7.011		
9,700.00	7,056.33	7,038.33	7,056.33	84.37	243.99	89.56	26.62	-1,102.82	2,120.75	1,831.07	289.68	7.321		
9,800.00	7,055.94	7,037.94	7,055.94	87.01	243.97	89.53	26.62	-1,102.82	2,210.42	1,920.87	289.55	7.634		
9,900.00	7,055.55	7,037.55	7,055.55	89.68	243.96	89.51	26.62	-1,102.82	2,300.93	2,011.52	289.42	7.950		
10,000.00	7,055.15	7,037.15	7,055.15	92.35	243.94	89.48	26.62	-1,102.82	2,392.21	2,102.91	289.29	8.269		
10,100.00	7,054.76	7,036.76	7,054.76	95.03	243.93	89.46	26.62	-1,102.82	2,484.15	2,194.97	289.18	8.590		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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)			
10,200.00	7,054.37	7,036.37	7,054.37	97.73	243.92	89.44	26.62	-1,102.82	2,576.69	2,287.63	289.06	8.914		
10,300.00	7,053.98	7,035.98	7,053.98	100.43	243.90	89.41	26.62	-1,102.82	2,669.78	2,380.82	288.96	9.239		
10,400.00	7,053.58	7,035.58	7,053.58	103.14	243.89	89.39	26.62	-1,102.82	2,763.34	2,474.48	288.86	9.566		
10,500.00	7,053.19	7,035.19	7,053.19	105.86	243.88	89.37	26.62	-1,102.82	2,857.34	2,568.58	288.76	9.895		
10,600.00	7,052.80	7,034.80	7,052.80	108.59	243.86	89.34	26.62	-1,102.82	2,951.74	2,663.07	288.67	10.225		
10,700.00	7,052.40	7,034.40	7,052.40	111.32	243.85	89.32	26.62	-1,102.82	3,046.49	2,757.90	288.59	10.557		
10,800.00	7,052.01	7,034.01	7,052.01	114.06	243.83	89.30	26.62	-1,102.82	3,141.57	2,853.06	288.51	10.889		
10,900.00	7,051.62	7,033.62	7,051.62	116.80	243.82	89.27	26.62	-1,102.82	3,236.95	2,948.51	288.44	11.222		
11,000.00	7,051.22	7,033.22	7,051.22	119.55	243.81	89.25	26.62	-1,102.82	3,332.59	3,044.22	288.37	11.557		
11,100.00	7,050.83	7,032.83	7,050.83	122.31	243.79	89.23	26.62	-1,102.82	3,428.49	3,140.18	288.30	11.892		
11,200.00	7,050.44	7,032.44	7,050.44	125.07	243.78	89.20	26.62	-1,102.82	3,524.61	3,236.36	288.24	12.228		
11,300.00	7,050.04	7,032.04	7,050.04	127.83	243.77	89.18	26.62	-1,102.82	3,620.94	3,332.75	288.19	12.564		
11,400.00	7,049.65	7,031.65	7,049.65	130.60	243.75	89.16	26.62	-1,102.82	3,717.47	3,429.33	288.14	12.902		
11,500.00	7,049.26	7,031.26	7,049.26	133.37	243.74	89.13	26.62	-1,102.82	3,814.17	3,526.08	288.09	13.239		
11,600.00	7,048.86	7,030.86	7,048.86	136.15	243.72	89.11	26.62	-1,102.82	3,911.04	3,623.00	288.05	13.578		
11,700.00	7,048.47	7,030.47	7,048.47	138.93	243.71	89.09	26.62	-1,102.82	4,008.07	3,720.06	288.01	13.917		
11,800.00	7,048.08	7,030.08	7,048.08	141.71	243.70	89.06	26.62	-1,102.82	4,105.24	3,817.26	287.97	14.256		
11,900.00	7,047.68	7,029.68	7,047.68	144.49	243.68	89.04	26.62	-1,102.82	4,202.54	3,914.60	287.94	14.595		
12,000.00	7,047.29	7,029.29	7,047.29	147.28	243.67	89.01	26.62	-1,102.82	4,299.96	4,012.05	287.91	14.935		
12,100.00	7,046.90	7,028.90	7,046.90	150.07	243.66	88.99	26.62	-1,102.82	4,397.50	4,109.62	287.88	15.275		
12,200.00	7,046.51	7,028.51	7,046.51	152.87	243.64	88.97	26.62	-1,102.82	4,495.15	4,207.29	287.86	15.616		
12,300.00	7,046.11	7,028.11	7,046.11	155.66	243.63	88.94	26.62	-1,102.82	4,592.90	4,305.06	287.84	15.957		
12,400.00	7,045.72	7,027.72	7,045.72	158.46	243.61	88.92	26.62	-1,102.82	4,690.74	4,402.92	287.82	16.298		
12,500.00	7,045.33	7,027.33	7,045.33	161.26	243.60	88.90	26.62	-1,102.82	4,788.67	4,500.87	287.80	16.639		
12,600.00	7,044.93	7,026.93	7,044.93	164.06	243.59	88.87	26.62	-1,102.82	4,886.69	4,598.90	287.79	16.980		
12,700.00	7,044.54	7,026.54	7,044.54	166.86	243.57	88.85	26.62	-1,102.82	4,984.79	4,697.00	287.78	17.321		
12,800.00	7,044.15	7,026.15	7,044.15	169.67	243.56	88.83	26.62	-1,102.82	5,082.95	4,795.18	287.77	17.663		
12,900.00	7,043.75	7,025.75	7,043.75	172.48	243.55	88.80	26.62	-1,102.82	5,181.19	4,893.43	287.77	18.005		
13,000.00	7,043.36	7,025.36	7,043.36	175.28	243.53	88.78	26.62	-1,102.82	5,279.50	4,991.74	287.76	18.347		
13,100.00	7,042.97	7,024.97	7,042.97	178.09	243.52	88.76	26.62	-1,102.82	5,377.87	5,090.11	287.76	18.689		
13,200.00	7,042.57	7,024.57	7,042.57	180.91	243.50	88.73	26.62	-1,102.82	5,476.30	5,188.53	287.76	19.031		
13,300.00	7,042.18	7,024.18	7,042.18	183.72	243.49	88.71	26.62	-1,102.82	5,574.78	5,287.01	287.77	19.373		
13,400.00	7,041.79	7,023.79	7,041.79	186.53	243.48	88.69	26.62	-1,102.82	5,673.31	5,385.54	287.77	19.715		
13,500.00	7,041.39	7,023.39	7,041.39	189.35	243.46	88.66	26.62	-1,102.82	5,771.90	5,484.12	287.78	20.057		
13,600.00	7,041.00	7,023.00	7,041.00	192.17	243.45	88.64	26.62	-1,102.82	5,870.54	5,582.75	287.78	20.399		
13,700.00	7,040.61	7,022.61	7,040.61	194.99	243.44	88.62	26.62	-1,102.82	5,969.21	5,681.42	287.80	20.741		
13,800.00	7,040.21	7,022.21	7,040.21	197.81	243.42	88.59	26.62	-1,102.82	6,067.94	5,780.13	287.81	21.083		
13,900.00	7,039.82	7,021.82	7,039.82	200.63	243.41	88.57	26.62	-1,102.82	6,166.70	5,878.88	287.82	21.425		
14,000.00	7,039.43	7,021.43	7,039.43	203.45	243.40	88.55	26.62	-1,102.82	6,265.50	5,977.67	287.84	21.768		
14,100.00	7,039.03	7,021.03	7,039.03	206.27	243.38	88.52	26.62	-1,102.82	6,364.35	6,076.49	287.85	22.110		
14,200.00	7,038.64	7,020.64	7,038.64	209.09	243.37	88.50	26.62	-1,102.82	6,463.22	6,175.35	287.87	22.452		
14,300.00	7,038.25	7,020.25	7,038.25	211.92	243.35	88.47	26.62	-1,102.82	6,562.13	6,274.24	287.89	22.794		
14,400.00	7,037.86	7,019.86	7,037.86	214.74	243.34	88.45	26.62	-1,102.82	6,661.07	6,373.16	287.91	23.136		
14,500.00	7,037.46	7,019.46	7,037.46	217.57	243.33	88.43	26.62	-1,102.82	6,760.05	6,472.11	287.94	23.478		
14,600.00	7,037.07	7,019.07	7,037.07	220.40	243.31	88.40	26.62	-1,102.82	6,859.05	6,571.09	287.96	23.819		
14,700.00	7,036.68	7,018.68	7,036.68	223.23	243.30	88.38	26.62	-1,102.82	6,958.08	6,670.10	287.99	24.161		
14,800.00	7,036.28	7,018.28	7,036.28	226.05	243.29	88.36	26.62	-1,102.82	7,057.14	6,769.13	288.02	24.503		
14,871.88	7,036.00	7,018.00	7,036.00	228.09	243.28	88.34	26.62	-1,102.82	7,128.36	6,840.33	288.04	24.748		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	11.00	3.28	3.28	-64.45	707.89	-1,481.05	1,641.57					
100.00	100.00	89.00	100.00	3.28	3.63	-64.45	707.89	-1,481.05	1,641.53	1,634.62	6.91	237.421		
200.00	200.00	189.00	200.00	3.34	5.86	-64.45	707.89	-1,481.05	1,641.53	1,632.34	9.19	178.542		
300.00	300.00	289.00	300.00	3.44	8.97	-64.45	707.89	-1,481.05	1,641.53	1,629.12	12.41	132.275 CC		
400.00	399.98	388.98	399.98	3.60	12.28	105.75	707.89	-1,481.05	1,642.00	1,626.13	15.88	103.432		
500.00	499.84	488.84	499.84	3.79	15.67	105.89	707.89	-1,481.05	1,643.43	1,623.98	19.45	84.491		
600.00	599.45	588.45	599.45	4.02	19.08	106.14	707.89	-1,481.05	1,645.84	1,622.75	23.10	71.260		
700.00	698.70	687.70	698.70	4.29	22.50	106.48	707.89	-1,481.05	1,649.29	1,622.50	26.79	61.570		
800.00	797.70	786.70	797.70	4.59	25.93	106.94	707.89	-1,481.05	1,653.39	1,622.88	30.51	54.185		
900.00	896.69	885.69	896.69	4.92	29.36	107.40	707.89	-1,481.05	1,657.61	1,623.33	34.27	48.363		
1,000.00	995.68	984.68	995.68	5.27	32.79	107.86	707.89	-1,481.05	1,661.93	1,623.87	38.06	43.664		
1,100.00	1,094.68	1,083.68	1,094.68	5.64	36.23	108.32	707.89	-1,481.05	1,666.37	1,624.50	41.87	39.797		
1,200.00	1,193.67	1,182.67	1,193.67	6.03	39.68	108.78	707.89	-1,481.05	1,670.91	1,625.21	45.70	36.565		
1,300.00	1,292.67	1,281.67	1,292.67	6.42	43.12	109.23	707.89	-1,481.05	1,675.56	1,626.02	49.54	33.825		
1,400.00	1,391.66	1,380.66	1,391.66	6.83	46.57	109.68	707.89	-1,481.05	1,680.31	1,626.92	53.39	31.474		
1,500.00	1,490.66	1,479.66	1,490.66	7.25	50.02	110.13	707.89	-1,481.05	1,685.17	1,627.93	57.25	29.436		
1,600.00	1,589.65	1,578.65	1,589.65	7.67	53.47	110.58	707.89	-1,481.05	1,690.14	1,629.02	61.12	27.655		
1,700.00	1,688.64	1,677.64	1,688.64	8.10	56.92	111.02	707.89	-1,481.05	1,695.21	1,630.22	64.99	26.084		
1,800.00	1,787.64	1,776.64	1,787.64	8.53	60.37	111.46	707.89	-1,481.05	1,700.38	1,631.51	68.87	24.690		
1,900.00	1,886.63	1,875.63	1,886.63	8.97	63.82	111.90	707.89	-1,481.05	1,705.65	1,632.90	72.75	23.444		
2,000.00	1,985.63	1,974.63	1,985.63	9.41	67.27	112.34	707.89	-1,481.05	1,711.02	1,634.38	76.64	22.325		
2,100.00	2,084.62	2,073.62	2,084.62	9.85	70.72	112.77	707.89	-1,481.05	1,716.50	1,635.97	80.53	21.314		
2,200.00	2,183.61	2,172.61	2,183.61	10.30	74.17	113.20	707.89	-1,481.05	1,722.07	1,637.64	84.43	20.397		
2,300.00	2,282.61	2,271.61	2,282.61	10.75	77.63	113.63	707.89	-1,481.05	1,727.74	1,639.42	88.32	19.562		
2,400.00	2,381.60	2,370.60	2,381.60	11.20	81.08	114.05	707.89	-1,481.05	1,733.51	1,641.29	92.22	18.797		
2,500.00	2,480.60	2,469.60	2,480.60	11.66	84.53	114.47	707.89	-1,481.05	1,739.37	1,643.25	96.12	18.095		
2,600.00	2,579.59	2,568.59	2,579.59	12.11	87.99	114.89	707.89	-1,481.05	1,745.33	1,645.30	100.02	17.449		
2,700.00	2,678.58	2,667.58	2,678.58	12.57	91.44	115.31	707.89	-1,481.05	1,751.38	1,647.45	103.93	16.852		
2,800.00	2,777.58	2,766.58	2,777.58	13.02	94.89	115.72	707.89	-1,481.05	1,757.53	1,649.69	107.83	16.299		
2,900.00	2,876.57	2,865.57	2,876.57	13.48	98.35	116.13	707.89	-1,481.05	1,763.76	1,652.03	111.74	15.785		
3,000.00	2,975.57	2,964.57	2,975.57	13.94	101.80	116.54	707.89	-1,481.05	1,770.09	1,654.45	115.64	15.306		
3,100.00	3,074.56	3,063.56	3,074.56	14.40	105.25	116.95	707.89	-1,481.05	1,776.51	1,656.96	119.55	14.860		
3,200.00	3,173.55	3,162.55	3,173.55	14.87	108.71	117.35	707.89	-1,481.05	1,783.02	1,659.56	123.46	14.442		
3,300.00	3,272.55	3,261.55	3,272.55	15.33	112.16	117.75	707.89	-1,481.05	1,789.61	1,662.24	127.37	14.051		
3,400.00	3,371.54	3,360.54	3,371.54	15.79	115.62	118.15	707.89	-1,481.05	1,796.30	1,665.02	131.28	13.683		
3,500.00	3,470.54	3,459.54	3,470.54	16.26	119.07	118.54	707.89	-1,481.05	1,803.07	1,667.88	135.19	13.338		
3,600.00	3,569.53	3,558.53	3,569.53	16.72	122.53	118.93	707.89	-1,481.05	1,809.92	1,670.82	139.10	13.012		
3,700.00	3,668.53	3,657.53	3,668.53	17.19	125.98	119.32	707.89	-1,481.05	1,816.86	1,673.85	143.01	12.705		
3,800.00	3,767.52	3,756.52	3,767.52	17.65	129.44	119.70	707.89	-1,481.05	1,823.88	1,676.96	146.92	12.414		
3,900.00	3,866.51	3,855.51	3,866.51	18.12	132.89	120.08	707.89	-1,481.05	1,830.99	1,680.16	150.83	12.139		
4,000.00	3,965.51	3,954.51	3,965.51	18.59	136.35	120.46	707.89	-1,481.05	1,838.17	1,683.43	154.74	11.879		
4,100.00	4,064.50	4,053.50	4,064.50	19.05	139.80	120.84	707.89	-1,481.05	1,845.44	1,686.79	158.65	11.632		
4,200.00	4,163.50	4,152.50	4,163.50	19.52	143.26	121.21	707.89	-1,481.05	1,852.78	1,690.22	162.56	11.397		
4,300.00	4,262.49	4,251.49	4,262.49	19.99	146.71	121.58	707.89	-1,481.05	1,860.21	1,693.73	166.48	11.174		
4,400.00	4,361.48	4,350.48	4,361.48	20.46	150.17	121.95	707.89	-1,481.05	1,867.71	1,697.32	170.39	10.962		
4,500.00	4,460.48	4,449.48	4,460.48	20.92	153.62	122.31	707.89	-1,481.05	1,875.29	1,700.99	174.30	10.759		
4,600.00	4,559.47	4,548.47	4,559.47	21.39	157.08	122.67	707.89	-1,481.05	1,882.95	1,704.73	178.21	10.566		
4,700.00	4,658.47	4,647.47	4,658.47	21.86	160.53	123.03	707.89	-1,481.05	1,890.68	1,708.55	182.12	10.381		
4,800.00	4,757.46	4,746.46	4,757.46	22.33	163.99	123.39	707.89	-1,481.05	1,898.48	1,712.44	186.04	10.205		
4,900.00	4,856.45	4,845.45	4,856.45	22.80	167.44	123.74	707.89	-1,481.05	1,906.36	1,716.41	189.95	10.036		
5,000.00	4,955.45	4,944.45	4,955.45	23.27	170.90	124.09	707.89	-1,481.05	1,914.30	1,720.44	193.86	9.875		
5,100.00	5,054.44	5,043.44	5,054.44	23.74	174.35	124.44	707.89	-1,481.05	1,922.32	1,724.55	197.77	9.720		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,153.44	5,142.44	5,153.44	24.21	177.81	124.78	707.89	-1,481.05	1,930.42	1,728.73	201.68	9.571	
5,300.00	5,252.43	5,241.43	5,252.43	24.68	181.26	125.12	707.89	-1,481.05	1,938.58	1,732.98	205.60	9.429	
5,400.00	5,351.42	5,340.42	5,351.42	25.15	184.72	125.46	707.89	-1,481.05	1,946.80	1,737.30	209.51	9.292	
5,500.00	5,450.42	5,439.42	5,450.42	25.62	188.17	125.79	707.89	-1,481.05	1,955.10	1,741.68	213.42	9.161	
5,600.00	5,549.41	5,538.41	5,549.41	26.09	191.63	126.13	707.89	-1,481.05	1,963.46	1,746.13	217.33	9.034	
5,700.00	5,648.41	5,637.41	5,648.41	26.56	195.08	126.46	707.89	-1,481.05	1,971.89	1,750.65	221.24	8.913	
5,800.00	5,747.40	5,736.40	5,747.40	27.03	198.54	126.78	707.89	-1,481.05	1,980.39	1,755.23	225.16	8.796	
5,900.00	5,846.40	5,835.40	5,846.40	27.51	202.00	127.11	707.89	-1,481.05	1,988.95	1,759.88	229.07	8.683	
6,000.00	5,945.39	5,934.39	5,945.39	27.98	205.45	127.43	707.89	-1,481.05	1,997.57	1,764.59	232.98	8.574	
6,100.00	6,044.38	6,033.38	6,044.38	28.45	208.91	127.75	707.89	-1,481.05	2,006.25	1,769.36	236.89	8.469	
6,200.00	6,143.38	6,132.38	6,143.38	28.92	212.36	128.07	707.89	-1,481.05	2,015.00	1,774.20	240.80	8.368	
6,300.00	6,242.37	6,231.37	6,242.37	29.39	215.82	128.38	707.89	-1,481.05	2,023.81	1,779.10	244.71	8.270	
6,400.00	6,341.37	6,330.37	6,341.37	29.86	219.27	128.69	707.89	-1,481.05	2,032.68	1,784.05	248.62	8.176	
6,500.00	6,440.36	6,429.36	6,440.36	30.34	222.73	129.00	707.89	-1,481.05	2,041.61	1,789.07	252.54	8.084	
6,600.00	6,538.90	6,527.90	6,538.90	30.80	226.17	89.76	707.89	-1,481.05	2,046.50	1,790.07	256.43	7.981	
6,700.00	6,634.88	6,623.88	6,634.88	31.25	229.52	74.36	707.89	-1,481.05	2,041.49	1,781.27	260.22	7.845	
6,800.00	6,725.92	6,714.92	6,725.92	31.68	232.70	69.44	707.89	-1,481.05	2,027.10	1,763.28	263.81	7.684	
6,900.00	6,809.79	6,801.21	6,809.79	32.07	235.71	68.75	707.89	-1,481.05	2,004.30	1,737.07	267.23	7.500	
7,000.00	6,884.42	6,873.42	6,884.42	32.43	238.23	70.38	707.89	-1,481.05	1,974.42	1,704.24	270.17	7.308	
7,100.00	6,947.98	6,936.98	6,947.98	32.77	240.45	73.47	707.89	-1,481.05	1,939.04	1,666.18	272.87	7.106	
7,200.00	6,998.89	6,987.89	6,998.89	33.18	242.22	77.47	707.89	-1,481.05	1,899.95	1,624.73	275.22	6.903	
7,300.00	7,035.91	7,024.91	7,035.91	33.76	243.52	81.88	707.89	-1,481.05	1,858.97	1,581.74	277.23	6.706	
7,400.00	7,058.12	7,047.12	7,058.12	34.61	244.29	86.25	707.89	-1,481.05	1,817.90	1,539.00	278.90	6.518	
7,500.00	7,064.98	7,053.98	7,064.98	35.68	244.53	90.09	707.89	-1,481.05	1,778.33	1,498.12	280.21	6.346	
7,600.00	7,064.59	7,053.59	7,064.59	36.95	244.52	90.08	707.89	-1,481.05	1,742.49	1,461.04	281.45	6.191	
7,700.00	7,064.20	7,053.20	7,064.20	38.40	244.50	90.07	707.89	-1,481.05	1,711.75	1,428.87	282.89	6.051	
7,800.00	7,063.80	7,052.80	7,063.80	40.00	244.49	90.05	707.89	-1,481.05	1,686.40	1,401.91	284.49	5.928	
7,900.00	7,063.41	7,052.41	7,063.41	41.75	244.48	90.04	707.89	-1,481.05	1,666.66	1,380.43	286.23	5.823	
8,000.00	7,063.02	7,052.02	7,063.02	43.62	244.46	90.02	707.89	-1,481.05	1,652.75	1,364.69	288.06	5.737	
8,100.00	7,062.62	7,051.62	7,062.62	45.59	244.45	90.01	707.89	-1,481.05	1,644.81	1,354.86	289.95	5.673	
8,180.89	7,062.31	7,051.31	7,062.31	47.25	244.44	90.00	707.89	-1,481.05	1,642.82	1,351.32	291.50	5.636	
8,200.00	7,062.23	7,051.23	7,062.23	47.65	244.44	90.00	707.89	-1,481.05	1,642.93	1,351.08	291.85	5.629 ES	
8,300.00	7,061.84	7,050.84	7,061.84	49.79	244.42	89.98	707.89	-1,481.05	1,647.13	1,353.40	293.73	5.608 SF	
8,400.00	7,061.45	7,050.45	7,061.45	52.00	244.41	89.97	707.89	-1,481.05	1,657.37	1,361.83	295.54	5.608	
8,500.00	7,061.05	7,050.05	7,061.05	54.27	244.39	89.96	707.89	-1,481.05	1,673.53	1,376.27	297.25	5.630	
8,600.00	7,060.66	7,049.66	7,060.66	56.60	244.38	89.94	707.89	-1,481.05	1,695.44	1,396.59	298.85	5.673	
8,700.00	7,060.27	7,049.27	7,060.27	58.97	244.37	89.93	707.89	-1,481.05	1,722.88	1,422.57	300.31	5.737	
8,800.00	7,059.87	7,048.87	7,059.87	61.38	244.35	89.92	707.89	-1,481.05	1,755.61	1,453.98	301.63	5.820	
8,900.00	7,059.48	7,048.48	7,059.48	63.83	244.34	89.90	707.89	-1,481.05	1,793.31	1,490.51	302.80	5.922	
9,000.00	7,059.09	7,048.09	7,059.09	66.32	244.33	89.89	707.89	-1,481.05	1,835.70	1,531.87	303.83	6.042	
9,100.00	7,058.69	7,047.69	7,058.69	68.83	244.31	89.87	707.89	-1,481.05	1,882.45	1,577.73	304.72	6.178	
9,200.00	7,058.30	7,047.30	7,058.30	71.37	244.30	89.86	707.89	-1,481.05	1,933.24	1,627.76	305.48	6.329	
9,300.00	7,057.91	7,046.91	7,057.91	73.93	244.28	89.85	707.89	-1,481.05	1,987.78	1,681.65	306.12	6.493	
9,400.00	7,057.51	7,046.51	7,057.51	76.51	244.27	89.83	707.89	-1,481.05	2,045.74	1,739.09	306.65	6.671	
9,500.00	7,057.12	7,046.12	7,057.12	79.11	244.26	89.82	707.89	-1,481.05	2,106.87	1,799.78	307.09	6.861	
9,600.00	7,056.73	7,045.73	7,056.73	81.73	244.24	89.81	707.89	-1,481.05	2,170.88	1,863.43	307.45	7.061	
9,700.00	7,056.33	7,045.33	7,056.33	84.37	244.23	89.79	707.89	-1,481.05	2,237.53	1,929.80	307.72	7.271	
9,800.00	7,055.94	7,044.94	7,055.94	87.01	244.22	89.78	707.89	-1,481.05	2,306.59	1,998.65	307.94	7.490	
9,900.00	7,055.55	7,044.55	7,055.55	89.68	244.20	89.76	707.89	-1,481.05	2,377.85	2,069.75	308.10	7.718	
10,000.00	7,055.15	7,044.15	7,055.15	92.35	244.19	89.75	707.89	-1,481.05	2,451.12	2,142.91	308.21	7.953	
10,100.00	7,054.76	7,043.76	7,054.76	95.03	244.17	89.74	707.89	-1,481.05	2,526.22	2,217.94	308.29	8.194	
10,200.00	7,054.37	7,043.37	7,054.37	97.73	244.16	89.72	707.89	-1,481.05	2,603.00	2,294.68	308.32	8.442	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,053.98	7,042.98	7,053.98	100.43	244.15	89.71	707.89	-1,481.05	2,681.31	2,372.98	308.34	8.696		
10,400.00	7,053.58	7,042.58	7,053.58	103.14	244.13	89.70	707.89	-1,481.05	2,761.02	2,452.70	308.32	8.955		
10,500.00	7,053.19	7,042.19	7,053.19	105.86	244.12	89.68	707.89	-1,481.05	2,842.02	2,533.73	308.29	9.219		
10,600.00	7,052.80	7,041.80	7,052.80	108.59	244.11	89.67	707.89	-1,481.05	2,924.19	2,615.95	308.24	9.487		
10,700.00	7,052.40	7,041.40	7,052.40	111.32	244.09	89.65	707.89	-1,481.05	3,007.44	2,699.26	308.18	9.759		
10,800.00	7,052.01	7,041.01	7,052.01	114.06	244.08	89.64	707.89	-1,481.05	3,091.68	2,783.58	308.11	10.034		
10,900.00	7,051.62	7,040.62	7,051.62	116.80	244.06	89.63	707.89	-1,481.05	3,176.84	2,868.82	308.03	10.314		
11,000.00	7,051.22	7,040.22	7,051.22	119.55	244.05	89.61	707.89	-1,481.05	3,262.84	2,954.90	307.94	10.596		
11,100.00	7,050.83	7,039.83	7,050.83	122.31	244.04	89.60	707.89	-1,481.05	3,349.62	3,041.77	307.85	10.881		
11,200.00	7,050.44	7,039.44	7,050.44	125.07	244.02	89.59	707.89	-1,481.05	3,437.12	3,129.37	307.75	11.169		
11,300.00	7,050.04	7,039.04	7,050.04	127.83	244.01	89.57	707.89	-1,481.05	3,525.28	3,217.63	307.65	11.459		
11,400.00	7,049.65	7,038.65	7,049.65	130.60	244.00	89.56	707.89	-1,481.05	3,614.05	3,306.50	307.55	11.751		
11,500.00	7,049.26	7,038.26	7,049.26	133.37	243.98	89.54	707.89	-1,481.05	3,703.40	3,395.96	307.45	12.046		
11,600.00	7,048.86	7,037.86	7,048.86	136.15	243.97	89.53	707.89	-1,481.05	3,793.29	3,485.94	307.35	12.342		
11,700.00	7,048.47	7,037.47	7,048.47	138.93	243.96	89.52	707.89	-1,481.05	3,883.66	3,576.42	307.25	12.640		
11,800.00	7,048.08	7,037.08	7,048.08	141.71	243.94	89.50	707.89	-1,481.05	3,974.50	3,667.35	307.14	12.940		
11,900.00	7,047.68	7,036.68	7,047.68	144.49	243.93	89.49	707.89	-1,481.05	4,065.77	3,758.72	307.04	13.242		
12,000.00	7,047.29	7,036.29	7,047.29	147.28	243.91	89.48	707.89	-1,481.05	4,157.43	3,850.49	306.95	13.544		
12,100.00	7,046.90	7,035.90	7,046.90	150.07	243.90	89.46	707.89	-1,481.05	4,249.48	3,942.63	306.85	13.849		
12,200.00	7,046.51	7,035.51	7,046.51	152.87	243.89	89.45	707.89	-1,481.05	4,341.88	4,035.12	306.76	14.154		
12,300.00	7,046.11	7,035.11	7,046.11	155.66	243.87	89.44	707.89	-1,481.05	4,434.60	4,127.94	306.66	14.461		
12,400.00	7,045.72	7,034.72	7,045.72	158.46	243.86	89.42	707.89	-1,481.05	4,527.64	4,221.06	306.57	14.769		
12,500.00	7,045.33	7,034.33	7,045.33	161.26	243.85	89.41	707.89	-1,481.05	4,620.96	4,314.48	306.48	15.077		
12,600.00	7,044.93	7,033.93	7,044.93	164.06	243.83	89.39	707.89	-1,481.05	4,714.56	4,408.17	306.40	15.387		
12,700.00	7,044.54	7,033.54	7,044.54	166.86	243.82	89.38	707.89	-1,481.05	4,808.42	4,502.11	306.32	15.698		
12,800.00	7,044.15	7,033.15	7,044.15	169.67	243.80	89.37	707.89	-1,481.05	4,902.52	4,596.29	306.24	16.009		
12,900.00	7,043.75	7,032.75	7,043.75	172.48	243.79	89.35	707.89	-1,481.05	4,996.85	4,690.70	306.16	16.321		
13,000.00	7,043.36	7,032.36	7,043.36	175.28	243.78	89.34	707.89	-1,481.05	5,091.40	4,785.32	306.08	16.634		
13,100.00	7,042.97	7,031.97	7,042.97	178.09	243.76	89.33	707.89	-1,481.05	5,186.15	4,880.14	306.01	16.948		
13,200.00	7,042.57	7,031.57	7,042.57	180.91	243.75	89.31	707.89	-1,481.05	5,281.10	4,975.16	305.94	17.262		
13,300.00	7,042.18	7,031.18	7,042.18	183.72	243.74	89.30	707.89	-1,481.05	5,376.22	5,070.35	305.87	17.577		
13,400.00	7,041.79	7,030.79	7,041.79	186.53	243.72	89.28	707.89	-1,481.05	5,471.52	5,165.72	305.81	17.892		
13,500.00	7,041.39	7,030.39	7,041.39	189.35	243.71	89.27	707.89	-1,481.05	5,566.99	5,261.25	305.74	18.208		
13,600.00	7,041.00	7,030.00	7,041.00	192.17	243.69	89.26	707.89	-1,481.05	5,662.61	5,356.93	305.68	18.524		
13,700.00	7,040.61	7,029.61	7,040.61	194.99	243.68	89.24	707.89	-1,481.05	5,758.39	5,452.76	305.63	18.841		
13,800.00	7,040.21	7,029.21	7,040.21	197.81	243.67	89.23	707.89	-1,481.05	5,854.30	5,548.73	305.57	19.159		
13,900.00	7,039.82	7,028.82	7,039.82	200.63	243.65	89.22	707.89	-1,481.05	5,950.35	5,644.83	305.52	19.476		
14,000.00	7,039.43	7,028.43	7,039.43	203.45	243.64	89.20	707.89	-1,481.05	6,046.52	5,741.05	305.47	19.794		
14,100.00	7,039.03	7,028.03	7,039.03	206.27	243.63	89.19	707.89	-1,481.05	6,142.82	5,837.40	305.42	20.113		
14,200.00	7,038.64	7,027.64	7,038.64	209.09	243.61	89.17	707.89	-1,481.05	6,239.23	5,933.86	305.37	20.431		
14,300.00	7,038.25	7,027.25	7,038.25	211.92	243.60	89.16	707.89	-1,481.05	6,335.76	6,030.43	305.33	20.751		
14,400.00	7,037.86	7,026.86	7,037.86	214.74	243.58	89.15	707.89	-1,481.05	6,432.39	6,127.10	305.29	21.070		
14,500.00	7,037.46	7,026.46	7,037.46	217.57	243.57	89.13	707.89	-1,481.05	6,529.12	6,223.87	305.25	21.389		
14,600.00	7,037.07	7,026.07	7,037.07	220.40	243.56	89.12	707.89	-1,481.05	6,625.95	6,320.74	305.21	21.709		
14,700.00	7,036.68	7,025.68	7,036.68	223.23	243.54	89.11	707.89	-1,481.05	6,722.87	6,417.70	305.18	22.029		
14,800.00	7,036.28	7,025.28	7,036.28	226.05	243.53	89.09	707.89	-1,481.05	6,819.89	6,514.74	305.14	22.350		
14,871.88	7,036.00	7,025.00	7,036.00	228.09	243.52	89.08	707.89	-1,481.05	6,889.67	6,584.55	305.12	22.580		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	48.00	3.28	3.28	-76.30	1,215.83	-4,989.02	5,135.26					
100.00	100.00	52.00	100.00	3.28	3.40	-76.30	1,215.83	-4,989.02	5,135.03	5,128.34	6.69	767.799		
200.00	200.00	152.00	200.00	3.34	4.84	-76.30	1,215.83	-4,989.02	5,135.03	5,126.85	8.18	627.885		
300.00	300.00	252.00	300.00	3.44	7.78	-76.30	1,215.83	-4,989.02	5,135.03	5,123.81	11.22	457.577		
400.00	399.98	351.98	399.98	3.60	11.04	93.86	1,215.83	-4,989.02	5,135.15	5,120.51	14.64	350.864		
500.00	499.84	451.84	499.84	3.79	14.41	93.92	1,215.83	-4,989.02	5,135.51	5,117.32	18.19	282.324		
600.00	599.45	551.45	599.45	4.02	17.81	94.00	1,215.83	-4,989.02	5,136.11	5,114.28	21.82	235.335		
700.00	698.70	650.70	698.70	4.29	21.23	94.12	1,215.83	-4,989.02	5,136.98	5,111.47	25.51	201.374		
800.00	797.70	749.70	797.70	4.59	24.65	94.27	1,215.83	-4,989.02	5,138.02	5,108.79	29.23	175.760		
900.00	896.69	848.69	896.69	4.92	28.07	94.43	1,215.83	-4,989.02	5,139.11	5,106.11	32.99	155.764		
1,000.00	995.68	947.68	995.68	5.27	31.51	94.58	1,215.83	-4,989.02	5,140.23	5,103.45	36.78	139.754		
1,100.00	1,094.68	1,046.68	1,094.68	5.64	34.95	94.74	1,215.83	-4,989.02	5,141.39	5,100.80	40.59	126.666		
1,200.00	1,193.67	1,145.67	1,193.67	6.03	38.39	94.89	1,215.83	-4,989.02	5,142.59	5,098.17	44.42	115.779		
1,300.00	1,292.67	1,244.67	1,292.67	6.42	41.83	95.05	1,215.83	-4,989.02	5,143.83	5,095.57	48.26	106.588		
1,400.00	1,391.66	1,343.66	1,391.66	6.83	45.28	95.20	1,215.83	-4,989.02	5,145.11	5,092.99	52.11	98.731		
1,500.00	1,490.66	1,442.66	1,490.66	7.25	48.73	95.36	1,215.83	-4,989.02	5,146.42	5,090.45	55.97	91.942		
1,600.00	1,589.65	1,541.65	1,589.65	7.67	52.18	95.52	1,215.83	-4,989.02	5,147.78	5,087.93	59.85	86.018		
1,700.00	1,688.64	1,640.64	1,688.64	8.10	55.63	95.67	1,215.83	-4,989.02	5,149.17	5,085.45	63.72	80.805		
1,800.00	1,787.64	1,739.64	1,787.64	8.53	59.08	95.83	1,215.83	-4,989.02	5,150.60	5,082.99	67.61	76.185		
1,900.00	1,886.63	1,838.63	1,886.63	8.97	62.53	95.98	1,215.83	-4,989.02	5,152.07	5,080.58	71.49	72.063		
2,000.00	1,985.63	1,937.63	1,985.63	9.41	65.98	96.14	1,215.83	-4,989.02	5,153.58	5,078.19	75.39	68.362		
2,100.00	2,084.62	2,036.62	2,084.62	9.85	69.43	96.29	1,215.83	-4,989.02	5,155.12	5,075.84	79.28	65.023		
2,200.00	2,183.61	2,135.61	2,183.61	10.30	72.88	96.44	1,215.83	-4,989.02	5,156.71	5,073.53	83.18	61.994		
2,300.00	2,282.61	2,234.61	2,282.61	10.75	76.34	96.60	1,215.83	-4,989.02	5,158.33	5,071.25	87.08	59.235		
2,400.00	2,381.60	2,333.60	2,381.60	11.20	79.79	96.75	1,215.83	-4,989.02	5,159.99	5,069.01	90.99	56.712		
2,500.00	2,480.60	2,432.60	2,480.60	11.66	83.24	96.91	1,215.83	-4,989.02	5,161.69	5,066.80	94.89	54.396		
2,600.00	2,579.59	2,531.59	2,579.59	12.11	86.69	97.06	1,215.83	-4,989.02	5,163.43	5,064.63	98.80	52.262		
2,700.00	2,678.58	2,630.58	2,678.58	12.57	90.15	97.22	1,215.83	-4,989.02	5,165.21	5,062.50	102.71	50.290		
2,800.00	2,777.58	2,729.58	2,777.58	13.02	93.60	97.37	1,215.83	-4,989.02	5,167.02	5,060.40	106.62	48.462		
2,900.00	2,876.57	2,828.57	2,876.57	13.48	97.06	97.52	1,215.83	-4,989.02	5,168.87	5,058.34	110.53	46.764		
3,000.00	2,975.57	2,927.57	2,975.57	13.94	100.51	97.68	1,215.83	-4,989.02	5,170.76	5,056.32	114.44	45.181		
3,100.00	3,074.56	3,026.56	3,074.56	14.40	103.96	97.83	1,215.83	-4,989.02	5,172.69	5,054.33	118.36	43.704		
3,200.00	3,173.55	3,125.55	3,173.55	14.87	107.42	97.99	1,215.83	-4,989.02	5,174.66	5,052.38	122.27	42.320		
3,300.00	3,272.55	3,224.55	3,272.55	15.33	110.87	98.14	1,215.83	-4,989.02	5,176.66	5,050.47	126.19	41.023		
3,400.00	3,371.54	3,323.54	3,371.54	15.79	114.33	98.29	1,215.83	-4,989.02	5,178.70	5,048.60	130.11	39.803		
3,500.00	3,470.54	3,422.54	3,470.54	16.26	117.78	98.45	1,215.83	-4,989.02	5,180.78	5,046.76	134.02	38.656		
3,600.00	3,569.53	3,521.53	3,569.53	16.72	121.24	98.60	1,215.83	-4,989.02	5,182.90	5,044.96	137.94	37.573		
3,700.00	3,668.53	3,620.53	3,668.53	17.19	124.69	98.75	1,215.83	-4,989.02	5,185.06	5,043.20	141.86	36.550		
3,800.00	3,767.52	3,719.52	3,767.52	17.65	128.15	98.91	1,215.83	-4,989.02	5,187.25	5,041.47	145.78	35.583		
3,900.00	3,866.51	3,818.51	3,866.51	18.12	131.60	99.06	1,215.83	-4,989.02	5,189.48	5,039.78	149.70	34.666		
4,000.00	3,965.51	3,917.51	3,965.51	18.59	135.05	99.21	1,215.83	-4,989.02	5,191.75	5,038.13	153.62	33.796		
4,100.00	4,064.50	4,016.50	4,064.50	19.05	138.51	99.36	1,215.83	-4,989.02	5,194.06	5,036.51	157.54	32.969		
4,200.00	4,163.50	4,115.50	4,163.50	19.52	141.96	99.52	1,215.83	-4,989.02	5,196.40	5,034.94	161.46	32.183		
4,300.00	4,262.49	4,214.49	4,262.49	19.99	145.42	99.67	1,215.83	-4,989.02	5,198.78	5,033.40	165.38	31.435		
4,400.00	4,361.48	4,313.48	4,361.48	20.46	148.87	99.82	1,215.83	-4,989.02	5,201.20	5,031.89	169.31	30.721		
4,500.00	4,460.48	4,412.48	4,460.48	20.92	152.33	99.97	1,215.83	-4,989.02	5,203.65	5,030.43	173.23	30.039		
4,600.00	4,559.47	4,511.47	4,559.47	21.39	155.78	100.12	1,215.83	-4,989.02	5,206.15	5,029.00	177.15	29.388		
4,700.00	4,658.47	4,610.47	4,658.47	21.86	159.24	100.28	1,215.83	-4,989.02	5,208.68	5,027.60	181.07	28.766		
4,800.00	4,757.46	4,709.46	4,757.46	22.33	162.70	100.43	1,215.83	-4,989.02	5,211.24	5,026.25	185.00	28.170		
4,900.00	4,856.45	4,808.45	4,856.45	22.80	166.15	100.58	1,215.83	-4,989.02	5,213.85	5,024.93	188.92	27.598		
5,000.00	4,955.45	4,907.45	4,955.45	23.27	169.61	100.73	1,215.83	-4,989.02	5,216.49	5,023.65	192.84	27.051		
5,100.00	5,054.44	5,006.44	5,054.44	23.74	173.06	100.88	1,215.83	-4,989.02	5,219.17	5,022.40	196.76	26.525		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,105.44	5,153.44	24.21	176.52	101.03	1,215.83	-4,989.02	5,221.88	5,021.20	200.69	26.020		
5,300.00	5,252.43	5,204.43	5,252.43	24.68	179.97	101.18	1,215.83	-4,989.02	5,224.64	5,020.03	204.61	25.534		
5,400.00	5,351.42	5,303.42	5,351.42	25.15	183.43	101.33	1,215.83	-4,989.02	5,227.43	5,018.89	208.54	25.067		
5,500.00	5,450.42	5,402.42	5,450.42	25.62	186.88	101.48	1,215.83	-4,989.02	5,230.25	5,017.79	212.46	24.618		
5,600.00	5,549.41	5,501.41	5,549.41	26.09	190.34	101.63	1,215.83	-4,989.02	5,233.12	5,016.73	216.38	24.184		
5,700.00	5,648.41	5,600.41	5,648.41	26.56	193.79	101.78	1,215.83	-4,989.02	5,236.01	5,015.71	220.31	23.767		
5,800.00	5,747.40	5,700.60	5,747.40	27.03	197.29	101.93	1,215.83	-4,989.02	5,238.95	5,014.68	224.27	23.360		
5,900.00	5,846.40	5,801.61	5,846.40	27.51	200.82	102.08	1,215.83	-4,989.02	5,241.92	5,013.65	228.27	22.964		
6,000.00	5,945.39	5,902.61	5,945.39	27.98	204.34	102.23	1,215.83	-4,989.02	5,244.93	5,012.67	232.26	22.582		
6,100.00	6,044.38	6,003.62	6,044.38	28.45	207.87	102.38	1,215.83	-4,989.02	5,247.98	5,011.72	236.26	22.213		
6,200.00	6,143.38	6,104.62	6,143.38	28.92	211.39	102.53	1,215.83	-4,989.02	5,251.06	5,010.81	240.25	21.856		
6,300.00	6,242.37	6,205.63	6,242.37	29.39	214.92	102.68	1,215.83	-4,989.02	5,254.18	5,009.93	244.25	21.512		
6,400.00	6,341.37	6,306.63	6,341.37	29.86	218.44	102.83	1,215.83	-4,989.02	5,257.33	5,009.09	248.24	21.178		
6,500.00	6,440.36	6,407.64	6,440.36	30.34	221.97	102.98	1,215.83	-4,989.02	5,260.52	5,008.29	252.24	20.856		
6,600.00	6,538.90	6,509.10	6,538.90	30.80	225.51	63.86	1,215.83	-4,989.02	5,257.96	5,001.71	256.25	20.519		
6,700.00	6,634.88	6,586.88	6,634.88	31.25	228.23	48.23	1,215.83	-4,989.02	5,241.23	4,981.82	259.41	20.204		
6,800.00	6,725.92	6,677.92	6,725.92	31.68	231.40	42.81	1,215.83	-4,989.02	5,210.76	4,947.73	263.02	19.811		
6,900.00	6,809.79	6,761.79	6,809.79	32.07	234.33	41.54	1,215.83	-4,989.02	5,167.36	4,901.00	266.35	19.400		
7,000.00	6,884.42	6,836.42	6,884.42	32.43	236.94	42.81	1,215.83	-4,989.02	5,112.20	4,842.85	269.34	18.980		
7,100.00	6,947.98	6,900.02	6,947.98	32.77	239.16	46.36	1,215.83	-4,989.02	5,046.71	4,774.78	271.93	18.559		
7,200.00	6,998.89	6,950.89	6,998.89	33.18	240.93	52.45	1,215.83	-4,989.02	4,972.60	4,698.53	274.08	18.143		
7,300.00	7,035.91	6,987.91	7,035.91	33.76	242.23	61.73	1,215.83	-4,989.02	4,891.75	4,616.01	275.74	17.740		
7,400.00	7,058.12	7,010.12	7,058.12	34.61	243.00	74.76	1,215.83	-4,989.02	4,806.19	4,529.28	276.92	17.356		
7,500.00	7,064.98	7,016.98	7,064.98	35.68	243.24	90.43	1,215.83	-4,989.02	4,718.05	4,440.47	277.58	16.997		
7,600.00	7,064.59	7,016.59	7,064.59	36.95	243.23	90.42	1,215.83	-4,989.02	4,629.58	4,351.54	278.04	16.651		
7,700.00	7,064.20	7,016.20	7,064.20	38.40	243.21	90.41	1,215.83	-4,989.02	4,541.60	4,263.03	278.57	16.303		
7,800.00	7,063.80	7,015.80	7,063.80	40.00	243.20	90.40	1,215.83	-4,989.02	4,454.12	4,174.93	279.19	15.954		
7,900.00	7,063.41	7,015.41	7,063.41	41.75	243.19	90.39	1,215.83	-4,989.02	4,367.18	4,087.30	279.89	15.603		
8,000.00	7,063.02	7,015.02	7,063.02	43.62	243.17	90.38	1,215.83	-4,989.02	4,280.82	4,000.14	280.68	15.252		
8,100.00	7,062.62	7,014.62	7,062.62	45.59	243.16	90.37	1,215.83	-4,989.02	4,195.05	3,913.50	281.56	14.899		
8,200.00	7,062.23	7,014.23	7,062.23	47.65	243.14	90.36	1,215.83	-4,989.02	4,109.93	3,827.40	282.54	14.547		
8,300.00	7,061.84	7,013.84	7,061.84	49.79	243.13	90.35	1,215.83	-4,989.02	4,025.50	3,741.88	283.62	14.193		
8,400.00	7,061.45	7,013.45	7,061.45	52.00	243.12	90.34	1,215.83	-4,989.02	3,941.79	3,656.98	284.81	13.840		
8,500.00	7,061.05	7,013.05	7,061.05	54.27	243.10	90.33	1,215.83	-4,989.02	3,858.86	3,572.75	286.10	13.488		
8,600.00	7,060.66	7,012.66	7,060.66	56.60	243.09	90.32	1,215.83	-4,989.02	3,776.75	3,489.24	287.52	13.136		
8,700.00	7,060.27	7,012.27	7,060.27	58.97	243.08	90.31	1,215.83	-4,989.02	3,695.53	3,406.48	289.05	12.785		
8,800.00	7,059.87	7,011.87	7,059.87	61.38	243.06	90.30	1,215.83	-4,989.02	3,615.25	3,324.55	290.70	12.436		
8,900.00	7,059.48	7,011.48	7,059.48	63.83	243.05	90.29	1,215.83	-4,989.02	3,535.97	3,243.50	292.48	12.090		
9,000.00	7,059.09	7,011.09	7,059.09	66.32	243.03	90.28	1,215.83	-4,989.02	3,457.77	3,163.39	294.38	11.746		
9,100.00	7,058.69	7,010.69	7,058.69	68.83	243.02	90.27	1,215.83	-4,989.02	3,380.72	3,084.30	296.42	11.405		
9,200.00	7,058.30	7,010.30	7,058.30	71.37	243.01	90.26	1,215.83	-4,989.02	3,304.90	3,006.31	298.58	11.069		
9,300.00	7,057.91	7,009.91	7,057.91	73.93	242.99	90.25	1,215.83	-4,989.02	3,230.39	2,929.50	300.89	10.736		
9,400.00	7,057.51	7,009.51	7,057.51	76.51	242.98	90.24	1,215.83	-4,989.02	3,157.29	2,853.96	303.33	10.409		
9,500.00	7,057.12	7,009.12	7,057.12	79.11	242.97	90.23	1,215.83	-4,989.02	3,085.71	2,779.79	305.91	10.087		
9,600.00	7,056.73	7,008.73	7,056.73	81.73	242.95	90.22	1,215.83	-4,989.02	3,015.74	2,707.10	308.64	9.771		
9,700.00	7,056.33	7,008.33	7,056.33	84.37	242.94	90.21	1,215.83	-4,989.02	2,947.50	2,636.00	311.50	9.462		
9,800.00	7,055.94	7,007.94	7,055.94	87.01	242.92	90.19	1,215.83	-4,989.02	2,881.11	2,566.62	314.49	9.161		
9,900.00	7,055.55	7,007.55	7,055.55	89.68	242.91	90.18	1,215.83	-4,989.02	2,816.72	2,499.09	317.63	8.868		
10,000.00	7,055.15	7,007.15	7,055.15	92.35	242.90	90.17	1,215.83	-4,989.02	2,754.44	2,433.55	320.90	8.584		
10,100.00	7,054.76	7,006.76	7,054.76	95.03	242.88	90.16	1,215.83	-4,989.02	2,694.45	2,370.16	324.29	8.309		
10,200.00	7,054.37	7,006.37	7,054.37	97.73	242.87	90.15	1,215.83	-4,989.02	2,636.88	2,309.08	327.80	8.044		
10,300.00	7,053.98	7,005.98	7,053.98	100.43	242.86	90.14	1,215.83	-4,989.02	2,581.90	2,250.48	331.42	7.790		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	7,005.58	7,053.58	103.14	242.84	90.13	1,215.83	-4,989.02	2,529.68	2,194.55	335.13	7.548		
10,500.00	7,053.19	7,005.19	7,053.19	105.86	242.83	90.12	1,215.83	-4,989.02	2,480.39	2,141.47	338.92	7.318		
10,600.00	7,052.80	7,004.80	7,052.80	108.59	242.81	90.11	1,215.83	-4,989.02	2,434.22	2,091.44	342.78	7.101		
10,700.00	7,052.40	7,004.40	7,052.40	111.32	242.80	90.10	1,215.83	-4,989.02	2,391.34	2,044.66	346.67	6.898		
10,800.00	7,052.01	7,004.01	7,052.01	114.06	242.79	90.09	1,215.83	-4,989.02	2,351.93	2,001.34	350.59	6.709		
10,900.00	7,051.62	7,003.62	7,051.62	116.80	242.77	90.08	1,215.83	-4,989.02	2,316.17	1,961.68	354.48	6.534		
11,000.00	7,051.22	7,003.22	7,051.22	119.55	242.76	90.07	1,215.83	-4,989.02	2,284.23	1,925.89	358.34	6.374		
11,100.00	7,050.83	7,002.83	7,050.83	122.31	242.75	90.06	1,215.83	-4,989.02	2,256.28	1,894.15	362.13	6.231		
11,200.00	7,050.44	7,002.44	7,050.44	125.07	242.73	90.05	1,215.83	-4,989.02	2,232.46	1,866.65	365.81	6.103		
11,300.00	7,050.04	7,002.04	7,050.04	127.83	242.72	90.04	1,215.83	-4,989.02	2,212.90	1,843.55	369.35	5.991		
11,400.00	7,049.65	7,001.65	7,049.65	130.60	242.70	90.03	1,215.83	-4,989.02	2,197.73	1,825.01	372.72	5.896		
11,500.00	7,049.26	7,001.26	7,049.26	133.37	242.69	90.02	1,215.83	-4,989.02	2,187.02	1,811.14	375.88	5.818		
11,600.00	7,048.86	7,000.86	7,048.86	136.15	242.68	90.01	1,215.83	-4,989.02	2,180.86	1,802.04	378.82	5.757		
11,684.64	7,048.53	7,000.53	7,048.53	138.50	242.67	90.00	1,215.83	-4,989.02	2,179.22	1,798.11	381.11	5.718 CC		
11,700.00	7,048.47	7,000.47	7,048.47	138.93	242.66	90.00	1,215.83	-4,989.02	2,179.27	1,797.77	381.50	5.712 ES		
11,800.00	7,048.08	7,000.08	7,048.08	141.71	242.65	89.99	1,215.83	-4,989.02	2,182.27	1,798.35	383.91	5.684		
11,900.00	7,047.68	7,000.32	7,047.68	144.49	242.66	89.98	1,215.83	-4,989.02	2,189.83	1,803.77	386.06	5.672 SF		
12,000.00	7,047.29	7,000.71	7,047.29	147.28	242.67	89.97	1,215.83	-4,989.02	2,201.92	1,814.00	387.91	5.676		
12,100.00	7,046.90	7,001.10	7,046.90	150.07	242.69	89.96	1,215.83	-4,989.02	2,218.45	1,828.97	389.47	5.696		
12,200.00	7,046.51	7,001.50	7,046.51	152.87	242.70	89.95	1,215.83	-4,989.02	2,239.32	1,848.59	390.73	5.731		
12,300.00	7,046.11	7,001.89	7,046.11	155.66	242.71	89.94	1,215.83	-4,989.02	2,264.43	1,872.72	391.71	5.781		
12,400.00	7,045.72	7,002.28	7,045.72	158.46	242.73	89.93	1,215.83	-4,989.02	2,293.62	1,901.21	392.42	5.845		
12,500.00	7,045.33	7,002.67	7,045.33	161.26	242.74	89.92	1,215.83	-4,989.02	2,326.75	1,933.89	392.86	5.923		
12,600.00	7,044.93	7,003.07	7,044.93	164.06	242.75	89.91	1,215.83	-4,989.02	2,363.65	1,970.58	393.07	6.013		
12,700.00	7,044.54	7,003.46	7,044.54	166.86	242.77	89.90	1,215.83	-4,989.02	2,404.14	2,011.09	393.06	6.117		
12,800.00	7,044.15	7,003.85	7,044.15	169.67	242.78	89.88	1,215.83	-4,989.02	2,448.06	2,055.21	392.85	6.232		
12,900.00	7,043.75	7,004.25	7,043.75	172.48	242.80	89.87	1,215.83	-4,989.02	2,495.20	2,102.74	392.46	6.358		
13,000.00	7,043.36	7,004.64	7,043.36	175.28	242.81	89.86	1,215.83	-4,989.02	2,545.41	2,153.48	391.93	6.495		
13,100.00	7,042.97	7,005.03	7,042.97	178.09	242.82	89.85	1,215.83	-4,989.02	2,598.50	2,207.24	391.26	6.641		
13,200.00	7,042.57	7,005.43	7,042.57	180.91	242.84	89.84	1,215.83	-4,989.02	2,654.29	2,263.82	390.47	6.798		
13,300.00	7,042.18	7,005.82	7,042.18	183.72	242.85	89.83	1,215.83	-4,989.02	2,712.62	2,323.03	389.59	6.963		
13,400.00	7,041.79	7,006.21	7,041.79	186.53	242.86	89.82	1,215.83	-4,989.02	2,773.33	2,384.70	388.63	7.136		
13,500.00	7,041.39	7,006.61	7,041.39	189.35	242.88	89.81	1,215.83	-4,989.02	2,836.27	2,448.66	387.61	7.317		
13,600.00	7,041.00	7,007.00	7,041.00	192.17	242.89	89.80	1,215.83	-4,989.02	2,901.29	2,514.76	386.54	7.506		
13,700.00	7,040.61	7,007.39	7,040.61	194.99	242.91	89.79	1,215.83	-4,989.02	2,968.26	2,582.84	385.42	7.701		
13,800.00	7,040.21	7,007.79	7,040.21	197.81	242.92	89.78	1,215.83	-4,989.02	3,037.04	2,652.76	384.29	7.903		
13,900.00	7,039.82	7,008.18	7,039.82	200.63	242.93	89.77	1,215.83	-4,989.02	3,107.52	2,724.40	383.13	8.111		
14,000.00	7,039.43	7,008.57	7,039.43	203.45	242.95	89.76	1,215.83	-4,989.02	3,179.59	2,797.63	381.96	8.324		
14,100.00	7,039.03	7,008.97	7,039.03	206.27	242.96	89.75	1,215.83	-4,989.02	3,253.13	2,872.34	380.79	8.543		
14,200.00	7,038.64	7,009.36	7,038.64	209.09	242.97	89.74	1,215.83	-4,989.02	3,328.05	2,948.43	379.61	8.767		
14,300.00	7,038.25	7,009.75	7,038.25	211.92	242.99	89.73	1,215.83	-4,989.02	3,404.26	3,025.81	378.45	8.995		
14,400.00	7,037.86	6,989.86	7,037.86	214.74	242.29	89.72	1,215.83	-4,989.02	3,481.67	3,105.08	376.59	9.245		
14,500.00	7,037.46	6,989.46	7,037.46	217.57	242.28	89.71	1,215.83	-4,989.02	3,560.21	3,184.79	375.42	9.483		
14,600.00	7,037.07	6,989.07	7,037.07	220.40	242.27	89.70	1,215.83	-4,989.02	3,639.80	3,265.53	374.27	9.725		
14,700.00	7,036.68	6,988.68	7,036.68	223.23	242.25	89.69	1,215.83	-4,989.02	3,720.38	3,347.24	373.14	9.970		
14,800.00	7,036.28	6,988.28	7,036.28	226.05	242.24	89.68	1,215.83	-4,989.02	3,801.88	3,429.85	372.03	10.219		
14,871.88	7,036.00	6,988.00	7,036.00	228.09	242.23	89.67	1,215.83	-4,989.02	3,861.00	3,489.75	371.24	10.400		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	46.00	3.28	3.28	-76.42	1,236.62	-5,118.90	5,266.35					
100.00	100.00	54.00	100.00	3.28	3.41	-76.42	1,236.62	-5,118.90	5,266.15	5,259.46	6.70	786.290		
200.00	200.00	154.00	200.00	3.34	4.89	-76.42	1,236.62	-5,118.90	5,266.15	5,257.92	8.23	639.882		
300.00	300.00	254.00	300.00	3.44	7.84	-76.42	1,236.62	-5,118.90	5,266.15	5,254.87	11.29	466.627		
400.00	399.98	353.98	399.98	3.60	11.11	93.75	1,236.62	-5,118.90	5,266.27	5,251.56	14.70	358.191		
500.00	499.84	453.84	499.84	3.79	14.47	93.80	1,236.62	-5,118.90	5,266.61	5,248.35	18.26	288.454		
600.00	599.45	553.45	599.45	4.02	17.88	93.88	1,236.62	-5,118.90	5,267.20	5,245.30	21.89	240.585		
700.00	698.70	652.70	698.70	4.29	21.29	94.00	1,236.62	-5,118.90	5,268.04	5,242.46	25.58	205.955		
800.00	797.70	751.70	797.70	4.59	24.71	94.15	1,236.62	-5,118.90	5,269.05	5,239.75	29.30	179.817		
900.00	896.69	850.69	896.69	4.92	28.14	94.30	1,236.62	-5,118.90	5,270.11	5,237.04	33.06	159.400		
1,000.00	995.68	949.68	995.68	5.27	31.58	94.45	1,236.62	-5,118.90	5,271.20	5,234.35	36.85	143.045		
1,100.00	1,094.68	1,048.68	1,094.68	5.64	35.02	94.60	1,236.62	-5,118.90	5,272.32	5,231.66	40.66	129.670		
1,200.00	1,193.67	1,147.67	1,193.67	6.03	38.46	94.75	1,236.62	-5,118.90	5,273.49	5,229.00	44.49	118.540		
1,300.00	1,292.67	1,246.67	1,292.67	6.42	41.90	94.90	1,236.62	-5,118.90	5,274.69	5,226.36	48.33	109.142		
1,400.00	1,391.66	1,345.66	1,391.66	6.83	45.35	95.06	1,236.62	-5,118.90	5,275.93	5,223.75	52.18	101.107		
1,500.00	1,490.66	1,444.66	1,490.66	7.25	48.80	95.21	1,236.62	-5,118.90	5,277.21	5,221.17	56.04	94.161		
1,600.00	1,589.65	1,543.65	1,589.65	7.67	52.25	95.36	1,236.62	-5,118.90	5,278.53	5,218.61	59.92	88.100		
1,700.00	1,688.64	1,642.64	1,688.64	8.10	55.70	95.51	1,236.62	-5,118.90	5,279.88	5,216.09	63.79	82.766		
1,800.00	1,787.64	1,741.64	1,787.64	8.53	59.15	95.66	1,236.62	-5,118.90	5,281.27	5,213.60	67.68	78.038		
1,900.00	1,886.63	1,840.63	1,886.63	8.97	62.60	95.81	1,236.62	-5,118.90	5,282.70	5,211.14	71.56	73.818		
2,000.00	1,985.63	1,939.63	1,985.63	9.41	66.05	95.96	1,236.62	-5,118.90	5,284.17	5,208.71	75.46	70.030		
2,100.00	2,084.62	2,038.62	2,084.62	9.85	69.50	96.12	1,236.62	-5,118.90	5,285.67	5,206.32	79.35	66.611		
2,200.00	2,183.61	2,137.61	2,183.61	10.30	72.95	96.27	1,236.62	-5,118.90	5,287.21	5,203.96	83.25	63.510		
2,300.00	2,282.61	2,236.61	2,282.61	10.75	76.41	96.42	1,236.62	-5,118.90	5,288.79	5,201.64	87.15	60.685		
2,400.00	2,381.60	2,335.60	2,381.60	11.20	79.86	96.57	1,236.62	-5,118.90	5,290.41	5,199.35	91.06	58.101		
2,500.00	2,480.60	2,434.60	2,480.60	11.66	83.31	96.72	1,236.62	-5,118.90	5,292.06	5,197.10	94.96	55.729		
2,600.00	2,579.59	2,533.59	2,579.59	12.11	86.76	96.87	1,236.62	-5,118.90	5,293.75	5,194.88	98.87	53.543		
2,700.00	2,678.58	2,632.58	2,678.58	12.57	90.22	97.02	1,236.62	-5,118.90	5,295.48	5,192.70	102.78	51.523		
2,800.00	2,777.58	2,731.58	2,777.58	13.02	93.67	97.17	1,236.62	-5,118.90	5,297.24	5,190.55	106.69	49.651		
2,900.00	2,876.57	2,830.57	2,876.57	13.48	97.13	97.32	1,236.62	-5,118.90	5,299.05	5,188.44	110.60	47.911		
3,000.00	2,975.57	2,929.57	2,975.57	13.94	100.58	97.47	1,236.62	-5,118.90	5,300.88	5,186.37	114.51	46.290		
3,100.00	3,074.56	3,028.56	3,074.56	14.40	104.03	97.62	1,236.62	-5,118.90	5,302.76	5,184.33	118.43	44.776		
3,200.00	3,173.55	3,127.55	3,173.55	14.87	107.49	97.77	1,236.62	-5,118.90	5,304.67	5,182.33	122.34	43.359		
3,300.00	3,272.55	3,226.55	3,272.55	15.33	110.94	97.92	1,236.62	-5,118.90	5,306.62	5,180.36	126.26	42.029		
3,400.00	3,371.54	3,325.54	3,371.54	15.79	114.40	98.07	1,236.62	-5,118.90	5,308.61	5,178.43	130.18	40.780		
3,500.00	3,470.54	3,424.54	3,470.54	16.26	117.85	98.22	1,236.62	-5,118.90	5,310.64	5,176.54	134.09	39.604		
3,600.00	3,569.53	3,523.53	3,569.53	16.72	121.31	98.37	1,236.62	-5,118.90	5,312.70	5,174.68	138.01	38.494		
3,700.00	3,668.53	3,622.53	3,668.53	17.19	124.76	98.52	1,236.62	-5,118.90	5,314.80	5,172.86	141.93	37.446		
3,800.00	3,767.52	3,721.52	3,767.52	17.65	128.21	98.67	1,236.62	-5,118.90	5,316.93	5,171.08	145.85	36.454		
3,900.00	3,866.51	3,820.51	3,866.51	18.12	131.67	98.82	1,236.62	-5,118.90	5,319.10	5,169.33	149.77	35.515		
4,000.00	3,965.51	3,919.51	3,965.51	18.59	135.12	98.97	1,236.62	-5,118.90	5,321.31	5,167.62	153.69	34.623		
4,100.00	4,064.50	4,018.50	4,064.50	19.05	138.58	99.12	1,236.62	-5,118.90	5,323.56	5,165.94	157.61	33.776		
4,200.00	4,163.50	4,117.50	4,163.50	19.52	142.03	99.26	1,236.62	-5,118.90	5,325.84	5,164.30	161.53	32.970		
4,300.00	4,262.49	4,216.49	4,262.49	19.99	145.49	99.41	1,236.62	-5,118.90	5,328.16	5,162.70	165.45	32.203		
4,400.00	4,361.48	4,315.48	4,361.48	20.46	148.94	99.56	1,236.62	-5,118.90	5,330.51	5,161.14	169.38	31.471		
4,500.00	4,460.48	4,414.48	4,460.48	20.92	152.40	99.71	1,236.62	-5,118.90	5,332.90	5,159.60	173.30	30.773		
4,600.00	4,559.47	4,513.47	4,559.47	21.39	155.85	99.86	1,236.62	-5,118.90	5,335.33	5,158.11	177.22	30.105		
4,700.00	4,658.47	4,612.47	4,658.47	21.86	159.31	100.01	1,236.62	-5,118.90	5,337.80	5,156.65	181.14	29.467		
4,800.00	4,757.46	4,711.46	4,757.46	22.33	162.76	100.15	1,236.62	-5,118.90	5,340.30	5,155.23	185.07	28.856		
4,900.00	4,856.45	4,810.45	4,856.45	22.80	166.22	100.30	1,236.62	-5,118.90	5,342.83	5,153.84	188.99	28.271		
5,000.00	4,955.45	4,909.45	4,955.45	23.27	169.68	100.45	1,236.62	-5,118.90	5,345.41	5,152.49	192.91	27.709		
5,100.00	5,054.44	5,008.44	5,054.44	23.74	173.13	100.60	1,236.62	-5,118.90	5,348.02	5,151.18	196.84	27.170		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	5,153.44	5,107.44	5,153.44	24.21	176.59	100.74	1,236.62	-5,118.90	5,350.66	5,149.90	200.76	26.652		
5,300.00	5,252.43	5,206.43	5,252.43	24.68	180.04	100.89	1,236.62	-5,118.90	5,353.34	5,148.66	204.68	26.154		
5,400.00	5,351.42	5,305.42	5,351.42	25.15	183.50	101.04	1,236.62	-5,118.90	5,356.06	5,147.45	208.61	25.675		
5,500.00	5,450.42	5,404.42	5,450.42	25.62	186.95	101.19	1,236.62	-5,118.90	5,358.81	5,146.28	212.53	25.214		
5,600.00	5,549.41	5,503.41	5,549.41	26.09	190.41	101.33	1,236.62	-5,118.90	5,361.60	5,145.15	216.46	24.770		
5,700.00	5,648.41	5,602.41	5,648.41	26.56	193.86	101.48	1,236.62	-5,118.90	5,364.43	5,144.05	220.38	24.342		
5,800.00	5,747.40	5,701.40	5,747.40	27.03	197.32	101.63	1,236.62	-5,118.90	5,367.29	5,142.99	224.30	23.929		
5,900.00	5,846.40	5,800.40	5,846.40	27.51	200.77	101.77	1,236.62	-5,118.90	5,370.19	5,141.96	228.23	23.530		
6,000.00	5,945.39	5,900.61	5,945.39	27.98	204.27	101.92	1,236.62	-5,118.90	5,373.12	5,140.92	232.20	23.140		
6,100.00	6,044.38	6,001.62	6,044.38	28.45	207.80	102.07	1,236.62	-5,118.90	5,376.09	5,139.90	236.19	22.762		
6,200.00	6,143.38	6,102.62	6,143.38	28.92	211.32	102.21	1,236.62	-5,118.90	5,379.09	5,138.91	240.19	22.396		
6,300.00	6,242.37	6,203.63	6,242.37	29.39	214.85	102.36	1,236.62	-5,118.90	5,382.13	5,137.95	244.18	22.042		
6,400.00	6,341.37	6,304.63	6,341.37	29.86	218.37	102.50	1,236.62	-5,118.90	5,385.21	5,137.03	248.18	21.699		
6,500.00	6,440.36	6,405.64	6,440.36	30.34	221.90	102.65	1,236.62	-5,118.90	5,388.32	5,136.15	252.17	21.368		
6,600.00	6,538.90	6,507.10	6,538.90	30.80	225.44	63.52	1,236.62	-5,118.90	5,385.66	5,129.48	256.18	21.023		
6,700.00	6,634.88	6,588.88	6,634.88	31.25	228.30	47.89	1,236.62	-5,118.90	5,368.80	5,109.31	259.49	20.690		
6,800.00	6,725.92	6,679.92	6,725.92	31.68	231.47	42.45	1,236.62	-5,118.90	5,338.15	5,075.06	263.09	20.290		
6,900.00	6,809.79	6,763.79	6,809.79	32.07	234.40	41.15	1,236.62	-5,118.90	5,294.55	5,028.12	266.43	19.872		
7,000.00	6,884.42	6,838.42	6,884.42	32.43	237.01	42.39	1,236.62	-5,118.90	5,239.15	4,969.73	269.41	19.446		
7,100.00	6,947.98	6,901.98	6,947.98	32.77	239.23	45.90	1,236.62	-5,118.90	5,173.39	4,901.39	272.00	19.020		
7,200.00	6,998.89	6,952.89	6,998.89	33.18	241.00	51.98	1,236.62	-5,118.90	5,098.98	4,824.83	274.14	18.600		
7,300.00	7,035.91	6,989.91	7,035.91	33.76	242.29	61.30	1,236.62	-5,118.90	5,017.79	4,741.98	275.81	18.193		
7,400.00	7,058.12	7,012.12	7,058.12	34.61	243.07	74.47	1,236.62	-5,118.90	4,931.87	4,654.90	276.97	17.806		
7,500.00	7,064.98	7,018.98	7,064.98	35.68	243.31	90.44	1,236.62	-5,118.90	4,843.35	4,565.72	277.63	17.446		
7,600.00	7,064.59	7,018.59	7,064.59	36.95	243.30	90.43	1,236.62	-5,118.90	4,754.49	4,476.42	278.07	17.098		
7,700.00	7,064.20	7,018.20	7,064.20	38.40	243.28	90.42	1,236.62	-5,118.90	4,666.08	4,387.49	278.59	16.749		
7,800.00	7,063.80	7,017.80	7,063.80	40.00	243.27	90.41	1,236.62	-5,118.90	4,578.15	4,298.96	279.19	16.398		
7,900.00	7,063.41	7,017.41	7,063.41	41.75	243.25	90.40	1,236.62	-5,118.90	4,490.72	4,210.86	279.87	16.046		
8,000.00	7,063.02	7,017.02	7,063.02	43.62	243.24	90.39	1,236.62	-5,118.90	4,403.83	4,123.20	280.63	15.693		
8,100.00	7,062.62	7,016.62	7,062.62	45.59	243.23	90.38	1,236.62	-5,118.90	4,317.51	4,036.02	281.48	15.338		
8,200.00	7,062.23	7,016.23	7,062.23	47.65	243.21	90.37	1,236.62	-5,118.90	4,231.78	3,949.35	282.43	14.983		
8,300.00	7,061.84	7,015.84	7,061.84	49.79	243.20	90.36	1,236.62	-5,118.90	4,146.70	3,863.23	283.48	14.628		
8,400.00	7,061.45	7,015.45	7,061.45	52.00	243.19	90.35	1,236.62	-5,118.90	4,062.30	3,777.68	284.62	14.273		
8,500.00	7,061.05	7,015.05	7,061.05	54.27	243.17	90.34	1,236.62	-5,118.90	3,978.62	3,692.74	285.88	13.917		
8,600.00	7,060.66	7,014.66	7,060.66	56.60	243.16	90.33	1,236.62	-5,118.90	3,895.71	3,608.47	287.24	13.562		
8,700.00	7,060.27	7,014.27	7,060.27	58.97	243.15	90.32	1,236.62	-5,118.90	3,813.62	3,524.90	288.72	13.209		
8,800.00	7,059.87	7,013.87	7,059.87	61.38	243.13	90.31	1,236.62	-5,118.90	3,732.40	3,442.09	290.31	12.856		
8,900.00	7,059.48	7,013.48	7,059.48	63.83	243.12	90.30	1,236.62	-5,118.90	3,652.12	3,360.09	292.03	12.506		
9,000.00	7,059.09	7,013.09	7,059.09	66.32	243.10	90.29	1,236.62	-5,118.90	3,572.83	3,278.97	293.86	12.158		
9,100.00	7,058.69	7,012.69	7,058.69	68.83	243.09	90.28	1,236.62	-5,118.90	3,494.60	3,198.77	295.83	11.813		
9,200.00	7,058.30	7,012.30	7,058.30	71.37	243.08	90.27	1,236.62	-5,118.90	3,417.51	3,119.59	297.92	11.471		
9,300.00	7,057.91	7,011.91	7,057.91	73.93	243.06	90.26	1,236.62	-5,118.90	3,341.64	3,041.49	300.15	11.133		
9,400.00	7,057.51	7,011.51	7,057.51	76.51	243.05	90.25	1,236.62	-5,118.90	3,267.06	2,964.55	302.51	10.800		
9,500.00	7,057.12	7,011.12	7,057.12	79.11	243.04	90.24	1,236.62	-5,118.90	3,193.87	2,888.87	305.00	10.472		
9,600.00	7,056.73	7,010.73	7,056.73	81.73	243.02	90.23	1,236.62	-5,118.90	3,122.17	2,814.53	307.63	10.149		
9,700.00	7,056.33	7,010.33	7,056.33	84.37	243.01	90.22	1,236.62	-5,118.90	3,052.06	2,741.66	310.41	9.832		
9,800.00	7,055.94	7,009.94	7,055.94	87.01	242.99	90.21	1,236.62	-5,118.90	2,983.66	2,670.34	313.31	9.523		
9,900.00	7,055.55	7,009.55	7,055.55	89.68	242.98	90.20	1,236.62	-5,118.90	2,917.08	2,600.72	316.36	9.221		
10,000.00	7,055.15	7,009.15	7,055.15	92.35	242.97	90.19	1,236.62	-5,118.90	2,852.45	2,532.91	319.54	8.927		
10,100.00	7,054.76	7,008.76	7,054.76	95.03	242.95	90.18	1,236.62	-5,118.90	2,789.91	2,467.07	322.85	8.642		
10,200.00	7,054.37	7,008.37	7,054.37	97.73	242.94	90.17	1,236.62	-5,118.90	2,729.61	2,403.32	326.28	8.366		
10,300.00	7,053.98	7,007.98	7,053.98	100.43	242.93	90.15	1,236.62	-5,118.90	2,671.68	2,341.85	329.83	8.100		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	7,007.58	7,053.58	103.14	242.91	90.14	1,236.62	-5,118.90	2,616.30	2,282.81	333.49	7.845		
10,500.00	7,053.19	7,007.19	7,053.19	105.86	242.90	90.13	1,236.62	-5,118.90	2,563.62	2,226.38	337.25	7.602		
10,600.00	7,052.80	7,006.80	7,052.80	108.59	242.88	90.12	1,236.62	-5,118.90	2,513.82	2,172.74	341.08	7.370		
10,700.00	7,052.40	7,006.40	7,052.40	111.32	242.87	90.11	1,236.62	-5,118.90	2,467.07	2,122.09	344.98	7.151		
10,800.00	7,052.01	7,006.01	7,052.01	114.06	242.86	90.10	1,236.62	-5,118.90	2,423.54	2,074.62	348.92	6.946		
10,900.00	7,051.62	7,005.62	7,051.62	116.80	242.84	90.09	1,236.62	-5,118.90	2,383.42	2,030.54	352.87	6.754		
11,000.00	7,051.22	7,005.22	7,051.22	119.55	242.83	90.08	1,236.62	-5,118.90	2,346.87	1,990.05	356.82	6.577		
11,100.00	7,050.83	7,004.83	7,050.83	122.31	242.82	90.07	1,236.62	-5,118.90	2,314.08	1,953.34	360.73	6.415		
11,200.00	7,050.44	7,004.44	7,050.44	125.07	242.80	90.06	1,236.62	-5,118.90	2,285.19	1,920.61	364.58	6.268		
11,300.00	7,050.04	7,004.04	7,050.04	127.83	242.79	90.05	1,236.62	-5,118.90	2,260.36	1,892.04	368.32	6.137		
11,400.00	7,049.65	7,003.65	7,049.65	130.60	242.77	90.04	1,236.62	-5,118.90	2,239.72	1,867.79	371.92	6.022		
11,500.00	7,049.26	7,003.26	7,049.26	133.37	242.76	90.03	1,236.62	-5,118.90	2,223.39	1,848.03	375.37	5.923		
11,600.00	7,048.86	7,002.86	7,048.86	136.15	242.75	90.02	1,236.62	-5,118.90	2,211.47	1,832.86	378.61	5.841		
11,700.00	7,048.47	7,002.47	7,048.47	138.93	242.73	90.01	1,236.62	-5,118.90	2,204.03	1,822.40	381.63	5.775		
11,800.00	7,048.08	7,002.08	7,048.08	141.71	242.72	90.00	1,236.62	-5,118.90	2,201.10	1,816.71	384.40	5.726		
11,814.35	7,048.02	7,002.02	7,048.02	142.11	242.72	90.00	1,236.62	-5,118.90	2,201.06	1,816.29	384.77	5.720 CC		
11,900.00	7,047.68	7,001.68	7,047.68	144.49	242.71	89.99	1,236.62	-5,118.90	2,202.72	1,815.83	386.89	5.693 ES		
12,000.00	7,047.29	7,001.29	7,047.29	147.28	242.69	89.98	1,236.62	-5,118.90	2,208.87	1,819.77	389.10	5.677		
12,100.00	7,046.90	7,000.90	7,046.90	150.07	242.68	89.97	1,236.62	-5,118.90	2,219.52	1,828.49	391.02	5.676 SF		
12,200.00	7,046.51	7,000.51	7,046.51	152.87	242.66	89.96	1,236.62	-5,118.90	2,234.59	1,841.95	392.64	5.691		
12,300.00	7,046.11	7,000.11	7,046.11	155.66	242.65	89.95	1,236.62	-5,118.90	2,254.00	1,860.04	393.96	5.721		
12,400.00	7,045.72	7,000.28	7,045.72	158.46	242.66	89.94	1,236.62	-5,118.90	2,277.64	1,882.63	395.00	5.766		
12,500.00	7,045.33	7,000.67	7,045.33	161.26	242.67	89.93	1,236.62	-5,118.90	2,305.38	1,909.60	395.78	5.825		
12,600.00	7,044.93	7,001.07	7,044.93	164.06	242.68	89.92	1,236.62	-5,118.90	2,337.07	1,940.78	396.29	5.897		
12,700.00	7,044.54	7,001.46	7,044.54	166.86	242.70	89.91	1,236.62	-5,118.90	2,372.55	1,976.00	396.56	5.983		
12,800.00	7,044.15	7,001.85	7,044.15	169.67	242.71	89.90	1,236.62	-5,118.90	2,411.67	2,015.07	396.59	6.081		
12,900.00	7,043.75	7,002.25	7,043.75	172.48	242.73	89.89	1,236.62	-5,118.90	2,454.23	2,057.81	396.43	6.191		
13,000.00	7,043.36	7,002.64	7,043.36	175.28	242.74	89.88	1,236.62	-5,118.90	2,500.08	2,104.00	396.08	6.312		
13,100.00	7,042.97	7,003.03	7,042.97	178.09	242.75	89.87	1,236.62	-5,118.90	2,549.02	2,153.46	395.56	6.444		
13,200.00	7,042.57	7,003.43	7,042.57	180.91	242.77	89.86	1,236.62	-5,118.90	2,600.89	2,205.99	394.91	6.586		
13,300.00	7,042.18	7,003.82	7,042.18	183.72	242.78	89.85	1,236.62	-5,118.90	2,655.52	2,261.39	394.13	6.738		
13,400.00	7,041.79	7,004.21	7,041.79	186.53	242.79	89.84	1,236.62	-5,118.90	2,712.73	2,319.48	393.25	6.898		
13,500.00	7,041.39	7,004.61	7,041.39	189.35	242.81	89.83	1,236.62	-5,118.90	2,772.37	2,380.08	392.28	7.067		
13,600.00	7,041.00	7,005.00	7,041.00	192.17	242.82	89.82	1,236.62	-5,118.90	2,834.28	2,443.03	391.25	7.244		
13,700.00	7,040.61	7,005.39	7,040.61	194.99	242.84	89.81	1,236.62	-5,118.90	2,898.32	2,508.16	390.16	7.429		
13,800.00	7,040.21	7,005.79	7,040.21	197.81	242.85	89.80	1,236.62	-5,118.90	2,964.35	2,575.33	389.03	7.620		
13,900.00	7,039.82	7,006.18	7,039.82	200.63	242.86	89.79	1,236.62	-5,118.90	3,032.25	2,644.38	387.86	7.818		
14,000.00	7,039.43	7,006.57	7,039.43	203.45	242.88	89.78	1,236.62	-5,118.90	3,101.88	2,715.20	386.67	8.022		
14,100.00	7,039.03	7,006.97	7,039.03	206.27	242.89	89.77	1,236.62	-5,118.90	3,173.13	2,787.66	385.47	8.232		
14,200.00	7,038.64	7,007.36	7,038.64	209.09	242.90	89.76	1,236.62	-5,118.90	3,245.90	2,861.64	384.26	8.447		
14,300.00	7,038.25	7,007.75	7,038.25	211.92	242.92	89.75	1,236.62	-5,118.90	3,320.09	2,937.04	383.06	8.667		
14,400.00	7,037.86	7,008.14	7,037.86	214.74	242.93	89.74	1,236.62	-5,118.90	3,395.60	3,013.75	381.85	8.892		
14,500.00	7,037.46	7,008.54	7,037.46	217.57	242.95	89.73	1,236.62	-5,118.90	3,472.35	3,091.70	380.66	9.122		
14,600.00	7,037.07	7,008.93	7,037.07	220.40	242.96	89.71	1,236.62	-5,118.90	3,550.26	3,170.79	379.48	9.356		
14,700.00	7,036.68	7,009.32	7,036.68	223.23	242.97	89.70	1,236.62	-5,118.90	3,629.25	3,250.94	378.31	9.593		
14,800.00	7,036.28	7,009.72	7,036.28	226.05	242.99	89.69	1,236.62	-5,118.90	3,709.26	3,332.09	377.17	9.835		
14,871.88	7,036.00	7,010.00	7,036.00	228.09	243.00	89.69	1,236.62	-5,118.90	3,767.36	3,391.00	376.35	10.010		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	53.00	3.28	3.28	-92.74	-235.22	-4,916.16	4,922.07					
100.00	100.00	47.00	100.00	3.28	3.38	-92.74	-235.22	-4,916.16	4,921.79	4,915.12	6.67	738.368		
200.00	200.00	147.00	200.00	3.34	4.71	-92.74	-235.22	-4,916.16	4,921.79	4,913.74	8.05	611.296		
300.00	300.00	247.00	300.00	3.44	7.62	-92.74	-235.22	-4,916.16	4,921.79	4,910.72	11.06	444.835		
400.00	399.98	346.98	399.98	3.60	10.87	77.44	-235.22	-4,916.16	4,921.41	4,906.94	14.47	340.130		
500.00	499.84	446.84	499.84	3.79	14.24	77.52	-235.22	-4,916.16	4,920.27	4,902.25	18.02	273.041		
600.00	599.45	546.45	599.45	4.02	17.64	77.66	-235.22	-4,916.16	4,918.39	4,896.74	21.65	227.143		
700.00	698.70	645.70	698.70	4.29	21.05	77.84	-235.22	-4,916.16	4,915.79	4,890.45	25.34	194.014		
800.00	797.70	744.70	797.70	4.59	24.47	78.01	-235.22	-4,916.16	4,912.80	4,883.74	29.06	169.058		
900.00	896.69	843.69	896.69	4.92	27.90	78.17	-235.22	-4,916.16	4,909.85	4,877.03	32.82	149.606		
1,000.00	995.68	942.68	995.68	5.27	31.34	78.33	-235.22	-4,916.16	4,906.94	4,870.34	36.61	134.051		
1,100.00	1,094.68	1,041.68	1,094.68	5.64	34.77	78.49	-235.22	-4,916.16	4,904.07	4,863.66	40.41	121.346		
1,200.00	1,193.67	1,140.67	1,193.67	6.03	38.22	78.65	-235.22	-4,916.16	4,901.24	4,857.00	44.24	110.786		
1,300.00	1,292.67	1,239.67	1,292.67	6.42	41.66	78.81	-235.22	-4,916.16	4,898.45	4,850.37	48.08	101.878		
1,400.00	1,391.66	1,338.66	1,391.66	6.83	45.11	78.97	-235.22	-4,916.16	4,895.69	4,843.76	51.93	94.267		
1,500.00	1,490.66	1,437.66	1,490.66	7.25	48.55	79.13	-235.22	-4,916.16	4,892.98	4,837.18	55.80	87.693		
1,600.00	1,589.65	1,536.65	1,589.65	7.67	52.00	79.29	-235.22	-4,916.16	4,890.31	4,830.64	59.67	81.960		
1,700.00	1,688.64	1,635.64	1,688.64	8.10	55.45	79.45	-235.22	-4,916.16	4,887.67	4,824.13	63.54	76.918		
1,800.00	1,787.64	1,734.64	1,787.64	8.53	58.90	79.62	-235.22	-4,916.16	4,885.08	4,817.65	67.43	72.450		
1,900.00	1,886.63	1,833.63	1,886.63	8.97	62.35	79.78	-235.22	-4,916.16	4,882.52	4,811.21	71.31	68.465		
2,000.00	1,985.63	1,932.63	1,985.63	9.41	65.80	79.94	-235.22	-4,916.16	4,880.01	4,804.80	75.21	64.888		
2,100.00	2,084.62	2,031.62	2,084.62	9.85	69.26	80.10	-235.22	-4,916.16	4,877.53	4,798.43	79.10	61.661		
2,200.00	2,183.61	2,130.61	2,183.61	10.30	72.71	80.26	-235.22	-4,916.16	4,875.09	4,792.09	83.00	58.735		
2,300.00	2,282.61	2,229.61	2,282.61	10.75	76.16	80.43	-235.22	-4,916.16	4,872.70	4,785.80	86.90	56.071		
2,400.00	2,381.60	2,328.60	2,381.60	11.20	79.61	80.59	-235.22	-4,916.16	4,870.34	4,779.53	90.81	53.634		
2,500.00	2,480.60	2,427.60	2,480.60	11.66	83.07	80.75	-235.22	-4,916.16	4,868.02	4,773.31	94.71	51.398		
2,600.00	2,579.59	2,526.59	2,579.59	12.11	86.52	80.91	-235.22	-4,916.16	4,865.75	4,767.13	98.62	49.338		
2,700.00	2,678.58	2,625.58	2,678.58	12.57	89.97	81.08	-235.22	-4,916.16	4,863.51	4,760.98	102.53	47.435		
2,800.00	2,777.58	2,724.58	2,777.58	13.02	93.43	81.24	-235.22	-4,916.16	4,861.32	4,754.87	106.44	45.671		
2,900.00	2,876.57	2,823.57	2,876.57	13.48	96.88	81.40	-235.22	-4,916.16	4,859.16	4,748.81	110.35	44.032		
3,000.00	2,975.57	2,922.57	2,975.57	13.94	100.34	81.57	-235.22	-4,916.16	4,857.04	4,742.78	114.27	42.506		
3,100.00	3,074.56	3,021.56	3,074.56	14.40	103.79	81.73	-235.22	-4,916.16	4,854.97	4,736.79	118.18	41.080		
3,200.00	3,173.55	3,120.55	3,173.55	14.87	107.24	81.89	-235.22	-4,916.16	4,852.93	4,730.83	122.10	39.746		
3,300.00	3,272.55	3,219.55	3,272.55	15.33	110.70	82.06	-235.22	-4,916.16	4,850.94	4,724.92	126.02	38.494		
3,400.00	3,371.54	3,318.54	3,371.54	15.79	114.15	82.22	-235.22	-4,916.16	4,848.99	4,719.05	129.93	37.319		
3,500.00	3,470.54	3,417.54	3,470.54	16.26	117.61	82.39	-235.22	-4,916.16	4,847.07	4,713.22	133.85	36.212		
3,600.00	3,569.53	3,516.53	3,569.53	16.72	121.06	82.55	-235.22	-4,916.16	4,845.20	4,707.43	137.77	35.168		
3,700.00	3,668.53	3,615.53	3,668.53	17.19	124.52	82.71	-235.22	-4,916.16	4,843.37	4,701.67	141.69	34.182		
3,800.00	3,767.52	3,714.52	3,767.52	17.65	127.97	82.88	-235.22	-4,916.16	4,841.57	4,695.96	145.61	33.250		
3,900.00	3,866.51	3,813.51	3,866.51	18.12	131.43	83.04	-235.22	-4,916.16	4,839.82	4,690.29	149.53	32.366		
4,000.00	3,965.51	3,912.51	3,965.51	18.59	134.88	83.21	-235.22	-4,916.16	4,838.11	4,684.66	153.46	31.528		
4,100.00	4,064.50	4,011.50	4,064.50	19.05	138.34	83.37	-235.22	-4,916.16	4,836.44	4,679.07	157.38	30.731		
4,200.00	4,163.50	4,110.50	4,163.50	19.52	141.79	83.54	-235.22	-4,916.16	4,834.81	4,673.51	161.30	29.974		
4,300.00	4,262.49	4,209.49	4,262.49	19.99	145.25	83.70	-235.22	-4,916.16	4,833.23	4,668.00	165.22	29.253		
4,400.00	4,361.48	4,308.48	4,361.48	20.46	148.70	83.87	-235.22	-4,916.16	4,831.68	4,662.53	169.15	28.565		
4,500.00	4,460.48	4,407.48	4,460.48	20.92	152.16	84.03	-235.22	-4,916.16	4,830.17	4,657.10	173.07	27.909		
4,600.00	4,559.47	4,506.47	4,559.47	21.39	155.61	84.20	-235.22	-4,916.16	4,828.71	4,651.71	176.99	27.282		
4,700.00	4,658.47	4,605.47	4,658.47	21.86	159.07	84.36	-235.22	-4,916.16	4,827.28	4,646.37	180.92	26.682		
4,800.00	4,757.46	4,704.46	4,757.46	22.33	162.52	84.53	-235.22	-4,916.16	4,825.90	4,641.06	184.84	26.108		
4,900.00	4,856.45	4,803.45	4,856.45	22.80	165.98	84.69	-235.22	-4,916.16	4,824.56	4,635.79	188.77	25.558		
5,000.00	4,955.45	4,902.45	4,955.45	23.27	169.43	84.86	-235.22	-4,916.16	4,823.26	4,630.57	192.69	25.031		
5,100.00	5,054.44	5,001.44	5,054.44	23.74	172.89	85.03	-235.22	-4,916.16	4,822.00	4,625.38	196.62	24.525		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,153.44	5,100.44	5,153.44	24.21	176.34	85.19	-235.22	-4,916.16	4,820.78	4,620.24	200.55	24.038		
5,300.00	5,252.43	5,200.57	5,252.43	24.68	179.84	85.36	-235.22	-4,916.16	4,819.60	4,615.09	204.51	23.566		
5,400.00	5,351.42	5,301.58	5,351.42	25.15	183.36	85.52	-235.22	-4,916.16	4,818.47	4,609.96	208.51	23.109		
5,500.00	5,450.42	5,402.58	5,450.42	25.62	186.89	85.69	-235.22	-4,916.16	4,817.37	4,604.87	212.50	22.670		
5,600.00	5,549.41	5,503.59	5,549.41	26.09	190.41	85.86	-235.22	-4,916.16	4,816.32	4,599.82	216.50	22.246		
5,700.00	5,648.41	5,604.59	5,648.41	26.56	193.94	86.02	-235.22	-4,916.16	4,815.31	4,594.81	220.50	21.838		
5,800.00	5,747.40	5,705.60	5,747.40	27.03	197.46	86.19	-235.22	-4,916.16	4,814.34	4,589.84	224.49	21.445		
5,900.00	5,846.40	5,806.61	5,846.40	27.51	200.99	86.36	-235.22	-4,916.16	4,813.41	4,584.92	228.49	21.066		
6,000.00	5,945.39	5,907.61	5,945.39	27.98	204.52	86.52	-235.22	-4,916.16	4,812.52	4,580.03	232.49	20.700		
6,100.00	6,044.38	6,008.62	6,044.38	28.45	208.04	86.69	-235.22	-4,916.16	4,811.67	4,575.19	236.49	20.347		
6,200.00	6,143.38	6,109.62	6,143.38	28.92	211.57	86.85	-235.22	-4,916.16	4,810.87	4,570.39	240.48	20.005		
6,300.00	6,242.37	6,189.37	6,242.37	29.39	214.35	87.02	-235.22	-4,916.16	4,810.11	4,566.37	243.74	19.735		
6,400.00	6,341.37	6,288.37	6,341.37	29.86	217.81	87.19	-235.22	-4,916.16	4,809.38	4,561.72	247.67	19.419		
6,500.00	6,440.36	6,387.36	6,440.36	30.34	221.26	87.35	-235.22	-4,916.16	4,808.70	4,557.11	251.59	19.113		
6,600.00	6,538.90	6,485.90	6,538.90	30.80	224.70	88.21	-235.22	-4,916.16	4,801.82	4,546.32	255.50	18.794		
6,700.00	6,634.88	6,581.88	6,634.88	31.25	228.05	32.22	-235.22	-4,916.16	4,779.71	4,520.41	259.30	18.433		
6,800.00	6,725.92	6,672.92	6,725.92	31.68	231.23	26.05	-235.22	-4,916.16	4,742.85	4,479.95	262.90	18.040		
6,900.00	6,809.79	6,756.79	6,809.79	32.07	234.16	23.58	-235.22	-4,916.16	4,692.16	4,425.95	266.21	17.626		
7,000.00	6,884.42	6,831.42	6,884.42	32.43	236.76	23.17	-235.22	-4,916.16	4,628.91	4,359.75	269.16	17.198		
7,100.00	6,947.98	6,905.02	6,947.98	32.77	239.33	24.50	-235.22	-4,916.16	4,554.65	4,282.63	272.02	16.744		
7,200.00	6,998.89	6,945.89	6,998.89	33.18	240.76	28.06	-235.22	-4,916.16	4,471.23	4,197.53	273.69	16.337		
7,300.00	7,035.91	6,982.91	7,035.91	33.76	242.05	35.67	-235.22	-4,916.16	4,380.68	4,105.50	275.19	15.919		
7,400.00	7,058.12	7,005.12	7,058.12	34.61	242.83	53.06	-235.22	-4,916.16	4,285.24	4,009.12	276.12	15.519		
7,500.00	7,064.98	7,011.98	7,064.98	35.68	243.07	91.28	-235.22	-4,916.16	4,187.24	3,910.75	276.49	15.144		
7,600.00	7,064.59	7,011.59	7,064.59	36.95	243.05	91.25	-235.22	-4,916.16	4,088.80	3,812.20	276.60	14.782		
7,700.00	7,064.20	7,011.20	7,064.20	38.40	243.04	91.21	-235.22	-4,916.16	3,990.44	3,713.71	276.73	14.420		
7,800.00	7,063.80	7,010.80	7,063.80	40.00	243.02	91.18	-235.22	-4,916.16	3,892.16	3,615.29	276.87	14.058		
7,900.00	7,063.41	7,010.41	7,063.41	41.75	243.01	91.15	-235.22	-4,916.16	3,793.97	3,516.93	277.03	13.695		
8,000.00	7,063.02	7,010.02	7,063.02	43.62	243.00	91.12	-235.22	-4,916.16	3,695.87	3,418.65	277.22	13.332		
8,100.00	7,062.62	7,009.62	7,062.62	45.59	242.98	91.09	-235.22	-4,916.16	3,597.89	3,320.45	277.43	12.969		
8,200.00	7,062.23	7,009.23	7,062.23	47.65	242.97	91.06	-235.22	-4,916.16	3,500.01	3,222.34	277.67	12.605		
8,300.00	7,061.84	7,008.84	7,061.84	49.79	242.96	91.03	-235.22	-4,916.16	3,402.26	3,124.32	277.94	12.241		
8,400.00	7,061.45	7,008.45	7,061.45	52.00	242.94	91.00	-235.22	-4,916.16	3,304.64	3,026.40	278.24	11.877		
8,500.00	7,061.05	7,008.05	7,061.05	54.27	242.93	90.97	-235.22	-4,916.16	3,207.17	2,928.59	278.59	11.512		
8,600.00	7,060.66	7,007.66	7,060.66	56.60	242.91	90.94	-235.22	-4,916.16	3,109.87	2,830.89	278.97	11.148		
8,700.00	7,060.27	7,007.27	7,060.27	58.97	242.90	90.91	-235.22	-4,916.16	3,012.73	2,733.32	279.41	10.783		
8,800.00	7,059.87	7,006.87	7,059.87	61.38	242.89	90.87	-235.22	-4,916.16	2,915.79	2,635.89	279.90	10.417		
8,900.00	7,059.48	7,006.48	7,059.48	63.83	242.87	90.84	-235.22	-4,916.16	2,819.07	2,538.62	280.45	10.052		
9,000.00	7,059.09	7,006.09	7,059.09	66.32	242.86	90.81	-235.22	-4,916.16	2,722.58	2,441.51	281.07	9.686		
9,100.00	7,058.69	7,005.69	7,058.69	68.83	242.85	90.78	-235.22	-4,916.16	2,626.35	2,344.58	281.77	9.321		
9,200.00	7,058.30	7,005.30	7,058.30	71.37	242.83	90.75	-235.22	-4,916.16	2,530.42	2,247.86	282.56	8.955		
9,300.00	7,057.91	7,004.91	7,057.91	73.93	242.82	90.72	-235.22	-4,916.16	2,434.82	2,151.37	283.45	8.590		
9,400.00	7,057.51	7,004.51	7,057.51	76.51	242.80	90.69	-235.22	-4,916.16	2,339.58	2,055.13	284.45	8.225		
9,500.00	7,057.12	7,004.12	7,057.12	79.11	242.79	90.66	-235.22	-4,916.16	2,244.75	1,959.17	285.58	7.860		
9,600.00	7,056.73	7,003.73	7,056.73	81.73	242.78	90.63	-235.22	-4,916.16	2,150.40	1,863.54	286.86	7.496		
9,700.00	7,056.33	7,003.33	7,056.33	84.37	242.76	90.60	-235.22	-4,916.16	2,056.57	1,768.27	288.31	7.133		
9,800.00	7,055.94	7,002.94	7,055.94	87.01	242.75	90.56	-235.22	-4,916.16	1,963.36	1,673.42	289.94	6.772		
9,900.00	7,055.55	7,002.55	7,055.55	89.68	242.74	90.53	-235.22	-4,916.16	1,870.85	1,579.06	291.79	6.412		
10,000.00	7,055.15	7,002.15	7,055.15	92.35	242.72	90.50	-235.22	-4,916.16	1,779.15	1,485.25	293.90	6.054		
10,100.00	7,054.76	7,001.76	7,054.76	95.03	242.71	90.47	-235.22	-4,916.16	1,688.39	1,392.11	296.28	5.699		
10,200.00	7,054.37	7,001.37	7,054.37	97.73	242.69	90.44	-235.22	-4,916.16	1,598.74	1,299.75	298.99	5.347		
10,300.00	7,053.98	7,000.98	7,053.98	100.43	242.68	90.41	-235.22	-4,916.16	1,510.38	1,208.31	302.07	5.000		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,053.58	7,000.58	7,053.58	103.14	242.67	90.38	-235.22	-4,916.16	1,423.57	1,118.00	305.57	4.659		
10,500.00	7,053.19	7,000.19	7,053.19	105.86	242.65	90.35	-235.22	-4,916.16	1,338.59	1,029.05	309.54	4.324		
10,600.00	7,052.80	7,000.20	7,052.80	108.59	242.65	90.32	-235.22	-4,916.16	1,255.83	941.77	314.07	3.999		
10,700.00	7,052.40	7,000.60	7,052.40	111.32	242.67	90.29	-235.22	-4,916.16	1,175.76	856.56	319.20	3.683		
10,800.00	7,052.01	7,000.99	7,052.01	114.06	242.68	90.25	-235.22	-4,916.16	1,098.95	773.98	324.97	3.382		
10,900.00	7,051.62	7,001.38	7,051.62	116.80	242.70	90.22	-235.22	-4,916.16	1,026.15	694.75	331.40	3.096		
11,000.00	7,051.22	7,001.78	7,051.22	119.55	242.71	90.19	-235.22	-4,916.16	958.27	619.79	338.47	2.831		
11,100.00	7,050.83	7,002.17	7,050.83	122.31	242.72	90.16	-235.22	-4,916.16	896.42	550.33	346.08	2.590		
11,200.00	7,050.44	7,002.56	7,050.44	125.07	242.74	90.13	-235.22	-4,916.16	841.93	487.93	354.01	2.378		
11,300.00	7,050.04	7,002.96	7,050.04	127.83	242.75	90.10	-235.22	-4,916.16	796.33	434.47	361.85	2.201		
11,400.00	7,049.65	7,003.35	7,049.65	130.60	242.76	90.07	-235.22	-4,916.16	761.20	392.13	369.07	2.062		
11,500.00	7,049.26	7,003.74	7,049.26	133.37	242.78	90.04	-235.22	-4,916.16	738.05	363.07	374.98	1.968		
11,600.00	7,048.86	7,004.14	7,048.86	136.15	242.79	90.01	-235.22	-4,916.16	728.01	349.07	378.94	1.921		
11,623.57	7,048.77	7,004.23	7,048.77	136.80	242.79	90.00	-235.22	-4,916.16	727.63	348.09	379.54	1.917	CC, ES, SF	
11,700.00	7,048.47	7,004.53	7,048.47	138.93	242.81	89.98	-235.22	-4,916.16	731.63	351.07	380.56	1.923		
11,800.00	7,048.08	7,004.92	7,048.08	141.71	242.82	89.95	-235.22	-4,916.16	748.71	368.90	379.81	1.971		
11,900.00	7,047.68	7,005.32	7,047.68	144.49	242.83	89.91	-235.22	-4,916.16	778.37	401.33	377.04	2.064		
12,000.00	7,047.29	7,005.71	7,047.29	147.28	242.85	89.88	-235.22	-4,916.16	819.23	446.44	372.80	2.198		
12,100.00	7,046.90	7,006.10	7,046.90	150.07	242.86	89.85	-235.22	-4,916.16	869.73	502.05	367.68	2.365		
12,200.00	7,046.51	7,006.50	7,046.51	152.87	242.87	89.82	-235.22	-4,916.16	928.29	566.11	362.18	2.563		
12,300.00	7,046.11	7,006.89	7,046.11	155.66	242.89	89.79	-235.22	-4,916.16	993.48	636.81	356.66	2.785		
12,400.00	7,045.72	7,007.28	7,045.72	158.46	242.90	89.76	-235.22	-4,916.16	1,064.09	712.73	351.36	3.029		
12,500.00	7,045.33	7,007.67	7,045.33	161.26	242.92	89.73	-235.22	-4,916.16	1,139.11	792.73	346.38	3.289		
12,600.00	7,044.93	7,008.07	7,044.93	164.06	242.93	89.70	-235.22	-4,916.16	1,217.72	875.93	341.80	3.563		
12,700.00	7,044.54	7,008.46	7,044.54	166.86	242.94	89.67	-235.22	-4,916.16	1,299.28	961.67	337.61	3.848		
12,800.00	7,044.15	7,008.85	7,044.15	169.67	242.96	89.64	-235.22	-4,916.16	1,383.26	1,049.45	333.81	4.144		
12,900.00	7,043.75	7,009.25	7,043.75	172.48	242.97	89.60	-235.22	-4,916.16	1,469.25	1,138.87	330.38	4.447		
13,000.00	7,043.36	7,009.64	7,043.36	175.28	242.98	89.57	-235.22	-4,916.16	1,556.91	1,229.63	327.28	4.757		
13,100.00	7,042.97	6,989.97	7,042.97	178.09	242.30	89.54	-235.22	-4,916.16	1,645.98	1,322.21	323.78	5.084		
13,200.00	7,042.57	6,989.57	7,042.57	180.91	242.28	89.51	-235.22	-4,916.16	1,736.24	1,415.03	321.22	5.405		
13,300.00	7,042.18	6,989.18	7,042.18	183.72	242.27	89.48	-235.22	-4,916.16	1,827.52	1,508.62	318.90	5.731		
13,400.00	7,041.79	6,988.79	7,041.79	186.53	242.26	89.45	-235.22	-4,916.16	1,919.66	1,602.87	316.80	6.060		
13,500.00	7,041.39	6,988.39	7,041.39	189.35	242.24	89.42	-235.22	-4,916.16	2,012.56	1,697.68	314.88	6.391		
13,600.00	7,041.00	6,988.00	7,041.00	192.17	242.23	89.39	-235.22	-4,916.16	2,106.10	1,792.96	313.14	6.726		
13,700.00	7,040.61	6,987.61	7,040.61	194.99	242.21	89.36	-235.22	-4,916.16	2,200.22	1,888.67	311.55	7.062		
13,800.00	7,040.21	6,987.21	7,040.21	197.81	242.20	89.33	-235.22	-4,916.16	2,294.83	1,984.74	310.09	7.401		
13,900.00	7,039.82	6,986.82	7,039.82	200.63	242.19	89.30	-235.22	-4,916.16	2,389.88	2,081.13	308.75	7.740		
14,000.00	7,039.43	6,986.43	7,039.43	203.45	242.17	89.26	-235.22	-4,916.16	2,485.31	2,177.79	307.52	8.082		
14,100.00	7,039.03	6,986.03	7,039.03	206.27	242.16	89.23	-235.22	-4,916.16	2,581.10	2,274.71	306.39	8.424		
14,200.00	7,038.64	6,985.64	7,038.64	209.09	242.15	89.20	-235.22	-4,916.16	2,677.19	2,371.84	305.35	8.768		
14,300.00	7,038.25	6,985.25	7,038.25	211.92	242.13	89.17	-235.22	-4,916.16	2,773.56	2,469.17	304.39	9.112		
14,400.00	7,037.86	6,984.86	7,037.86	214.74	242.12	89.14	-235.22	-4,916.16	2,870.17	2,566.68	303.50	9.457		
14,500.00	7,037.46	6,984.46	7,037.46	217.57	242.10	89.11	-235.22	-4,916.16	2,967.02	2,664.35	302.67	9.803		
14,600.00	7,037.07	6,984.07	7,037.07	220.40	242.09	89.08	-235.22	-4,916.16	3,064.06	2,762.16	301.90	10.149		
14,700.00	7,036.68	6,983.68	7,036.68	223.23	242.08	89.05	-235.22	-4,916.16	3,161.29	2,860.10	301.19	10.496		
14,800.00	7,036.28	6,983.28	7,036.28	226.05	242.06	89.02	-235.22	-4,916.16	3,258.68	2,958.15	300.53	10.843		
14,871.88	7,036.00	6,983.00	7,036.00	228.09	242.05	88.99	-235.22	-4,916.16	3,328.79	3,028.71	300.08	11.093		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	56.00	3.28	3.28	-111.03	-2,942.76	-7,653.92	8,200.34					
100.00	100.00	44.00	100.00	3.28	3.37	-111.03	-2,942.76	-7,653.92	8,200.14	8,193.49	6.65	1,232.467		
200.00	200.00	144.00	200.00	3.34	4.64	-111.03	-2,942.76	-7,653.92	8,200.14	8,192.17	7.98	1,028.007		
300.00	300.00	244.00	300.00	3.44	7.53	-111.03	-2,942.76	-7,653.92	8,200.14	8,189.17	10.97	747.512		
400.00	399.98	343.98	399.98	3.60	10.77	59.15	-2,942.76	-7,653.92	8,199.25	8,184.88	14.37	570.598		
500.00	499.84	443.84	499.84	3.79	14.13	59.22	-2,942.76	-7,653.92	8,196.56	8,178.65	17.92	457.417		
600.00	599.45	543.45	599.45	4.02	17.54	59.35	-2,942.76	-7,653.92	8,192.10	8,170.55	21.55	380.113		
700.00	698.70	642.70	698.70	4.29	20.95	59.53	-2,942.76	-7,653.92	8,185.87	8,160.63	25.23	324.387		
800.00	797.70	741.70	797.70	4.59	24.37	59.63	-2,942.76	-7,653.92	8,178.66	8,149.70	28.96	282.459		
900.00	896.69	840.69	896.69	4.92	27.80	59.71	-2,942.76	-7,653.92	8,171.46	8,138.75	32.71	249.815		
1,000.00	995.68	939.68	995.68	5.27	31.23	59.80	-2,942.76	-7,653.92	8,164.28	8,127.79	36.49	223.725		
1,100.00	1,094.68	1,038.68	1,094.68	5.64	34.67	59.88	-2,942.76	-7,653.92	8,157.12	8,116.82	40.30	202.425		
1,200.00	1,193.67	1,137.67	1,193.67	6.03	38.11	59.97	-2,942.76	-7,653.92	8,149.97	8,105.85	44.12	184.727		
1,300.00	1,292.67	1,236.67	1,292.67	6.42	41.56	60.05	-2,942.76	-7,653.92	8,142.85	8,094.89	47.96	169.801		
1,400.00	1,391.66	1,335.66	1,391.66	6.83	45.00	60.14	-2,942.76	-7,653.92	8,135.74	8,083.94	51.80	157.051		
1,500.00	1,490.66	1,434.66	1,490.66	7.25	48.45	60.22	-2,942.76	-7,653.92	8,128.65	8,072.99	55.66	146.039		
1,600.00	1,589.65	1,533.65	1,589.65	7.67	51.90	60.31	-2,942.76	-7,653.92	8,121.58	8,062.05	59.53	136.437		
1,700.00	1,688.64	1,632.64	1,688.64	8.10	55.35	60.40	-2,942.76	-7,653.92	8,114.53	8,051.13	63.40	127.992		
1,800.00	1,787.64	1,731.64	1,787.64	8.53	58.80	60.48	-2,942.76	-7,653.92	8,107.49	8,040.22	67.28	120.510		
1,900.00	1,886.63	1,830.63	1,886.63	8.97	62.25	60.57	-2,942.76	-7,653.92	8,100.48	8,029.32	71.16	113.836		
2,000.00	1,985.63	1,929.63	1,985.63	9.41	65.70	60.66	-2,942.76	-7,653.92	8,093.48	8,018.44	75.05	107.846		
2,100.00	2,084.62	2,028.62	2,084.62	9.85	69.15	60.74	-2,942.76	-7,653.92	8,086.51	8,007.57	78.94	102.442		
2,200.00	2,183.61	2,127.61	2,183.61	10.30	72.60	60.83	-2,942.76	-7,653.92	8,079.55	7,996.72	82.83	97.542		
2,300.00	2,282.61	2,226.61	2,282.61	10.75	76.06	60.92	-2,942.76	-7,653.92	8,072.61	7,985.88	86.73	93.079		
2,400.00	2,381.60	2,325.60	2,381.60	11.20	79.51	61.00	-2,942.76	-7,653.92	8,065.69	7,975.06	90.63	88.998		
2,500.00	2,480.60	2,424.60	2,480.60	11.66	82.96	61.09	-2,942.76	-7,653.92	8,058.78	7,964.25	94.53	85.252		
2,600.00	2,579.59	2,523.59	2,579.59	12.11	86.42	61.18	-2,942.76	-7,653.92	8,051.90	7,953.47	98.43	81.802		
2,700.00	2,678.58	2,622.58	2,678.58	12.57	89.87	61.27	-2,942.76	-7,653.92	8,045.04	7,942.70	102.34	78.613		
2,800.00	2,777.58	2,721.58	2,777.58	13.02	93.32	61.35	-2,942.76	-7,653.92	8,038.19	7,931.95	106.24	75.658		
2,900.00	2,876.57	2,820.57	2,876.57	13.48	96.78	61.44	-2,942.76	-7,653.92	8,031.36	7,921.21	110.15	72.912		
3,000.00	2,975.57	2,919.57	2,975.57	13.94	100.23	61.53	-2,942.76	-7,653.92	8,024.56	7,910.50	114.06	70.353		
3,100.00	3,074.56	3,018.56	3,074.56	14.40	103.68	61.62	-2,942.76	-7,653.92	8,017.77	7,899.80	117.97	67.964		
3,200.00	3,173.55	3,117.55	3,173.55	14.87	107.14	61.71	-2,942.76	-7,653.92	8,011.00	7,889.12	121.88	65.727		
3,300.00	3,272.55	3,216.55	3,272.55	15.33	110.59	61.79	-2,942.76	-7,653.92	8,004.25	7,878.46	125.80	63.629		
3,400.00	3,371.54	3,315.54	3,371.54	15.79	114.05	61.88	-2,942.76	-7,653.92	7,997.52	7,867.81	129.71	61.657		
3,500.00	3,470.54	3,414.54	3,470.54	16.26	117.50	61.97	-2,942.76	-7,653.92	7,990.81	7,857.19	133.62	59.801		
3,600.00	3,569.53	3,513.53	3,569.53	16.72	120.96	62.06	-2,942.76	-7,653.92	7,984.12	7,846.58	137.54	58.050		
3,700.00	3,668.53	3,612.53	3,668.53	17.19	124.41	62.15	-2,942.76	-7,653.92	7,977.45	7,836.00	141.45	56.396		
3,800.00	3,767.52	3,711.52	3,767.52	17.65	127.87	62.24	-2,942.76	-7,653.92	7,970.80	7,825.43	145.37	54.831		
3,900.00	3,866.51	3,810.51	3,866.51	18.12	131.32	62.33	-2,942.76	-7,653.92	7,964.16	7,814.88	149.29	53.348		
4,000.00	3,965.51	3,909.51	3,965.51	18.59	134.78	62.42	-2,942.76	-7,653.92	7,957.55	7,804.35	153.20	51.941		
4,100.00	4,064.50	4,008.50	4,064.50	19.05	138.23	62.51	-2,942.76	-7,653.92	7,950.96	7,793.84	157.12	50.604		
4,200.00	4,163.50	4,107.50	4,163.50	19.52	141.69	62.60	-2,942.76	-7,653.92	7,944.38	7,783.34	161.04	49.331		
4,300.00	4,262.49	4,206.49	4,262.49	19.99	145.14	62.69	-2,942.76	-7,653.92	7,937.83	7,772.87	164.96	48.120		
4,400.00	4,361.48	4,305.48	4,361.48	20.46	148.60	62.78	-2,942.76	-7,653.92	7,931.30	7,762.42	168.88	46.964		
4,500.00	4,460.48	4,404.48	4,460.48	20.92	152.05	62.87	-2,942.76	-7,653.92	7,924.78	7,751.98	172.80	45.861		
4,600.00	4,559.47	4,503.47	4,559.47	21.39	155.51	62.96	-2,942.76	-7,653.92	7,918.29	7,741.57	176.72	44.807		
4,700.00	4,658.47	4,602.47	4,658.47	21.86	158.96	63.05	-2,942.76	-7,653.92	7,911.81	7,731.18	180.64	43.799		
4,800.00	4,757.46	4,701.46	4,757.46	22.33	162.42	63.14	-2,942.76	-7,653.92	7,905.36	7,720.80	184.56	42.833		
4,900.00	4,856.45	4,800.45	4,856.45	22.80	165.87	63.23	-2,942.76	-7,653.92	7,898.93	7,710.45	188.48	41.908		
5,000.00	4,955.45	4,900.45	4,955.45	23.27	169.36	63.32	-2,942.76	-7,653.92	7,892.51	7,700.07	192.44	41.013		
5,100.00	5,054.44	5,001.56	5,054.44	23.74	172.89	63.41	-2,942.76	-7,653.92	7,886.12	7,689.69	196.43	40.147		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,102.56	5,153.44	24.21	176.42	63.50	-2,942.76	-7,653.92	7,879.75	7,679.32	200.43	39.315		
5,300.00	5,252.43	5,203.57	5,252.43	24.68	179.94	63.59	-2,942.76	-7,653.92	7,873.39	7,668.97	204.42	38.516		
5,400.00	5,351.42	5,304.58	5,351.42	25.15	183.47	63.69	-2,942.76	-7,653.92	7,867.06	7,658.65	208.41	37.748		
5,500.00	5,450.42	5,405.58	5,450.42	25.62	186.99	63.78	-2,942.76	-7,653.92	7,860.75	7,648.34	212.40	37.008		
5,600.00	5,549.41	5,506.59	5,549.41	26.09	190.52	63.87	-2,942.76	-7,653.92	7,854.45	7,638.06	216.40	36.296		
5,700.00	5,648.41	5,607.59	5,648.41	26.56	194.04	63.96	-2,942.76	-7,653.92	7,848.18	7,627.79	220.39	35.610		
5,800.00	5,747.40	5,708.60	5,747.40	27.03	197.57	64.05	-2,942.76	-7,653.92	7,841.93	7,617.55	224.38	34.949		
5,900.00	5,846.40	5,809.61	5,846.40	27.51	201.09	64.15	-2,942.76	-7,653.92	7,835.70	7,607.32	228.38	34.310		
6,000.00	5,945.39	5,889.39	5,945.39	27.98	203.88	64.24	-2,942.76	-7,653.92	7,829.49	7,597.86	231.63	33.801		
6,100.00	6,044.38	5,988.38	6,044.38	28.45	207.34	64.33	-2,942.76	-7,653.92	7,823.30	7,587.75	235.56	33.212		
6,200.00	6,143.38	6,087.38	6,143.38	28.92	210.79	64.42	-2,942.76	-7,653.92	7,817.13	7,577.65	239.48	32.642		
6,300.00	6,242.37	6,186.37	6,242.37	29.39	214.25	64.52	-2,942.76	-7,653.92	7,810.98	7,567.58	243.40	32.090		
6,400.00	6,341.37	6,285.37	6,341.37	29.86	217.70	64.61	-2,942.76	-7,653.92	7,804.86	7,557.53	247.33	31.557		
6,500.00	6,440.36	6,384.36	6,440.36	30.34	221.16	64.70	-2,942.76	-7,653.92	7,798.75	7,547.50	251.25	31.039		
6,600.00	6,538.90	6,482.90	6,538.90	30.80	224.60	25.11	-2,942.76	-7,653.92	7,786.61	7,531.45	255.16	30.517		
6,700.00	6,634.88	6,578.88	6,634.88	31.25	227.95	8.00	-2,942.76	-7,653.92	7,759.72	7,500.78	258.94	29.967		
6,800.00	6,725.92	6,669.92	6,725.92	31.68	231.13	-0.08	-2,942.76	-7,653.92	7,718.67	7,456.14	262.52	29.402		
6,900.00	6,809.79	6,753.79	6,809.79	32.07	234.05	-5.52	-2,942.76	-7,653.92	7,664.45	7,398.64	265.80	28.835		
7,000.00	6,884.42	6,828.42	6,884.42	32.43	236.66	-10.48	-2,942.76	-7,653.92	7,598.40	7,329.70	268.70	28.278		
7,100.00	6,947.98	6,908.02	6,947.98	32.77	239.44	-16.26	-2,942.76	-7,653.92	7,522.17	7,250.46	271.71	27.684		
7,200.00	6,998.89	6,942.89	6,998.89	33.18	240.65	-24.43	-2,942.76	-7,653.92	7,437.65	7,164.56	273.09	27.235		
7,300.00	7,035.91	6,979.91	7,035.91	33.76	241.95	-37.70	-2,942.76	-7,653.92	7,346.95	7,072.46	274.49	26.766		
7,400.00	7,058.12	7,002.12	7,058.12	34.61	242.72	-60.47	-2,942.76	-7,653.92	7,252.33	6,977.00	275.32	26.341		
7,500.00	7,064.98	7,008.98	7,064.98	35.68	242.96	-90.79	-2,942.76	-7,653.92	7,156.15	6,880.56	275.59	25.967		
7,600.00	7,064.59	7,008.59	7,064.59	36.95	242.95	-90.78	-2,942.76	-7,653.92	7,060.01	6,784.41	275.60	25.617		
7,700.00	7,064.20	7,008.20	7,064.20	38.40	242.93	-90.77	-2,942.76	-7,653.92	6,963.99	6,688.35	275.64	25.265		
7,800.00	7,063.80	7,007.80	7,063.80	40.00	242.92	-90.76	-2,942.76	-7,653.92	6,868.08	6,592.38	275.70	24.911		
7,900.00	7,063.41	7,007.41	7,063.41	41.75	242.91	-90.75	-2,942.76	-7,653.92	6,772.29	6,496.49	275.80	24.556		
8,000.00	7,063.02	7,007.02	7,063.02	43.62	242.89	-90.73	-2,942.76	-7,653.92	6,676.62	6,400.70	275.92	24.198		
8,100.00	7,062.62	7,006.62	7,062.62	45.59	242.88	-90.72	-2,942.76	-7,653.92	6,581.08	6,305.01	276.07	23.838		
8,200.00	7,062.23	7,006.23	7,062.23	47.65	242.86	-90.71	-2,942.76	-7,653.92	6,485.68	6,209.41	276.26	23.476		
8,300.00	7,061.84	7,005.84	7,061.84	49.79	242.85	-90.70	-2,942.76	-7,653.92	6,390.41	6,113.92	276.49	23.113		
8,400.00	7,061.45	7,005.45	7,061.45	52.00	242.84	-90.69	-2,942.76	-7,653.92	6,295.30	6,018.54	276.76	22.747		
8,500.00	7,061.05	7,005.05	7,061.05	54.27	242.82	-90.68	-2,942.76	-7,653.92	6,200.33	5,923.27	277.07	22.379		
8,600.00	7,060.66	7,004.66	7,060.66	56.60	242.81	-90.67	-2,942.76	-7,653.92	6,105.53	5,828.11	277.42	22.008		
8,700.00	7,060.27	7,004.27	7,060.27	58.97	242.80	-90.65	-2,942.76	-7,653.92	6,010.90	5,733.08	277.82	21.636		
8,800.00	7,059.87	7,003.87	7,059.87	61.38	242.78	-90.64	-2,942.76	-7,653.92	5,916.44	5,638.18	278.26	21.262		
8,900.00	7,059.48	7,003.48	7,059.48	63.83	242.77	-90.63	-2,942.76	-7,653.92	5,822.17	5,543.41	278.76	20.886		
9,000.00	7,059.09	7,003.09	7,059.09	66.32	242.75	-90.62	-2,942.76	-7,653.92	5,728.09	5,448.77	279.31	20.508		
9,100.00	7,058.69	7,002.69	7,058.69	68.83	242.74	-90.61	-2,942.76	-7,653.92	5,634.21	5,354.29	279.92	20.128		
9,200.00	7,058.30	7,002.30	7,058.30	71.37	242.73	-90.60	-2,942.76	-7,653.92	5,540.55	5,259.96	280.59	19.746		
9,300.00	7,057.91	7,001.91	7,057.91	73.93	242.71	-90.58	-2,942.76	-7,653.92	5,447.12	5,165.80	281.32	19.363		
9,400.00	7,057.51	7,001.51	7,057.51	76.51	242.70	-90.57	-2,942.76	-7,653.92	5,353.92	5,071.81	282.11	18.978		
9,500.00	7,057.12	7,001.12	7,057.12	79.11	242.69	-90.56	-2,942.76	-7,653.92	5,260.97	4,978.00	282.98	18.592		
9,600.00	7,056.73	7,000.73	7,056.73	81.73	242.67	-90.55	-2,942.76	-7,653.92	5,168.29	4,884.38	283.91	18.204		
9,700.00	7,056.33	7,000.33	7,056.33	84.37	242.66	-90.54	-2,942.76	-7,653.92	5,075.88	4,790.97	284.91	17.816		
9,800.00	7,055.94	7,000.06	7,055.94	87.01	242.65	-90.53	-2,942.76	-7,653.92	4,983.77	4,697.77	286.00	17.426		
9,900.00	7,055.55	7,000.45	7,055.55	89.68	242.66	-90.52	-2,942.76	-7,653.92	4,891.96	4,604.78	287.18	17.034		
10,000.00	7,055.15	7,000.85	7,055.15	92.35	242.68	-90.50	-2,942.76	-7,653.92	4,800.49	4,512.03	288.45	16.642		
10,100.00	7,054.76	7,001.24	7,054.76	95.03	242.69	-90.49	-2,942.76	-7,653.92	4,709.36	4,419.55	289.81	16.250		
10,200.00	7,054.37	7,001.63	7,054.37	97.73	242.70	-90.48	-2,942.76	-7,653.92	4,618.59	4,327.34	291.25	15.858		
10,300.00	7,053.98	7,002.03	7,053.98	100.43	242.72	-90.47	-2,942.76	-7,653.92	4,528.22	4,235.43	292.79	15.466		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	7,002.42	7,053.58	103.14	242.73	-90.46	-2,942.76	-7,653.92	4,438.26	4,143.84	294.42	15.075		
10,500.00	7,053.19	7,002.81	7,053.19	105.86	242.75	-90.45	-2,942.76	-7,653.92	4,348.74	4,052.59	296.15	14.684		
10,600.00	7,052.80	7,003.20	7,052.80	108.59	242.76	-90.44	-2,942.76	-7,653.92	4,259.68	3,961.70	297.98	14.295		
10,700.00	7,052.40	7,003.60	7,052.40	111.32	242.77	-90.42	-2,942.76	-7,653.92	4,171.12	3,871.20	299.92	13.907		
10,800.00	7,052.01	7,003.99	7,052.01	114.06	242.79	-90.41	-2,942.76	-7,653.92	4,083.09	3,781.11	301.98	13.521		
10,900.00	7,051.62	7,004.38	7,051.62	116.80	242.80	-90.40	-2,942.76	-7,653.92	3,995.62	3,691.47	304.15	13.137		
11,000.00	7,051.22	7,004.78	7,051.22	119.55	242.81	-90.39	-2,942.76	-7,653.92	3,908.75	3,602.31	306.44	12.755		
11,100.00	7,050.83	7,005.17	7,050.83	122.31	242.83	-90.38	-2,942.76	-7,653.92	3,822.52	3,513.67	308.85	12.376		
11,200.00	7,050.44	7,005.56	7,050.44	125.07	242.84	-90.37	-2,942.76	-7,653.92	3,736.98	3,425.58	311.40	12.000		
11,300.00	7,050.04	7,005.96	7,050.04	127.83	242.86	-90.35	-2,942.76	-7,653.92	3,652.18	3,338.09	314.09	11.628		
11,400.00	7,049.65	7,006.35	7,049.65	130.60	242.87	-90.34	-2,942.76	-7,653.92	3,568.16	3,251.24	316.92	11.259		
11,500.00	7,049.26	7,006.74	7,049.26	133.37	242.88	-90.33	-2,942.76	-7,653.92	3,484.99	3,165.09	319.90	10.894		
11,600.00	7,048.86	7,007.14	7,048.86	136.15	242.90	-90.32	-2,942.76	-7,653.92	3,402.72	3,079.69	323.03	10.534		
11,700.00	7,048.47	7,007.53	7,048.47	138.93	242.91	-90.31	-2,942.76	-7,653.92	3,321.42	2,995.10	326.32	10.178		
11,800.00	7,048.08	7,007.92	7,048.08	141.71	242.92	-90.30	-2,942.76	-7,653.92	3,241.17	2,911.40	329.78	9.828		
11,900.00	7,047.68	7,008.32	7,047.68	144.49	242.94	-90.29	-2,942.76	-7,653.92	3,162.05	2,828.65	333.40	9.484		
12,000.00	7,047.29	7,008.71	7,047.29	147.28	242.95	-90.27	-2,942.76	-7,653.92	3,084.14	2,746.94	337.21	9.146		
12,100.00	7,046.90	7,009.10	7,046.90	150.07	242.96	-90.26	-2,942.76	-7,653.92	3,007.54	2,666.35	341.19	8.815		
12,200.00	7,046.51	7,009.50	7,046.51	152.87	242.98	-90.25	-2,942.76	-7,653.92	2,932.35	2,586.98	345.36	8.491		
12,300.00	7,046.11	7,009.89	7,046.11	155.66	242.99	-90.24	-2,942.76	-7,653.92	2,858.67	2,508.95	349.72	8.174		
12,400.00	7,045.72	6,989.72	7,045.72	158.46	242.29	-90.23	-2,942.76	-7,653.92	2,786.64	2,433.09	353.55	7.882		
12,500.00	7,045.33	6,989.33	7,045.33	161.26	242.27	-90.22	-2,942.76	-7,653.92	2,716.38	2,358.12	358.27	7.582		
12,600.00	7,044.93	6,988.93	7,044.93	164.06	242.26	-90.21	-2,942.76	-7,653.92	2,648.04	2,284.87	363.17	7.292		
12,700.00	7,044.54	6,988.54	7,044.54	166.86	242.25	-90.19	-2,942.76	-7,653.92	2,581.75	2,213.50	368.25	7.011		
12,800.00	7,044.15	6,988.15	7,044.15	169.67	242.23	-90.18	-2,942.76	-7,653.92	2,517.70	2,144.19	373.51	6.741		
12,900.00	7,043.75	6,987.75	7,043.75	172.48	242.22	-90.17	-2,942.76	-7,653.92	2,456.05	2,077.11	378.94	6.481		
13,000.00	7,043.36	6,987.36	7,043.36	175.28	242.21	-90.16	-2,942.76	-7,653.92	2,396.98	2,012.47	384.51	6.234		
13,100.00	7,042.97	6,986.97	7,042.97	178.09	242.19	-90.15	-2,942.76	-7,653.92	2,340.70	1,950.48	390.22	5.998		
13,200.00	7,042.57	6,986.57	7,042.57	180.91	242.18	-90.14	-2,942.76	-7,653.92	2,287.41	1,891.38	396.03	5.776		
13,300.00	7,042.18	6,986.18	7,042.18	183.72	242.16	-90.12	-2,942.76	-7,653.92	2,237.32	1,835.41	401.90	5.567		
13,400.00	7,041.79	6,985.79	7,041.79	186.53	242.15	-90.11	-2,942.76	-7,653.92	2,190.65	1,782.84	407.81	5.372		
13,500.00	7,041.39	6,985.39	7,041.39	189.35	242.14	-90.10	-2,942.76	-7,653.92	2,147.63	1,733.92	413.71	5.191		
13,600.00	7,041.00	6,985.00	7,041.00	192.17	242.12	-90.09	-2,942.76	-7,653.92	2,108.47	1,688.93	419.55	5.026		
13,700.00	7,040.61	6,984.61	7,040.61	194.99	242.11	-90.08	-2,942.76	-7,653.92	2,073.41	1,648.15	425.26	4.876		
13,800.00	7,040.21	6,984.21	7,040.21	197.81	242.10	-90.07	-2,942.76	-7,653.92	2,042.64	1,611.85	430.79	4.742		
13,900.00	7,039.82	6,983.82	7,039.82	200.63	242.08	-90.06	-2,942.76	-7,653.92	2,016.36	1,580.28	436.08	4.624		
14,000.00	7,039.43	6,983.43	7,039.43	203.45	242.07	-90.04	-2,942.76	-7,653.92	1,994.76	1,553.70	441.06	4.523		
14,100.00	7,039.03	6,983.03	7,039.03	206.27	242.05	-90.03	-2,942.76	-7,653.92	1,977.99	1,532.32	445.67	4.438		
14,200.00	7,038.64	6,982.64	7,038.64	209.09	242.04	-90.02	-2,942.76	-7,653.92	1,966.16	1,516.31	449.85	4.371		
14,300.00	7,038.25	6,982.25	7,038.25	211.92	242.03	-90.01	-2,942.76	-7,653.92	1,959.37	1,505.81	453.56	4.320		
14,383.24	7,037.92	6,981.92	7,037.92	214.27	242.02	-90.00	-2,942.76	-7,653.92	1,957.60	1,501.35	456.25	4.291 CC		
14,400.00	7,037.86	6,981.86	7,037.86	214.74	242.01	-90.00	-2,942.76	-7,653.92	1,957.68	1,500.93	456.75	4.286 ES		
14,500.00	7,037.46	6,981.46	7,037.46	217.57	242.00	-89.99	-2,942.76	-7,653.92	1,961.08	1,501.69	459.39	4.269		
14,600.00	7,037.07	6,981.07	7,037.07	220.40	241.99	-89.98	-2,942.76	-7,653.92	1,969.57	1,508.09	461.47	4.268 SF		
14,700.00	7,036.68	6,980.68	7,036.68	223.23	241.97	-89.96	-2,942.76	-7,653.92	1,983.07	1,520.07	462.99	4.283		
14,800.00	7,036.28	6,980.28	7,036.28	226.05	241.96	-89.95	-2,942.76	-7,653.92	2,001.47	1,537.51	463.96	4.314		
14,871.88	7,036.00	6,980.00	7,036.00	228.09	241.95	-89.94	-2,942.76	-7,653.92	2,017.67	1,553.34	464.33	4.345		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	43.00	3.28	3.28	-102.55	-1,450.89	-6,518.30	6,677.97					
100.00	100.00	57.00	100.00	3.28	3.43	-102.55	-1,450.89	-6,518.30	6,677.83	6,671.12	6.71	994.864		
200.00	200.00	157.00	200.00	3.34	4.97	-102.55	-1,450.89	-6,518.30	6,677.83	6,669.52	8.31	803.775		
300.00	300.00	257.00	300.00	3.44	7.94	-102.55	-1,450.89	-6,518.30	6,677.83	6,666.45	11.38	586.761		
400.00	399.98	356.98	399.98	3.60	11.21	67.63	-1,450.89	-6,518.30	6,677.16	6,662.36	14.80	451.080		
500.00	499.84	456.84	499.84	3.79	14.58	67.71	-1,450.89	-6,518.30	6,675.17	6,656.81	18.36	363.560		
600.00	599.45	556.45	599.45	4.02	17.98	67.84	-1,450.89	-6,518.30	6,671.86	6,649.87	22.00	303.308		
700.00	698.70	655.70	698.70	4.29	21.40	68.02	-1,450.89	-6,518.30	6,667.25	6,641.57	25.68	259.602		
800.00	797.70	754.70	797.70	4.59	24.82	68.14	-1,450.89	-6,518.30	6,661.93	6,632.52	29.41	226.555		
900.00	896.69	853.69	896.69	4.92	28.25	68.25	-1,450.89	-6,518.30	6,656.63	6,623.47	33.16	200.724		
1,000.00	995.68	952.68	995.68	5.27	31.68	68.36	-1,450.89	-6,518.30	6,651.35	6,614.40	36.95	180.017		
1,100.00	1,094.68	1,051.68	1,094.68	5.64	35.12	68.47	-1,450.89	-6,518.30	6,646.10	6,605.35	40.76	163.071		
1,200.00	1,193.67	1,150.67	1,193.67	6.03	38.56	68.59	-1,450.89	-6,518.30	6,640.88	6,596.30	44.58	148.963		
1,300.00	1,292.67	1,249.67	1,292.67	6.42	42.01	68.70	-1,450.89	-6,518.30	6,635.68	6,587.26	48.42	137.045		
1,400.00	1,391.66	1,348.66	1,391.66	6.83	45.45	68.81	-1,450.89	-6,518.30	6,630.51	6,578.24	52.27	126.850		
1,500.00	1,490.66	1,447.66	1,490.66	7.25	48.90	68.93	-1,450.89	-6,518.30	6,625.36	6,569.23	56.13	118.034		
1,600.00	1,589.65	1,546.65	1,589.65	7.67	52.35	69.04	-1,450.89	-6,518.30	6,620.24	6,560.25	60.00	110.339		
1,700.00	1,688.64	1,645.64	1,688.64	8.10	55.80	69.15	-1,450.89	-6,518.30	6,615.15	6,551.28	63.87	103.565		
1,800.00	1,787.64	1,744.64	1,787.64	8.53	59.25	69.27	-1,450.89	-6,518.30	6,610.09	6,542.33	67.76	97.558		
1,900.00	1,886.63	1,843.63	1,886.63	8.97	62.70	69.38	-1,450.89	-6,518.30	6,605.05	6,533.40	71.64	92.197		
2,000.00	1,985.63	1,942.63	1,985.63	9.41	66.15	69.49	-1,450.89	-6,518.30	6,600.03	6,524.50	75.53	87.382		
2,100.00	2,084.62	2,041.62	2,084.62	9.85	69.60	69.61	-1,450.89	-6,518.30	6,595.04	6,515.62	79.42	83.035		
2,200.00	2,183.61	2,140.61	2,183.61	10.30	73.06	69.72	-1,450.89	-6,518.30	6,590.08	6,506.76	83.32	79.092		
2,300.00	2,282.61	2,239.61	2,282.61	10.75	76.51	69.84	-1,450.89	-6,518.30	6,585.15	6,497.93	87.22	75.500		
2,400.00	2,381.60	2,338.60	2,381.60	11.20	79.96	69.95	-1,450.89	-6,518.30	6,580.24	6,489.12	91.12	72.213		
2,500.00	2,480.60	2,437.60	2,480.60	11.66	83.42	70.07	-1,450.89	-6,518.30	6,575.36	6,480.34	95.03	69.195		
2,600.00	2,579.59	2,536.59	2,579.59	12.11	86.87	70.18	-1,450.89	-6,518.30	6,570.51	6,471.58	98.93	66.414		
2,700.00	2,678.58	2,635.58	2,678.58	12.57	90.32	70.30	-1,450.89	-6,518.30	6,565.68	6,462.84	102.84	63.843		
2,800.00	2,777.58	2,734.58	2,777.58	13.02	93.78	70.41	-1,450.89	-6,518.30	6,560.88	6,454.13	106.75	61.460		
2,900.00	2,876.57	2,833.57	2,876.57	13.48	97.23	70.53	-1,450.89	-6,518.30	6,556.11	6,445.45	110.66	59.245		
3,000.00	2,975.57	2,932.57	2,975.57	13.94	100.68	70.64	-1,450.89	-6,518.30	6,551.36	6,436.79	114.57	57.181		
3,100.00	3,074.56	3,031.56	3,074.56	14.40	104.14	70.76	-1,450.89	-6,518.30	6,546.65	6,428.16	118.49	55.252		
3,200.00	3,173.55	3,130.55	3,173.55	14.87	107.59	70.87	-1,450.89	-6,518.30	6,541.95	6,419.55	122.40	53.447		
3,300.00	3,272.55	3,229.55	3,272.55	15.33	111.05	70.99	-1,450.89	-6,518.30	6,537.29	6,410.97	126.32	51.753		
3,400.00	3,371.54	3,328.54	3,371.54	15.79	114.50	71.11	-1,450.89	-6,518.30	6,532.65	6,402.42	130.23	50.162		
3,500.00	3,470.54	3,427.54	3,470.54	16.26	117.96	71.22	-1,450.89	-6,518.30	6,528.04	6,393.89	134.15	48.663		
3,600.00	3,569.53	3,526.53	3,569.53	16.72	121.41	71.34	-1,450.89	-6,518.30	6,523.46	6,385.40	138.07	47.249		
3,700.00	3,668.53	3,625.53	3,668.53	17.19	124.86	71.46	-1,450.89	-6,518.30	6,518.91	6,376.92	141.99	45.913		
3,800.00	3,767.52	3,724.52	3,767.52	17.65	128.32	71.57	-1,450.89	-6,518.30	6,514.38	6,368.48	145.90	44.648		
3,900.00	3,866.51	3,823.51	3,866.51	18.12	131.77	71.69	-1,450.89	-6,518.30	6,509.88	6,360.06	149.82	43.450		
4,000.00	3,965.51	3,922.51	3,965.51	18.59	135.23	71.81	-1,450.89	-6,518.30	6,505.41	6,351.67	153.74	42.313		
4,100.00	4,064.50	4,021.50	4,064.50	19.05	138.68	71.92	-1,450.89	-6,518.30	6,500.97	6,343.30	157.66	41.233		
4,200.00	4,163.50	4,120.50	4,163.50	19.52	142.14	72.04	-1,450.89	-6,518.30	6,496.55	6,334.96	161.59	40.205		
4,300.00	4,262.49	4,219.49	4,262.49	19.99	145.59	72.16	-1,450.89	-6,518.30	6,492.16	6,326.65	165.51	39.226		
4,400.00	4,361.48	4,318.48	4,361.48	20.46	149.05	72.28	-1,450.89	-6,518.30	6,487.80	6,318.37	169.43	38.292		
4,500.00	4,460.48	4,417.48	4,460.48	20.92	152.50	72.40	-1,450.89	-6,518.30	6,483.47	6,310.12	173.35	37.401		
4,600.00	4,559.47	4,516.47	4,559.47	21.39	155.96	72.51	-1,450.89	-6,518.30	6,479.16	6,301.89	177.27	36.549		
4,700.00	4,658.47	4,615.47	4,658.47	21.86	159.41	72.63	-1,450.89	-6,518.30	6,474.89	6,293.69	181.20	35.734		
4,800.00	4,757.46	4,714.46	4,757.46	22.33	162.87	72.75	-1,450.89	-6,518.30	6,470.64	6,285.52	185.12	34.954		
4,900.00	4,856.45	4,813.45	4,856.45	22.80	166.32	72.87	-1,450.89	-6,518.30	6,466.42	6,277.37	189.04	34.206		
5,000.00	4,955.45	4,912.45	4,955.45	23.27	169.78	72.99	-1,450.89	-6,518.30	6,462.23	6,269.26	192.97	33.488		
5,100.00	5,054.44	5,011.44	5,054.44	23.74	173.24	73.11	-1,450.89	-6,518.30	6,458.06	6,261.17	196.89	32.800		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,153.44	5,110.44	5,153.44	24.21	176.69	73.23	-1,450.89	-6,518.30	6,453.93	6,253.11	200.82	32.138		
5,300.00	5,252.43	5,209.43	5,252.43	24.68	180.15	73.34	-1,450.89	-6,518.30	6,449.82	6,245.08	204.74	31.502		
5,400.00	5,351.42	5,308.42	5,351.42	25.15	183.60	73.46	-1,450.89	-6,518.30	6,445.74	6,237.07	208.67	30.890		
5,500.00	5,450.42	5,407.42	5,450.42	25.62	187.06	73.58	-1,450.89	-6,518.30	6,441.69	6,229.10	212.59	30.301		
5,600.00	5,549.41	5,506.41	5,549.41	26.09	190.51	73.70	-1,450.89	-6,518.30	6,437.67	6,221.15	216.52	29.733		
5,700.00	5,648.41	5,605.41	5,648.41	26.56	193.97	73.82	-1,450.89	-6,518.30	6,433.68	6,213.23	220.44	29.185		
5,800.00	5,747.40	5,704.40	5,747.40	27.03	197.42	73.94	-1,450.89	-6,518.30	6,429.71	6,205.34	224.37	28.657		
5,900.00	5,846.40	5,803.40	5,846.40	27.51	200.88	74.06	-1,450.89	-6,518.30	6,425.78	6,197.48	228.30	28.147		
6,000.00	5,945.39	5,902.39	5,945.39	27.98	204.33	74.18	-1,450.89	-6,518.30	6,421.87	6,189.65	232.22	27.654		
6,100.00	6,044.38	6,001.38	6,044.38	28.45	207.79	74.30	-1,450.89	-6,518.30	6,417.99	6,181.84	236.15	27.178		
6,200.00	6,143.38	6,100.38	6,143.38	28.92	211.24	74.42	-1,450.89	-6,518.30	6,414.14	6,174.07	240.08	26.717		
6,300.00	6,242.37	6,200.37	6,242.37	29.39	214.74	74.55	-1,450.89	-6,518.30	6,410.32	6,166.28	244.05	26.267		
6,400.00	6,341.37	6,301.37	6,341.37	29.86	218.27	74.67	-1,450.89	-6,518.30	6,406.53	6,158.49	248.04	25.828		
6,500.00	6,440.36	6,402.64	6,440.36	30.34	221.80	74.79	-1,450.89	-6,518.30	6,402.77	6,150.73	252.04	25.404		
6,600.00	6,538.90	6,504.10	6,538.90	30.80	225.34	35.42	-1,450.89	-6,518.30	6,392.77	6,136.72	256.05	24.967		
6,700.00	6,634.88	6,608.12	6,634.88	31.25	228.97	18.84	-1,450.89	-6,518.30	6,367.51	6,107.39	260.12	24.479		
6,800.00	6,725.92	6,682.92	6,725.92	31.68	231.58	11.63	-1,450.89	-6,518.30	6,327.51	6,064.37	263.14	24.046		
6,900.00	6,809.79	6,766.79	6,809.79	32.07	234.51	7.53	-1,450.89	-6,518.30	6,273.75	6,007.32	266.43	23.547		
7,000.00	6,884.42	6,841.42	6,884.42	32.43	237.11	4.59	-1,450.89	-6,518.30	6,207.55	5,938.20	269.35	23.046		
7,100.00	6,947.98	6,904.98	6,947.98	32.77	239.33	1.91	-1,450.89	-6,518.30	6,130.53	5,858.71	271.82	22.554		
7,200.00	6,998.89	6,955.89	6,998.89	33.18	241.11	-1.36	-1,450.89	-6,518.30	6,044.58	5,770.80	273.78	22.079		
7,300.00	7,035.91	7,007.09	7,035.91	33.76	242.89	-6.95	-1,450.89	-6,518.30	5,951.82	5,676.14	275.68	21.590		
7,400.00	7,058.12	7,015.12	7,058.12	34.61	243.17	-22.41	-1,450.89	-6,518.30	5,854.53	5,578.52	276.01	21.211		
7,500.00	7,064.98	7,021.98	7,064.98	35.68	243.41	-92.72	-1,450.89	-6,518.30	5,755.13	5,478.87	276.26	20.832		
7,600.00	7,064.59	7,021.59	7,064.59	36.95	243.40	-92.67	-1,450.89	-6,518.30	5,655.48	5,379.24	276.23	20.474		
7,700.00	7,064.20	7,021.20	7,064.20	38.40	243.39	-92.62	-1,450.89	-6,518.30	5,555.84	5,279.63	276.21	20.115		
7,800.00	7,063.80	7,020.80	7,063.80	40.00	243.37	-92.58	-1,450.89	-6,518.30	5,456.21	5,180.02	276.19	19.755		
7,900.00	7,063.41	7,020.41	7,063.41	41.75	243.36	-92.53	-1,450.89	-6,518.30	5,356.60	5,080.43	276.17	19.396		
8,000.00	7,063.02	7,020.02	7,063.02	43.62	243.35	-92.48	-1,450.89	-6,518.30	5,257.00	4,980.84	276.16	19.036		
8,100.00	7,062.62	7,019.62	7,062.62	45.59	243.33	-92.43	-1,450.89	-6,518.30	5,157.42	4,881.27	276.15	18.676		
8,200.00	7,062.23	7,019.23	7,062.23	47.65	243.32	-92.39	-1,450.89	-6,518.30	5,057.85	4,781.71	276.14	18.316		
8,300.00	7,061.84	7,018.84	7,061.84	49.79	243.30	-92.34	-1,450.89	-6,518.30	4,958.30	4,682.17	276.14	17.956		
8,400.00	7,061.45	7,018.45	7,061.45	52.00	243.29	-92.29	-1,450.89	-6,518.30	4,858.77	4,582.63	276.14	17.595		
8,500.00	7,061.05	7,018.05	7,061.05	54.27	243.28	-92.24	-1,450.89	-6,518.30	4,759.26	4,483.12	276.15	17.235		
8,600.00	7,060.66	7,017.66	7,060.66	56.60	243.26	-92.20	-1,450.89	-6,518.30	4,659.78	4,383.62	276.16	16.874		
8,700.00	7,060.27	7,017.27	7,060.27	58.97	243.25	-92.15	-1,450.89	-6,518.30	4,560.31	4,284.13	276.18	16.512		
8,800.00	7,059.87	7,016.87	7,059.87	61.38	243.24	-92.10	-1,450.89	-6,518.30	4,460.86	4,184.66	276.20	16.151		
8,900.00	7,059.48	7,016.48	7,059.48	63.83	243.22	-92.06	-1,450.89	-6,518.30	4,361.45	4,085.21	276.24	15.789		
9,000.00	7,059.09	7,016.09	7,059.09	66.32	243.21	-92.01	-1,450.89	-6,518.30	4,262.06	3,985.78	276.28	15.427		
9,100.00	7,058.69	7,015.69	7,058.69	68.83	243.19	-91.96	-1,450.89	-6,518.30	4,162.70	3,886.37	276.33	15.064		
9,200.00	7,058.30	7,015.30	7,058.30	71.37	243.18	-91.91	-1,450.89	-6,518.30	4,063.37	3,786.97	276.39	14.702		
9,300.00	7,057.91	7,014.91	7,057.91	73.93	243.17	-91.87	-1,450.89	-6,518.30	3,964.07	3,687.61	276.46	14.339		
9,400.00	7,057.51	7,014.51	7,057.51	76.51	243.15	-91.82	-1,450.89	-6,518.30	3,864.81	3,588.26	276.55	13.975		
9,500.00	7,057.12	7,014.12	7,057.12	79.11	243.14	-91.77	-1,450.89	-6,518.30	3,765.59	3,488.94	276.65	13.611		
9,600.00	7,056.73	7,013.73	7,056.73	81.73	243.13	-91.72	-1,450.89	-6,518.30	3,666.41	3,389.64	276.77	13.247		
9,700.00	7,056.33	7,013.33	7,056.33	84.37	243.11	-91.68	-1,450.89	-6,518.30	3,567.28	3,290.38	276.90	12.883		
9,800.00	7,055.94	7,012.94	7,055.94	87.01	243.10	-91.63	-1,450.89	-6,518.30	3,468.19	3,191.14	277.06	12.518		
9,900.00	7,055.55	7,012.55	7,055.55	89.68	243.09	-91.58	-1,450.89	-6,518.30	3,369.16	3,091.93	277.23	12.153		
10,000.00	7,055.15	7,012.15	7,055.15	92.35	243.07	-91.53	-1,450.89	-6,518.30	3,270.19	2,992.75	277.44	11.787		
10,100.00	7,054.76	7,011.76	7,054.76	95.03	243.06	-91.49	-1,450.89	-6,518.30	3,171.29	2,893.61	277.67	11.421		
10,200.00	7,054.37	7,011.37	7,054.37	97.73	243.04	-91.44	-1,450.89	-6,518.30	3,072.45	2,794.51	277.94	11.054		
10,300.00	7,053.98	7,010.98	7,053.98	100.43	243.03	-91.39	-1,450.89	-6,518.30	2,973.70	2,695.45	278.25	10.687		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	7,010.58	7,053.58	103.14	243.02	-91.34	-1,450.89	-6,518.30	2,875.03	2,596.42	278.60	10.319		
10,500.00	7,053.19	7,010.19	7,053.19	105.86	243.00	-91.30	-1,450.89	-6,518.30	2,776.45	2,497.45	279.01	9.951		
10,600.00	7,052.80	7,009.80	7,052.80	108.59	242.99	-91.25	-1,450.89	-6,518.30	2,677.98	2,398.51	279.47	9.582		
10,700.00	7,052.40	7,009.40	7,052.40	111.32	242.98	-91.20	-1,450.89	-6,518.30	2,579.63	2,299.63	279.99	9.213		
10,800.00	7,052.01	7,009.01	7,052.01	114.06	242.96	-91.15	-1,450.89	-6,518.30	2,481.41	2,200.81	280.60	8.843		
10,900.00	7,051.62	7,008.62	7,051.62	116.80	242.95	-91.11	-1,450.89	-6,518.30	2,383.33	2,102.04	281.29	8.473		
11,000.00	7,051.22	7,008.22	7,051.22	119.55	242.93	-91.06	-1,450.89	-6,518.30	2,285.43	2,003.34	282.09	8.102		
11,100.00	7,050.83	7,007.83	7,050.83	122.31	242.92	-91.01	-1,450.89	-6,518.30	2,187.71	1,904.71	283.00	7.730		
11,200.00	7,050.44	7,007.44	7,050.44	125.07	242.91	-90.97	-1,450.89	-6,518.30	2,090.21	1,806.16	284.05	7.359		
11,300.00	7,050.04	7,007.04	7,050.04	127.83	242.89	-90.92	-1,450.89	-6,518.30	1,992.96	1,707.69	285.27	6.986		
11,400.00	7,049.65	7,006.65	7,049.65	130.60	242.88	-90.87	-1,450.89	-6,518.30	1,895.99	1,609.32	286.67	6.614		
11,500.00	7,049.26	7,006.26	7,049.26	133.37	242.87	-90.82	-1,450.89	-6,518.30	1,799.35	1,511.06	288.30	6.241		
11,600.00	7,048.86	7,005.86	7,048.86	136.15	242.85	-90.78	-1,450.89	-6,518.30	1,703.11	1,412.92	290.19	5.869		
11,700.00	7,048.47	7,005.47	7,048.47	138.93	242.84	-90.73	-1,450.89	-6,518.30	1,607.32	1,314.93	292.38	5.497		
11,800.00	7,048.08	7,005.08	7,048.08	141.71	242.82	-90.68	-1,450.89	-6,518.30	1,512.07	1,217.13	294.95	5.127		
11,900.00	7,047.68	7,004.68	7,047.68	144.49	242.81	-90.63	-1,450.89	-6,518.30	1,417.48	1,119.53	297.95	4.757		
12,000.00	7,047.29	7,004.29	7,047.29	147.28	242.80	-90.59	-1,450.89	-6,518.30	1,323.69	1,022.21	301.48	4.391		
12,100.00	7,046.90	7,003.90	7,046.90	150.07	242.78	-90.54	-1,450.89	-6,518.30	1,230.88	925.23	305.65	4.027		
12,200.00	7,046.51	7,003.51	7,046.51	152.87	242.77	-90.49	-1,450.89	-6,518.30	1,139.28	828.70	310.58	3.668		
12,300.00	7,046.11	7,003.11	7,046.11	155.66	242.76	-90.44	-1,450.89	-6,518.30	1,049.21	732.77	316.44	3.316		
12,400.00	7,045.72	7,002.72	7,045.72	158.46	242.74	-90.40	-1,450.89	-6,518.30	961.11	637.68	323.43	2.972		
12,500.00	7,045.33	7,002.33	7,045.33	161.26	242.73	-90.35	-1,450.89	-6,518.30	875.58	543.79	331.79	2.639		
12,600.00	7,044.93	7,001.93	7,044.93	164.06	242.71	-90.30	-1,450.89	-6,518.30	793.43	451.67	341.76	2.322		
12,700.00	7,044.54	7,001.54	7,044.54	166.86	242.70	-90.25	-1,450.89	-6,518.30	715.84	362.27	353.57	2.025		
12,800.00	7,044.15	7,001.15	7,044.15	169.67	242.69	-90.21	-1,450.89	-6,518.30	644.45	277.13	367.32	1.754		
12,900.00	7,043.75	7,000.75	7,043.75	172.48	242.67	-90.16	-1,450.89	-6,518.30	581.56	198.84	382.72	1.520		
13,000.00	7,043.36	7,000.36	7,043.36	175.28	242.66	-90.11	-1,450.89	-6,518.30	530.19	131.49	398.71	1.330	Level 3	
13,100.00	7,042.97	7,000.03	7,042.97	178.09	242.65	-90.06	-1,450.89	-6,518.30	493.96	80.89	413.07	1.196	Level 2	
13,200.00	7,042.57	7,000.43	7,042.57	180.91	242.66	-90.02	-1,450.89	-6,518.30	476.33	53.58	422.75	1.127	Level 2	
13,235.54	7,042.43	7,000.57	7,042.43	181.91	242.67	-90.00	-1,450.89	-6,518.30	475.00	50.47	424.53	1.119	Level 2, CC, ES, SF	
13,300.00	7,042.18	7,000.82	7,042.18	183.72	242.68	-89.97	-1,450.89	-6,518.30	479.36	54.09	425.27	1.127	Level 2	
13,400.00	7,041.79	7,001.21	7,041.79	186.53	242.69	-89.92	-1,450.89	-6,518.30	502.67	82.11	420.56	1.195	Level 2	
13,500.00	7,041.39	7,001.61	7,041.39	189.35	242.70	-89.87	-1,450.89	-6,518.30	543.66	132.80	410.86	1.323	Level 3	
13,600.00	7,041.00	7,002.00	7,041.00	192.17	242.72	-89.83	-1,450.89	-6,518.30	598.72	199.73	398.98	1.501		
13,700.00	7,040.61	7,002.39	7,040.61	194.99	242.73	-89.78	-1,450.89	-6,518.30	664.34	277.39	386.95	1.717		
13,800.00	7,040.21	7,002.79	7,040.21	197.81	242.74	-89.73	-1,450.89	-6,518.30	737.73	361.90	375.83	1.963		
13,900.00	7,039.82	7,003.18	7,039.82	200.63	242.76	-89.68	-1,450.89	-6,518.30	816.78	450.80	365.98	2.232		
14,000.00	7,039.43	7,003.57	7,039.43	203.45	242.77	-89.64	-1,450.89	-6,518.30	900.01	542.56	357.46	2.518		
14,100.00	7,039.03	7,003.97	7,039.03	206.27	242.79	-89.59	-1,450.89	-6,518.30	986.36	636.24	350.13	2.817		
14,200.00	7,038.64	7,004.36	7,038.64	209.09	242.80	-89.54	-1,450.89	-6,518.30	1,075.08	731.24	343.84	3.127		
14,300.00	7,038.25	7,004.75	7,038.25	211.92	242.81	-89.50	-1,450.89	-6,518.30	1,165.63	827.19	338.44	3.444		
14,400.00	7,037.86	7,005.14	7,037.86	214.74	242.83	-89.45	-1,450.89	-6,518.30	1,257.61	923.84	333.77	3.768		
14,500.00	7,037.46	7,005.54	7,037.46	217.57	242.84	-89.40	-1,450.89	-6,518.30	1,350.73	1,021.00	329.73	4.097		
14,600.00	7,037.07	7,005.93	7,037.07	220.40	242.85	-89.35	-1,450.89	-6,518.30	1,444.77	1,118.57	326.20	4.429		
14,700.00	7,036.68	7,006.32	7,036.68	223.23	242.87	-89.31	-1,450.89	-6,518.30	1,539.56	1,216.45	323.11	4.765		
14,800.00	7,036.28	7,006.72	7,036.28	226.05	242.88	-89.26	-1,450.89	-6,518.30	1,634.97	1,314.58	320.39	5.103		
14,871.88	7,036.00	7,007.00	7,036.00	228.09	242.89	-89.22	-1,450.89	-6,518.30	1,703.88	1,385.25	318.63	5.348		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	38.00	3.28	3.28	-92.35	-314.30	-7,657.00	7,663.54					
100.00	100.00	100.00	125.99	3.28	3.29	-92.35	-314.02	-7,656.71	7,663.19	7,656.62	6.57	1,166.063		
200.00	200.00	181.82	219.82	3.34	3.33	-92.34	-313.42	-7,656.31	7,662.75	7,656.09	6.67	1,149.565		
274.22	274.22	236.23	274.22	3.41	3.38	-92.34	-313.05	-7,656.26	7,662.66	7,655.87	6.79	1,128.819		
300.00	300.00	255.32	293.31	3.44	3.40	-92.34	-312.96	-7,656.27	7,662.67	7,655.83	6.84	1,120.059		
400.00	399.98	330.82	368.81	3.60	3.49	77.82	-312.76	-7,656.47	7,662.55	7,655.46	7.09	1,080.897		
500.00	499.84	412.38	450.37	3.79	3.63	77.87	-312.83	-7,656.92	7,662.00	7,654.59	7.41	1,033.701		
600.00	599.45	520.84	558.83	4.02	3.85	77.96	-313.10	-7,657.52	7,660.73	7,652.87	7.86	974.160		
700.00	698.70	611.09	649.08	4.29	4.07	78.07	-313.76	-7,658.03	7,658.77	7,650.42	8.35	917.286		
800.00	797.70	698.90	736.88	4.59	4.30	78.16	-314.64	-7,658.63	7,656.56	7,647.68	8.89	861.678		
900.00	896.69	800.18	838.15	4.92	4.59	78.26	-315.67	-7,659.39	7,654.43	7,644.92	9.51	805.016		
1,000.00	995.68	904.05	942.02	5.27	4.91	78.36	-316.69	-7,660.11	7,652.27	7,642.09	10.18	751.528		
1,100.00	1,094.68	1,007.99	1,045.95	5.64	5.25	78.46	-317.57	-7,660.78	7,650.08	7,639.19	10.89	702.352		
1,200.00	1,193.67	1,107.89	1,145.85	6.03	5.59	78.56	-318.11	-7,661.40	7,647.87	7,636.25	11.62	658.323		
1,300.00	1,292.67	1,204.02	1,241.97	6.42	5.93	78.66	-318.47	-7,662.01	7,645.71	7,633.35	12.35	618.971		
1,400.00	1,391.66	1,317.31	1,355.26	6.83	6.34	78.77	-318.74	-7,662.65	7,643.48	7,630.32	13.17	580.428		
1,500.00	1,490.66	1,405.28	1,443.23	7.25	6.67	78.86	-319.01	-7,663.16	7,641.30	7,627.39	13.91	549.373		
1,600.00	1,589.65	1,505.20	1,543.14	7.67	7.04	78.96	-319.41	-7,663.76	7,639.17	7,624.46	14.71	519.436		
1,700.00	1,688.64	1,596.40	1,634.34	8.10	7.39	79.06	-319.73	-7,664.36	7,637.11	7,621.63	15.48	493.275		
1,800.00	1,787.64	1,702.59	1,740.53	8.53	7.80	79.16	-319.92	-7,665.06	7,635.09	7,618.76	16.33	467.680		
1,900.00	1,886.63	1,798.88	1,836.82	8.97	8.18	79.26	-320.03	-7,665.68	7,633.06	7,615.92	17.14	445.367		
2,000.00	1,985.63	1,902.07	1,940.01	9.41	8.59	79.37	-320.24	-7,666.32	7,631.04	7,613.06	17.99	424.270		
2,100.00	2,084.62	1,991.71	2,029.64	9.85	8.94	79.46	-320.45	-7,666.91	7,629.09	7,610.30	18.79	406.095		
2,200.00	2,183.61	2,128.83	2,166.76	10.30	9.49	79.61	-320.52	-7,667.52	7,626.93	7,607.15	19.78	385.565		
2,300.00	2,282.61	2,238.65	2,276.58	10.75	9.93	79.72	-320.96	-7,667.71	7,624.55	7,603.87	20.67	368.843		
2,400.00	2,381.60	2,346.56	2,384.49	11.20	10.37	79.83	-321.63	-7,667.67	7,621.98	7,600.42	21.56	353.562		
2,500.00	2,480.60	2,442.95	2,480.88	11.66	10.76	79.92	-322.10	-7,667.66	7,619.46	7,597.06	22.40	340.136		
2,600.00	2,579.59	2,559.93	2,597.86	12.11	11.24	80.04	-322.54	-7,667.58	7,616.91	7,593.58	23.33	326.478		
2,700.00	2,678.58	2,684.54	2,722.46	12.57	11.75	80.17	-322.73	-7,667.04	7,614.02	7,589.73	24.29	313.429		
2,800.00	2,777.58	2,780.74	2,818.67	13.02	12.14	80.27	-322.55	-7,666.49	7,611.01	7,585.87	25.14	302.707		
2,900.00	2,876.57	2,842.21	2,880.13	13.48	12.39	80.34	-322.24	-7,666.26	7,608.27	7,582.41	25.86	294.257		
3,000.00	2,975.57	2,900.01	2,937.93	13.94	12.63	80.40	-321.76	-7,666.43	7,606.13	7,579.58	26.55	286.431		
3,100.00	3,074.56	2,954.17	2,992.09	14.40	12.85	80.47	-321.18	-7,666.88	7,604.59	7,577.35	27.24	279.166		
3,200.00	3,173.55	3,019.96	3,057.87	14.87	13.12	80.54	-320.40	-7,667.77	7,603.58	7,575.60	27.97	271.803		
3,300.00	3,272.55	3,100.01	3,137.89	15.33	13.46	80.63	-319.31	-7,669.03	7,602.86	7,574.09	28.77	264.270		
3,400.00	3,371.54	3,160.30	3,198.17	15.79	13.71	80.70	-318.37	-7,670.20	7,602.55	7,573.07	29.48	257.868		
3,400.85	3,372.39	3,160.77	3,198.64	15.80	13.71	80.70	-318.37	-7,670.21	7,602.55	7,573.06	29.49	257.817		
3,500.00	3,470.54	3,220.52	3,258.36	16.26	13.96	80.77	-317.35	-7,671.74	7,602.83	7,572.64	30.20	251.790		
3,600.00	3,569.53	3,293.63	3,331.42	16.72	14.26	80.86	-315.99	-7,673.88	7,603.55	7,572.58	30.96	245.568		
3,700.00	3,668.53	3,390.67	3,428.39	17.19	14.67	80.98	-313.84	-7,676.91	7,604.48	7,572.65	31.83	238.879		
3,800.00	3,767.52	3,518.58	3,556.20	17.65	15.21	81.14	-310.37	-7,680.66	7,605.27	7,572.44	32.84	231.599		
3,900.00	3,866.51	3,636.05	3,673.59	18.12	15.70	81.29	-307.33	-7,683.69	7,605.74	7,571.94	33.80	225.031		
4,000.00	3,965.51	3,738.39	3,775.88	18.59	16.13	81.41	-305.05	-7,686.21	7,606.14	7,571.44	34.70	219.227		
4,100.00	4,064.50	3,841.81	3,879.25	19.05	16.57	81.53	-303.02	-7,688.71	7,606.50	7,570.90	35.60	213.682		
4,200.00	4,163.50	3,945.86	3,983.25	19.52	17.01	81.66	-301.23	-7,691.17	7,606.85	7,570.35	36.50	208.392		
4,300.00	4,262.49	4,059.29	4,096.64	19.99	17.48	81.79	-299.68	-7,693.72	7,607.11	7,569.66	37.45	203.136		
4,400.00	4,361.48	4,161.87	4,199.19	20.46	17.91	81.91	-298.13	-7,695.85	7,607.22	7,568.87	38.35	198.369		
4,500.00	4,460.48	4,264.35	4,301.64	20.92	18.35	82.02	-296.92	-7,698.00	7,607.38	7,568.13	39.25	193.821		
4,600.00	4,559.47	4,371.94	4,409.20	21.39	18.80	82.14	-295.94	-7,700.15	7,607.46	7,567.29	40.17	189.370		
4,700.00	4,658.47	4,485.83	4,523.08	21.86	19.28	82.27	-295.32	-7,702.28	7,607.43	7,566.31	41.12	184.992		
4,800.00	4,757.46	4,629.52	4,666.75	22.33	19.89	82.42	-294.81	-7,704.33	7,606.96	7,564.76	42.20	180.260		
4,900.00	4,856.45	4,725.49	4,762.71	22.80	20.29	82.53	-294.51	-7,705.48	7,606.31	7,563.24	43.08	176.582		

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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	4,955.45	4,823.23	4,860.44	23.27	20.70	82.63	-294.22	-7,706.70	7,605.74	7,561.78	43.96	173.020		
5,100.00	5,054.44	4,931.26	4,968.47	23.74	21.16	82.75	-293.86	-7,707.95	7,605.10	7,560.21	44.89	169.432		
5,200.00	5,153.44	5,033.36	5,070.55	24.21	21.59	82.86	-293.42	-7,709.08	7,604.45	7,558.66	45.79	166.077		
5,300.00	5,252.43	5,138.76	5,175.95	24.68	22.04	82.97	-292.95	-7,710.14	7,603.72	7,557.01	46.71	162.801		
5,400.00	5,351.42	5,238.10	5,275.28	25.15	22.46	83.08	-292.62	-7,711.13	7,603.01	7,555.42	47.60	159.736		
5,500.00	5,450.42	5,395.27	5,432.45	25.62	23.13	83.25	-291.99	-7,712.27	7,602.13	7,553.40	48.73	155.999		
5,600.00	5,549.41	5,514.61	5,551.79	26.09	23.63	83.38	-291.13	-7,712.33	7,600.56	7,550.85	49.71	152.912		
5,700.00	5,648.41	5,582.20	5,619.38	26.56	23.91	83.46	-290.78	-7,712.47	7,599.14	7,548.68	50.46	150.583		
5,800.00	5,747.40	5,677.79	5,714.96	27.03	24.32	83.56	-290.50	-7,712.88	7,597.97	7,546.63	51.34	147.988		
5,900.00	5,846.40	5,768.89	5,806.06	27.51	24.71	83.66	-290.19	-7,713.28	7,596.85	7,544.65	52.20	145.533		
6,000.00	5,945.39	5,862.68	5,899.85	27.98	25.10	83.76	-289.80	-7,713.80	7,595.86	7,542.79	53.07	143.129		
6,100.00	6,044.38	5,947.10	5,984.26	28.45	25.46	83.85	-289.45	-7,714.34	7,594.99	7,541.09	53.90	140.906		
6,200.00	6,143.38	6,036.85	6,074.02	28.92	25.84	83.95	-289.23	-7,715.15	7,594.40	7,539.64	54.75	138.699		
6,300.00	6,242.37	6,132.65	6,169.81	29.39	26.25	84.05	-289.10	-7,715.95	7,593.77	7,538.13	55.63	136.495		
6,400.00	6,341.37	6,202.88	6,240.04	29.86	26.55	84.13	-289.04	-7,716.76	7,593.46	7,537.05	56.40	134.624		
6,500.00	6,440.36	6,303.33	6,340.48	30.34	26.98	84.23	-289.14	-7,718.10	7,593.35	7,536.04	57.30	132.509		
6,600.00	6,538.90	6,400.90	6,438.03	30.80	27.39	84.98	-289.36	-7,719.42	7,586.98	7,528.79	58.19	130.387		
6,700.00	6,634.88	6,528.12	6,565.24	31.25	27.94	28.82	-289.86	-7,720.85	7,565.02	7,505.85	59.18	127.835		
6,800.00	6,725.92	6,624.25	6,661.37	31.68	28.34	22.33	-290.36	-7,721.73	7,527.98	7,467.98	60.00	125.457		
6,900.00	6,809.79	6,703.21	6,740.33	32.07	28.68	19.36	-291.13	-7,722.50	7,476.99	7,416.28	60.72	123.140		
7,000.00	6,884.42	6,762.12	6,799.22	32.43	28.93	18.18	-291.90	-7,723.18	7,413.41	7,352.11	61.30	120.928		
7,100.00	6,947.98	6,814.74	6,851.83	32.77	29.16	18.34	-292.64	-7,723.89	7,338.79	7,276.98	61.81	118.730		
7,200.00	6,998.89	6,860.99	6,898.07	33.18	29.35	20.03	-293.24	-7,724.57	7,254.88	7,192.65	62.24	116.571		
7,300.00	7,035.91	6,895.08	6,932.16	33.76	29.50	24.44	-293.64	-7,725.09	7,163.70	7,101.15	62.55	114.522		
7,400.00	7,058.12	6,912.17	6,949.25	34.61	29.57	36.60	-293.82	-7,725.36	7,067.46	7,004.71	62.75	112.633		
7,500.00	7,064.98	6,917.88	6,954.96	35.68	29.59	83.18	-293.88	-7,725.46	6,968.51	6,905.66	62.85	110.875		
7,600.00	7,064.59	6,918.75	6,955.83	36.95	29.60	83.25	-293.89	-7,725.47	6,869.02	6,806.10	62.92	109.179		
7,700.00	7,064.20	6,919.63	6,956.71	38.40	29.60	83.32	-293.89	-7,725.49	6,769.54	6,706.55	62.99	107.478		
7,800.00	7,063.80	6,920.52	6,957.60	40.00	29.61	83.39	-293.90	-7,725.50	6,670.08	6,607.02	63.06	105.771		
7,900.00	7,063.41	6,921.42	6,958.49	41.75	29.61	83.47	-293.91	-7,725.52	6,570.63	6,507.49	63.14	104.059		
8,000.00	7,063.02	6,922.32	6,959.40	43.62	29.61	83.54	-293.92	-7,725.53	6,471.20	6,407.97	63.23	102.341		
8,100.00	7,062.62	6,923.24	6,960.31	45.59	29.62	83.61	-293.93	-7,725.55	6,371.79	6,308.47	63.33	100.617		
8,200.00	7,062.23	6,924.16	6,961.23	47.65	29.62	83.69	-293.94	-7,725.56	6,272.40	6,208.97	63.43	98.887		
8,300.00	7,061.84	6,925.09	6,962.16	49.79	29.63	83.77	-293.95	-7,725.58	6,173.03	6,109.49	63.54	97.152		
8,400.00	7,061.45	6,926.03	6,963.10	52.00	29.63	83.84	-293.96	-7,725.60	6,073.68	6,010.02	63.66	95.410		
8,500.00	7,061.05	6,926.97	6,964.05	54.27	29.63	83.92	-293.97	-7,725.61	5,974.35	5,910.56	63.79	93.663		
8,600.00	7,060.66	6,927.93	6,965.01	56.60	29.64	84.00	-293.98	-7,725.63	5,875.04	5,811.12	63.92	91.910		
8,700.00	7,060.27	6,928.90	6,965.97	58.97	29.64	84.08	-293.99	-7,725.65	5,775.75	5,711.69	64.07	90.151		
8,800.00	7,059.87	6,929.87	6,966.95	61.38	29.65	84.16	-294.00	-7,725.66	5,676.49	5,612.27	64.22	88.386		
8,900.00	7,059.48	6,930.86	6,967.93	63.83	29.65	84.24	-294.01	-7,725.68	5,577.26	5,512.87	64.39	86.615		
9,000.00	7,059.09	6,931.85	6,968.93	66.32	29.65	84.32	-294.02	-7,725.70	5,478.05	5,413.48	64.57	84.839		
9,100.00	7,058.69	6,932.86	6,969.93	68.83	29.66	84.40	-294.03	-7,725.72	5,378.88	5,314.11	64.76	83.056		
9,200.00	7,058.30	6,933.87	6,970.94	71.37	29.66	84.48	-294.04	-7,725.73	5,279.73	5,214.76	64.97	81.267		
9,300.00	7,057.91	6,934.89	6,971.97	73.93	29.67	84.57	-294.05	-7,725.75	5,180.62	5,115.43	65.19	79.472		
9,400.00	7,057.51	6,935.93	6,973.00	76.51	29.67	84.65	-294.06	-7,725.77	5,081.54	5,016.11	65.42	77.672		
9,500.00	7,057.12	6,936.97	6,974.05	79.11	29.68	84.74	-294.07	-7,725.79	4,982.49	4,916.82	65.68	75.865		
9,600.00	7,056.73	6,938.03	6,975.10	81.73	29.68	84.83	-294.08	-7,725.81	4,883.49	4,817.54	65.95	74.053		
9,700.00	7,056.33	6,939.09	6,976.17	84.37	29.68	84.91	-294.09	-7,725.83	4,784.53	4,718.29	66.24	72.235		
9,800.00	7,055.94	6,940.17	6,977.24	87.01	29.69	85.00	-294.10	-7,725.85	4,685.61	4,619.06	66.55	70.411		
9,900.00	7,055.55	6,941.26	6,978.33	89.68	29.69	85.09	-294.11	-7,725.87	4,586.74	4,519.86	66.88	68.582		
10,000.00	7,055.15	6,942.36	6,979.43	92.35	29.70	85.18	-294.12	-7,725.89	4,487.91	4,420.68	67.24	66.748		
10,100.00	7,054.76	6,943.47	6,980.54	95.03	29.70	85.27	-294.13	-7,725.91	4,389.14	4,321.52	67.62	64.909		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,200.00	7,054.37	6,944.59	6,981.66	97.73	29.71	85.36	-294.14	-7,725.93	4,290.43	4,222.40	68.03	63.065		
10,300.00	7,053.98	6,945.72	6,982.79	100.43	29.71	85.46	-294.15	-7,725.95	4,191.78	4,123.30	68.47	61.217		
10,400.00	7,053.58	6,946.87	6,983.93	103.14	29.72	85.55	-294.16	-7,725.97	4,093.19	4,024.24	68.95	59.365		
10,500.00	7,053.19	6,948.02	6,985.09	105.86	29.72	85.65	-294.17	-7,725.99	3,994.67	3,925.21	69.46	57.509		
10,600.00	7,052.80	6,949.19	6,986.26	108.59	29.73	85.74	-294.18	-7,726.02	3,896.23	3,826.21	70.01	55.650		
10,700.00	7,052.40	6,950.37	6,987.44	111.32	29.73	85.84	-294.19	-7,726.04	3,797.86	3,727.26	70.61	53.789		
10,800.00	7,052.01	6,951.57	6,988.63	114.06	29.74	85.94	-294.20	-7,726.06	3,699.59	3,628.34	71.25	51.927		
10,900.00	7,051.62	6,952.77	6,989.84	116.80	29.74	86.04	-294.21	-7,726.08	3,601.41	3,529.47	71.94	50.063		
11,000.00	7,051.22	6,953.99	6,991.06	119.55	29.75	86.14	-294.22	-7,726.11	3,503.33	3,430.65	72.68	48.200		
11,100.00	7,050.83	6,955.23	6,992.29	122.31	29.75	86.24	-294.24	-7,726.13	3,405.36	3,331.87	73.49	46.337		
11,200.00	7,050.44	6,956.47	6,993.54	125.07	29.76	86.34	-294.25	-7,726.16	3,307.52	3,233.15	74.36	44.477		
11,300.00	7,050.04	6,957.73	6,994.80	127.83	29.76	86.45	-294.26	-7,726.18	3,209.80	3,134.49	75.31	42.620		
11,400.00	7,049.65	6,959.01	6,996.07	130.60	29.77	86.55	-294.27	-7,726.21	3,112.24	3,035.90	76.34	40.769		
11,500.00	7,049.26	6,960.29	6,997.36	133.37	29.78	86.66	-294.28	-7,726.23	3,014.83	2,937.37	77.45	38.924		
11,600.00	7,048.86	6,961.60	6,998.66	136.15	29.78	86.77	-294.29	-7,726.26	2,917.59	2,838.92	78.67	37.088		
11,700.00	7,048.47	6,962.91	6,999.98	138.93	29.79	86.88	-294.30	-7,726.28	2,820.55	2,740.56	79.99	35.262		
11,800.00	7,048.08	6,964.25	7,001.31	141.71	29.79	86.99	-294.32	-7,726.31	2,723.72	2,642.29	81.43	33.450		
11,900.00	7,047.68	6,965.59	7,002.66	144.49	29.80	87.10	-294.33	-7,726.34	2,627.12	2,544.12	83.00	31.652		
12,000.00	7,047.29	6,966.96	7,004.02	147.28	29.80	87.21	-294.34	-7,726.36	2,530.79	2,446.07	84.72	29.872		
12,100.00	7,046.90	6,968.33	7,005.40	150.07	29.81	87.32	-294.35	-7,726.39	2,434.76	2,348.15	86.61	28.113		
12,200.00	7,046.51	6,969.73	7,006.79	152.87	29.82	87.44	-294.36	-7,726.42	2,339.06	2,250.38	88.67	26.378		
12,300.00	7,046.11	6,971.14	7,008.20	155.66	29.82	87.55	-294.38	-7,726.45	2,243.73	2,152.78	90.95	24.670		
12,400.00	7,045.72	6,972.56	7,009.63	158.46	29.83	87.67	-294.39	-7,726.48	2,148.82	2,055.37	93.46	22.993		
12,500.00	7,045.33	6,974.01	7,011.07	161.26	29.83	87.79	-294.40	-7,726.51	2,054.40	1,958.18	96.22	21.350		
12,600.00	7,044.93	6,975.47	7,012.53	164.06	29.84	87.91	-294.41	-7,726.54	1,960.53	1,861.24	99.29	19.746		
12,700.00	7,044.54	6,976.94	7,014.01	166.86	29.85	88.04	-294.42	-7,726.57	1,867.29	1,764.61	102.68	18.185		
12,800.00	7,044.15	6,978.44	7,015.50	169.67	29.85	88.16	-294.44	-7,726.60	1,774.79	1,668.33	106.46	16.671		
12,900.00	7,043.75	6,979.95	7,017.01	172.48	29.86	88.28	-294.45	-7,726.63	1,683.14	1,572.48	110.66	15.209		
13,000.00	7,043.36	6,981.48	7,018.54	175.28	29.87	88.41	-294.46	-7,726.66	1,592.50	1,477.14	115.36	13.804		
13,100.00	7,042.97	6,983.03	7,020.09	178.09	29.87	88.54	-294.48	-7,726.70	1,503.05	1,382.42	120.62	12.461		
13,200.00	7,042.57	6,984.60	7,021.66	180.91	29.88	88.67	-294.49	-7,726.73	1,415.00	1,288.48	126.52	11.184		
13,300.00	7,042.18	6,986.19	7,023.25	183.72	29.89	88.80	-294.50	-7,726.76	1,328.65	1,195.51	133.14	9.979		
13,400.00	7,041.79	6,987.80	7,024.86	186.53	29.89	88.93	-294.51	-7,726.80	1,244.34	1,103.75	140.58	8.851		
13,500.00	7,041.39	6,989.43	7,026.49	189.35	29.90	89.07	-294.53	-7,726.83	1,162.52	1,013.58	148.93	7.806		
13,600.00	7,041.00	6,991.07	7,028.13	192.17	29.91	89.21	-294.54	-7,726.87	1,083.74	925.47	158.28	6.847		
13,700.00	7,040.61	6,992.74	7,029.80	194.99	29.91	89.34	-294.55	-7,726.90	1,008.74	840.08	168.66	5.981		
13,800.00	7,040.21	6,994.43	7,031.49	197.81	29.92	89.48	-294.57	-7,726.94	938.40	758.34	180.06	5.212		
13,900.00	7,039.82	6,996.15	7,033.20	200.63	29.93	89.63	-294.58	-7,726.98	873.87	681.53	192.34	4.543		
14,000.00	7,039.43	6,997.88	7,034.94	203.45	29.94	89.77	-294.59	-7,727.02	816.50	611.37	205.13	3.980		
14,100.00	7,039.03	6,999.64	7,036.69	206.27	29.94	89.92	-294.61	-7,727.06	767.92	550.11	217.81	3.526		
14,200.00	7,038.64	7,001.42	7,038.48	209.09	29.95	90.06	-294.62	-7,727.10	729.88	500.47	229.41	3.182		
14,300.00	7,038.25	7,003.22	7,040.27	211.92	29.96	90.21	-294.63	-7,727.14	704.09	465.37	238.72	2.949		
14,400.00	7,037.86	7,005.04	7,042.10	214.74	29.97	90.36	-294.65	-7,727.18	691.92	447.36	244.56	2.829		
14,434.99	7,037.72	7,005.69	7,042.74	215.73	29.97	90.42	-294.65	-7,727.19	691.03	445.41	245.62	2.813 CC, ES, SF		
14,500.00	7,037.46	7,006.90	7,043.95	217.57	29.97	90.52	-294.66	-7,727.22	694.08	447.90	246.18	2.819		
14,600.00	7,037.07	7,008.77	7,045.82	220.40	29.98	90.67	-294.67	-7,727.26	710.45	466.90	243.56	2.917		
14,700.00	7,036.68	7,010.42	7,047.47	223.23	29.99	90.81	-294.69	-7,727.30	740.09	502.71	237.38	3.118		
14,800.00	7,036.28	7,012.22	7,049.27	226.05	30.00	90.96	-294.70	-7,727.34	781.48	552.72	228.76	3.416		
14,871.88	7,036.00	7,013.52	7,050.57	228.09	30.00	91.07	-294.71	-7,727.37	817.52	595.84	221.68	3.688		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	61.00	3.28	3.28	-111.50	-1,405.23	-3,566.79	3,834.10					
100.00	100.00	39.00	100.00	3.28	3.35	-111.50	-1,405.23	-3,566.79	3,833.62	3,826.98	6.63	577.820		
200.00	200.00	139.00	200.00	3.34	4.52	-111.50	-1,405.23	-3,566.79	3,833.62	3,825.76	7.85	488.050		
300.00	300.00	239.00	300.00	3.44	7.37	-111.50	-1,405.23	-3,566.79	3,833.62	3,822.81	10.81	354.531		
400.00	399.98	338.98	399.98	3.60	10.61	58.69	-1,405.23	-3,566.79	3,832.71	3,818.51	14.20	269.844		
500.00	499.84	438.84	499.84	3.79	13.97	58.80	-1,405.23	-3,566.79	3,829.99	3,812.24	17.75	215.780		
600.00	599.45	538.45	599.45	4.02	17.36	58.99	-1,405.23	-3,566.79	3,825.48	3,804.10	21.38	178.925		
700.00	698.70	637.70	698.70	4.29	20.78	59.25	-1,405.23	-3,566.79	3,819.19	3,794.13	25.06	152.387		
800.00	797.70	736.70	797.70	4.59	24.20	59.44	-1,405.23	-3,566.79	3,811.93	3,783.14	28.78	132.440		
900.00	896.69	835.69	896.69	4.92	27.62	59.62	-1,405.23	-3,566.79	3,804.70	3,772.16	32.54	116.936		
1,000.00	995.68	934.68	995.68	5.27	31.06	59.81	-1,405.23	-3,566.79	3,797.51	3,761.19	36.32	104.560		
1,100.00	1,094.68	1,033.68	1,094.68	5.64	34.50	59.99	-1,405.23	-3,566.79	3,790.36	3,750.24	40.12	94.468		
1,200.00	1,193.67	1,132.67	1,193.67	6.03	37.94	60.17	-1,405.23	-3,566.79	3,783.25	3,739.30	43.95	86.090		
1,300.00	1,292.67	1,231.67	1,292.67	6.42	41.38	60.36	-1,405.23	-3,566.79	3,776.18	3,728.40	47.78	79.030		
1,400.00	1,391.66	1,330.66	1,391.66	6.83	44.83	60.54	-1,405.23	-3,566.79	3,769.15	3,717.52	51.63	73.003		
1,500.00	1,490.66	1,429.66	1,490.66	7.25	48.28	60.73	-1,405.23	-3,566.79	3,762.16	3,706.67	55.49	67.802		
1,600.00	1,589.65	1,528.65	1,589.65	7.67	51.72	60.92	-1,405.23	-3,566.79	3,755.21	3,695.85	59.35	63.268		
1,700.00	1,688.64	1,627.64	1,688.64	8.10	55.17	61.10	-1,405.23	-3,566.79	3,748.30	3,685.07	63.23	59.284		
1,800.00	1,787.64	1,726.64	1,787.64	8.53	58.62	61.29	-1,405.23	-3,566.79	3,741.43	3,674.32	67.10	55.755		
1,900.00	1,886.63	1,825.63	1,886.63	8.97	62.07	61.48	-1,405.23	-3,566.79	3,734.60	3,663.61	70.99	52.609		
2,000.00	1,985.63	1,924.63	1,985.63	9.41	65.53	61.67	-1,405.23	-3,566.79	3,727.81	3,652.94	74.88	49.786		
2,100.00	2,084.62	2,023.62	2,084.62	9.85	68.98	61.86	-1,405.23	-3,566.79	3,721.07	3,642.30	78.77	47.241		
2,200.00	2,183.61	2,122.61	2,183.61	10.30	72.43	62.05	-1,405.23	-3,566.79	3,714.36	3,631.70	82.66	44.934		
2,300.00	2,282.61	2,221.61	2,282.61	10.75	75.88	62.24	-1,405.23	-3,566.79	3,707.70	3,621.14	86.56	42.834		
2,400.00	2,381.60	2,320.60	2,381.60	11.20	79.33	62.44	-1,405.23	-3,566.79	3,701.08	3,610.62	90.46	40.914		
2,500.00	2,480.60	2,419.60	2,480.60	11.66	82.79	62.63	-1,405.23	-3,566.79	3,694.50	3,600.14	94.36	39.152		
2,600.00	2,579.59	2,518.59	2,579.59	12.11	86.24	62.82	-1,405.23	-3,566.79	3,687.97	3,589.70	98.27	37.530		
2,700.00	2,678.58	2,617.58	2,678.58	12.57	89.69	63.02	-1,405.23	-3,566.79	3,681.47	3,579.30	102.17	36.032		
2,800.00	2,777.58	2,716.58	2,777.58	13.02	93.15	63.21	-1,405.23	-3,566.79	3,675.02	3,568.94	106.08	34.643		
2,900.00	2,876.57	2,815.57	2,876.57	13.48	96.60	63.41	-1,405.23	-3,566.79	3,668.62	3,558.63	109.99	33.354		
3,000.00	2,975.57	2,914.57	2,975.57	13.94	100.06	63.60	-1,405.23	-3,566.79	3,662.26	3,548.35	113.90	32.153		
3,100.00	3,074.56	3,013.56	3,074.56	14.40	103.51	63.80	-1,405.23	-3,566.79	3,655.94	3,538.12	117.81	31.032		
3,200.00	3,173.55	3,112.55	3,173.55	14.87	106.96	64.00	-1,405.23	-3,566.79	3,649.66	3,527.94	121.73	29.982		
3,300.00	3,272.55	3,211.55	3,272.55	15.33	110.42	64.20	-1,405.23	-3,566.79	3,643.43	3,517.79	125.64	28.999		
3,400.00	3,371.54	3,310.54	3,371.54	15.79	113.87	64.40	-1,405.23	-3,566.79	3,637.24	3,507.69	129.56	28.075		
3,500.00	3,470.54	3,409.54	3,470.54	16.26	117.33	64.60	-1,405.23	-3,566.79	3,631.10	3,497.63	133.47	27.205		
3,600.00	3,569.53	3,508.53	3,569.53	16.72	120.78	64.80	-1,405.23	-3,566.79	3,625.00	3,487.62	137.39	26.385		
3,700.00	3,668.53	3,607.53	3,668.53	17.19	124.24	65.00	-1,405.23	-3,566.79	3,618.95	3,477.65	141.31	25.611		
3,800.00	3,767.52	3,706.52	3,767.52	17.65	127.69	65.20	-1,405.23	-3,566.79	3,612.95	3,467.72	145.22	24.878		
3,900.00	3,866.51	3,805.51	3,866.51	18.12	131.15	65.40	-1,405.23	-3,566.79	3,606.98	3,457.84	149.14	24.185		
4,000.00	3,965.51	3,904.51	3,965.51	18.59	134.60	65.60	-1,405.23	-3,566.79	3,601.07	3,448.01	153.06	23.527		
4,100.00	4,064.50	4,003.50	4,064.50	19.05	138.06	65.81	-1,405.23	-3,566.79	3,595.20	3,438.22	156.98	22.902		
4,200.00	4,163.50	4,102.50	4,163.50	19.52	141.51	66.01	-1,405.23	-3,566.79	3,589.38	3,428.47	160.90	22.308		
4,300.00	4,262.49	4,201.49	4,262.49	19.99	144.97	66.22	-1,405.23	-3,566.79	3,583.60	3,418.77	164.82	21.742		
4,400.00	4,361.48	4,300.48	4,361.48	20.46	148.42	66.42	-1,405.23	-3,566.79	3,577.87	3,409.12	168.75	21.203		
4,500.00	4,460.48	4,400.52	4,460.48	20.92	151.91	66.63	-1,405.23	-3,566.79	3,572.18	3,399.48	172.70	20.684		
4,600.00	4,559.47	4,501.53	4,559.47	21.39	155.44	66.84	-1,405.23	-3,566.79	3,566.55	3,389.85	176.70	20.185		
4,700.00	4,658.47	4,602.53	4,658.47	21.86	158.96	67.04	-1,405.23	-3,566.79	3,560.96	3,380.27	180.69	19.708		
4,800.00	4,757.46	4,703.54	4,757.46	22.33	162.49	67.25	-1,405.23	-3,566.79	3,555.42	3,370.73	184.68	19.251		
4,900.00	4,856.45	4,804.55	4,856.45	22.80	166.01	67.46	-1,405.23	-3,566.79	3,549.92	3,361.24	188.68	18.815		
5,000.00	4,955.45	4,905.55	4,955.45	23.27	169.54	67.67	-1,405.23	-3,566.79	3,544.48	3,351.80	192.67	18.396		
5,100.00	5,054.44	5,006.56	5,054.44	23.74	173.06	67.88	-1,405.23	-3,566.79	3,539.08	3,342.41	196.67	17.995		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.00	5,153.44	5,107.56	5,153.44	24.21	176.59	68.09	-1,405.23	-3,566.79	3,533.73	3,333.07	200.66	17.610		
5,300.00	5,252.43	5,208.57	5,252.43	24.68	180.12	68.30	-1,405.23	-3,566.79	3,528.43	3,323.77	204.66	17.241		
5,400.00	5,351.42	5,309.58	5,351.42	25.15	183.64	68.51	-1,405.23	-3,566.79	3,523.17	3,314.52	208.65	16.885		
5,500.00	5,450.42	5,389.42	5,450.42	25.62	186.43	68.73	-1,405.23	-3,566.79	3,517.97	3,306.06	211.91	16.601		
5,600.00	5,549.41	5,488.41	5,549.41	26.09	189.88	68.94	-1,405.23	-3,566.79	3,512.82	3,296.98	215.83	16.275		
5,700.00	5,648.41	5,587.41	5,648.41	26.56	193.34	69.15	-1,405.23	-3,566.79	3,507.71	3,287.95	219.76	15.961		
5,800.00	5,747.40	5,686.40	5,747.40	27.03	196.79	69.37	-1,405.23	-3,566.79	3,502.66	3,278.97	223.69	15.659		
5,900.00	5,846.40	5,785.40	5,846.40	27.51	200.25	69.58	-1,405.23	-3,566.79	3,497.65	3,270.04	227.61	15.367		
6,000.00	5,945.39	5,884.39	5,945.39	27.98	203.71	69.80	-1,405.23	-3,566.79	3,492.70	3,261.16	231.54	15.085		
6,100.00	6,044.38	5,983.38	6,044.38	28.45	207.16	70.01	-1,405.23	-3,566.79	3,487.80	3,252.33	235.47	14.812		
6,200.00	6,143.38	6,082.38	6,143.38	28.92	210.62	70.23	-1,405.23	-3,566.79	3,482.94	3,243.55	239.40	14.549		
6,300.00	6,242.37	6,181.37	6,242.37	29.39	214.07	70.45	-1,405.23	-3,566.79	3,478.14	3,234.82	243.32	14.294		
6,400.00	6,341.37	6,280.37	6,341.37	29.86	217.53	70.67	-1,405.23	-3,566.79	3,473.39	3,226.14	247.25	14.048		
6,500.00	6,440.36	6,379.36	6,440.36	30.34	220.98	70.89	-1,405.23	-3,566.79	3,468.69	3,217.51	251.18	13.810		
6,600.00	6,538.90	6,477.90	6,538.90	30.80	224.42	71.15	-1,405.23	-3,566.79	3,463.83	3,207.74	255.09	13.556		
6,700.00	6,634.88	6,573.88	6,634.88	31.25	227.77	71.45	-1,405.23	-3,566.79	3,458.66	3,197.98	258.88	13.257		
6,800.00	6,725.92	6,664.92	6,725.92	31.68	230.95	71.78	-1,405.23	-3,566.79	3,453.12	3,187.86	262.46	12.921		
6,900.00	6,809.79	6,748.79	6,809.79	32.07	233.88	72.12	-1,405.23	-3,566.79	3,447.19	3,177.44	265.75	12.558		
7,000.00	6,884.42	6,823.42	6,884.42	32.43	236.48	-0.87	-1,405.23	-3,566.79	3,440.79	3,166.13	268.66	12.175		
7,100.00	6,947.98	6,886.98	6,947.98	32.77	238.70	-4.80	-1,405.23	-3,566.79	3,433.75	3,154.64	271.11	11.780		
7,200.00	6,998.89	6,937.89	6,998.89	33.18	240.48	-10.25	-1,405.23	-3,566.79	3,426.98	3,142.92	273.06	11.382		
7,300.00	7,035.91	6,974.91	7,035.91	33.76	241.77	-20.02	-1,405.23	-3,566.79	3,419.61	3,131.15	274.46	10.987		
7,400.00	7,058.12	7,002.88	7,058.12	34.61	242.75	-42.94	-1,405.23	-3,566.79	3,418.93	3,124.45	275.48	10.596		
7,500.00	7,064.98	7,003.98	7,064.98	35.68	242.79	-91.38	-1,405.23	-3,566.79	3,420.37	3,114.85	275.51	10.237		
7,600.00	7,064.59	7,003.59	7,064.59	36.95	242.77	-91.33	-1,405.23	-3,566.79	3,421.72	3,104.23	275.49	9.880		
7,700.00	7,064.20	7,003.20	7,064.20	38.40	242.76	-91.28	-1,405.23	-3,566.79	3,423.17	3,097.70	275.47	9.523		
7,800.00	7,063.80	7,002.80	7,063.80	40.00	242.75	-91.23	-1,405.23	-3,566.79	3,424.73	3,089.27	275.46	9.165		
7,900.00	7,063.41	7,002.41	7,063.41	41.75	242.73	-91.18	-1,405.23	-3,566.79	3,426.42	3,080.95	275.47	8.808		
8,000.00	7,063.02	7,002.02	7,063.02	43.62	242.72	-91.13	-1,405.23	-3,566.79	3,428.26	3,072.75	275.50	8.451		
8,100.00	7,062.62	7,001.62	7,062.62	45.59	242.70	-91.09	-1,405.23	-3,566.79	3,430.26	3,064.70	275.56	8.094		
8,200.00	7,062.23	7,001.23	7,062.23	47.65	242.69	-91.04	-1,405.23	-3,566.79	3,432.44	3,056.80	275.64	7.736		
8,300.00	7,061.84	7,000.84	7,061.84	49.79	242.68	-90.99	-1,405.23	-3,566.79	3,434.84	3,048.08	275.76	7.379		
8,400.00	7,061.45	7,000.45	7,061.45	52.00	242.66	-90.94	-1,405.23	-3,566.79	3,437.48	3,039.55	275.93	7.022		
8,500.00	7,061.05	7,000.05	7,061.05	54.27	242.65	-90.89	-1,405.23	-3,566.79	3,440.41	3,031.25	276.16	6.664		
8,600.00	7,060.66	7,000.34	7,060.66	56.60	242.66	-90.84	-1,405.23	-3,566.79	3,443.66	3,022.18	276.49	6.306		
8,700.00	7,060.27	7,000.73	7,060.27	58.97	242.67	-90.79	-1,405.23	-3,566.79	3,447.31	3,012.40	276.91	5.949		
8,800.00	7,059.87	7,001.13	7,059.87	61.38	242.69	-90.74	-1,405.23	-3,566.79	3,451.41	3,002.96	277.46	5.592		
8,900.00	7,059.48	7,001.52	7,059.48	63.83	242.70	-90.69	-1,405.23	-3,566.79	3,456.07	3,117.91	278.16	5.235		
9,000.00	7,059.09	7,001.91	7,059.09	66.32	242.71	-90.64	-1,405.23	-3,566.79	3,461.40	3,082.34	279.05	4.879		
9,100.00	7,058.69	7,002.31	7,058.69	68.83	242.73	-90.59	-1,405.23	-3,566.79	3,467.54	3,067.34	280.20	4.524		
9,200.00	7,058.30	7,002.70	7,058.30	71.37	242.74	-90.54	-1,405.23	-3,566.79	3,474.70	3,052.02	281.68	4.170		
9,300.00	7,057.91	7,003.09	7,057.91	73.93	242.76	-90.49	-1,405.23	-3,566.79	3,483.13	3,037.56	283.57	3.820		
9,400.00	7,057.51	7,003.49	7,057.51	76.51	242.77	-90.44	-1,405.23	-3,566.79	3,493.19	3,027.19	286.00	3.473		
9,500.00	7,057.12	7,003.88	7,057.12	79.11	242.78	-90.39	-1,405.23	-3,566.79	3,505.37	3,016.24	289.13	3.131		
9,600.00	7,056.73	7,004.27	7,056.73	81.73	242.80	-90.34	-1,405.23	-3,566.79	3,518.34	3,004.22	293.12	2.799		
9,700.00	7,056.33	7,004.67	7,056.33	84.37	242.81	-90.29	-1,405.23	-3,566.79	3,532.06	3,000.88	298.18	2.479		
9,800.00	7,055.94	7,005.06	7,055.94	87.01	242.82	-90.24	-1,405.23	-3,566.79	3,546.92	3,000.41	304.52	2.177		
9,900.00	7,055.55	7,005.45	7,055.55	89.68	242.84	-90.19	-1,405.23	-3,566.79	3,563.90	3,001.69	312.22	1.902		
10,000.00	7,055.15	7,005.85	7,055.15	92.35	242.85	-90.14	-1,405.23	-3,566.79	3,583.77	3,004.68	321.09	1.665		
10,100.00	7,054.76	7,006.24	7,054.76	95.03	242.86	-90.09	-1,405.23	-3,566.79	3,605.12	3,009.77	330.35	1.481 Level 3		
10,200.00	7,054.37	7,006.63	7,054.37	97.73	242.88	-90.04	-1,405.23	-3,566.79	3,630.97	3,017.56	338.41	1.362 Level 3		
10,283.72	7,054.04	7,006.96	7,054.04	99.99	242.89	-90.00	-1,405.23	-3,566.79	3,661.30	3,028.50	342.80	1.322 Level 3, CC		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STOCKOVER 16-1(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,053.98	7,007.03	7,053.98	100.43	242.89	-89.99	-1,405.23	-3,566.79	453.59	110.27	343.32	1.321	Level 3, ES, SF	
10,400.00	7,053.58	7,007.42	7,053.58	103.14	242.91	-89.94	-1,405.23	-3,566.79	467.98	123.95	344.02	1.360	Level 3	
10,500.00	7,053.19	7,007.81	7,053.19	105.86	242.92	-89.89	-1,405.23	-3,566.79	502.25	161.16	341.10	1.472	Level 3	
10,600.00	7,052.80	7,008.20	7,052.80	108.59	242.93	-89.84	-1,405.23	-3,566.79	552.73	216.63	336.10	1.645		
10,700.00	7,052.40	7,008.60	7,052.40	111.32	242.95	-89.79	-1,405.23	-3,566.79	615.44	284.98	330.46	1.862		
10,800.00	7,052.01	7,008.99	7,052.01	114.06	242.96	-89.74	-1,405.23	-3,566.79	687.04	362.01	325.02	2.114		
10,900.00	7,051.62	7,009.38	7,051.62	116.80	242.97	-89.69	-1,405.23	-3,566.79	765.03	444.89	320.14	2.390		
11,000.00	7,051.22	7,009.78	7,051.22	119.55	242.99	-89.64	-1,405.23	-3,566.79	847.66	531.75	315.91	2.683		
11,100.00	7,050.83	6,989.83	7,050.83	122.31	242.29	-89.59	-1,405.23	-3,566.79	933.69	622.10	311.59	2.997		
11,200.00	7,050.44	6,989.44	7,050.44	125.07	242.28	-89.54	-1,405.23	-3,566.79	1,022.27	713.78	308.49	3.314		
11,300.00	7,050.04	6,989.04	7,050.04	127.83	242.26	-89.49	-1,405.23	-3,566.79	1,112.78	806.94	305.84	3.638		
11,400.00	7,049.65	6,988.65	7,049.65	130.60	242.25	-89.45	-1,405.23	-3,566.79	1,204.80	901.22	303.58	3.969		
11,500.00	7,049.26	6,988.26	7,049.26	133.37	242.24	-89.40	-1,405.23	-3,566.79	1,297.99	996.36	301.64	4.303		
11,600.00	7,048.86	6,987.86	7,048.86	136.15	242.22	-89.35	-1,405.23	-3,566.79	1,392.14	1,092.18	299.95	4.641		
11,700.00	7,048.47	6,987.47	7,048.47	138.93	242.21	-89.30	-1,405.23	-3,566.79	1,487.04	1,188.55	298.49	4.982		
11,800.00	7,048.08	6,987.08	7,048.08	141.71	242.20	-89.25	-1,405.23	-3,566.79	1,582.58	1,285.36	297.22	5.325		
11,900.00	7,047.68	6,986.68	7,047.68	144.49	242.18	-89.20	-1,405.23	-3,566.79	1,678.63	1,382.53	296.09	5.669		
12,000.00	7,047.29	6,986.29	7,047.29	147.28	242.17	-89.15	-1,405.23	-3,566.79	1,775.12	1,480.01	295.10	6.015		
12,100.00	7,046.90	6,985.90	7,046.90	150.07	242.15	-89.10	-1,405.23	-3,566.79	1,871.98	1,577.75	294.22	6.362		
12,200.00	7,046.51	6,985.51	7,046.51	152.87	242.14	-89.05	-1,405.23	-3,566.79	1,969.19	1,675.71	293.44	6.711		
12,300.00	7,046.11	6,985.11	7,046.11	155.66	242.13	-89.00	-1,405.23	-3,566.79	2,066.59	1,773.85	292.74	7.059		
12,400.00	7,045.72	6,984.72	7,045.72	158.46	242.11	-88.95	-1,405.23	-3,566.79	2,164.27	1,872.15	292.11	7.409		
12,500.00	7,045.33	6,984.33	7,045.33	161.26	242.10	-88.90	-1,405.23	-3,566.79	2,262.14	1,970.60	291.55	7.759		
12,600.00	7,044.93	6,983.93	7,044.93	164.06	242.09	-88.85	-1,405.23	-3,566.79	2,360.20	2,069.16	291.04	8.110		
12,700.00	7,044.54	6,983.54	7,044.54	166.86	242.07	-88.80	-1,405.23	-3,566.79	2,458.41	2,167.84	290.57	8.461		
12,800.00	7,044.15	6,983.15	7,044.15	169.67	242.06	-88.75	-1,405.23	-3,566.79	2,556.76	2,266.61	290.15	8.812		
12,900.00	7,043.75	6,982.75	7,043.75	172.48	242.05	-88.70	-1,405.23	-3,566.79	2,655.24	2,365.47	289.77	9.163		
13,000.00	7,043.36	6,982.36	7,043.36	175.28	242.03	-88.65	-1,405.23	-3,566.79	2,753.82	2,464.40	289.42	9.515		
13,100.00	7,042.97	6,981.97	7,042.97	178.09	242.02	-88.60	-1,405.23	-3,566.79	2,852.50	2,563.40	289.10	9.867		
13,200.00	7,042.57	6,981.57	7,042.57	180.91	242.00	-88.55	-1,405.23	-3,566.79	2,951.28	2,662.46	288.81	10.219		
13,300.00	7,042.18	6,981.18	7,042.18	183.72	241.99	-88.50	-1,405.23	-3,566.79	3,050.13	2,761.58	288.55	10.571		
13,400.00	7,041.79	6,980.79	7,041.79	186.53	241.98	-88.45	-1,405.23	-3,566.79	3,149.05	2,860.75	288.30	10.923		
13,500.00	7,041.39	6,980.39	7,041.39	189.35	241.96	-88.40	-1,405.23	-3,566.79	3,248.04	2,959.96	288.08	11.275		
13,600.00	7,041.00	6,980.00	7,041.00	192.17	241.95	-88.35	-1,405.23	-3,566.79	3,347.09	3,059.22	287.87	11.627		
13,700.00	7,040.61	6,979.61	7,040.61	194.99	241.94	-88.30	-1,405.23	-3,566.79	3,446.19	3,158.51	287.68	11.979		
13,800.00	7,040.21	6,979.21	7,040.21	197.81	241.92	-88.25	-1,405.23	-3,566.79	3,545.35	3,257.84	287.51	12.331		
13,900.00	7,039.82	6,978.82	7,039.82	200.63	241.91	-88.20	-1,405.23	-3,566.79	3,644.55	3,357.20	287.35	12.683		
14,000.00	7,039.43	6,978.43	7,039.43	203.45	241.89	-88.15	-1,405.23	-3,566.79	3,743.79	3,456.59	287.20	13.035		
14,100.00	7,039.03	6,978.03	7,039.03	206.27	241.88	-88.10	-1,405.23	-3,566.79	3,843.08	3,556.01	287.07	13.387		
14,200.00	7,038.64	6,977.64	7,038.64	209.09	241.87	-88.05	-1,405.23	-3,566.79	3,942.39	3,655.45	286.94	13.739		
14,300.00	7,038.25	6,977.25	7,038.25	211.92	241.85	-88.00	-1,405.23	-3,566.79	4,041.75	3,754.92	286.83	14.091		
14,400.00	7,037.86	6,976.86	7,037.86	214.74	241.84	-87.96	-1,405.23	-3,566.79	4,141.13	3,854.41	286.72	14.443		
14,500.00	7,037.46	6,976.46	7,037.46	217.57	241.83	-87.91	-1,405.23	-3,566.79	4,240.54	3,953.91	286.63	14.795		
14,600.00	7,037.07	6,976.07	7,037.07	220.40	241.81	-87.86	-1,405.23	-3,566.79	4,339.98	4,053.44	286.54	15.146		
14,700.00	7,036.68	6,975.68	7,036.68	223.23	241.80	-87.81	-1,405.23	-3,566.79	4,439.45	4,152.98	286.46	15.498		
14,800.00	7,036.28	6,975.28	7,036.28	226.05	241.78	-87.76	-1,405.23	-3,566.79	4,538.93	4,252.55	286.39	15.849		
14,871.88	7,036.00	6,975.00	7,036.00	228.09	241.77	-87.72	-1,405.23	-3,566.79	4,610.46	4,324.12	286.34	16.101		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	58.90	3.28	3.28	-91.21	-193.70	-9,143.70	9,145.94					
100.00	100.00	185.51	210.49	3.28	3.34	-91.20	-192.25	-9,142.13	9,144.81	9,138.19	6.62	1,380.891		
200.00	200.00	289.70	314.68	3.34	3.45	-91.20	-191.74	-9,140.80	9,143.53	9,136.74	6.79	1,347.040		
300.00	300.00	369.87	394.84	3.44	3.58	-91.20	-191.57	-9,139.89	9,142.39	9,135.37	7.02	1,302.364		
400.00	399.98	465.47	490.43	3.60	3.76	78.99	-191.33	-9,138.93	9,141.04	9,133.69	7.36	1,242.625		
500.00	499.84	548.30	573.26	3.79	3.95	79.05	-191.11	-9,138.17	9,139.13	9,131.40	7.73	1,181.705		
600.00	599.45	624.62	649.58	4.02	4.15	79.14	-191.23	-9,137.64	9,136.79	9,128.63	8.16	1,119.903		
700.00	698.70	738.55	763.51	4.29	4.47	79.28	-191.38	-9,137.07	9,134.00	9,125.26	8.75	1,044.097		
800.00	797.70	847.87	872.82	4.59	4.81	79.38	-191.23	-9,136.24	9,130.59	9,121.20	9.39	972.479		
900.00	896.69	929.27	954.22	4.92	5.07	79.45	-191.11	-9,135.64	9,127.22	9,117.24	9.98	914.112		
1,000.00	995.68	984.00	1,008.95	5.27	5.26	79.50	-191.16	-9,135.33	9,124.13	9,113.61	10.52	867.166		
1,100.00	1,094.68	984.00	1,008.95	5.64	5.26	79.50	-191.16	-9,135.33	9,121.93	9,111.03	10.89	837.411		
1,200.00	1,193.67	1,048.56	1,073.50	6.03	5.47	79.56	-191.17	-9,135.60	9,120.01	9,108.52	11.49	793.634		
1,300.00	1,292.67	1,112.00	1,136.93	6.42	5.68	79.62	-190.93	-9,137.00	9,119.39	9,107.29	12.10	753.495		
1,377.61	1,369.50	1,112.00	1,136.93	6.74	5.68	79.62	-190.93	-9,137.00	9,119.06	9,106.64	12.42	734.323		
1,400.00	1,391.66	1,112.00	1,136.93	6.83	5.68	79.62	-190.93	-9,137.00	9,119.09	9,106.58	12.51	728.932		
1,500.00	1,490.66	1,112.00	1,136.93	7.25	5.68	79.62	-190.93	-9,137.00	9,119.88	9,106.96	12.93	705.579		
1,600.00	1,589.65	1,112.00	1,136.93	7.67	5.68	79.62	-190.93	-9,137.00	9,121.77	9,108.43	13.35	683.445		
1,700.00	1,688.64	1,179.59	1,204.46	8.10	5.91	79.68	-190.61	-9,139.84	9,123.76	9,109.76	14.00	651.765		
1,800.00	1,787.64	1,241.00	1,265.74	8.53	6.12	79.73	-190.41	-9,143.72	9,127.27	9,112.63	14.64	623.521		
1,900.00	1,886.63	1,241.00	1,265.74	8.97	6.12	79.73	-190.41	-9,143.72	9,131.04	9,115.97	15.07	605.854		
2,000.00	1,985.63	1,241.00	1,265.74	9.41	6.12	79.73	-190.41	-9,143.72	9,135.91	9,120.41	15.51	589.165		
2,100.00	2,084.62	1,241.00	1,265.74	9.85	6.12	79.73	-190.41	-9,143.72	9,141.87	9,125.93	15.94	573.405		
2,200.00	2,183.61	1,299.67	1,324.21	10.30	6.33	79.78	-190.27	-9,148.62	9,148.13	9,131.54	16.59	551.457		
2,300.00	2,282.61	1,322.93	1,347.35	10.75	6.41	79.80	-190.21	-9,150.90	9,155.51	9,138.39	17.11	535.073		
2,400.00	2,381.60	1,369.00	1,393.14	11.20	6.58	79.85	-190.10	-9,155.98	9,163.84	9,146.12	17.72	517.256		
2,500.00	2,480.60	1,369.00	1,393.14	11.66	6.58	79.85	-190.10	-9,155.98	9,172.77	9,154.61	18.15	505.265		
2,600.00	2,579.59	1,369.00	1,393.14	12.11	6.58	79.85	-190.10	-9,155.98	9,182.77	9,164.18	18.59	493.921		
2,700.00	2,678.58	1,420.95	1,444.68	12.57	6.77	79.89	-190.11	-9,162.54	9,193.30	9,174.07	19.22	478.264		
2,800.00	2,777.58	1,446.70	1,470.18	13.02	6.87	79.91	-190.22	-9,166.10	9,204.76	9,185.00	19.76	465.936		
2,900.00	2,876.57	1,498.00	1,520.90	13.48	7.07	79.95	-190.66	-9,173.79	9,217.16	9,196.77	20.39	452.079		
3,000.00	2,975.57	1,498.00	1,520.90	13.94	7.07	79.95	-190.66	-9,173.79	9,230.07	9,209.25	20.82	443.310		
3,100.00	3,074.56	1,498.00	1,520.90	14.40	7.07	79.95	-190.66	-9,173.79	9,244.05	9,222.80	21.25	434.994		
3,200.00	3,173.55	1,545.60	1,567.84	14.87	7.27	79.99	-191.23	-9,181.68	9,258.59	9,236.72	21.87	423.366		
3,300.00	3,272.55	1,569.27	1,591.13	15.33	7.36	80.01	-191.54	-9,185.89	9,274.05	9,251.66	22.39	414.192		
3,400.00	3,371.54	1,626.00	1,646.80	15.79	7.60	80.05	-192.34	-9,196.73	9,290.56	9,267.52	23.05	403.113		
3,500.00	3,470.54	1,626.00	1,646.80	16.26	7.60	80.05	-192.34	-9,196.73	9,307.40	9,283.94	23.47	396.589		
3,600.00	3,569.53	1,626.00	1,646.80	16.72	7.60	80.05	-192.34	-9,196.73	9,325.29	9,301.40	23.89	390.392		
3,700.00	3,668.53	1,626.00	1,646.80	17.19	7.60	80.05	-192.34	-9,196.73	9,344.21	9,319.90	24.30	384.504		
3,800.00	3,767.52	1,683.64	1,703.14	17.65	7.87	80.10	-193.30	-9,208.88	9,363.37	9,338.41	24.96	375.122		
3,900.00	3,866.51	1,705.75	1,724.68	18.12	7.97	80.11	-193.73	-9,213.85	9,383.63	9,358.17	25.47	368.473		
4,000.00	3,965.51	1,754.00	1,771.54	18.59	8.19	80.15	-194.75	-9,225.31	9,404.85	9,378.76	26.08	360.553		
4,100.00	4,064.50	1,754.00	1,771.54	19.05	8.19	80.15	-194.75	-9,225.31	9,426.53	9,400.04	26.49	355.881		
4,200.00	4,163.50	1,754.00	1,771.54	19.52	8.19	80.15	-194.75	-9,225.31	9,449.22	9,422.33	26.89	351.438		
4,300.00	4,262.49	1,803.97	1,819.88	19.99	8.45	80.18	-195.81	-9,237.91	9,472.45	9,444.94	27.51	344.313		
4,400.00	4,361.48	1,831.47	1,846.41	20.46	8.59	80.20	-196.32	-9,245.12	9,496.49	9,468.46	28.03	338.783		
4,500.00	4,460.48	1,883.00	1,895.99	20.92	8.86	80.24	-197.16	-9,259.14	9,521.35	9,492.68	28.66	332.190		
4,600.00	4,559.47	1,883.00	1,895.99	21.39	8.86	80.24	-197.16	-9,259.14	9,546.70	9,517.65	29.05	328.645		
4,700.00	4,658.47	1,883.00	1,895.99	21.86	8.86	80.24	-197.16	-9,259.14	9,573.03	9,543.60	29.43	325.276		
4,800.00	4,757.46	1,948.93	1,959.16	22.33	9.24	80.29	-198.15	-9,277.96	9,599.63	9,569.50	30.13	318.609		
4,900.00	4,856.45	2,011.00	2,018.39	22.80	9.60	80.33	-199.17	-9,296.51	9,627.24	9,596.43	30.81	312.445		
5,000.00	4,955.45	2,011.00	2,018.39	23.27	9.60	80.33	-199.17	-9,296.51	9,655.19	9,624.01	31.19	309.609		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,054.44	2,054.38	2,059.66	23.74	9.87	80.37	-199.90	-9,309.86	9,683.88	9,652.11	31.77	304.768		
5,200.00	5,153.44	2,097.89	2,100.98	24.21	10.14	80.40	-200.63	-9,323.47	9,713.09	9,680.73	32.36	300.118		
5,300.00	5,252.43	5,300.00	2,351.69	24.68	32.19	80.59	-204.38	-9,404.71	9,742.09	9,694.01	48.08	202.610		
5,400.00	5,351.42	2,450.96	2,437.12	25.15	12.50	80.65	-205.75	-9,431.32	9,769.79	9,734.82	34.97	279.364		
5,500.00	5,450.42	2,496.42	2,480.46	25.62	12.81	80.68	-206.40	-9,445.03	9,797.95	9,762.36	35.59	275.335		
5,600.00	5,549.41	2,545.32	2,527.00	26.09	13.16	80.72	-206.99	-9,460.02	9,826.59	9,790.37	36.22	271.317		
5,700.00	5,648.41	2,600.13	2,579.11	26.56	13.55	80.76	-207.43	-9,477.03	9,855.65	9,818.77	36.88	267.209		
5,800.00	5,747.40	2,653.00	2,629.30	27.03	13.94	80.80	-207.61	-9,493.62	9,885.12	9,847.58	37.54	263.336		
5,900.00	5,846.40	2,653.00	2,629.30	27.51	13.94	80.80	-207.61	-9,493.62	9,915.26	9,877.37	37.89	261.669		
6,000.00	5,945.39	2,716.67	2,689.59	27.98	14.42	80.85	-207.64	-9,514.11	9,945.70	9,907.09	38.61	257.609		
6,100.00	6,044.38	2,991.33	2,949.76	28.45	16.51	81.05	-210.16	-9,601.98	9,975.81	9,935.27	40.55	246.028		
7,000.00	6,884.42	6,785.70	6,636.78	32.43	38.84	16.81	-228.49	-10,297.86	9,988.30	9,925.74	62.56	159.660		
7,100.00	6,947.98	6,845.12	6,696.17	32.77	39.05	16.64	-229.58	-10,299.43	9,914.27	9,851.18	63.09	157.135		
7,200.00	6,998.89	6,893.40	6,744.42	33.18	39.22	17.76	-230.48	-10,300.74	9,830.77	9,767.25	63.52	154.755		
7,300.00	7,035.91	6,925.85	6,776.85	33.76	39.34	21.05	-231.13	-10,301.64	9,739.84	9,676.00	63.83	152.579		
7,400.00	7,058.12	6,946.57	6,797.56	34.61	39.41	30.55	-231.58	-10,302.22	9,643.69	9,579.65	64.04	150.588		
7,500.00	7,064.98	6,954.67	6,805.65	35.68	39.44	74.02	-231.76	-10,302.46	9,544.66	9,480.52	64.15	148.796		
7,600.00	7,064.59	6,956.76	6,807.74	36.95	39.45	74.16	-231.80	-10,302.52	9,445.02	9,380.82	64.21	147.103		
7,700.00	7,064.20	6,958.86	6,809.84	38.40	39.46	74.30	-231.85	-10,302.58	9,345.39	9,281.12	64.27	145.405		
7,800.00	7,063.80	6,960.97	6,811.95	40.00	39.46	74.44	-231.90	-10,302.64	9,245.76	9,181.43	64.34	143.702		
7,900.00	7,063.41	6,963.09	6,814.06	41.75	39.47	74.59	-231.95	-10,302.70	9,146.15	9,081.74	64.41	141.994		
8,000.00	7,063.02	6,965.22	6,816.19	43.62	39.48	74.73	-232.00	-10,302.76	9,046.54	8,982.05	64.49	140.280		
8,100.00	7,062.62	6,967.35	6,818.33	45.59	39.49	74.88	-232.05	-10,302.83	8,946.94	8,882.37	64.57	138.561		
8,200.00	7,062.23	6,969.50	6,820.47	47.65	39.49	75.03	-232.10	-10,302.89	8,847.34	8,782.69	64.66	136.837		
8,300.00	7,061.84	6,971.66	6,822.62	49.79	39.50	75.18	-232.15	-10,302.95	8,747.76	8,683.01	64.75	135.108		
8,400.00	7,061.45	6,973.82	6,824.79	52.00	39.51	75.32	-232.20	-10,303.02	8,648.18	8,583.34	64.84	133.374		
8,500.00	7,061.05	6,976.00	6,826.96	54.27	39.52	75.47	-232.25	-10,303.08	8,548.62	8,483.68	64.94	131.635		
8,600.00	7,060.66	6,978.18	6,829.14	56.60	39.53	75.62	-232.30	-10,303.14	8,449.06	8,384.01	65.05	129.890		
8,700.00	7,060.27	6,980.37	6,831.33	58.97	39.53	75.78	-232.35	-10,303.21	8,349.52	8,284.36	65.16	128.141		
8,800.00	7,059.87	6,982.58	6,833.54	61.38	39.54	75.93	-232.41	-10,303.27	8,249.98	8,184.70	65.28	126.387		
8,900.00	7,059.48	6,984.79	6,835.75	63.83	39.55	76.08	-232.46	-10,303.34	8,150.45	8,085.06	65.40	124.628		
9,000.00	7,059.09	6,987.01	6,837.97	66.32	39.56	76.24	-232.51	-10,303.41	8,050.94	7,985.41	65.53	122.863		
9,100.00	7,058.69	6,989.25	6,840.20	68.83	39.57	76.39	-232.57	-10,303.47	7,951.44	7,885.77	65.66	121.095		
9,200.00	7,058.30	6,991.49	6,842.44	71.37	39.57	76.55	-232.62	-10,303.54	7,851.95	7,786.14	65.81	119.321		
9,300.00	7,057.91	6,993.74	6,844.69	73.93	39.58	76.70	-232.68	-10,303.61	7,752.47	7,686.51	65.95	117.542		
9,400.00	7,057.51	6,996.01	6,846.96	76.51	39.59	76.86	-232.73	-10,303.67	7,653.00	7,586.89	66.11	115.759		
9,500.00	7,057.12	6,998.28	6,849.23	79.11	39.60	77.02	-232.79	-10,303.74	7,553.55	7,487.27	66.28	113.972		
9,600.00	7,056.73	7,000.56	6,851.51	81.73	39.61	77.18	-232.85	-10,303.81	7,454.11	7,387.66	66.45	112.179		
9,700.00	7,056.33	7,002.86	6,853.80	84.37	39.61	77.34	-232.90	-10,303.88	7,354.68	7,288.06	66.63	110.383		
9,800.00	7,055.94	7,005.16	6,856.10	87.01	39.62	77.50	-232.96	-10,303.95	7,255.27	7,188.46	66.82	108.582		
9,900.00	7,055.55	7,007.48	6,858.42	89.68	39.63	77.66	-233.02	-10,304.02	7,155.88	7,088.86	67.02	106.776		
10,000.00	7,055.15	7,009.80	6,860.74	92.35	39.64	77.83	-233.08	-10,304.09	7,056.50	6,989.28	67.23	104.966		
10,100.00	7,054.76	7,012.14	6,863.08	95.03	39.65	77.99	-233.14	-10,304.16	6,957.14	6,889.70	67.45	103.153		
10,200.00	7,054.37	7,014.48	6,865.42	97.73	39.66	78.16	-233.20	-10,304.23	6,857.80	6,790.12	67.67	101.335		
10,300.00	7,053.98	7,016.84	6,867.78	100.43	39.66	78.32	-233.26	-10,304.30	6,758.47	6,690.56	67.92	99.513		
10,400.00	7,053.58	7,019.25	6,870.18	103.14	39.67	78.49	-233.32	-10,304.38	6,659.17	6,591.00	68.17	97.687		
10,500.00	7,053.19	7,022.01	6,872.94	105.86	39.68	78.69	-233.40	-10,304.46	6,559.88	6,491.45	68.43	95.857		
10,600.00	7,052.80	7,024.76	6,875.69	108.59	39.69	78.88	-233.47	-10,304.54	6,460.62	6,391.91	68.71	94.023		
10,700.00	7,052.40	7,027.51	6,878.43	111.32	39.70	79.08	-233.54	-10,304.63	6,361.38	6,292.37	69.01	92.186		
10,800.00	7,052.01	7,030.24	6,881.17	114.06	39.71	79.27	-233.60	-10,304.71	6,262.16	6,192.84	69.31	90.345		
10,900.00	7,051.62	7,032.97	6,883.89	116.80	39.72	79.47	-233.67	-10,304.79	6,162.96	6,093.33	69.64	88.502		
11,000.00	7,051.22	7,035.69	6,886.61	119.55	39.73	79.66	-233.74	-10,304.88	6,063.79	5,993.82	69.97	86.657		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-07D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
11,100.00	7,050.83	7,038.40	6,889.31	122.31	39.74	79.86	-233.80	-10,304.96	5,964.65	5,894.32	70.33	84.809		
11,200.00	7,050.44	7,041.09	6,892.01	125.07	39.75	80.05	-233.87	-10,305.04	5,865.53	5,794.83	70.70	82.958		
11,300.00	7,050.04	7,043.78	6,894.70	127.83	39.76	80.24	-233.93	-10,305.12	5,766.45	5,695.35	71.10	81.106		
11,400.00	7,049.65	7,046.47	6,897.38	130.60	39.77	80.43	-234.00	-10,305.20	5,667.39	5,595.88	71.51	79.252		
11,500.00	7,049.26	7,049.14	6,900.05	133.37	39.78	80.63	-234.06	-10,305.28	5,568.37	5,496.42	71.95	77.397		
11,600.00	7,048.86	7,051.80	6,902.71	136.15	39.79	80.82	-234.12	-10,305.36	5,469.38	5,396.98	72.40	75.541		
11,700.00	7,048.47	7,054.45	6,905.36	138.93	39.80	81.01	-234.18	-10,305.44	5,370.43	5,297.54	72.88	73.684		
11,800.00	7,048.08	7,057.10	6,908.00	141.71	39.81	81.20	-234.24	-10,305.52	5,271.51	5,198.12	73.39	71.827		
11,900.00	7,047.68	7,059.74	6,910.64	144.49	39.82	81.39	-234.30	-10,305.60	5,172.64	5,098.71	73.93	69.970		
12,000.00	7,047.29	7,062.36	6,913.26	147.28	39.83	81.58	-234.35	-10,305.68	5,073.80	4,999.31	74.49	68.114		
12,100.00	7,046.90	7,064.98	6,915.88	150.07	39.84	81.77	-234.41	-10,305.76	4,975.02	4,899.93	75.08	66.259		
12,200.00	7,046.51	7,067.59	6,918.49	152.87	39.85	81.96	-234.47	-10,305.83	4,876.28	4,800.57	75.71	64.406		
12,300.00	7,046.11	7,070.20	6,921.09	155.66	39.86	82.15	-234.52	-10,305.91	4,777.59	4,701.22	76.37	62.555		
12,400.00	7,045.72	7,072.79	6,923.68	158.46	39.87	82.34	-234.57	-10,305.99	4,678.96	4,601.89	77.08	60.706		
12,500.00	7,045.33	7,075.37	6,926.26	161.26	39.88	82.52	-234.63	-10,306.06	4,580.39	4,502.57	77.82	58.862		
12,600.00	7,044.93	7,077.95	6,928.84	164.06	39.88	82.71	-234.68	-10,306.14	4,481.87	4,403.27	78.60	57.022		
12,700.00	7,044.54	7,080.52	6,931.40	166.86	39.89	82.90	-234.73	-10,306.22	4,383.43	4,304.00	79.43	55.186		
12,800.00	7,044.15	7,083.08	6,933.96	169.67	39.90	83.08	-234.78	-10,306.29	4,285.05	4,204.74	80.31	53.357		
12,900.00	7,043.75	7,085.63	6,936.51	172.48	39.91	83.27	-234.83	-10,306.37	4,186.75	4,105.51	81.24	51.535		
13,000.00	7,043.36	7,088.17	6,939.05	175.28	39.92	83.46	-234.88	-10,306.44	4,088.53	4,006.30	82.23	49.720		
13,100.00	7,042.97	7,090.70	6,941.59	178.09	39.93	83.64	-234.93	-10,306.52	3,990.39	3,907.11	83.28	47.915		
13,200.00	7,042.57	7,093.23	6,944.11	180.91	39.94	83.83	-234.97	-10,306.59	3,892.35	3,807.95	84.40	46.119		
13,300.00	7,042.18	7,095.75	6,946.63	183.72	39.95	84.01	-235.02	-10,306.67	3,794.41	3,708.82	85.59	44.334		
13,400.00	7,041.79	7,098.26	6,949.13	186.53	39.96	84.19	-235.07	-10,306.74	3,696.58	3,609.73	86.85	42.561		
13,500.00	7,041.39	7,100.76	6,951.63	189.35	39.97	84.38	-235.11	-10,306.81	3,598.86	3,510.66	88.20	40.802		
13,600.00	7,041.00	7,103.25	6,954.13	192.17	39.98	84.56	-235.16	-10,306.88	3,501.28	3,411.63	89.64	39.058		
13,700.00	7,040.61	7,105.74	6,956.61	194.99	39.99	84.74	-235.20	-10,306.96	3,403.83	3,312.65	91.18	37.331		
13,800.00	7,040.21	7,108.22	6,959.09	197.81	39.99	84.93	-235.24	-10,307.03	3,306.53	3,213.70	92.83	35.621		
13,900.00	7,039.82	7,110.68	6,961.55	200.63	40.00	85.11	-235.28	-10,307.10	3,209.40	3,114.81	94.59	33.930		
14,000.00	7,039.43	7,113.15	6,964.01	203.45	40.01	85.29	-235.32	-10,307.17	3,112.44	3,015.96	96.48	32.261		
14,100.00	7,039.03	7,115.60	6,966.47	206.27	40.02	85.47	-235.36	-10,307.24	3,015.68	2,917.18	98.50	30.615		
14,200.00	7,038.64	7,118.05	6,968.91	209.09	40.03	85.65	-235.40	-10,307.32	2,919.14	2,818.46	100.69	28.993		
14,300.00	7,038.25	7,120.48	6,971.35	211.92	40.04	85.83	-235.44	-10,307.39	2,822.84	2,719.81	103.03	27.397		
14,400.00	7,037.86	7,122.91	6,973.78	214.74	40.05	86.01	-235.48	-10,307.46	2,726.80	2,621.23	105.56	25.831		
14,500.00	7,037.46	7,125.34	6,976.20	217.57	40.06	86.19	-235.52	-10,307.53	2,631.05	2,522.75	108.30	24.294		
14,600.00	7,037.07	7,127.75	6,978.61	220.40	40.06	86.37	-235.56	-10,307.60	2,535.63	2,424.37	111.26	22.790		
14,700.00	7,036.68	7,130.16	6,981.02	223.23	40.07	86.54	-235.59	-10,307.67	2,440.58	2,326.11	114.47	21.321		
14,800.00	7,036.28	7,132.56	6,983.41	226.05	40.08	86.72	-235.63	-10,307.73	2,345.93	2,227.98	117.95	19.889		
14,871.88	7,036.00	7,134.28	6,985.13	228.09	40.09	86.85	-235.65	-10,307.78	2,278.18	2,157.53	120.64	18.884 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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	38.00	3.28	3.28	-90.87	-139.29	-9,146.67	9,147.81					
100.00	100.00	62.00	100.00	3.28	3.45	-90.87	-139.29	-9,146.67	9,147.73	9,140.99	6.74	1,357.503		
200.00	200.00	162.00	200.00	3.34	5.10	-90.87	-139.29	-9,146.67	9,147.73	9,139.29	8.44	1,083.784		
300.00	300.00	262.00	300.00	3.44	8.10	-90.87	-139.29	-9,146.67	9,147.73	9,136.19	11.54	792.691		
400.00	399.98	361.98	399.98	3.60	11.37	79.30	-139.29	-9,146.67	9,147.41	9,132.44	14.97	611.067		
500.00	499.84	461.84	499.84	3.79	14.75	79.35	-139.29	-9,146.67	9,146.43	9,127.90	18.53	493.593		
600.00	599.45	561.45	599.45	4.02	18.15	79.43	-139.29	-9,146.67	9,144.82	9,122.66	22.17	412.524		
700.00	698.70	660.70	698.70	4.29	21.57	79.55	-139.29	-9,146.67	9,142.58	9,116.73	25.85	353.615		
800.00	797.70	759.70	797.70	4.59	24.99	79.64	-139.29	-9,146.67	9,140.01	9,110.43	29.58	309.005		
900.00	896.69	858.69	896.69	4.92	28.42	79.73	-139.29	-9,146.67	9,137.45	9,104.11	33.34	274.079		
1,000.00	995.68	957.68	995.68	5.27	31.86	79.81	-139.29	-9,146.67	9,134.91	9,097.78	37.13	246.049		
1,100.00	1,094.68	1,056.68	1,094.68	5.64	35.30	79.90	-139.29	-9,146.67	9,132.39	9,091.46	40.94	223.090		
1,200.00	1,193.67	1,155.67	1,193.67	6.03	38.74	79.99	-139.29	-9,146.67	9,129.90	9,085.14	44.76	203.961		
1,300.00	1,292.67	1,254.67	1,292.67	6.42	42.18	80.07	-139.29	-9,146.67	9,127.43	9,078.82	48.60	187.790		
1,400.00	1,391.66	1,353.66	1,391.66	6.83	45.63	80.16	-139.29	-9,146.67	9,124.97	9,072.52	52.46	173.950		
1,500.00	1,490.66	1,452.66	1,490.66	7.25	49.08	80.25	-139.29	-9,146.67	9,122.54	9,066.22	56.32	161.977		
1,600.00	1,589.65	1,551.65	1,589.65	7.67	52.53	80.33	-139.29	-9,146.67	9,120.13	9,059.94	60.19	151.521		
1,700.00	1,688.64	1,650.64	1,688.64	8.10	55.97	80.42	-139.29	-9,146.67	9,117.74	9,053.68	64.07	142.314		
1,800.00	1,787.64	1,749.64	1,787.64	8.53	59.43	80.51	-139.29	-9,146.67	9,115.38	9,047.42	67.95	134.147		
1,900.00	1,886.63	1,848.63	1,886.63	8.97	62.88	80.59	-139.29	-9,146.67	9,113.03	9,041.19	71.84	126.854		
2,000.00	1,985.63	1,947.63	1,985.63	9.41	66.33	80.68	-139.29	-9,146.67	9,110.71	9,034.97	75.73	120.304		
2,100.00	2,084.62	2,046.62	2,084.62	9.85	69.78	80.77	-139.29	-9,146.67	9,108.40	9,028.78	79.63	114.389		
2,200.00	2,183.61	2,145.61	2,183.61	10.30	73.23	80.85	-139.29	-9,146.67	9,106.12	9,022.60	83.53	109.022		
2,300.00	2,282.61	2,244.61	2,282.61	10.75	76.68	80.94	-139.29	-9,146.67	9,103.86	9,016.43	87.43	104.131		
2,400.00	2,381.60	2,343.60	2,381.60	11.20	80.14	81.03	-139.29	-9,146.67	9,101.62	9,010.29	91.33	99.656		
2,500.00	2,480.60	2,442.60	2,480.60	11.66	83.59	81.12	-139.29	-9,146.67	9,099.40	9,004.17	95.24	95.545		
2,600.00	2,579.59	2,541.59	2,579.59	12.11	87.04	81.20	-139.29	-9,146.67	9,097.21	8,998.06	99.14	91.757		
2,700.00	2,678.58	2,640.58	2,678.58	12.57	90.50	81.29	-139.29	-9,146.67	9,095.03	8,991.98	103.05	88.255		
2,800.00	2,777.58	2,739.58	2,777.58	13.02	93.95	81.38	-139.29	-9,146.67	9,092.88	8,985.91	106.97	85.008		
2,900.00	2,876.57	2,838.57	2,876.57	13.48	97.40	81.46	-139.29	-9,146.67	9,090.75	8,979.87	110.88	81.989		
3,000.00	2,975.57	2,937.57	2,975.57	13.94	100.86	81.55	-139.29	-9,146.67	9,088.64	8,973.85	114.79	79.175		
3,100.00	3,074.56	3,036.56	3,074.56	14.40	104.31	81.64	-139.29	-9,146.67	9,086.55	8,967.84	118.71	76.546		
3,200.00	3,173.55	3,135.55	3,173.55	14.87	107.77	81.73	-139.29	-9,146.67	9,084.48	8,961.86	122.62	74.085		
3,300.00	3,272.55	3,234.55	3,272.55	15.33	111.22	81.81	-139.29	-9,146.67	9,082.44	8,955.90	126.54	71.776		
3,400.00	3,371.54	3,333.54	3,371.54	15.79	114.68	81.90	-139.29	-9,146.67	9,080.41	8,949.96	130.46	69.605		
3,500.00	3,470.54	3,432.54	3,470.54	16.26	118.13	81.99	-139.29	-9,146.67	9,078.41	8,944.04	134.38	67.560		
3,600.00	3,569.53	3,531.53	3,569.53	16.72	121.58	82.08	-139.29	-9,146.67	9,076.43	8,938.14	138.29	65.631		
3,700.00	3,668.53	3,630.53	3,668.53	17.19	125.04	82.16	-139.29	-9,146.67	9,074.47	8,932.26	142.21	63.809		
3,800.00	3,767.52	3,729.52	3,767.52	17.65	128.49	82.25	-139.29	-9,146.67	9,072.54	8,926.40	146.13	62.083		
3,900.00	3,866.51	3,828.51	3,866.51	18.12	131.95	82.34	-139.29	-9,146.67	9,070.62	8,920.56	150.06	60.448		
4,000.00	3,965.51	3,927.51	3,965.51	18.59	135.40	82.43	-139.29	-9,146.67	9,068.73	8,914.75	153.98	58.897		
4,100.00	4,064.50	4,026.50	4,064.50	19.05	138.86	82.52	-139.29	-9,146.67	9,066.85	8,908.95	157.90	57.422		
4,200.00	4,163.50	4,125.50	4,163.50	19.52	142.31	82.60	-139.29	-9,146.67	9,065.00	8,903.18	161.82	56.019		
4,300.00	4,262.49	4,224.49	4,262.49	19.99	145.77	82.69	-139.29	-9,146.67	9,063.17	8,897.43	165.74	54.682		
4,400.00	4,361.48	4,323.48	4,361.48	20.46	149.22	82.78	-139.29	-9,146.67	9,061.37	8,891.70	169.67	53.407		
4,500.00	4,460.48	4,422.48	4,460.48	20.92	152.68	82.87	-139.29	-9,146.67	9,059.58	8,885.99	173.59	52.189		
4,600.00	4,559.47	4,521.47	4,559.47	21.39	156.13	82.95	-139.29	-9,146.67	9,057.82	8,880.30	177.51	51.026		
4,700.00	4,658.47	4,620.47	4,658.47	21.86	159.59	83.04	-139.29	-9,146.67	9,056.08	8,874.64	181.44	49.913		
4,800.00	4,757.46	4,719.46	4,757.46	22.33	163.04	83.13	-139.29	-9,146.67	9,054.36	8,868.99	185.36	48.847		
4,900.00	4,856.45	4,818.45	4,856.45	22.80	166.50	83.22	-139.29	-9,146.67	9,052.66	8,863.37	189.29	47.825		
5,000.00	4,955.45	4,917.45	4,955.45	23.27	169.95	83.31	-139.29	-9,146.67	9,050.98	8,857.77	193.21	46.845		
5,100.00	5,054.44	5,016.44	5,054.44	23.74	173.41	83.39	-139.29	-9,146.67	9,049.33	8,852.19	197.14	45.904		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-08(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,153.44	5,115.44	5,153.44	24.21	176.87	83.48	-139.29	-9,146.67	9,047.69	8,846.63	201.06	44.999		
5,300.00	5,252.43	5,214.43	5,252.43	24.68	180.32	83.57	-139.29	-9,146.67	9,046.08	8,841.09	204.99	44.130		
5,400.00	5,351.42	5,313.42	5,351.42	25.15	183.78	83.66	-139.29	-9,146.67	9,044.49	8,835.58	208.91	43.293		
5,500.00	5,450.42	5,412.42	5,450.42	25.62	187.23	83.75	-139.29	-9,146.67	9,042.93	8,830.09	212.84	42.487		
5,600.00	5,549.41	5,511.41	5,549.41	26.09	190.69	83.84	-139.29	-9,146.67	9,041.38	8,824.61	216.77	41.710		
5,700.00	5,648.41	5,610.41	5,648.41	26.56	194.14	83.92	-139.29	-9,146.67	9,039.86	8,819.16	220.69	40.961		
5,800.00	5,747.40	5,709.40	5,747.40	27.03	197.60	84.01	-139.29	-9,146.67	9,038.35	8,813.74	224.62	40.238		
5,900.00	5,846.40	5,808.40	5,846.40	27.51	201.05	84.10	-139.29	-9,146.67	9,036.88	8,808.33	228.55	39.541		
6,000.00	5,945.39	5,907.39	5,945.39	27.98	204.51	84.19	-139.29	-9,146.67	9,035.42	8,802.94	232.47	38.866		
6,100.00	6,044.38	6,006.38	6,044.38	28.45	207.96	84.28	-139.29	-9,146.67	9,033.98	8,797.58	236.40	38.215		
6,200.00	6,143.38	6,105.38	6,143.38	28.92	211.42	84.37	-139.29	-9,146.67	9,032.57	8,792.24	240.33	37.584		
6,300.00	6,242.37	6,204.37	6,242.37	29.39	214.87	84.45	-139.29	-9,146.67	9,031.18	8,786.92	244.26	36.974		
6,400.00	6,341.37	6,303.37	6,341.37	29.86	218.33	84.54	-139.29	-9,146.67	9,029.80	8,781.62	248.18	36.384		
6,500.00	6,440.36	6,402.36	6,440.36	30.34	221.79	84.63	-139.29	-9,146.67	9,028.46	8,776.35	252.11	35.812		
6,600.00	6,538.90	6,500.90	6,538.90	30.80	225.23	45.38	-139.29	-9,146.67	9,020.86	8,764.84	256.02	35.235		
6,700.00	6,634.88	6,603.12	6,634.88	31.25	228.79	29.19	-139.29	-9,146.67	8,997.93	8,737.90	260.03	34.603		
6,800.00	6,725.92	6,687.92	6,725.92	31.68	231.75	22.71	-139.29	-9,146.67	8,960.17	8,696.76	263.41	34.016		
6,900.00	6,809.79	6,771.79	6,809.79	32.07	234.68	19.78	-139.29	-9,146.67	8,908.50	8,641.79	266.72	33.401		
7,000.00	6,884.42	6,846.42	6,884.42	32.43	237.29	18.70	-139.29	-9,146.67	8,844.20	8,574.55	269.65	32.798		
7,100.00	6,947.98	6,909.98	6,947.98	32.77	239.50	19.02	-139.29	-9,146.67	8,768.85	8,496.70	272.15	32.221		
7,200.00	6,998.89	6,960.89	6,998.89	33.18	241.28	20.97	-139.29	-9,146.67	8,684.31	8,410.15	274.15	31.677		
7,300.00	7,035.91	7,002.09	7,035.91	33.76	242.72	25.97	-139.29	-9,146.67	8,592.64	8,316.88	275.76	31.160		
7,400.00	7,058.12	7,020.12	7,058.12	34.61	243.35	40.11	-139.29	-9,146.67	8,496.10	8,219.59	276.51	30.726		
7,500.00	7,064.98	7,026.98	7,064.98	35.68	243.59	92.19	-139.29	-9,146.67	8,397.06	8,120.24	276.83	30.333		
7,600.00	7,064.59	7,026.59	7,064.59	36.95	243.58	92.17	-139.29	-9,146.67	8,297.59	8,020.72	276.87	29.969		
7,700.00	7,064.20	7,026.20	7,064.20	38.40	243.56	92.14	-139.29	-9,146.67	8,198.14	7,921.21	276.93	29.604		
7,800.00	7,063.80	7,025.80	7,063.80	40.00	243.55	92.11	-139.29	-9,146.67	8,098.69	7,821.71	276.98	29.239		
7,900.00	7,063.41	7,025.41	7,063.41	41.75	243.53	92.09	-139.29	-9,146.67	7,999.26	7,722.22	277.05	28.873		
8,000.00	7,063.02	7,025.02	7,063.02	43.62	243.52	92.06	-139.29	-9,146.67	7,899.85	7,622.73	277.12	28.507		
8,100.00	7,062.62	7,024.62	7,062.62	45.59	243.51	92.03	-139.29	-9,146.67	7,800.45	7,523.25	277.19	28.141		
8,200.00	7,062.23	7,024.23	7,062.23	47.65	243.49	92.01	-139.29	-9,146.67	7,701.06	7,423.79	277.28	27.774		
8,300.00	7,061.84	7,023.84	7,061.84	49.79	243.48	91.98	-139.29	-9,146.67	7,601.69	7,324.33	277.37	27.407		
8,400.00	7,061.45	7,023.45	7,061.45	52.00	243.47	91.96	-139.29	-9,146.67	7,502.34	7,224.88	277.46	27.039		
8,500.00	7,061.05	7,023.05	7,061.05	54.27	243.45	91.93	-139.29	-9,146.67	7,403.01	7,125.44	277.57	26.671		
8,600.00	7,060.66	7,022.66	7,060.66	56.60	243.44	91.90	-139.29	-9,146.67	7,303.69	7,026.01	277.68	26.303		
8,700.00	7,060.27	7,022.27	7,060.27	58.97	243.42	91.88	-139.29	-9,146.67	7,204.39	6,926.59	277.80	25.934		
8,800.00	7,059.87	7,021.87	7,059.87	61.38	243.41	91.85	-139.29	-9,146.67	7,105.12	6,827.19	277.93	25.564		
8,900.00	7,059.48	7,021.48	7,059.48	63.83	243.40	91.83	-139.29	-9,146.67	7,005.86	6,727.79	278.07	25.195		
9,000.00	7,059.09	7,021.09	7,059.09	66.32	243.38	91.80	-139.29	-9,146.67	6,906.62	6,628.40	278.22	24.824		
9,100.00	7,058.69	7,020.69	7,058.69	68.83	243.37	91.77	-139.29	-9,146.67	6,807.41	6,529.03	278.38	24.454		
9,200.00	7,058.30	7,020.30	7,058.30	71.37	243.36	91.75	-139.29	-9,146.67	6,708.22	6,429.67	278.55	24.083		
9,300.00	7,057.91	7,019.91	7,057.91	73.93	243.34	91.72	-139.29	-9,146.67	6,609.05	6,330.32	278.73	23.711		
9,400.00	7,057.51	7,019.51	7,057.51	76.51	243.33	91.69	-139.29	-9,146.67	6,509.91	6,230.99	278.93	23.339		
9,500.00	7,057.12	7,019.12	7,057.12	79.11	243.31	91.67	-139.29	-9,146.67	6,410.80	6,131.67	279.13	22.967		
9,600.00	7,056.73	7,018.73	7,056.73	81.73	243.30	91.64	-139.29	-9,146.67	6,311.72	6,032.36	279.35	22.594		
9,700.00	7,056.33	7,018.33	7,056.33	84.37	243.29	91.62	-139.29	-9,146.67	6,212.66	5,933.07	279.59	22.221		
9,800.00	7,055.94	7,017.94	7,055.94	87.01	243.27	91.59	-139.29	-9,146.67	6,113.63	5,833.80	279.84	21.847		
9,900.00	7,055.55	7,017.55	7,055.55	89.68	243.26	91.56	-139.29	-9,146.67	6,014.64	5,734.54	280.10	21.473		
10,000.00	7,055.15	7,017.15	7,055.15	92.35	243.25	91.54	-139.29	-9,146.67	5,915.68	5,635.29	280.39	21.098		
10,100.00	7,054.76	7,016.76	7,054.76	95.03	243.23	91.51	-139.29	-9,146.67	5,816.76	5,536.07	280.69	20.723		
10,200.00	7,054.37	7,016.37	7,054.37	97.73	243.22	91.48	-139.29	-9,146.67	5,717.87	5,436.86	281.01	20.348		
10,300.00	7,053.98	7,015.98	7,053.98	100.43	243.20	91.46	-139.29	-9,146.67	5,619.02	5,337.67	281.35	19.972		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,053.58	7,015.58	7,053.58	103.14	243.19	91.43	-139.29	-9,146.67	5,520.22	5,238.51	281.71	19.595		
10,500.00	7,053.19	7,015.19	7,053.19	105.86	243.18	91.41	-139.29	-9,146.67	5,421.45	5,139.36	282.09	19.219		
10,600.00	7,052.80	7,014.80	7,052.80	108.59	243.16	91.38	-139.29	-9,146.67	5,322.74	5,040.24	282.50	18.841		
10,700.00	7,052.40	7,014.40	7,052.40	111.32	243.15	91.35	-139.29	-9,146.67	5,224.07	4,941.14	282.94	18.464		
10,800.00	7,052.01	7,014.01	7,052.01	114.06	243.14	91.33	-139.29	-9,146.67	5,125.46	4,842.06	283.40	18.086		
10,900.00	7,051.62	7,013.62	7,051.62	116.80	243.12	91.30	-139.29	-9,146.67	5,026.90	4,743.01	283.89	17.707		
11,000.00	7,051.22	7,013.22	7,051.22	119.55	243.11	91.27	-139.29	-9,146.67	4,928.39	4,643.98	284.41	17.328		
11,100.00	7,050.83	7,012.83	7,050.83	122.31	243.09	91.25	-139.29	-9,146.67	4,829.95	4,544.98	284.97	16.949		
11,200.00	7,050.44	7,012.44	7,050.44	125.07	243.08	91.22	-139.29	-9,146.67	4,731.58	4,446.02	285.56	16.570		
11,300.00	7,050.04	7,012.04	7,050.04	127.83	243.07	91.20	-139.29	-9,146.67	4,633.27	4,347.08	286.19	16.190		
11,400.00	7,049.65	7,011.65	7,049.65	130.60	243.05	91.17	-139.29	-9,146.67	4,535.04	4,248.18	286.86	15.809		
11,500.00	7,049.26	7,011.26	7,049.26	133.37	243.04	91.14	-139.29	-9,146.67	4,436.88	4,149.31	287.57	15.429		
11,600.00	7,048.86	7,010.86	7,048.86	136.15	243.03	91.12	-139.29	-9,146.67	4,338.82	4,050.49	288.33	15.048		
11,700.00	7,048.47	7,010.47	7,048.47	138.93	243.01	91.09	-139.29	-9,146.67	4,240.84	3,951.70	289.14	14.667		
11,800.00	7,048.08	7,010.08	7,048.08	141.71	243.00	91.06	-139.29	-9,146.67	4,142.95	3,852.95	290.00	14.286		
11,900.00	7,047.68	7,009.68	7,047.68	144.49	242.99	91.04	-139.29	-9,146.67	4,045.18	3,754.25	290.92	13.905		
12,000.00	7,047.29	7,009.29	7,047.29	147.28	242.97	91.01	-139.29	-9,146.67	3,947.51	3,655.61	291.90	13.523		
12,100.00	7,046.90	7,008.90	7,046.90	150.07	242.96	90.99	-139.29	-9,146.67	3,849.96	3,557.01	292.95	13.142		
12,200.00	7,046.51	7,008.51	7,046.51	152.87	242.94	90.96	-139.29	-9,146.67	3,752.54	3,458.47	294.07	12.761		
12,300.00	7,046.11	7,008.11	7,046.11	155.66	242.93	90.93	-139.29	-9,146.67	3,655.26	3,359.99	295.27	12.379		
12,400.00	7,045.72	7,007.72	7,045.72	158.46	242.92	90.91	-139.29	-9,146.67	3,558.13	3,261.58	296.55	11.998		
12,500.00	7,045.33	7,007.33	7,045.33	161.26	242.90	90.88	-139.29	-9,146.67	3,461.17	3,163.25	297.92	11.618		
12,600.00	7,044.93	7,006.93	7,044.93	164.06	242.89	90.85	-139.29	-9,146.67	3,364.38	3,064.99	299.39	11.237		
12,700.00	7,044.54	7,006.54	7,044.54	166.86	242.88	90.83	-139.29	-9,146.67	3,267.79	2,966.82	300.97	10.858		
12,800.00	7,044.15	7,006.15	7,044.15	169.67	242.86	90.80	-139.29	-9,146.67	3,171.40	2,868.74	302.66	10.478		
12,900.00	7,043.75	7,005.75	7,043.75	172.48	242.85	90.78	-139.29	-9,146.67	3,075.25	2,770.77	304.48	10.100		
13,000.00	7,043.36	7,005.36	7,043.36	175.28	242.83	90.75	-139.29	-9,146.67	2,979.35	2,672.92	306.44	9.723		
13,100.00	7,042.97	7,004.97	7,042.97	178.09	242.82	90.72	-139.29	-9,146.67	2,883.73	2,575.19	308.54	9.346		
13,200.00	7,042.57	7,004.57	7,042.57	180.91	242.81	90.70	-139.29	-9,146.67	2,788.42	2,477.60	310.82	8.971		
13,300.00	7,042.18	7,004.18	7,042.18	183.72	242.79	90.67	-139.29	-9,146.67	2,693.45	2,380.18	313.27	8.598		
13,400.00	7,041.79	7,003.79	7,041.79	186.53	242.78	90.64	-139.29	-9,146.67	2,598.85	2,282.93	315.92	8.226		
13,500.00	7,041.39	7,003.39	7,041.39	189.35	242.77	90.62	-139.29	-9,146.67	2,504.67	2,185.88	318.79	7.857		
13,600.00	7,041.00	7,003.00	7,041.00	192.17	242.75	90.59	-139.29	-9,146.67	2,410.97	2,089.06	321.90	7.490		
13,700.00	7,040.61	7,002.61	7,040.61	194.99	242.74	90.57	-139.29	-9,146.67	2,317.79	1,992.50	325.28	7.125		
13,800.00	7,040.21	7,002.21	7,040.21	197.81	242.72	90.54	-139.29	-9,146.67	2,225.20	1,896.24	328.96	6.764		
13,900.00	7,039.82	7,001.82	7,039.82	200.63	242.71	90.51	-139.29	-9,146.67	2,133.28	1,800.32	332.96	6.407		
14,000.00	7,039.43	7,001.43	7,039.43	203.45	242.70	90.49	-139.29	-9,146.67	2,042.12	1,704.79	337.32	6.054		
14,100.00	7,039.03	7,001.03	7,039.03	206.27	242.68	90.46	-139.29	-9,146.67	1,951.82	1,609.73	342.09	5.706		
14,200.00	7,038.64	7,000.64	7,038.64	209.09	242.67	90.43	-139.29	-9,146.67	1,862.52	1,515.21	347.30	5.363		
14,300.00	7,038.25	7,000.25	7,038.25	211.92	242.66	90.41	-139.29	-9,146.67	1,774.36	1,421.34	353.02	5.026		
14,400.00	7,037.86	7,000.14	7,037.86	214.74	242.65	90.38	-139.29	-9,146.67	1,687.51	1,328.22	359.29	4.697		
14,500.00	7,037.46	7,000.54	7,037.46	217.57	242.67	90.36	-139.29	-9,146.67	1,602.21	1,236.01	366.19	4.375		
14,600.00	7,037.07	7,000.93	7,037.07	220.40	242.68	90.33	-139.29	-9,146.67	1,518.70	1,144.93	373.76	4.063		
14,700.00	7,036.68	7,001.32	7,036.68	223.23	242.69	90.30	-139.29	-9,146.67	1,437.29	1,055.23	382.06	3.762		
14,800.00	7,036.28	7,001.72	7,036.28	226.05	242.71	90.28	-139.29	-9,146.67	1,358.37	967.24	391.13	3.473		
14,871.88	7,036.00	7,002.00	7,036.00	228.09	242.72	90.26	-139.29	-9,146.67	1,303.43	905.29	398.14	3.274 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	25.00	3.28	3.28	-91.06	-168.44	-9,143.90	9,145.48					
100.00	100.00	111.37	136.37	3.28	3.29	-91.06	-168.72	-9,143.54	9,145.17	9,138.59	6.58	1,390.403		
200.00	200.00	185.83	210.83	3.34	3.34	-91.06	-168.63	-9,143.35	9,144.91	9,138.23	6.67	1,370.526		
241.97	241.97	216.97	241.97	3.38	3.36	-91.06	-168.59	-9,143.33	9,144.88	9,138.14	6.74	1,357.261		
300.00	300.00	260.38	285.38	3.44	3.41	-91.06	-168.59	-9,143.36	9,144.93	9,138.08	6.85	1,334.654		
400.00	399.98	347.39	372.38	3.60	3.53	79.11	-168.68	-9,143.56	9,144.83	9,137.71	7.12	1,284.306		
500.00	499.84	435.73	460.72	3.79	3.68	79.15	-168.80	-9,143.88	9,144.21	9,136.74	7.47	1,224.829		
600.00	599.45	612.84	637.83	4.02	4.08	79.27	-169.30	-9,144.17	9,142.86	9,134.77	8.10	1,128.865		
700.00	698.70	679.11	704.10	4.29	4.26	79.37	-169.63	-9,143.99	9,140.33	9,131.79	8.55	1,069.647		
800.00	797.70	727.00	751.99	4.59	4.40	79.41	-169.86	-9,144.03	9,137.86	9,128.88	8.98	1,017.236		
900.00	896.69	766.74	791.73	4.92	4.51	79.44	-169.91	-9,144.31	9,136.02	9,126.59	9.43	968.846		
1,000.00	995.68	798.80	823.79	5.27	4.61	79.47	-169.75	-9,144.80	9,134.94	9,125.06	9.88	924.676		
1,100.00	1,094.68	856.00	880.96	5.64	4.78	79.53	-169.02	-9,146.25	9,134.71	9,124.28	10.43	876.143		
1,121.39	1,115.86	856.00	880.96	5.72	4.78	79.53	-169.02	-9,146.25	9,134.68	9,124.18	10.51	869.332		
1,200.00	1,193.67	856.00	880.96	6.03	4.78	79.53	-169.02	-9,146.25	9,135.02	9,124.21	10.81	844.855		
1,300.00	1,292.67	856.00	880.96	6.42	4.78	79.53	-169.02	-9,146.25	9,136.43	9,125.22	11.21	814.959		
1,400.00	1,391.66	909.75	934.66	6.83	4.96	79.58	-167.85	-9,148.46	9,138.29	9,126.50	11.79	775.246		
1,500.00	1,490.66	933.99	958.85	7.25	5.03	79.61	-167.18	-9,149.78	9,141.17	9,128.89	12.28	744.347		
1,600.00	1,589.65	984.00	1,008.72	7.67	5.20	79.66	-165.51	-9,153.11	9,145.04	9,132.17	12.87	710.779		
1,700.00	1,688.64	984.00	1,008.72	8.10	5.20	79.66	-165.51	-9,153.11	9,149.44	9,136.15	13.29	688.338		
1,800.00	1,787.64	984.00	1,008.72	8.53	5.20	79.66	-165.51	-9,153.11	9,154.93	9,141.21	13.72	667.188		
1,900.00	1,886.63	1,036.24	1,060.73	8.97	5.38	79.72	-163.17	-9,157.41	9,160.97	9,146.63	14.33	639.171		
2,000.00	1,985.63	1,063.14	1,087.47	9.41	5.48	79.76	-161.66	-9,159.93	9,167.93	9,153.07	14.86	616.931		
2,100.00	2,084.62	1,112.00	1,135.95	9.85	5.65	79.82	-158.36	-9,165.04	9,175.79	9,160.32	15.47	593.169		
2,200.00	2,183.61	1,112.00	1,135.95	10.30	5.65	79.82	-158.36	-9,165.04	9,184.25	9,168.35	15.91	577.410		
2,300.00	2,282.61	1,157.41	1,180.91	10.75	5.82	79.88	-154.71	-9,170.25	9,193.52	9,177.01	16.51	556.834		
2,400.00	2,381.60	1,195.89	1,218.95	11.20	5.97	79.94	-151.20	-9,174.93	9,203.46	9,186.37	17.09	538.455		
2,500.00	2,480.60	1,241.00	1,263.44	11.66	6.15	80.00	-146.60	-9,180.71	9,214.08	9,196.37	17.70	520.501		
2,600.00	2,579.59	1,294.05	1,315.65	12.11	6.37	80.09	-140.31	-9,187.75	9,225.26	9,206.91	18.35	502.676		
2,700.00	2,678.58	1,369.00	1,389.11	12.57	6.70	80.22	-129.51	-9,197.89	9,236.87	9,217.78	19.10	483.701		
2,800.00	2,777.58	1,402.04	1,421.39	13.02	6.85	80.28	-124.13	-9,202.47	9,248.96	9,229.28	19.68	470.042		
2,900.00	2,876.57	1,441.87	1,460.20	13.48	7.04	80.36	-117.27	-9,208.20	9,261.70	9,241.41	20.29	456.512		
3,000.00	2,975.57	1,498.00	1,514.73	13.94	7.31	80.47	-106.94	-9,216.63	9,275.14	9,254.17	20.97	442.237		
3,100.00	3,074.56	1,498.00	1,514.73	14.40	7.31	80.47	-106.94	-9,216.63	9,289.23	9,267.83	21.40	433.983		
3,200.00	3,173.55	1,556.25	1,571.09	14.87	7.61	80.59	-95.54	-9,225.86	9,303.92	9,281.80	22.12	420.699		
3,300.00	3,272.55	1,626.00	1,638.33	15.33	7.98	80.73	-81.15	-9,237.59	9,319.50	9,296.61	22.88	407.240		
3,400.00	3,371.54	1,626.00	1,638.33	15.79	7.98	80.73	-81.15	-9,237.59	9,335.46	9,312.15	23.31	400.491		
3,500.00	3,470.54	1,669.96	1,680.52	16.26	8.23	80.83	-71.54	-9,245.32	9,352.23	9,328.26	23.97	390.238		
3,600.00	3,569.53	1,709.78	1,718.60	16.72	8.46	80.92	-62.35	-9,252.52	9,369.64	9,345.04	24.60	380.907		
3,700.00	3,668.53	1,754.00	1,760.70	17.19	8.72	81.02	-51.60	-9,260.72	9,387.70	9,362.45	25.25	371.735		
3,800.00	3,767.52	1,754.00	1,760.70	17.65	8.72	81.02	-51.60	-9,260.72	9,406.55	9,380.88	25.67	366.464		
3,900.00	3,866.51	1,802.34	1,806.51	18.12	9.03	81.13	-39.32	-9,270.08	9,425.98	9,399.62	26.36	357.562		
4,000.00	3,965.51	1,827.86	1,830.59	18.59	9.20	81.19	-32.67	-9,275.26	9,446.29	9,419.37	26.92	350.903		
4,100.00	4,064.50	1,883.00	1,882.40	19.05	9.56	81.33	-17.89	-9,286.98	9,467.53	9,439.88	27.65	342.394		
4,200.00	4,163.50	1,883.00	1,882.40	19.52	9.56	81.33	-17.89	-9,286.98	9,489.21	9,461.16	28.05	338.263		
4,300.00	4,262.49	2,061.60	2,049.80	19.99	10.83	81.77	31.44	-9,324.93	9,511.02	9,481.43	29.59	321.475		
4,400.00	4,361.48	2,160.56	2,142.88	20.46	11.55	82.01	58.01	-9,345.54	9,532.51	9,501.89	30.63	311.234		
4,500.00	4,460.48	2,230.83	2,209.11	20.92	12.07	82.17	76.26	-9,360.31	9,554.25	9,522.77	31.49	303.451		
4,600.00	4,559.47	2,342.65	2,314.72	21.39	12.90	82.43	104.31	-9,384.03	9,576.23	9,543.61	32.62	293.612		
4,700.00	4,658.47	2,431.27	2,398.64	21.86	13.56	82.63	125.88	-9,402.65	9,598.04	9,564.44	33.60	285.686		
4,800.00	4,757.46	2,484.02	2,448.46	22.33	13.96	82.75	139.10	-9,413.85	9,620.28	9,585.94	34.34	280.136		
4,900.00	4,856.45	2,550.00	2,510.59	22.80	14.47	82.90	156.20	-9,428.04	9,643.00	9,607.82	35.18	274.120		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	4,955.45	2,665.02	2,618.81	23.27	15.37	83.17	186.42	-9,452.63	9,665.81	9,629.45	36.36	265.828		
5,100.00	5,054.44	2,694.24	2,646.24	23.74	15.61	83.24	194.25	-9,458.94	9,688.97	9,652.01	36.95	262.191		
5,200.00	5,153.44	2,731.29	2,680.95	24.21	15.91	83.32	204.35	-9,467.08	9,712.75	9,675.16	37.60	258.338		
5,300.00	5,252.43	2,782.00	2,728.29	24.68	16.32	83.45	218.50	-9,478.49	9,737.20	9,698.86	38.34	254.001		
5,400.00	5,351.42	3,038.00	2,968.22	25.15	18.42	84.04	287.62	-9,534.92	9,761.65	9,721.09	40.56	240.677		
5,500.00	5,450.42	3,083.40	3,010.96	25.62	18.79	84.15	299.49	-9,544.59	9,785.11	9,743.85	41.26	237.150		
5,600.00	5,549.41	3,122.59	3,047.76	26.09	19.11	84.24	309.92	-9,553.12	9,809.18	9,767.27	41.92	234.024		
5,700.00	5,648.41	3,167.00	3,089.36	26.56	19.48	84.34	321.93	-9,562.99	9,833.86	9,791.25	42.60	230.819		
5,800.00	5,747.40	5,930.44	5,775.51	27.03	34.82	88.45	677.12	-9,877.50	9,851.57	9,794.34	57.23	172.145		
5,900.00	5,846.40	6,075.89	5,920.94	27.51	35.23	88.56	674.44	-9,877.22	9,850.77	9,792.62	58.14	169.427		
6,000.00	5,945.39	6,203.11	6,048.13	27.98	35.59	88.65	671.83	-9,876.37	9,849.44	9,790.43	59.01	166.924		
6,100.00	6,044.38	6,300.68	6,145.68	28.45	35.87	88.72	670.13	-9,875.58	9,848.04	9,788.25	59.79	164.715		
6,200.00	6,143.38	6,401.29	6,246.28	28.92	36.16	88.79	668.51	-9,874.82	9,846.73	9,786.14	60.58	162.531		
6,300.00	6,242.37	6,533.66	6,378.63	29.39	36.55	88.89	666.79	-9,873.36	9,845.12	9,783.64	61.48	160.145		
6,400.00	6,341.37	6,615.11	6,460.07	29.86	36.79	88.96	666.11	-9,872.39	9,843.54	9,781.32	62.22	158.199		
6,500.00	6,440.36	6,693.62	6,538.57	30.34	37.03	89.02	665.64	-9,871.59	9,842.17	9,779.21	62.96	156.317		
6,600.00	6,538.90	6,772.19	6,617.13	30.80	37.27	49.79	665.07	-9,870.97	9,834.82	9,771.12	63.70	154.390		
6,700.00	6,634.88	6,858.19	6,703.13	31.25	37.54	33.74	664.56	-9,870.40	9,812.43	9,747.99	64.44	152.267		
6,800.00	6,725.92	6,930.35	6,775.29	31.68	37.77	27.53	664.33	-9,869.98	9,775.44	9,710.34	65.11	150.139		
6,900.00	6,809.79	6,991.36	6,836.30	32.07	37.96	25.02	664.24	-9,869.75	9,724.86	9,659.16	65.70	148.012		
7,000.00	6,884.42	7,211.92	7,056.85	32.43	38.67	25.00	663.68	-9,867.38	9,661.09	9,594.35	66.74	144.757		
7,100.00	6,947.98	7,278.32	7,123.23	32.77	38.87	26.54	662.82	-9,866.31	9,586.07	9,518.82	67.25	142.545		
7,200.00	6,998.89	7,313.09	7,157.99	33.18	38.98	30.41	662.25	-9,865.79	9,502.08	9,434.47	67.61	140.540		
7,300.00	7,035.91	7,338.76	7,183.65	33.76	39.06	38.64	661.84	-9,865.44	9,411.22	9,343.32	67.89	138.618		
7,400.00	7,058.12	7,353.86	7,198.75	34.61	39.11	57.30	661.59	-9,865.24	9,315.65	9,247.56	68.10	136.804		
7,500.00	7,064.98	7,357.93	7,202.82	35.68	39.12	95.95	661.53	-9,865.19	9,217.71	9,149.48	68.22	135.111		
7,600.00	7,064.59	7,356.76	7,201.65	36.95	39.12	95.91	661.54	-9,865.21	9,119.39	9,051.06	68.32	133.474		
7,700.00	7,064.20	7,355.59	7,200.48	38.40	39.12	95.87	661.56	-9,865.22	9,021.10	8,952.67	68.44	131.820		
7,800.00	7,063.80	7,354.40	7,199.30	40.00	39.11	95.83	661.58	-9,865.24	8,922.86	8,854.30	68.56	130.147		
7,900.00	7,063.41	7,353.21	7,198.11	41.75	39.11	95.79	661.60	-9,865.25	8,824.65	8,755.95	68.70	128.457		
8,000.00	7,063.02	7,352.02	7,196.91	43.62	39.10	95.75	661.62	-9,865.27	8,726.48	8,657.64	68.85	126.749		
8,100.00	7,062.62	7,350.81	7,195.70	45.59	39.10	95.71	661.64	-9,865.28	8,628.36	8,559.35	69.01	125.023		
8,200.00	7,062.23	7,349.60	7,194.49	47.65	39.10	95.67	661.66	-9,865.30	8,530.28	8,461.09	69.19	123.280		
8,300.00	7,061.84	7,348.38	7,193.27	49.79	39.09	95.62	661.68	-9,865.31	8,432.24	8,362.85	69.39	121.519		
8,400.00	7,061.45	7,347.15	7,192.04	52.00	39.09	95.58	661.70	-9,865.33	8,334.26	8,264.65	69.60	119.741		
8,500.00	7,061.05	7,345.92	7,190.81	54.27	39.08	95.54	661.72	-9,865.35	8,236.31	8,166.48	69.83	117.947		
8,600.00	7,060.66	7,344.67	7,189.57	56.60	39.08	95.50	661.74	-9,865.36	8,138.42	8,068.35	70.08	116.136		
8,700.00	7,060.27	7,343.42	7,188.32	58.97	39.08	95.45	661.76	-9,865.38	8,040.58	7,970.24	70.34	114.308		
8,800.00	7,059.87	7,342.16	7,187.06	61.38	39.07	95.41	661.78	-9,865.39	7,942.80	7,872.17	70.62	112.465		
8,900.00	7,059.48	7,340.90	7,185.79	63.83	39.07	95.37	661.80	-9,865.41	7,845.07	7,774.14	70.93	110.606		
9,000.00	7,059.09	7,339.62	7,184.52	66.32	39.07	95.33	661.82	-9,865.43	7,747.39	7,676.14	71.25	108.733		
9,100.00	7,058.69	7,338.34	7,183.23	68.83	39.06	95.28	661.84	-9,865.44	7,649.78	7,578.18	71.60	106.845		
9,200.00	7,058.30	7,337.05	7,181.94	71.37	39.06	95.24	661.86	-9,865.46	7,552.23	7,480.27	71.96	104.944		
9,300.00	7,057.91	7,335.75	7,180.64	73.93	39.05	95.19	661.88	-9,865.48	7,454.74	7,382.39	72.36	103.030		
9,400.00	7,057.51	7,334.44	7,179.33	76.51	39.05	95.15	661.91	-9,865.50	7,357.32	7,284.55	72.77	101.104		
9,500.00	7,057.12	7,333.12	7,178.02	79.11	39.04	95.10	661.93	-9,865.51	7,259.98	7,186.77	73.21	99.166		
9,600.00	7,056.73	7,331.80	7,176.69	81.73	39.04	95.06	661.95	-9,865.53	7,162.70	7,089.02	73.68	97.219		
9,700.00	7,056.33	7,330.46	7,175.36	84.37	39.04	95.01	661.97	-9,865.55	7,065.50	6,991.33	74.17	95.262		
9,800.00	7,055.94	7,329.12	7,174.02	87.01	39.03	94.97	661.99	-9,865.57	6,968.38	6,893.69	74.69	93.296		
9,900.00	7,055.55	7,327.77	7,172.66	89.68	39.03	94.92	662.01	-9,865.59	6,871.34	6,796.09	75.24	91.324		
10,000.00	7,055.15	7,326.41	7,171.30	92.35	39.02	94.87	662.04	-9,865.60	6,774.38	6,698.56	75.82	89.345		
10,100.00	7,054.76	7,325.04	7,169.93	95.03	39.02	94.83	662.06	-9,865.62	6,677.52	6,601.08	76.44	87.361		

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



Anticollision Report



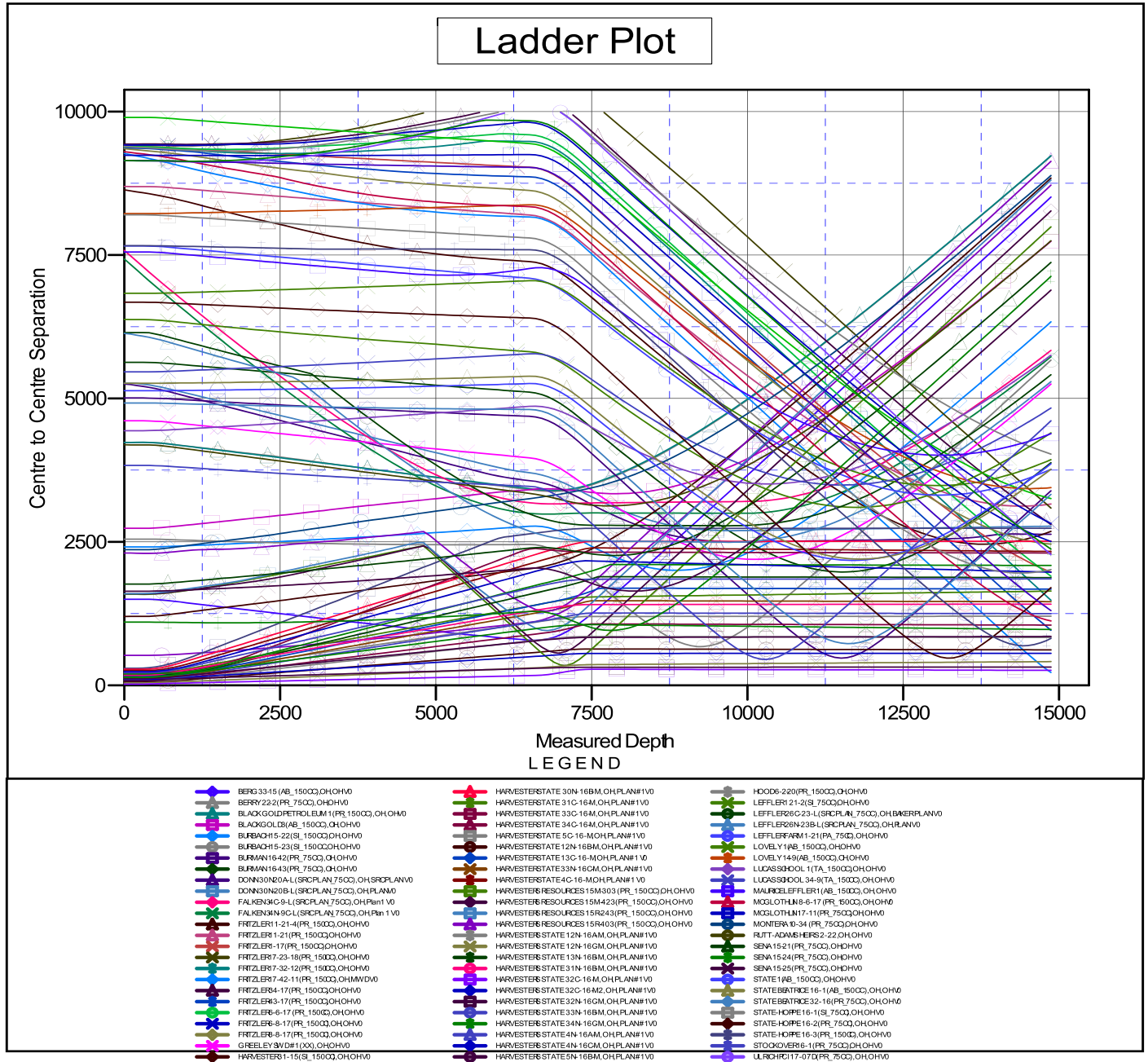
Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,054.37	7,323.66	7,168.56	97.73	39.02	94.78	662.08	-9,865.64	6,580.75	6,503.67	77.08	85.374		
10,300.00	7,053.98	7,322.27	7,167.17	100.43	39.01	94.73	662.10	-9,865.66	6,484.07	6,406.31	77.76	83.384		
10,400.00	7,053.58	7,320.87	7,165.77	103.14	39.01	94.68	662.13	-9,865.68	6,387.50	6,309.02	78.48	81.392		
10,500.00	7,053.19	7,319.47	7,164.36	105.86	39.00	94.64	662.15	-9,865.70	6,291.04	6,211.81	79.23	79.401		
10,600.00	7,052.80	7,318.05	7,162.95	108.59	39.00	94.59	662.17	-9,865.72	6,194.68	6,114.66	80.02	77.411		
10,700.00	7,052.40	7,316.62	7,161.52	111.32	38.99	94.54	662.19	-9,865.74	6,098.45	6,017.59	80.86	75.424		
10,800.00	7,052.01	7,315.19	7,160.09	114.06	38.99	94.49	662.22	-9,865.76	6,002.34	5,920.61	81.73	73.441		
10,900.00	7,051.62	7,313.74	7,158.64	116.80	38.98	94.44	662.24	-9,865.78	5,906.35	5,823.70	82.65	71.464		
11,000.00	7,051.22	7,312.29	7,157.19	119.55	38.98	94.39	662.26	-9,865.80	5,810.50	5,726.89	83.61	69.494		
11,100.00	7,050.83	7,310.82	7,155.72	122.31	38.97	94.34	662.29	-9,865.82	5,714.79	5,630.17	84.62	67.533		
11,200.00	7,050.44	7,309.35	7,154.25	125.07	38.97	94.29	662.31	-9,865.84	5,619.23	5,533.55	85.68	65.582		
11,300.00	7,050.04	7,307.86	7,152.76	127.83	38.97	94.24	662.34	-9,865.87	5,523.83	5,437.04	86.80	63.642		
11,400.00	7,049.65	7,306.37	7,151.27	130.60	38.96	94.19	662.36	-9,865.89	5,428.60	5,340.63	87.96	61.715		
11,500.00	7,049.26	7,304.86	7,149.76	133.37	38.96	94.14	662.39	-9,865.91	5,333.53	5,244.35	89.19	59.803		
11,600.00	7,048.86	7,303.34	7,148.25	136.15	38.95	94.08	662.41	-9,865.93	5,238.65	5,148.18	90.47	57.906		
11,700.00	7,048.47	7,301.82	7,146.72	138.93	38.95	94.03	662.43	-9,865.95	5,143.97	5,052.15	91.81	56.027		
11,800.00	7,048.08	7,300.28	7,145.18	141.71	38.94	93.98	662.46	-9,865.98	5,049.48	4,956.26	93.22	54.167		
11,900.00	7,047.68	7,298.73	7,143.63	144.49	38.94	93.93	662.49	-9,866.00	4,955.22	4,860.52	94.70	52.326		
12,000.00	7,047.29	7,297.17	7,142.07	147.28	38.93	93.87	662.51	-9,866.02	4,861.18	4,764.93	96.25	50.508		
12,100.00	7,046.90	7,295.60	7,140.50	150.07	38.93	93.82	662.54	-9,866.05	4,767.38	4,669.51	97.87	48.712		
12,200.00	7,046.51	7,294.02	7,138.92	152.87	38.92	93.76	662.56	-9,866.07	4,673.84	4,574.27	99.57	46.940		
12,300.00	7,046.11	7,292.18	7,143.08	155.66	38.94	93.91	662.47	-9,866.00	4,580.57	4,479.20	101.37	45.188		
12,400.00	7,045.72	7,295.97	7,140.87	158.46	38.93	93.83	662.51	-9,866.03	4,487.59	4,384.35	103.24	43.469		
12,500.00	7,045.33	7,293.75	7,138.66	161.26	38.92	93.76	662.55	-9,866.07	4,394.92	4,289.73	105.20	41.778		
12,600.00	7,044.93	7,291.53	7,136.43	164.06	38.91	93.68	662.59	-9,866.10	4,302.58	4,195.33	107.25	40.116		
12,700.00	7,044.54	7,289.30	7,134.20	166.86	38.91	93.60	662.63	-9,866.14	4,210.59	4,101.18	109.41	38.483		
12,800.00	7,044.15	7,287.06	7,131.97	169.67	38.90	93.53	662.67	-9,866.17	4,118.97	4,007.29	111.68	36.882		
12,900.00	7,043.75	7,284.82	7,129.73	172.48	38.89	93.45	662.71	-9,866.21	4,027.75	3,913.69	114.06	35.314		
13,000.00	7,043.36	7,282.57	7,127.48	175.28	38.89	93.37	662.75	-9,866.24	3,936.95	3,820.40	116.55	33.778		
13,100.00	7,042.97	7,280.32	7,125.23	178.09	38.88	93.29	662.78	-9,866.28	3,846.61	3,727.44	119.18	32.277		
13,200.00	7,042.57	7,278.06	7,122.97	180.91	38.87	93.22	662.82	-9,866.32	3,756.76	3,634.83	121.93	30.810		
13,300.00	7,042.18	7,275.79	7,120.70	183.72	38.87	93.14	662.86	-9,866.35	3,667.43	3,542.61	124.83	29.380		
13,400.00	7,041.79	7,273.52	7,118.43	186.53	38.86	93.06	662.89	-9,866.39	3,578.67	3,450.80	127.87	27.987		
13,500.00	7,041.39	7,271.24	7,116.15	189.35	38.85	92.98	662.93	-9,866.42	3,490.51	3,359.44	131.07	26.631		
13,600.00	7,041.00	7,268.95	7,113.86	192.17	38.84	92.90	662.97	-9,866.46	3,403.00	3,268.57	134.44	25.313		
13,700.00	7,040.61	7,266.66	7,111.57	194.99	38.84	92.83	663.00	-9,866.50	3,316.20	3,178.23	137.98	24.035		
13,800.00	7,040.21	7,264.36	7,109.27	197.81	38.83	92.75	663.04	-9,866.53	3,230.16	3,088.46	141.70	22.796		
13,900.00	7,039.82	7,262.06	7,106.97	200.63	38.82	92.67	663.07	-9,866.57	3,144.95	2,999.33	145.62	21.597		
14,000.00	7,039.43	7,259.74	7,104.66	203.45	38.81	92.59	663.11	-9,866.61	3,060.63	2,910.89	149.74	20.439		
14,100.00	7,039.03	7,257.43	7,102.34	206.27	38.81	92.51	663.14	-9,866.64	2,977.28	2,823.20	154.08	19.323		
14,200.00	7,038.64	7,255.10	7,100.02	209.09	38.80	92.43	663.17	-9,866.68	2,894.98	2,736.33	158.65	18.248		
14,300.00	7,038.25	7,252.77	7,097.69	211.92	38.79	92.35	663.20	-9,866.72	2,813.83	2,650.38	163.45	17.215		
14,400.00	7,037.86	7,250.43	7,095.35	214.74	38.79	92.27	663.24	-9,866.76	2,733.93	2,565.42	168.50	16.225		
14,500.00	7,037.46	7,248.09	7,093.01	217.57	38.78	92.19	663.27	-9,866.79	2,655.38	2,481.57	173.81	15.278		
14,600.00	7,037.07	7,245.74	7,090.66	220.40	38.77	92.11	663.30	-9,866.83	2,578.32	2,398.94	179.38	14.373		
14,700.00	7,036.68	7,243.38	7,088.30	223.23	38.76	92.03	663.33	-9,866.87	2,502.88	2,317.66	185.23	13.513		
14,800.00	7,036.28	7,241.02	7,085.94	226.05	38.76	91.95	663.36	-9,866.91	2,429.22	2,237.87	191.35	12.695		
14,871.88	7,036.00	7,239.31	7,084.23	228.09	38.75	91.89	663.38	-9,866.94	2,377.45	2,181.53	195.92	12.135 CC, ES, SF		

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 @ 4820.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 32N-16B-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 32N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 @ 4820.00ft

Offset Depths are relative to Offset Datum

Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 32N-16B-M

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.48°

