



SRC ENERGY

**SECTION 15, T6N, R66W
HARVESTERS STATE 7-15 PAD
HARVESTERS STATE 12N-16B-M**

**OH
PLAN #1**

Anticollision Report

04 October, 2017





Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	10/4/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	14,979.13	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	6,432.90	6,240.61	480.71	421.48	8.116	CC
BERG 33-15 (AB_150CC) - OH - OH	6,500.00	6,303.03	481.17	421.32	8.040	ES
BERG 33-15 (AB_150CC) - OH - OH	6,600.00	6,402.20	482.85	422.07	7.944	SF
BERRY 22-2(PR_75CC) - OH - OH	7,035.51	6,808.58	2,786.78	2,724.82	44.979	CC, ES
BERRY 22-2(PR_75CC) - OH - OH	8,200.00	7,008.88	3,219.62	3,144.35	42.772	SF
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	7,035.87	6,906.20	2,805.15	2,742.81	44.996	CC, ES
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	8,200.00	7,190.87	3,234.25	3,158.37	42.626	SF
BLACKGOLD 3(AB_150CC) - OH - OH	0.00	23.87	2,792.56			
BLACKGOLD 3(AB_150CC) - OH - OH	10,500.00	7,088.13	4,698.85	4,581.91	40.182	SF
BURBACH 15-22(SI_150CC) - OH - OH	200.00	180.00	2,439.59	2,430.65	272.990	CC
BURBACH 15-22(SI_150CC) - OH - OH	9,000.00	7,041.78	2,637.73	2,329.45	8.556	ES
BURBACH 15-22(SI_150CC) - OH - OH	9,400.00	7,040.85	2,673.07	2,356.37	8.440	SF
BURBACH 15-23(SI_150CC) - OH - OH	9,343.42	7,025.98	1,306.42	990.05	4.129	CC, ES
BURBACH 15-23(SI_150CC) - OH - OH	9,400.00	7,025.85	1,307.65	990.13	4.118	SF
BURMAN 16-42(PR_75CC) - OH - OH	11,611.91	7,009.76	150.90	-225.87	0.401	Level 1, CC, ES, SF
BURMAN 16-43(PR_75CC) - OH - OH	11,626.75	7,006.72	1,349.97	972.89	3.580	CC
BURMAN 16-43(PR_75CC) - OH - OH	11,700.00	7,006.55	1,351.96	972.73	3.565	ES, SF
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	9,928.19	7,279.04	1,872.51	1,749.36	15.205	CC
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	14,979.18	12,348.73	2,015.13	1,606.16	4.927	ES, SF
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	9,851.40	7,315.22	2,066.87	1,946.27	17.138	CC
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	14,979.18	12,407.08	2,155.50	1,747.18	5.279	ES, SF
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	6,556.22	15,948.04	3,747.58	3,469.05	13.455	CC
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	10,200.00	19,118.26	3,835.04	3,397.75	8.770	ES
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	10,600.00	19,118.26	3,866.35	3,421.81	8.697	SF
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	6,488.33	15,889.97	3,565.37	3,286.45	12.783	CC
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	10,200.00	19,018.34	3,631.21	3,194.52	8.315	ES
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	10,500.00	19,018.34	3,651.91	3,209.92	8.262	SF
FRITZLER 11-21-4(PR_150CC) - OH - OH	13,893.45	7,088.10	1,838.82	1,607.92	7.964	CC
FRITZLER 11-21-4(PR_150CC) - OH - OH	13,900.00	7,088.33	1,838.84	1,607.71	7.956	ES
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,200.00	7,098.97	1,864.17	1,625.70	7.817	SF
FRITZLER 11-21(PR_150CC) - OH - OH	14,492.88	6,982.12	2,505.17	2,048.62	5.487	CC
FRITZLER 11-21(PR_150CC) - OH - OH	14,600.00	6,981.87	2,507.46	2,047.84	5.456	ES
FRITZLER 11-21(PR_150CC) - OH - OH	14,800.00	6,981.41	2,523.93	2,059.64	5.436	SF
FRITZLER 1-17(PR_150CC) - OH - OH	14,979.18	7,004.00	1,429.06	999.74	3.329	CC, ES, SF
FRITZLER 17-23-18(PR_150CC) - OH - OH	14,979.18	7,327.53	2,903.23	2,808.17	30.542	CC, ES, SF
FRITZLER 17-32-12(PR_150CC) - OH - OH	14,979.18	7,410.29	1,662.06	1,500.65	10.297	CC, ES, SF
FRITZLER 17-42-11(PR_150CC) - OH - MWD	14,979.18	7,384.22	804.01	538.82	3.032	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 12N-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 12N-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 34-17(PR_150CC) - OH - OH	14,979.18	7,091.52	2,432.40	2,282.06	16.179	CC, ES, SF
FRITZLER 43-17(PR_150CC) - OH - OH	14,979.18	7,171.42	846.56	746.12	8.428	CC, ES, SF
FRITZLER 6-6-17 (PR_150CC) - OH - OH	14,979.18	7,040.81	1,597.34	1,481.78	13.822	CC, ES, SF
FRITZLER 6-8-17(PR_150CC) - OH - OH	14,979.18	7,116.47	2,311.29	2,105.28	11.219	CC, ES, SF
FRITZLER 8-8-17(PR_150CC) - OH - OH	14,979.18	7,061.15	1,843.61	1,584.15	7.105	CC, ES, SF
GREELEY SWD #1(XX) - OH - OH	10,195.46	7,004.98	1,566.44	1,228.51	4.635	CC
GREELEY SWD #1(XX) - OH - OH	10,200.00	7,004.99	1,566.45	1,228.38	4.633	ES
GREELEY SWD #1(XX) - OH - OH	10,400.00	7,005.45	1,579.74	1,236.31	4.600	SF
HARVESTER 31-15(SI_150CC) - OH - OH	0.00	0.00	1,257.80			
HARVESTER 31-15(SI_150CC) - OH - OH	7,000.00	6,822.06	2,703.56	2,642.13	44.010	SF
HARVESTER 32-15(SI_150CC) - OH - OH	100.00	78.04	532.66	526.09	81.080	CC, ES
HARVESTER 32-15(SI_150CC) - OH - OH	6,700.00	6,526.28	1,631.08	1,572.01	27.612	SF
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,165.69	10,251.00	339.06	259.51	4.262	CC
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,200.00	10,256.32	341.66	255.30	3.956	ES
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,300.00	10,270.31	376.90	275.57	3.720	SF
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,033.51	10,261.17	609.38	519.88	6.809	CC, ES
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,200.00	10,274.98	651.57	548.73	6.336	SF
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,882.14	10,187.54	939.28	838.93	9.360	CC
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,900.00	10,192.95	939.69	838.42	9.279	ES
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	7,000.00	10,218.44	956.90	851.11	9.046	SF
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,864.39	10,278.11	1,293.85	1,190.67	12.539	CC
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,900.00	10,298.74	1,295.28	1,190.57	12.371	ES
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	7,000.00	10,342.88	1,314.27	1,206.02	12.140	SF
HARVESTERS STATE 30C-16-M - OH - PLAN #1	200.00	202.00	359.95	353.28	53.920	CC, ES
HARVESTERS STATE 30C-16-M - OH - PLAN #1	14,979.18	15,216.01	3,355.87	2,899.45	7.353	SF
HARVESTERS STATE 30N-16B-M - OH - PLAN #1	200.00	202.00	340.28	333.61	50.974	CC, ES
HARVESTERS STATE 30N-16B-M - OH - PLAN #1	14,979.18	14,942.37	3,131.93	2,674.90	6.853	SF
HARVESTERS STATE 31C-16-M - OH - PLAN #1	200.00	201.00	260.13	253.45	38.971	CC, ES
HARVESTERS STATE 31C-16-M - OH - PLAN #1	14,979.18	14,995.00	2,257.97	1,802.41	4.957	SF
HARVESTERS STATE 33C-16-M - OH - PLAN #1	812.90	804.60	39.00	29.56	4.129	CC
HARVESTERS STATE 33C-16-M - OH - PLAN #1	14,979.18	15,253.04	447.39	19.95	1.047	Level 2, ES, SF
HARVESTERS STATE 34C-16-M - OH - PLAN #1	900.00	862.37	156.08	146.14	15.704	CC, ES
HARVESTERS STATE 34C-16-M - OH - PLAN #1	14,979.18	15,772.41	1,689.05	1,235.25	3.722	SF
HARVESTERS STATE 5C-16-M - OH - PLAN #1	200.00	201.00	220.05	213.38	32.967	CC, ES
HARVESTERS STATE 5C-16-M - OH - PLAN #1	14,979.18	14,987.41	1,819.30	1,364.28	3.998	SF
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	806.17	802.01	19.69	10.27	2.091	CC
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	14,979.18	14,912.36	244.12	-160.70	0.603	Level 1, ES, SF
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	726.39	730.05	19.86	10.94	2.226	CC
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	14,979.18	15,004.90	215.43	-231.38	0.482	Level 1, ES, SF
HARVESTERS STATE 13C-16-M - OH - PLAN #1	900.00	875.72	97.52	87.53	9.764	CC, ES
HARVESTERS STATE 13C-16-M - OH - PLAN #1	14,979.18	15,423.69	1,062.50	612.32	2.360	SF
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	900.00	871.22	117.02	107.05	11.735	CC, ES
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	14,979.18	15,326.82	1,260.04	803.38	2.759	SF
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	200.00	201.00	240.10	233.43	35.971	CC, ES
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	14,979.18	14,817.75	2,036.19	1,580.39	4.467	SF
HARVESTERS STATE 32C-16-M - OH - PLAN #1	672.79	679.41	39.72	31.12	4.618	CC
HARVESTERS STATE 32C-16-M - OH - PLAN #1	14,979.18	15,088.38	449.10	-21.19	0.955	Level 1, ES, SF
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	200.00	201.00	159.95	153.27	23.963	CC, ES
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	14,973.62	15,011.34	1,161.46	708.16	2.562	SF
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	200.00	200.00	60.13	53.45	9.009	CC, ES
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	14,974.00	14,876.34	619.39	163.31	1.358	Level 3, SF
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	200.00	201.00	140.28	133.61	21.016	CC, ES
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	14,973.11	14,916.67	933.17	477.02	2.046	SF

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Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	820.56	808.00	58.61	49.13	6.181	CC
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	900.00	885.86	58.72	48.69	5.856	ES
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	14,979.18	15,136.26	632.03	175.52	1.384	Level 3, SF
HARVESTERS STATE 33N-16C-M - OH - PLAN #1	900.00	880.28	78.01	68.01	7.797	CC, ES
HARVESTERS STATE 33N-16C-M - OH - PLAN #1	14,979.18	15,263.62	840.74	385.72	1.848	SF
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	900.00	866.77	136.53	126.58	13.715	CC, ES
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	14,979.18	15,472.45	1,471.35	1,015.40	3.227	SF
HARVESTERS STATE 4C-16-M - OH - PLAN #1	200.00	202.00	320.24	316.28	80.867	CC, ES
HARVESTERS STATE 4C-16-M - OH - PLAN #1	14,979.18	15,116.21	2,952.17	2,496.09	6.473	SF
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	200.00	201.00	280.17	273.50	41.974	CC, ES
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	14,979.18	14,732.12	2,475.81	2,019.79	5.429	SF
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	200.00	201.00	300.21	293.54	44.977	CC, ES
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	14,979.18	14,969.16	2,593.61	2,137.53	5.687	SF
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	200.00	201.00	179.99	173.32	26.965	CC, ES
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	14,979.18	14,805.04	1,472.12	1,015.87	3.227	SF
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	200.00	201.00	200.02	193.35	29.967	CC, ES
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	14,979.18	14,872.41	1,592.97	1,136.98	3.493	SF
HOOD 41-20(PR_150CC) - OH - OH	14,979.18	6,988.00	2,660.28	2,203.10	5.819	CC, ES, SF
HOOD 6-2-20(PR_150CC) - OH - OH	14,979.18	7,393.46	3,456.34	3,215.18	14.333	CC, ES, SF
LEFFLER 1 21-2(SI_75CC) - OH - OH	11,837.85	6,974.00	2,477.01	2,307.13	14.581	CC
LEFFLER 1 21-2(SI_75CC) - OH - OH	11,900.00	6,977.02	2,477.79	2,306.07	14.430	ES
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,400.00	7,002.61	2,539.81	2,356.56	13.860	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	7,600.00	9,902.97	2,158.42	2,028.31	16.589	ES
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	9,781.31	7,726.92	2,153.13	2,031.86	17.756	CC
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	10,900.00	7,175.71	2,286.75	2,141.90	15.787	SF
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	7,200.00	10,137.55	1,917.52	1,779.02	13.846	SF
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	9,789.52	7,584.42	1,864.67	1,742.93	15.316	CC
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	9,900.00	7,522.26	1,866.10	1,742.04	15.042	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,175.98	6,987.15	2,693.03	2,273.40	6.418	CC
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,300.00	6,986.87	2,695.89	2,272.70	6.370	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,500.00	6,986.41	2,712.45	2,284.34	6.336	SF
LOVELY 1(AB_150CC) - OH - OH	13,147.70	7,034.22	4,105.95	3,685.47	9.765	CC
LOVELY 1(AB_150CC) - OH - OH	13,300.00	7,033.87	4,108.77	3,684.36	9.681	ES
LOVELY 1(AB_150CC) - OH - OH	13,900.00	7,032.49	4,174.30	3,736.87	9.543	SF
LOVELY 14-9(AB_150CC) - OH - OH	14,644.32	7,033.77	4,049.77	3,587.14	8.754	CC
LOVELY 14-9(AB_150CC) - OH - OH	14,700.00	7,033.64	4,050.15	3,586.05	8.727	ES
LOVELY 14-9(AB_150CC) - OH - OH	14,979.18	7,033.00	4,063.59	3,592.75	8.631	SF
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,419.16	7,060.51	4,140.06	3,794.18	11.969	CC
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,500.00	7,060.32	4,140.85	3,792.92	11.901	ES
LUCAS SCHOOL 1(TA_150CC) - OH - OH	11,400.00	7,058.25	4,254.66	3,886.52	11.557	SF
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,634.66	7,017.71	4,118.40	3,740.73	10.905	CC
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,700.00	7,017.55	4,118.92	3,739.55	10.857	ES
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	12,500.00	7,015.71	4,208.33	3,811.02	10.592	SF
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,187.25	4,452.00	3,556.31	3,312.69	14.598	CC
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,300.00	4,452.00	3,558.10	3,312.03	14.459	ES
MAURICE LEFFLER 1(AB_150CC) - OH - OH	14,100.00	4,452.00	3,671.58	3,409.16	13.991	SF
MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH	14,979.18	7,211.10	533.19	298.55	2.272	CC, ES, SF
MCGLOTHLIN 17-11(PR_75CC) - OH - OH	14,979.18	7,019.00	3,086.25	2,623.93	6.676	CC, ES, SF
MONTERA 10-34 (PR_75CC) - OH - OH	225.56	261.18	2,426.25	2,419.49	358.810	CC, ES
MONTERA 10-34 (PR_75CC) - OH - OH	9,900.00	7,116.94	5,073.12	4,974.00	51.178	SF
RUTT-ADAMS HEIRS 2-22 - OH - OH	7,876.02	7,005.36	2,493.86	2,210.60	8.804	CC
RUTT-ADAMS HEIRS 2-22 - OH - OH	7,900.00	7,005.31	2,493.98	2,210.30	8.792	ES
RUTT-ADAMS HEIRS 2-22 - OH - OH	8,300.00	7,004.39	2,529.65	2,238.10	8.677	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 12N-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 12N-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						
SENA 15-21(PR_75CC) - OH - OH	200.00	204.00	1,811.57	1,801.94	188.025	CC
SENA 15-21(PR_75CC) - OH - OH	300.00	304.02	1,812.78	1,799.89	140.584	ES
SENA 15-21(PR_75CC) - OH - OH	8,500.00	7,058.93	2,947.30	2,651.37	9.959	SF
SENA 15-24(PR_75CC) - OH - OH	619.30	600.20	1,105.25	1,081.68	46.898	CC
SENA 15-24(PR_75CC) - OH - OH	1,500.00	1,459.80	1,121.28	1,064.40	19.713	ES
SENA 15-24(PR_75CC) - OH - OH	8,000.00	7,046.08	1,595.40	1,308.88	5.568	SF
SENA 15-25(PR_75CC) - OH - OH	200.00	189.00	1,667.84	1,658.65	181.404	CC
SENA 15-25(PR_75CC) - OH - OH	500.00	488.45	1,673.62	1,654.18	86.087	ES
SENA 15-25(PR_75CC) - OH - OH	8,600.00	7,051.70	2,298.26	1,999.97	7.705	SF
STATE 1(AB_150CC) - OH - OH	11,788.24	7,007.35	2,805.28	2,423.70	7.352	CC
STATE 1(AB_150CC) - OH - OH	11,900.00	7,007.09	2,807.50	2,423.17	7.305	ES
STATE 1(AB_150CC) - OH - OH	12,200.00	7,006.40	2,835.34	2,444.67	7.258	SF
STATE BEATRICE 16-1(AB_150CC) - OH - OH	11,918.00	7,009.05	2,826.84	2,441.61	7.338	CC
STATE BEATRICE 16-1(AB_150CC) - OH - OH	12,000.00	7,008.86	2,828.03	2,440.75	7.302	ES
STATE BEATRICE 16-1(AB_150CC) - OH - OH	12,300.00	7,008.17	2,852.54	2,458.76	7.244	SF
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,724.08	7,002.50	1,353.83	974.20	3.566	CC, ES
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,800.00	7,002.32	1,355.95	974.75	3.557	SF
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,478.01	7,006.85	1,337.28	880.29	2.926	CC
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,500.00	7,006.90	1,337.46	879.78	2.922	ES
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,600.00	7,007.13	1,342.83	882.73	2.919	SF
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,333.47	7,008.79	147.76	-277.05	0.348	Level 1, CC, ES, SF
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,535.74	7,020.62	1,311.15	1,065.41	5.336	CC, ES
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,600.00	7,021.85	1,312.72	1,065.69	5.314	SF
STOCKOVER 16-1(PR_75CC) - OH - OH	10,381.72	7,002.41	175.75	-167.10	0.513	Level 1, CC, ES, SF
ULRICH PC I 17-07D(PR_75CC) - OH - OH	14,979.18	7,154.59	2,547.15	2,379.35	15.180	CC, ES, SF
ULRICH PC I 17-08(PR_75CC) - OH - OH	14,979.18	7,010.00	1,768.06	1,330.26	4.038	CC, ES, SF
ULRICH PC I17-17D(PR_75CC) - OH - OH	14,979.18	7,264.46	2,839.96	2,620.31	12.929	CC, ES, SF

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS												Offset Well Error:	3.28 ft
HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	37.00	3.28	3.28	165.90	-1,400.02	351.59	1,443.96				
100.00	100.00	60.06	97.06	3.28	3.28	165.90	-1,400.08	351.59	1,443.55	1,436.99	6.57	219.811	
200.00	200.00	158.58	195.58	3.34	3.31	165.91	-1,400.39	351.57	1,443.86	1,437.21	6.65	217.122	
300.00	299.98	260.85	297.85	3.44	3.40	-20.20	-1,400.70	351.36	1,442.47	1,435.62	6.84	210.819	
400.00	399.84	361.48	398.48	3.59	3.54	-20.30	-1,400.82	351.29	1,437.64	1,430.51	7.13	201.552	
500.00	499.45	460.77	497.77	3.79	3.72	-20.48	-1,400.92	351.31	1,429.58	1,422.07	7.51	190.254	
600.00	598.70	556.56	593.55	4.03	3.93	-20.73	-1,401.08	351.45	1,418.36	1,410.39	7.97	178.034	
700.00	697.47	652.57	689.56	4.31	4.17	-21.05	-1,401.56	351.55	1,404.22	1,395.74	8.49	165.458	
800.00	795.62	752.90	789.90	4.64	4.45	-21.46	-1,402.15	351.40	1,386.92	1,377.84	9.08	152.802	
900.00	893.16	853.43	890.42	5.00	4.76	-21.85	-1,402.59	350.87	1,366.63	1,356.91	9.72	140.657	
1,000.00	990.60	952.57	989.57	5.38	5.07	-22.19	-1,402.87	350.36	1,345.85	1,335.47	10.38	129.644	
1,100.00	1,088.04	1,048.89	1,085.88	5.79	5.39	-22.52	-1,403.13	349.69	1,325.05	1,313.98	11.07	119.691	
1,200.00	1,185.48	1,144.64	1,181.63	6.22	5.72	-22.86	-1,403.56	349.13	1,304.49	1,292.71	11.79	110.682	
1,300.00	1,282.92	1,242.44	1,279.43	6.66	6.07	-23.21	-1,404.03	348.48	1,284.00	1,271.46	12.53	102.467	
1,400.00	1,380.36	1,341.01	1,377.98	7.10	6.43	-23.58	-1,404.53	347.69	1,263.53	1,250.23	13.30	95.023	
1,500.00	1,477.80	1,441.27	1,478.25	7.56	6.81	-23.96	-1,404.86	346.90	1,242.95	1,228.87	14.08	88.250	
1,600.00	1,575.24	1,541.14	1,578.12	8.03	7.18	-24.37	-1,404.93	346.18	1,222.20	1,207.32	14.88	82.118	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
1,700.00	1,672.68	1,638.47	1,675.44	8.50	7.56	-24.76	-1,404.98	345.15	1,201.40	1,185.71	15.69	76.588		
1,800.00	1,770.12	1,733.59	1,770.55	8.98	7.93	-25.16	-1,405.16	344.23	1,180.80	1,164.31	16.49	71.592		
1,900.00	1,867.56	1,830.14	1,867.10	9.46	8.30	-25.57	-1,405.50	343.32	1,160.41	1,143.10	17.31	67.022		
2,000.00	1,965.00	1,927.62	1,964.57	9.95	8.69	-26.01	-1,405.85	342.36	1,140.09	1,121.94	18.14	62.832		
2,100.00	2,062.44	2,023.82	2,060.77	10.44	9.07	-26.44	-1,406.36	341.23	1,119.93	1,100.95	18.98	59.007		
2,200.00	2,159.88	2,121.21	2,158.15	10.93	9.46	-26.89	-1,406.89	340.16	1,099.87	1,080.05	19.82	55.483		
2,300.00	2,257.32	2,217.31	2,254.24	11.42	9.85	-27.38	-1,407.39	339.45	1,079.98	1,059.31	20.67	52.248		
2,400.00	2,354.76	2,315.09	2,352.02	11.92	10.25	-27.88	-1,408.00	338.71	1,060.26	1,038.73	21.53	49.254		
2,500.00	2,452.20	2,416.72	2,453.64	12.42	10.66	-28.42	-1,408.42	337.71	1,040.35	1,017.95	22.40	46.452		
2,600.00	2,549.64	2,514.42	2,551.34	12.92	11.06	-28.98	-1,408.58	336.93	1,020.37	997.11	23.26	43.867		
2,700.00	2,647.08	2,612.16	2,649.08	13.42	11.46	-29.57	-1,408.60	336.36	1,000.44	976.31	24.13	41.463		
2,800.00	2,744.52	2,707.21	2,744.13	13.93	11.85	-30.17	-1,408.73	335.87	980.75	955.75	25.00	39.237		
2,900.00	2,841.96	2,804.54	2,841.45	14.43	12.25	-30.80	-1,409.01	335.35	961.29	935.42	25.87	37.156		
3,000.00	2,939.40	2,902.77	2,939.68	14.94	12.66	-31.47	-1,409.23	334.89	941.93	915.18	26.75	35.209		
3,100.00	3,036.84	2,998.63	3,035.54	15.44	13.06	-32.15	-1,409.50	334.47	922.75	895.11	27.63	33.392		
3,200.00	3,134.28	3,094.85	3,131.75	15.95	13.46	-32.85	-1,409.96	333.98	903.85	875.33	28.52	31.693		
3,300.00	3,231.72	3,193.39	3,230.30	16.46	13.87	-33.61	-1,410.36	333.66	885.13	855.71	29.41	30.094		
3,400.00	3,329.16	3,295.88	3,332.79	16.97	14.30	-34.45	-1,410.40	333.33	866.23	835.92	30.31	28.576		
3,500.00	3,426.60	3,396.44	3,433.34	17.48	14.71	-35.31	-1,410.05	332.69	847.03	815.82	31.21	27.136		
3,600.00	3,524.04	3,491.94	3,528.84	17.99	15.11	-36.15	-1,409.66	332.01	827.93	795.82	32.11	25.782		
3,700.00	3,621.48	3,586.94	3,623.84	18.50	15.51	-37.02	-1,409.60	331.28	809.28	776.26	33.02	24.512		
3,800.00	3,718.92	3,680.40	3,717.30	19.01	15.90	-37.89	-1,409.96	330.57	791.21	757.28	33.92	23.325		
3,900.00	3,816.36	3,776.61	3,813.50	19.52	16.31	-38.80	-1,410.81	329.78	773.72	738.89	34.83	22.213		
4,000.00	3,913.80	3,875.72	3,912.60	20.03	16.72	-39.80	-1,411.64	329.03	756.44	720.69	35.75	21.159		
4,100.00	4,011.24	3,974.24	4,011.11	20.55	17.14	-40.84	-1,412.17	328.35	739.18	702.51	36.67	20.157		
4,200.00	4,108.68	4,072.17	4,109.04	21.06	17.55	-41.93	-1,412.67	327.59	722.11	684.51	37.60	19.206		
4,300.00	4,206.12	4,170.08	4,206.95	21.57	17.96	-43.07	-1,413.11	326.83	705.26	666.73	38.53	18.306		
4,400.00	4,303.56	4,273.03	4,309.89	22.09	18.40	-44.36	-1,413.10	326.15	688.40	648.94	39.46	17.445		
4,500.00	4,401.00	4,370.76	4,407.62	22.60	18.81	-45.67	-1,412.42	325.29	671.22	630.81	40.40	16.614		
4,600.00	4,498.44	4,468.48	4,505.33	23.11	19.22	-47.04	-1,411.88	324.47	654.52	613.18	41.35	15.830		
4,700.00	4,595.88	4,569.79	4,606.63	23.63	19.65	-48.53	-1,411.07	323.38	637.89	595.60	42.29	15.083		
4,800.00	4,693.32	4,663.22	4,700.05	24.14	20.04	-50.03	-1,409.75	322.60	621.41	578.16	43.26	14.366		
4,900.00	4,790.76	4,761.48	4,798.30	24.66	20.45	-51.73	-1,408.50	322.66	606.12	561.90	44.22	13.707		
5,000.00	4,888.20	4,857.83	4,894.64	25.17	20.86	-53.38	-1,407.66	321.58	590.82	545.63	45.19	13.074		
5,100.00	4,985.64	4,949.27	4,986.07	25.69	21.25	-54.94	-1,407.98	320.52	576.82	530.65	46.16	12.495		
5,200.00	5,083.08	5,045.58	5,082.39	26.20	21.65	-56.73	-1,408.36	320.56	564.24	517.10	47.14	11.969		
5,300.00	5,180.52	5,145.79	5,182.59	26.72	22.07	-58.78	-1,407.62	320.83	551.77	503.64	48.13	11.465		
5,400.00	5,277.96	5,242.39	5,279.17	27.24	22.48	-60.92	-1,406.23	321.48	539.93	490.81	49.12	10.992		
5,500.00	5,375.40	5,336.90	5,373.68	27.75	22.87	-63.12	-1,404.83	322.41	529.13	479.02	50.12	10.558		
5,600.00	5,472.84	5,431.37	5,468.14	28.27	23.27	-65.36	-1,404.07	323.74	519.91	468.80	51.11	10.172		
5,700.00	5,570.28	5,530.25	5,567.01	28.79	23.69	-67.68	-1,404.10	324.60	511.54	459.44	52.10	9.818		
5,800.00	5,667.72	5,627.50	5,664.26	29.30	24.09	-70.06	-1,403.76	325.41	503.84	450.74	53.10	9.489		
5,900.00	5,765.16	5,724.28	5,761.02	29.82	24.50	-72.54	-1,403.25	326.67	497.42	443.34	54.09	9.197		
6,000.00	5,862.60	5,826.38	5,863.12	30.34	24.93	-75.16	-1,402.81	327.01	491.16	436.08	55.08	8.917		
6,100.00	5,960.05	5,919.58	5,956.32	30.85	25.32	-77.60	-1,402.51	327.40	486.03	429.98	56.05	8.671		
6,200.00	6,057.49	6,011.23	6,047.95	31.37	25.71	-80.07	-1,402.25	328.85	483.02	426.02	57.00	8.474		
6,300.00	6,154.93	6,108.38	6,145.09	31.89	26.12	-82.67	-1,402.45	330.87	481.67	423.72	57.96	8.311		
6,400.00	6,252.37	6,211.12	6,247.81	32.40	26.55	-85.42	-1,402.66	332.40	480.81	421.87	58.94	8.158		
6,432.90	6,284.42	6,240.61	6,277.30	32.57	26.68	-86.22	-1,402.62	332.81	480.71	421.48	59.23	8.116 CC		
6,500.00	6,349.81	6,303.03	6,339.71	32.92	26.94	-87.93	-1,402.46	333.98	481.17	421.32	59.84	8.040 ES		
6,600.00	6,447.25	6,402.20	6,438.86	33.44	27.36	-90.60	-1,402.52	335.90	482.85	422.07	60.78	7.944 SF		
6,700.00	6,544.28	6,496.87	6,533.50	33.95	27.76	-121.75	-1,403.69	337.71	491.50	429.82	61.67	7.969		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
6,800.00	6,638.86	6,599.38	6,635.98	34.44	28.20	-143.00	-1,405.52	339.10	515.86	453.27	62.59	8.242		
6,900.00	6,728.65	6,694.75	6,731.35	34.89	28.60	-154.99	-1,406.44	339.13	554.64	491.24	63.41	8.747		
7,000.00	6,811.45	6,773.28	6,809.87	35.29	28.94	-162.42	-1,407.07	339.13	607.87	543.79	64.09	9.485		
7,100.00	6,885.21	6,847.01	6,883.61	35.66	29.25	-167.79	-1,407.89	339.37	674.19	609.49	64.70	10.421		
7,200.00	6,948.11	6,909.83	6,946.42	35.99	29.52	-172.20	-1,408.59	339.57	751.46	686.26	65.20	11.525		
7,300.00	6,998.62	6,960.19	6,996.78	36.30	29.73	-176.66	-1,409.14	339.73	837.66	772.06	65.60	12.770		
7,400.00	7,035.48	6,996.86	7,033.44	36.65	29.89	177.03	-1,409.55	339.85	930.58	864.72	65.87	14.128		
7,500.00	7,057.79	7,018.91	7,055.49	37.13	29.98	161.49	-1,409.79	339.92	1,027.96	961.93	66.02	15.570		
7,600.00	7,065.00	7,025.82	7,062.41	37.84	30.01	86.61	-1,409.87	339.94	1,127.41	1,061.34	66.07	17.065		
7,700.00	7,064.77	7,025.28	7,061.86	38.82	30.01	86.26	-1,409.86	339.94	1,227.13	1,161.06	66.06	18.575		
7,800.00	7,064.54	7,024.73	7,061.31	40.06	30.01	85.90	-1,409.86	339.94	1,326.89	1,260.83	66.06	20.085		
7,900.00	7,064.31	7,024.18	7,060.76	41.52	30.00	85.54	-1,409.85	339.94	1,426.69	1,360.62	66.07	21.595		
8,000.00	7,064.08	7,023.63	7,060.21	43.14	30.00	85.19	-1,409.84	339.94	1,526.51	1,460.44	66.07	23.105		
8,100.00	7,063.85	7,023.09	7,059.67	44.90	30.00	84.83	-1,409.84	339.94	1,626.35	1,560.28	66.07	24.614		
8,200.00	7,063.62	7,022.54	7,059.12	46.78	30.00	84.48	-1,409.83	339.93	1,726.22	1,660.14	66.08	26.123		
8,300.00	7,063.39	7,021.99	7,058.57	48.76	29.99	84.12	-1,409.83	339.93	1,826.09	1,760.00	66.09	27.631		
8,400.00	7,063.16	7,021.44	7,058.02	50.83	29.99	83.77	-1,409.82	339.93	1,925.98	1,859.88	66.10	29.138		
8,500.00	7,062.93	7,020.89	7,057.48	52.97	29.99	83.42	-1,409.81	339.93	2,025.88	1,959.77	66.11	30.645		
8,600.00	7,062.70	7,020.35	7,056.93	55.18	29.99	83.07	-1,409.81	339.93	2,125.79	2,059.67	66.12	32.150		
8,700.00	7,062.47	7,019.80	7,056.38	57.46	29.98	82.71	-1,409.80	339.93	2,225.71	2,159.58	66.13	33.655		
8,800.00	7,062.24	7,019.25	7,055.83	59.78	29.98	82.36	-1,409.80	339.92	2,325.63	2,259.49	66.15	35.158		
8,900.00	7,062.01	7,018.70	7,055.29	62.14	29.98	82.01	-1,409.79	339.92	2,425.56	2,359.40	66.16	36.660		
9,000.00	7,061.78	7,018.16	7,054.74	64.55	29.98	81.66	-1,409.78	339.92	2,525.50	2,459.32	66.18	38.161		
9,100.00	7,061.55	7,017.61	7,054.19	67.00	29.98	81.31	-1,409.78	339.92	2,625.44	2,559.24	66.20	39.661		
9,200.00	7,061.31	7,017.06	7,053.64	69.47	29.97	80.96	-1,409.77	339.92	2,725.39	2,659.17	66.22	41.159		
9,300.00	7,061.08	7,016.51	7,053.10	71.98	29.97	80.62	-1,409.77	339.91	2,825.33	2,759.10	66.24	42.655		
9,400.00	7,060.85	7,015.97	7,052.55	74.51	29.97	80.27	-1,409.76	339.91	2,925.29	2,859.03	66.26	44.150		
9,500.00	7,060.62	7,015.42	7,052.00	77.06	29.97	79.92	-1,409.75	339.91	3,025.24	2,958.96	66.28	45.644		
9,600.00	7,060.39	7,014.87	7,051.45	79.64	29.96	79.58	-1,409.75	339.91	3,125.20	3,058.90	66.30	47.135		
9,700.00	7,060.16	7,014.32	7,050.90	82.23	29.96	79.23	-1,409.74	339.91	3,225.16	3,158.83	66.33	48.625		
9,800.00	7,059.93	7,013.77	7,050.36	84.84	29.96	78.89	-1,409.74	339.91	3,325.12	3,258.77	66.35	50.113		
9,900.00	7,059.70	7,013.23	7,049.81	87.47	29.96	78.54	-1,409.73	339.90	3,425.09	3,358.71	66.38	51.599		
10,000.00	7,059.47	7,012.68	7,049.26	90.11	29.95	78.20	-1,409.72	339.90	3,525.06	3,458.65	66.41	53.084		
10,100.00	7,059.24	7,012.13	7,048.71	92.76	29.95	77.86	-1,409.72	339.90	3,625.02	3,558.59	66.43	54.566		
10,200.00	7,059.01	7,011.58	7,048.17	95.42	29.95	77.52	-1,409.71	339.90	3,724.99	3,658.53	66.46	56.046		
10,300.00	7,058.78	7,011.04	7,047.62	98.10	29.95	77.18	-1,409.70	339.90	3,824.97	3,758.47	66.49	57.524		
10,400.00	7,058.55	7,010.49	7,047.07	100.79	29.94	76.84	-1,409.70	339.89	3,924.94	3,858.41	66.52	59.000		
10,500.00	7,058.32	7,009.94	7,046.52	103.48	29.94	76.50	-1,409.69	339.89	4,024.91	3,958.36	66.56	60.473		
10,600.00	7,058.09	7,009.39	7,045.98	106.19	29.94	76.17	-1,409.69	339.89	4,124.89	4,058.30	66.59	61.944		
10,700.00	7,057.86	7,008.85	7,045.43	108.90	29.94	75.83	-1,409.68	339.89	4,224.86	4,158.24	66.62	63.413		
10,800.00	7,057.63	7,008.30	7,044.88	111.62	29.94	75.50	-1,409.67	339.89	4,324.84	4,258.18	66.66	64.880		
10,900.00	7,057.40	7,007.75	7,044.33	114.35	29.93	75.16	-1,409.67	339.89	4,424.82	4,358.12	66.70	66.344		
11,000.00	7,057.17	7,007.20	7,043.79	117.08	29.93	74.83	-1,409.66	339.88	4,524.80	4,458.07	66.73	67.805		
11,100.00	7,056.94	7,006.65	7,043.24	119.82	29.93	74.50	-1,409.66	339.88	4,624.78	4,558.01	66.77	69.264		
11,200.00	7,056.71	7,006.11	7,042.69	122.56	29.93	74.17	-1,409.65	339.88	4,724.76	4,657.95	66.81	70.720		
11,300.00	7,056.48	7,005.56	7,042.14	125.31	29.92	73.84	-1,409.64	339.88	4,824.74	4,757.89	66.85	72.173		
11,400.00	7,056.25	7,005.01	7,041.59	128.06	29.92	73.51	-1,409.64	339.88	4,924.73	4,857.83	66.89	73.624		
11,500.00	7,056.02	7,004.46	7,041.05	130.82	29.92	73.19	-1,409.63	339.88	5,024.71	4,957.78	66.93	75.072		
11,600.00	7,055.79	7,003.92	7,040.50	133.59	29.92	72.86	-1,409.63	339.87	5,124.69	5,057.72	66.97	76.517		
11,700.00	7,055.55	7,003.37	7,039.95	136.35	29.91	72.54	-1,409.62	339.87	5,224.68	5,157.66	67.02	77.959		
11,800.00	7,055.32	7,002.82	7,039.40	139.12	29.91	72.21	-1,409.61	339.87	5,324.66	5,257.60	67.06	79.398		
11,900.00	7,055.09	7,002.27	7,038.86	141.90	29.91	71.89	-1,409.61	339.87	5,424.65	5,357.54	67.11	80.834		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)					
12,000.00	7,054.86	7,001.73	7,038.31	144.67	29.91	71.57	-1,409.60	339.87	5,524.63	5,457.48	67.16	82.267	
12,100.00	7,054.63	7,001.18	7,037.76	147.45	29.91	71.25	-1,409.60	339.86	5,624.62	5,557.42	67.20	83.697	
12,200.00	7,054.40	7,000.63	7,037.21	150.24	29.90	70.93	-1,409.59	339.86	5,724.60	5,657.35	67.25	85.123	
12,300.00	7,054.17	7,000.08	7,036.67	153.02	29.90	70.61	-1,409.58	339.86	5,824.59	5,757.29	67.30	86.547	
12,400.00	7,053.94	6,999.53	7,036.12	155.81	29.90	70.30	-1,409.58	339.86	5,924.58	5,857.23	67.35	87.967	
12,500.00	7,053.71	6,998.99	7,035.57	158.60	29.90	69.98	-1,409.57	339.86	6,024.57	5,957.17	67.40	89.384	
12,600.00	7,053.48	6,998.44	7,035.02	161.40	29.89	69.67	-1,409.57	339.86	6,124.55	6,057.10	67.45	90.798	
12,700.00	7,053.25	6,997.89	7,034.48	164.19	29.89	69.36	-1,409.56	339.85	6,224.54	6,157.04	67.51	92.208	
12,800.00	7,053.02	6,997.34	7,033.93	166.99	29.89	69.05	-1,409.55	339.85	6,324.53	6,256.97	67.56	93.615	
12,900.00	7,052.79	6,996.80	7,033.38	169.79	29.89	68.74	-1,409.55	339.85	6,424.52	6,356.91	67.61	95.019	
13,000.00	7,052.56	6,996.25	7,032.83	172.59	29.88	68.43	-1,409.54	339.85	6,524.51	6,456.84	67.67	96.419	
13,100.00	7,052.33	6,995.70	7,032.28	175.40	29.88	68.12	-1,409.54	339.85	6,624.50	6,556.78	67.72	97.815	
13,200.00	7,052.10	6,995.15	7,031.74	178.20	29.88	67.82	-1,409.53	339.85	6,724.49	6,656.71	67.78	99.208	
13,300.00	7,051.87	6,994.61	7,031.19	181.01	29.88	67.52	-1,409.52	339.84	6,824.48	6,756.64	67.84	100.597	
13,400.00	7,051.64	6,994.06	7,030.64	183.82	29.88	67.21	-1,409.52	339.84	6,924.47	6,856.57	67.90	101.983	
13,500.00	7,051.41	6,993.51	7,030.09	186.63	29.87	66.91	-1,409.51	339.84	7,024.46	6,956.50	67.96	103.365	
13,600.00	7,051.18	6,992.96	7,029.55	189.44	29.87	66.61	-1,409.50	339.84	7,124.45	7,056.43	68.02	104.743	
13,700.00	7,050.95	6,992.42	7,029.00	192.25	29.87	66.31	-1,409.50	339.84	7,224.44	7,156.36	68.08	106.117	
13,800.00	7,050.72	6,991.87	7,028.45	195.07	29.87	66.02	-1,409.49	339.83	7,324.43	7,256.29	68.14	107.488	
13,900.00	7,050.49	6,991.32	7,027.90	197.88	29.86	65.72	-1,409.49	339.83	7,424.43	7,356.22	68.20	108.855	
14,000.00	7,050.26	6,990.77	7,027.36	200.70	29.86	65.43	-1,409.48	339.83	7,524.42	7,456.15	68.27	110.218	
14,100.00	7,050.03	6,990.22	7,026.81	203.52	29.86	65.13	-1,409.47	339.83	7,624.41	7,556.08	68.33	111.577	
14,200.00	7,049.80	6,989.68	7,026.26	206.34	29.86	64.84	-1,409.47	339.83	7,724.40	7,656.00	68.40	112.932	
14,300.00	7,049.56	6,989.13	7,025.71	209.16	29.85	64.55	-1,409.46	339.83	7,824.39	7,755.93	68.47	114.283	
14,400.00	7,049.33	6,988.58	7,025.17	211.98	29.85	64.26	-1,409.46	339.82	7,924.39	7,855.85	68.53	115.630	
14,500.00	7,049.10	6,988.03	7,024.62	214.80	29.85	63.98	-1,409.45	339.82	8,024.38	7,955.78	68.60	116.974	
14,600.00	7,048.87	6,987.49	7,024.07	217.63	29.85	63.69	-1,409.44	339.82	8,124.37	8,055.70	68.67	118.313	
14,700.00	7,048.64	6,986.94	7,023.52	220.45	29.84	63.41	-1,409.44	339.82	8,224.36	8,155.63	68.74	119.648	
14,800.00	7,048.41	6,986.39	7,022.98	223.28	29.84	63.13	-1,409.43	339.82	8,324.36	8,255.55	68.81	120.979	
14,900.00	7,048.18	6,985.84	7,022.43	226.10	29.84	62.84	-1,409.43	339.82	8,424.35	8,355.47	68.88	122.306	
14,979.18	7,048.00	6,985.41	7,021.99	228.34	29.84	62.62	-1,409.42	339.81	8,503.53	8,434.59	68.94	123.354	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	172.47	-4,139.22	547.19	4,175.80					
100.00	100.00	30.36	99.36	3.28	3.28	172.47	-4,139.22	547.18	4,175.24	4,168.67	6.57	635.951		
200.00	200.00	125.98	194.98	3.34	3.30	172.47	-4,139.30	546.97	4,175.28	4,168.65	6.63	629.459		
300.00	299.98	216.58	285.58	3.44	3.36	-13.62	-4,139.55	546.70	4,173.83	4,167.03	6.80	614.101		
400.00	399.84	311.53	380.53	3.59	3.47	-13.66	-4,139.96	546.61	4,169.16	4,162.10	7.06	590.725		
500.00	499.45	413.64	482.64	3.79	3.63	-13.73	-4,140.40	546.65	4,161.11	4,153.69	7.42	560.579		
600.00	598.70	511.65	580.64	4.03	3.83	-13.82	-4,140.82	546.66	4,149.69	4,141.83	7.86	527.675		
700.00	697.47	613.79	682.79	4.31	4.07	-13.94	-4,141.26	546.41	4,134.89	4,126.51	8.39	493.081		
800.00	795.62	715.96	784.95	4.64	4.35	-14.09	-4,141.62	545.93	4,116.64	4,107.67	8.97	458.985		
900.00	893.16	806.82	875.81	5.00	4.61	-14.20	-4,142.03	545.24	4,095.56	4,085.99	9.57	427.968		
1,000.00	990.60	907.55	976.53	5.38	4.93	-14.26	-4,142.57	544.18	4,074.11	4,063.88	10.23	398.270		
1,100.00	1,088.04	986.58	1,055.55	5.79	5.19	-14.31	-4,143.20	543.09	4,052.87	4,042.01	10.85	373.392		
1,200.00	1,185.48	1,073.79	1,142.75	6.22	5.48	-14.36	-4,144.23	541.64	4,031.98	4,020.44	11.53	349.644		
1,300.00	1,282.92	1,167.24	1,236.17	6.66	5.81	-14.41	-4,145.53	539.98	4,011.27	3,999.02	12.25	327.381		
1,400.00	1,380.36	1,271.83	1,340.73	7.10	6.18	-14.46	-4,146.99	538.01	3,990.56	3,977.53	13.03	306.223		
1,500.00	1,477.80	1,376.49	1,445.36	7.56	6.57	-14.51	-4,148.24	535.80	3,969.63	3,955.80	13.83	287.072		
1,600.00	1,575.24	1,474.56	1,543.41	8.03	6.94	-14.56	-4,149.32	533.77	3,948.61	3,934.00	14.61	270.176		
1,700.00	1,672.68	1,566.38	1,635.20	8.50	7.29	-14.61	-4,150.38	531.96	3,927.67	3,912.28	15.39	255.193		
1,800.00	1,770.12	1,676.39	1,745.19	8.98	7.71	-14.67	-4,151.66	529.91	3,906.75	3,890.51	16.24	240.539		
1,900.00	1,867.56	1,768.59	1,837.36	9.46	8.07	-14.72	-4,152.49	528.21	3,885.59	3,868.55	17.04	228.071		
2,000.00	1,965.00	1,859.21	1,927.96	9.95	8.43	-14.78	-4,153.53	526.75	3,864.69	3,846.86	17.83	216.710		
2,100.00	2,062.44	1,951.50	2,020.23	10.44	8.79	-14.83	-4,154.71	525.19	3,843.92	3,825.27	18.64	206.189		
2,200.00	2,159.88	2,041.45	2,110.16	10.93	9.15	-14.88	-4,156.04	523.53	3,823.32	3,803.87	19.45	196.578		
2,300.00	2,257.32	2,133.91	2,202.59	11.42	9.53	-14.94	-4,157.61	521.77	3,802.93	3,782.66	20.27	187.612		
2,400.00	2,354.76	2,249.45	2,318.10	11.92	9.99	-15.00	-4,159.49	519.54	3,782.49	3,761.31	21.18	178.600		
2,500.00	2,452.20	2,394.14	2,462.76	12.42	10.58	-15.09	-4,160.35	517.14	3,761.07	3,738.88	22.19	169.484		
2,600.00	2,549.64	2,536.82	2,605.42	12.92	11.16	-15.20	-4,159.18	515.06	3,738.26	3,715.07	23.19	161.175		
2,700.00	2,647.08	2,635.18	2,703.76	13.42	11.56	-15.27	-4,157.91	513.56	3,715.06	3,691.01	24.05	154.501		
2,800.00	2,744.52	2,731.30	2,799.85	13.93	11.96	-15.34	-4,156.67	511.96	3,691.84	3,666.95	24.89	148.311		
2,900.00	2,841.96	2,824.66	2,893.20	14.43	12.34	-15.40	-4,155.57	510.30	3,668.72	3,642.99	25.73	142.567		
3,000.00	2,939.40	2,920.06	2,988.57	14.94	12.74	-15.47	-4,154.51	508.55	3,645.66	3,619.08	26.58	137.141		
3,100.00	3,036.84	3,012.57	3,081.07	15.44	13.12	-15.53	-4,153.60	506.78	3,622.72	3,595.29	27.43	132.090		
3,200.00	3,134.28	3,116.38	3,184.84	15.95	13.55	-15.60	-4,152.56	504.69	3,599.74	3,571.43	28.31	127.162		
3,300.00	3,231.72	3,216.72	3,285.16	16.46	13.97	-15.67	-4,151.36	502.72	3,576.60	3,547.42	29.18	122.568		
3,400.00	3,329.16	3,301.96	3,370.38	16.97	14.33	-15.74	-4,150.48	501.06	3,553.62	3,523.62	30.01	118.433		
3,500.00	3,426.60	3,389.49	3,457.88	17.48	14.69	-15.80	-4,149.88	499.17	3,530.95	3,500.11	30.84	114.493		
3,600.00	3,524.04	3,481.09	3,549.45	17.99	15.08	-15.85	-4,149.52	496.88	3,508.49	3,476.81	31.69	110.715		
3,700.00	3,621.48	3,572.27	3,640.61	18.50	15.46	-15.91	-4,149.33	494.45	3,486.21	3,453.67	32.54	107.137		
3,800.00	3,718.92	3,667.59	3,735.90	19.01	15.86	-15.97	-4,149.22	492.21	3,464.06	3,430.65	33.40	103.702		
3,900.00	3,816.36	3,760.39	3,828.68	19.52	16.25	-16.04	-4,149.11	490.38	3,441.97	3,407.71	34.26	100.462		
4,000.00	3,913.80	3,856.43	3,924.70	20.03	16.65	-16.11	-4,149.15	488.37	3,420.03	3,384.90	35.13	97.354		
4,100.00	4,011.24	3,956.11	4,024.36	20.55	17.07	-16.18	-4,149.09	486.62	3,398.04	3,362.03	36.01	94.362		
4,200.00	4,108.68	4,054.20	4,122.44	21.06	17.48	-16.26	-4,148.95	485.05	3,376.02	3,339.13	36.89	91.522		
4,300.00	4,206.12	4,154.95	4,223.18	21.57	17.91	-16.36	-4,148.67	484.13	3,353.98	3,316.20	37.77	88.794		
4,400.00	4,303.56	4,264.06	4,332.29	22.09	18.36	-16.49	-4,147.87	484.58	3,331.73	3,293.05	38.68	86.129		
4,500.00	4,401.00	4,393.66	4,461.87	22.60	18.90	-16.66	-4,146.00	485.55	3,308.90	3,269.25	39.65	83.449		
4,600.00	4,498.44	4,489.10	4,557.30	23.11	19.30	-16.79	-4,144.08	486.28	3,285.52	3,245.00	40.52	81.078		
4,700.00	4,595.88	4,567.75	4,635.92	23.63	19.63	-16.90	-4,142.73	486.91	3,262.46	3,221.11	41.35	78.902		
4,800.00	4,693.32	4,641.46	4,709.64	24.14	19.94	-17.00	-4,141.99	487.29	3,240.04	3,197.88	42.16	76.850		
4,900.00	4,790.76	4,717.93	4,786.10	24.66	20.26	-17.09	-4,141.84	487.65	3,218.38	3,175.40	42.98	74.880		
5,000.00	4,888.20	4,815.91	4,884.08	25.17	20.67	-17.22	-4,141.88	488.18	3,196.99	3,153.12	43.86	72.885		
5,100.00	4,985.64	4,913.24	4,981.41	25.69	21.08	-17.35	-4,141.95	488.47	3,175.60	3,130.85	44.75	70.971		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,010.08	5,078.25	26.20	21.48	-17.47	-4,142.04	488.79	3,154.25	3,108.62	45.63	69.132		
5,300.00	5,180.52	5,111.59	5,179.76	26.72	21.91	-17.61	-4,142.03	489.36	3,132.86	3,086.34	46.52	67.343		
5,400.00	5,277.96	5,223.09	5,291.25	27.24	22.38	-17.77	-4,141.71	490.13	3,111.25	3,063.80	47.44	65.580		
5,500.00	5,375.40	5,347.17	5,415.32	27.75	22.90	-17.96	-4,140.32	491.25	3,088.89	3,040.49	48.39	63.828		
5,600.00	5,472.84	5,600.00	5,548.97	28.27	23.97	-18.21	-4,136.88	494.35	3,065.39	3,015.51	49.87	61.466		
5,700.00	5,570.28	5,577.98	5,645.93	28.79	23.88	-18.41	-4,133.42	497.33	3,041.19	2,990.94	50.25	60.521		
5,800.00	5,667.72	5,649.82	5,717.73	29.30	24.18	-18.55	-4,131.54	499.08	3,017.79	2,966.72	51.08	59.081		
5,900.00	5,765.16	5,725.04	5,792.93	29.82	24.50	-18.68	-4,130.31	500.33	2,995.20	2,943.29	51.91	57.696		
6,000.00	5,862.60	5,807.28	5,875.16	30.34	24.85	-18.82	-4,129.61	500.99	2,973.21	2,920.44	52.76	56.349		
6,100.00	5,960.05	5,900.00	5,967.88	30.85	25.24	-18.96	-4,129.22	501.31	2,951.54	2,897.90	53.64	55.024		
6,200.00	6,057.49	6,012.32	6,080.19	31.37	25.72	-19.13	-4,128.60	501.39	2,929.73	2,875.16	54.56	53.694		
6,300.00	6,154.93	6,102.96	6,170.83	31.89	26.10	-19.26	-4,128.06	501.27	2,907.84	2,852.40	55.44	52.454		
6,400.00	6,252.37	6,211.39	6,279.27	32.40	26.56	-19.43	-4,127.29	501.05	2,885.84	2,829.49	56.35	51.214		
6,500.00	6,349.81	6,313.78	6,381.65	32.92	26.99	-19.58	-4,126.25	500.77	2,863.56	2,806.31	57.25	50.020		
6,600.00	6,447.25	6,403.46	6,471.32	33.44	27.38	-19.72	-4,125.40	500.57	2,841.37	2,783.25	58.12	48.887		
6,700.00	6,544.28	6,499.18	6,567.03	33.95	27.78	-50.31	-4,124.69	500.15	2,820.76	2,761.75	59.01	47.798		
6,800.00	6,638.86	6,593.80	6,661.65	34.44	28.18	-71.05	-4,124.02	499.65	2,804.36	2,744.46	59.91	46.813		
6,900.00	6,728.65	6,691.56	6,759.41	34.89	28.60	-82.51	-4,123.05	499.68	2,792.90	2,732.11	60.79	45.942		
7,000.00	6,811.45	6,779.46	6,847.30	35.29	28.97	-89.41	-4,121.92	499.82	2,787.22	2,725.57	61.65	45.210		
7,035.51	6,838.77	6,808.58	6,876.42	35.42	29.10	-91.18	-4,121.55	499.73	2,786.78	2,724.82	61.96	44.979 CC, ES		
7,100.00	6,885.21	6,853.16	6,921.00	35.66	29.29	-93.63	-4,120.98	499.59	2,788.33	2,725.83	62.50	44.614		
7,200.00	6,948.11	6,914.20	6,982.03	35.99	29.55	-95.98	-4,120.23	499.45	2,797.10	2,733.73	63.38	44.135		
7,300.00	6,998.62	6,961.54	7,029.37	36.30	29.75	-96.76	-4,119.58	499.62	2,814.04	2,749.72	64.32	43.754		
7,400.00	7,035.48	6,994.96	7,062.78	36.65	29.89	-96.07	-4,119.08	499.95	2,839.25	2,773.91	65.34	43.457		
7,500.00	7,057.79	7,011.80	7,079.62	37.13	29.96	-93.89	-4,118.82	500.18	2,872.42	2,806.00	66.42	43.244		
7,600.00	7,065.00	7,016.21	7,084.03	37.84	29.98	-90.35	-4,118.76	500.24	2,912.78	2,845.23	67.55	43.120		
7,700.00	7,064.77	7,014.98	7,082.79	38.82	29.97	-90.32	-4,118.78	500.22	2,957.69	2,888.96	68.73	43.035		
7,800.00	7,064.54	7,013.75	7,081.56	40.06	29.97	-90.30	-4,118.79	500.21	3,005.25	2,935.27	69.98	42.946		
7,900.00	7,064.31	7,012.52	7,080.34	41.52	29.96	-90.27	-4,118.81	500.19	3,055.35	2,984.07	71.27	42.867		
8,000.00	7,064.08	7,011.30	7,079.12	43.14	29.96	-90.24	-4,118.83	500.17	3,107.85	3,035.25	72.60	42.808		
8,100.00	7,063.85	7,010.09	7,077.91	44.90	29.95	-90.22	-4,118.85	500.16	3,162.65	3,088.71	73.94	42.774		
8,200.00	7,063.62	7,008.88	7,076.70	46.78	29.95	-90.19	-4,118.86	500.14	3,219.62	3,144.35	75.27	42.772 SF		
8,300.00	7,063.39	7,007.68	7,075.50	48.76	29.94	-90.17	-4,118.88	500.12	3,278.65	3,202.05	76.60	42.803		
8,400.00	7,063.16	7,006.48	7,074.30	50.83	29.94	-90.14	-4,118.90	500.11	3,339.63	3,261.73	77.90	42.870		
8,500.00	7,062.93	7,005.28	7,073.10	52.97	29.91	-90.00	-4,119.00	500.02	3,402.47	3,323.30	79.16	42.980		
8,600.00	7,062.70	7,004.08	7,071.90	55.18	29.91	-90.00	-4,119.00	500.02	3,467.04	3,386.62	80.41	43.116		
8,700.00	7,062.47	7,002.88	7,070.70	57.46	29.91	-90.00	-4,119.00	500.02	3,533.26	3,451.63	81.63	43.286		
8,800.00	7,062.24	7,001.68	7,069.50	59.78	29.91	-90.00	-4,119.00	500.02	3,601.04	3,518.24	82.80	43.490		
8,900.00	7,062.01	7,000.48	7,068.30	62.14	29.91	-90.00	-4,119.00	500.02	3,670.29	3,586.35	83.94	43.726		
9,000.00	7,061.78	7,000.00	7,067.10	64.55	29.91	-90.00	-4,119.00	500.02	3,740.94	3,655.90	85.04	43.992		
9,100.00	7,061.55	7,000.00	7,066.90	67.00	29.91	-90.00	-4,119.00	500.02	3,812.90	3,726.80	86.09	44.288		
9,200.00	7,061.31	7,000.00	7,066.70	69.47	29.91	-90.00	-4,119.00	500.02	3,886.10	3,798.99	87.11	44.611		
9,300.00	7,061.08	7,000.00	7,066.50	71.98	29.91	-90.00	-4,119.00	500.02	3,960.47	3,872.38	88.09	44.960		
9,400.00	7,060.85	7,000.00	7,066.30	74.51	29.91	-90.00	-4,119.00	500.02	4,035.95	3,946.92	89.03	45.333		
9,500.00	7,060.62	7,000.00	7,066.10	77.06	29.91	-90.00	-4,119.00	500.02	4,112.48	4,022.54	89.93	45.728		
9,600.00	7,060.39	7,000.00	7,065.90	79.64	29.91	-90.00	-4,119.00	500.02	4,189.99	4,099.19	90.80	46.146		
9,700.00	7,060.16	7,000.00	7,065.70	82.23	29.91	-90.00	-4,119.00	500.02	4,268.44	4,176.81	91.63	46.583		
9,800.00	7,059.93	6,999.80	7,065.50	84.84	29.87	-89.80	-4,119.14	499.90	4,347.76	4,255.37	92.40	47.054		
9,900.00	7,059.70	6,999.60	7,065.30	87.47	29.87	-89.78	-4,119.16	499.89	4,427.93	4,334.77	93.16	47.530		
10,000.00	7,059.47	6,999.40	7,065.10	90.11	29.86	-89.75	-4,119.17	499.88	4,508.90	4,415.00	93.89	48.022		
10,100.00	7,059.24	6,999.20	7,064.90	92.76	29.86	-89.73	-4,119.19	499.87	4,590.61	4,496.01	94.59	48.530		
10,200.00	7,059.01	6,999.00	7,064.70	95.42	29.85	-89.71	-4,119.20	499.86	4,673.03	4,577.76	95.27	49.052		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.78	6,986.13	7,053.95	98.10	29.85	-89.69	-4,119.22	499.85	4,756.13	4,660.21	95.91	49.588		
10,400.00	7,058.55	6,985.26	7,053.08	100.79	29.85	-89.68	-4,119.23	499.84	4,839.86	4,743.33	96.53	50.137		
10,500.00	7,058.32	6,984.40	7,052.22	103.48	29.84	-89.66	-4,119.24	499.83	4,924.20	4,827.08	97.13	50.698		
10,600.00	7,058.09	6,983.56	7,051.38	106.19	29.84	-89.64	-4,119.26	499.82	5,009.12	4,911.42	97.70	51.270		
10,700.00	7,057.86	6,982.73	7,050.56	108.90	29.84	-89.62	-4,119.27	499.81	5,094.59	4,996.34	98.25	51.852		
10,800.00	7,057.63	6,981.92	7,049.75	111.62	29.83	-89.60	-4,119.28	499.80	5,180.57	5,081.79	98.78	52.445		
10,900.00	7,057.40	6,981.13	7,048.95	114.35	29.83	-89.59	-4,119.29	499.80	5,267.05	5,167.77	99.29	53.048		
11,000.00	7,057.17	6,980.35	7,048.18	117.08	29.83	-89.57	-4,119.30	499.79	5,354.01	5,254.23	99.78	53.659		
11,100.00	7,056.94	6,979.59	7,047.41	119.82	29.82	-89.55	-4,119.32	499.78	5,441.41	5,341.16	100.25	54.278		
11,200.00	7,056.71	6,978.84	7,046.67	122.56	29.82	-89.54	-4,119.33	499.77	5,529.23	5,428.53	100.70	54.905		
11,300.00	7,056.48	6,978.11	7,045.93	125.31	29.82	-89.52	-4,119.34	499.77	5,617.47	5,516.32	101.14	55.540		
11,400.00	7,056.25	6,977.39	7,045.21	128.06	29.81	-89.50	-4,119.35	499.76	5,706.09	5,604.52	101.56	56.182		
11,500.00	7,056.02	6,976.68	7,044.50	130.82	29.81	-89.49	-4,119.36	499.75	5,795.08	5,693.11	101.97	56.831		
11,600.00	7,055.79	6,975.99	7,043.81	133.59	29.81	-89.47	-4,119.37	499.74	5,884.42	5,782.06	102.36	57.485		
11,700.00	7,055.55	6,975.30	7,043.13	136.35	29.81	-89.46	-4,119.38	499.74	5,974.11	5,871.36	102.74	58.146		
11,800.00	7,055.32	6,974.63	7,042.46	139.12	29.80	-89.44	-4,119.39	499.73	6,064.11	5,961.00	103.11	58.812		
11,900.00	7,055.09	6,973.97	7,041.80	141.90	29.80	-89.43	-4,119.40	499.73	6,154.42	6,050.96	103.46	59.483		
12,000.00	7,054.86	6,973.33	7,041.15	144.67	29.80	-89.42	-4,119.41	499.72	6,245.03	6,141.22	103.81	60.160		
12,100.00	7,054.63	6,972.69	7,040.52	147.45	29.79	-89.40	-4,119.42	499.71	6,335.92	6,231.78	104.14	60.841		
12,200.00	7,054.40	6,972.07	7,039.89	150.24	29.79	-89.39	-4,119.43	499.71	6,427.08	6,322.62	104.46	61.526		
12,300.00	7,054.17	6,971.45	7,039.28	153.02	29.79	-89.37	-4,119.44	499.70	6,518.51	6,413.73	104.77	62.216		
12,400.00	7,053.94	6,970.85	7,038.68	155.81	29.79	-89.36	-4,119.45	499.70	6,610.17	6,505.10	105.07	62.910		
12,500.00	7,053.71	6,970.26	7,038.08	158.60	29.78	-89.35	-4,119.45	499.69	6,702.08	6,596.72	105.37	63.608		
12,600.00	7,053.48	6,969.67	7,037.50	161.40	29.78	-89.34	-4,119.46	499.69	6,794.22	6,688.57	105.65	64.309		
12,700.00	7,053.25	6,969.10	7,036.92	164.19	29.78	-89.32	-4,119.47	499.68	6,886.57	6,780.65	105.93	65.013		
12,800.00	7,053.02	6,968.54	7,036.36	166.99	29.78	-89.31	-4,119.48	499.68	6,979.14	6,872.94	106.19	65.721		
12,900.00	7,052.79	6,967.98	7,035.80	169.79	29.77	-89.30	-4,119.49	499.67	7,071.91	6,965.45	106.45	66.432		
13,000.00	7,052.56	6,967.43	7,035.26	172.59	29.77	-89.29	-4,119.50	499.67	7,164.87	7,058.16	106.71	67.146		
13,100.00	7,052.33	6,966.90	7,034.72	175.40	29.77	-89.27	-4,119.50	499.66	7,258.02	7,151.06	106.95	67.862		
13,200.00	7,052.10	6,966.37	7,034.19	178.20	29.77	-89.26	-4,119.51	499.66	7,351.35	7,244.15	107.19	68.581		
13,300.00	7,051.87	6,965.85	7,033.67	181.01	29.76	-89.25	-4,119.52	499.66	7,444.85	7,337.42	107.42	69.303		
13,400.00	7,051.64	6,965.33	7,033.16	183.82	29.76	-89.24	-4,119.53	499.65	7,538.52	7,430.87	107.65	70.027		
13,500.00	7,051.41	6,964.83	7,032.65	186.63	29.76	-89.23	-4,119.53	499.65	7,632.35	7,524.47	107.87	70.753		
13,600.00	7,051.18	6,964.33	7,032.16	189.44	29.76	-89.22	-4,119.54	499.64	7,726.33	7,618.24	108.09	71.481		
13,700.00	7,050.95	6,963.84	7,031.67	192.25	29.76	-89.21	-4,119.55	499.64	7,820.47	7,712.17	108.30	72.211		
13,800.00	7,050.72	6,963.36	7,031.19	195.07	29.75	-89.20	-4,119.56	499.64	7,914.74	7,806.24	108.51	72.943		
13,900.00	7,050.49	6,962.88	7,030.71	197.88	29.75	-89.19	-4,119.56	499.63	8,009.16	7,900.45	108.71	73.676		
14,000.00	7,050.26	6,962.42	7,030.24	200.70	29.75	-89.18	-4,119.57	499.63	8,103.71	7,994.81	108.90	74.412		
14,100.00	7,050.03	6,961.96	7,029.78	203.52	29.75	-89.17	-4,119.58	499.63	8,198.39	8,089.29	109.10	75.149		
14,200.00	7,049.80	6,961.50	7,029.33	206.34	29.75	-89.16	-4,119.58	499.62	8,293.19	8,183.91	109.28	75.887		
14,300.00	7,049.56	6,961.05	7,028.88	209.16	29.74	-89.15	-4,119.59	499.62	8,388.12	8,278.65	109.47	76.627		
14,400.00	7,049.33	6,960.61	7,028.44	211.98	29.74	-89.14	-4,119.60	499.62	8,483.16	8,373.51	109.65	77.368		
14,500.00	7,049.10	6,960.18	7,028.00	214.80	29.74	-89.13	-4,119.60	499.61	8,578.31	8,468.49	109.82	78.110		
14,600.00	7,048.87	6,959.75	7,027.58	217.63	29.74	-89.12	-4,119.61	499.61	8,673.58	8,563.58	110.00	78.853		
14,700.00	7,048.64	6,959.33	7,027.15	220.45	29.74	-89.11	-4,119.61	499.61	8,768.95	8,658.78	110.17	79.598		
14,800.00	7,048.41	6,958.91	7,026.74	223.28	29.74	-89.10	-4,119.62	499.60	8,864.42	8,754.08	110.33	80.344		
14,900.00	7,048.18	6,958.50	7,026.33	226.10	29.73	-89.09	-4,119.63	499.60	8,959.99	8,849.49	110.49	81.090		
14,979.18	7,048.00	6,958.18	7,026.01	228.34	29.73	-89.08	-4,119.63	499.60	9,035.73	8,925.11	110.62	81.682		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	21.23	-1.77	3.28	3.28	172.47	-4,139.23	547.19	4,175.24					
100.00	100.00	114.35	91.35	3.28	3.29	172.47	-4,139.36	547.09	4,175.37	4,168.79	6.58	634.912		
200.00	200.00	213.37	190.37	3.34	3.35	172.47	-4,139.61	546.97	4,175.60	4,168.91	6.69	624.068		
300.00	299.98	319.42	296.42	3.44	3.48	-13.62	-4,139.79	546.76	4,174.05	4,167.13	6.92	603.444		
400.00	399.84	419.57	396.56	3.59	3.64	-13.66	-4,139.93	546.42	4,169.05	4,161.82	7.23	576.354		
500.00	499.45	521.41	498.41	3.79	3.85	-13.72	-4,140.01	546.11	4,160.62	4,152.98	7.64	544.396		
600.00	598.70	619.03	596.03	4.03	4.09	-13.82	-4,140.11	545.74	4,148.84	4,140.72	8.12	511.029		
700.00	697.47	719.52	696.51	4.31	4.36	-13.94	-4,140.18	545.45	4,133.67	4,125.00	8.67	476.977		
800.00	795.62	814.29	791.28	4.64	4.64	-14.09	-4,140.28	545.25	4,115.21	4,105.95	9.25	444.784		
900.00	893.16	913.25	890.25	5.00	4.95	-14.21	-4,140.40	544.94	4,093.86	4,083.97	9.90	413.699		
1,000.00	990.60	1,009.02	986.02	5.38	5.26	-14.28	-4,140.54	544.66	4,072.14	4,061.58	10.56	385.790		
1,100.00	1,088.04	1,110.42	1,087.42	5.79	5.61	-14.36	-4,140.64	544.38	4,050.38	4,039.12	11.26	359.563		
1,200.00	1,185.48	1,202.92	1,179.92	6.22	5.93	-14.43	-4,140.77	544.04	4,028.66	4,016.69	11.97	336.571		
1,300.00	1,282.92	1,292.41	1,269.40	6.66	6.26	-14.50	-4,141.04	543.66	4,007.09	3,994.40	12.69	315.886		
1,400.00	1,380.36	1,391.20	1,368.19	7.10	6.62	-14.57	-4,141.44	543.19	3,985.62	3,972.16	13.45	296.307		
1,500.00	1,477.80	1,495.71	1,472.70	7.56	7.02	-14.65	-4,141.76	542.57	3,964.04	3,949.79	14.25	278.137		
1,600.00	1,575.24	1,591.91	1,568.90	8.03	7.38	-14.72	-4,141.99	541.92	3,942.40	3,927.36	15.04	262.191		
1,700.00	1,672.68	1,688.81	1,665.79	8.50	7.76	-14.79	-4,142.25	541.30	3,920.79	3,904.95	15.83	247.622		
1,800.00	1,770.12	1,782.64	1,759.62	8.98	8.13	-14.86	-4,142.55	540.68	3,899.23	3,882.60	16.63	234.478		
1,900.00	1,867.56	1,875.26	1,852.24	9.46	8.49	-14.93	-4,142.97	539.94	3,877.79	3,860.36	17.43	222.494		
2,000.00	1,965.00	1,970.94	1,947.91	9.95	8.87	-15.00	-4,143.52	539.01	3,856.46	3,838.21	18.25	211.357		
2,100.00	2,062.44	2,075.06	2,052.03	10.44	9.29	-15.07	-4,144.12	537.76	3,835.09	3,815.99	19.10	200.787		
2,200.00	2,159.88	2,178.33	2,155.28	10.93	9.70	-15.15	-4,144.51	536.46	3,813.53	3,793.57	19.96	191.094		
2,300.00	2,257.32	2,286.90	2,263.85	11.42	10.14	-15.22	-4,144.72	534.99	3,791.78	3,770.95	20.84	181.986		
2,400.00	2,354.76	2,393.16	2,370.10	11.92	10.58	-15.30	-4,144.61	533.64	3,769.77	3,748.06	21.71	173.642		
2,500.00	2,452.20	2,489.84	2,466.77	12.42	10.97	-15.37	-4,144.38	532.55	3,747.65	3,725.10	22.55	166.167		
2,600.00	2,549.64	2,589.93	2,566.86	12.92	11.38	-15.45	-4,144.10	531.65	3,725.53	3,702.12	23.41	159.128		
2,700.00	2,647.08	2,687.54	2,664.46	13.42	11.78	-15.54	-4,143.77	530.82	3,703.37	3,679.10	24.26	152.622		
2,800.00	2,744.52	2,778.94	2,755.85	13.93	12.16	-15.61	-4,143.52	530.04	3,681.28	3,656.18	25.10	146.671		
2,900.00	2,841.96	2,878.50	2,855.41	14.43	12.57	-15.70	-4,143.34	529.27	3,659.29	3,633.33	25.96	140.939		
3,000.00	2,939.40	2,965.87	2,942.78	14.94	12.93	-15.77	-4,143.18	528.71	3,637.35	3,610.56	26.79	135.779		
3,100.00	3,036.84	3,053.81	3,030.72	15.44	13.30	-15.85	-4,143.31	528.29	3,615.74	3,588.12	27.62	130.919		
3,200.00	3,134.28	3,150.12	3,127.02	15.95	13.70	-15.94	-4,143.61	527.81	3,594.29	3,565.81	28.48	126.211		
3,300.00	3,231.72	3,244.46	3,221.37	16.46	14.09	-16.03	-4,143.88	527.28	3,572.83	3,543.49	29.33	121.798		
3,400.00	3,329.16	3,332.88	3,309.78	16.97	14.46	-16.11	-4,144.35	526.77	3,551.60	3,521.43	30.17	117.716		
3,500.00	3,426.60	3,439.31	3,416.21	17.48	14.90	-16.21	-4,145.09	526.07	3,530.54	3,499.47	31.07	113.630		
3,600.00	3,524.04	3,572.70	3,549.60	17.99	15.46	-16.34	-4,144.77	525.59	3,508.60	3,476.54	32.06	109.445		
3,700.00	3,621.48	3,683.03	3,659.92	18.50	15.92	-16.46	-4,143.74	525.47	3,486.06	3,453.09	32.97	105.738		
3,800.00	3,718.92	3,789.97	3,766.85	19.01	16.37	-16.57	-4,142.43	525.23	3,463.25	3,429.38	33.87	102.253		
3,900.00	3,816.36	3,878.67	3,855.54	19.52	16.74	-16.67	-4,141.30	525.02	3,440.41	3,405.69	34.71	99.107		
4,000.00	3,913.80	3,968.22	3,945.09	20.03	17.11	-16.77	-4,140.44	524.68	3,417.84	3,382.27	35.56	96.107		
4,100.00	4,011.24	4,060.14	4,037.01	20.55	17.50	-16.87	-4,139.74	524.26	3,395.46	3,359.04	36.42	93.230		
4,200.00	4,108.68	4,146.75	4,123.62	21.06	17.86	-16.96	-4,139.27	523.73	3,373.28	3,336.01	37.26	90.527		
4,300.00	4,206.12	4,235.21	4,212.07	21.57	18.23	-17.05	-4,139.15	523.20	3,351.49	3,313.38	38.11	87.938		
4,400.00	4,303.56	4,332.72	4,309.58	22.09	18.65	-17.15	-4,139.05	522.65	3,329.75	3,290.76	38.99	85.400		
4,500.00	4,401.00	4,427.05	4,403.91	22.60	19.04	-17.26	-4,139.03	522.17	3,308.12	3,268.26	39.86	82.995		
4,600.00	4,498.44	4,526.12	4,502.98	23.11	19.46	-17.37	-4,139.00	521.74	3,286.50	3,245.75	40.74	80.663		
4,700.00	4,595.88	4,623.68	4,600.53	23.63	19.88	-17.48	-4,138.93	521.28	3,264.83	3,223.21	41.62	78.437		
4,800.00	4,693.32	4,713.99	4,690.85	24.14	20.26	-17.58	-4,138.98	520.80	3,243.31	3,200.83	42.48	76.342		
4,900.00	4,790.76	4,802.68	4,779.54	24.66	20.63	-17.68	-4,139.21	520.62	3,222.05	3,178.71	43.34	74.344		
5,000.00	4,888.20	4,900.85	4,877.70	25.17	21.04	-17.81	-4,139.55	520.66	3,200.92	3,156.69	44.22	72.379		
5,100.00	4,985.64	4,998.31	4,975.16	25.69	21.45	-17.93	-4,139.87	520.68	3,179.79	3,134.68	45.11	70.494		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,092.78	5,069.63	26.20	21.85	-18.05	-4,140.22	520.71	3,158.72	3,112.74	45.98	68.694		
5,300.00	5,180.52	5,188.58	5,165.43	26.72	22.26	-18.17	-4,140.65	520.79	3,137.75	3,090.89	46.86	66.956		
5,400.00	5,277.96	5,290.14	5,266.99	27.24	22.69	-18.31	-4,141.09	520.81	3,116.76	3,069.00	47.76	65.260		
5,500.00	5,375.40	5,388.71	5,365.56	27.75	23.10	-18.43	-4,141.44	520.72	3,095.70	3,047.05	48.65	63.635		
5,600.00	5,472.84	5,482.76	5,459.61	28.27	23.50	-18.56	-4,141.81	520.67	3,074.68	3,025.16	49.53	62.083		
5,700.00	5,570.28	5,620.38	5,597.23	28.79	24.08	-18.75	-4,141.58	520.86	3,053.23	3,002.72	50.51	60.443		
5,800.00	5,667.72	5,711.06	5,687.90	29.30	24.46	-18.89	-4,140.90	521.08	3,031.23	2,979.84	51.38	58.992		
5,900.00	5,765.16	5,792.96	5,769.81	29.82	24.81	-19.01	-4,140.55	521.12	3,009.50	2,957.27	52.23	57.618		
6,000.00	5,862.60	5,883.71	5,860.55	30.34	25.19	-19.13	-4,140.54	521.04	2,988.17	2,935.06	53.10	56.271		
6,100.00	5,960.05	5,983.58	5,960.42	30.85	25.62	-19.28	-4,140.64	520.82	2,966.93	2,912.93	54.00	54.946		
6,200.00	6,057.49	6,078.75	6,055.60	31.37	26.02	-19.41	-4,140.75	520.39	2,945.67	2,890.79	54.88	53.674		
6,300.00	6,154.93	6,176.18	6,153.02	31.89	26.44	-19.54	-4,140.94	519.89	2,924.49	2,868.72	55.77	52.439		
6,400.00	6,252.37	6,287.12	6,263.96	32.40	26.91	-19.70	-4,140.97	519.15	2,903.14	2,846.45	56.69	51.211		
6,500.00	6,349.81	6,393.93	6,370.76	32.92	27.36	-19.84	-4,140.57	518.15	2,881.35	2,823.76	57.60	50.024		
6,600.00	6,447.25	6,490.07	6,466.90	33.44	27.77	-19.98	-4,140.10	517.16	2,859.45	2,800.97	58.49	48.891		
6,700.00	6,544.28	6,596.53	6,573.34	33.95	28.23	-20.58	-4,139.48	515.95	2,838.89	2,779.49	59.40	47.793		
6,800.00	6,638.86	6,690.19	6,667.00	34.44	28.62	-71.30	-4,138.81	514.66	2,822.41	2,762.12	60.29	46.814		
6,900.00	6,728.65	6,779.86	6,756.66	34.89	29.01	-82.64	-4,138.26	513.27	2,811.06	2,749.90	61.16	45.964		
7,000.00	6,811.45	6,873.54	6,850.31	35.29	29.41	-89.55	-4,137.70	511.27	2,805.58	2,743.55	62.03	45.232		
7,035.87	6,839.04	6,906.20	6,882.95	35.42	29.55	-91.36	-4,137.46	510.38	2,805.15	2,742.81	62.34	44.996 CC, ES		
7,100.00	6,885.21	6,957.01	6,933.75	35.66	29.76	-93.88	-4,137.03	508.91	2,806.62	2,743.73	62.89	44.628		
7,200.00	6,948.11	7,028.68	7,005.38	35.99	30.07	-96.39	-4,136.34	506.72	2,815.09	2,751.30	63.78	44.135		
7,300.00	6,998.62	7,089.36	7,066.02	36.30	30.33	-97.42	-4,135.71	504.54	2,831.50	2,766.75	64.74	43.734		
7,400.00	7,035.48	7,131.10	7,107.72	36.65	30.50	-96.94	-4,135.26	502.89	2,856.10	2,790.32	65.78	43.420		
7,500.00	7,057.79	7,157.20	7,133.80	37.13	30.62	-95.01	-4,134.97	501.84	2,888.74	2,821.86	66.89	43.188		
7,600.00	7,065.00	7,168.36	7,144.94	37.84	30.66	-91.67	-4,134.85	501.40	2,928.77	2,860.74	68.03	43.050		
7,700.00	7,064.77	7,172.11	7,148.69	38.82	30.68	-91.75	-4,134.81	501.25	2,973.47	2,904.25	69.23	42.954		
7,800.00	7,064.54	7,175.86	7,152.44	40.06	30.70	-91.83	-4,134.77	501.10	3,020.82	2,950.33	70.49	42.854		
7,900.00	7,064.31	7,179.61	7,156.19	41.52	30.71	-91.92	-4,134.73	500.95	3,070.69	2,998.89	71.81	42.762		
8,000.00	7,064.08	7,183.37	7,159.94	43.14	30.73	-92.00	-4,134.69	500.80	3,122.97	3,049.81	73.16	42.690		
8,100.00	7,063.85	7,187.12	7,163.69	44.90	30.74	-92.08	-4,134.65	500.65	3,177.52	3,103.01	74.52	42.643		
8,200.00	7,063.62	7,190.87	7,167.44	46.78	30.76	-92.16	-4,134.60	500.50	3,234.25	3,158.37	75.88	42.626 SF		
8,300.00	7,063.39	7,194.63	7,171.19	48.76	30.78	-92.24	-4,134.56	500.35	3,293.03	3,215.81	77.22	42.642		
8,400.00	7,063.16	7,198.38	7,174.94	50.83	30.79	-92.32	-4,134.52	500.20	3,353.76	3,275.20	78.55	42.693		
8,500.00	7,062.93	7,202.13	7,178.69	52.97	30.81	-92.40	-4,134.48	500.05	3,416.33	3,336.47	79.86	42.780		
8,600.00	7,062.70	7,205.88	7,182.44	55.18	30.82	-92.49	-4,134.44	499.90	3,480.65	3,399.52	81.13	42.901		
8,700.00	7,062.47	7,209.64	7,186.19	57.46	30.84	-92.57	-4,134.40	499.75	3,546.62	3,464.25	82.37	43.057		
8,800.00	7,062.24	7,213.39	7,189.94	59.78	30.86	-92.65	-4,134.36	499.60	3,614.14	3,530.57	83.57	43.246		
8,900.00	7,062.01	7,217.14	7,193.69	62.14	30.87	-92.73	-4,134.32	499.45	3,683.14	3,598.41	84.74	43.467		
9,000.00	7,061.78	7,220.90	7,197.44	64.55	30.89	-92.81	-4,134.28	499.30	3,753.53	3,667.67	85.86	43.718		
9,100.00	7,061.55	7,224.65	7,201.19	67.00	30.90	-92.89	-4,134.24	499.15	3,825.24	3,738.30	86.94	43.997		
9,200.00	7,061.31	7,228.40	7,204.94	69.47	30.92	-92.97	-4,134.20	499.00	3,898.19	3,810.20	87.99	44.304		
9,300.00	7,061.08	7,232.15	7,208.69	71.98	30.94	-93.05	-4,134.16	498.85	3,972.32	3,883.32	88.99	44.637		
9,400.00	7,060.85	7,235.91	7,212.44	74.51	30.95	-93.14	-4,134.12	498.70	4,047.55	3,957.59	89.96	44.993		
9,500.00	7,060.62	7,239.66	7,216.19	77.06	30.97	-93.22	-4,134.07	498.55	4,123.83	4,032.94	90.89	45.372		
9,600.00	7,060.39	7,243.41	7,219.94	79.64	30.98	-93.30	-4,134.03	498.40	4,201.11	4,109.33	91.78	45.773		
9,700.00	7,060.16	7,247.17	7,223.69	82.23	31.00	-93.38	-4,133.99	498.25	4,279.32	4,186.68	92.64	46.193		
9,800.00	7,059.93	7,250.92	7,227.44	84.84	31.02	-93.46	-4,133.95	498.10	4,358.42	4,264.96	93.46	46.632		
9,900.00	7,059.70	7,254.67	7,231.19	87.47	31.03	-93.54	-4,133.91	497.95	4,438.36	4,344.11	94.26	47.088		
10,000.00	7,059.47	7,258.42	7,234.94	90.11	31.05	-93.62	-4,133.87	497.81	4,519.10	4,424.08	95.02	47.561		
10,100.00	7,059.24	7,262.18	7,238.69	92.76	31.06	-93.70	-4,133.83	497.66	4,600.59	4,504.84	95.75	48.049		
10,200.00	7,059.01	7,265.93	7,242.44	95.42	31.08	-93.79	-4,133.79	497.51	4,682.80	4,586.35	96.45	48.551		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.78	7,269.68	7,246.18	98.10	31.10	-93.87	-4,133.75	497.36	4,765.68	4,668.55	97.13	49.067		
10,400.00	7,058.55	7,273.44	7,249.93	100.79	31.11	-93.95	-4,133.71	497.21	4,849.21	4,751.43	97.78	49.595		
10,500.00	7,058.32	7,277.19	7,253.68	103.48	31.13	-94.03	-4,133.67	497.06	4,933.34	4,834.94	98.40	50.135		
10,600.00	7,058.09	7,280.94	7,257.43	106.19	31.15	-94.11	-4,133.63	496.91	5,018.06	4,919.05	99.00	50.687		
10,700.00	7,057.86	7,284.69	7,261.18	108.90	31.16	-94.19	-4,133.58	496.76	5,103.32	5,003.74	99.58	51.249		
10,800.00	7,057.63	7,288.45	7,264.93	111.62	31.18	-94.27	-4,133.54	496.61	5,189.11	5,088.97	100.14	51.820		
10,900.00	7,057.40	7,292.20	7,268.68	114.35	31.19	-94.35	-4,133.50	496.46	5,275.40	5,174.72	100.67	52.401		
11,000.00	7,057.17	7,295.95	7,272.43	117.08	31.21	-94.44	-4,133.46	496.31	5,362.16	5,260.97	101.19	52.991		
11,100.00	7,056.94	7,299.71	7,276.18	119.82	31.23	-94.52	-4,133.42	496.16	5,449.37	5,347.68	101.69	53.589		
11,200.00	7,056.71	7,303.46	7,279.93	122.56	31.24	-94.60	-4,133.38	496.01	5,537.01	5,434.84	102.17	54.194		
11,300.00	7,056.48	7,307.21	7,283.68	125.31	31.26	-94.68	-4,133.34	495.86	5,625.06	5,522.43	102.63	54.807		
11,400.00	7,056.25	7,310.96	7,287.43	128.06	31.27	-94.76	-4,133.30	495.71	5,713.50	5,610.42	103.08	55.426		
11,500.00	7,056.02	7,314.72	7,291.18	130.82	31.29	-94.84	-4,133.26	495.56	5,802.32	5,698.80	103.52	56.052		
11,600.00	7,055.79	7,318.47	7,294.93	133.59	31.31	-94.92	-4,133.22	495.41	5,891.49	5,787.55	103.94	56.684		
11,700.00	7,055.55	7,322.22	7,298.68	136.35	31.32	-95.00	-4,133.18	495.26	5,981.00	5,876.66	104.34	57.321		
11,800.00	7,055.32	7,325.98	7,302.43	139.12	31.34	-95.08	-4,133.14	495.11	6,070.84	5,966.10	104.73	57.964		
11,900.00	7,055.09	7,329.73	7,306.18	141.90	31.35	-95.16	-4,133.09	494.96	6,160.98	6,055.87	105.11	58.612		
12,000.00	7,054.86	7,333.48	7,309.93	144.67	31.37	-95.24	-4,133.05	494.81	6,251.43	6,145.95	105.48	59.265		
12,100.00	7,054.63	7,337.23	7,313.68	147.45	31.39	-95.33	-4,133.01	494.66	6,342.16	6,236.32	105.84	59.922		
12,200.00	7,054.40	7,340.99	7,317.43	150.24	31.40	-95.41	-4,132.97	494.51	6,433.16	6,326.97	106.19	60.584		
12,300.00	7,054.17	7,344.74	7,321.18	153.02	31.42	-95.49	-4,132.93	494.36	6,524.42	6,417.90	106.52	61.249		
12,400.00	7,053.94	7,348.49	7,324.93	155.81	31.43	-95.57	-4,132.89	494.21	6,615.94	6,509.09	106.85	61.918		
12,500.00	7,053.71	7,352.25	7,328.68	158.60	31.45	-95.65	-4,132.85	494.06	6,707.69	6,600.52	107.17	62.591		
12,600.00	7,053.48	7,356.00	7,332.43	161.40	31.47	-95.73	-4,132.81	493.91	6,799.68	6,692.20	107.48	63.267		
12,700.00	7,053.25	7,359.75	7,336.18	164.19	31.48	-95.81	-4,132.77	493.76	6,891.88	6,784.11	107.78	63.947		
12,800.00	7,053.02	7,363.50	7,339.93	166.99	31.50	-95.89	-4,132.73	493.61	6,984.30	6,876.23	108.07	64.629		
12,900.00	7,052.79	7,367.26	7,343.68	169.79	31.51	-95.97	-4,132.69	493.46	7,076.92	6,968.57	108.35	65.315		
13,000.00	7,052.56	7,371.01	7,347.43	172.59	31.53	-96.05	-4,132.65	493.31	7,169.74	7,061.11	108.63	66.002		
13,100.00	7,052.33	7,374.76	7,351.18	175.40	31.55	-96.13	-4,132.60	493.16	7,262.75	7,153.85	108.90	66.693		
13,200.00	7,052.10	7,378.52	7,354.93	178.20	31.56	-96.21	-4,132.56	493.01	7,355.94	7,246.78	109.16	67.386		
13,300.00	7,051.87	7,382.27	7,358.67	181.01	31.58	-96.29	-4,132.52	492.86	7,449.30	7,339.88	109.42	68.081		
13,400.00	7,051.64	7,386.02	7,362.42	183.82	31.59	-96.38	-4,132.48	492.71	7,542.83	7,433.16	109.67	68.778		
13,500.00	7,051.41	7,389.78	7,366.17	186.63	31.61	-96.46	-4,132.44	492.56	7,636.53	7,526.61	109.91	69.477		
13,600.00	7,051.18	7,393.53	7,369.92	189.44	31.63	-96.54	-4,132.40	492.41	7,730.38	7,620.22	110.15	70.178		
13,700.00	7,050.95	7,397.28	7,373.67	192.25	31.64	-96.62	-4,132.36	492.27	7,824.38	7,713.99	110.39	70.881		
13,800.00	7,050.72	7,401.03	7,377.42	195.07	31.66	-96.70	-4,132.32	492.12	7,918.52	7,807.91	110.62	71.585		
13,900.00	7,050.49	7,404.79	7,381.17	197.88	31.67	-96.78	-4,132.28	491.97	8,012.81	7,901.97	110.84	72.291		
14,000.00	7,050.26	7,408.54	7,384.92	200.70	31.69	-96.86	-4,132.24	491.82	8,107.23	7,996.17	111.06	72.999		
14,100.00	7,050.03	7,412.29	7,388.67	203.52	31.71	-96.94	-4,132.20	491.67	8,201.78	8,090.51	111.27	73.708		
14,200.00	7,049.80	7,416.05	7,392.42	206.34	31.72	-97.02	-4,132.16	491.52	8,296.46	8,184.97	111.48	74.418		
14,300.00	7,049.56	7,419.80	7,396.17	209.16	31.74	-97.10	-4,132.12	491.37	8,391.26	8,279.57	111.69	75.129		
14,400.00	7,049.33	7,423.55	7,399.92	211.98	31.76	-97.18	-4,132.07	491.22	8,486.18	8,374.28	111.89	75.841		
14,500.00	7,049.10	7,427.30	7,403.67	214.80	31.77	-97.26	-4,132.03	491.07	8,581.21	8,469.12	112.09	76.555		
14,600.00	7,048.87	7,431.05	7,407.42	217.63	31.79	-97.34	-4,132.00	490.92	8,676.40	8,564.24	112.29	77.269		
14,700.00	7,048.64	7,434.80	7,411.17	220.45	31.81	-97.42	-4,132.00	490.77	8,771.67	8,659.33	112.49	77.983		
14,800.00	7,048.41	7,438.55	7,414.92	223.28	31.83	-97.50	-4,132.00	490.62	8,867.03	8,754.52	112.69	78.697		
14,900.00	7,048.18	7,442.30	7,418.67	226.10	31.85	-97.58	-4,132.00	490.47	8,962.50	8,849.82	112.89	79.411		
14,979.18	7,048.00	7,446.05	7,422.42	228.93	31.87	-97.66	-4,132.00	490.32	9,058.16	8,945.48	113.09	80.125		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	23.87	-0.13	3.28	3.28	-24.41	2,542.88	-1,154.17	2,792.56					
100.00	100.00	121.85	97.85	3.28	3.29	-24.42	2,542.81	-1,154.38	2,792.58	2,786.00	6.58	424.462		
200.00	200.00	219.54	195.54	3.34	3.36	-24.42	2,542.98	-1,154.46	2,792.76	2,786.07	6.70	417.066		
300.00	299.98	329.22	305.22	3.44	3.49	149.51	2,542.97	-1,154.10	2,794.12	2,787.19	6.93	403.173		
400.00	399.84	420.64	396.64	3.59	3.64	149.51	2,543.06	-1,153.99	2,798.66	2,791.42	7.23	386.877		
500.00	499.45	528.94	504.94	3.79	3.87	149.54	2,542.99	-1,153.92	2,806.09	2,798.44	7.66	366.472		
600.00	598.70	635.41	611.41	4.03	4.13	149.57	2,542.83	-1,153.65	2,816.38	2,808.23	8.16	345.224		
700.00	697.47	740.41	716.41	4.31	4.41	149.62	2,542.27	-1,153.05	2,829.20	2,820.47	8.72	324.273		
800.00	795.62	835.93	811.92	4.64	4.70	149.65	2,541.98	-1,152.58	2,845.25	2,835.93	9.32	305.264		
900.00	893.16	942.48	918.47	5.00	5.03	149.81	2,541.34	-1,151.77	2,863.57	2,853.57	10.00	286.405		
1,000.00	990.60	1,032.40	1,008.38	5.38	5.33	150.02	2,540.86	-1,151.19	2,882.41	2,871.76	10.65	270.620		
1,100.00	1,088.04	1,125.45	1,101.43	5.79	5.65	150.24	2,540.56	-1,150.71	2,901.53	2,890.19	11.34	255.787		
1,200.00	1,185.48	1,226.50	1,202.48	6.22	6.01	150.47	2,540.20	-1,150.19	2,920.66	2,908.57	12.09	241.577		
1,300.00	1,282.92	1,322.92	1,298.90	6.66	6.36	150.69	2,539.77	-1,149.75	2,939.79	2,926.95	12.84	228.946		
1,400.00	1,380.36	1,415.31	1,391.28	7.10	6.70	150.90	2,539.57	-1,149.16	2,959.10	2,945.50	13.59	217.707		
1,500.00	1,477.80	1,515.61	1,491.58	7.56	7.08	151.12	2,539.39	-1,148.54	2,978.49	2,964.10	14.39	206.997		
1,600.00	1,575.24	1,620.23	1,596.20	8.03	7.48	151.35	2,538.87	-1,148.11	2,997.70	2,982.48	15.22	196.999		
1,700.00	1,672.68	1,713.26	1,689.22	8.50	7.84	151.53	2,538.19	-1,148.23	3,016.93	3,000.92	16.01	188.472		
1,800.00	1,770.12	1,801.53	1,777.50	8.98	8.18	151.71	2,537.72	-1,148.49	3,036.44	3,019.66	16.79	180.898		
1,900.00	1,867.56	1,918.43	1,894.39	9.46	8.64	151.94	2,536.83	-1,148.64	3,055.71	3,038.01	17.69	172.698		
2,000.00	1,965.00	2,003.89	1,979.85	9.95	8.98	152.10	2,536.07	-1,149.02	3,075.01	3,056.54	18.47	166.456		
2,100.00	2,062.44	2,104.19	2,080.15	10.44	9.38	152.28	2,535.31	-1,149.54	3,094.49	3,075.17	19.32	160.146		
2,200.00	2,159.88	2,214.10	2,190.05	10.93	9.83	152.48	2,534.29	-1,149.82	3,113.76	3,093.54	20.22	153.987		
2,300.00	2,257.32	2,302.35	2,278.30	11.42	10.18	152.64	2,533.45	-1,150.13	3,133.06	3,112.03	21.03	149.007		
2,400.00	2,354.76	2,403.21	2,379.15	11.92	10.59	152.82	2,532.45	-1,150.74	3,152.44	3,130.55	21.89	143.999		
2,500.00	2,452.20	2,497.82	2,473.75	12.42	10.98	152.98	2,531.42	-1,151.54	3,171.85	3,149.11	22.73	139.528		
2,600.00	2,549.64	2,591.90	2,567.82	12.92	11.36	153.13	2,530.45	-1,152.46	3,191.38	3,167.80	23.57	135.381		
2,700.00	2,647.08	2,680.08	2,655.99	13.42	11.72	153.28	2,529.75	-1,153.27	3,211.12	3,186.73	24.39	131.669		
2,800.00	2,744.52	2,765.60	2,741.51	13.93	12.08	153.42	2,529.38	-1,154.02	3,231.22	3,206.03	25.19	128.270		
2,900.00	2,841.96	2,860.79	2,836.69	14.43	12.47	153.57	2,529.22	-1,155.02	3,251.63	3,225.59	26.04	124.866		
3,000.00	2,939.40	2,960.04	2,935.94	14.94	12.88	153.73	2,528.95	-1,156.11	3,271.99	3,245.08	26.91	121.578		
3,100.00	3,036.84	3,057.16	3,033.04	15.44	13.28	153.88	2,528.52	-1,157.65	3,292.37	3,264.60	27.78	118.532		
3,200.00	3,134.28	3,150.20	3,126.08	15.95	13.66	154.01	2,528.15	-1,159.12	3,312.82	3,284.20	28.62	115.746		
3,300.00	3,231.72	3,240.89	3,216.74	16.46	14.04	154.14	2,527.87	-1,160.91	3,333.49	3,304.03	29.46	113.168		
3,400.00	3,329.16	3,333.89	3,309.72	16.97	14.43	154.26	2,527.63	-1,163.12	3,354.34	3,324.04	30.30	110.691		
3,500.00	3,426.60	3,432.72	3,408.52	17.48	14.84	154.39	2,527.40	-1,165.56	3,375.28	3,344.10	31.18	108.246		
3,600.00	3,524.04	3,533.14	3,508.91	17.99	15.26	154.51	2,527.08	-1,167.87	3,396.09	3,364.03	32.07	105.900		
3,700.00	3,621.48	3,645.25	3,620.99	18.50	15.73	154.66	2,526.74	-1,170.36	3,416.94	3,383.93	33.02	103.492		
3,800.00	3,718.92	3,777.18	3,752.87	19.01	16.29	154.82	2,524.90	-1,173.26	3,436.71	3,402.64	34.07	100.883		
3,900.00	3,816.36	3,880.23	3,855.89	19.52	16.72	154.94	2,523.01	-1,175.34	3,456.08	3,421.11	34.97	98.825		
4,000.00	3,913.80	3,977.59	3,953.21	20.03	17.13	155.05	2,521.17	-1,177.32	3,475.42	3,439.57	35.85	96.945		
4,100.00	4,011.24	4,077.25	4,052.83	20.55	17.55	155.17	2,519.25	-1,179.47	3,494.77	3,458.03	36.74	95.123		
4,200.00	4,108.68	4,177.21	4,152.74	21.06	17.97	155.28	2,517.26	-1,181.62	3,514.07	3,476.44	37.63	93.380		
4,300.00	4,206.12	4,277.77	4,253.26	21.57	18.39	155.39	2,515.21	-1,183.72	3,533.32	3,494.79	38.53	91.708		
4,400.00	4,303.56	4,374.95	4,350.41	22.09	18.80	155.50	2,513.19	-1,185.72	3,552.54	3,513.13	39.41	90.149		
4,500.00	4,401.00	4,474.02	4,449.43	22.60	19.22	155.61	2,511.14	-1,187.81	3,571.79	3,531.49	40.30	88.637		
4,600.00	4,498.44	4,573.84	4,549.20	23.11	19.64	155.72	2,508.98	-1,190.02	3,591.00	3,549.81	41.19	87.180		
4,700.00	4,595.88	4,670.07	4,645.38	23.63	20.05	155.82	2,506.88	-1,192.15	3,610.20	3,568.14	42.07	85.821		
4,800.00	4,693.32	4,764.23	4,739.48	24.14	20.53	155.94	2,504.27	-1,194.64	3,629.32	3,586.28	43.04	84.332		
4,900.00	4,790.76	4,869.02	4,844.22	24.66	20.98	156.04	2,501.46	-1,196.77	3,648.02	3,604.06	43.96	82.989		
5,000.00	4,888.20	4,961.07	4,936.22	25.17	21.37	156.14	2,499.00	-1,198.60	3,666.74	3,621.93	44.81	81.822		
5,100.00	4,985.64	5,073.54	5,048.64	25.69	21.76	156.23	2,496.73	-1,200.37	3,685.64	3,639.97	45.67	80.700		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,200.00	5,083.08	5,163.39	5,138.46	26.20	22.14	156.33	2,494.71	-1,202.00	3,704.72	3,658.21	46.51	79.646		
5,300.00	5,180.52	5,253.34	5,228.37	26.72	22.52	156.42	2,492.91	-1,203.64	3,724.04	3,676.68	47.36	78.635		
5,400.00	5,277.96	5,341.79	5,316.79	27.24	22.90	156.52	2,491.37	-1,205.11	3,743.58	3,695.39	48.19	77.678		
5,500.00	5,375.40	5,431.49	5,406.48	27.75	23.28	156.62	2,490.21	-1,206.16	3,763.41	3,714.38	49.03	76.750		
5,600.00	5,472.84	5,526.70	5,501.68	28.27	23.68	156.73	2,489.08	-1,207.23	3,783.33	3,733.43	49.91	75.810		
5,700.00	5,570.28	5,614.03	5,588.99	28.79	24.05	156.83	2,488.16	-1,208.33	3,803.44	3,752.71	50.73	74.970		
5,800.00	5,667.72	5,694.13	5,669.09	29.30	24.39	156.93	2,487.69	-1,209.17	3,823.94	3,772.42	51.52	74.224		
5,900.00	5,765.16	5,824.63	5,799.59	29.82	24.95	157.09	2,486.94	-1,209.37	3,844.20	3,791.62	52.58	73.106		
6,000.00	5,862.60	5,925.24	5,900.19	30.34	25.37	157.23	2,486.03	-1,209.17	3,864.10	3,810.61	53.48	72.247		
6,100.00	5,960.05	6,091.44	6,066.36	30.85	26.08	157.46	2,483.97	-1,207.19	3,883.64	3,828.91	54.74	70.949		
6,200.00	6,057.49	6,199.51	6,174.38	31.37	26.54	157.63	2,481.38	-1,204.70	3,901.60	3,845.92	55.68	70.073		
6,300.00	6,154.93	6,375.17	6,349.82	31.89	27.29	157.90	2,474.88	-1,199.24	3,917.81	3,860.85	56.96	68.776		
6,400.00	6,252.37	6,437.64	6,412.23	32.40	27.55	157.99	2,472.21	-1,197.86	3,934.15	3,876.48	57.67	68.213		
6,500.00	6,349.81	6,500.00	6,474.55	32.92	27.82	158.07	2,470.26	-1,197.16	3,951.71	3,893.33	58.38	67.692		
6,600.00	6,447.25	6,545.27	6,519.80	33.44	28.01	158.12	2,469.29	-1,196.97	3,970.32	3,911.34	58.98	67.314		
6,700.00	6,544.28	6,606.44	6,580.97	33.95	28.27	128.14	2,468.45	-1,196.92	3,988.34	3,928.68	59.67	66.844		
6,800.00	6,638.86	6,691.05	6,665.57	34.44	28.63	108.49	2,467.71	-1,197.11	4,002.59	3,942.12	60.47	66.191		
6,900.00	6,728.65	6,768.42	6,742.94	34.89	28.96	98.49	2,467.19	-1,197.53	4,012.68	3,951.47	61.21	65.552		
7,000.00	6,811.45	6,830.56	6,805.08	35.29	29.23	93.04	2,466.94	-1,198.09	4,018.84	3,956.97	61.86	64.963		
7,100.00	6,885.21	6,879.70	6,854.21	35.66	29.43	89.97	2,467.04	-1,198.71	4,021.53	3,959.07	62.46	64.386		
7,200.00	6,948.11	6,935.89	6,910.40	35.99	29.67	88.52	2,467.40	-1,199.56	4,021.03	3,957.86	63.17	63.654		
7,300.00	6,998.62	6,991.63	6,966.13	36.30	29.91	88.12	2,467.75	-1,200.33	4,017.51	3,953.50	64.00	62.770		
7,400.00	7,035.48	7,028.87	7,003.37	36.65	30.07	88.27	2,467.97	-1,200.81	4,011.54	3,946.64	64.89	61.818		
7,500.00	7,057.79	7,051.33	7,025.83	37.13	30.16	88.79	2,468.11	-1,201.10	4,003.68	3,937.80	65.88	60.771		
7,600.00	7,065.00	7,059.41	7,033.91	37.84	30.20	89.56	2,468.16	-1,201.20	3,994.38	3,927.42	66.96	59.650		
7,700.00	7,064.77	7,060.41	7,034.90	38.82	30.20	89.58	2,468.17	-1,201.21	3,985.76	3,917.59	68.17	58.466		
7,800.00	7,064.54	7,061.40	7,035.90	40.06	30.20	89.59	2,468.18	-1,201.23	3,979.64	3,910.10	69.54	57.231		
7,900.00	7,064.31	7,062.40	7,036.90	41.52	30.21	89.61	2,468.18	-1,201.24	3,976.02	3,904.98	71.04	55.970		
7,994.01	7,064.09	7,063.34	7,037.83	43.04	30.21	89.62	2,468.19	-1,201.25	3,974.90	3,902.34	72.56	54.780		
8,000.00	7,064.08	7,063.39	7,037.89	43.14	30.21	89.62	2,468.19	-1,201.25	3,974.91	3,902.25	72.66	54.707		
8,100.00	7,063.85	7,064.39	7,038.88	44.90	30.22	89.64	2,468.20	-1,201.26	3,976.32	3,901.94	74.38	53.460		
8,200.00	7,063.62	7,065.38	7,039.88	46.78	30.22	89.65	2,468.20	-1,201.28	3,980.24	3,904.06	76.18	52.246		
8,300.00	7,063.39	7,066.38	7,040.87	48.76	30.23	89.67	2,468.21	-1,201.29	3,986.66	3,908.61	78.05	51.077		
8,400.00	7,063.16	7,067.37	7,041.87	50.83	30.23	89.68	2,468.22	-1,201.30	3,995.58	3,915.61	79.97	49.962		
8,500.00	7,062.93	7,068.36	7,042.86	52.97	30.23	89.69	2,468.22	-1,201.32	4,006.98	3,925.05	81.93	48.907		
8,600.00	7,062.70	7,069.36	7,043.85	55.18	30.24	89.71	2,468.23	-1,201.33	4,020.83	3,936.92	83.91	47.917		
8,700.00	7,062.47	7,070.35	7,044.84	57.46	30.24	89.72	2,468.24	-1,201.34	4,037.11	3,951.20	85.91	46.994		
8,800.00	7,062.24	7,071.34	7,045.83	59.78	30.25	89.74	2,468.24	-1,201.35	4,055.79	3,967.88	87.90	46.138		
8,900.00	7,062.01	7,072.33	7,046.82	62.14	30.25	89.75	2,468.25	-1,201.37	4,076.84	3,986.94	89.90	45.350		
9,000.00	7,061.78	7,073.32	7,047.81	64.55	30.25	89.77	2,468.26	-1,201.38	4,100.22	4,008.34	91.87	44.628		
9,100.00	7,061.55	7,074.31	7,048.81	67.00	30.26	89.78	2,468.26	-1,201.39	4,125.89	4,032.06	93.83	43.971		
9,200.00	7,061.31	7,075.30	7,049.79	69.47	30.26	89.79	2,468.27	-1,201.40	4,153.81	4,058.05	95.76	43.376		
9,300.00	7,061.08	7,076.29	7,050.78	71.98	30.27	89.81	2,468.28	-1,201.42	4,183.93	4,086.27	97.66	42.842		
9,400.00	7,060.85	7,077.28	7,051.77	74.51	30.27	89.82	2,468.28	-1,201.43	4,216.22	4,116.69	99.52	42.364		
9,500.00	7,060.62	7,078.27	7,052.76	77.06	30.28	89.84	2,468.29	-1,201.44	4,250.60	4,149.26	101.34	41.942		
9,600.00	7,060.39	7,079.26	7,053.75	79.64	30.28	89.85	2,468.30	-1,201.45	4,287.05	4,183.93	103.12	41.572		
9,700.00	7,060.16	7,080.24	7,054.74	82.23	30.28	89.87	2,468.30	-1,201.47	4,325.50	4,220.65	104.86	41.252		
9,800.00	7,059.93	7,081.23	7,055.72	84.84	30.29	89.88	2,468.31	-1,201.48	4,365.91	4,259.36	106.54	40.978		
9,900.00	7,059.70	7,082.22	7,056.71	87.47	30.29	89.89	2,468.32	-1,201.49	4,408.21	4,300.03	108.18	40.749		
10,000.00	7,059.47	7,083.20	7,057.70	90.11	30.30	89.91	2,468.32	-1,201.50	4,452.35	4,342.59	109.77	40.563		
10,100.00	7,059.24	7,084.19	7,058.68	92.76	30.30	89.92	2,468.33	-1,201.52	4,498.29	4,386.99	111.30	40.415		
10,200.00	7,059.01	7,085.17	7,059.67	95.42	30.31	89.94	2,468.34	-1,201.53	4,545.96	4,433.17	112.79	40.306		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,300.00	7,058.78	7,086.16	7,060.65	98.10	30.31	89.95	2,468.34	-1,201.54	4,595.31	4,481.09	114.22	40.232		
10,400.00	7,058.55	7,087.14	7,061.64	100.79	30.31	89.96	2,468.35	-1,201.55	4,646.30	4,530.69	115.60	40.191		
10,500.00	7,058.32	7,088.13	7,062.62	103.48	30.32	89.98	2,468.36	-1,201.57	4,698.85	4,581.91	116.94	40.182 SF		
10,600.00	7,058.09	7,089.11	7,063.61	106.19	30.32	89.99	2,468.36	-1,201.58	4,752.93	4,634.71	118.22	40.203		
10,700.00	7,057.86	7,090.10	7,064.59	108.90	30.33	90.01	2,468.37	-1,201.59	4,808.48	4,689.02	119.46	40.252		
10,800.00	7,057.63	7,091.08	7,065.57	111.62	30.33	90.02	2,468.38	-1,201.60	4,865.45	4,744.81	120.65	40.328		
10,900.00	7,057.40	7,092.06	7,066.55	114.35	30.33	90.04	2,468.38	-1,201.62	4,923.80	4,802.01	121.79	40.429		
11,000.00	7,057.17	7,093.04	7,067.54	117.08	30.34	90.05	2,468.39	-1,201.63	4,983.46	4,860.58	122.88	40.554		
11,100.00	7,056.94	7,094.03	7,068.52	119.82	30.34	90.06	2,468.40	-1,201.64	5,044.41	4,920.47	123.94	40.701		
11,200.00	7,056.71	7,095.01	7,069.50	122.56	30.35	90.08	2,468.40	-1,201.65	5,106.58	4,981.63	124.95	40.870		
11,300.00	7,056.48	7,095.99	7,070.48	125.31	30.35	90.09	2,468.41	-1,201.67	5,169.94	5,044.03	125.92	41.059		
11,400.00	7,056.25	7,096.97	7,071.46	128.06	30.36	90.11	2,468.42	-1,201.68	5,234.45	5,107.60	126.84	41.267		
11,500.00	7,056.02	7,097.95	7,072.44	130.82	30.36	90.12	2,468.42	-1,201.69	5,300.05	5,172.32	127.74	41.492		
11,600.00	7,055.79	7,098.93	7,073.42	133.59	30.36	90.13	2,468.43	-1,201.70	5,366.72	5,238.13	128.59	41.736		
11,700.00	7,055.55	7,099.91	7,074.40	136.35	30.37	90.15	2,468.44	-1,201.72	5,434.41	5,305.00	129.41	41.995		
11,800.00	7,055.32	7,100.89	7,075.38	139.12	30.37	90.16	2,468.44	-1,201.73	5,503.08	5,372.90	130.19	42.270		
11,900.00	7,055.09	7,101.86	7,076.36	141.90	30.38	90.18	2,468.45	-1,201.74	5,572.71	5,441.77	130.94	42.559		
12,000.00	7,054.86	7,102.84	7,077.33	144.67	30.38	90.19	2,468.46	-1,201.75	5,643.24	5,511.58	131.66	42.863		
12,100.00	7,054.63	7,103.82	7,078.31	147.45	30.38	90.20	2,468.46	-1,201.77	5,714.66	5,582.31	132.35	43.179		
12,200.00	7,054.40	7,104.80	7,079.29	150.24	30.39	90.22	2,468.47	-1,201.78	5,786.92	5,653.91	133.01	43.509		
12,300.00	7,054.17	7,105.77	7,080.27	153.02	30.39	90.23	2,468.48	-1,201.79	5,859.99	5,726.36	133.64	43.850		
12,400.00	7,053.94	7,105.55	7,080.04	155.81	30.39	90.23	2,468.48	-1,201.79	5,933.85	5,799.62	134.24	44.205		
12,500.00	7,053.71	7,106.33	7,080.82	158.60	30.39	90.24	2,468.48	-1,201.80	6,008.47	5,873.66	134.81	44.568		
12,600.00	7,053.48	7,107.11	7,081.60	161.40	30.40	90.25	2,468.49	-1,201.81	6,083.82	5,948.45	135.37	44.943		
12,700.00	7,053.25	7,107.87	7,082.36	164.19	30.40	90.26	2,468.49	-1,201.82	6,159.87	6,023.97	135.90	45.327		
12,800.00	7,053.02	7,108.64	7,083.13	166.99	30.40	90.27	2,468.50	-1,201.83	6,236.59	6,100.18	136.41	45.720		
12,900.00	7,052.79	7,109.39	7,083.88	169.79	30.41	90.29	2,468.50	-1,201.83	6,313.97	6,177.07	136.90	46.122		
13,000.00	7,052.56	7,110.14	7,084.63	172.59	30.41	90.30	2,468.51	-1,201.84	6,391.97	6,254.61	137.36	46.533		
13,100.00	7,052.33	7,110.89	7,085.38	175.40	30.41	90.31	2,468.52	-1,201.85	6,470.58	6,332.77	137.81	46.952		
13,200.00	7,052.10	7,111.63	7,086.12	178.20	30.42	90.32	2,468.52	-1,201.86	6,549.77	6,411.53	138.24	47.379		
13,300.00	7,051.87	7,112.36	7,086.85	181.01	30.42	90.33	2,468.53	-1,201.87	6,629.52	6,490.87	138.65	47.813		
13,400.00	7,051.64	7,113.09	7,087.58	183.82	30.42	90.34	2,468.53	-1,201.88	6,709.82	6,570.77	139.05	48.255		
13,500.00	7,051.41	7,113.81	7,088.30	186.63	30.43	90.35	2,468.54	-1,201.89	6,790.64	6,651.21	139.43	48.703		
13,600.00	7,051.18	7,114.53	7,089.02	189.44	30.43	90.36	2,468.54	-1,201.90	6,871.96	6,732.17	139.79	49.158		
13,700.00	7,050.95	7,115.24	7,089.73	192.25	30.43	90.37	2,468.55	-1,201.91	6,953.77	6,813.63	140.14	49.619		
13,800.00	7,050.72	7,115.95	7,090.44	195.07	30.44	90.38	2,468.55	-1,201.91	7,036.05	6,895.57	140.48	50.086		
13,900.00	7,050.49	7,116.65	7,091.14	197.88	30.44	90.39	2,468.56	-1,201.92	7,118.79	6,977.98	140.80	50.559		
14,000.00	7,050.26	7,117.35	7,091.84	200.70	30.44	90.40	2,468.56	-1,201.93	7,201.96	7,060.85	141.11	51.037		
14,100.00	7,050.03	7,118.04	7,092.53	203.52	30.44	90.41	2,468.57	-1,201.94	7,285.55	7,144.14	141.41	51.520		
14,200.00	7,049.80	7,118.73	7,093.22	206.34	30.45	90.42	2,468.57	-1,201.95	7,369.56	7,227.86	141.70	52.009		
14,300.00	7,049.56	7,119.41	7,093.90	209.16	30.45	90.43	2,468.58	-1,201.95	7,453.96	7,311.98	141.97	52.502		
14,400.00	7,049.33	7,120.09	7,094.58	211.98	30.45	90.44	2,468.58	-1,201.96	7,538.74	7,396.50	142.24	53.000		
14,500.00	7,049.10	7,120.76	7,095.25	214.80	30.46	90.45	2,468.59	-1,201.97	7,623.89	7,481.39	142.50	53.503		
14,600.00	7,048.87	7,121.43	7,095.92	217.63	30.46	90.46	2,468.59	-1,201.98	7,709.39	7,566.65	142.74	54.009		
14,700.00	7,048.64	7,122.09	7,096.58	220.45	30.46	90.47	2,468.60	-1,201.99	7,795.24	7,652.26	142.98	54.520		
14,800.00	7,048.41	7,122.75	7,097.24	223.28	30.46	90.48	2,468.60	-1,201.99	7,881.43	7,738.22	143.21	55.035		
14,900.00	7,048.18	7,123.40	7,097.89	226.10	30.47	90.49	2,468.61	-1,202.00	7,967.93	7,824.50	143.43	55.553		
14,979.18	7,048.00	7,123.92	7,098.41	228.34	30.47	90.49	2,468.61	-1,202.01	8,036.65	7,893.05	143.60	55.966		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
0.00	0.00	0.00	20.00	3.28	3.28	-62.54	1,125.08	-2,164.67	2,439.67					
100.00	100.00	80.00	100.00	3.28	3.56	-62.54	1,125.08	-2,164.67	2,439.59	2,432.74	6.85	356.166		
200.00	200.00	180.00	200.00	3.34	5.60	-62.54	1,125.08	-2,164.67	2,439.59	2,430.65	8.94	272.990	CC	
300.00	299.98	279.98	299.98	3.44	8.67	111.40	1,125.08	-2,164.67	2,440.22	2,428.11	12.11	201.469		
400.00	399.84	379.84	399.84	3.59	11.97	111.48	1,125.08	-2,164.67	2,442.14	2,426.58	15.56	156.934		
500.00	499.45	479.45	499.45	3.79	15.35	111.61	1,125.08	-2,164.67	2,445.35	2,426.22	19.13	127.802		
600.00	598.70	578.70	598.70	4.03	18.75	111.79	1,125.08	-2,164.67	2,449.89	2,427.11	22.78	107.564		
700.00	697.47	677.47	697.47	4.31	22.15	112.02	1,125.08	-2,164.67	2,455.79	2,429.32	26.46	92.801		
800.00	795.62	775.62	795.62	4.64	25.54	112.28	1,125.08	-2,164.67	2,463.10	2,432.92	30.18	81.617		
900.00	893.16	873.16	893.16	5.00	28.92	112.67	1,125.08	-2,164.67	2,471.71	2,437.79	33.91	72.882		
1,000.00	990.60	970.60	990.60	5.38	32.31	113.14	1,125.08	-2,164.67	2,480.65	2,442.97	37.68	65.842		
1,100.00	1,088.04	1,068.04	1,088.04	5.79	35.69	113.61	1,125.08	-2,164.67	2,489.76	2,448.30	41.46	60.049		
1,200.00	1,185.48	1,165.48	1,185.48	6.22	39.08	114.07	1,125.08	-2,164.67	2,499.05	2,453.78	45.27	55.208		
1,300.00	1,282.92	1,262.92	1,282.92	6.66	42.47	114.53	1,125.08	-2,164.67	2,508.50	2,459.41	49.09	51.104		
1,400.00	1,380.36	1,360.36	1,380.36	7.10	45.86	114.98	1,125.08	-2,164.67	2,518.11	2,465.20	52.92	47.586		
1,500.00	1,477.80	1,457.80	1,477.80	7.56	49.26	115.43	1,125.08	-2,164.67	2,527.89	2,471.14	56.76	44.538		
1,600.00	1,575.24	1,555.24	1,575.24	8.03	52.65	115.88	1,125.08	-2,164.67	2,537.84	2,477.23	60.61	41.874		
1,700.00	1,672.68	1,652.68	1,672.68	8.50	56.05	116.33	1,125.08	-2,164.67	2,547.94	2,483.47	64.46	39.526		
1,800.00	1,770.12	1,750.12	1,770.12	8.98	59.44	116.77	1,125.08	-2,164.67	2,558.19	2,489.87	68.32	37.443		
1,900.00	1,867.56	1,847.56	1,867.56	9.46	62.84	117.21	1,125.08	-2,164.67	2,568.61	2,496.42	72.19	35.582		
2,000.00	1,965.00	1,945.00	1,965.00	9.95	66.24	117.64	1,125.08	-2,164.67	2,579.18	2,503.12	76.06	33.911		
2,100.00	2,062.44	2,042.44	2,062.44	10.44	69.63	118.08	1,125.08	-2,164.67	2,589.90	2,509.97	79.93	32.403		
2,200.00	2,159.88	2,139.88	2,159.88	10.93	73.03	118.50	1,125.08	-2,164.67	2,600.77	2,516.96	83.80	31.034		
2,300.00	2,257.32	2,237.32	2,257.32	11.42	76.43	118.93	1,125.08	-2,164.67	2,611.78	2,524.11	87.68	29.788		
2,400.00	2,354.76	2,334.76	2,354.76	11.92	79.83	119.35	1,125.08	-2,164.67	2,622.95	2,531.39	91.56	28.648		
2,500.00	2,452.20	2,432.20	2,452.20	12.42	83.23	119.77	1,125.08	-2,164.67	2,634.26	2,538.82	95.44	27.602		
2,600.00	2,549.64	2,529.64	2,549.64	12.92	86.63	120.18	1,125.08	-2,164.67	2,645.71	2,546.39	99.32	26.639		
2,700.00	2,647.08	2,627.08	2,647.08	13.42	90.03	120.59	1,125.08	-2,164.67	2,657.30	2,554.10	103.20	25.749		
2,800.00	2,744.52	2,724.52	2,744.52	13.93	93.43	121.00	1,125.08	-2,164.67	2,669.04	2,561.95	107.08	24.925		
2,900.00	2,841.96	2,821.96	2,841.96	14.43	96.82	121.41	1,125.08	-2,164.67	2,680.91	2,569.94	110.97	24.159		
3,000.00	2,939.40	2,919.40	2,939.40	14.94	100.22	121.81	1,125.08	-2,164.67	2,692.91	2,578.06	114.85	23.447		
3,100.00	3,036.84	3,016.84	3,036.84	15.44	103.62	122.20	1,125.08	-2,164.67	2,705.05	2,586.31	118.74	22.782		
3,200.00	3,134.28	3,114.28	3,134.28	15.95	107.02	122.60	1,125.08	-2,164.67	2,717.32	2,594.70	122.62	22.160		
3,300.00	3,231.72	3,211.72	3,231.72	16.46	110.42	122.99	1,125.08	-2,164.67	2,729.72	2,603.21	126.51	21.578		
3,400.00	3,329.16	3,309.16	3,329.16	16.97	113.82	123.38	1,125.08	-2,164.67	2,742.25	2,611.85	130.39	21.031		
3,500.00	3,426.60	3,406.60	3,426.60	17.48	117.23	123.76	1,125.08	-2,164.67	2,754.90	2,620.62	134.28	20.516		
3,600.00	3,524.04	3,504.04	3,524.04	17.99	120.63	124.14	1,125.08	-2,164.67	2,767.68	2,629.52	138.16	20.032		
3,700.00	3,621.48	3,601.48	3,621.48	18.50	124.03	124.52	1,125.08	-2,164.67	2,780.58	2,638.53	142.05	19.575		
3,800.00	3,718.92	3,701.08	3,718.92	19.01	127.50	124.89	1,125.08	-2,164.67	2,793.61	2,647.59	146.01	19.133		
3,900.00	3,816.36	3,803.64	3,816.36	19.52	131.08	125.26	1,125.08	-2,164.67	2,806.75	2,656.67	150.08	18.702		
4,000.00	3,913.80	3,906.20	3,913.80	20.03	134.66	125.63	1,125.08	-2,164.67	2,820.01	2,665.87	154.14	18.295		
4,100.00	4,011.24	4,008.76	4,011.24	20.55	138.24	125.99	1,125.08	-2,164.67	2,833.39	2,675.18	158.20	17.910		
4,200.00	4,108.68	4,088.68	4,108.68	21.06	141.03	126.35	1,125.08	-2,164.67	2,846.88	2,685.40	161.48	17.630		
4,300.00	4,206.12	4,186.12	4,206.12	21.57	144.43	126.71	1,125.08	-2,164.67	2,860.49	2,695.12	165.36	17.298		
4,400.00	4,303.56	4,283.56	4,303.56	22.09	147.83	127.06	1,125.08	-2,164.67	2,874.20	2,704.95	169.25	16.982		
4,500.00	4,401.00	4,381.00	4,401.00	22.60	151.23	127.41	1,125.08	-2,164.67	2,888.03	2,714.89	173.13	16.681		
4,600.00	4,498.44	4,478.44	4,498.44	23.11	154.63	127.76	1,125.08	-2,164.67	2,901.96	2,724.94	177.02	16.393		
4,700.00	4,595.88	4,575.88	4,595.88	23.63	158.03	128.10	1,125.08	-2,164.67	2,916.01	2,735.10	180.90	16.119		
4,800.00	4,693.32	4,673.32	4,693.32	24.14	161.43	128.44	1,125.08	-2,164.67	2,930.15	2,745.36	184.79	15.857		
4,900.00	4,790.76	4,770.76	4,790.76	24.66	164.83	128.78	1,125.08	-2,164.67	2,944.40	2,755.73	188.67	15.606		
5,000.00	4,888.20	4,868.20	4,888.20	25.17	168.24	129.11	1,125.08	-2,164.67	2,958.76	2,766.20	192.56	15.366		
5,100.00	4,985.64	4,965.64	4,985.64	25.69	171.64	129.44	1,125.08	-2,164.67	2,973.21	2,776.77	196.44	15.135		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,200.00	5,083.08	5,063.08	5,083.08	26.20	175.04	129.77	1,125.08	-2,164.67	2,987.76	2,787.44	200.32	14.915		
5,300.00	5,180.52	5,160.52	5,180.52	26.72	178.44	130.10	1,125.08	-2,164.67	3,002.41	2,798.21	204.21	14.703		
5,400.00	5,277.96	5,257.96	5,277.96	27.24	181.84	130.42	1,125.08	-2,164.67	3,017.16	2,809.07	208.09	14.499		
5,500.00	5,375.40	5,355.40	5,375.40	27.75	185.24	130.74	1,125.08	-2,164.67	3,032.00	2,820.03	211.97	14.304		
5,600.00	5,472.84	5,452.84	5,472.84	28.27	188.64	131.05	1,125.08	-2,164.67	3,046.94	2,831.08	215.85	14.116		
5,700.00	5,570.28	5,550.28	5,570.28	28.79	192.04	131.37	1,125.08	-2,164.67	3,061.97	2,842.23	219.74	13.935		
5,800.00	5,667.72	5,647.72	5,667.72	29.30	195.44	131.68	1,125.08	-2,164.67	3,077.08	2,853.47	223.62	13.760		
5,900.00	5,765.16	5,745.16	5,765.16	29.82	198.85	131.98	1,125.08	-2,164.67	3,092.29	2,864.79	227.50	13.593		
6,000.00	5,862.60	5,842.60	5,862.60	30.34	202.25	132.29	1,125.08	-2,164.67	3,107.59	2,876.21	231.38	13.431		
6,100.00	5,960.05	5,940.05	5,960.05	30.85	205.65	132.59	1,125.08	-2,164.67	3,122.97	2,887.71	235.26	13.274		
6,200.00	6,057.49	6,037.49	6,057.49	31.37	209.05	132.89	1,125.08	-2,164.67	3,138.44	2,899.30	239.14	13.124		
6,300.00	6,154.93	6,134.93	6,154.93	31.89	212.45	133.18	1,125.08	-2,164.67	3,153.99	2,910.97	243.02	12.978		
6,400.00	6,252.37	6,232.37	6,252.37	32.40	215.85	133.47	1,125.08	-2,164.67	3,169.63	2,922.73	246.90	12.838		
6,500.00	6,349.81	6,329.81	6,349.81	32.92	219.25	133.76	1,125.08	-2,164.67	3,185.35	2,934.57	250.78	12.702		
6,600.00	6,447.25	6,427.25	6,447.25	33.44	222.65	134.05	1,125.08	-2,164.67	3,201.15	2,946.48	254.66	12.570		
6,700.00	6,544.28	6,524.28	6,544.28	33.95	226.04	134.34	1,125.08	-2,164.67	3,217.00	2,958.44	258.53	12.429		
6,800.00	6,638.86	6,618.86	6,638.86	34.44	229.34	134.63	1,125.08	-2,164.67	3,232.99	2,970.46	262.39	12.260		
6,900.00	6,728.65	6,708.65	6,728.65	34.89	232.48	134.92	1,125.08	-2,164.67	3,249.12	2,982.54	266.24	12.069		
7,000.00	6,811.45	6,791.45	6,811.45	35.29	235.96	135.21	1,125.08	-2,164.67	3,265.30	2,994.64	270.09	11.834		
7,100.00	6,885.21	6,865.21	6,885.21	35.66	237.94	135.50	1,125.08	-2,164.67	3,281.50	3,006.78	273.94	11.642		
7,200.00	6,948.11	6,928.11	6,948.11	35.99	240.14	135.79	1,125.08	-2,164.67	3,297.74	3,018.96	277.79	11.416		
7,300.00	6,998.62	6,978.62	6,998.62	36.30	241.90	136.08	1,125.08	-2,164.67	3,314.00	3,031.19	281.64	11.189		
7,400.00	7,035.48	7,015.48	7,035.48	36.65	243.19	136.37	1,125.08	-2,164.67	3,330.29	3,043.46	285.49	10.963		
7,500.00	7,057.79	7,037.79	7,057.79	37.13	243.97	136.66	1,125.08	-2,164.67	3,346.60	3,055.76	289.34	10.745		
7,600.00	7,065.00	7,045.00	7,065.00	37.84	244.22	136.95	1,125.08	-2,164.67	3,362.94	3,068.09	293.19	10.537		
7,700.00	7,064.77	7,044.77	7,064.77	38.82	244.21	137.24	1,125.08	-2,164.67	3,379.30	3,080.45	297.04	10.338		
7,800.00	7,064.54	7,044.54	7,064.54	40.06	244.20	137.53	1,125.08	-2,164.67	3,395.68	3,092.83	300.89	10.144		
7,900.00	7,064.31	7,044.31	7,064.31	41.52	244.19	137.82	1,125.08	-2,164.67	3,412.08	3,105.23	304.74	9.956		
8,000.00	7,064.08	7,044.08	7,064.08	43.14	244.19	138.11	1,125.08	-2,164.67	3,428.49	3,117.65	308.59	9.776		
8,100.00	7,063.85	7,043.85	7,063.85	44.90	244.18	138.40	1,125.08	-2,164.67	3,444.91	3,130.08	312.44	9.603		
8,200.00	7,063.62	7,043.62	7,063.62	46.78	244.17	138.69	1,125.08	-2,164.67	3,461.34	3,142.53	316.29	9.440		
8,300.00	7,063.39	7,043.39	7,063.39	48.76	244.16	138.98	1,125.08	-2,164.67	3,477.78	3,155.00	320.14	9.287		
8,400.00	7,063.16	7,043.16	7,063.16	50.83	244.15	139.27	1,125.08	-2,164.67	3,494.23	3,167.48	323.99	9.145		
8,500.00	7,062.93	7,042.93	7,062.93	52.97	244.15	139.56	1,125.08	-2,164.67	3,510.68	3,180.00	327.84	9.014		
8,600.00	7,062.70	7,042.70	7,062.70	55.18	244.14	139.85	1,125.08	-2,164.67	3,527.14	3,192.54	331.69	8.896		
8,700.00	7,062.47	7,042.47	7,062.47	57.46	244.13	140.14	1,125.08	-2,164.67	3,543.60	3,205.10	335.54	8.791		
8,800.00	7,062.24	7,042.24	7,062.24	59.78	244.12	140.43	1,125.08	-2,164.67	3,560.07	3,217.68	339.39	8.699		
8,900.00	7,062.01	7,042.01	7,062.01	62.14	244.11	140.72	1,125.08	-2,164.67	3,576.54	3,230.28	343.24	8.620		
8,965.39	7,061.86	7,041.86	7,061.86	63.72	244.11	141.01	1,125.08	-2,164.67	3,593.02	3,242.90	347.09	8.577		
9,000.00	7,061.78	7,041.78	7,061.78	64.55	244.11	141.30	1,125.08	-2,164.67	3,609.50	3,255.54	350.94	8.556 ES		
9,100.00	7,061.55	7,041.55	7,061.55	67.00	244.10	141.59	1,125.08	-2,164.67	3,626.00	3,268.20	354.79	8.506		
9,200.00	7,061.31	7,041.31	7,061.31	69.47	244.09	141.88	1,125.08	-2,164.67	3,642.50	3,280.88	358.64	8.470		
9,300.00	7,061.08	7,041.08	7,061.08	71.98	244.08	142.17	1,125.08	-2,164.67	3,659.02	3,293.58	362.49	8.448		
9,400.00	7,060.85	7,040.85	7,060.85	74.51	244.07	142.46	1,125.08	-2,164.67	3,675.54	3,306.30	366.34	8.440 SF		
9,500.00	7,060.62	7,040.62	7,060.62	77.06	244.07	142.75	1,125.08	-2,164.67	3,692.07	3,319.04	370.19	8.446		
9,600.00	7,060.39	7,040.39	7,060.39	79.64	244.06	143.04	1,125.08	-2,164.67	3,708.60	3,331.80	374.04	8.465		
9,700.00	7,060.16	7,040.16	7,060.16	82.23	244.05	143.33	1,125.08	-2,164.67	3,725.14	3,344.58	377.89	8.498		
9,800.00	7,059.93	7,039.93	7,059.93	84.84	244.04	143.62	1,125.08	-2,164.67	3,741.68	3,357.38	381.74	8.543		
9,900.00	7,059.70	7,039.70	7,059.70	87.47	244.03	143.91	1,125.08	-2,164.67	3,758.23	3,370.20	385.59	8.601		
10,000.00	7,059.47	7,039.47	7,059.47	90.11	244.02	144.20	1,125.08	-2,164.67	3,774.78	3,383.04	389.44	8.670		
10,100.00	7,059.24	7,039.24	7,059.24	92.76	244.02	144.49	1,125.08	-2,164.67	3,791.34	3,395.90	393.29	8.751		
10,200.00	7,059.01	7,039.01	7,059.01	95.42	244.01	144.78	1,125.08	-2,164.67	3,807.90	3,408.78	397.14	8.843		

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 12N-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 12N-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	7,058.78	7,038.78	7,058.78	98.10	244.00	89.93	1,125.08	-2,164.67	2,955.94	2,625.52	330.43	8.946		
10,400.00	7,058.55	7,038.55	7,058.55	100.79	243.99	89.93	1,125.08	-2,164.67	3,002.42	2,670.97	331.45	9.058		
10,500.00	7,058.32	7,038.32	7,058.32	103.48	243.98	89.92	1,125.08	-2,164.67	3,051.46	2,719.08	332.38	9.181		
10,600.00	7,058.09	7,038.09	7,058.09	106.19	243.98	89.92	1,125.08	-2,164.67	3,102.96	2,769.73	333.23	9.312		
10,700.00	7,057.86	7,037.86	7,057.86	108.90	243.97	89.91	1,125.08	-2,164.67	3,156.78	2,822.79	333.99	9.452		
10,800.00	7,057.63	7,037.63	7,057.63	111.62	243.96	89.91	1,125.08	-2,164.67	3,212.82	2,878.14	334.68	9.600		
10,900.00	7,057.40	7,037.40	7,057.40	114.35	243.95	89.90	1,125.08	-2,164.67	3,270.95	2,935.66	335.29	9.756		
11,000.00	7,057.17	7,037.17	7,057.17	117.08	243.94	89.90	1,125.08	-2,164.67	3,331.07	2,995.23	335.84	9.919		
11,100.00	7,056.94	7,036.94	7,056.94	119.82	243.94	89.89	1,125.08	-2,164.67	3,393.07	3,056.75	336.32	10.089		
11,200.00	7,056.71	7,036.71	7,056.71	122.56	243.93	89.89	1,125.08	-2,164.67	3,456.86	3,120.11	336.75	10.265		
11,300.00	7,056.48	7,036.48	7,056.48	125.31	243.92	89.88	1,125.08	-2,164.67	3,522.33	3,185.20	337.13	10.448		
11,400.00	7,056.25	7,036.25	7,056.25	128.06	243.91	89.88	1,125.08	-2,164.67	3,589.39	3,251.93	337.45	10.637		
11,500.00	7,056.02	7,036.02	7,056.02	130.82	243.90	89.87	1,125.08	-2,164.67	3,657.95	3,320.22	337.74	10.831		
11,600.00	7,055.79	7,035.79	7,055.79	133.59	243.90	89.87	1,125.08	-2,164.67	3,727.94	3,389.96	337.98	11.030		
11,700.00	7,055.55	7,035.55	7,055.55	136.35	243.89	89.86	1,125.08	-2,164.67	3,799.27	3,461.09	338.19	11.234		
11,800.00	7,055.32	7,035.32	7,055.32	139.12	243.88	89.86	1,125.08	-2,164.67	3,871.87	3,533.51	338.36	11.443		
11,900.00	7,055.09	7,035.09	7,055.09	141.90	243.87	89.85	1,125.08	-2,164.67	3,945.67	3,607.17	338.50	11.656		
12,000.00	7,054.86	7,034.86	7,054.86	144.67	243.86	89.85	1,125.08	-2,164.67	4,020.60	3,681.98	338.61	11.874		
12,100.00	7,054.63	7,034.63	7,054.63	147.45	243.86	89.84	1,125.08	-2,164.67	4,096.60	3,757.90	338.70	12.095		
12,200.00	7,054.40	7,034.40	7,054.40	150.24	243.85	89.84	1,125.08	-2,164.67	4,173.61	3,834.84	338.77	12.320		
12,300.00	7,054.17	7,034.17	7,054.17	153.02	243.84	89.83	1,125.08	-2,164.67	4,251.58	3,912.76	338.82	12.548		
12,400.00	7,053.94	7,033.94	7,053.94	155.81	243.83	89.83	1,125.08	-2,164.67	4,330.46	3,991.61	338.85	12.780		
12,500.00	7,053.71	7,033.71	7,053.71	158.60	243.82	89.82	1,125.08	-2,164.67	4,410.19	4,071.33	338.86	13.015		
12,600.00	7,053.48	7,033.48	7,053.48	161.40	243.82	89.82	1,125.08	-2,164.67	4,490.74	4,151.87	338.86	13.252		
12,700.00	7,053.25	7,033.25	7,053.25	164.19	243.81	89.81	1,125.08	-2,164.67	4,572.05	4,233.20	338.85	13.493		
12,800.00	7,053.02	7,033.02	7,053.02	166.99	243.80	89.81	1,125.08	-2,164.67	4,654.09	4,315.26	338.83	13.736		
12,900.00	7,052.79	7,032.79	7,052.79	169.79	243.79	89.80	1,125.08	-2,164.67	4,736.82	4,398.03	338.79	13.982		
13,000.00	7,052.56	7,032.56	7,052.56	172.59	243.78	89.80	1,125.08	-2,164.67	4,820.21	4,481.46	338.75	14.229		
13,100.00	7,052.33	7,032.33	7,052.33	175.40	243.78	89.79	1,125.08	-2,164.67	4,904.21	4,565.52	338.70	14.480		
13,200.00	7,052.10	7,032.10	7,052.10	178.20	243.77	89.79	1,125.08	-2,164.67	4,988.81	4,650.17	338.64	14.732		
13,300.00	7,051.87	7,031.87	7,051.87	181.01	243.76	89.78	1,125.08	-2,164.67	5,073.97	4,735.39	338.57	14.986		
13,400.00	7,051.64	7,031.64	7,051.64	183.82	243.75	89.78	1,125.08	-2,164.67	5,159.66	4,821.15	338.50	15.242		
13,500.00	7,051.41	7,031.41	7,051.41	186.63	243.74	89.77	1,125.08	-2,164.67	5,245.85	4,907.42	338.43	15.501		
13,600.00	7,051.18	7,031.18	7,051.18	189.44	243.74	89.77	1,125.08	-2,164.67	5,332.53	4,994.18	338.35	15.760		
13,700.00	7,050.95	7,030.95	7,050.95	192.25	243.73	89.76	1,125.08	-2,164.67	5,419.67	5,081.40	338.27	16.022		
13,800.00	7,050.72	7,030.72	7,050.72	195.07	243.72	89.76	1,125.08	-2,164.67	5,507.24	5,169.06	338.19	16.285		
13,900.00	7,050.49	7,030.49	7,050.49	197.88	243.71	89.75	1,125.08	-2,164.67	5,595.23	5,257.13	338.10	16.549		
14,000.00	7,050.26	7,030.26	7,050.26	200.70	243.70	89.75	1,125.08	-2,164.67	5,683.62	5,345.61	338.01	16.815		
14,100.00	7,050.03	7,030.03	7,050.03	203.52	243.70	89.74	1,125.08	-2,164.67	5,772.39	5,434.46	337.92	17.082		
14,200.00	7,049.80	7,029.80	7,049.80	206.34	243.69	89.74	1,125.08	-2,164.67	5,861.52	5,523.68	337.83	17.350		
14,300.00	7,049.56	7,029.56	7,049.56	209.16	243.68	89.73	1,125.08	-2,164.67	5,950.99	5,613.25	337.74	17.620		
14,400.00	7,049.33	7,029.33	7,049.33	211.98	243.67	89.73	1,125.08	-2,164.67	6,040.80	5,703.15	337.65	17.891		
14,500.00	7,049.10	7,029.10	7,049.10	214.80	243.66	89.72	1,125.08	-2,164.67	6,130.92	5,793.36	337.56	18.163		
14,600.00	7,048.87	7,028.87	7,048.87	217.63	243.66	89.72	1,125.08	-2,164.67	6,221.34	5,883.87	337.46	18.436		
14,700.00	7,048.64	7,028.64	7,048.64	220.45	243.65	89.71	1,125.08	-2,164.67	6,312.05	5,974.68	337.37	18.709		
14,800.00	7,048.41	7,028.41	7,048.41	223.28	243.64	89.71	1,125.08	-2,164.67	6,403.04	6,065.76	337.28	18.984		
14,900.00	7,048.18	7,028.18	7,048.18	226.10	243.63	89.70	1,125.08	-2,164.67	6,494.29	6,157.10	337.19	19.260		
14,979.18	7,048.00	7,028.00	7,048.00	228.34	243.62	89.70	1,125.08	-2,164.67	6,566.73	6,229.61	337.12	19.479		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-94.70	-208.24	-2,534.71	2,543.49					
100.00	100.00	65.00	100.00	3.28	3.47	-94.70	-208.24	-2,534.71	2,543.25	2,536.50	6.76	376.477		
200.00	200.00	165.00	200.00	3.34	5.18	-94.70	-208.24	-2,534.71	2,543.25	2,534.73	8.52	298.461		
300.00	299.98	264.98	299.98	3.44	8.19	79.26	-208.24	-2,534.71	2,542.93	2,531.30	11.63	218.657		
400.00	399.84	364.84	399.84	3.59	11.47	79.40	-208.24	-2,534.71	2,541.96	2,526.90	15.06	168.806		
500.00	499.45	464.45	499.45	3.79	14.84	79.62	-208.24	-2,534.71	2,540.36	2,521.74	18.62	136.418		
600.00	598.70	563.70	598.70	4.03	18.23	79.93	-208.24	-2,534.71	2,538.18	2,515.92	22.26	114.025		
700.00	697.47	662.47	697.47	4.31	21.63	80.33	-208.24	-2,534.71	2,535.47	2,509.52	25.94	97.725		
800.00	795.62	760.62	795.62	4.64	25.02	80.81	-208.24	-2,534.71	2,532.29	2,502.63	29.66	85.374		
900.00	893.16	858.16	893.16	5.00	28.40	81.33	-208.24	-2,534.71	2,528.78	2,495.38	33.40	75.716		
1,000.00	990.60	955.60	990.60	5.38	31.78	81.82	-208.24	-2,534.71	2,525.40	2,488.23	37.17	67.949		
1,100.00	1,088.04	1,053.04	1,088.04	5.79	35.17	82.31	-208.24	-2,534.71	2,522.22	2,481.26	40.96	61.580		
1,200.00	1,185.48	1,150.48	1,185.48	6.22	38.56	82.80	-208.24	-2,534.71	2,519.23	2,474.46	44.77	56.269		
1,300.00	1,282.92	1,247.92	1,282.92	6.66	41.95	83.30	-208.24	-2,534.71	2,516.44	2,467.84	48.60	51.779		
1,400.00	1,380.36	1,345.36	1,380.36	7.10	45.34	83.79	-208.24	-2,534.71	2,513.85	2,461.40	52.44	47.937		
1,500.00	1,477.80	1,442.80	1,477.80	7.56	48.73	84.29	-208.24	-2,534.71	2,511.45	2,455.16	56.29	44.614		
1,600.00	1,575.24	1,540.24	1,575.24	8.03	52.13	84.79	-208.24	-2,534.71	2,509.26	2,449.10	60.15	41.714		
1,700.00	1,672.68	1,637.68	1,672.68	8.50	55.52	85.29	-208.24	-2,534.71	2,507.26	2,443.24	64.02	39.163		
1,800.00	1,770.12	1,735.12	1,770.12	8.98	58.92	85.79	-208.24	-2,534.71	2,505.47	2,437.57	67.90	36.902		
1,900.00	1,867.56	1,832.56	1,867.56	9.46	62.32	86.29	-208.24	-2,534.71	2,503.87	2,432.10	71.77	34.885		
2,000.00	1,965.00	1,930.00	1,965.00	9.95	65.71	86.79	-208.24	-2,534.71	2,502.48	2,426.82	75.66	33.076		
2,100.00	2,062.44	2,027.44	2,062.44	10.44	69.11	87.29	-208.24	-2,534.71	2,501.29	2,421.74	79.55	31.445		
2,200.00	2,159.88	2,124.88	2,159.88	10.93	72.51	87.79	-208.24	-2,534.71	2,500.30	2,416.86	83.44	29.967		
2,300.00	2,257.32	2,222.32	2,257.32	11.42	75.91	88.29	-208.24	-2,534.71	2,499.51	2,412.18	87.33	28.622		
2,400.00	2,354.76	2,319.76	2,354.76	11.92	79.31	88.79	-208.24	-2,534.71	2,498.92	2,407.70	91.23	27.393		
2,500.00	2,452.20	2,417.20	2,452.20	12.42	82.70	89.30	-208.24	-2,534.71	2,498.54	2,403.42	95.12	26.266		
2,600.00	2,549.64	2,514.64	2,549.64	12.92	86.10	89.80	-208.24	-2,534.71	2,498.36	2,399.33	99.02	25.230		
2,640.00	2,588.62	2,553.62	2,588.62	13.12	87.46	90.00	-208.24	-2,534.71	2,498.34	2,397.76	100.58	24.838		
2,700.00	2,647.08	2,612.08	2,647.08	13.42	89.50	90.30	-208.24	-2,534.71	2,498.38	2,395.45	102.92	24.274		
2,800.00	2,744.52	2,709.52	2,744.52	13.93	92.90	90.80	-208.24	-2,534.71	2,498.60	2,391.77	106.83	23.389		
2,900.00	2,841.96	2,806.96	2,841.96	14.43	96.30	91.31	-208.24	-2,534.71	2,499.02	2,388.29	110.73	22.568		
3,000.00	2,939.40	2,904.40	2,939.40	14.94	99.70	91.81	-208.24	-2,534.71	2,499.65	2,385.02	114.64	21.805		
3,100.00	3,036.84	3,001.84	3,036.84	15.44	103.10	92.31	-208.24	-2,534.71	2,500.48	2,381.94	118.54	21.094		
3,200.00	3,134.28	3,100.72	3,134.28	15.95	106.55	92.81	-208.24	-2,534.71	2,501.51	2,379.01	122.50	20.421		
3,300.00	3,231.72	3,203.28	3,231.72	16.46	110.13	93.31	-208.24	-2,534.71	2,502.74	2,376.16	126.58	19.771		
3,400.00	3,329.16	3,305.84	3,329.16	16.97	113.71	93.81	-208.24	-2,534.71	2,504.18	2,373.51	130.67	19.164		
3,500.00	3,426.60	3,408.40	3,426.60	17.48	117.29	94.31	-208.24	-2,534.71	2,505.81	2,371.05	134.76	18.595		
3,600.00	3,524.04	3,489.04	3,524.04	17.99	120.10	94.81	-208.24	-2,534.71	2,507.65	2,369.57	138.08	18.161		
3,700.00	3,621.48	3,586.48	3,621.48	18.50	123.50	95.31	-208.24	-2,534.71	2,509.68	2,367.69	141.99	17.675		
3,800.00	3,718.92	3,683.92	3,718.92	19.01	126.90	95.81	-208.24	-2,534.71	2,511.91	2,366.02	145.90	17.217		
3,900.00	3,816.36	3,781.36	3,816.36	19.52	130.30	96.30	-208.24	-2,534.71	2,514.35	2,364.54	149.81	16.784		
4,000.00	3,913.80	3,878.80	3,913.80	20.03	133.70	96.80	-208.24	-2,534.71	2,516.98	2,363.26	153.72	16.374		
4,100.00	4,011.24	3,976.24	4,011.24	20.55	137.10	97.30	-208.24	-2,534.71	2,519.81	2,362.19	157.62	15.986		
4,200.00	4,108.68	4,073.68	4,108.68	21.06	140.51	97.79	-208.24	-2,534.71	2,522.84	2,361.30	161.53	15.618		
4,300.00	4,206.12	4,171.12	4,206.12	21.57	143.91	98.28	-208.24	-2,534.71	2,526.06	2,360.62	165.44	15.268		
4,400.00	4,303.56	4,268.56	4,303.56	22.09	147.31	98.77	-208.24	-2,534.71	2,529.48	2,360.13	169.35	14.936		
4,500.00	4,401.00	4,366.00	4,401.00	22.60	150.71	99.26	-208.24	-2,534.71	2,533.09	2,359.83	173.26	14.620		
4,600.00	4,498.44	4,463.44	4,498.44	23.11	154.11	99.75	-208.24	-2,534.71	2,536.90	2,359.73	177.17	14.319		
4,700.00	4,595.88	4,560.88	4,595.88	23.63	157.51	100.24	-208.24	-2,534.71	2,540.90	2,359.83	181.08	14.032		
4,800.00	4,693.32	4,658.32	4,693.32	24.14	160.91	100.72	-208.24	-2,534.71	2,545.10	2,360.11	184.99	13.758		
4,900.00	4,790.76	4,755.76	4,790.76	24.66	164.31	101.21	-208.24	-2,534.71	2,549.48	2,360.59	188.89	13.497		
5,000.00	4,888.20	4,853.20	4,888.20	25.17	167.71	101.69	-208.24	-2,534.71	2,554.06	2,361.26	192.80	13.247		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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			
5,100.00	4,985.64	4,950.64	4,985.64	25.69	171.11	102.17	-208.24	-2,534.71	2,558.82	2,362.11	196.71	13.008			
5,200.00	5,083.08	5,048.08	5,083.08	26.20	174.51	102.65	-208.24	-2,534.71	2,563.77	2,363.16	200.61	12.780			
5,300.00	5,180.52	5,145.52	5,180.52	26.72	177.92	103.13	-208.24	-2,534.71	2,568.91	2,364.39	204.52	12.561			
5,400.00	5,277.96	5,242.96	5,277.96	27.24	181.32	103.60	-208.24	-2,534.71	2,574.24	2,365.81	208.43	12.351			
5,500.00	5,375.40	5,340.40	5,375.40	27.75	184.72	104.08	-208.24	-2,534.71	2,579.75	2,367.42	212.33	12.150			
5,600.00	5,472.84	5,437.84	5,472.84	28.27	188.12	104.55	-208.24	-2,534.71	2,585.45	2,369.21	216.24	11.957			
5,700.00	5,570.28	5,535.28	5,570.28	28.79	191.52	105.02	-208.24	-2,534.71	2,591.32	2,371.18	220.14	11.771			
5,800.00	5,667.72	5,632.72	5,667.72	29.30	194.92	105.49	-208.24	-2,534.71	2,597.38	2,373.34	224.04	11.593			
5,900.00	5,765.16	5,730.16	5,765.16	29.82	198.32	105.95	-208.24	-2,534.71	2,603.62	2,375.67	227.95	11.422			
6,000.00	5,862.60	5,827.60	5,862.60	30.34	201.72	106.42	-208.24	-2,534.71	2,610.04	2,378.19	231.85	11.257			
6,100.00	5,960.05	5,925.05	5,960.05	30.85	205.12	106.88	-208.24	-2,534.71	2,616.63	2,380.88	235.75	11.099			
6,200.00	6,057.49	6,022.49	6,057.49	31.37	208.53	107.34	-208.24	-2,534.71	2,623.40	2,383.75	239.65	10.947			
6,300.00	6,154.93	6,119.93	6,154.93	31.89	211.93	107.79	-208.24	-2,534.71	2,630.35	2,386.80	243.56	10.800			
6,400.00	6,252.37	6,217.37	6,252.37	32.40	215.33	108.25	-208.24	-2,534.71	2,637.47	2,390.01	247.46	10.658			
6,500.00	6,349.81	6,314.81	6,349.81	32.92	218.73	108.70	-208.24	-2,534.71	2,644.76	2,393.40	251.36	10.522			
6,600.00	6,447.25	6,412.25	6,447.25	33.44	222.13	109.15	-208.24	-2,534.71	2,652.22	2,396.97	255.26	10.390			
6,700.00	6,544.28	6,509.28	6,544.28	33.95	225.52	80.84	-208.24	-2,534.71	2,654.54	2,395.40	259.14	10.244			
6,800.00	6,638.86	6,603.86	6,638.86	34.44	228.82	63.17	-208.24	-2,534.71	2,643.18	2,380.26	262.92	10.053			
6,900.00	6,728.65	6,706.35	6,728.65	34.89	232.40	55.40	-208.24	-2,534.71	2,618.49	2,351.55	266.94	9.809			
7,000.00	6,811.45	6,776.45	6,811.45	35.29	234.84	52.69	-208.24	-2,534.71	2,581.33	2,311.53	269.80	9.568			
7,100.00	6,885.21	6,850.21	6,885.21	35.66	237.42	53.15	-208.24	-2,534.71	2,532.87	2,260.10	272.76	9.286			
7,200.00	6,948.11	6,913.11	6,948.11	35.99	239.61	56.12	-208.24	-2,534.71	2,474.55	2,199.20	275.35	8.987			
7,300.00	6,998.62	6,963.62	6,998.62	36.30	241.38	61.45	-208.24	-2,534.71	2,408.07	2,130.55	277.52	8.677			
7,400.00	7,035.48	7,000.48	7,035.48	36.65	242.66	69.14	-208.24	-2,534.71	2,335.27	2,056.00	279.27	8.362			
7,500.00	7,057.79	7,022.79	7,057.79	37.13	243.44	78.99	-208.24	-2,534.71	2,258.11	1,977.54	280.57	8.048			
7,600.00	7,065.00	7,030.00	7,065.00	37.84	243.69	90.18	-208.24	-2,534.71	2,178.58	1,897.15	281.43	7.741			
7,700.00	7,064.77	7,029.77	7,064.77	38.82	243.69	90.17	-208.24	-2,534.71	2,099.42	1,817.28	282.14	7.441			
7,800.00	7,064.54	7,029.54	7,064.54	40.06	243.68	90.16	-208.24	-2,534.71	2,022.09	1,739.10	282.99	7.145			
7,900.00	7,064.31	7,029.31	7,064.31	41.52	243.67	90.15	-208.24	-2,534.71	1,946.84	1,662.83	284.01	6.855			
8,000.00	7,064.08	7,029.08	7,064.08	43.14	243.66	90.14	-208.24	-2,534.71	1,873.90	1,588.69	285.21	6.570			
8,100.00	7,063.85	7,028.85	7,063.85	44.90	243.65	90.13	-208.24	-2,534.71	1,803.56	1,516.95	286.61	6.293			
8,200.00	7,063.62	7,028.62	7,063.62	46.78	243.65	90.12	-208.24	-2,534.71	1,736.13	1,447.91	288.21	6.024			
8,300.00	7,063.39	7,028.39	7,063.39	48.76	243.64	90.11	-208.24	-2,534.71	1,671.96	1,381.93	290.03	5.765			
8,400.00	7,063.16	7,028.16	7,063.16	50.83	243.63	90.10	-208.24	-2,534.71	1,611.45	1,319.38	292.07	5.517			
8,500.00	7,062.93	7,027.93	7,062.93	52.97	243.62	90.09	-208.24	-2,534.71	1,555.02	1,260.71	294.31	5.284			
8,600.00	7,062.70	7,027.70	7,062.70	55.18	243.61	90.08	-208.24	-2,534.71	1,503.13	1,206.38	296.75	5.065			
8,700.00	7,062.47	7,027.47	7,062.47	57.46	243.61	90.07	-208.24	-2,534.71	1,456.27	1,156.91	299.36	4.865			
8,800.00	7,062.24	7,027.24	7,062.24	59.78	243.60	90.05	-208.24	-2,534.71	1,414.93	1,112.84	302.09	4.684			
8,900.00	7,062.01	7,027.01	7,062.01	62.14	243.59	90.04	-208.24	-2,534.71	1,379.62	1,074.73	304.89	4.525			
9,000.00	7,061.78	7,026.78	7,061.78	64.55	243.58	90.03	-208.24	-2,534.71	1,350.80	1,043.10	307.70	4.390			
9,100.00	7,061.55	7,026.55	7,061.55	67.00	243.57	90.02	-208.24	-2,534.71	1,328.90	1,018.46	310.44	4.281			
9,200.00	7,061.31	7,026.31	7,061.31	69.47	243.57	90.01	-208.24	-2,534.71	1,314.27	1,001.23	313.04	4.198			
9,300.00	7,061.08	7,026.08	7,061.08	71.98	243.56	90.00	-208.24	-2,534.71	1,307.14	991.73	315.42	4.144			
9,343.42	7,060.98	7,025.98	7,060.98	73.08	243.55	90.00	-208.24	-2,534.71	1,306.42	990.05	316.37	4.129 CC, ES			
9,400.00	7,060.85	7,025.85	7,060.85	74.51	243.55	89.99	-208.24	-2,534.71	1,307.65	990.13	317.52	4.118 SF			
9,500.00	7,060.62	7,025.62	7,060.62	77.06	243.54	89.98	-208.24	-2,534.71	1,315.77	996.48	319.29	4.121			
9,600.00	7,060.39	7,025.39	7,060.39	79.64	243.53	89.97	-208.24	-2,534.71	1,331.38	1,010.67	320.71	4.151			
9,700.00	7,060.16	7,025.16	7,060.16	82.23	243.53	89.96	-208.24	-2,534.71	1,354.21	1,032.43	321.78	4.209			
9,800.00	7,059.93	7,024.93	7,059.93	84.84	243.52	89.95	-208.24	-2,534.71	1,383.91	1,061.41	322.50	4.291			
9,900.00	7,059.70	7,024.70	7,059.70	87.47	243.51	89.94	-208.24	-2,534.71	1,420.04	1,097.14	322.91	4.398			
10,000.00	7,059.47	7,024.47	7,059.47	90.11	243.50	89.93	-208.24	-2,534.71	1,462.13	1,139.10	323.03	4.526			
10,100.00	7,059.24	7,024.24	7,059.24	92.76	243.49	89.92	-208.24	-2,534.71	1,509.68	1,186.76	322.93	4.675			



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,059.01	7,024.01	7,059.01	95.42	243.49	89.91	-208.24	-2,534.71	1,562.20	1,239.57	322.63	4.842		
10,300.00	7,058.78	7,023.78	7,058.78	98.10	243.48	89.90	-208.24	-2,534.71	1,619.19	1,297.01	322.18	5.026		
10,400.00	7,058.55	7,023.55	7,058.55	100.79	243.47	89.89	-208.24	-2,534.71	1,680.21	1,358.59	321.61	5.224		
10,500.00	7,058.32	7,023.32	7,058.32	103.48	243.46	89.88	-208.24	-2,534.71	1,744.82	1,423.86	320.96	5.436		
10,600.00	7,058.09	7,023.09	7,058.09	106.19	243.45	89.87	-208.24	-2,534.71	1,812.66	1,492.40	320.26	5.660		
10,700.00	7,057.86	7,022.86	7,057.86	108.90	243.45	89.86	-208.24	-2,534.71	1,883.36	1,563.84	319.52	5.894		
10,800.00	7,057.63	7,022.63	7,057.63	111.62	243.44	89.85	-208.24	-2,534.71	1,956.62	1,637.86	318.76	6.138		
10,900.00	7,057.40	7,022.40	7,057.40	114.35	243.43	89.84	-208.24	-2,534.71	2,032.16	1,714.17	317.99	6.391		
11,000.00	7,057.17	7,022.17	7,057.17	117.08	243.42	89.83	-208.24	-2,534.71	2,109.74	1,792.51	317.23	6.650		
11,100.00	7,056.94	7,021.94	7,056.94	119.82	243.41	89.82	-208.24	-2,534.71	2,189.13	1,872.65	316.48	6.917		
11,200.00	7,056.71	7,021.71	7,056.71	122.56	243.40	89.81	-208.24	-2,534.71	2,270.16	1,954.41	315.75	7.190		
11,300.00	7,056.48	7,021.48	7,056.48	125.31	243.40	89.80	-208.24	-2,534.71	2,352.64	2,037.60	315.04	7.468		
11,400.00	7,056.25	7,021.25	7,056.25	128.06	243.39	89.79	-208.24	-2,534.71	2,436.44	2,122.08	314.36	7.751		
11,500.00	7,056.02	7,021.02	7,056.02	130.82	243.38	89.78	-208.24	-2,534.71	2,521.42	2,207.72	313.70	8.038		
11,600.00	7,055.79	7,020.79	7,055.79	133.59	243.37	89.77	-208.24	-2,534.71	2,607.46	2,294.40	313.07	8.329		
11,700.00	7,055.55	7,020.55	7,055.55	136.35	243.36	89.76	-208.24	-2,534.71	2,694.47	2,382.01	312.46	8.623		
11,800.00	7,055.32	7,020.32	7,055.32	139.12	243.36	89.75	-208.24	-2,534.71	2,782.35	2,470.47	311.88	8.921		
11,900.00	7,055.09	7,020.09	7,055.09	141.90	243.35	89.74	-208.24	-2,534.71	2,871.03	2,559.70	311.33	9.222		
12,000.00	7,054.86	7,019.86	7,054.86	144.67	243.34	89.73	-208.24	-2,534.71	2,960.43	2,649.62	310.80	9.525		
12,100.00	7,054.63	7,019.63	7,054.63	147.45	243.33	89.72	-208.24	-2,534.71	3,050.48	2,740.18	310.30	9.831		
12,200.00	7,054.40	7,019.40	7,054.40	150.24	243.32	89.71	-208.24	-2,534.71	3,141.14	2,831.32	309.82	10.139		
12,300.00	7,054.17	7,019.17	7,054.17	153.02	243.32	89.70	-208.24	-2,534.71	3,232.35	2,922.98	309.36	10.448		
12,400.00	7,053.94	7,018.94	7,053.94	155.81	243.31	89.69	-208.24	-2,534.71	3,324.06	3,015.13	308.93	10.760		
12,500.00	7,053.71	7,018.71	7,053.71	158.60	243.30	89.68	-208.24	-2,534.71	3,416.24	3,107.72	308.51	11.073		
12,600.00	7,053.48	7,018.48	7,053.48	161.40	243.29	89.67	-208.24	-2,534.71	3,508.85	3,200.73	308.12	11.388		
12,700.00	7,053.25	7,018.25	7,053.25	164.19	243.28	89.66	-208.24	-2,534.71	3,601.85	3,294.10	307.75	11.704		
12,800.00	7,053.02	7,018.02	7,053.02	166.99	243.28	89.65	-208.24	-2,534.71	3,695.22	3,387.83	307.39	12.021		
12,900.00	7,052.79	7,017.79	7,052.79	169.79	243.27	89.64	-208.24	-2,534.71	3,788.92	3,481.87	307.05	12.340		
13,000.00	7,052.56	7,017.56	7,052.56	172.59	243.26	89.63	-208.24	-2,534.71	3,882.94	3,576.22	306.73	12.659		
13,100.00	7,052.33	7,017.33	7,052.33	175.40	243.25	89.62	-208.24	-2,534.71	3,977.26	3,670.84	306.42	12.980		
13,200.00	7,052.10	7,017.10	7,052.10	178.20	243.24	89.61	-208.24	-2,534.71	4,071.84	3,765.72	306.12	13.301		
13,300.00	7,051.87	7,016.87	7,051.87	181.01	243.24	89.60	-208.24	-2,534.71	4,166.68	3,860.83	305.84	13.624		
13,400.00	7,051.64	7,016.64	7,051.64	183.82	243.23	89.59	-208.24	-2,534.71	4,261.75	3,956.17	305.58	13.947		
13,500.00	7,051.41	7,016.41	7,051.41	186.63	243.22	89.58	-208.24	-2,534.71	4,357.04	4,051.72	305.32	14.270		
13,600.00	7,051.18	7,016.18	7,051.18	189.44	243.21	89.57	-208.24	-2,534.71	4,452.54	4,147.46	305.08	14.595		
13,700.00	7,050.95	7,015.95	7,050.95	192.25	243.20	89.56	-208.24	-2,534.71	4,548.23	4,243.38	304.85	14.920		
13,800.00	7,050.72	7,015.72	7,050.72	195.07	243.20	89.55	-208.24	-2,534.71	4,644.11	4,339.48	304.63	15.245		
13,900.00	7,050.49	7,015.49	7,050.49	197.88	243.19	89.54	-208.24	-2,534.71	4,740.15	4,435.73	304.42	15.571		
14,000.00	7,050.26	7,015.26	7,050.26	200.70	243.18	89.53	-208.24	-2,534.71	4,836.36	4,532.14	304.22	15.897		
14,100.00	7,050.03	7,015.03	7,050.03	203.52	243.17	89.52	-208.24	-2,534.71	4,932.72	4,628.68	304.03	16.224		
14,200.00	7,049.80	7,014.80	7,049.80	206.34	243.16	89.51	-208.24	-2,534.71	5,029.21	4,725.36	303.85	16.552		
14,300.00	7,049.56	7,014.56	7,049.56	209.16	243.16	89.50	-208.24	-2,534.71	5,125.85	4,822.17	303.68	16.879		
14,400.00	7,049.33	7,014.33	7,049.33	211.98	243.15	89.49	-208.24	-2,534.71	5,222.61	4,919.09	303.51	17.207		
14,500.00	7,049.10	7,014.10	7,049.10	214.80	243.14	89.48	-208.24	-2,534.71	5,319.49	5,016.13	303.36	17.535		
14,600.00	7,048.87	7,013.87	7,048.87	217.63	243.13	89.47	-208.24	-2,534.71	5,416.48	5,113.27	303.21	17.864		
14,700.00	7,048.64	7,013.64	7,048.64	220.45	243.12	89.46	-208.24	-2,534.71	5,513.58	5,210.51	303.07	18.193		
14,800.00	7,048.41	7,013.41	7,048.41	223.28	243.12	89.45	-208.24	-2,534.71	5,610.78	5,307.85	302.93	18.522		
14,900.00	7,048.18	7,013.18	7,048.18	226.10	243.11	89.44	-208.24	-2,534.71	5,708.08	5,405.28	302.80	18.851		
14,979.18	7,048.00	7,013.00	7,048.00	228.34	243.10	89.43	-208.24	-2,534.71	5,785.19	5,482.48	302.70	19.112		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
0.00	0.00	0.00	46.00	3.28	3.28	-106.02	-1,377.32	-4,796.24	4,990.30					
100.00	100.00	54.00	100.00	3.28	3.41	-106.02	-1,377.32	-4,796.24	4,990.08	4,983.39	6.70	745.070		
200.00	200.00	154.00	200.00	3.34	4.89	-106.02	-1,377.32	-4,796.24	4,990.08	4,981.85	8.23	606.337		
300.00	299.98	253.98	299.98	3.44	7.84	67.92	-1,377.32	-4,796.24	4,989.43	4,978.15	11.28	442.347		
400.00	399.84	353.84	399.84	3.59	11.10	68.01	-1,377.32	-4,796.24	4,987.46	4,972.77	14.69	339.482		
500.00	499.45	453.45	499.45	3.79	14.46	68.17	-1,377.32	-4,796.24	4,984.20	4,965.95	18.25	273.131		
600.00	598.70	552.70	598.70	4.03	17.85	68.38	-1,377.32	-4,796.24	4,979.66	4,957.77	21.88	227.559		
700.00	697.47	651.47	697.47	4.31	21.25	68.65	-1,377.32	-4,796.24	4,973.87	4,948.30	25.57	194.556		
800.00	795.62	749.62	795.62	4.64	24.64	68.99	-1,377.32	-4,796.24	4,966.86	4,937.58	29.28	169.643		
900.00	893.16	847.16	893.16	5.00	28.02	69.29	-1,377.32	-4,796.24	4,958.84	4,925.83	33.01	150.212		
1,000.00	990.60	944.60	990.60	5.38	31.40	69.53	-1,377.32	-4,796.24	4,950.75	4,913.98	36.77	134.624		
1,100.00	1,088.04	1,042.04	1,088.04	5.79	34.79	69.77	-1,377.32	-4,796.24	4,942.75	4,902.19	40.56	121.857		
1,200.00	1,185.48	1,139.48	1,185.48	6.22	38.17	70.01	-1,377.32	-4,796.24	4,934.85	4,890.48	44.37	111.223		
1,300.00	1,282.92	1,236.92	1,282.92	6.66	41.57	70.25	-1,377.32	-4,796.24	4,927.03	4,878.83	48.19	102.237		
1,400.00	1,380.36	1,334.36	1,380.36	7.10	44.96	70.49	-1,377.32	-4,796.24	4,919.30	4,867.27	52.03	94.551		
1,500.00	1,477.80	1,431.80	1,477.80	7.56	48.35	70.73	-1,377.32	-4,796.24	4,911.66	4,855.79	55.87	87.905		
1,600.00	1,575.24	1,529.24	1,575.24	8.03	51.74	70.97	-1,377.32	-4,796.24	4,904.12	4,844.39	59.73	82.104		
1,700.00	1,672.68	1,626.68	1,672.68	8.50	55.14	71.22	-1,377.32	-4,796.24	4,896.66	4,833.07	63.59	76.999		
1,800.00	1,770.12	1,724.12	1,770.12	8.98	58.54	71.46	-1,377.32	-4,796.24	4,889.30	4,821.84	67.46	72.474		
1,900.00	1,867.56	1,821.56	1,867.56	9.46	61.93	71.71	-1,377.32	-4,796.24	4,882.03	4,810.69	71.34	68.436		
2,000.00	1,965.00	1,919.00	1,965.00	9.95	65.33	71.95	-1,377.32	-4,796.24	4,874.85	4,799.64	75.22	64.811		
2,100.00	2,062.44	2,016.44	2,062.44	10.44	68.73	72.20	-1,377.32	-4,796.24	4,867.77	4,788.67	79.10	61.539		
2,200.00	2,159.88	2,113.88	2,159.88	10.93	72.12	72.44	-1,377.32	-4,796.24	4,860.78	4,777.79	82.99	58.573		
2,300.00	2,257.32	2,211.32	2,257.32	11.42	75.52	72.69	-1,377.32	-4,796.24	4,853.88	4,767.00	86.88	55.871		
2,400.00	2,354.76	2,308.76	2,354.76	11.92	78.92	72.94	-1,377.32	-4,796.24	4,847.08	4,756.31	90.77	53.400		
2,500.00	2,452.20	2,406.20	2,452.20	12.42	82.32	73.19	-1,377.32	-4,796.24	4,840.37	4,745.71	94.66	51.132		
2,600.00	2,549.64	2,503.64	2,549.64	12.92	85.72	73.43	-1,377.32	-4,796.24	4,833.76	4,735.20	98.56	49.043		
2,700.00	2,647.08	2,601.08	2,647.08	13.42	89.12	73.68	-1,377.32	-4,796.24	4,827.25	4,724.78	102.46	47.113		
2,800.00	2,744.52	2,701.48	2,744.52	13.93	92.62	73.93	-1,377.32	-4,796.24	4,820.83	4,714.36	106.47	45.281		
2,900.00	2,841.96	2,804.04	2,841.96	14.43	96.20	74.19	-1,377.32	-4,796.24	4,814.50	4,703.96	110.55	43.552		
3,000.00	2,939.40	2,906.60	2,939.40	14.94	99.78	74.44	-1,377.32	-4,796.24	4,808.28	4,693.65	114.63	41.946		
3,100.00	3,036.84	3,009.16	3,036.84	15.44	103.36	74.69	-1,377.32	-4,796.24	4,802.15	4,683.43	118.71	40.452		
3,200.00	3,134.28	3,088.28	3,134.28	15.95	106.12	74.94	-1,377.32	-4,796.24	4,796.11	4,674.13	121.98	39.319		
3,300.00	3,231.72	3,185.72	3,231.72	16.46	109.52	75.20	-1,377.32	-4,796.24	4,790.18	4,664.29	125.89	38.051		
3,400.00	3,329.16	3,283.16	3,329.16	16.97	112.92	75.45	-1,377.32	-4,796.24	4,784.34	4,654.55	129.80	36.860		
3,500.00	3,426.60	3,380.60	3,426.60	17.48	116.32	75.70	-1,377.32	-4,796.24	4,778.61	4,644.90	133.71	35.740		
3,600.00	3,524.04	3,478.04	3,524.04	17.99	119.72	75.96	-1,377.32	-4,796.24	4,772.97	4,635.35	137.62	34.683		
3,700.00	3,621.48	3,575.48	3,621.48	18.50	123.12	76.22	-1,377.32	-4,796.24	4,767.43	4,625.90	141.53	33.686		
3,800.00	3,718.92	3,672.92	3,718.92	19.01	126.52	76.47	-1,377.32	-4,796.24	4,761.99	4,616.55	145.44	32.742		
3,900.00	3,816.36	3,770.36	3,816.36	19.52	129.92	76.73	-1,377.32	-4,796.24	4,756.65	4,607.30	149.35	31.849		
4,000.00	3,913.80	3,867.80	3,913.80	20.03	133.32	76.99	-1,377.32	-4,796.24	4,751.41	4,598.15	153.27	31.001		
4,100.00	4,011.24	3,965.24	4,011.24	20.55	136.72	77.24	-1,377.32	-4,796.24	4,746.28	4,589.10	157.18	30.197		
4,200.00	4,108.68	4,062.68	4,108.68	21.06	140.12	77.50	-1,377.32	-4,796.24	4,741.24	4,580.14	161.09	29.431		
4,300.00	4,206.12	4,160.12	4,206.12	21.57	143.52	77.76	-1,377.32	-4,796.24	4,736.30	4,571.29	165.01	28.703		
4,400.00	4,303.56	4,257.56	4,303.56	22.09	146.92	78.02	-1,377.32	-4,796.24	4,731.47	4,562.54	168.92	28.009		
4,500.00	4,401.00	4,355.00	4,401.00	22.60	150.32	78.28	-1,377.32	-4,796.24	4,726.74	4,553.90	172.84	27.347		
4,600.00	4,498.44	4,452.44	4,498.44	23.11	153.72	78.54	-1,377.32	-4,796.24	4,722.11	4,545.35	176.76	26.715		
4,700.00	4,595.88	4,549.88	4,595.88	23.63	157.13	78.80	-1,377.32	-4,796.24	4,717.58	4,536.91	180.67	26.111		
4,800.00	4,693.32	4,647.32	4,693.32	24.14	160.53	79.06	-1,377.32	-4,796.24	4,713.16	4,528.56	184.59	25.533		
4,900.00	4,790.76	4,744.76	4,790.76	24.66	163.93	79.33	-1,377.32	-4,796.24	4,708.84	4,520.33	188.51	24.979		
5,000.00	4,888.20	4,842.20	4,888.20	25.17	167.33	79.59	-1,377.32	-4,796.24	4,704.62	4,512.19	192.43	24.449		
5,100.00	4,985.64	4,939.64	4,985.64	25.69	170.73	79.85	-1,377.32	-4,796.24	4,700.50	4,504.16	196.35	23.940		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,037.08	5,083.08	26.20	174.13	80.12	-1,377.32	-4,796.24	4,696.49	4,496.23	200.26	23.451		
5,300.00	5,180.52	5,134.52	5,180.52	26.72	177.53	80.38	-1,377.32	-4,796.24	4,692.59	4,488.41	204.18	22.982		
5,400.00	5,277.96	5,231.96	5,277.96	27.24	180.93	80.64	-1,377.32	-4,796.24	4,688.79	4,480.69	208.10	22.531		
5,500.00	5,375.40	5,329.40	5,375.40	27.75	184.33	80.91	-1,377.32	-4,796.24	4,685.09	4,473.07	212.02	22.097		
5,600.00	5,472.84	5,426.84	5,472.84	28.27	187.73	81.17	-1,377.32	-4,796.24	4,681.50	4,465.56	215.94	21.679		
5,700.00	5,570.28	5,524.28	5,570.28	28.79	191.14	81.44	-1,377.32	-4,796.24	4,678.01	4,458.15	219.86	21.277		
5,800.00	5,667.72	5,621.72	5,667.72	29.30	194.54	81.70	-1,377.32	-4,796.24	4,674.63	4,450.85	223.78	20.889		
5,900.00	5,765.16	5,719.16	5,765.16	29.82	197.94	81.97	-1,377.32	-4,796.24	4,671.36	4,443.66	227.70	20.515		
6,000.00	5,862.60	5,816.60	5,862.60	30.34	201.34	82.24	-1,377.32	-4,796.24	4,668.19	4,436.57	231.62	20.154		
6,100.00	5,960.05	5,914.05	5,960.05	30.85	204.74	82.50	-1,377.32	-4,796.24	4,665.13	4,429.59	235.54	19.806		
6,200.00	6,057.49	6,011.49	6,057.49	31.37	208.14	82.77	-1,377.32	-4,796.24	4,662.17	4,422.71	239.46	19.469		
6,300.00	6,154.93	6,108.93	6,154.93	31.89	211.54	83.04	-1,377.32	-4,796.24	4,659.32	4,415.94	243.38	19.144		
6,400.00	6,252.37	6,206.37	6,252.37	32.40	214.94	83.30	-1,377.32	-4,796.24	4,656.58	4,409.28	247.31	18.829		
6,500.00	6,349.81	6,303.81	6,349.81	32.92	218.35	83.57	-1,377.32	-4,796.24	4,653.95	4,402.72	251.23	18.525		
6,600.00	6,447.25	6,401.25	6,447.25	33.44	221.75	83.84	-1,377.32	-4,796.24	4,651.42	4,396.27	255.15	18.230		
6,700.00	6,544.68	6,501.72	6,544.68	33.95	225.25	85.36	-1,377.32	-4,796.24	4,643.11	4,383.94	259.17	17.915		
6,800.00	6,638.86	6,607.14	6,638.86	34.44	228.93	36.90	-1,377.32	-4,796.24	4,619.56	4,356.23	263.33	17.543		
6,900.00	6,728.65	6,682.65	6,728.65	34.89	231.57	27.63	-1,377.32	-4,796.24	4,581.22	4,314.81	266.41	17.196		
7,000.00	6,811.45	6,765.45	6,811.45	35.29	234.46	22.64	-1,377.32	-4,796.24	4,529.01	4,259.32	269.69	16.793		
7,100.00	6,885.21	6,839.21	6,885.21	35.66	237.03	19.86	-1,377.32	-4,796.24	4,464.20	4,191.59	272.61	16.376		
7,200.00	6,948.11	6,902.11	6,948.11	35.99	239.23	18.50	-1,377.32	-4,796.24	4,388.37	4,113.28	275.09	15.952		
7,300.00	6,998.62	6,952.62	6,998.62	36.30	240.99	18.31	-1,377.32	-4,796.24	4,303.35	4,026.28	277.08	15.531		
7,400.00	7,035.48	6,989.48	7,035.48	36.65	242.28	19.73	-1,377.32	-4,796.24	4,211.22	3,932.70	278.52	15.120		
7,500.00	7,057.79	7,011.79	7,057.79	37.13	243.06	25.69	-1,377.32	-4,796.24	4,114.23	3,834.82	279.41	14.725		
7,600.00	7,065.00	7,019.00	7,065.00	37.84	243.31	93.51	-1,377.32	-4,796.24	4,014.74	3,735.03	279.71	14.353		
7,700.00	7,064.77	7,018.77	7,064.77	38.82	243.30	93.42	-1,377.32	-4,796.24	3,914.81	3,635.08	279.73	13.995		
7,800.00	7,064.54	7,018.54	7,064.54	40.06	243.29	93.33	-1,377.32	-4,796.24	3,814.89	3,535.13	279.76	13.636		
7,900.00	7,064.31	7,018.31	7,064.31	41.52	243.29	93.24	-1,377.32	-4,796.24	3,714.97	3,435.18	279.78	13.278		
8,000.00	7,064.08	7,018.08	7,064.08	43.14	243.28	93.16	-1,377.32	-4,796.24	3,615.05	3,335.24	279.81	12.919		
8,100.00	7,063.85	7,017.85	7,063.85	44.90	243.27	93.07	-1,377.32	-4,796.24	3,515.14	3,235.29	279.85	12.561		
8,200.00	7,063.62	7,017.62	7,063.62	46.78	243.26	92.98	-1,377.32	-4,796.24	3,415.24	3,135.35	279.88	12.202		
8,300.00	7,063.39	7,017.39	7,063.39	48.76	243.25	92.89	-1,377.32	-4,796.24	3,315.34	3,035.41	279.92	11.844		
8,400.00	7,063.16	7,017.16	7,063.16	50.83	243.25	92.81	-1,377.32	-4,796.24	3,215.45	2,935.48	279.97	11.485		
8,500.00	7,062.93	7,016.93	7,062.93	52.97	243.24	92.72	-1,377.32	-4,796.24	3,115.56	2,835.54	280.02	11.126		
8,600.00	7,062.70	7,016.70	7,062.70	55.18	243.23	92.63	-1,377.32	-4,796.24	3,015.68	2,735.61	280.07	10.768		
8,700.00	7,062.47	7,016.47	7,062.47	57.46	243.22	92.55	-1,377.32	-4,796.24	2,915.81	2,635.68	280.13	10.409		
8,800.00	7,062.24	7,016.24	7,062.24	59.78	243.21	92.46	-1,377.32	-4,796.24	2,815.95	2,535.76	280.19	10.050		
8,900.00	7,062.01	7,016.01	7,062.01	62.14	243.21	92.37	-1,377.32	-4,796.24	2,716.10	2,435.84	280.26	9.691		
9,000.00	7,061.78	7,015.78	7,061.78	64.55	243.20	92.28	-1,377.32	-4,796.24	2,616.26	2,335.92	280.34	9.332		
9,100.00	7,061.55	7,015.55	7,061.55	67.00	243.19	92.20	-1,377.32	-4,796.24	2,516.43	2,236.01	280.43	8.974		
9,200.00	7,061.31	7,015.31	7,061.31	69.47	243.18	92.11	-1,377.32	-4,796.24	2,416.62	2,136.10	280.52	8.615		
9,300.00	7,061.08	7,015.08	7,061.08	71.98	243.17	92.02	-1,377.32	-4,796.24	2,316.82	2,036.20	280.63	8.256		
9,400.00	7,060.85	7,014.85	7,060.85	74.51	243.17	91.93	-1,377.32	-4,796.24	2,217.05	1,936.30	280.75	7.897		
9,500.00	7,060.62	7,014.62	7,060.62	77.06	243.16	91.85	-1,377.32	-4,796.24	2,117.29	1,836.41	280.88	7.538		
9,600.00	7,060.39	7,014.39	7,060.39	79.64	243.15	91.76	-1,377.32	-4,796.24	2,017.56	1,736.53	281.03	7.179		
9,700.00	7,060.16	7,014.16	7,060.16	82.23	243.14	91.67	-1,377.32	-4,796.24	1,917.85	1,636.66	281.20	6.820		
9,800.00	7,059.93	7,013.93	7,059.93	84.84	243.13	91.58	-1,377.32	-4,796.24	1,818.18	1,536.79	281.39	6.461		
9,900.00	7,059.70	7,013.70	7,059.70	87.47	243.13	91.50	-1,377.32	-4,796.24	1,718.54	1,436.93	281.61	6.103		
10,000.00	7,059.47	7,013.47	7,059.47	90.11	243.12	91.41	-1,377.32	-4,796.24	1,618.95	1,337.08	281.87	5.744		
10,100.00	7,059.24	7,013.24	7,059.24	92.76	243.11	91.32	-1,377.32	-4,796.24	1,519.42	1,237.24	282.17	5.385		
10,200.00	7,059.01	7,013.01	7,059.01	95.42	243.10	91.23	-1,377.32	-4,796.24	1,419.95	1,137.41	282.53	5.026		
10,300.00	7,058.78	7,012.78	7,058.78	98.10	243.09	91.15	-1,377.32	-4,796.24	1,320.56	1,037.59	282.97	4.667		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,012.55	7,058.55	100.79	243.09	91.06	-1,377.32	-4,796.24	1,221.27	937.78	283.49	4.308		
10,500.00	7,058.32	7,012.32	7,058.32	103.48	243.08	90.97	-1,377.32	-4,796.24	1,122.10	837.96	284.14	3.949		
10,600.00	7,058.09	7,012.09	7,058.09	106.19	243.07	90.89	-1,377.32	-4,796.24	1,023.10	738.14	284.96	3.590		
10,700.00	7,057.86	7,011.86	7,057.86	108.90	243.06	90.80	-1,377.32	-4,796.24	924.31	638.30	286.01	3.232		
10,800.00	7,057.63	7,011.63	7,057.63	111.62	243.05	90.71	-1,377.32	-4,796.24	825.81	538.41	287.40	2.873		
10,900.00	7,057.40	7,011.40	7,057.40	114.35	243.05	90.62	-1,377.32	-4,796.24	727.73	438.44	289.28	2.516		
11,000.00	7,057.17	7,011.17	7,057.17	117.08	243.04	90.54	-1,377.32	-4,796.24	630.24	338.32	291.92	2.159		
11,100.00	7,056.94	7,010.94	7,056.94	119.82	243.03	90.45	-1,377.32	-4,796.24	533.69	237.91	295.78	1.804		
11,200.00	7,056.71	7,010.71	7,056.71	122.56	243.02	90.36	-1,377.32	-4,796.24	438.68	136.99	301.69	1.454	Level 3	
11,300.00	7,056.48	7,010.48	7,056.48	125.31	243.01	90.27	-1,377.32	-4,796.24	346.50	35.27	311.22	1.113	Level 2	
11,400.00	7,056.25	7,010.25	7,056.25	128.06	243.00	90.19	-1,377.32	-4,796.24	260.15	-67.21	327.36	0.795	Level 1	
11,500.00	7,056.02	7,010.02	7,056.02	130.82	243.00	90.10	-1,377.32	-4,796.24	187.87	-165.69	353.57	0.531	Level 1	
11,600.00	7,055.79	7,009.79	7,055.79	133.59	242.99	90.01	-1,377.32	-4,796.24	151.37	-225.14	376.51	0.402	Level 1	
11,611.91	7,055.76	7,009.76	7,055.76	133.91	242.99	90.00	-1,377.32	-4,796.24	150.90	-225.87	376.77	0.401	Level 1, CC, ES, SF	
11,700.00	7,055.55	7,009.55	7,055.55	136.35	242.98	89.92	-1,377.32	-4,796.24	174.73	-184.52	359.26	0.486	Level 1	
11,800.00	7,055.32	7,009.32	7,055.32	139.12	242.97	89.84	-1,377.32	-4,796.24	241.14	-89.27	330.41	0.730	Level 1	
11,900.00	7,055.09	7,009.09	7,055.09	141.90	242.96	89.75	-1,377.32	-4,796.24	325.22	13.22	312.00	1.042	Level 2	
12,000.00	7,054.86	7,008.86	7,054.86	144.67	242.96	89.66	-1,377.32	-4,796.24	416.39	115.03	301.37	1.382	Level 3	
12,100.00	7,054.63	7,008.63	7,054.63	147.45	242.95	89.57	-1,377.32	-4,796.24	510.88	215.88	295.00	1.732		
12,200.00	7,054.40	7,008.40	7,054.40	150.24	242.94	89.49	-1,377.32	-4,796.24	607.14	316.14	291.00	2.086		
12,300.00	7,054.17	7,008.17	7,054.17	153.02	242.93	89.40	-1,377.32	-4,796.24	704.44	416.08	288.36	2.443		
12,400.00	7,053.94	7,007.94	7,053.94	155.81	242.92	89.31	-1,377.32	-4,796.24	802.40	515.85	286.56	2.800		
12,500.00	7,053.71	7,007.71	7,053.71	158.60	242.92	89.22	-1,377.32	-4,796.24	900.82	615.53	285.28	3.158		
12,600.00	7,053.48	7,007.48	7,053.48	161.40	242.91	89.14	-1,377.32	-4,796.24	999.54	715.18	284.36	3.515		
12,700.00	7,053.25	7,007.25	7,053.25	164.19	242.90	89.05	-1,377.32	-4,796.24	1,098.50	814.82	283.68	3.872		
12,800.00	7,053.02	7,007.02	7,053.02	166.99	242.89	88.96	-1,377.32	-4,796.24	1,197.63	914.46	283.17	4.229		
12,900.00	7,052.79	7,006.79	7,052.79	169.79	242.88	88.87	-1,377.32	-4,796.24	1,296.89	1,014.11	282.79	4.586		
13,000.00	7,052.56	7,006.56	7,052.56	172.59	242.88	88.79	-1,377.32	-4,796.24	1,396.26	1,113.77	282.49	4.943		
13,100.00	7,052.33	7,006.33	7,052.33	175.40	242.87	88.70	-1,377.32	-4,796.24	1,495.72	1,213.46	282.26	5.299		
13,200.00	7,052.10	7,006.10	7,052.10	178.20	242.86	88.61	-1,377.32	-4,796.24	1,595.24	1,313.15	282.08	5.655		
13,300.00	7,051.87	7,005.87	7,051.87	181.01	242.85	88.52	-1,377.32	-4,796.24	1,694.82	1,412.87	281.95	6.011		
13,400.00	7,051.64	7,005.64	7,051.64	183.82	242.84	88.44	-1,377.32	-4,796.24	1,794.44	1,512.59	281.85	6.367		
13,500.00	7,051.41	7,005.41	7,051.41	186.63	242.84	88.35	-1,377.32	-4,796.24	1,894.10	1,612.34	281.77	6.722		
13,600.00	7,051.18	7,005.18	7,051.18	189.44	242.83	88.26	-1,377.32	-4,796.24	1,993.80	1,712.09	281.71	7.077		
13,700.00	7,050.95	7,004.95	7,050.95	192.25	242.82	88.17	-1,377.32	-4,796.24	2,093.53	1,811.86	281.67	7.433		
13,800.00	7,050.72	7,004.72	7,050.72	195.07	242.81	88.09	-1,377.32	-4,796.24	2,193.28	1,911.63	281.65	7.787		
13,900.00	7,050.49	7,004.49	7,050.49	197.88	242.80	88.00	-1,377.32	-4,796.24	2,293.05	2,011.42	281.63	8.142		
14,000.00	7,050.26	7,004.26	7,050.26	200.70	242.80	87.91	-1,377.32	-4,796.24	2,392.85	2,111.22	281.63	8.496		
14,100.00	7,050.03	7,004.03	7,050.03	203.52	242.79	87.82	-1,377.32	-4,796.24	2,492.65	2,211.02	281.64	8.851		
14,200.00	7,049.80	7,003.80	7,049.80	206.34	242.78	87.74	-1,377.32	-4,796.24	2,592.48	2,310.83	281.65	9.205		
14,300.00	7,049.56	7,003.56	7,049.56	209.16	242.77	87.65	-1,377.32	-4,796.24	2,692.31	2,410.65	281.67	9.558		
14,400.00	7,049.33	7,003.33	7,049.33	211.98	242.76	87.56	-1,377.32	-4,796.24	2,792.16	2,510.47	281.69	9.912		
14,500.00	7,049.10	7,003.10	7,049.10	214.80	242.76	87.48	-1,377.32	-4,796.24	2,892.02	2,610.30	281.72	10.265		
14,600.00	7,048.87	7,002.87	7,048.87	217.63	242.75	87.39	-1,377.32	-4,796.24	2,991.89	2,710.13	281.76	10.619		
14,700.00	7,048.64	7,002.64	7,048.64	220.45	242.74	87.30	-1,377.32	-4,796.24	3,091.77	2,809.97	281.80	10.972		
14,800.00	7,048.41	7,002.41	7,048.41	223.28	242.73	87.21	-1,377.32	-4,796.24	3,191.65	2,909.81	281.84	11.324		
14,900.00	7,048.18	7,002.18	7,048.18	226.10	242.72	87.13	-1,377.32	-4,796.24	3,291.54	3,009.66	281.88	11.677		
14,979.18	7,048.00	7,002.00	7,048.00	228.34	242.72	87.06	-1,377.32	-4,796.24	3,370.64	3,088.72	281.92	11.956		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
0.00	0.00	0.00	49.00	3.28	3.28	-120.94	-2,878.26	-4,802.09	5,598.83					
100.00	100.00	51.00	100.00	3.28	3.40	-120.94	-2,878.26	-4,802.09	5,598.61	5,591.93	6.68	837.692		
200.00	200.00	151.00	200.00	3.34	4.82	-120.94	-2,878.26	-4,802.09	5,598.61	5,590.46	8.15	686.721		
300.00	299.98	250.98	299.98	3.44	7.75	53.01	-2,878.26	-4,802.09	5,597.56	5,586.38	11.18	500.470		
400.00	399.84	350.84	399.84	3.59	11.00	53.10	-2,878.26	-4,802.09	5,594.41	5,579.82	14.59	383.383		
500.00	499.45	450.45	499.45	3.79	14.36	53.25	-2,878.26	-4,802.09	5,589.18	5,571.03	18.15	307.982		
600.00	598.70	549.70	598.70	4.03	17.75	53.47	-2,878.26	-4,802.09	5,581.87	5,560.09	21.78	256.271		
700.00	697.47	648.47	697.47	4.31	21.15	53.75	-2,878.26	-4,802.09	5,572.51	5,547.05	25.46	218.862		
800.00	795.62	746.62	795.62	4.64	24.54	54.09	-2,878.26	-4,802.09	5,561.14	5,531.97	29.17	190.642		
900.00	893.16	844.16	893.16	5.00	27.92	54.38	-2,878.26	-4,802.09	5,548.04	5,515.15	32.90	168.640		
1,000.00	990.60	941.60	990.60	5.38	31.30	54.57	-2,878.26	-4,802.09	5,534.76	5,498.10	36.65	151.010		
1,100.00	1,088.04	1,039.04	1,088.04	5.79	34.68	54.75	-2,878.26	-4,802.09	5,521.53	5,481.10	40.43	136.575		
1,200.00	1,185.48	1,136.48	1,185.48	6.22	38.07	54.94	-2,878.26	-4,802.09	5,508.36	5,464.13	44.23	124.553		
1,300.00	1,282.92	1,233.92	1,282.92	6.66	41.46	55.13	-2,878.26	-4,802.09	5,495.25	5,447.21	48.04	114.395		
1,400.00	1,380.36	1,331.36	1,380.36	7.10	44.85	55.32	-2,878.26	-4,802.09	5,482.20	5,430.34	51.86	105.706		
1,500.00	1,477.80	1,428.80	1,477.80	7.56	48.25	55.51	-2,878.26	-4,802.09	5,469.22	5,413.52	55.70	98.194		
1,600.00	1,575.24	1,526.24	1,575.24	8.03	51.64	55.70	-2,878.26	-4,802.09	5,456.29	5,396.75	59.54	91.636		
1,700.00	1,672.68	1,623.68	1,672.68	8.50	55.04	55.89	-2,878.26	-4,802.09	5,443.43	5,380.04	63.40	85.865		
1,800.00	1,770.12	1,721.12	1,770.12	8.98	58.43	56.09	-2,878.26	-4,802.09	5,430.63	5,363.38	67.25	80.749		
1,900.00	1,867.56	1,818.56	1,867.56	9.46	61.83	56.28	-2,878.26	-4,802.09	5,417.90	5,346.78	71.12	76.183		
2,000.00	1,965.00	1,916.00	1,965.00	9.95	65.22	56.47	-2,878.26	-4,802.09	5,405.22	5,330.24	74.99	72.083		
2,100.00	2,062.44	2,013.44	2,062.44	10.44	68.62	56.67	-2,878.26	-4,802.09	5,392.61	5,313.76	78.86	68.384		
2,200.00	2,159.88	2,110.88	2,159.88	10.93	72.02	56.87	-2,878.26	-4,802.09	5,380.07	5,297.33	82.73	65.028		
2,300.00	2,257.32	2,208.32	2,257.32	11.42	75.42	57.06	-2,878.26	-4,802.09	5,367.59	5,280.98	86.61	61.971		
2,400.00	2,354.76	2,305.76	2,354.76	11.92	78.82	57.26	-2,878.26	-4,802.09	5,355.18	5,264.68	90.50	59.176		
2,500.00	2,452.20	2,403.20	2,452.20	12.42	82.22	57.46	-2,878.26	-4,802.09	5,342.83	5,248.45	94.38	56.609		
2,600.00	2,549.64	2,500.64	2,549.64	12.92	85.61	57.66	-2,878.26	-4,802.09	5,330.54	5,232.28	98.27	54.245		
2,700.00	2,647.08	2,601.92	2,647.08	13.42	89.15	57.86	-2,878.26	-4,802.09	5,318.33	5,216.04	102.29	51.992		
2,800.00	2,744.52	2,704.48	2,744.52	13.93	92.73	58.06	-2,878.26	-4,802.09	5,306.18	5,199.82	106.36	49.889		
2,900.00	2,841.96	2,807.04	2,841.96	14.43	96.30	58.27	-2,878.26	-4,802.09	5,294.10	5,183.67	110.43	47.940		
3,000.00	2,939.40	2,909.60	2,939.40	14.94	99.88	58.47	-2,878.26	-4,802.09	5,282.09	5,167.58	114.50	46.130		
3,100.00	3,036.84	2,987.84	3,036.84	15.44	102.61	58.67	-2,878.26	-4,802.09	5,270.14	5,152.41	117.73	44.765		
3,200.00	3,134.28	3,085.28	3,134.28	15.95	106.01	58.88	-2,878.26	-4,802.09	5,258.27	5,136.64	121.63	43.233		
3,300.00	3,231.72	3,182.72	3,231.72	16.46	109.41	59.09	-2,878.26	-4,802.09	5,246.46	5,120.93	125.53	41.796		
3,400.00	3,329.16	3,280.16	3,329.16	16.97	112.81	59.29	-2,878.26	-4,802.09	5,234.72	5,105.30	129.42	40.446		
3,500.00	3,426.60	3,377.60	3,426.60	17.48	116.21	59.50	-2,878.26	-4,802.09	5,223.06	5,089.73	133.33	39.175		
3,600.00	3,524.04	3,475.04	3,524.04	17.99	119.61	59.71	-2,878.26	-4,802.09	5,211.46	5,074.24	137.23	37.977		
3,700.00	3,621.48	3,572.48	3,621.48	18.50	123.01	59.92	-2,878.26	-4,802.09	5,199.94	5,058.81	141.13	36.845		
3,800.00	3,718.92	3,669.92	3,718.92	19.01	126.41	60.13	-2,878.26	-4,802.09	5,188.49	5,043.45	145.03	35.775		
3,900.00	3,816.36	3,767.36	3,816.36	19.52	129.81	60.34	-2,878.26	-4,802.09	5,177.11	5,028.17	148.94	34.760		
4,000.00	3,913.80	3,864.80	3,913.80	20.03	133.22	60.55	-2,878.26	-4,802.09	5,165.80	5,012.96	152.84	33.798		
4,100.00	4,011.24	3,962.24	4,011.24	20.55	136.62	60.77	-2,878.26	-4,802.09	5,154.57	4,997.82	156.75	32.884		
4,200.00	4,108.68	4,059.68	4,108.68	21.06	140.02	60.98	-2,878.26	-4,802.09	5,143.41	4,982.75	160.66	32.015		
4,300.00	4,206.12	4,157.12	4,206.12	21.57	143.42	61.20	-2,878.26	-4,802.09	5,132.32	4,967.76	164.56	31.188		
4,400.00	4,303.56	4,254.56	4,303.56	22.09	146.82	61.41	-2,878.26	-4,802.09	5,121.31	4,952.84	168.47	30.399		
4,500.00	4,401.00	4,352.00	4,401.00	22.60	150.22	61.63	-2,878.26	-4,802.09	5,110.38	4,938.00	172.38	29.646		
4,600.00	4,498.44	4,449.44	4,498.44	23.11	153.62	61.85	-2,878.26	-4,802.09	5,099.52	4,923.23	176.29	28.927		
4,700.00	4,595.88	4,546.88	4,595.88	23.63	157.02	62.07	-2,878.26	-4,802.09	5,088.73	4,908.53	180.20	28.239		
4,800.00	4,693.32	4,644.32	4,693.32	24.14	160.42	62.29	-2,878.26	-4,802.09	5,078.03	4,893.92	184.11	27.581		
4,900.00	4,790.76	4,741.76	4,790.76	24.66	163.82	62.51	-2,878.26	-4,802.09	5,067.40	4,879.37	188.02	26.951		
5,000.00	4,888.20	4,839.20	4,888.20	25.17	167.22	62.73	-2,878.26	-4,802.09	5,056.84	4,864.91	191.93	26.347		
5,100.00	4,985.64	4,936.64	4,985.64	25.69	170.62	62.95	-2,878.26	-4,802.09	5,046.37	4,850.52	195.85	25.767		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,034.08	5,083.08	26.20	174.03	63.17	-2,878.26	-4,802.09	5,035.97	4,836.21	199.76	25.210		
5,300.00	5,180.52	5,131.52	5,180.52	26.72	177.43	63.40	-2,878.26	-4,802.09	5,025.66	4,821.98	203.67	24.675		
5,400.00	5,277.96	5,228.96	5,277.96	27.24	180.83	63.62	-2,878.26	-4,802.09	5,015.42	4,807.83	207.59	24.161		
5,500.00	5,375.40	5,326.40	5,375.40	27.75	184.23	63.85	-2,878.26	-4,802.09	5,005.26	4,793.76	211.50	23.665		
5,600.00	5,472.84	5,423.84	5,472.84	28.27	187.63	64.07	-2,878.26	-4,802.09	4,995.19	4,779.77	215.42	23.189		
5,700.00	5,570.28	5,521.28	5,570.28	28.79	191.03	64.30	-2,878.26	-4,802.09	4,985.19	4,765.86	219.33	22.729		
5,800.00	5,667.72	5,618.72	5,667.72	29.30	194.43	64.53	-2,878.26	-4,802.09	4,975.28	4,752.03	223.25	22.286		
5,900.00	5,765.16	5,716.16	5,765.16	29.82	197.83	64.76	-2,878.26	-4,802.09	4,965.44	4,738.28	227.16	21.858		
6,000.00	5,862.60	5,813.60	5,862.60	30.34	201.23	64.99	-2,878.26	-4,802.09	4,955.69	4,724.61	231.08	21.446		
6,100.00	5,960.05	5,911.05	5,960.05	30.85	204.64	65.22	-2,878.26	-4,802.09	4,946.03	4,711.03	235.00	21.047		
6,200.00	6,057.49	6,008.49	6,057.49	31.37	208.04	65.45	-2,878.26	-4,802.09	4,936.44	4,697.53	238.92	20.662		
6,300.00	6,154.93	6,105.93	6,154.93	31.89	211.44	65.69	-2,878.26	-4,802.09	4,926.95	4,684.11	242.83	20.289		
6,400.00	6,252.37	6,203.37	6,252.37	32.40	214.84	65.92	-2,878.26	-4,802.09	4,917.53	4,670.78	246.75	19.929		
6,500.00	6,349.81	6,300.81	6,349.81	32.92	218.24	66.15	-2,878.26	-4,802.09	4,908.20	4,657.53	250.67	19.580		
6,600.00	6,447.25	6,401.75	6,447.25	33.44	221.76	66.39	-2,878.26	-4,802.09	4,898.96	4,644.24	254.71	19.233		
6,700.00	6,544.28	6,504.72	6,544.28	33.95	225.36	37.48	-2,878.26	-4,802.09	4,884.21	4,625.39	258.82	18.871		
6,800.00	6,638.86	6,589.86	6,638.86	34.44	228.33	18.06	-2,878.26	-4,802.09	4,855.06	4,592.80	262.26	18.513		
6,900.00	6,728.65	6,679.65	6,728.65	34.89	231.46	7.18	-2,878.26	-4,802.09	4,812.05	4,546.24	265.81	18.103		
7,000.00	6,811.45	6,762.45	6,811.45	35.29	234.35	-0.32	-2,878.26	-4,802.09	4,756.21	4,487.15	269.06	17.677		
7,100.00	6,885.21	6,836.21	6,885.21	35.66	236.93	-6.90	-2,878.26	-4,802.09	4,688.91	4,416.99	271.93	17.243		
7,200.00	6,948.11	6,900.89	6,948.11	35.99	239.19	-14.21	-2,878.26	-4,802.09	4,611.82	4,337.42	274.41	16.807		
7,300.00	6,998.62	6,949.62	6,998.62	36.30	240.89	-24.10	-2,878.26	-4,802.09	4,526.87	4,250.61	276.26	16.387		
7,400.00	7,035.48	6,986.48	7,035.48	36.65	242.18	-39.35	-2,878.26	-4,802.09	4,436.20	4,158.58	277.62	15.979		
7,500.00	7,057.79	7,008.79	7,057.79	37.13	242.95	-62.88	-2,878.26	-4,802.09	4,342.11	4,063.69	278.42	15.596		
7,600.00	7,065.00	7,016.00	7,065.00	37.84	243.21	-90.39	-2,878.26	-4,802.09	4,247.01	3,968.36	278.65	15.241		
7,700.00	7,064.77	7,015.77	7,064.77	38.82	243.20	-90.38	-2,878.26	-4,802.09	4,152.32	3,873.69	278.63	14.903		
7,800.00	7,064.54	7,015.54	7,064.54	40.06	243.19	-90.37	-2,878.26	-4,802.09	4,057.88	3,779.24	278.64	14.563		
7,900.00	7,064.31	7,015.31	7,064.31	41.52	243.18	-90.36	-2,878.26	-4,802.09	3,963.72	3,685.02	278.69	14.223		
8,000.00	7,064.08	7,015.08	7,064.08	43.14	243.17	-90.35	-2,878.26	-4,802.09	3,869.84	3,591.06	278.79	13.881		
8,100.00	7,063.85	7,014.85	7,063.85	44.90	243.17	-90.34	-2,878.26	-4,802.09	3,776.29	3,497.36	278.93	13.539		
8,200.00	7,063.62	7,014.62	7,063.62	46.78	243.16	-90.34	-2,878.26	-4,802.09	3,683.07	3,403.95	279.12	13.195		
8,300.00	7,063.39	7,014.39	7,063.39	48.76	243.15	-90.33	-2,878.26	-4,802.09	3,590.22	3,310.83	279.38	12.851		
8,400.00	7,063.16	7,014.16	7,063.16	50.83	243.14	-90.32	-2,878.26	-4,802.09	3,497.76	3,218.05	279.71	12.505		
8,500.00	7,062.93	7,013.93	7,062.93	52.97	243.13	-90.31	-2,878.26	-4,802.09	3,405.73	3,125.61	280.12	12.158		
8,600.00	7,062.70	7,013.70	7,062.70	55.18	243.13	-90.30	-2,878.26	-4,802.09	3,314.15	3,033.55	280.61	11.811		
8,700.00	7,062.47	7,013.47	7,062.47	57.46	243.12	-90.29	-2,878.26	-4,802.09	3,223.08	2,941.89	281.20	11.462		
8,800.00	7,062.24	7,013.24	7,062.24	59.78	243.11	-90.28	-2,878.26	-4,802.09	3,132.56	2,850.67	281.89	11.113		
8,900.00	7,062.01	7,013.01	7,062.01	62.14	243.10	-90.27	-2,878.26	-4,802.09	3,042.63	2,759.92	282.70	10.763		
9,000.00	7,061.78	7,012.78	7,061.78	64.55	243.09	-90.26	-2,878.26	-4,802.09	2,953.34	2,669.70	283.65	10.412		
9,100.00	7,061.55	7,012.55	7,061.55	67.00	243.09	-90.25	-2,878.26	-4,802.09	2,864.76	2,580.04	284.73	10.061		
9,200.00	7,061.31	7,012.31	7,061.31	69.47	243.08	-90.24	-2,878.26	-4,802.09	2,776.96	2,491.00	285.97	9.711		
9,300.00	7,061.08	7,012.08	7,061.08	71.98	243.07	-90.23	-2,878.26	-4,802.09	2,690.01	2,402.64	287.37	9.361		
9,400.00	7,060.85	7,011.85	7,060.85	74.51	243.06	-90.22	-2,878.26	-4,802.09	2,604.00	2,315.05	288.96	9.012		
9,500.00	7,060.62	7,011.62	7,060.62	77.06	243.05	-90.21	-2,878.26	-4,802.09	2,519.02	2,228.29	290.74	8.664		
9,600.00	7,060.39	7,011.39	7,060.39	79.64	243.04	-90.20	-2,878.26	-4,802.09	2,435.19	2,142.46	292.73	8.319		
9,700.00	7,060.16	7,011.16	7,060.16	82.23	243.04	-90.19	-2,878.26	-4,802.09	2,352.61	2,057.67	294.94	7.977		
9,800.00	7,059.93	7,010.93	7,059.93	84.84	243.03	-90.18	-2,878.26	-4,802.09	2,271.44	1,974.04	297.39	7.638		
9,900.00	7,059.70	7,010.70	7,059.70	87.47	243.02	-90.17	-2,878.26	-4,802.09	2,191.82	1,891.72	300.10	7.304		
10,000.00	7,059.47	7,010.47	7,059.47	90.11	243.01	-90.16	-2,878.26	-4,802.09	2,113.94	1,810.87	303.07	6.975		
10,100.00	7,059.24	7,010.24	7,059.24	92.76	243.00	-90.15	-2,878.26	-4,802.09	2,037.99	1,731.67	306.32	6.653		
10,200.00	7,059.01	7,010.01	7,059.01	95.42	243.00	-90.14	-2,878.26	-4,802.09	1,964.19	1,654.34	309.85	6.339		
10,300.00	7,058.78	7,009.78	7,058.78	98.10	242.99	-90.13	-2,878.26	-4,802.09	1,892.80	1,579.12	313.68	6.034		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,009.55	7,058.55	100.79	242.98	-90.12	-2,878.26	-4,802.09	1,824.10	1,506.30	317.80	5.740		
10,500.00	7,058.32	7,009.32	7,058.32	103.48	242.97	-90.11	-2,878.26	-4,802.09	1,758.41	1,436.19	322.22	5.457		
10,600.00	7,058.09	7,009.09	7,058.09	106.19	242.96	-90.10	-2,878.26	-4,802.09	1,696.07	1,369.16	326.91	5.188		
10,700.00	7,057.86	7,008.86	7,057.86	108.90	242.96	-90.09	-2,878.26	-4,802.09	1,637.46	1,305.61	331.85	4.934		
10,800.00	7,057.63	7,008.63	7,057.63	111.62	242.95	-90.08	-2,878.26	-4,802.09	1,583.02	1,246.00	337.01	4.697		
10,900.00	7,057.40	7,008.40	7,057.40	114.35	242.94	-90.07	-2,878.26	-4,802.09	1,533.16	1,190.83	342.33	4.479		
11,000.00	7,057.17	7,008.17	7,057.17	117.08	242.93	-90.06	-2,878.26	-4,802.09	1,488.37	1,140.62	347.75	4.280		
11,100.00	7,056.94	7,007.94	7,056.94	119.82	242.92	-90.05	-2,878.26	-4,802.09	1,449.10	1,095.94	353.16	4.103		
11,200.00	7,056.71	7,007.71	7,056.71	122.56	242.92	-90.04	-2,878.26	-4,802.09	1,415.82	1,057.36	358.46	3.950		
11,300.00	7,056.48	7,007.48	7,056.48	125.31	242.91	-90.03	-2,878.26	-4,802.09	1,388.95	1,025.41	363.54	3.821		
11,400.00	7,056.25	7,007.25	7,056.25	128.06	242.90	-90.02	-2,878.26	-4,802.09	1,368.88	1,000.62	368.27	3.717		
11,500.00	7,056.02	7,007.02	7,056.02	130.82	242.89	-90.01	-2,878.26	-4,802.09	1,355.91	983.39	372.52	3.640		
11,600.00	7,055.79	7,006.79	7,055.79	133.59	242.88	-90.00	-2,878.26	-4,802.09	1,350.24	974.04	376.20	3.589		
11,626.75	7,055.72	7,006.72	7,055.72	134.33	242.88	-90.00	-2,878.26	-4,802.09	1,349.97	972.89	377.08	3.580 CC		
11,700.00	7,055.55	7,006.55	7,055.55	136.35	242.88	-89.99	-2,878.26	-4,802.09	1,351.96	972.73	379.22	3.565 ES, SF		
11,800.00	7,055.32	7,006.32	7,055.32	139.12	242.87	-89.98	-2,878.26	-4,802.09	1,361.04	979.50	381.54	3.567		
11,900.00	7,055.09	7,006.09	7,055.09	141.90	242.86	-89.97	-2,878.26	-4,802.09	1,377.35	994.21	383.14	3.595		
12,000.00	7,054.86	7,005.86	7,054.86	144.67	242.85	-89.96	-2,878.26	-4,802.09	1,400.62	1,016.57	384.05	3.647		
12,100.00	7,054.63	7,005.63	7,054.63	147.45	242.84	-89.95	-2,878.26	-4,802.09	1,430.52	1,046.21	384.31	3.722		
12,200.00	7,054.40	7,005.40	7,054.40	150.24	242.84	-89.94	-2,878.26	-4,802.09	1,466.64	1,082.64	384.00	3.819		
12,300.00	7,054.17	7,005.17	7,054.17	153.02	242.83	-89.93	-2,878.26	-4,802.09	1,508.54	1,125.33	383.21	3.937		
12,400.00	7,053.94	7,004.94	7,053.94	155.81	242.82	-89.92	-2,878.26	-4,802.09	1,555.74	1,173.72	382.02	4.072		
12,500.00	7,053.71	7,004.71	7,053.71	158.60	242.81	-89.91	-2,878.26	-4,802.09	1,607.79	1,227.28	380.51	4.225		
12,600.00	7,053.48	7,004.48	7,053.48	161.40	242.80	-89.90	-2,878.26	-4,802.09	1,664.22	1,285.45	378.76	4.394		
12,700.00	7,053.25	7,004.25	7,053.25	164.19	242.80	-89.90	-2,878.26	-4,802.09	1,724.61	1,347.75	376.85	4.576		
12,800.00	7,053.02	7,004.02	7,053.02	166.99	242.79	-89.89	-2,878.26	-4,802.09	1,788.55	1,413.72	374.83	4.772		
12,900.00	7,052.79	7,003.79	7,052.79	169.79	242.78	-89.88	-2,878.26	-4,802.09	1,855.68	1,482.94	372.75	4.978		
13,000.00	7,052.56	7,003.56	7,052.56	172.59	242.77	-89.87	-2,878.26	-4,802.09	1,925.67	1,555.03	370.64	5.196		
13,100.00	7,052.33	7,003.33	7,052.33	175.40	242.76	-89.86	-2,878.26	-4,802.09	1,998.21	1,629.67	368.54	5.422		
13,200.00	7,052.10	7,003.10	7,052.10	178.20	242.76	-89.85	-2,878.26	-4,802.09	2,073.04	1,706.58	366.47	5.657		
13,300.00	7,051.87	7,002.87	7,051.87	181.01	242.75	-89.84	-2,878.26	-4,802.09	2,149.92	1,785.48	364.44	5.899		
13,400.00	7,051.64	7,002.64	7,051.64	183.82	242.74	-89.83	-2,878.26	-4,802.09	2,228.63	1,866.17	362.46	6.149		
13,500.00	7,051.41	7,002.41	7,051.41	186.63	242.73	-89.82	-2,878.26	-4,802.09	2,308.99	1,948.44	360.55	6.404		
13,600.00	7,051.18	7,002.18	7,051.18	189.44	242.72	-89.81	-2,878.26	-4,802.09	2,390.84	2,032.12	358.71	6.665		
13,700.00	7,050.95	7,001.95	7,050.95	192.25	242.72	-89.80	-2,878.26	-4,802.09	2,474.01	2,117.07	356.94	6.931		
13,800.00	7,050.72	7,001.72	7,050.72	195.07	242.71	-89.79	-2,878.26	-4,802.09	2,558.40	2,203.15	355.25	7.202		
13,900.00	7,050.49	7,001.49	7,050.49	197.88	242.70	-89.78	-2,878.26	-4,802.09	2,643.87	2,290.25	353.62	7.477		
14,000.00	7,050.26	7,001.26	7,050.26	200.70	242.69	-89.77	-2,878.26	-4,802.09	2,730.33	2,378.26	352.07	7.755		
14,100.00	7,050.03	7,001.03	7,050.03	203.52	242.68	-89.76	-2,878.26	-4,802.09	2,817.68	2,467.09	350.59	8.037		
14,200.00	7,049.80	7,000.80	7,049.80	206.34	242.67	-89.75	-2,878.26	-4,802.09	2,905.85	2,556.68	349.17	8.322		
14,300.00	7,049.56	7,000.56	7,049.56	209.16	242.67	-89.74	-2,878.26	-4,802.09	2,994.77	2,646.94	347.83	8.610		
14,400.00	7,049.33	7,000.33	7,049.33	211.98	242.66	-89.73	-2,878.26	-4,802.09	3,084.36	2,737.82	346.54	8.900		
14,500.00	7,049.10	7,000.10	7,049.10	214.80	242.65	-89.72	-2,878.26	-4,802.09	3,174.57	2,829.26	345.31	9.193		
14,600.00	7,048.87	7,000.13	7,048.87	217.63	242.65	-89.71	-2,878.26	-4,802.09	3,265.36	2,921.21	344.15	9.488		
14,700.00	7,048.64	7,000.36	7,048.64	220.45	242.66	-89.70	-2,878.26	-4,802.09	3,356.67	3,013.62	343.05	9.785		
14,800.00	7,048.41	7,000.59	7,048.41	223.28	242.67	-89.69	-2,878.26	-4,802.09	3,448.46	3,106.46	342.00	10.083		
14,900.00	7,048.18	7,000.82	7,048.18	226.10	242.68	-89.68	-2,878.26	-4,802.09	3,540.69	3,199.69	341.00	10.383		
14,979.18	7,048.00	7,001.00	7,048.00	228.34	242.68	-89.67	-2,878.26	-4,802.09	3,614.02	3,273.78	340.24	10.622		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
0.00	0.00	25.00	67.00	3.28	3.28	-141.11	-4,049.38	-3,266.74	5,203.22					
100.00	100.00	893.98	930.87	3.28	5.12	-141.28	-4,001.80	-3,208.69	5,196.19	5,187.76	8.44	615.738		
200.00	200.00	992.64	1,028.20	3.34	5.54	-141.31	-3,991.59	-3,196.22	5,180.21	5,171.38	8.83	586.926		
300.00	299.98	1,091.07	1,125.31	3.44	5.97	32.76	-3,981.40	-3,183.79	5,162.77	5,153.49	9.28	556.297		
400.00	399.84	1,188.98	1,221.91	3.59	6.42	32.98	-3,971.26	-3,171.42	5,142.45	5,132.66	9.80	524.977		
500.00	499.45	1,286.24	1,317.86	3.79	6.88	33.26	-3,961.19	-3,159.13	5,119.28	5,108.92	10.36	494.022		
600.00	598.70	1,382.74	1,413.07	4.03	7.34	33.59	-3,951.20	-3,146.94	5,093.28	5,082.30	10.97	464.137		
700.00	697.47	1,478.36	1,507.40	4.31	7.81	33.99	-3,941.30	-3,134.86	5,064.48	5,052.86	11.62	435.753		
800.00	795.62	1,572.98	1,600.75	4.64	8.28	34.45	-3,931.50	-3,122.90	5,032.94	5,020.63	12.30	409.089		
900.00	893.16	1,666.64	1,693.15	5.00	8.75	34.76	-3,921.81	-3,111.07	4,999.03	4,986.02	13.01	384.244		
1,000.00	990.60	1,760.15	1,785.41	5.38	9.22	34.87	-3,912.12	-3,099.26	4,964.80	4,951.07	13.73	361.605		
1,100.00	1,088.04	1,853.67	1,877.67	5.79	9.70	34.98	-3,902.44	-3,087.44	4,930.59	4,916.12	14.47	340.666		
1,200.00	1,185.48	1,947.18	1,969.93	6.22	10.19	35.09	-3,892.76	-3,075.63	4,896.40	4,881.17	15.24	321.358		
1,300.00	1,282.92	2,040.70	2,062.19	6.66	10.67	35.21	-3,883.08	-3,063.81	4,862.23	4,846.21	16.02	303.579		
1,400.00	1,380.36	2,134.22	2,154.45	7.10	11.16	35.33	-3,873.39	-3,052.00	4,828.07	4,811.26	16.81	287.213		
1,500.00	1,477.80	2,227.73	2,246.70	7.56	11.65	35.45	-3,863.71	-3,040.18	4,793.94	4,776.32	17.62	272.142		
1,600.00	1,575.24	2,328.76	2,338.96	8.03	12.18	35.57	-3,854.03	-3,028.37	4,759.82	4,741.35	18.46	257.784		
1,700.00	1,672.68	2,414.76	2,431.22	8.50	12.63	35.69	-3,844.35	-3,016.55	4,725.72	4,706.46	19.26	245.423		
1,800.00	1,770.12	2,508.28	2,523.48	8.98	13.13	35.82	-3,834.66	-3,004.74	4,691.64	4,671.55	20.09	233.565		
1,900.00	1,867.56	2,601.79	2,615.74	9.46	13.63	35.94	-3,824.98	-2,992.93	4,657.58	4,636.65	20.93	222.582		
2,000.00	1,965.00	2,695.31	2,708.00	9.95	14.12	36.07	-3,815.30	-2,981.11	4,623.54	4,601.77	21.77	212.391		
2,100.00	2,062.44	2,788.83	2,800.26	10.44	14.62	36.20	-3,805.62	-2,969.30	4,589.52	4,566.91	22.62	202.917		
2,200.00	2,159.88	2,882.34	2,892.52	10.93	15.12	36.33	-3,795.94	-2,957.48	4,555.53	4,532.06	23.47	194.092		
2,300.00	2,257.32	2,975.86	2,984.78	11.42	15.62	36.47	-3,786.25	-2,945.67	4,521.55	4,497.22	24.33	185.858		
2,400.00	2,354.76	3,069.37	3,077.04	11.92	16.13	36.60	-3,776.57	-2,933.85	4,487.60	4,462.41	25.19	178.160		
2,500.00	2,452.20	3,162.89	3,169.30	12.42	16.63	36.74	-3,766.89	-2,922.04	4,453.67	4,427.62	26.05	170.951		
2,600.00	2,549.64	3,256.41	3,261.56	12.92	17.13	36.88	-3,757.21	-2,910.22	4,419.76	4,392.85	26.92	164.189		
2,700.00	2,647.08	3,349.92	3,353.82	13.42	17.64	37.02	-3,747.52	-2,898.41	4,385.88	4,358.09	27.79	157.835		
2,800.00	2,744.52	3,443.44	3,446.08	13.93	18.14	37.17	-3,737.84	-2,886.59	4,352.03	4,323.37	28.66	151.854		
2,900.00	2,841.96	3,536.95	3,538.34	14.43	18.65	37.31	-3,728.16	-2,874.78	4,318.19	4,288.66	29.53	146.217		
3,000.00	2,939.40	3,630.47	3,630.60	14.94	19.15	37.46	-3,718.48	-2,862.97	4,284.39	4,253.98	30.41	140.896		
3,100.00	3,036.84	3,726.03	3,722.86	15.44	19.67	37.61	-3,708.79	-2,851.15	4,250.61	4,219.31	31.29	135.825		
3,200.00	3,134.28	3,817.50	3,815.12	15.95	20.16	37.77	-3,699.11	-2,839.34	4,216.85	4,184.69	32.16	131.103		
3,300.00	3,231.72	3,911.02	3,907.38	16.46	20.67	37.92	-3,689.43	-2,827.52	4,183.13	4,150.08	33.04	126.589		
3,400.00	3,329.16	4,004.53	3,999.64	16.97	21.18	38.08	-3,679.75	-2,815.71	4,149.43	4,115.50	33.93	122.305		
3,500.00	3,426.60	4,101.95	4,091.90	17.48	21.71	38.24	-3,670.07	-2,803.89	4,115.76	4,080.93	34.83	118.174		
3,600.00	3,524.04	4,191.56	4,184.16	17.99	22.19	38.40	-3,660.38	-2,792.08	4,082.12	4,046.43	35.69	114.361		
3,700.00	3,621.48	4,285.08	4,276.42	18.50	22.70	38.57	-3,650.70	-2,780.26	4,048.51	4,011.93	36.58	110.673		
3,800.00	3,718.92	4,378.59	4,368.68	19.01	23.21	38.74	-3,641.02	-2,768.45	4,014.94	3,977.47	37.47	107.157		
3,900.00	3,816.36	4,472.11	4,460.94	19.52	23.72	38.91	-3,631.34	-2,756.63	3,981.39	3,943.04	38.36	103.801		
4,000.00	3,913.80	4,565.63	4,553.20	20.03	24.23	39.09	-3,621.65	-2,744.82	3,947.88	3,908.64	39.25	100.595		
4,100.00	4,011.24	4,659.14	4,645.46	20.55	24.73	39.26	-3,611.97	-2,733.01	3,914.40	3,874.27	40.14	97.529		
4,200.00	4,108.68	4,752.66	4,737.72	21.06	25.24	39.44	-3,602.29	-2,721.19	3,880.96	3,839.93	41.03	94.595		
4,300.00	4,206.12	4,846.17	4,829.98	21.57	25.75	39.63	-3,592.61	-2,709.38	3,847.55	3,805.63	41.92	91.785		
4,400.00	4,303.56	4,939.69	4,922.24	22.09	26.26	39.82	-3,582.92	-2,697.56	3,814.18	3,771.37	42.81	89.090		
4,500.00	4,401.00	5,033.20	5,014.50	22.60	26.77	40.01	-3,573.24	-2,685.75	3,780.84	3,737.14	43.71	86.505		
4,600.00	4,498.44	5,126.72	5,106.76	23.11	27.28	40.20	-3,563.56	-2,673.93	3,747.55	3,702.94	44.60	84.023		
4,700.00	4,595.88	5,229.79	5,199.02	23.63	27.84	40.40	-3,553.88	-2,662.12	3,714.29	3,668.75	45.54	81.558		
4,800.00	4,693.32	5,313.75	5,291.28	24.14	28.30	40.60	-3,544.20	-2,650.30	3,681.07	3,634.68	46.39	79.343		
4,900.00	4,790.76	5,407.27	5,383.54	24.66	28.81	40.80	-3,534.51	-2,638.49	3,647.90	3,600.60	47.29	77.135		
5,000.00	4,888.20	5,500.78	5,475.80	25.17	29.32	41.01	-3,524.83	-2,626.67	3,614.76	3,566.57	48.19	75.009		
5,100.00	4,985.64	5,594.30	5,568.06	25.69	29.83	41.22	-3,515.15	-2,614.86	3,581.68	3,532.58	49.09	72.960		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,687.81	5,660.32	26.20	30.34	41.44	-3,505.47	-2,603.05	3,548.63	3,498.64	49.99	70.985		
5,300.00	5,180.52	5,781.33	5,752.58	26.72	30.85	41.65	-3,495.78	-2,591.23	3,515.63	3,464.74	50.89	69.079		
5,400.00	5,277.96	5,874.85	5,844.84	27.24	31.36	41.88	-3,486.10	-2,579.42	3,482.68	3,430.89	51.80	67.239		
5,500.00	5,375.40	5,968.36	5,937.10	27.75	31.88	42.11	-3,476.42	-2,567.60	3,449.78	3,397.09	52.70	65.462		
5,600.00	5,472.84	6,061.88	6,029.36	28.27	32.39	42.34	-3,466.74	-2,555.79	3,416.93	3,363.33	53.60	63.745		
5,700.00	5,570.28	6,155.39	6,121.62	28.79	32.90	42.57	-3,457.05	-2,543.97	3,384.14	3,329.63	54.51	62.085		
5,800.00	5,667.72	6,248.91	6,213.88	29.30	33.41	42.81	-3,447.37	-2,532.16	3,351.39	3,295.98	55.41	60.478		
5,900.00	5,765.16	6,277.23	6,241.84	29.82	33.56	42.89	-3,444.44	-2,528.80	3,319.51	3,263.32	56.19	59.081		
6,000.00	5,862.60	6,300.00	6,264.41	30.34	33.68	42.96	-3,442.10	-2,526.93	3,289.80	3,232.87	56.93	57.788		
6,100.00	5,960.05	6,325.01	6,289.27	30.85	33.79	43.05	-3,439.54	-2,525.81	3,262.36	3,204.71	57.66	56.582		
6,200.00	6,057.49	6,335.59	6,299.79	31.37	33.84	43.09	-3,438.46	-2,525.63	3,237.11	3,178.79	58.32	55.504		
6,300.00	6,154.93	6,350.00	6,314.12	31.89	33.90	43.16	-3,437.00	-2,525.67	3,214.27	3,155.30	58.97	54.510		
6,400.00	6,252.37	6,374.82	6,338.80	32.40	33.99	43.27	-3,434.50	-2,526.50	3,193.78	3,134.16	59.61	53.574		
6,500.00	6,349.81	6,400.00	6,363.79	32.92	34.08	43.39	-3,431.99	-2,528.33	3,175.76	3,115.52	60.24	52.719		
6,600.00	6,447.25	6,413.95	6,377.59	33.44	34.12	43.47	-3,430.62	-2,529.78	3,160.18	3,099.39	60.78	51.990		
6,700.00	6,544.28	6,425.01	6,388.52	33.95	34.16	43.55	-3,429.53	-2,531.14	3,142.74	3,081.48	61.26	51.298		
6,800.00	6,638.86	6,450.00	6,413.10	34.44	34.23	43.64	-3,427.11	-2,534.91	3,116.21	3,054.48	61.73	50.481		
6,900.00	6,728.65	6,472.33	6,434.93	34.89	34.28	43.73	-3,424.98	-2,539.09	3,081.06	3,018.95	62.11	49.608		
7,000.00	6,811.45	6,500.00	6,461.76	35.29	34.34	43.82	-3,422.39	-2,545.34	3,037.94	2,975.49	62.45	48.644		
7,100.00	6,885.21	6,509.39	6,470.80	35.66	34.36	43.91	-3,421.52	-2,547.73	2,987.48	2,924.84	62.64	47.695		
7,200.00	6,948.11	6,525.01	6,485.76	35.99	34.39	44.00	-3,420.09	-2,552.00	2,930.86	2,868.03	62.83	46.651		
7,300.00	6,998.62	6,550.00	6,509.46	36.30	34.44	44.09	-3,417.84	-2,559.58	2,869.24	2,806.16	63.08	45.489		
7,400.00	7,035.48	6,550.00	6,509.46	36.65	34.44	44.18	-3,417.84	-2,559.58	2,803.91	2,740.69	63.22	44.351		
7,500.00	7,057.79	6,569.50	6,527.73	37.13	34.46	44.27	-3,416.13	-2,566.15	2,736.44	2,672.86	63.59	43.034		
7,600.00	7,065.00	6,579.65	6,537.17	37.84	34.48	44.36	-3,415.25	-2,569.79	2,668.62	2,604.57	64.04	41.668		
7,700.00	7,064.77	6,600.00	6,555.91	38.82	34.51	44.45	-3,413.52	-2,577.54	2,602.29	2,537.55	64.74	40.195		
7,800.00	7,064.54	6,600.00	6,555.91	40.06	34.51	44.54	-3,413.52	-2,577.54	2,537.83	2,472.30	65.53	38.727		
7,900.00	7,064.31	6,609.52	6,564.59	41.52	34.52	44.63	-3,412.72	-2,581.37	2,475.67	2,409.08	66.59	37.178		
8,000.00	7,064.08	6,625.01	6,578.58	43.14	34.53	44.72	-3,411.44	-2,587.88	2,415.87	2,347.97	67.90	35.579		
8,100.00	7,063.85	6,633.69	6,586.36	44.90	34.54	44.81	-3,410.73	-2,591.68	2,358.56	2,289.14	69.42	33.976		
8,200.00	7,063.62	6,650.00	6,600.82	46.78	34.55	44.90	-3,409.43	-2,599.10	2,303.93	2,232.73	71.20	32.360		
8,300.00	7,063.39	6,650.00	6,600.82	48.76	34.55	45.00	-3,409.43	-2,599.10	2,252.22	2,179.06	73.16	30.784		
8,400.00	7,063.16	6,678.57	6,625.69	50.83	34.57	45.09	-3,407.21	-2,612.99	2,203.29	2,127.86	75.43	29.211		
8,500.00	7,062.93	6,700.00	6,643.92	52.97	34.58	45.18	-3,405.60	-2,624.13	2,157.60	2,079.72	77.88	27.706		
8,600.00	7,062.70	6,716.10	6,657.36	55.18	34.59	45.27	-3,404.43	-2,632.90	2,115.17	2,034.66	80.51	26.272		
8,700.00	7,062.47	6,737.76	6,675.10	57.46	34.59	45.36	-3,402.90	-2,645.23	2,076.16	1,992.83	83.32	24.917		
8,800.00	7,062.24	6,750.00	6,684.94	59.78	34.59	45.45	-3,402.06	-2,652.47	2,040.73	1,954.44	86.29	23.651		
8,900.00	7,062.01	6,800.00	6,723.63	62.14	34.59	45.54	-3,398.83	-2,683.96	2,008.80	1,919.45	89.35	22.482		
9,000.00	7,061.78	6,817.65	6,736.68	64.55	34.59	45.63	-3,397.77	-2,695.79	1,980.43	1,887.90	92.53	21.402		
9,100.00	7,061.55	6,850.00	6,759.75	67.00	34.59	45.72	-3,395.94	-2,718.40	1,955.76	1,860.00	95.77	20.422		
9,200.00	7,061.31	6,886.71	6,784.49	69.47	34.58	45.81	-3,394.03	-2,745.43	1,934.68	1,835.64	99.04	19.535		
9,300.00	7,061.08	6,925.01	6,808.63	71.98	34.57	45.90	-3,392.25	-2,775.12	1,917.08	1,814.76	102.32	18.737		
9,400.00	7,060.85	6,971.76	6,835.61	74.51	34.58	45.99	-3,390.36	-2,813.23	1,902.79	1,797.19	105.60	18.019		
9,500.00	7,060.62	7,021.01	6,860.95	77.06	34.59	46.08	-3,388.74	-2,855.42	1,891.61	1,782.74	108.87	17.375		
9,600.00	7,060.39	7,074.85	6,884.85	79.64	34.65	46.17	-3,387.40	-2,903.62	1,883.28	1,771.13	112.15	16.792		
9,700.00	7,060.16	7,133.09	6,906.05	82.23	34.76	46.26	-3,386.48	-2,957.84	1,877.52	1,762.08	115.44	16.264		
9,800.00	7,059.93	7,200.00	6,924.21	84.84	35.00	46.35	-3,386.09	-3,022.21	1,874.05	1,755.25	118.80	15.775		
9,900.00	7,059.70	7,260.31	6,934.74	87.47	35.34	46.44	-3,386.38	-3,081.57	1,872.58	1,750.40	122.18	15.326		
9,928.19	7,059.64	7,279.04	6,936.87	88.21	35.48	46.53	-3,386.58	-3,100.17	1,872.51	1,749.36	123.15	15.205 CC		
10,000.00	7,059.47	7,327.19	6,939.83	90.11	35.87	46.62	-3,387.38	-3,148.21	1,872.97	1,747.33	125.63	14.908		
10,100.00	7,059.24	7,431.57	6,939.70	92.76	37.02	46.71	-3,389.47	-3,239.45	1,874.64	1,745.06	129.58	14.467		
10,200.00	7,059.01	7,518.44	6,939.29	95.42	38.24	46.80	-3,391.80	-3,339.41	1,876.37	1,742.88	133.49	14.056		

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 12N-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 12N-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	7,058.78	7,618.43	6,938.87	98.10	39.90	-86.34	-3,394.12	-3,439.37	1,878.11	1,740.28	137.83	13.627		
10,400.00	7,058.55	7,731.62	6,938.45	100.79	42.04	-86.33	-3,396.45	-3,539.33	1,879.84	1,737.21	142.63	13.180		
10,500.00	7,058.32	7,818.40	6,938.03	103.48	43.83	-86.33	-3,398.77	-3,639.28	1,881.58	1,734.48	147.09	12.792		
10,600.00	7,058.09	7,931.65	6,937.62	106.19	46.34	-86.33	-3,401.10	-3,739.24	1,883.31	1,731.03	152.28	12.367		
10,700.00	7,057.86	8,031.67	6,937.20	108.90	48.69	-86.33	-3,403.42	-3,839.20	1,885.05	1,727.73	157.32	11.982		
10,800.00	7,057.63	8,118.35	6,936.78	111.62	50.82	-86.32	-3,405.75	-3,939.15	1,886.78	1,724.64	162.15	11.636		
10,900.00	7,057.40	8,231.70	6,936.37	114.35	53.70	-86.32	-3,408.07	-4,039.11	1,888.52	1,720.78	167.74	11.259		
11,000.00	7,057.17	8,331.71	6,935.95	117.08	56.33	-86.32	-3,410.40	-4,139.07	1,890.25	1,717.17	173.09	10.921		
11,100.00	7,056.94	8,431.73	6,935.53	119.82	59.03	-86.32	-3,412.72	-4,239.02	1,891.99	1,713.48	178.51	10.599		
11,200.00	7,056.71	8,531.74	6,935.11	122.56	61.79	-86.32	-3,415.05	-4,338.98	1,893.72	1,709.72	184.00	10.292		
11,300.00	7,056.48	8,631.76	6,934.70	125.31	64.61	-86.31	-3,417.37	-4,438.94	1,895.46	1,705.91	189.55	10.000		
11,400.00	7,056.25	8,718.26	6,934.28	128.06	67.08	-86.31	-3,419.70	-4,538.90	1,897.19	1,702.43	194.77	9.741		
11,500.00	7,056.02	8,818.25	6,933.86	130.82	69.97	-86.31	-3,422.02	-4,638.85	1,898.93	1,698.52	200.41	9.475		
11,600.00	7,055.79	8,931.80	6,933.45	133.59	73.30	-86.31	-3,424.35	-4,738.81	1,900.66	1,694.17	206.49	9.205		
11,700.00	7,055.55	9,031.82	6,933.03	136.35	76.27	-86.30	-3,426.67	-4,838.77	1,902.40	1,690.18	212.22	8.964		
11,800.00	7,055.32	9,118.20	6,932.61	139.12	78.85	-86.30	-3,429.00	-4,938.72	1,904.13	1,686.57	217.56	8.752		
11,900.00	7,055.09	9,231.85	6,932.20	141.90	82.29	-86.30	-3,431.32	-5,038.68	1,905.87	1,682.11	223.76	8.517		
12,000.00	7,054.86	9,331.87	6,931.78	144.67	85.33	-86.30	-3,433.65	-5,138.64	1,907.60	1,678.03	229.57	8.309		
12,100.00	7,054.63	9,418.16	6,931.36	147.45	87.97	-86.30	-3,435.97	-5,238.60	1,909.34	1,674.35	234.98	8.125		
12,200.00	7,054.40	9,531.90	6,930.94	150.24	91.47	-86.29	-3,438.30	-5,338.55	1,911.07	1,669.81	241.26	7.921		
12,300.00	7,054.17	9,631.91	6,930.53	153.02	94.57	-86.29	-3,440.62	-5,438.51	1,912.81	1,665.67	247.14	7.740		
12,400.00	7,053.94	9,731.93	6,930.11	155.81	97.69	-86.29	-3,442.95	-5,538.47	1,914.54	1,661.51	253.03	7.566		
12,500.00	7,053.71	9,818.10	6,929.69	158.60	100.38	-86.29	-3,445.27	-5,638.42	1,916.28	1,657.77	258.51	7.413		
12,600.00	7,053.48	9,931.96	6,929.28	161.40	103.95	-86.28	-3,447.60	-5,738.38	1,918.01	1,653.15	264.86	7.242		
12,700.00	7,053.25	10,031.98	6,928.86	164.19	107.10	-86.28	-3,449.92	-5,838.34	1,919.75	1,648.95	270.80	7.089		
12,800.00	7,053.02	10,131.99	6,928.44	166.99	110.26	-86.28	-3,452.25	-5,938.29	1,921.48	1,644.73	276.75	6.943		
12,900.00	7,052.79	10,232.01	6,928.02	169.79	113.43	-86.28	-3,454.57	-6,038.25	1,923.22	1,640.51	282.71	6.803		
13,000.00	7,052.56	10,318.02	6,927.61	172.59	116.17	-86.28	-3,456.90	-6,138.21	1,924.95	1,636.72	288.24	6.678		
13,100.00	7,052.33	10,418.01	6,927.19	175.40	119.35	-86.27	-3,459.22	-6,238.17	1,926.69	1,632.47	294.22	6.549		
13,200.00	7,052.10	10,494.00	6,926.87	178.20	121.78	-86.27	-3,461.14	-6,314.14	1,928.72	1,629.33	299.39	6.442		
13,300.00	7,051.87	10,562.13	6,926.59	181.01	123.95	-86.27	-3,464.43	-6,382.18	1,932.82	1,628.60	304.22	6.353		
13,400.00	7,051.64	10,662.02	6,926.17	183.82	127.13	-86.28	-3,469.65	-6,481.94	1,937.45	1,627.24	310.21	6.246		
13,500.00	7,051.41	10,743.59	6,925.83	186.63	129.73	-86.28	-3,473.99	-6,563.39	1,942.25	1,626.75	315.50	6.156		
13,600.00	7,051.18	10,800.00	6,925.60	189.44	131.53	-86.28	-3,478.30	-6,619.63	1,949.13	1,629.42	319.71	6.097		
13,700.00	7,050.95	10,842.32	6,925.42	192.25	132.86	-86.29	-3,482.62	-6,661.73	1,958.53	1,635.42	323.11	6.062		
13,800.00	7,050.72	10,900.00	6,925.18	195.07	134.68	-86.30	-3,490.01	-6,718.93	1,970.55	1,643.53	327.02	6.026		
13,900.00	7,050.49	10,939.97	6,925.01	197.88	135.92	-86.31	-3,496.14	-6,758.43	1,985.02	1,655.21	329.82	6.019		
14,000.00	7,050.26	10,992.19	6,924.79	200.70	137.54	-86.32	-3,505.40	-6,809.82	2,002.04	1,668.99	333.05	6.011		
14,100.00	7,050.03	11,469.56	6,922.80	203.52	152.65	-86.39	-3,559.51	-7,283.11	2,020.40	1,664.83	355.56	5.682		
14,200.00	7,049.80	11,569.56	6,922.38	206.34	155.91	-86.38	-3,559.49	-7,383.11	2,019.80	1,658.17	361.62	5.585		
14,300.00	7,049.56	11,669.56	6,921.96	209.16	159.16	-86.38	-3,559.48	-7,483.10	2,019.20	1,651.51	367.69	5.492		
14,400.00	7,049.33	11,769.56	6,921.55	211.98	162.42	-86.37	-3,559.47	-7,583.10	2,018.60	1,644.84	373.76	5.401		
14,500.00	7,049.10	11,869.56	6,921.13	214.80	165.69	-86.36	-3,559.45	-7,683.10	2,018.00	1,638.17	379.83	5.313		
14,600.00	7,048.87	11,969.55	6,920.71	217.63	168.95	-86.36	-3,559.44	-7,783.09	2,017.40	1,631.49	385.91	5.228		
14,700.00	7,048.64	12,069.55	6,920.30	220.45	172.22	-86.35	-3,559.43	-7,883.09	2,016.80	1,624.82	391.98	5.145		
14,800.00	7,048.41	12,169.55	6,919.88	223.28	175.49	-86.35	-3,559.42	-7,983.09	2,016.20	1,618.13	398.07	5.065		
14,900.00	7,048.18	12,269.55	6,919.46	226.10	178.76	-86.34	-3,559.40	-8,083.09	2,015.60	1,611.45	404.15	4.987		
14,979.18	7,048.00	12,348.73	6,919.13	228.34	181.36	-86.33	-3,559.39	-8,162.27	2,015.13	1,606.16	408.97	4.927 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 12N-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 12N-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		
0.00	0.00	25.00	67.00	3.28	0.00	-141.24	-4,069.41	-3,266.74	5,218.83					
100.00	100.00	58.00	100.00	3.28	0.07	-141.24	-4,069.41	-3,266.74	5,218.40	5,215.04	3.36	1,554.379		
200.00	200.00	88.10	918.86	3.34	3.73	-141.45	-4,041.39	-3,220.31	5,217.28	5,210.14	7.14	730.668		
300.00	299.98	978.84	1,016.53	3.44	4.24	32.58	-4,033.91	-3,207.90	5,202.05	5,194.37	7.68	677.078		
400.00	399.84	1,077.15	1,113.78	3.59	4.74	32.76	-4,026.45	-3,195.55	5,183.92	5,175.64	8.28	626.423		
500.00	499.45	1,174.91	1,210.49	3.79	5.24	32.99	-4,019.04	-3,183.27	5,162.91	5,154.00	8.91	579.313		
600.00	598.70	1,272.01	1,306.53	4.03	5.75	33.27	-4,011.68	-3,171.07	5,139.05	5,129.46	9.59	536.059		
700.00	697.47	1,368.31	1,401.79	4.31	6.25	33.62	-4,004.37	-3,158.97	5,112.37	5,102.07	10.29	496.664		
800.00	795.62	1,463.72	1,496.16	4.64	6.75	34.02	-3,997.14	-3,146.98	5,082.90	5,071.87	11.03	460.945		
900.00	893.16	1,558.24	1,589.66	5.00	7.24	34.29	-3,989.97	-3,135.10	5,051.03	5,039.25	11.78	428.648		
1,000.00	990.60	1,652.63	1,683.03	5.38	7.74	34.38	-3,982.82	-3,123.24	5,018.84	5,006.29	12.55	399.918		
1,100.00	1,088.04	1,747.02	1,776.40	5.79	8.23	34.47	-3,975.66	-3,111.38	4,986.66	4,973.32	13.34	373.926		
1,200.00	1,185.48	1,841.41	1,869.76	6.22	8.73	34.56	-3,968.50	-3,099.52	4,954.49	4,940.35	14.14	350.415		
1,300.00	1,282.92	1,935.80	1,963.13	6.66	9.23	34.65	-3,961.34	-3,087.66	4,922.33	4,907.37	14.96	329.126		
1,400.00	1,380.36	2,030.19	2,056.50	7.10	9.72	34.75	-3,954.19	-3,075.80	4,890.18	4,874.40	15.78	309.817		
1,500.00	1,477.80	2,125.43	2,149.87	7.56	10.23	34.84	-3,947.03	-3,063.94	4,858.05	4,841.42	16.63	292.194		
1,600.00	1,575.24	2,231.04	2,243.24	8.03	10.78	34.93	-3,939.87	-3,052.08	4,825.92	4,808.40	17.52	275.383		
1,700.00	1,672.68	2,313.36	2,336.61	8.50	11.22	35.03	-3,932.71	-3,040.22	4,793.81	4,775.49	18.32	261.651		
1,800.00	1,770.12	2,407.75	2,429.97	8.98	11.71	35.13	-3,925.56	-3,028.36	4,761.71	4,742.53	19.18	248.260		
1,900.00	1,867.56	2,502.14	2,523.34	9.46	12.21	35.23	-3,918.40	-3,016.50	4,729.62	4,709.58	20.04	235.958		
2,000.00	1,965.00	2,596.53	2,616.71	9.95	12.71	35.33	-3,911.24	-3,004.64	4,697.55	4,676.64	20.91	224.626		
2,100.00	2,062.44	2,690.92	2,710.08	10.44	13.21	35.43	-3,904.08	-2,992.78	4,665.49	4,643.70	21.78	214.161		
2,200.00	2,159.88	2,785.31	2,803.45	10.93	13.71	35.53	-3,896.93	-2,980.92	4,633.44	4,610.78	22.66	204.473		
2,300.00	2,257.32	2,879.70	2,896.82	11.42	14.21	35.64	-3,889.77	-2,969.06	4,601.41	4,577.87	23.54	195.481		
2,400.00	2,354.76	2,974.09	2,990.19	11.92	14.71	35.74	-3,882.61	-2,957.20	4,569.39	4,544.97	24.42	187.118		
2,500.00	2,452.20	3,068.49	3,083.55	12.42	15.21	35.85	-3,875.45	-2,945.34	4,537.38	4,512.08	25.30	179.321		
2,600.00	2,549.64	3,162.88	3,176.92	12.92	15.71	35.96	-3,868.30	-2,933.48	4,505.39	4,479.21	26.19	172.038		
2,700.00	2,647.08	3,257.27	3,270.29	13.42	16.21	36.07	-3,861.14	-2,921.62	4,473.42	4,446.34	27.08	165.220		
2,800.00	2,744.52	3,351.66	3,363.66	13.93	16.71	36.18	-3,853.98	-2,909.76	4,441.46	4,413.49	27.96	158.827		
2,900.00	2,841.96	3,446.05	3,457.03	14.43	17.20	36.30	-3,846.83	-2,897.90	4,409.51	4,380.66	28.85	152.820		
3,000.00	2,939.40	3,540.44	3,550.40	14.94	17.70	36.41	-3,839.67	-2,886.04	4,377.59	4,347.84	29.75	147.166		
3,100.00	3,036.84	3,634.83	3,643.77	15.44	18.20	36.53	-3,832.51	-2,874.18	4,345.67	4,315.04	30.64	141.836		
3,200.00	3,134.28	3,729.22	3,737.13	15.95	18.70	36.65	-3,825.35	-2,862.32	4,313.78	4,282.25	31.53	136.804		
3,300.00	3,231.72	3,826.41	3,830.50	16.46	19.22	36.77	-3,818.20	-2,850.46	4,281.90	4,249.46	32.44	131.993		
3,400.00	3,329.16	3,923.02	3,923.87	16.97	19.78	36.89	-3,811.04	-2,838.60	4,250.04	4,216.65	33.39	127.291		
3,500.00	3,426.60	4,012.39	4,017.24	17.48	20.20	37.02	-3,803.88	-2,826.74	4,218.20	4,183.98	34.22	123.267		
3,600.00	3,524.04	4,106.78	4,110.61	17.99	20.70	37.14	-3,796.72	-2,814.88	4,186.37	4,151.26	35.12	119.211		
3,700.00	3,621.48	4,201.17	4,203.98	18.50	21.20	37.27	-3,789.57	-2,803.02	4,154.57	4,118.55	36.02	115.355		
3,800.00	3,718.92	4,295.56	4,297.34	19.01	21.70	37.40	-3,782.41	-2,791.16	4,122.78	4,085.87	36.91	111.684		
3,900.00	3,816.36	4,389.95	4,390.71	19.52	22.20	37.53	-3,775.25	-2,779.30	4,091.01	4,053.20	37.81	108.187		
4,000.00	3,913.80	4,484.34	4,484.08	20.03	22.70	37.67	-3,768.09	-2,767.44	4,059.27	4,020.55	38.71	104.852		
4,100.00	4,011.24	4,578.73	4,577.45	20.55	23.20	37.80	-3,760.94	-2,755.58	4,027.54	3,987.92	39.62	101.666		
4,200.00	4,108.68	4,673.12	4,670.82	21.06	23.70	37.94	-3,753.78	-2,743.72	3,995.83	3,955.32	40.52	98.622		
4,300.00	4,206.12	4,767.51	4,764.19	21.57	24.20	38.08	-3,746.62	-2,731.86	3,964.15	3,922.73	41.42	95.710		
4,400.00	4,303.56	4,861.90	4,857.56	22.09	24.70	38.23	-3,739.46	-2,720.00	3,932.49	3,890.17	42.32	92.921		
4,500.00	4,401.00	4,956.29	4,950.92	22.60	25.20	38.37	-3,732.31	-2,708.14	3,900.85	3,857.62	43.22	90.248		
4,600.00	4,498.44	5,050.69	5,044.29	23.11	25.70	38.52	-3,725.15	-2,696.28	3,869.23	3,825.10	44.13	87.683		
4,700.00	4,595.88	5,145.08	5,137.66	23.63	26.20	38.67	-3,717.99	-2,684.42	3,837.64	3,792.61	45.03	85.222		
4,800.00	4,693.32	5,239.47	5,231.03	24.14	26.70	38.82	-3,710.84	-2,672.56	3,806.07	3,760.13	45.94	82.857		
4,900.00	4,790.76	5,333.86	5,324.40	24.66	27.21	38.97	-3,703.68	-2,660.70	3,774.53	3,727.69	46.84	80.583		
5,000.00	4,888.20	5,428.25	5,417.77	25.17	27.71	39.13	-3,696.52	-2,648.84	3,743.01	3,695.26	47.75	78.395		
5,100.00	4,985.64	5,522.38	5,511.14	25.69	28.23	39.29	-3,689.36	-2,636.98	3,711.52	3,662.84	48.67	76.254		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,617.03	5,604.50	26.20	28.71	39.45	-3,682.21	-2,625.12	3,680.05	3,630.49	49.56	74.259		
5,300.00	5,180.52	5,711.42	5,697.87	26.72	29.21	39.62	-3,675.05	-2,613.26	3,648.61	3,598.15	50.46	72.302		
5,400.00	5,277.96	5,805.81	5,791.24	27.24	29.71	39.79	-3,667.89	-2,601.40	3,617.20	3,565.83	51.37	70.414		
5,500.00	5,375.40	5,900.20	5,884.61	27.75	30.21	39.96	-3,660.73	-2,589.54	3,585.82	3,533.54	52.28	68.592		
5,600.00	5,472.84	5,994.59	5,977.98	28.27	30.71	40.13	-3,653.58	-2,577.68	3,554.47	3,501.29	53.19	66.832		
5,700.00	5,570.28	6,088.98	6,071.35	28.79	31.21	40.31	-3,646.42	-2,565.82	3,523.15	3,469.06	54.09	65.131		
5,800.00	5,667.72	6,183.37	6,164.71	29.30	31.71	40.49	-3,639.26	-2,553.96	3,491.86	3,436.86	55.00	63.486		
5,900.00	5,765.16	6,277.76	6,258.08	29.82	32.21	40.68	-3,632.10	-2,542.10	3,460.60	3,404.69	55.91	61.895		
6,000.00	5,862.60	6,372.15	6,351.45	30.34	32.71	40.86	-3,624.95	-2,530.24	3,429.38	3,372.56	56.82	60.355		
6,100.00	5,960.05	6,400.00	6,379.05	30.85	32.85	40.92	-3,622.84	-2,527.23	3,399.20	3,341.62	57.58	59.034		
6,200.00	6,057.49	6,413.36	6,392.33	31.37	32.91	40.96	-3,621.84	-2,526.21	3,371.11	3,312.82	58.29	57.837		
6,300.00	6,154.93	6,425.01	6,403.94	31.89	32.97	40.99	-3,620.97	-2,525.55	3,345.29	3,286.33	58.96	56.736		
6,400.00	6,252.37	6,450.00	6,428.85	32.40	33.08	41.07	-3,619.12	-2,524.86	3,321.63	3,261.98	59.65	55.687		
6,500.00	6,349.81	6,472.58	6,451.36	32.92	33.16	41.15	-3,617.46	-2,525.07	3,300.29	3,239.99	60.30	54.734		
6,600.00	6,447.25	6,500.00	6,478.68	33.44	33.26	41.27	-3,615.48	-2,526.41	3,281.33	3,220.40	60.94	53.848		
6,700.00	6,544.28	6,512.18	6,490.78	33.95	33.30	11.39	-3,614.61	-2,527.38	3,260.41	3,198.92	61.48	53.031		
6,800.00	6,638.86	6,525.01	6,503.52	34.44	33.34	-9.28	-3,613.70	-2,528.66	3,230.95	3,169.00	61.95	52.153		
6,900.00	6,728.65	6,550.00	6,528.24	34.89	33.41	-21.53	-3,611.95	-2,531.88	3,193.24	3,130.84	62.40	51.175		
7,000.00	6,811.45	6,569.99	6,547.91	35.29	33.46	-30.46	-3,610.58	-2,535.15	3,148.09	3,085.33	62.76	50.160		
7,100.00	6,885.21	6,600.00	6,577.23	35.66	33.53	-38.30	-3,608.56	-2,541.23	3,096.47	3,033.35	63.12	49.056		
7,200.00	6,948.11	6,600.00	6,577.23	35.99	33.53	-45.81	-3,608.56	-2,541.23	3,039.14	2,975.83	63.32	48.000		
7,300.00	6,998.62	6,625.01	6,601.42	36.30	33.58	-53.83	-3,606.92	-2,547.34	2,977.66	2,914.02	63.64	46.791		
7,400.00	7,035.48	6,625.01	6,601.42	36.65	33.58	-61.86	-3,606.92	-2,547.34	2,913.40	2,849.51	63.89	45.597		
7,500.00	7,057.79	6,650.00	6,625.34	37.13	33.63	-70.49	-3,605.32	-2,554.40	2,847.84	2,783.46	64.38	44.238		
7,600.00	7,065.00	6,650.00	6,625.34	37.84	33.63	-78.23	-3,605.32	-2,554.40	2,782.82	2,717.92	64.89	42.884		
7,700.00	7,064.77	6,650.00	6,625.34	38.82	33.63	-78.23	-3,605.32	-2,554.40	2,719.77	2,654.17	65.60	41.459		
7,800.00	7,064.54	6,670.91	6,645.13	40.06	33.66	-78.74	-3,604.01	-2,561.02	2,658.69	2,592.09	66.61	39.915		
7,900.00	7,064.31	6,680.18	6,653.83	41.52	33.67	-78.97	-3,603.44	-2,564.17	2,600.03	2,532.24	67.79	38.353		
8,000.00	7,064.08	6,700.00	6,672.28	43.14	33.70	-79.45	-3,602.25	-2,571.31	2,543.87	2,474.64	69.23	36.743		
8,100.00	7,063.85	6,700.00	6,672.28	44.90	33.70	-79.45	-3,602.25	-2,571.31	2,490.19	2,419.34	70.85	35.147		
8,200.00	7,063.62	6,713.23	6,684.46	46.78	33.72	-79.77	-3,601.47	-2,576.40	2,439.32	2,366.59	72.73	33.539		
8,300.00	7,063.39	6,725.01	6,695.23	48.76	33.73	-80.06	-3,600.78	-2,581.15	2,391.34	2,316.51	74.82	31.960		
8,400.00	7,063.16	6,740.88	6,709.58	50.83	33.75	-80.44	-3,599.88	-2,587.85	2,346.40	2,269.27	77.13	30.423		
8,500.00	7,062.93	6,750.00	6,717.75	52.97	33.75	-80.65	-3,599.37	-2,591.86	2,304.66	2,225.05	79.62	28.947		
8,600.00	7,062.70	6,774.68	6,739.57	55.18	33.77	-81.23	-3,598.03	-2,603.31	2,266.18	2,183.90	82.28	27.543		
8,700.00	7,062.47	6,800.00	6,761.49	57.46	33.79	-81.82	-3,596.70	-2,615.92	2,231.17	2,146.09	85.08	26.224		
8,800.00	7,062.24	6,816.64	6,775.61	59.78	33.80	-82.20	-3,595.86	-2,624.68	2,199.63	2,111.62	88.01	24.993		
8,900.00	7,062.01	6,841.52	6,796.29	62.14	33.81	-82.75	-3,594.66	-2,638.47	2,171.67	2,080.65	91.02	23.858		
9,000.00	7,061.78	6,869.59	6,818.95	64.55	33.82	-83.36	-3,593.37	-2,654.97	2,147.31	2,053.21	94.10	22.819		
9,100.00	7,061.55	6,900.00	6,842.66	67.00	33.84	-84.01	-3,592.06	-2,673.96	2,126.53	2,029.32	97.21	21.875		
9,200.00	7,061.31	6,937.39	6,870.53	69.47	33.85	-84.77	-3,590.58	-2,698.83	2,109.25	2,008.93	100.33	21.024		
9,300.00	7,061.08	6,978.35	6,899.34	71.98	33.87	-85.56	-3,589.13	-2,727.90	2,095.35	1,991.92	103.43	20.258		
9,400.00	7,060.85	7,025.01	6,929.82	74.51	33.90	-86.39	-3,587.70	-2,763.20	2,084.62	1,978.11	106.51	19.572		
9,500.00	7,060.62	7,077.68	6,961.01	77.06	33.95	-87.25	-3,586.38	-2,805.59	2,076.79	1,967.22	109.57	18.953		
9,600.00	7,060.39	7,137.11	6,991.88	79.64	34.05	-88.11	-3,585.28	-2,856.34	2,071.52	1,958.89	112.63	18.393		
9,700.00	7,060.16	7,203.32	7,020.55	82.23	34.25	-88.91	-3,584.55	-2,915.98	2,068.41	1,952.69	115.72	17.874		
9,800.00	7,059.93	7,275.84	7,044.68	84.84	34.59	-89.58	-3,584.35	-2,984.33	2,067.03	1,948.12	118.91	17.383		
9,851.40	7,059.81	7,315.22	7,054.49	86.19	34.82	-89.85	-3,584.51	-3,022.47	2,066.87	1,946.27	120.60	17.138 CC		
9,900.00	7,059.70	7,353.52	7,061.76	87.47	35.10	-90.06	-3,584.84	-3,060.05	2,067.00	1,944.77	122.23	16.910		
10,000.00	7,059.47	7,434.41	7,069.64	90.11	35.83	-90.28	-3,586.12	-3,140.50	2,068.02	1,942.30	125.72	16.449		
10,100.00	7,059.24	7,528.68	7,069.60	92.76	36.90	-90.28	-3,588.30	-3,234.74	2,069.73	1,940.22	129.51	15.981		
10,200.00	7,059.01	7,628.67	7,068.99	95.42	38.31	-90.27	-3,590.66	-3,334.70	2,071.49	1,937.88	133.61	15.504		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.78	7,728.65	7,068.39	98.10	39.96	-90.26	-3,593.02	-3,434.65	2,073.25	1,935.30	137.94	15.030		
10,400.00	7,058.55	7,828.63	7,067.79	100.79	41.82	-90.25	-3,595.37	-3,534.60	2,075.00	1,932.52	142.49	14.563		
10,500.00	7,058.32	7,928.62	7,067.19	103.48	43.86	-90.24	-3,597.73	-3,634.56	2,076.76	1,929.55	147.21	14.107		
10,600.00	7,058.09	8,028.60	7,066.59	106.19	46.04	-90.23	-3,600.08	-3,734.51	2,078.52	1,926.42	152.10	13.665		
10,700.00	7,057.86	8,128.59	7,065.98	108.90	48.36	-90.22	-3,602.44	-3,834.47	2,080.27	1,923.15	157.13	13.240		
10,800.00	7,057.63	8,228.57	7,065.38	111.62	50.79	-90.21	-3,604.80	-3,934.42	2,082.03	1,919.76	162.27	12.830		
10,900.00	7,057.40	8,328.55	7,064.78	114.35	53.31	-90.20	-3,607.15	-4,034.38	2,083.79	1,916.26	167.52	12.439		
11,000.00	7,057.17	8,428.54	7,064.18	117.08	55.92	-90.19	-3,609.51	-4,134.33	2,085.54	1,912.68	172.86	12.065		
11,100.00	7,056.94	8,528.52	7,063.58	119.82	58.61	-90.18	-3,611.87	-4,234.28	2,087.30	1,909.02	178.28	11.708		
11,200.00	7,056.71	8,628.51	7,062.97	122.56	61.35	-90.17	-3,614.22	-4,334.24	2,089.06	1,905.28	183.77	11.368		
11,300.00	7,056.48	8,728.49	7,062.37	125.31	64.15	-90.16	-3,616.58	-4,434.19	2,090.81	1,901.49	189.32	11.044		
11,400.00	7,056.25	8,828.47	7,061.77	128.06	66.99	-90.15	-3,618.93	-4,534.15	2,092.57	1,897.64	194.92	10.735		
11,500.00	7,056.02	8,928.46	7,061.17	130.82	69.88	-90.14	-3,621.29	-4,634.10	2,094.33	1,893.75	200.57	10.442		
11,600.00	7,055.79	9,028.44	7,060.56	133.59	72.81	-90.13	-3,623.65	-4,734.06	2,096.08	1,889.82	206.27	10.162		
11,700.00	7,055.55	9,128.43	7,059.96	136.35	75.77	-90.12	-3,626.00	-4,834.01	2,097.84	1,885.85	211.99	9.896		
11,800.00	7,055.32	9,228.41	7,059.36	139.12	78.76	-90.11	-3,628.36	-4,933.96	2,099.60	1,881.84	217.76	9.642		
11,900.00	7,055.09	9,328.39	7,058.76	141.90	81.77	-90.10	-3,630.72	-5,033.92	2,101.36	1,877.81	223.55	9.400		
12,000.00	7,054.86	9,428.38	7,058.16	144.67	84.81	-90.09	-3,633.07	-5,133.87	2,103.11	1,873.75	229.36	9.169		
12,100.00	7,054.63	9,528.36	7,057.55	147.45	87.86	-90.08	-3,635.43	-5,233.83	2,104.87	1,869.66	235.21	8.949		
12,200.00	7,054.40	9,628.34	7,056.95	150.24	90.94	-90.07	-3,637.79	-5,333.78	2,106.63	1,865.56	241.07	8.739		
12,300.00	7,054.17	9,728.33	7,056.35	153.02	94.03	-90.06	-3,640.14	-5,433.74	2,108.38	1,861.43	246.95	8.538		
12,400.00	7,053.94	9,828.31	7,055.75	155.81	97.14	-90.05	-3,642.50	-5,533.69	2,110.14	1,857.29	252.85	8.345		
12,500.00	7,053.71	9,928.30	7,055.15	158.60	100.27	-90.04	-3,644.85	-5,633.64	2,111.90	1,853.13	258.77	8.161		
12,600.00	7,053.48	10,028.28	7,054.54	161.40	103.40	-90.03	-3,647.21	-5,733.60	2,113.66	1,848.96	264.70	7.985		
12,700.00	7,053.25	10,128.26	7,053.94	164.19	106.55	-90.02	-3,649.57	-5,833.55	2,115.42	1,844.77	270.65	7.816		
12,800.00	7,053.02	10,228.25	7,053.34	166.99	109.71	-90.01	-3,651.92	-5,933.51	2,117.17	1,840.57	276.61	7.654		
12,900.00	7,052.79	10,328.23	7,052.74	169.79	112.87	-90.00	-3,654.28	-6,033.46	2,118.93	1,836.36	282.58	7.499		
13,000.00	7,052.56	10,428.22	7,052.14	172.59	116.05	-89.99	-3,656.64	-6,133.41	2,120.69	1,832.13	288.56	7.349		
13,100.00	7,052.33	10,528.20	7,051.53	175.40	119.23	-89.98	-3,658.99	-6,233.37	2,122.45	1,827.90	294.55	7.206		
13,200.00	7,052.10	10,628.18	7,050.93	178.20	122.43	-89.97	-3,661.35	-6,333.32	2,124.21	1,823.66	300.55	7.068		
13,300.00	7,051.87	10,728.17	7,050.33	181.01	125.62	-89.96	-3,663.70	-6,433.28	2,125.96	1,819.41	306.56	6.935		
13,400.00	7,051.64	10,828.15	7,049.73	183.82	128.83	-89.95	-3,666.06	-6,533.23	2,127.72	1,815.15	312.57	6.807		
13,500.00	7,051.41	10,928.13	7,049.13	186.63	132.04	-89.94	-3,668.42	-6,633.19	2,129.48	1,810.88	318.60	6.684		
13,600.00	7,051.18	11,028.12	7,048.52	189.44	135.26	-89.93	-3,670.77	-6,733.14	2,131.24	1,806.61	324.63	6.565		
13,700.00	7,050.95	11,128.10	7,047.92	192.25	138.48	-89.92	-3,673.13	-6,833.09	2,133.00	1,802.33	330.66	6.451		
13,800.00	7,050.72	11,228.09	7,047.32	195.07	141.71	-89.91	-3,675.49	-6,933.05	2,134.76	1,798.05	336.71	6.340		
13,900.00	7,050.49	11,328.07	7,046.72	197.88	144.94	-89.90	-3,677.84	-7,033.00	2,136.51	1,793.76	342.76	6.233		
14,000.00	7,050.26	11,428.05	7,046.12	200.70	148.17	-89.89	-3,680.20	-7,132.96	2,138.27	1,789.46	348.81	6.130		
14,100.00	7,050.03	11,528.04	7,045.51	203.52	151.41	-89.88	-3,682.55	-7,232.91	2,140.03	1,785.16	354.87	6.030		
14,200.00	7,049.80	11,628.02	7,044.91	206.34	154.66	-89.87	-3,684.91	-7,332.87	2,141.79	1,780.86	360.93	5.934		
14,300.00	7,049.56	11,728.01	7,044.31	209.16	157.90	-89.86	-3,687.27	-7,432.82	2,143.55	1,776.55	367.00	5.841		
14,400.00	7,049.33	11,827.99	7,043.71	211.98	161.15	-89.85	-3,689.62	-7,532.77	2,145.31	1,772.23	373.08	5.750		
14,500.00	7,049.10	11,927.97	7,043.11	214.80	164.40	-89.84	-3,691.98	-7,632.73	2,147.07	1,767.91	379.15	5.663		
14,600.00	7,048.87	12,027.96	7,042.50	217.63	167.66	-89.83	-3,694.34	-7,732.68	2,148.83	1,763.59	385.23	5.578		
14,700.00	7,048.64	12,127.94	7,041.90	220.45	170.92	-89.82	-3,696.69	-7,832.64	2,150.59	1,759.27	391.32	5.496		
14,800.00	7,048.41	12,227.92	7,041.30	223.28	174.18	-89.81	-3,699.05	-7,932.59	2,152.34	1,754.94	397.41	5.416		
14,900.00	7,048.18	12,327.91	7,040.70	226.10	177.44	-89.80	-3,701.40	-8,032.55	2,154.10	1,750.61	403.50	5.339		
14,979.18	7,048.00	12,407.08	7,040.22	228.34	180.03	-89.79	-3,703.27	-8,111.69	2,155.50	1,747.18	408.32	5.279 ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	15,809.06	7,242.40	3.28	248.34	0.54	2,303.72	21.83	7,600.00					
100.00	100.00	15,808.82	7,242.40	3.28	248.33	0.54	2,303.72	21.59	7,504.77	7,383.04	121.73	61.649		
200.00	200.00	15,808.58	7,242.41	3.34	248.32	0.53	2,303.72	21.34	7,409.66	7,287.45	122.21	60.629		
300.00	299.98	15,808.15	7,242.41	3.44	248.31	174.96	2,303.73	20.92	7,315.25	7,192.51	122.74	59.599		
400.00	399.84	15,807.36	7,242.41	3.59	248.29	175.37	2,303.73	20.13	7,222.22	7,098.86	123.35	58.550		
500.00	499.45	15,806.21	7,242.41	3.79	248.25	175.70	2,303.73	18.97	7,130.72	7,006.67	124.05	57.481		
600.00	598.70	15,804.69	7,242.42	4.03	248.21	175.97	2,303.73	17.46	7,040.95	6,916.10	124.85	56.394		
700.00	697.47	15,802.82	7,242.42	4.31	248.16	176.19	2,303.74	15.59	6,953.08	6,827.32	125.76	55.289		
800.00	795.62	15,800.59	7,242.43	4.64	248.10	176.37	2,303.74	13.36	6,867.28	6,740.51	126.78	54.169		
900.00	893.16	15,802.01	7,242.43	5.00	248.14	176.43	2,303.74	10.82	6,783.50	6,655.55	127.95	53.016		
1,000.00	990.60	15,804.59	7,242.44	5.38	248.21	176.39	2,303.75	8.24	6,700.40	6,571.17	129.23	51.847		
1,100.00	1,088.04	15,807.17	7,242.44	5.79	248.28	176.35	2,303.75	5.66	6,617.77	6,487.19	130.58	50.681		
1,200.00	1,185.48	15,809.75	7,242.45	6.22	248.36	176.31	2,303.76	3.08	6,535.62	6,403.64	131.98	49.519		
1,300.00	1,282.92	15,812.34	7,242.46	6.66	248.43	176.27	2,303.76	0.49	6,453.98	6,320.52	133.45	48.361		
1,400.00	1,380.36	15,814.92	7,242.46	7.10	248.50	176.23	2,303.77	-2.09	6,372.85	6,237.86	134.99	47.209		
1,500.00	1,477.80	15,817.50	7,242.47	7.56	248.57	176.19	2,303.77	-4.67	6,292.27	6,155.67	136.60	46.063		
1,600.00	1,575.24	15,820.08	7,242.48	8.03	248.65	176.15	2,303.78	-7.25	6,212.26	6,073.98	138.28	44.926		
1,700.00	1,672.68	15,822.66	7,242.48	8.50	248.72	176.11	2,303.78	-9.83	6,132.82	5,992.80	140.03	43.797		
1,800.00	1,770.12	15,825.25	7,242.49	8.98	248.79	176.08	2,303.79	-12.41	6,054.00	5,912.15	141.85	42.679		
1,900.00	1,867.56	15,827.83	7,242.49	9.46	248.87	176.04	2,303.79	-15.00	5,975.81	5,832.07	143.74	41.573		
2,000.00	1,965.00	15,830.41	7,242.50	9.95	248.94	176.00	2,303.79	-17.58	5,898.28	5,752.57	145.71	40.480		
2,100.00	2,062.44	15,832.99	7,242.51	10.44	249.01	175.96	2,303.80	-20.16	5,821.43	5,673.68	147.75	39.400		
2,200.00	2,159.88	15,835.57	7,242.51	10.93	249.09	175.92	2,303.80	-22.74	5,745.29	5,595.43	149.87	38.336		
2,300.00	2,257.32	15,838.15	7,242.52	11.42	249.16	175.88	2,303.81	-25.32	5,669.90	5,517.84	152.05	37.289		
2,400.00	2,354.76	15,840.74	7,242.53	11.92	249.23	175.84	2,303.81	-27.91	5,595.27	5,440.95	154.32	36.259		
2,500.00	2,452.20	15,843.32	7,242.53	12.42	249.30	175.80	2,303.82	-30.49	5,521.44	5,364.79	156.65	35.247		
2,600.00	2,549.64	15,845.90	7,242.54	12.92	249.38	175.76	2,303.82	-33.07	5,448.45	5,289.39	159.06	34.254		
2,700.00	2,647.08	15,848.48	7,242.54	13.42	249.45	175.72	2,303.83	-35.65	5,376.33	5,214.78	161.54	33.281		
2,800.00	2,744.52	15,851.06	7,242.55	13.93	249.52	175.68	2,303.83	-38.23	5,305.11	5,141.01	164.10	32.329		
2,900.00	2,841.96	15,853.65	7,242.56	14.43	249.60	175.64	2,303.84	-40.81	5,234.83	5,068.10	166.73	31.398		
3,000.00	2,939.40	15,856.23	7,242.56	14.94	249.67	175.60	2,303.84	-43.40	5,165.52	4,996.10	169.42	30.489		
3,100.00	3,036.84	15,858.81	7,242.57	15.44	249.74	175.56	2,303.85	-45.98	5,097.24	4,925.05	172.19	29.602		
3,200.00	3,134.28	15,861.39	7,242.58	15.95	249.82	175.52	2,303.85	-48.56	5,030.02	4,854.99	175.03	28.738		
3,300.00	3,231.72	15,863.97	7,242.58	16.46	249.89	175.48	2,303.85	-51.14	4,963.90	4,785.96	177.94	27.897		
3,400.00	3,329.16	15,866.56	7,242.59	16.97	249.96	175.44	2,303.86	-53.72	4,898.92	4,718.01	180.91	27.080		
3,500.00	3,426.60	15,869.14	7,242.60	17.48	250.03	175.41	2,303.86	-56.31	4,835.14	4,651.20	183.95	26.286		
3,600.00	3,524.04	15,871.72	7,242.60	17.99	250.11	175.37	2,303.87	-58.89	4,772.61	4,585.56	187.04	25.516		
3,700.00	3,621.48	15,874.30	7,242.61	18.50	250.18	175.33	2,303.87	-61.47	4,711.36	4,521.16	190.20	24.770		
3,800.00	3,718.92	15,876.88	7,242.61	19.01	250.25	175.29	2,303.88	-64.05	4,651.46	4,458.04	193.42	24.049		
3,900.00	3,816.36	15,879.46	7,242.62	19.52	250.33	175.25	2,303.88	-66.63	4,592.95	4,396.26	196.69	23.352		
4,000.00	3,913.80	15,882.05	7,242.63	20.03	250.40	175.21	2,303.89	-69.21	4,535.89	4,335.88	200.00	22.679		
4,100.00	4,011.24	15,884.63	7,242.63	20.55	250.47	175.17	2,303.89	-71.80	4,480.33	4,276.96	203.37	22.031		
4,200.00	4,108.68	15,887.21	7,242.64	21.06	250.55	175.13	2,303.90	-74.38	4,426.33	4,219.57	206.77	21.407		
4,300.00	4,206.12	15,889.79	7,242.65	21.57	250.62	175.09	2,303.90	-76.96	4,373.96	4,163.75	210.21	20.808		
4,400.00	4,303.56	15,907.69	7,242.65	22.09	251.13	175.05	2,303.91	-79.54	4,323.26	4,109.25	214.00	20.202		
4,500.00	4,401.00	15,905.11	7,242.66	22.60	251.05	175.01	2,303.91	-82.12	4,274.29	4,056.91	217.38	19.663		
4,600.00	4,498.44	15,902.53	7,242.66	23.11	250.98	174.97	2,303.92	-84.71	4,227.13	4,006.35	220.77	19.147		
4,700.00	4,595.88	15,900.12	7,242.67	23.63	250.91	174.93	2,303.92	-87.29	4,181.82	3,957.65	224.17	18.654		
4,800.00	4,693.32	15,902.70	7,242.68	24.14	250.98	174.89	2,303.92	-89.87	4,138.43	3,910.75	227.68	18.176		
4,900.00	4,790.76	15,905.28	7,242.68	24.66	251.06	174.85	2,303.93	-92.45	4,097.02	3,865.84	231.18	17.722		
5,000.00	4,888.20	15,907.87	7,242.69	25.17	251.13	174.81	2,303.93	-95.03	4,057.65	3,822.99	234.66	17.291		
5,100.00	4,985.64	15,910.45	7,242.70	25.69	251.20	174.77	2,303.94	-97.62	4,020.39	3,782.27	238.12	16.884		

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 12N-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 12N-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	5,083.08	15,913.03	7,242.70	26.20	251.28	174.73	2,303.94	-100.20	3,985.28	3,743.75	241.53	16.500		
5,300.00	5,180.52	15,915.61	7,242.71	26.72	251.35	174.69	2,303.95	-102.78	3,952.39	3,707.50	244.89	16.139		
5,400.00	5,277.96	15,918.19	7,242.72	27.24	251.42	174.66	2,303.95	-105.36	3,921.77	3,673.58	248.20	15.801		
5,500.00	5,375.40	15,920.77	7,242.72	27.75	251.50	174.62	2,303.96	-107.94	3,893.48	3,642.05	251.43	15.485		
5,600.00	5,472.84	15,923.36	7,242.73	28.27	251.57	174.58	2,303.96	-110.52	3,867.57	3,612.99	254.58	15.192		
5,700.00	5,570.28	15,925.94	7,242.73	28.79	251.64	174.54	2,303.97	-113.11	3,844.08	3,586.45	257.64	14.921		
5,800.00	5,667.72	15,928.52	7,242.74	29.30	251.71	174.50	2,303.97	-115.69	3,823.07	3,562.48	260.59	14.671		
5,900.00	5,765.16	15,931.10	7,242.75	29.82	251.79	174.46	2,303.98	-118.27	3,804.56	3,541.14	263.42	14.443		
6,000.00	5,862.60	15,933.68	7,242.75	30.34	251.86	174.42	2,303.98	-120.85	3,788.60	3,522.47	266.14	14.236		
6,100.00	5,960.05	15,936.27	7,242.76	30.85	251.93	174.38	2,303.98	-123.43	3,775.23	3,506.52	268.71	14.049		
6,200.00	6,057.49	15,938.85	7,242.77	31.37	252.01	174.34	2,303.99	-126.02	3,764.46	3,493.32	271.14	13.884		
6,300.00	6,154.93	15,941.43	7,242.77	31.89	252.08	174.30	2,303.99	-128.60	3,756.32	3,482.90	273.42	13.738		
6,400.00	6,252.37	15,944.01	7,242.78	32.40	252.15	174.26	2,304.00	-131.18	3,750.83	3,475.29	275.55	13.612		
6,500.00	6,349.81	15,946.59	7,242.78	32.92	252.23	174.22	2,304.00	-133.76	3,748.00	3,470.50	277.50	13.506		
6,556.22	6,404.59	15,948.04	7,242.79	33.21	252.27	174.20	2,304.01	-135.21	3,747.58	3,469.05	278.52	13.455 CC		
6,600.00	6,447.25	15,949.17	7,242.79	33.44	252.30	174.18	2,304.01	-136.34	3,747.83	3,468.55	279.28	13.419		
6,700.00	6,544.28	15,957.65	7,242.81	33.95	252.54	145.09	2,304.02	-144.81	3,750.37	3,469.32	281.05	13.344		
6,800.00	6,638.86	15,981.45	7,242.87	34.44	253.21	125.52	2,304.07	-168.62	3,755.51	3,472.47	283.04	13.268		
6,900.00	6,728.65	16,020.13	7,242.96	34.89	254.31	114.71	2,304.14	-207.30	3,762.84	3,477.60	285.24	13.192		
7,000.00	6,811.45	16,072.75	7,243.09	35.29	255.80	107.83	2,304.23	-259.92	3,771.72	3,484.09	287.63	13.113		
7,100.00	6,885.21	16,138.00	7,243.25	35.66	257.64	102.91	2,304.35	-325.17	3,781.38	3,491.14	290.24	13.028		
7,200.00	6,948.11	16,214.28	7,243.44	35.99	259.80	99.19	2,304.48	-401.45	3,790.97	3,497.88	293.09	12.935		
7,300.00	6,998.62	16,300.35	7,243.65	36.30	262.24	96.37	2,304.64	-486.88	3,799.65	3,503.42	296.23	12.827		
7,400.00	7,035.48	16,407.87	7,243.87	36.65	265.28	94.36	2,304.80	-579.36	3,806.67	3,506.60	300.06	12.686		
7,500.00	7,057.79	16,489.44	7,244.11	37.13	267.59	93.14	2,304.98	-676.61	3,811.44	3,508.13	303.31	12.566		
7,600.00	7,065.00	16,589.07	7,244.35	37.84	270.42	92.69	2,305.16	-776.23	3,813.58	3,506.37	307.21	12.413		
7,700.00	7,064.77	16,689.06	7,244.60	38.82	273.25	92.70	2,305.34	-876.23	3,814.38	3,503.09	311.29	12.253		
7,800.00	7,064.54	16,789.06	7,244.84	40.06	276.08	92.71	2,305.52	-976.22	3,815.18	3,499.64	315.54	12.091		
7,900.00	7,064.31	16,889.05	7,245.09	41.52	278.92	92.71	2,305.69	-1,076.22	3,815.98	3,496.04	319.94	11.927		
8,000.00	7,064.08	16,989.05	7,245.33	43.14	281.75	92.72	2,305.87	-1,176.21	3,816.78	3,492.31	324.47	11.763		
8,100.00	7,063.85	17,089.05	7,245.58	44.90	284.59	92.73	2,306.05	-1,276.21	3,817.58	3,488.45	329.13	11.599		
8,200.00	7,063.62	17,189.04	7,245.82	46.78	287.42	92.73	2,306.23	-1,376.20	3,818.38	3,484.50	333.88	11.436		
8,300.00	7,063.39	17,289.04	7,246.06	48.76	290.26	92.74	2,306.41	-1,476.20	3,819.18	3,480.45	338.73	11.275		
8,400.00	7,063.16	17,389.03	7,246.31	50.83	293.10	92.75	2,306.59	-1,576.19	3,819.98	3,476.32	343.66	11.116		
8,500.00	7,062.93	17,489.03	7,246.55	52.97	295.93	92.75	2,306.77	-1,676.19	3,820.78	3,472.12	348.66	10.958		
8,600.00	7,062.70	17,589.02	7,246.80	55.18	298.77	92.76	2,306.95	-1,776.19	3,821.58	3,467.86	353.72	10.804		
8,700.00	7,062.47	17,689.02	7,247.04	57.46	301.61	92.77	2,307.13	-1,876.18	3,822.38	3,463.54	358.84	10.652		
8,800.00	7,062.24	17,789.02	7,247.29	59.78	304.45	92.77	2,307.31	-1,976.18	3,823.18	3,459.17	364.01	10.503		
8,900.00	7,062.01	17,889.01	7,247.53	62.14	307.29	92.78	2,307.49	-2,076.17	3,823.98	3,454.76	369.23	10.357		
9,000.00	7,061.78	17,989.01	7,247.78	64.55	310.13	92.79	2,307.67	-2,176.17	3,824.78	3,450.30	374.48	10.214		
9,100.00	7,061.55	18,089.00	7,248.02	67.00	312.97	92.79	2,307.85	-2,276.16	3,825.58	3,445.82	379.77	10.074		
9,200.00	7,061.31	18,189.00	7,248.26	69.47	315.81	92.80	2,308.03	-2,376.16	3,826.38	3,441.30	385.08	9.936		
9,300.00	7,061.08	18,289.00	7,248.51	71.98	318.65	92.81	2,308.21	-2,476.15	3,827.18	3,436.75	390.43	9.802		
9,400.00	7,060.85	18,388.99	7,248.75	74.51	321.49	92.81	2,308.39	-2,576.15	3,827.98	3,432.18	395.80	9.671		
9,500.00	7,060.62	18,488.99	7,249.00	77.06	324.33	92.82	2,308.57	-2,676.14	3,828.79	3,427.59	401.20	9.543		
9,600.00	7,060.39	18,588.98	7,249.24	79.64	327.17	92.83	2,308.75	-2,776.14	3,829.59	3,422.98	406.61	9.418		
9,700.00	7,060.16	18,688.98	7,249.49	82.23	330.02	92.83	2,308.93	-2,876.13	3,830.39	3,418.34	412.04	9.296		
9,800.00	7,059.93	18,788.97	7,249.73	84.84	332.86	92.84	2,309.10	-2,976.13	3,831.19	3,413.69	417.49	9.177		
9,900.00	7,059.70	18,888.97	7,249.97	87.47	335.70	92.85	2,309.28	-3,076.13	3,831.99	3,409.03	422.96	9.060		
10,000.00	7,059.47	18,988.97	7,250.22	90.11	338.54	92.85	2,309.46	-3,176.12	3,832.79	3,404.35	428.44	8.946		
10,100.00	7,059.24	19,088.96	7,250.46	92.76	341.39	92.86	2,309.64	-3,276.12	3,833.59	3,399.66	433.93	8.835		
10,200.00	7,059.01	19,188.26	7,250.53	95.42	342.22	92.86	2,309.70	-3,305.41	3,835.04	3,397.75	437.29	8.770 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 12N-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 12N-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
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
10,300.00	7,058.78	19,118.26	7,250.53	98.10	342.22	92.86	2,309.70	-3,305.41	3,838.99	3,399.46	439.53	8.734		
10,400.00	7,058.55	19,118.26	7,250.53	100.79	342.22	92.86	2,309.70	-3,305.41	3,845.53	3,404.05	441.48	8.710		
10,500.00	7,058.32	19,118.26	7,250.53	103.48	342.22	92.86	2,309.70	-3,305.41	3,854.66	3,411.51	443.15	8.698		
10,600.00	7,058.09	19,118.26	7,250.53	106.19	342.22	92.86	2,309.70	-3,305.41	3,866.35	3,421.81	444.54	8.697 SF		
10,700.00	7,057.86	19,118.26	7,250.53	108.90	342.22	92.86	2,309.70	-3,305.41	3,880.59	3,434.95	445.64	8.708		
10,800.00	7,057.63	19,118.26	7,250.53	111.62	342.22	92.86	2,309.70	-3,305.41	3,897.34	3,450.88	446.46	8.729		
10,900.00	7,057.40	19,118.26	7,250.53	114.35	342.22	92.86	2,309.70	-3,305.41	3,916.57	3,469.56	447.01	8.762		
11,000.00	7,057.17	19,118.26	7,250.53	117.08	342.22	92.86	2,309.70	-3,305.41	3,938.25	3,490.96	447.29	8.805		
11,100.00	7,056.94	19,118.26	7,250.53	119.82	342.22	92.86	2,309.70	-3,305.41	3,962.34	3,515.03	447.31	8.858		
11,200.00	7,056.71	19,118.26	7,250.53	122.56	342.22	92.86	2,309.70	-3,305.41	3,988.78	3,541.71	447.07	8.922		
11,300.00	7,056.48	19,118.26	7,250.53	125.31	342.22	92.86	2,309.70	-3,305.41	4,017.54	3,570.95	446.60	8.996		
11,400.00	7,056.25	19,118.26	7,250.53	128.06	342.22	92.86	2,309.70	-3,305.41	4,048.57	3,602.69	445.89	9.080		
11,500.00	7,056.02	19,118.26	7,250.53	130.82	342.22	92.86	2,309.70	-3,305.41	4,081.82	3,636.86	444.96	9.173		
11,600.00	7,055.79	19,118.26	7,250.53	133.59	342.22	92.86	2,309.70	-3,305.41	4,117.22	3,673.40	443.83	9.277		
11,700.00	7,055.55	19,118.26	7,250.53	136.35	342.22	92.86	2,309.70	-3,305.41	4,154.73	3,712.24	442.50	9.389		
11,800.00	7,055.32	19,118.26	7,250.53	139.12	342.22	92.86	2,309.70	-3,305.41	4,194.29	3,753.31	440.99	9.511		
11,900.00	7,055.09	19,118.26	7,250.53	141.90	342.22	92.86	2,309.70	-3,305.41	4,235.84	3,796.54	439.30	9.642		
12,000.00	7,054.86	19,118.26	7,250.53	144.67	342.22	92.86	2,309.70	-3,305.41	4,279.33	3,841.86	437.47	9.782		
12,100.00	7,054.63	19,118.26	7,250.53	147.45	342.22	92.86	2,309.70	-3,305.41	4,324.69	3,889.20	435.49	9.931		
12,200.00	7,054.40	19,118.26	7,250.53	150.24	342.22	92.86	2,309.70	-3,305.41	4,371.87	3,938.49	433.38	10.088		
12,300.00	7,054.17	19,118.26	7,250.53	153.02	342.22	92.86	2,309.70	-3,305.41	4,420.80	3,989.65	431.15	10.254		
12,400.00	7,053.94	19,118.26	7,250.53	155.81	342.22	92.86	2,309.70	-3,305.41	4,471.44	4,042.63	428.81	10.428		
12,500.00	7,053.71	19,118.26	7,250.53	158.60	342.22	92.86	2,309.70	-3,305.41	4,523.72	4,097.34	426.38	10.610		
12,600.00	7,053.48	19,118.26	7,250.53	161.40	342.22	92.86	2,309.70	-3,305.41	4,577.59	4,153.73	423.86	10.800		
12,700.00	7,053.25	19,118.26	7,250.53	164.19	342.22	92.86	2,309.70	-3,305.41	4,632.99	4,211.72	421.28	10.998		
12,800.00	7,053.02	19,118.26	7,250.53	166.99	342.22	92.86	2,309.70	-3,305.41	4,689.87	4,271.25	418.62	11.203		
12,900.00	7,052.79	19,118.26	7,250.53	169.79	342.22	92.86	2,309.70	-3,305.41	4,748.18	4,332.26	415.91	11.416		
13,000.00	7,052.56	19,118.26	7,250.53	172.59	342.22	92.86	2,309.70	-3,305.41	4,807.86	4,394.70	413.16	11.637		
13,100.00	7,052.33	19,118.26	7,250.53	175.40	342.22	92.86	2,309.70	-3,305.41	4,868.86	4,458.49	410.37	11.865		
13,200.00	7,052.10	19,118.26	7,250.53	178.20	342.22	92.86	2,309.70	-3,305.41	4,931.13	4,523.59	407.54	12.100		
13,300.00	7,051.87	19,118.26	7,250.53	181.01	342.22	92.86	2,309.70	-3,305.41	4,994.63	4,589.93	404.70	12.342		
13,400.00	7,051.64	19,118.26	7,250.53	183.82	342.22	92.86	2,309.70	-3,305.41	5,059.31	4,657.48	401.83	12.591		
13,500.00	7,051.41	19,118.26	7,250.53	186.63	342.22	92.86	2,309.70	-3,305.41	5,125.12	4,726.16	398.96	12.846		
13,600.00	7,051.18	19,118.26	7,250.53	189.44	342.22	92.86	2,309.70	-3,305.41	5,192.03	4,795.95	396.08	13.109		
13,700.00	7,050.95	19,118.26	7,250.53	192.25	342.22	92.86	2,309.70	-3,305.41	5,259.99	4,866.78	393.20	13.377		
13,800.00	7,050.72	19,118.26	7,250.53	195.07	342.22	92.86	2,309.70	-3,305.41	5,328.95	4,938.63	390.33	13.653		
13,900.00	7,050.49	19,118.26	7,250.53	197.88	342.22	92.86	2,309.70	-3,305.41	5,398.89	5,011.43	387.46	13.934		
14,000.00	7,050.26	19,118.26	7,250.53	200.70	342.22	92.86	2,309.70	-3,305.41	5,469.76	5,085.15	384.61	14.222		
14,100.00	7,050.03	19,118.26	7,250.53	203.52	342.22	92.86	2,309.70	-3,305.41	5,541.53	5,159.76	381.77	14.515		
14,200.00	7,049.80	19,118.26	7,250.53	206.34	342.22	92.86	2,309.70	-3,305.41	5,614.17	5,235.22	378.95	14.815		
14,300.00	7,049.56	19,118.26	7,250.53	209.16	342.22	92.86	2,309.70	-3,305.41	5,687.63	5,311.48	376.15	15.121		
14,400.00	7,049.33	19,118.26	7,250.53	211.98	342.22	92.86	2,309.70	-3,305.41	5,761.89	5,388.52	373.38	15.432		
14,500.00	7,049.10	19,118.26	7,250.53	214.80	342.22	92.86	2,309.70	-3,305.41	5,836.93	5,466.30	370.63	15.749		
14,600.00	7,048.87	19,118.26	7,250.53	217.63	342.22	92.86	2,309.70	-3,305.41	5,912.70	5,544.79	367.91	16.071		
14,700.00	7,048.64	19,118.26	7,250.53	220.45	342.22	92.86	2,309.70	-3,305.41	5,989.18	5,623.96	365.22	16.399		
14,800.00	7,048.41	19,118.26	7,250.53	223.28	342.22	92.86	2,309.70	-3,305.41	6,066.35	5,703.79	362.56	16.732		
14,900.00	7,048.18	19,118.26	7,250.53	226.10	342.22	92.86	2,309.70	-3,305.41	6,144.17	5,784.24	359.93	17.070		
14,979.18	7,048.00	19,118.26	7,250.53	228.34	342.22	92.86	2,309.70	-3,305.41	6,206.24	5,848.37	357.88	17.342		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	15,718.63	7,134.46	3.28	248.10	-0.12	2,143.43	-4.53	7,449.48					
100.00	100.00	15,718.87	7,134.46	3.28	248.10	-0.13	2,143.42	-4.78	7,353.77	7,234.09	119.68	61.446		
200.00	200.00	15,719.12	7,134.46	3.34	248.11	-0.13	2,143.42	-5.02	7,258.17	7,138.04	120.13	60.419		
300.00	299.98	15,719.57	7,134.46	3.44	248.12	174.39	2,143.42	-5.47	7,163.23	7,042.59	120.64	59.379		
400.00	399.84	15,720.42	7,134.46	3.59	248.15	174.87	2,143.41	-6.32	7,069.60	6,948.36	121.23	58.315		
500.00	499.45	15,721.67	7,134.46	3.79	248.18	175.25	2,143.40	-7.58	6,977.44	6,855.51	121.93	57.225		
600.00	598.70	15,723.33	7,134.47	4.03	248.23	175.56	2,143.38	-9.24	6,886.94	6,764.20	122.74	56.111		
700.00	697.47	15,725.39	7,134.47	4.31	248.29	175.81	2,143.36	-11.30	6,798.27	6,674.61	123.66	54.975		
800.00	795.62	15,727.85	7,134.48	4.64	248.36	176.02	2,143.33	-13.75	6,711.61	6,586.90	124.71	53.819		
900.00	893.16	15,730.65	7,134.49	5.00	248.44	176.08	2,143.30	-16.55	6,626.91	6,501.04	125.87	52.647		
1,000.00	990.60	15,733.50	7,134.49	5.38	248.52	176.04	2,143.27	-19.41	6,542.87	6,415.74	127.13	51.467		
1,100.00	1,088.04	15,736.35	7,134.50	5.79	248.60	175.99	2,143.25	-22.26	6,459.29	6,330.84	128.45	50.288		
1,200.00	1,185.48	15,739.20	7,134.51	6.22	248.68	175.95	2,143.22	-25.11	6,376.17	6,246.35	129.83	49.112		
1,300.00	1,282.92	15,742.06	7,134.51	6.66	248.76	175.90	2,143.19	-27.96	6,293.55	6,162.27	131.28	47.940		
1,400.00	1,380.36	15,744.91	7,134.52	7.10	248.84	175.86	2,143.16	-30.81	6,211.44	6,078.64	132.80	46.774		
1,500.00	1,477.80	15,747.76	7,134.53	7.56	248.92	175.81	2,143.13	-33.66	6,129.85	5,995.47	134.39	45.613		
1,600.00	1,575.24	15,750.61	7,134.53	8.03	249.00	175.76	2,143.10	-36.51	6,048.82	5,912.77	136.05	44.460		
1,700.00	1,672.68	15,753.46	7,134.54	8.50	249.08	175.72	2,143.07	-39.36	5,968.36	5,830.58	137.79	43.316		
1,800.00	1,770.12	15,756.31	7,134.55	8.98	249.16	175.67	2,143.04	-42.21	5,888.50	5,748.91	139.60	42.182		
1,900.00	1,867.56	15,759.16	7,134.56	9.46	249.24	175.63	2,143.01	-45.06	5,809.27	5,667.78	141.49	41.059		
2,000.00	1,965.00	15,762.01	7,134.56	9.95	249.32	175.58	2,142.98	-47.91	5,730.67	5,587.22	143.45	39.949		
2,100.00	2,062.44	15,764.86	7,134.57	10.44	249.40	175.54	2,142.95	-50.76	5,652.76	5,507.27	145.49	38.852		
2,200.00	2,159.88	15,767.71	7,134.58	10.93	249.48	175.49	2,142.92	-53.61	5,575.55	5,427.93	147.62	37.771		
2,300.00	2,257.32	15,770.57	7,134.58	11.42	249.56	175.44	2,142.89	-56.47	5,499.07	5,349.25	149.82	36.706		
2,400.00	2,354.76	15,773.42	7,134.59	11.92	249.64	175.40	2,142.87	-59.32	5,423.35	5,271.26	152.09	35.658		
2,500.00	2,452.20	15,776.27	7,134.60	12.42	249.72	175.35	2,142.84	-62.17	5,348.43	5,193.98	154.45	34.629		
2,600.00	2,549.64	15,779.12	7,134.60	12.92	249.80	175.31	2,142.81	-65.02	5,274.35	5,117.46	156.89	33.618		
2,700.00	2,647.08	15,781.97	7,134.61	13.42	249.88	175.26	2,142.78	-67.87	5,201.12	5,041.72	159.40	32.628		
2,800.00	2,744.52	15,784.82	7,134.62	13.93	249.97	175.22	2,142.75	-70.72	5,128.80	4,966.80	162.00	31.659		
2,900.00	2,841.96	15,787.67	7,134.62	14.43	250.05	175.17	2,142.72	-73.57	5,057.42	4,892.75	164.67	30.712		
3,000.00	2,939.40	15,809.54	7,134.63	14.94	250.66	175.12	2,142.69	-76.42	4,987.03	4,819.28	167.75	29.729		
3,100.00	3,036.84	15,806.69	7,134.64	15.44	250.58	175.08	2,142.66	-79.27	4,917.66	4,747.17	170.49	28.845		
3,200.00	3,134.28	15,803.84	7,134.65	15.95	250.50	175.03	2,142.63	-82.12	4,849.35	4,676.06	173.29	27.983		
3,300.00	3,231.72	15,799.07	7,134.65	16.46	250.37	174.99	2,142.60	-84.97	4,782.16	4,606.02	176.14	27.150		
3,400.00	3,329.16	15,801.93	7,134.66	16.97	250.45	174.94	2,142.57	-87.82	4,716.13	4,536.94	179.19	26.319		
3,500.00	3,426.60	15,804.78	7,134.67	17.48	250.53	174.89	2,142.54	-90.68	4,651.32	4,469.00	182.32	25.512		
3,600.00	3,524.04	15,807.63	7,134.67	17.99	250.61	174.85	2,142.51	-93.53	4,587.76	4,402.25	185.52	24.730		
3,700.00	3,621.48	15,810.48	7,134.68	18.50	250.69	174.80	2,142.49	-96.38	4,525.52	4,336.74	188.78	23.973		
3,800.00	3,718.92	15,813.33	7,134.69	19.01	250.77	174.76	2,142.46	-99.23	4,464.65	4,272.55	192.11	23.240		
3,900.00	3,816.36	15,816.18	7,134.69	19.52	250.85	174.71	2,142.43	-102.08	4,405.21	4,209.72	195.49	22.534		
4,000.00	3,913.80	15,819.03	7,134.70	20.03	250.93	174.67	2,142.40	-104.93	4,347.26	4,148.32	198.94	21.852		
4,100.00	4,011.24	15,821.88	7,134.71	20.55	251.01	174.62	2,142.37	-107.78	4,290.85	4,088.41	202.43	21.196		
4,200.00	4,108.68	15,824.73	7,134.72	21.06	251.09	174.57	2,142.34	-110.63	4,236.05	4,030.07	205.98	20.566		
4,300.00	4,206.12	15,827.58	7,134.72	21.57	251.17	174.53	2,142.31	-113.48	4,182.92	3,973.36	209.56	19.961		
4,400.00	4,303.56	15,830.44	7,134.73	22.09	251.25	174.48	2,142.28	-116.33	4,131.52	3,918.35	213.17	19.381		
4,500.00	4,401.00	15,833.29	7,134.74	22.60	251.33	174.44	2,142.25	-119.18	4,081.93	3,865.11	216.82	18.827		
4,600.00	4,498.44	15,836.14	7,134.74	23.11	251.42	174.39	2,142.22	-122.03	4,034.20	3,813.72	220.48	18.297		
4,700.00	4,595.88	15,838.99	7,134.75	23.63	251.50	174.35	2,142.19	-124.88	3,988.41	3,764.26	224.15	17.793		
4,800.00	4,693.32	15,841.84	7,134.76	24.14	251.58	174.30	2,142.16	-127.74	3,944.62	3,716.80	227.82	17.314		
4,900.00	4,790.76	15,844.69	7,134.76	24.66	251.66	174.25	2,142.14	-130.59	3,902.90	3,671.42	231.48	16.860		
5,000.00	4,888.20	15,847.54	7,134.77	25.17	251.74	174.21	2,142.11	-133.44	3,863.32	3,628.19	235.13	16.431		
5,100.00	4,985.64	15,850.39	7,134.78	25.69	251.82	174.16	2,142.08	-136.29	3,825.94	3,587.20	238.74	16.026		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,200.00	5,083.08	15,853.24	7,134.79	26.20	251.90	174.12	2,142.05	-139.14	3,790.82	3,548.52	242.31	15.645		
5,300.00	5,180.52	15,856.09	7,134.79	26.72	251.98	174.07	2,142.02	-141.99	3,758.04	3,512.22	245.82	15.288		
5,400.00	5,277.96	15,858.94	7,134.80	27.24	252.06	174.02	2,141.99	-144.84	3,727.65	3,478.39	249.26	14.955		
5,500.00	5,375.40	15,861.80	7,134.81	27.75	252.14	173.98	2,141.96	-147.69	3,699.71	3,447.09	252.62	14.645		
5,600.00	5,472.84	15,864.65	7,134.81	28.27	252.22	173.93	2,141.93	-150.54	3,674.29	3,418.39	255.89	14.359		
5,700.00	5,570.28	15,867.50	7,134.82	28.79	252.30	173.89	2,141.90	-153.39	3,651.42	3,392.36	259.06	14.095		
5,800.00	5,667.72	15,870.35	7,134.83	29.30	252.38	173.84	2,141.87	-156.24	3,631.16	3,369.06	262.10	13.854		
5,900.00	5,765.16	15,873.20	7,134.83	29.82	252.46	173.80	2,141.84	-159.09	3,613.55	3,348.54	265.01	13.635		
6,000.00	5,862.60	15,876.05	7,134.84	30.34	252.54	173.75	2,141.81	-161.94	3,598.63	3,330.85	267.78	13.439		
6,100.00	5,960.05	15,878.90	7,134.85	30.85	252.62	173.70	2,141.78	-164.80	3,586.44	3,316.04	270.40	13.264		
6,200.00	6,057.49	15,881.75	7,134.85	31.37	252.70	173.66	2,141.76	-167.65	3,577.00	3,304.15	272.85	13.110		
6,300.00	6,154.93	15,884.60	7,134.86	31.89	252.78	173.61	2,141.73	-170.50	3,570.34	3,295.21	275.13	12.977		
6,400.00	6,252.37	15,887.45	7,134.87	32.40	252.87	173.57	2,141.70	-173.35	3,566.47	3,289.24	277.23	12.865		
6,488.33	6,338.44	15,889.97	7,134.87	32.86	252.94	173.53	2,141.67	-175.87	3,565.37	3,286.45	278.92	12.783 CC		
6,500.00	6,349.81	15,890.31	7,134.88	32.92	252.95	173.52	2,141.67	-176.20	3,565.39	3,286.26	279.14	12.773		
6,600.00	6,447.25	15,906.91	7,134.88	33.44	253.42	173.48	2,141.64	-179.05	3,567.12	3,285.88	281.24	12.684		
6,700.00	6,544.28	15,901.90	7,134.90	33.95	253.27	144.22	2,141.55	-187.79	3,571.60	3,289.06	282.54	12.641		
6,800.00	6,638.86	15,925.96	7,134.96	34.44	253.95	124.46	2,141.30	-211.85	3,578.58	3,294.15	284.43	12.582		
6,900.00	6,728.65	15,964.89	7,135.06	34.89	255.05	113.47	2,140.90	-250.78	3,587.56	3,301.05	286.51	12.522		
7,000.00	6,811.45	16,017.74	7,135.19	35.29	256.55	106.43	2,140.36	-303.63	3,597.84	3,309.06	288.79	12.458		
7,100.00	6,885.21	16,083.20	7,135.35	35.66	258.40	101.37	2,139.69	-369.08	3,608.59	3,317.32	291.28	12.389		
7,200.00	6,948.11	16,159.66	7,135.53	35.99	260.56	97.56	2,138.91	-445.53	3,618.91	3,324.89	294.02	12.309		
7,300.00	6,998.62	16,245.23	7,135.74	36.30	262.98	94.69	2,138.03	-531.10	3,627.90	3,330.86	297.04	12.213		
7,400.00	7,035.48	16,337.81	7,135.97	36.65	265.60	92.67	2,137.08	-623.68	3,634.81	3,334.42	300.38	12.101		
7,500.00	7,057.79	16,435.12	7,136.21	37.13	268.35	91.48	2,136.08	-720.99	3,639.01	3,334.99	304.03	11.969		
7,600.00	7,065.00	16,534.77	7,136.45	37.84	271.17	91.13	2,135.06	-820.63	3,640.15	3,332.23	307.92	11.822		
7,700.00	7,064.77	16,634.77	7,136.69	38.82	274.00	91.13	2,134.04	-920.62	3,639.73	3,327.73	312.01	11.666		
7,800.00	7,064.54	16,734.77	7,136.94	40.06	276.83	91.14	2,133.01	-1,020.61	3,639.32	3,323.06	316.26	11.507		
7,900.00	7,064.31	16,834.76	7,137.18	41.52	279.66	91.15	2,131.99	-1,120.61	3,638.90	3,318.24	320.66	11.348		
8,000.00	7,064.08	16,934.76	7,137.43	43.14	282.50	91.16	2,130.96	-1,220.60	3,638.49	3,313.28	325.20	11.188		
8,100.00	7,063.85	17,034.76	7,137.67	44.90	285.33	91.16	2,129.94	-1,320.59	3,638.07	3,308.21	329.86	11.029		
8,200.00	7,063.62	17,134.76	7,137.92	46.78	288.16	91.17	2,128.91	-1,420.58	3,637.65	3,303.03	334.62	10.871		
8,300.00	7,063.39	17,234.76	7,138.16	48.76	290.99	91.18	2,127.89	-1,520.58	3,637.24	3,297.76	339.47	10.714		
8,400.00	7,063.16	17,334.75	7,138.41	50.83	293.83	91.19	2,126.87	-1,620.57	3,636.82	3,292.41	344.41	10.560		
8,500.00	7,062.93	17,434.75	7,138.65	52.97	296.66	91.19	2,125.84	-1,720.56	3,636.40	3,286.99	349.42	10.407		
8,600.00	7,062.70	17,534.75	7,138.89	55.18	299.50	91.20	2,124.82	-1,820.55	3,635.99	3,281.50	354.49	10.257		
8,700.00	7,062.47	17,634.75	7,139.14	57.46	302.33	91.21	2,123.79	-1,920.55	3,635.57	3,275.96	359.61	10.110		
8,800.00	7,062.24	17,734.75	7,139.38	59.78	305.17	91.22	2,122.77	-2,020.54	3,635.16	3,270.37	364.79	9.965		
8,900.00	7,062.01	17,834.74	7,139.63	62.14	308.00	91.22	2,121.74	-2,120.53	3,634.74	3,264.74	370.01	9.823		
9,000.00	7,061.78	17,934.74	7,139.87	64.55	310.84	91.23	2,120.72	-2,220.52	3,634.33	3,259.06	375.26	9.685		
9,100.00	7,061.55	18,034.74	7,140.12	67.00	313.68	91.24	2,119.69	-2,320.51	3,633.91	3,253.35	380.56	9.549		
9,200.00	7,061.31	18,134.74	7,140.36	69.47	316.51	91.25	2,118.67	-2,420.51	3,633.49	3,247.61	385.88	9.416		
9,300.00	7,061.08	18,234.74	7,140.60	71.98	319.35	91.25	2,117.64	-2,520.50	3,633.08	3,241.85	391.23	9.286		
9,400.00	7,060.85	18,334.73	7,140.85	74.51	322.19	91.26	2,116.62	-2,620.49	3,632.66	3,236.05	396.61	9.159		
9,500.00	7,060.62	18,434.73	7,141.09	77.06	325.03	91.27	2,115.59	-2,720.48	3,632.25	3,230.24	402.01	9.035		
9,600.00	7,060.39	18,534.73	7,141.34	79.64	327.86	91.28	2,114.57	-2,820.48	3,631.83	3,224.40	407.43	8.914		
9,700.00	7,060.16	18,634.73	7,141.58	82.23	330.70	91.29	2,113.54	-2,920.47	3,631.42	3,218.55	412.87	8.796		
9,800.00	7,059.93	18,734.73	7,141.83	84.84	333.54	91.29	2,112.52	-3,020.46	3,631.00	3,212.68	418.32	8.680		
9,900.00	7,059.70	18,834.72	7,142.07	87.47	336.38	91.30	2,111.49	-3,120.45	3,630.59	3,206.80	423.79	8.567		
10,000.00	7,059.47	18,934.72	7,142.31	90.11	339.22	91.31	2,110.47	-3,220.45	3,630.17	3,200.90	429.28	8.456		
10,098.68	7,059.24	19,018.34	7,142.52	92.72	341.60	91.31	2,109.61	-3,304.06	3,629.79	3,195.53	434.26	8.359		
10,100.00	7,059.24	19,018.34	7,142.52	92.76	341.60	91.31	2,109.61	-3,304.06	3,629.79	3,195.50	434.29	8.358		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,059.01	19,018.34	7,142.52	95.42	341.60	91.31	2,109.61	-3,304.06	3,631.21	3,194.52	436.69	8.315 ES		
10,300.00	7,058.78	19,018.34	7,142.52	98.10	341.60	91.31	2,109.61	-3,304.06	3,635.37	3,196.60	438.77	8.285		
10,400.00	7,058.55	19,018.34	7,142.52	100.79	341.60	91.31	2,109.61	-3,304.06	3,642.28	3,201.74	440.54	8.268		
10,500.00	7,058.32	19,018.34	7,142.52	103.48	341.60	91.31	2,109.61	-3,304.06	3,651.91	3,209.92	441.99	8.262 SF		
10,600.00	7,058.09	19,018.34	7,142.52	106.19	341.60	91.31	2,109.61	-3,304.06	3,664.25	3,221.13	443.12	8.269		
10,700.00	7,057.86	19,018.34	7,142.52	108.90	341.60	91.31	2,109.61	-3,304.06	3,679.27	3,235.32	443.95	8.288		
10,800.00	7,057.63	19,018.34	7,142.52	111.62	341.60	91.31	2,109.61	-3,304.06	3,696.93	3,252.46	444.47	8.318		
10,900.00	7,057.40	19,018.34	7,142.52	114.35	341.60	91.31	2,109.61	-3,304.06	3,717.19	3,272.51	444.68	8.359		
11,000.00	7,057.17	19,018.34	7,142.52	117.08	341.60	91.31	2,109.61	-3,304.06	3,740.02	3,295.42	444.60	8.412		
11,100.00	7,056.94	19,018.34	7,142.52	119.82	341.60	91.31	2,109.61	-3,304.06	3,765.37	3,321.13	444.25	8.476		
11,200.00	7,056.71	19,018.34	7,142.52	122.56	341.60	91.31	2,109.61	-3,304.06	3,793.19	3,349.57	443.62	8.551		
11,300.00	7,056.48	19,018.34	7,142.52	125.31	341.60	91.31	2,109.61	-3,304.06	3,823.42	3,380.69	442.73	8.636		
11,400.00	7,056.25	19,018.34	7,142.52	128.06	341.60	91.31	2,109.61	-3,304.06	3,856.01	3,414.41	441.61	8.732		
11,500.00	7,056.02	19,018.34	7,142.52	130.82	341.60	91.31	2,109.61	-3,304.06	3,890.90	3,450.65	440.25	8.838		
11,600.00	7,055.79	19,018.34	7,142.52	133.59	341.60	91.31	2,109.61	-3,304.06	3,928.02	3,489.35	438.68	8.954		
11,700.00	7,055.55	19,018.34	7,142.52	136.35	341.60	91.31	2,109.61	-3,304.06	3,967.32	3,530.42	436.91	9.081		
11,800.00	7,055.32	19,018.34	7,142.52	139.12	341.60	91.31	2,109.61	-3,304.06	4,008.73	3,573.78	434.95	9.217		
11,900.00	7,055.09	19,018.34	7,142.52	141.90	341.60	91.31	2,109.61	-3,304.06	4,052.18	3,619.35	432.83	9.362		
12,000.00	7,054.86	19,018.34	7,142.52	144.67	341.60	91.31	2,109.61	-3,304.06	4,097.61	3,667.06	430.55	9.517		
12,100.00	7,054.63	19,018.34	7,142.52	147.45	341.60	91.31	2,109.61	-3,304.06	4,144.96	3,716.83	428.13	9.681		
12,200.00	7,054.40	19,018.34	7,142.52	150.24	341.60	91.31	2,109.61	-3,304.06	4,194.16	3,768.56	425.59	9.855		
12,300.00	7,054.17	19,018.34	7,142.52	153.02	341.60	91.31	2,109.61	-3,304.06	4,245.14	3,822.20	422.94	10.037		
12,400.00	7,053.94	19,018.34	7,142.52	155.81	341.60	91.31	2,109.61	-3,304.06	4,297.85	3,877.65	420.20	10.228		
12,500.00	7,053.71	19,018.34	7,142.52	158.60	341.60	91.31	2,109.61	-3,304.06	4,352.21	3,934.85	417.36	10.428		
12,600.00	7,053.48	19,018.34	7,142.52	161.40	341.60	91.31	2,109.61	-3,304.06	4,408.18	3,993.72	414.46	10.636		
12,700.00	7,053.25	19,018.34	7,142.52	164.19	341.60	91.31	2,109.61	-3,304.06	4,465.68	4,054.19	411.49	10.852		
12,800.00	7,053.02	19,018.34	7,142.52	166.99	341.60	91.31	2,109.61	-3,304.06	4,524.66	4,116.19	408.47	11.077		
12,900.00	7,052.79	19,018.34	7,142.52	169.79	341.60	91.31	2,109.61	-3,304.06	4,585.06	4,179.65	405.41	11.310		
13,000.00	7,052.56	19,018.34	7,142.52	172.59	341.60	91.31	2,109.61	-3,304.06	4,646.83	4,244.51	402.32	11.550		
13,100.00	7,052.33	19,018.34	7,142.52	175.40	341.60	91.31	2,109.61	-3,304.06	4,709.92	4,310.71	399.21	11.798		
13,200.00	7,052.10	19,018.34	7,142.52	178.20	341.60	91.31	2,109.61	-3,304.06	4,774.26	4,378.19	396.07	12.054		
13,300.00	7,051.87	19,018.34	7,142.52	181.01	341.60	91.31	2,109.61	-3,304.06	4,839.82	4,446.89	392.93	12.317		
13,400.00	7,051.64	19,018.34	7,142.52	183.82	341.60	91.31	2,109.61	-3,304.06	4,906.54	4,516.75	389.79	12.588		
13,500.00	7,051.41	19,018.34	7,142.52	186.63	341.60	91.31	2,109.61	-3,304.06	4,974.37	4,587.72	386.65	12.865		
13,600.00	7,051.18	19,018.34	7,142.52	189.44	341.60	91.31	2,109.61	-3,304.06	5,043.28	4,659.76	383.52	13.150		
13,700.00	7,050.95	19,018.34	7,142.52	192.25	341.60	91.31	2,109.61	-3,304.06	5,113.21	4,732.80	380.40	13.441		
13,800.00	7,050.72	19,018.34	7,142.52	195.07	341.60	91.31	2,109.61	-3,304.06	5,184.13	4,806.82	377.31	13.740		
13,900.00	7,050.49	19,018.34	7,142.52	197.88	341.60	91.31	2,109.61	-3,304.06	5,255.99	4,881.76	374.23	14.045		
14,000.00	7,050.26	19,018.34	7,142.52	200.70	341.60	91.31	2,109.61	-3,304.06	5,328.76	4,957.59	371.17	14.356		
14,100.00	7,050.03	19,018.34	7,142.52	203.52	341.60	91.31	2,109.61	-3,304.06	5,402.40	5,034.25	368.15	14.674		
14,200.00	7,049.80	19,018.34	7,142.52	206.34	341.60	91.31	2,109.61	-3,304.06	5,476.88	5,111.73	365.15	14.999		
14,300.00	7,049.56	19,018.34	7,142.52	209.16	341.60	91.31	2,109.61	-3,304.06	5,552.16	5,189.97	362.19	15.329		
14,400.00	7,049.33	19,018.34	7,142.52	211.98	341.60	91.31	2,109.61	-3,304.06	5,628.21	5,268.95	359.27	15.666		
14,500.00	7,049.10	19,018.34	7,142.52	214.80	341.60	91.31	2,109.61	-3,304.06	5,705.00	5,348.62	356.37	16.008		
14,600.00	7,048.87	19,018.34	7,142.52	217.63	341.60	91.31	2,109.61	-3,304.06	5,782.50	5,428.98	353.52	16.357		
14,700.00	7,048.64	19,018.34	7,142.52	220.45	341.60	91.31	2,109.61	-3,304.06	5,860.68	5,509.97	350.71	16.711		
14,800.00	7,048.41	19,018.34	7,142.52	223.28	341.60	91.31	2,109.61	-3,304.06	5,939.51	5,591.58	347.93	17.071		
14,900.00	7,048.18	19,018.34	7,142.52	226.10	341.60	91.31	2,109.61	-3,304.06	6,018.98	5,673.78	345.20	17.436		
14,979.18	7,048.00	19,018.34	7,142.52	228.34	341.60	91.31	2,109.61	-3,304.06	6,082.33	5,739.26	343.07	17.729		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	1,494.15	1,541.65	3.28	8.03	-117.39	-3,896.40	-7,518.85	8,607.66					
100.00	100.00	1,584.00	1,630.02	3.28	8.51	-117.35	-3,884.20	-7,508.21	8,590.76	8,579.66	11.10	773.941		
200.00	200.00	1,584.00	1,630.02	3.34	8.51	-117.35	-3,884.20	-7,508.21	8,573.52	8,562.40	11.12	771.124		
300.00	299.98	1,610.27	1,655.91	3.44	8.65	56.87	-3,880.70	-7,505.37	8,556.44	8,545.13	11.31	756.668		
400.00	399.84	1,712.94	1,756.95	3.59	9.18	57.27	-3,866.25	-7,494.32	8,537.55	8,525.66	11.89	717.877		
500.00	499.45	1,773.00	1,816.12	3.79	9.49	57.68	-3,858.15	-7,488.00	8,517.27	8,504.94	12.33	690.526		
600.00	598.70	1,868.02	1,909.83	4.03	9.98	58.17	-3,846.12	-7,477.81	8,495.45	8,482.48	12.98	654.710		
700.00	697.47	1,920.73	1,961.82	4.31	10.25	58.65	-3,839.50	-7,472.23	8,472.02	8,458.55	13.47	629.022		
800.00	795.62	2,134.26	2,172.35	4.64	11.37	59.45	-3,812.22	-7,449.33	8,446.97	8,432.24	14.73	573.589		
900.00	893.16	900.00	2,422.26	5.00	4.96	60.15	-3,779.67	-7,416.94	8,418.59	8,408.68	9.91	849.565		
1,000.00	990.60	2,509.77	2,541.37	5.38	13.45	60.37	-3,763.33	-7,399.99	8,388.61	8,371.51	17.11	490.395		
1,100.00	1,088.04	2,563.64	2,594.25	5.79	13.75	60.47	-3,756.28	-7,392.52	8,359.00	8,341.28	17.72	471.694		
1,200.00	1,185.48	2,885.56	2,909.29	6.22	15.64	61.08	-3,709.95	-7,345.59	8,328.08	8,308.49	19.59	425.171		
1,300.00	1,282.92	2,930.10	2,952.78	6.66	15.91	61.17	-3,703.14	-7,338.81	8,296.55	8,276.35	20.20	410.698		
1,400.00	1,380.36	1,400.00	3,046.09	7.10	7.14	61.35	-3,689.41	-7,324.59	8,265.76	8,252.09	13.67	604.632		
1,500.00	1,477.80	3,138.01	3,156.09	7.56	17.15	61.56	-3,673.78	-7,306.74	8,234.42	8,212.41	22.01	374.185		
1,600.00	1,575.24	3,168.65	3,186.07	8.03	17.33	61.62	-3,669.68	-7,301.91	8,203.45	8,180.86	22.59	363.098		
1,700.00	1,672.68	3,200.00	3,216.79	8.50	17.52	61.68	-3,665.60	-7,297.16	8,173.24	8,150.04	23.19	352.403		
1,800.00	1,770.12	3,336.51	3,350.51	8.98	18.32	61.94	-3,647.68	-7,276.37	8,142.87	8,118.60	24.27	335.558		
1,900.00	1,867.56	3,391.00	3,403.90	9.46	18.64	62.04	-3,640.54	-7,268.17	8,112.84	8,087.86	24.98	324.712		
2,000.00	1,965.00	3,391.00	3,403.90	9.95	18.64	62.04	-3,640.54	-7,268.17	8,083.65	8,058.18	25.47	317.390		
2,100.00	2,062.44	3,440.27	3,452.26	10.44	18.92	62.14	-3,634.13	-7,261.30	8,055.01	8,028.83	26.18	307.720		
2,200.00	2,159.88	3,486.00	3,497.27	10.93	19.18	62.23	-3,628.19	-7,255.75	8,027.49	8,000.62	26.87	298.713		
2,300.00	2,257.32	3,550.12	3,560.39	11.42	19.53	62.36	-3,619.70	-7,248.37	8,000.59	7,972.93	27.66	289.271		
2,400.00	2,354.76	3,581.00	3,590.77	11.92	19.70	62.42	-3,615.51	-7,244.70	7,973.80	7,945.50	28.30	281.769		
2,500.00	2,452.20	3,628.37	3,637.38	12.42	19.96	62.52	-3,608.93	-7,239.47	7,947.64	7,918.62	29.02	273.877		
2,600.00	2,549.64	2,600.00	4,050.68	12.92	13.73	63.48	-3,541.21	-7,193.75	7,922.20	7,897.83	24.38	324.983		
2,700.00	2,647.08	4,112.02	4,111.61	13.42	22.75	63.61	-3,531.95	-7,184.98	7,893.04	7,860.80	32.25	244.780		
2,800.00	2,744.52	4,248.00	4,244.85	13.93	23.56	63.89	-3,513.89	-7,164.70	7,863.77	7,830.42	33.36	235.734		
2,900.00	2,841.96	4,297.97	4,293.76	14.43	23.85	63.99	-3,507.18	-7,156.99	7,834.44	7,800.34	34.11	229.715		
3,000.00	2,939.40	4,343.00	4,337.99	14.94	24.11	64.09	-3,501.41	-7,150.79	7,806.30	7,771.47	34.83	224.104		
3,100.00	3,036.84	4,354.84	4,349.63	15.44	24.18	64.11	-3,499.92	-7,149.25	7,778.82	7,743.40	35.42	219.603		
3,200.00	3,134.28	4,439.00	4,432.35	15.95	24.66	64.29	-3,488.88	-7,138.35	7,751.73	7,715.41	36.32	213.410		
3,300.00	3,231.72	4,497.92	4,490.27	16.46	25.00	64.41	-3,480.97	-7,130.97	7,725.03	7,687.91	37.12	208.112		
3,400.00	3,329.16	4,547.40	4,538.97	16.97	25.27	64.52	-3,474.49	-7,125.10	7,699.03	7,661.16	37.88	203.265		
3,500.00	3,426.60	4,618.79	4,609.32	17.48	25.67	64.67	-3,465.80	-7,116.63	7,673.49	7,634.77	38.73	198.148		
3,600.00	3,524.04	4,629.00	4,619.39	17.99	25.72	64.69	-3,464.64	-7,115.40	7,648.62	7,609.31	39.32	194.539		
3,700.00	3,621.48	4,681.94	4,671.66	18.50	26.00	64.80	-3,458.81	-7,109.42	7,624.37	7,584.29	40.09	190.203		
3,800.00	3,718.92	4,724.00	4,713.28	19.01	26.23	64.89	-3,454.40	-7,105.22	7,601.18	7,560.37	40.81	186.258		
3,900.00	3,816.36	4,833.27	4,821.47	19.52	26.79	65.11	-3,443.71	-7,094.27	7,578.48	7,536.67	41.81	181.252		
4,000.00	3,913.80	4,857.17	4,845.16	20.03	26.90	65.15	-3,441.50	-7,091.93	7,555.98	7,513.52	42.46	177.958		
4,100.00	4,011.24	4,915.00	4,902.51	20.55	27.19	65.27	-3,436.34	-7,086.66	7,534.36	7,491.12	43.25	174.216		
4,200.00	4,108.68	4,915.00	4,902.51	21.06	27.19	65.27	-3,436.34	-7,086.66	7,513.43	7,469.64	43.80	171.558		
4,300.00	4,206.12	4,981.06	4,968.12	21.57	27.51	65.40	-3,430.66	-7,081.30	7,493.20	7,448.58	44.62	167.950		
4,400.00	4,303.56	5,028.82	5,015.57	22.09	27.74	65.50	-3,426.66	-7,077.77	7,473.69	7,428.33	45.36	164.761		
4,500.00	4,401.00	5,104.00	5,090.34	22.60	28.09	65.65	-3,420.52	-7,072.80	7,454.96	7,408.74	46.22	161.289		
4,600.00	4,498.44	5,104.00	5,090.34	23.11	28.09	65.65	-3,420.52	-7,072.80	7,436.78	7,390.01	46.77	159.024		
4,700.00	4,595.88	5,161.76	5,147.84	23.63	28.35	65.76	-3,416.18	-7,069.47	7,419.37	7,371.83	47.54	156.052		
4,800.00	4,693.32	5,202.41	5,188.35	24.14	28.52	65.84	-3,413.49	-7,067.38	7,402.80	7,354.54	48.25	153.418		
4,900.00	4,790.76	5,243.27	5,229.09	24.66	28.70	65.92	-3,411.07	-7,065.50	7,387.01	7,338.05	48.96	150.878		
5,000.00	4,888.20	5,294.00	5,279.71	25.17	28.92	66.02	-3,408.48	-7,063.46	7,372.03	7,322.32	49.71	148.306		
5,100.00	4,985.64	5,341.22	5,326.85	25.69	29.11	66.11	-3,406.37	-7,061.78	7,357.73	7,307.30	50.43	145.894		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,403.08	5,388.63	26.20	29.35	66.22	-3,403.85	-7,059.77	7,343.98	7,292.77	51.22	143.395		
5,300.00	5,180.52	5,465.12	5,450.60	26.72	29.60	66.33	-3,401.61	-7,057.96	7,330.76	7,278.76	52.00	140.981		
5,400.00	5,277.96	5,527.33	5,512.76	27.24	29.85	66.44	-3,399.65	-7,056.36	7,318.05	7,265.27	52.78	138.648		
5,500.00	5,375.40	5,579.00	5,564.40	27.75	30.05	66.53	-3,398.23	-7,055.18	7,305.88	7,252.36	53.52	136.506		
5,600.00	5,472.84	5,652.10	5,637.47	28.27	30.32	66.66	-3,396.52	-7,053.80	7,294.21	7,239.87	54.34	134.232		
5,700.00	5,570.28	5,714.65	5,699.99	28.79	30.55	66.77	-3,395.28	-7,052.87	7,283.08	7,227.96	55.12	132.140		
5,800.00	5,667.72	5,777.32	5,762.65	29.30	30.78	66.88	-3,394.26	-7,052.18	7,272.47	7,216.58	55.89	130.117		
5,900.00	5,765.16	5,864.00	5,849.32	29.82	31.11	67.03	-3,393.21	-7,051.63	7,262.44	7,205.67	56.77	127.937		
6,000.00	5,862.60	5,909.35	5,894.67	30.34	31.26	67.11	-3,392.77	-7,051.51	7,252.79	7,195.32	57.46	126.217		
6,100.00	5,960.05	5,982.51	5,967.83	30.85	31.52	67.23	-3,392.09	-7,051.51	7,243.59	7,185.32	58.27	124.308		
6,200.00	6,057.49	6,055.70	6,041.02	31.37	31.78	67.36	-3,391.45	-7,051.75	7,234.78	7,175.70	59.08	122.459		
6,300.00	6,154.93	6,128.92	6,114.23	31.89	32.03	67.48	-3,390.85	-7,052.24	7,226.36	7,166.47	59.89	120.667		
6,400.00	6,252.37	6,226.55	6,211.85	32.40	32.38	67.65	-3,390.03	-7,053.11	7,218.21	7,157.42	60.79	118.731		
6,500.00	6,349.81	6,334.63	6,319.92	32.92	32.76	67.84	-3,388.96	-7,053.98	7,210.01	7,148.26	61.74	116.771		
6,600.00	6,447.25	6,442.62	6,427.90	33.44	33.13	68.03	-3,387.71	-7,054.73	7,201.72	7,139.03	62.69	114.870		
6,700.00	6,544.28	6,526.46	6,511.73	33.95	33.43	68.10	-3,386.64	-7,055.37	7,187.88	7,124.34	63.54	113.119		
6,800.00	6,638.86	6,609.46	6,594.73	34.44	33.73	68.17	-3,385.55	-7,056.15	7,159.64	7,095.29	64.35	111.267		
6,900.00	6,728.65	6,688.48	6,673.73	34.89	34.02	68.24	-3,384.46	-7,057.03	7,117.50	7,052.42	65.08	109.363		
7,000.00	6,811.45	6,753.24	6,738.48	35.29	34.24	68.31	-3,383.55	-7,057.88	7,062.49	6,996.79	65.70	107.498		
7,100.00	6,885.21	6,804.67	6,789.90	35.66	34.42	-4.44	-3,382.91	-7,058.70	6,996.01	6,929.82	66.20	105.686		
7,200.00	6,948.11	6,849.06	6,834.28	35.99	34.58	-11.05	-3,382.42	-7,059.53	6,919.65	6,853.05	66.59	103.908		
7,300.00	6,998.62	6,885.29	6,870.50	36.30	34.71	-19.77	-3,382.08	-7,060.30	6,835.19	6,768.31	66.89	102.192		
7,400.00	7,035.48	6,912.39	6,897.59	36.65	34.80	-33.33	-3,381.84	-7,060.92	6,744.66	6,677.59	67.07	100.561		
7,500.00	7,057.79	6,929.60	6,914.80	37.13	34.86	-55.85	-3,381.71	-7,061.33	6,650.25	6,583.10	67.15	99.029		
7,600.00	7,065.00	6,936.39	6,921.58	37.84	34.88	-85.99	-3,381.66	-7,061.50	6,554.28	6,487.13	67.15	97.604		
7,700.00	7,064.77	6,937.99	6,923.19	38.82	34.89	-86.04	-3,381.65	-7,061.54	6,458.38	6,391.26	67.12	96.216		
7,800.00	7,064.54	6,939.61	6,924.80	40.06	34.90	-86.09	-3,381.63	-7,061.58	6,362.61	6,295.49	67.12	94.796		
7,900.00	7,064.31	6,941.24	6,926.43	41.52	34.90	-86.14	-3,381.62	-7,061.62	6,266.97	6,199.83	67.14	93.344		
8,000.00	7,064.08	6,942.88	6,928.07	43.14	34.91	-86.19	-3,381.61	-7,061.66	6,171.47	6,104.28	67.18	91.858		
8,100.00	7,063.85	6,944.54	6,929.73	44.90	34.91	-86.24	-3,381.60	-7,061.71	6,076.11	6,008.85	67.26	90.337		
8,200.00	7,063.62	6,946.21	6,931.40	46.78	34.92	-86.30	-3,381.59	-7,061.75	5,980.90	5,913.53	67.37	88.780		
8,300.00	7,063.39	6,947.89	6,933.08	48.76	34.93	-86.35	-3,381.58	-7,061.79	5,885.85	5,818.34	67.51	87.187		
8,400.00	7,063.16	6,949.59	6,934.78	50.83	34.93	-86.40	-3,381.56	-7,061.84	5,790.97	5,723.28	67.69	85.556		
8,500.00	7,062.93	6,951.30	6,936.49	52.97	34.94	-86.45	-3,381.55	-7,061.88	5,696.26	5,628.35	67.90	83.887		
8,600.00	7,062.70	6,953.03	6,938.22	55.18	34.94	-86.51	-3,381.54	-7,061.92	5,601.73	5,533.57	68.16	82.181		
8,700.00	7,062.47	6,954.77	6,939.96	57.46	34.95	-86.56	-3,381.53	-7,061.97	5,507.40	5,438.93	68.47	80.436		
8,800.00	7,062.24	6,956.53	6,941.72	59.78	34.96	-86.62	-3,381.52	-7,062.02	5,413.26	5,344.44	68.82	78.654		
8,900.00	7,062.01	6,958.30	6,943.49	62.14	34.96	-86.67	-3,381.50	-7,062.06	5,319.35	5,250.12	69.23	76.835		
9,000.00	7,061.78	6,960.09	6,945.27	64.55	34.97	-86.73	-3,381.49	-7,062.11	5,225.65	5,155.96	69.69	74.981		
9,100.00	7,061.55	6,961.89	6,947.08	67.00	34.97	-86.78	-3,381.48	-7,062.16	5,132.20	5,061.98	70.21	73.093		
9,200.00	7,061.31	6,963.71	6,948.89	69.47	34.98	-86.84	-3,381.47	-7,062.21	5,038.99	4,968.19	70.80	71.174		
9,300.00	7,061.08	6,965.54	6,950.72	71.98	34.99	-86.90	-3,381.46	-7,062.25	4,946.05	4,874.60	71.45	69.225		
9,400.00	7,060.85	6,967.39	6,952.57	74.51	34.99	-86.95	-3,381.45	-7,062.30	4,853.39	4,781.22	72.17	67.249		
9,500.00	7,060.62	6,969.26	6,954.44	77.06	35.00	-87.01	-3,381.43	-7,062.35	4,761.02	4,688.06	72.97	65.250		
9,600.00	7,060.39	6,971.14	6,956.32	79.64	35.01	-87.07	-3,381.42	-7,062.40	4,668.97	4,595.13	73.84	63.232		
9,700.00	7,060.16	6,973.04	6,958.22	82.23	35.01	-87.13	-3,381.41	-7,062.46	4,577.25	4,502.46	74.80	61.197		
9,800.00	7,059.93	6,974.95	6,960.13	84.84	35.02	-87.19	-3,381.40	-7,062.51	4,485.89	4,410.05	75.84	59.151		
9,900.00	7,059.70	6,976.89	6,962.06	87.47	35.03	-87.25	-3,381.39	-7,062.56	4,394.89	4,317.92	76.97	57.098		
10,000.00	7,059.47	6,978.84	6,964.01	90.11	35.03	-87.31	-3,381.37	-7,062.61	4,304.30	4,226.10	78.20	55.043		
10,100.00	7,059.24	6,980.80	6,965.98	92.76	35.04	-87.37	-3,381.36	-7,062.67	4,214.13	4,134.61	79.53	52.989		
10,200.00	7,059.01	6,982.79	6,967.96	95.42	35.05	-87.43	-3,381.35	-7,062.72	4,124.42	4,043.46	80.96	50.943		
10,300.00	7,058.78	6,984.79	6,969.97	98.10	35.05	-87.49	-3,381.34	-7,062.78	4,035.18	3,952.68	82.50	48.909		

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 12N-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 12N-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	7,058.55	6,986.81	6,971.99	100.79	35.06	-87.56	-3,381.33	-7,062.84	3,946.46	3,862.30	84.16	46.891		
10,500.00	7,058.32	6,988.85	6,974.03	103.48	35.07	-87.62	-3,381.32	-7,062.89	3,858.29	3,772.36	85.94	44.896		
10,600.00	7,058.09	6,990.91	6,976.09	106.19	35.08	-87.68	-3,381.30	-7,062.95	3,770.71	3,682.87	87.84	42.926		
10,700.00	7,057.86	6,992.99	6,978.16	108.90	35.08	-87.75	-3,381.29	-7,063.01	3,683.77	3,593.89	89.88	40.987		
10,800.00	7,057.63	6,995.09	6,980.26	111.62	35.09	-87.81	-3,381.28	-7,063.07	3,597.49	3,505.45	92.05	39.083		
10,900.00	7,057.40	6,997.20	6,982.37	114.35	35.10	-87.88	-3,381.27	-7,063.13	3,511.95	3,417.59	94.36	37.218		
11,000.00	7,057.17	6,999.34	6,984.51	117.08	35.11	-87.95	-3,381.26	-7,063.19	3,427.18	3,330.36	96.83	35.395		
11,100.00	7,056.94	7,001.50	6,986.67	119.82	35.11	-88.01	-3,381.25	-7,063.25	3,343.26	3,243.81	99.45	33.618		
11,200.00	7,056.71	7,003.67	6,988.84	122.56	35.12	-88.08	-3,381.24	-7,063.31	3,260.24	3,158.01	102.23	31.890		
11,300.00	7,056.48	7,005.87	6,991.04	125.31	35.13	-88.15	-3,381.23	-7,063.38	3,178.20	3,073.01	105.19	30.215		
11,400.00	7,056.25	7,008.09	6,993.26	128.06	35.14	-88.22	-3,381.21	-7,063.44	3,097.21	2,988.89	108.32	28.593		
11,500.00	7,056.02	7,010.44	6,995.61	130.82	35.14	-88.29	-3,381.20	-7,063.51	3,017.36	2,905.73	111.64	27.028		
11,600.00	7,055.79	7,013.45	6,998.61	133.59	35.15	-88.38	-3,381.19	-7,063.60	2,938.74	2,823.60	115.15	25.522		
11,700.00	7,055.55	7,016.48	7,001.64	136.35	35.17	-88.48	-3,381.17	-7,063.69	2,861.46	2,742.60	118.85	24.076		
11,800.00	7,055.32	7,019.53	7,004.69	139.12	35.18	-88.57	-3,381.15	-7,063.78	2,785.61	2,662.85	122.76	22.691		
11,900.00	7,055.09	7,022.60	7,007.76	141.90	35.19	-88.67	-3,381.13	-7,063.87	2,711.33	2,584.45	126.88	21.369		
12,000.00	7,054.86	7,025.68	7,010.84	144.67	35.20	-88.76	-3,381.12	-7,063.96	2,638.75	2,507.53	131.21	20.110		
12,100.00	7,054.63	7,028.79	7,013.95	147.45	35.21	-88.86	-3,381.10	-7,064.05	2,568.00	2,432.25	135.76	18.916		
12,200.00	7,054.40	7,031.92	7,017.07	150.24	35.22	-88.96	-3,381.07	-7,064.15	2,499.26	2,358.74	140.52	17.786		
12,300.00	7,054.17	7,035.06	7,020.22	153.02	35.23	-89.06	-3,381.05	-7,064.24	2,432.67	2,287.18	145.49	16.721		
12,400.00	7,053.94	7,038.23	7,023.38	155.81	35.24	-89.16	-3,381.03	-7,064.34	2,368.44	2,217.77	150.67	15.720		
12,500.00	7,053.71	7,041.42	7,026.57	158.60	35.25	-89.25	-3,381.00	-7,064.43	2,306.75	2,150.71	156.04	14.783		
12,600.00	7,053.48	7,044.63	7,029.78	161.40	35.26	-89.35	-3,380.98	-7,064.53	2,247.81	2,086.22	161.59	13.910		
12,700.00	7,053.25	7,047.86	7,033.01	164.19	35.28	-89.45	-3,380.95	-7,064.63	2,191.85	2,024.55	167.30	13.101		
12,800.00	7,053.02	7,051.11	7,036.26	166.99	35.29	-89.56	-3,380.92	-7,064.72	2,139.10	1,965.95	173.15	12.354		
12,900.00	7,052.79	7,054.38	7,039.53	169.79	35.30	-89.66	-3,380.89	-7,064.82	2,089.79	1,910.71	179.08	11.669		
13,000.00	7,052.56	7,057.68	7,042.82	172.59	35.31	-89.76	-3,380.86	-7,064.93	2,044.20	1,859.12	185.07	11.045		
13,100.00	7,052.33	7,060.99	7,046.13	175.40	35.32	-89.86	-3,380.83	-7,065.03	2,002.55	1,811.49	191.06	10.481		
13,200.00	7,052.10	7,064.33	7,049.47	178.20	35.33	-89.97	-3,380.80	-7,065.13	1,965.11	1,768.11	197.00	9.975		
13,300.00	7,051.87	7,067.69	7,052.83	181.01	35.35	-90.07	-3,380.76	-7,065.23	1,932.12	1,729.31	202.81	9.527		
13,400.00	7,051.64	7,071.07	7,056.21	183.82	35.36	-90.18	-3,380.73	-7,065.34	1,903.82	1,695.39	208.43	9.134		
13,500.00	7,051.41	7,074.48	7,059.61	186.63	35.37	-90.28	-3,380.69	-7,065.44	1,880.40	1,666.63	213.78	8.796		
13,600.00	7,051.18	7,077.90	7,063.04	189.44	35.38	-90.39	-3,380.66	-7,065.55	1,862.07	1,643.28	218.79	8.511		
13,700.00	7,050.95	7,081.36	7,066.49	192.25	35.39	-90.50	-3,380.62	-7,065.66	1,848.96	1,625.57	223.39	8.277		
13,800.00	7,050.72	7,084.83	7,069.96	195.07	35.41	-90.61	-3,380.58	-7,065.77	1,841.19	1,613.68	227.52	8.093		
13,893.45	7,050.50	7,088.10	7,073.23	197.70	35.42	-90.71	-3,380.54	-7,065.87	1,838.82	1,607.92	230.90	7.964 CC		
13,900.00	7,050.49	7,088.33	7,073.45	197.88	35.42	-90.72	-3,380.53	-7,065.88	1,838.84	1,607.71	231.12	7.956 ES		
14,000.00	7,050.26	7,091.85	7,076.97	200.70	35.43	-90.82	-3,380.49	-7,065.99	1,841.90	1,607.74	234.16	7.866		
14,100.00	7,050.03	7,095.40	7,080.52	203.52	35.44	-90.94	-3,380.44	-7,066.10	1,850.38	1,613.76	236.62	7.820		
14,200.00	7,049.80	7,098.97	7,084.09	206.34	35.46	-91.05	-3,380.40	-7,066.21	1,864.17	1,625.70	238.47	7.817 SF		
14,300.00	7,049.56	7,102.56	7,087.68	209.16	35.47	-91.16	-3,380.35	-7,066.33	1,883.18	1,643.44	239.74	7.855		
14,400.00	7,049.33	7,106.18	7,091.30	211.98	35.48	-91.27	-3,380.30	-7,066.44	1,907.25	1,666.80	240.45	7.932		
14,500.00	7,049.10	7,109.83	7,094.94	214.80	35.49	-91.38	-3,380.25	-7,066.56	1,936.18	1,695.55	240.63	8.046		
14,600.00	7,048.87	7,113.50	7,098.61	217.63	35.51	-91.50	-3,380.20	-7,066.68	1,969.76	1,729.44	240.32	8.196		
14,700.00	7,048.64	7,117.19	7,102.30	220.45	35.52	-91.61	-3,380.14	-7,066.80	2,007.76	1,768.19	239.57	8.381		
14,800.00	7,048.41	7,120.92	7,106.02	223.28	35.53	-91.73	-3,380.09	-7,066.92	2,049.94	1,811.49	238.44	8.597		
14,900.00	7,048.18	7,124.66	7,109.77	226.10	35.55	-91.85	-3,380.03	-7,067.04	2,096.03	1,859.05	236.98	8.845		
14,979.18	7,048.00	7,127.65	7,112.75	228.34	35.56	-91.94	-3,379.98	-7,067.14	2,135.14	1,899.52	235.63	9.062		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	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	67.00	3.28	3.28	-117.87	-4,050.60	-7,661.24	8,666.40					
100.00	100.00	33.00	100.00	3.28	3.33	-117.87	-4,050.60	-7,661.24	8,666.14	8,659.52	6.61	1,310.090		
200.00	200.00	133.00	200.00	3.34	4.38	-117.87	-4,050.60	-7,661.24	8,666.14	8,658.42	7.71	1,123.493		
300.00	299.98	232.98	299.98	3.44	7.18	56.07	-4,050.60	-7,661.24	8,665.16	8,654.54	10.62	815.909		
400.00	399.84	332.84	399.84	3.59	10.40	56.15	-4,050.60	-7,661.24	8,662.24	8,648.25	13.99	619.000		
500.00	499.45	432.45	499.45	3.79	13.75	56.28	-4,050.60	-7,661.24	8,657.38	8,639.85	17.54	493.680		
600.00	598.70	531.70	598.70	4.03	17.13	56.46	-4,050.60	-7,661.24	8,650.60	8,629.43	21.16	408.747		
700.00	697.47	630.47	697.47	4.31	20.53	56.69	-4,050.60	-7,661.24	8,641.91	8,617.06	24.84	347.890		
800.00	795.62	728.62	795.62	4.64	23.92	56.97	-4,050.60	-7,661.24	8,631.33	8,602.78	28.55	302.335		
900.00	893.16	826.16	893.16	5.00	27.29	57.19	-4,050.60	-7,661.24	8,619.14	8,586.86	32.28	267.038		
1,000.00	990.60	923.60	990.60	5.38	30.67	57.32	-4,050.60	-7,661.24	8,606.75	8,570.72	36.03	238.874		
1,100.00	1,088.04	1,021.04	1,088.04	5.79	34.06	57.44	-4,050.60	-7,661.24	8,594.41	8,554.60	39.81	215.891		
1,200.00	1,185.48	1,118.48	1,185.48	6.22	37.44	57.57	-4,050.60	-7,661.24	8,582.11	8,538.50	43.61	196.806		
1,300.00	1,282.92	1,215.92	1,282.92	6.66	40.83	57.69	-4,050.60	-7,661.24	8,569.85	8,522.43	47.42	180.720		
1,400.00	1,380.36	1,313.36	1,380.36	7.10	44.23	57.82	-4,050.60	-7,661.24	8,557.63	8,506.38	51.25	166.987		
1,500.00	1,477.80	1,410.80	1,477.80	7.56	47.62	57.94	-4,050.60	-7,661.24	8,545.45	8,490.37	55.08	155.133		
1,600.00	1,575.24	1,508.24	1,575.24	8.03	51.01	58.07	-4,050.60	-7,661.24	8,533.32	8,474.39	58.93	144.803		
1,700.00	1,672.68	1,605.68	1,672.68	8.50	54.41	58.19	-4,050.60	-7,661.24	8,521.23	8,458.44	62.78	135.723		
1,800.00	1,770.12	1,703.12	1,770.12	8.98	57.80	58.32	-4,050.60	-7,661.24	8,509.18	8,442.53	66.64	127.682		
1,900.00	1,867.56	1,800.56	1,867.56	9.46	61.20	58.44	-4,050.60	-7,661.24	8,497.17	8,426.66	70.51	120.513		
2,000.00	1,965.00	1,902.00	1,965.00	9.95	64.74	58.57	-4,050.60	-7,661.24	8,485.20	8,410.68	74.52	113.868		
2,100.00	2,062.44	2,004.56	2,062.44	10.44	68.31	58.70	-4,050.60	-7,661.24	8,473.28	8,394.71	78.57	107.844		
2,200.00	2,159.88	2,107.12	2,159.88	10.93	71.89	58.83	-4,050.60	-7,661.24	8,461.40	8,378.77	82.63	102.407		
2,300.00	2,257.32	2,209.68	2,257.32	11.42	75.47	58.95	-4,050.60	-7,661.24	8,449.56	8,362.88	86.68	97.475		
2,400.00	2,354.76	2,287.76	2,354.76	11.92	78.19	59.08	-4,050.60	-7,661.24	8,437.77	8,347.88	89.89	93.866		
2,500.00	2,452.20	2,385.20	2,452.20	12.42	81.59	59.21	-4,050.60	-7,661.24	8,426.02	8,332.24	93.78	89.852		
2,600.00	2,549.64	2,482.64	2,549.64	12.92	84.99	59.34	-4,050.60	-7,661.24	8,414.31	8,316.65	97.66	86.156		
2,700.00	2,647.08	2,580.08	2,647.08	13.42	88.39	59.47	-4,050.60	-7,661.24	8,402.65	8,301.10	101.55	82.741		
2,800.00	2,744.52	2,677.52	2,744.52	13.93	91.79	59.60	-4,050.60	-7,661.24	8,391.03	8,285.59	105.44	79.578		
2,900.00	2,841.96	2,774.96	2,841.96	14.43	95.19	59.73	-4,050.60	-7,661.24	8,379.46	8,270.12	109.34	76.639		
3,000.00	2,939.40	2,872.40	2,939.40	14.94	98.58	59.86	-4,050.60	-7,661.24	8,367.93	8,254.69	113.23	73.902		
3,100.00	3,036.84	2,969.84	3,036.84	15.44	101.98	59.99	-4,050.60	-7,661.24	8,356.44	8,239.31	117.13	71.346		
3,200.00	3,134.28	3,067.28	3,134.28	15.95	105.38	60.12	-4,050.60	-7,661.24	8,345.00	8,223.98	121.02	68.954		
3,300.00	3,231.72	3,164.72	3,231.72	16.46	108.78	60.25	-4,050.60	-7,661.24	8,333.60	8,208.68	124.92	66.711		
3,400.00	3,329.16	3,262.16	3,329.16	16.97	112.18	60.39	-4,050.60	-7,661.24	8,322.25	8,193.43	128.82	64.604		
3,500.00	3,426.60	3,359.60	3,426.60	17.48	115.58	60.52	-4,050.60	-7,661.24	8,310.95	8,178.23	132.72	62.621		
3,600.00	3,524.04	3,457.04	3,524.04	17.99	118.99	60.65	-4,050.60	-7,661.24	8,299.69	8,163.07	136.62	60.750		
3,700.00	3,621.48	3,554.48	3,621.48	18.50	122.39	60.78	-4,050.60	-7,661.24	8,288.47	8,147.95	140.52	58.984		
3,800.00	3,718.92	3,651.92	3,718.92	19.01	125.79	60.92	-4,050.60	-7,661.24	8,277.30	8,132.88	144.42	57.313		
3,900.00	3,816.36	3,749.36	3,816.36	19.52	129.19	61.05	-4,050.60	-7,661.24	8,266.18	8,117.86	148.33	55.730		
4,000.00	3,913.80	3,846.80	3,913.80	20.03	132.59	61.18	-4,050.60	-7,661.24	8,255.11	8,102.88	152.23	54.228		
4,100.00	4,011.24	3,944.24	4,011.24	20.55	135.99	61.32	-4,050.60	-7,661.24	8,244.08	8,087.94	156.13	52.801		
4,200.00	4,108.68	4,041.68	4,108.68	21.06	139.39	61.45	-4,050.60	-7,661.24	8,233.09	8,073.05	160.04	51.444		
4,300.00	4,206.12	4,139.12	4,206.12	21.57	142.79	61.59	-4,050.60	-7,661.24	8,222.16	8,058.21	163.94	50.152		
4,400.00	4,303.56	4,236.56	4,303.56	22.09	146.19	61.72	-4,050.60	-7,661.24	8,211.27	8,043.42	167.85	48.920		
4,500.00	4,401.00	4,334.00	4,401.00	22.60	149.59	61.86	-4,050.60	-7,661.24	8,200.43	8,028.67	171.76	47.744		
4,600.00	4,498.44	4,431.44	4,498.44	23.11	152.99	61.99	-4,050.60	-7,661.24	8,189.63	8,013.97	175.67	46.621		
4,700.00	4,595.88	4,528.88	4,595.88	23.63	156.39	62.13	-4,050.60	-7,661.24	8,178.88	7,999.31	179.57	45.546		
4,800.00	4,693.32	4,626.32	4,693.32	24.14	159.79	62.27	-4,050.60	-7,661.24	8,168.19	7,984.70	183.48	44.518		
4,900.00	4,790.76	4,723.76	4,790.76	24.66	163.19	62.40	-4,050.60	-7,661.24	8,157.53	7,970.14	187.39	43.532		
5,000.00	4,888.20	4,821.20	4,888.20	25.17	166.60	62.54	-4,050.60	-7,661.24	8,146.93	7,955.63	191.30	42.587		
5,100.00	4,985.64	4,918.64	4,985.64	25.69	170.00	62.68	-4,050.60	-7,661.24	8,136.38	7,941.17	195.21	41.680		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,016.08	5,083.08	26.20	173.40	62.82	-4,050.60	-7,661.24	8,125.87	7,926.75	199.12	40.809		
5,300.00	5,180.52	5,113.52	5,180.52	26.72	176.80	62.95	-4,050.60	-7,661.24	8,115.41	7,912.38	203.03	39.972		
5,400.00	5,277.96	5,210.96	5,277.96	27.24	180.20	63.09	-4,050.60	-7,661.24	8,105.00	7,898.06	206.94	39.166		
5,500.00	5,375.40	5,308.40	5,375.40	27.75	183.60	63.23	-4,050.60	-7,661.24	8,094.64	7,883.79	210.85	38.390		
5,600.00	5,472.84	5,405.84	5,472.84	28.27	187.00	63.37	-4,050.60	-7,661.24	8,084.33	7,869.57	214.76	37.643		
5,700.00	5,570.28	5,503.28	5,570.28	28.79	190.40	63.51	-4,050.60	-7,661.24	8,074.07	7,855.39	218.68	36.923		
5,800.00	5,667.72	5,600.72	5,667.72	29.30	193.80	63.65	-4,050.60	-7,661.24	8,063.86	7,841.27	222.59	36.228		
5,900.00	5,765.16	5,701.84	5,765.16	29.82	197.33	63.79	-4,050.60	-7,661.24	8,053.70	7,827.07	226.63	35.537		
6,000.00	5,862.60	5,804.40	5,862.60	30.34	200.91	63.93	-4,050.60	-7,661.24	8,043.58	7,812.86	230.72	34.863		
6,100.00	5,960.05	5,906.96	5,960.05	30.85	204.49	64.07	-4,050.60	-7,661.24	8,033.52	7,798.71	234.81	34.213		
6,200.00	6,057.49	6,009.51	6,057.49	31.37	208.07	64.22	-4,050.60	-7,661.24	8,023.51	7,784.61	238.90	33.585		
6,300.00	6,154.93	6,087.93	6,154.93	31.89	210.81	64.36	-4,050.60	-7,661.24	8,013.55	7,771.40	242.15	33.093		
6,400.00	6,252.37	6,185.37	6,252.37	32.40	214.21	64.50	-4,050.60	-7,661.24	8,003.64	7,757.57	246.07	32.526		
6,500.00	6,349.81	6,282.81	6,349.81	32.92	217.61	64.64	-4,050.60	-7,661.24	7,993.78	7,743.80	249.98	31.977		
6,600.00	6,447.25	6,380.25	6,447.25	33.44	221.01	64.78	-4,050.60	-7,661.24	7,983.97	7,730.08	253.90	31.446		
6,700.00	6,544.28	6,477.28	6,544.28	33.95	224.40	35.74	-4,050.60	-7,661.24	7,968.69	7,710.90	257.79	30.911		
6,800.00	6,638.86	6,571.86	6,638.86	34.44	227.70	16.15	-4,050.60	-7,661.24	7,939.13	7,677.58	261.56	30.353		
6,900.00	6,728.65	6,661.65	6,728.65	34.89	230.84	5.06	-4,050.60	-7,661.24	7,895.89	7,630.78	265.10	29.784		
7,000.00	6,811.45	6,744.45	6,811.45	35.29	233.73	-2.68	-4,050.60	-7,661.24	7,840.00	7,571.65	268.35	29.216		
7,100.00	6,885.21	6,818.21	6,885.21	35.66	236.30	-9.58	-4,050.60	-7,661.24	7,772.84	7,501.62	271.22	28.659		
7,200.00	6,948.11	6,881.11	6,948.11	35.99	238.50	-17.28	-4,050.60	-7,661.24	7,696.07	7,422.44	273.63	28.126		
7,300.00	6,998.62	6,931.62	6,998.62	36.30	240.26	-27.54	-4,050.60	-7,661.24	7,611.62	7,336.07	275.55	27.624		
7,400.00	7,035.48	6,968.48	7,035.48	36.65	241.55	-42.82	-4,050.60	-7,661.24	7,521.60	7,244.68	276.91	27.162		
7,500.00	7,057.79	7,009.21	7,057.79	37.13	242.97	-65.12	-4,050.60	-7,661.24	7,428.27	7,149.90	278.37	26.685		
7,600.00	7,065.00	7,002.00	7,065.00	37.84	242.72	-90.36	-4,050.60	-7,661.24	7,333.99	7,055.88	278.11	26.371		
7,700.00	7,064.77	7,002.23	7,064.77	38.82	242.72	-90.36	-4,050.60	-7,661.24	7,240.08	6,961.96	278.12	26.032		
7,800.00	7,064.54	7,002.46	7,064.54	40.06	242.73	-90.35	-4,050.60	-7,661.24	7,146.34	6,868.18	278.17	25.691		
7,900.00	7,064.31	7,002.69	7,064.31	41.52	242.74	-90.35	-4,050.60	-7,661.24	7,052.78	6,774.53	278.25	25.347		
8,000.00	7,064.08	7,002.92	7,064.08	43.14	242.75	-90.34	-4,050.60	-7,661.24	6,959.39	6,681.02	278.37	25.000		
8,100.00	7,063.85	7,003.15	7,063.85	44.90	242.76	-90.34	-4,050.60	-7,661.24	6,866.19	6,587.65	278.54	24.651		
8,200.00	7,063.62	7,003.38	7,063.62	46.78	242.77	-90.33	-4,050.60	-7,661.24	6,773.18	6,494.43	278.74	24.299		
8,300.00	7,063.39	7,003.61	7,063.39	48.76	242.77	-90.33	-4,050.60	-7,661.24	6,680.37	6,401.37	279.00	23.944		
8,400.00	7,063.16	7,003.84	7,063.16	50.83	242.78	-90.32	-4,050.60	-7,661.24	6,587.78	6,308.47	279.31	23.586		
8,500.00	7,062.93	7,004.07	7,062.93	52.97	242.79	-90.32	-4,050.60	-7,661.24	6,495.40	6,215.74	279.66	23.226		
8,600.00	7,062.70	7,004.30	7,062.70	55.18	242.80	-90.31	-4,050.60	-7,661.24	6,403.26	6,123.18	280.08	22.862		
8,700.00	7,062.47	7,004.53	7,062.47	57.46	242.81	-90.31	-4,050.60	-7,661.24	6,311.35	6,030.80	280.55	22.496		
8,800.00	7,062.24	7,004.76	7,062.24	59.78	242.81	-90.30	-4,050.60	-7,661.24	6,219.69	5,938.61	281.08	22.128		
8,900.00	7,062.01	7,004.99	7,062.01	62.14	242.82	-90.29	-4,050.60	-7,661.24	6,128.29	5,846.61	281.68	21.756		
9,000.00	7,061.78	7,005.22	7,061.78	64.55	242.83	-90.29	-4,050.60	-7,661.24	6,037.17	5,754.83	282.34	21.383		
9,100.00	7,061.55	7,005.46	7,061.55	67.00	242.84	-90.28	-4,050.60	-7,661.24	5,946.33	5,663.26	283.07	21.006		
9,200.00	7,061.31	7,005.69	7,061.31	69.47	242.85	-90.28	-4,050.60	-7,661.24	5,855.79	5,571.91	283.88	20.628		
9,300.00	7,061.08	7,005.92	7,061.08	71.98	242.85	-90.27	-4,050.60	-7,661.24	5,765.56	5,480.81	284.75	20.248		
9,400.00	7,060.85	7,006.15	7,060.85	74.51	242.86	-90.27	-4,050.60	-7,661.24	5,675.66	5,389.96	285.70	19.865		
9,500.00	7,060.62	7,006.38	7,060.62	77.06	242.87	-90.26	-4,050.60	-7,661.24	5,586.10	5,299.37	286.74	19.482		
9,600.00	7,060.39	7,006.61	7,060.39	79.64	242.88	-90.26	-4,050.60	-7,661.24	5,496.91	5,209.06	287.85	19.097		
9,700.00	7,060.16	7,006.84	7,060.16	82.23	242.89	-90.25	-4,050.60	-7,661.24	5,408.09	5,119.05	289.04	18.710		
9,800.00	7,059.93	7,007.07	7,059.93	84.84	242.89	-90.25	-4,050.60	-7,661.24	5,319.67	5,029.34	290.32	18.323		
9,900.00	7,059.70	7,007.30	7,059.70	87.47	242.90	-90.24	-4,050.60	-7,661.24	5,231.66	4,939.97	291.69	17.936		
10,000.00	7,059.47	7,007.53	7,059.47	90.11	242.91	-90.24	-4,050.60	-7,661.24	5,144.09	4,850.95	293.15	17.548		
10,100.00	7,059.24	7,007.76	7,059.24	92.76	242.92	-90.23	-4,050.60	-7,661.24	5,056.99	4,762.29	294.70	17.160		
10,200.00	7,059.01	7,007.99	7,059.01	95.42	242.93	-90.23	-4,050.60	-7,661.24	4,970.37	4,674.03	296.34	16.772		
10,300.00	7,058.78	7,008.22	7,058.78	98.10	242.93	-90.22	-4,050.60	-7,661.24	4,884.26	4,586.18	298.08	16.386		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,008.45	7,058.55	100.79	242.94	-90.22	-4,050.60	-7,661.24	4,798.69	4,498.77	299.92	16.000		
10,500.00	7,058.32	7,008.68	7,058.32	103.48	242.95	-90.21	-4,050.60	-7,661.24	4,713.69	4,411.83	301.86	15.615		
10,600.00	7,058.09	7,008.91	7,058.09	106.19	242.96	-90.21	-4,050.60	-7,661.24	4,629.28	4,325.38	303.91	15.233		
10,700.00	7,057.86	7,009.14	7,057.86	108.90	242.97	-90.20	-4,050.60	-7,661.24	4,545.52	4,239.46	306.06	14.852		
10,800.00	7,057.63	7,009.37	7,057.63	111.62	242.97	-90.19	-4,050.60	-7,661.24	4,462.41	4,154.10	308.32	14.473		
10,900.00	7,057.40	7,009.60	7,057.40	114.35	242.98	-90.19	-4,050.60	-7,661.24	4,380.02	4,069.33	310.69	14.098		
11,000.00	7,057.17	7,009.83	7,057.17	117.08	242.99	-90.18	-4,050.60	-7,661.24	4,298.37	3,985.19	313.18	13.725		
11,100.00	7,056.94	6,989.94	7,056.94	119.82	242.30	-90.18	-4,050.60	-7,661.24	4,217.51	3,902.43	315.08	13.386		
11,200.00	7,056.71	6,989.71	7,056.71	122.56	242.29	-90.17	-4,050.60	-7,661.24	4,137.49	3,819.70	317.79	13.020		
11,300.00	7,056.48	6,989.48	7,056.48	125.31	242.28	-90.17	-4,050.60	-7,661.24	4,058.36	3,737.74	320.62	12.658		
11,400.00	7,056.25	6,989.25	7,056.25	128.06	242.27	-90.16	-4,050.60	-7,661.24	3,980.16	3,656.59	323.58	12.300		
11,500.00	7,056.02	6,989.02	7,056.02	130.82	242.26	-90.16	-4,050.60	-7,661.24	3,902.96	3,576.30	326.66	11.948		
11,600.00	7,055.79	6,988.79	7,055.79	133.59	242.26	-90.15	-4,050.60	-7,661.24	3,826.82	3,496.94	329.88	11.601		
11,700.00	7,055.55	6,988.55	7,055.55	136.35	242.25	-90.15	-4,050.60	-7,661.24	3,751.80	3,418.57	333.23	11.259		
11,800.00	7,055.32	6,988.32	7,055.32	139.12	242.24	-90.14	-4,050.60	-7,661.24	3,677.96	3,341.26	336.71	10.923		
11,900.00	7,055.09	6,988.09	7,055.09	141.90	242.23	-90.14	-4,050.60	-7,661.24	3,605.39	3,265.06	340.33	10.594		
12,000.00	7,054.86	6,987.86	7,054.86	144.67	242.22	-90.13	-4,050.60	-7,661.24	3,534.16	3,190.08	344.08	10.271		
12,100.00	7,054.63	6,987.63	7,054.63	147.45	242.22	-90.13	-4,050.60	-7,661.24	3,464.35	3,116.37	347.97	9.956		
12,200.00	7,054.40	6,987.40	7,054.40	150.24	242.21	-90.12	-4,050.60	-7,661.24	3,396.05	3,044.05	352.00	9.648		
12,300.00	7,054.17	6,987.17	7,054.17	153.02	242.20	-90.12	-4,050.60	-7,661.24	3,329.35	2,973.19	356.16	9.348		
12,400.00	7,053.94	6,986.94	7,053.94	155.81	242.19	-90.11	-4,050.60	-7,661.24	3,264.35	2,903.89	360.46	9.056		
12,500.00	7,053.71	6,986.71	7,053.71	158.60	242.18	-90.11	-4,050.60	-7,661.24	3,201.16	2,836.28	364.88	8.773		
12,600.00	7,053.48	6,986.48	7,053.48	161.40	242.18	-90.10	-4,050.60	-7,661.24	3,139.88	2,770.46	369.42	8.499		
12,700.00	7,053.25	6,986.25	7,053.25	164.19	242.17	-90.09	-4,050.60	-7,661.24	3,080.63	2,706.54	374.08	8.235		
12,800.00	7,053.02	6,986.02	7,053.02	166.99	242.16	-90.09	-4,050.60	-7,661.24	3,023.52	2,644.67	378.85	7.981		
12,900.00	7,052.79	6,985.79	7,052.79	169.79	242.15	-90.08	-4,050.60	-7,661.24	2,968.69	2,584.98	383.71	7.737		
13,000.00	7,052.56	6,985.56	7,052.56	172.59	242.14	-90.08	-4,050.60	-7,661.24	2,916.25	2,527.60	388.66	7.503		
13,100.00	7,052.33	6,985.33	7,052.33	175.40	242.14	-90.07	-4,050.60	-7,661.24	2,866.35	2,472.68	393.67	7.281		
13,200.00	7,052.10	6,985.10	7,052.10	178.20	242.13	-90.07	-4,050.60	-7,661.24	2,819.11	2,420.39	398.73	7.070		
13,300.00	7,051.87	6,984.87	7,051.87	181.01	242.12	-90.06	-4,050.60	-7,661.24	2,774.68	2,370.86	403.81	6.871		
13,400.00	7,051.64	6,984.64	7,051.64	183.82	242.11	-90.06	-4,050.60	-7,661.24	2,733.18	2,324.27	408.90	6.684		
13,500.00	7,051.41	6,984.41	7,051.41	186.63	242.10	-90.05	-4,050.60	-7,661.24	2,694.75	2,280.78	413.97	6.510		
13,600.00	7,051.18	6,984.18	7,051.18	189.44	242.09	-90.05	-4,050.60	-7,661.24	2,659.53	2,240.54	418.99	6.348		
13,700.00	7,050.95	6,983.95	7,050.95	192.25	242.09	-90.04	-4,050.60	-7,661.24	2,627.65	2,203.72	423.92	6.198		
13,800.00	7,050.72	6,983.72	7,050.72	195.07	242.08	-90.04	-4,050.60	-7,661.24	2,599.22	2,170.47	428.75	6.062		
13,900.00	7,050.49	6,983.49	7,050.49	197.88	242.07	-90.03	-4,050.60	-7,661.24	2,574.37	2,140.94	433.43	5.940		
14,000.00	7,050.26	6,983.26	7,050.26	200.70	242.06	-90.03	-4,050.60	-7,661.24	2,553.19	2,115.26	437.93	5.830		
14,100.00	7,050.03	6,983.03	7,050.03	203.52	242.05	-90.02	-4,050.60	-7,661.24	2,535.79	2,093.56	442.23	5.734		
14,200.00	7,049.80	6,982.80	7,049.80	206.34	242.05	-90.02	-4,050.60	-7,661.24	2,522.23	2,075.94	446.29	5.652		
14,300.00	7,049.56	6,982.56	7,049.56	209.16	242.04	-90.01	-4,050.60	-7,661.24	2,512.58	2,062.51	450.08	5.583		
14,400.00	7,049.33	6,982.33	7,049.33	211.98	242.03	-90.00	-4,050.60	-7,661.24	2,506.89	2,053.31	453.58	5.527		
14,492.88	7,049.12	6,982.12	7,049.12	214.60	242.02	-90.00	-4,050.60	-7,661.24	2,505.17	2,048.62	456.55	5.487 CC		
14,500.00	7,049.10	6,982.10	7,049.10	214.80	242.02	-90.00	-4,050.60	-7,661.24	2,505.18	2,048.42	456.76	5.485		
14,600.00	7,048.87	6,981.87	7,048.87	217.63	242.01	-89.99	-4,050.60	-7,661.24	2,507.46	2,047.84	459.62	5.456 ES		
14,700.00	7,048.64	6,981.64	7,048.64	220.45	242.01	-89.99	-4,050.60	-7,661.24	2,513.72	2,051.59	462.13	5.439		
14,800.00	7,048.41	6,981.41	7,048.41	223.28	242.00	-89.98	-4,050.60	-7,661.24	2,523.93	2,059.64	464.29	5.436 SF		
14,900.00	7,048.18	6,981.18	7,048.18	226.10	241.99	-89.98	-4,050.60	-7,661.24	2,538.04	2,071.94	466.10	5.445		
14,979.18	7,048.00	6,981.00	7,048.00	228.34	241.98	-89.97	-4,050.60	-7,661.24	2,551.93	2,084.65	467.29	5.461		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-106.96	-2,733.20	-8,961.56	9,369.24					
100.00	100.00	48.00	100.00	3.28	3.39	-106.96	-2,733.20	-8,961.56	9,369.09	9,362.42	6.67	1,404.653		
200.00	200.00	148.00	200.00	3.34	4.74	-106.96	-2,733.20	-8,961.56	9,369.09	9,361.02	8.08	1,160.039		
300.00	299.98	247.98	299.98	3.44	7.65	66.97	-2,733.20	-8,961.56	9,368.41	9,357.32	11.09	844.784		
400.00	399.84	347.84	399.84	3.59	10.90	67.04	-2,733.20	-8,961.56	9,366.36	9,351.87	14.49	646.334		
500.00	499.45	447.45	499.45	3.79	14.26	67.15	-2,733.20	-8,961.56	9,362.96	9,344.91	18.04	518.881		
600.00	598.70	546.70	598.70	4.03	17.65	67.31	-2,733.20	-8,961.56	9,358.21	9,336.53	21.68	431.710		
700.00	697.47	645.47	697.47	4.31	21.04	67.51	-2,733.20	-8,961.56	9,352.14	9,326.78	25.36	368.800		
800.00	795.62	743.62	795.62	4.64	24.44	67.75	-2,733.20	-8,961.56	9,344.76	9,315.69	29.07	321.452		
900.00	893.16	841.16	893.16	5.00	27.81	67.95	-2,733.20	-8,961.56	9,336.27	9,303.47	32.80	284.613		
1,000.00	990.60	938.60	990.60	5.38	31.19	68.08	-2,733.20	-8,961.56	9,327.66	9,291.10	36.56	255.100		
1,100.00	1,088.04	1,036.04	1,088.04	5.79	34.58	68.20	-2,733.20	-8,961.56	9,319.10	9,278.75	40.35	230.952		
1,200.00	1,185.48	1,133.48	1,185.48	6.22	37.97	68.33	-2,733.20	-8,961.56	9,310.59	9,266.44	44.16	210.853		
1,300.00	1,282.92	1,230.92	1,282.92	6.66	41.36	68.45	-2,733.20	-8,961.56	9,302.13	9,254.15	47.98	193.882		
1,400.00	1,380.36	1,328.36	1,380.36	7.10	44.75	68.58	-2,733.20	-8,961.56	9,293.71	9,241.89	51.81	179.370		
1,500.00	1,477.80	1,425.80	1,477.80	7.56	48.14	68.71	-2,733.20	-8,961.56	9,285.33	9,229.67	55.66	166.828		
1,600.00	1,575.24	1,523.24	1,575.24	8.03	51.54	68.83	-2,733.20	-8,961.56	9,277.01	9,217.50	59.51	155.885		
1,700.00	1,672.68	1,620.68	1,672.68	8.50	54.93	68.96	-2,733.20	-8,961.56	9,268.73	9,205.35	63.37	146.256		
1,800.00	1,770.12	1,718.12	1,770.12	8.98	58.33	69.09	-2,733.20	-8,961.56	9,260.50	9,193.26	67.24	137.722		
1,900.00	1,867.56	1,815.56	1,867.56	9.46	61.72	69.21	-2,733.20	-8,961.56	9,252.31	9,181.20	71.11	130.107		
2,000.00	1,965.00	1,913.00	1,965.00	9.95	65.12	69.34	-2,733.20	-8,961.56	9,244.17	9,169.18	74.99	123.271		
2,100.00	2,062.44	2,010.44	2,062.44	10.44	68.52	69.47	-2,733.20	-8,961.56	9,236.09	9,157.21	78.87	117.103		
2,200.00	2,159.88	2,107.88	2,159.88	10.93	71.92	69.60	-2,733.20	-8,961.56	9,228.04	9,145.29	82.76	111.509		
2,300.00	2,257.32	2,205.32	2,257.32	11.42	75.31	69.72	-2,733.20	-8,961.56	9,220.05	9,133.41	86.64	106.414		
2,400.00	2,354.76	2,302.76	2,354.76	11.92	78.71	69.85	-2,733.20	-8,961.56	9,212.10	9,121.57	90.53	101.753		
2,500.00	2,452.20	2,400.20	2,452.20	12.42	82.11	69.98	-2,733.20	-8,961.56	9,204.21	9,109.78	94.43	97.475		
2,600.00	2,549.64	2,502.36	2,549.64	12.92	85.67	70.11	-2,733.20	-8,961.56	9,196.36	9,097.87	98.49	93.378		
2,700.00	2,647.08	2,604.92	2,647.08	13.42	89.25	70.24	-2,733.20	-8,961.56	9,188.55	9,085.99	102.56	89.592		
2,800.00	2,744.52	2,707.48	2,744.52	13.93	92.83	70.37	-2,733.20	-8,961.56	9,180.80	9,074.16	106.64	86.094		
2,900.00	2,841.96	2,789.96	2,841.96	14.43	95.71	70.50	-2,733.20	-8,961.56	9,173.10	9,063.08	110.01	83.381		
3,000.00	2,939.40	2,887.40	2,939.40	14.94	99.11	70.63	-2,733.20	-8,961.56	9,165.44	9,051.52	113.92	80.458		
3,100.00	3,036.84	2,984.84	3,036.84	15.44	102.51	70.76	-2,733.20	-8,961.56	9,157.83	9,040.02	117.82	77.729		
3,200.00	3,134.28	3,082.28	3,134.28	15.95	105.91	70.89	-2,733.20	-8,961.56	9,150.28	9,028.55	121.72	75.174		
3,300.00	3,231.72	3,179.72	3,231.72	16.46	109.31	71.02	-2,733.20	-8,961.56	9,142.77	9,017.14	125.63	72.778		
3,400.00	3,329.16	3,277.16	3,329.16	16.97	112.71	71.15	-2,733.20	-8,961.56	9,135.31	9,005.78	129.53	70.526		
3,500.00	3,426.60	3,374.60	3,426.60	17.48	116.11	71.28	-2,733.20	-8,961.56	9,127.90	8,994.46	133.44	68.406		
3,600.00	3,524.04	3,472.04	3,524.04	17.99	119.51	71.41	-2,733.20	-8,961.56	9,120.53	8,983.19	137.34	66.406		
3,700.00	3,621.48	3,569.48	3,621.48	18.50	122.91	71.54	-2,733.20	-8,961.56	9,113.22	8,971.97	141.25	64.517		
3,800.00	3,718.92	3,666.92	3,718.92	19.01	126.31	71.67	-2,733.20	-8,961.56	9,105.96	8,960.80	145.16	62.730		
3,900.00	3,816.36	3,764.36	3,816.36	19.52	129.71	71.80	-2,733.20	-8,961.56	9,098.75	8,949.68	149.07	61.037		
4,000.00	3,913.80	3,861.80	3,913.80	20.03	133.11	71.93	-2,733.20	-8,961.56	9,091.58	8,938.61	152.98	59.430		
4,100.00	4,011.24	3,959.24	4,011.24	20.55	136.51	72.06	-2,733.20	-8,961.56	9,084.47	8,927.58	156.89	57.903		
4,200.00	4,108.68	4,056.68	4,108.68	21.06	139.91	72.20	-2,733.20	-8,961.56	9,077.41	8,916.61	160.80	56.451		
4,300.00	4,206.12	4,154.12	4,206.12	21.57	143.31	72.33	-2,733.20	-8,961.56	9,070.40	8,905.68	164.71	55.068		
4,400.00	4,303.56	4,251.56	4,303.56	22.09	146.71	72.46	-2,733.20	-8,961.56	9,063.44	8,894.81	168.63	53.749		
4,500.00	4,401.00	4,349.00	4,401.00	22.60	150.11	72.59	-2,733.20	-8,961.56	9,056.52	8,883.99	172.54	52.490		
4,600.00	4,498.44	4,446.44	4,498.44	23.11	153.52	72.72	-2,733.20	-8,961.56	9,049.66	8,873.21	176.45	51.287		
4,700.00	4,595.88	4,543.88	4,595.88	23.63	156.92	72.86	-2,733.20	-8,961.56	9,042.85	8,862.49	180.36	50.137		
4,800.00	4,693.32	4,641.32	4,693.32	24.14	160.32	72.99	-2,733.20	-8,961.56	9,036.09	8,851.82	184.28	49.035		
4,900.00	4,790.76	4,738.76	4,790.76	24.66	163.72	73.12	-2,733.20	-8,961.56	9,029.39	8,841.19	188.19	47.980		
5,000.00	4,888.20	4,836.20	4,888.20	25.17	167.12	73.26	-2,733.20	-8,961.56	9,022.73	8,830.62	192.11	46.967		
5,100.00	4,985.64	4,933.64	4,985.64	25.69	170.52	73.39	-2,733.20	-8,961.56	9,016.12	8,820.10	196.02	45.996		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,031.08	5,083.08	26.20	173.92	73.52	-2,733.20	-8,961.56	9,009.57	8,809.63	199.94	45.062		
5,300.00	5,180.52	5,128.52	5,180.52	26.72	177.32	73.66	-2,733.20	-8,961.56	9,003.06	8,799.21	203.85	44.165		
5,400.00	5,277.96	5,225.96	5,277.96	27.24	180.72	73.79	-2,733.20	-8,961.56	8,996.61	8,788.84	207.77	43.301		
5,500.00	5,375.40	5,323.40	5,375.40	27.75	184.12	73.93	-2,733.20	-8,961.56	8,990.21	8,778.53	211.68	42.470		
5,600.00	5,472.84	5,420.84	5,472.84	28.27	187.53	74.06	-2,733.20	-8,961.56	8,983.86	8,768.26	215.60	41.669		
5,700.00	5,570.28	5,518.28	5,570.28	28.79	190.93	74.20	-2,733.20	-8,961.56	8,977.56	8,758.05	219.52	40.897		
5,800.00	5,667.72	5,615.72	5,667.72	29.30	194.33	74.33	-2,733.20	-8,961.56	8,971.32	8,747.88	223.43	40.152		
5,900.00	5,765.16	5,713.16	5,765.16	29.82	197.73	74.47	-2,733.20	-8,961.56	8,965.13	8,737.77	227.35	39.433		
6,000.00	5,862.60	5,810.60	5,862.60	30.34	201.13	74.60	-2,733.20	-8,961.56	8,958.98	8,727.71	231.27	38.738		
6,100.00	5,960.05	5,908.05	5,960.05	30.85	204.53	74.74	-2,733.20	-8,961.56	8,952.90	8,717.71	235.19	38.067		
6,200.00	6,057.49	6,005.49	6,057.49	31.37	207.93	74.87	-2,733.20	-8,961.56	8,946.86	8,707.75	239.11	37.418		
6,300.00	6,154.93	6,102.93	6,154.93	31.89	211.33	75.01	-2,733.20	-8,961.56	8,940.88	8,697.85	243.02	36.790		
6,400.00	6,252.37	6,200.37	6,252.37	32.40	214.73	75.14	-2,733.20	-8,961.56	8,934.94	8,688.00	246.94	36.182		
6,500.00	6,349.81	6,302.19	6,349.81	32.92	218.29	75.28	-2,733.20	-8,961.56	8,929.06	8,678.05	251.01	35.572		
6,600.00	6,447.25	6,404.75	6,447.25	33.44	221.87	75.42	-2,733.20	-8,961.56	8,923.24	8,668.13	255.11	34.978		
6,700.00	6,544.28	6,507.72	6,544.28	33.95	225.46	46.65	-2,733.20	-8,961.56	8,911.65	8,652.44	259.22	34.379		
6,800.00	6,638.86	6,586.86	6,638.86	34.44	228.23	27.66	-2,733.20	-8,961.56	8,885.02	8,622.57	262.45	33.854		
6,900.00	6,728.65	6,676.65	6,728.65	34.89	231.36	17.53	-2,733.20	-8,961.56	8,843.84	8,577.83	266.02	33.245		
7,000.00	6,811.45	6,759.45	6,811.45	35.29	234.25	11.24	-2,733.20	-8,961.56	8,789.12	8,519.83	269.28	32.639		
7,100.00	6,885.21	6,833.21	6,885.21	35.66	236.82	6.50	-2,733.20	-8,961.56	8,722.18	8,450.01	272.17	32.047		
7,200.00	6,948.11	6,903.89	6,948.11	35.99	239.29	2.00	-2,733.20	-8,961.56	8,644.66	8,369.78	274.88	31.448		
7,300.00	6,998.62	6,946.62	6,998.62	36.30	240.78	-3.58	-2,733.20	-8,961.56	8,558.47	8,281.92	276.55	30.947		
7,400.00	7,035.48	6,983.48	7,035.48	36.65	242.07	-13.05	-2,733.20	-8,961.56	8,465.73	8,187.79	277.94	30.459		
7,500.00	7,057.79	7,005.79	7,057.79	37.13	242.85	-35.88	-2,733.20	-8,961.56	8,368.74	8,089.98	278.76	30.022		
7,600.00	7,065.00	7,013.00	7,065.00	37.84	243.10	-90.92	-2,733.20	-8,961.56	8,269.88	7,990.89	278.99	29.642		
7,700.00	7,064.77	7,012.77	7,064.77	38.82	243.09	-90.90	-2,733.20	-8,961.56	8,170.92	7,891.97	278.95	29.292		
7,800.00	7,064.54	7,012.54	7,064.54	40.06	243.08	-90.89	-2,733.20	-8,961.56	8,071.98	7,793.07	278.91	28.941		
7,900.00	7,064.31	7,012.31	7,064.31	41.52	243.08	-90.88	-2,733.20	-8,961.56	7,973.07	7,694.19	278.88	28.590		
8,000.00	7,064.08	7,012.08	7,064.08	43.14	243.07	-90.87	-2,733.20	-8,961.56	7,874.18	7,595.33	278.85	28.238		
8,100.00	7,063.85	7,011.85	7,063.85	44.90	243.06	-90.86	-2,733.20	-8,961.56	7,775.33	7,496.49	278.83	27.885		
8,200.00	7,063.62	7,011.62	7,063.62	46.78	243.05	-90.85	-2,733.20	-8,961.56	7,676.50	7,397.68	278.82	27.532		
8,300.00	7,063.39	7,011.39	7,063.39	48.76	243.04	-90.84	-2,733.20	-8,961.56	7,577.70	7,298.89	278.82	27.178		
8,400.00	7,063.16	7,011.16	7,063.16	50.83	243.04	-90.83	-2,733.20	-8,961.56	7,478.94	7,200.12	278.82	26.823		
8,500.00	7,062.93	7,010.93	7,062.93	52.97	243.03	-90.81	-2,733.20	-8,961.56	7,380.21	7,101.37	278.84	26.468		
8,600.00	7,062.70	7,010.70	7,062.70	55.18	243.02	-90.80	-2,733.20	-8,961.56	7,281.52	7,002.66	278.86	26.112		
8,700.00	7,062.47	7,010.47	7,062.47	57.46	243.01	-90.79	-2,733.20	-8,961.56	7,182.86	6,903.96	278.89	25.755		
8,800.00	7,062.24	7,010.24	7,062.24	59.78	243.00	-90.78	-2,733.20	-8,961.56	7,084.23	6,805.30	278.94	25.397		
8,900.00	7,062.01	7,010.01	7,062.01	62.14	243.00	-90.77	-2,733.20	-8,961.56	6,985.65	6,706.66	278.99	25.039		
9,000.00	7,061.78	7,009.78	7,061.78	64.55	242.99	-90.76	-2,733.20	-8,961.56	6,887.11	6,608.05	279.06	24.680		
9,100.00	7,061.55	7,009.55	7,061.55	67.00	242.98	-90.75	-2,733.20	-8,961.56	6,788.61	6,509.47	279.14	24.320		
9,200.00	7,061.31	7,009.31	7,061.31	69.47	242.97	-90.74	-2,733.20	-8,961.56	6,690.15	6,410.92	279.24	23.959		
9,300.00	7,061.08	7,009.08	7,061.08	71.98	242.96	-90.73	-2,733.20	-8,961.56	6,591.75	6,312.40	279.35	23.597		
9,400.00	7,060.85	7,008.85	7,060.85	74.51	242.96	-90.71	-2,733.20	-8,961.56	6,493.39	6,213.91	279.48	23.234		
9,500.00	7,060.62	7,008.62	7,060.62	77.06	242.95	-90.70	-2,733.20	-8,961.56	6,395.08	6,115.46	279.62	22.871		
9,600.00	7,060.39	7,008.39	7,060.39	79.64	242.94	-90.69	-2,733.20	-8,961.56	6,296.82	6,017.04	279.78	22.506		
9,700.00	7,060.16	7,008.16	7,060.16	82.23	242.93	-90.68	-2,733.20	-8,961.56	6,198.62	5,918.65	279.97	22.140		
9,800.00	7,059.93	7,007.93	7,059.93	84.84	242.92	-90.67	-2,733.20	-8,961.56	6,100.48	5,820.31	280.17	21.774		
9,900.00	7,059.70	7,007.70	7,059.70	87.47	242.92	-90.66	-2,733.20	-8,961.56	6,002.40	5,722.00	280.40	21.406		
10,000.00	7,059.47	7,007.47	7,059.47	90.11	242.91	-90.65	-2,733.20	-8,961.56	5,904.38	5,623.73	280.65	21.038		
10,100.00	7,059.24	7,007.24	7,059.24	92.76	242.90	-90.64	-2,733.20	-8,961.56	5,806.44	5,525.50	280.93	20.668		
10,200.00	7,059.01	7,007.01	7,059.01	95.42	242.89	-90.62	-2,733.20	-8,961.56	5,708.56	5,427.32	281.24	20.298		
10,300.00	7,058.78	7,006.78	7,058.78	98.10	242.88	-90.61	-2,733.20	-8,961.56	5,610.76	5,329.18	281.58	19.926		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,006.55	7,058.55	100.79	242.88	-90.60	-2,733.20	-8,961.56	5,513.03	5,231.09	281.94	19.554		
10,500.00	7,058.32	7,006.32	7,058.32	103.48	242.87	-90.59	-2,733.20	-8,961.56	5,415.40	5,133.05	282.35	19.180		
10,600.00	7,058.09	7,006.09	7,058.09	106.19	242.86	-90.58	-2,733.20	-8,961.56	5,317.84	5,035.06	282.78	18.805		
10,700.00	7,057.86	7,005.86	7,057.86	108.90	242.85	-90.57	-2,733.20	-8,961.56	5,220.38	4,937.12	283.26	18.430		
10,800.00	7,057.63	7,005.63	7,057.63	111.62	242.84	-90.56	-2,733.20	-8,961.56	5,123.02	4,839.24	283.78	18.053		
10,900.00	7,057.40	7,005.40	7,057.40	114.35	242.84	-90.55	-2,733.20	-8,961.56	5,025.76	4,741.42	284.34	17.675		
11,000.00	7,057.17	7,005.17	7,057.17	117.08	242.83	-90.54	-2,733.20	-8,961.56	4,928.61	4,643.67	284.95	17.296		
11,100.00	7,056.94	7,004.94	7,056.94	119.82	242.82	-90.52	-2,733.20	-8,961.56	4,831.58	4,545.98	285.61	16.917		
11,200.00	7,056.71	7,004.71	7,056.71	122.56	242.81	-90.51	-2,733.20	-8,961.56	4,734.67	4,448.36	286.32	16.536		
11,300.00	7,056.48	7,004.48	7,056.48	125.31	242.80	-90.50	-2,733.20	-8,961.56	4,637.90	4,350.81	287.09	16.155		
11,400.00	7,056.25	7,004.25	7,056.25	128.06	242.80	-90.49	-2,733.20	-8,961.56	4,541.26	4,253.34	287.91	15.773		
11,500.00	7,056.02	7,004.02	7,056.02	130.82	242.79	-90.48	-2,733.20	-8,961.56	4,444.77	4,155.96	288.81	15.390		
11,600.00	7,055.79	7,003.79	7,055.79	133.59	242.78	-90.47	-2,733.20	-8,961.56	4,348.44	4,058.67	289.77	15.007		
11,700.00	7,055.55	7,003.55	7,055.55	136.35	242.77	-90.46	-2,733.20	-8,961.56	4,252.28	3,961.48	290.80	14.623		
11,800.00	7,055.32	7,003.32	7,055.32	139.12	242.76	-90.45	-2,733.20	-8,961.56	4,156.30	3,864.39	291.91	14.238		
11,900.00	7,055.09	7,003.09	7,055.09	141.90	242.76	-90.43	-2,733.20	-8,961.56	4,060.51	3,767.41	293.11	13.853		
12,000.00	7,054.86	7,002.86	7,054.86	144.67	242.75	-90.42	-2,733.20	-8,961.56	3,964.94	3,670.54	294.39	13.468		
12,100.00	7,054.63	7,002.63	7,054.63	147.45	242.74	-90.41	-2,733.20	-8,961.56	3,869.58	3,573.81	295.77	13.083		
12,200.00	7,054.40	7,002.40	7,054.40	150.24	242.73	-90.40	-2,733.20	-8,961.56	3,774.47	3,477.22	297.25	12.698		
12,300.00	7,054.17	7,002.17	7,054.17	153.02	242.72	-90.39	-2,733.20	-8,961.56	3,679.61	3,380.78	298.84	12.313		
12,400.00	7,053.94	7,001.94	7,053.94	155.81	242.71	-90.38	-2,733.20	-8,961.56	3,585.04	3,284.50	300.54	11.929		
12,500.00	7,053.71	7,001.71	7,053.71	158.60	242.71	-90.37	-2,733.20	-8,961.56	3,490.77	3,188.40	302.37	11.545		
12,600.00	7,053.48	7,001.48	7,053.48	161.40	242.70	-90.36	-2,733.20	-8,961.56	3,396.82	3,092.49	304.33	11.162		
12,700.00	7,053.25	7,001.25	7,053.25	164.19	242.69	-90.35	-2,733.20	-8,961.56	3,303.23	2,996.80	306.43	10.780		
12,800.00	7,053.02	7,001.02	7,053.02	166.99	242.68	-90.33	-2,733.20	-8,961.56	3,210.03	2,901.34	308.69	10.399		
12,900.00	7,052.79	7,000.79	7,052.79	169.79	242.67	-90.32	-2,733.20	-8,961.56	3,117.25	2,806.14	311.11	10.020		
13,000.00	7,052.56	7,000.56	7,052.56	172.59	242.67	-90.31	-2,733.20	-8,961.56	3,024.93	2,711.22	313.71	9.642		
13,100.00	7,052.33	7,000.33	7,052.33	175.40	242.66	-90.30	-2,733.20	-8,961.56	2,933.11	2,616.61	316.50	9.267		
13,200.00	7,052.10	7,000.10	7,052.10	178.20	242.65	-90.29	-2,733.20	-8,961.56	2,841.84	2,522.35	319.49	8.895		
13,300.00	7,051.87	7,000.13	7,051.87	181.01	242.65	-90.28	-2,733.20	-8,961.56	2,751.19	2,428.46	322.72	8.525		
13,400.00	7,051.64	7,000.36	7,051.64	183.82	242.66	-90.27	-2,733.20	-8,961.56	2,661.20	2,335.00	326.20	8.158		
13,500.00	7,051.41	7,000.59	7,051.41	186.63	242.67	-90.26	-2,733.20	-8,961.56	2,571.95	2,242.02	329.93	7.795		
13,600.00	7,051.18	7,000.82	7,051.18	189.44	242.68	-90.24	-2,733.20	-8,961.56	2,483.52	2,149.58	333.94	7.437		
13,700.00	7,050.95	7,001.05	7,050.95	192.25	242.68	-90.23	-2,733.20	-8,961.56	2,396.00	2,057.74	338.25	7.083		
13,800.00	7,050.72	7,001.28	7,050.72	195.07	242.69	-90.22	-2,733.20	-8,961.56	2,309.49	1,966.60	342.89	6.735		
13,900.00	7,050.49	7,001.51	7,050.49	197.88	242.70	-90.21	-2,733.20	-8,961.56	2,224.12	1,876.24	347.88	6.393		
14,000.00	7,050.26	7,001.74	7,050.26	200.70	242.71	-90.20	-2,733.20	-8,961.56	2,140.01	1,786.76	353.24	6.058		
14,100.00	7,050.03	7,001.97	7,050.03	203.52	242.72	-90.19	-2,733.20	-8,961.56	2,057.32	1,698.31	359.01	5.731		
14,200.00	7,049.80	7,002.21	7,049.80	206.34	242.72	-90.18	-2,733.20	-8,961.56	1,976.24	1,611.04	365.20	5.411		
14,300.00	7,049.56	7,002.44	7,049.56	209.16	242.73	-90.17	-2,733.20	-8,961.56	1,896.96	1,525.11	371.85	5.101		
14,400.00	7,049.33	7,002.67	7,049.33	211.98	242.74	-90.15	-2,733.20	-8,961.56	1,819.73	1,440.76	378.97	4.802		
14,500.00	7,049.10	7,002.90	7,049.10	214.80	242.75	-90.14	-2,733.20	-8,961.56	1,744.81	1,358.24	386.57	4.514		
14,600.00	7,048.87	7,003.13	7,048.87	217.63	242.76	-90.13	-2,733.20	-8,961.56	1,672.51	1,277.86	394.66	4.238		
14,700.00	7,048.64	7,003.36	7,048.64	220.45	242.76	-90.12	-2,733.20	-8,961.56	1,603.20	1,199.97	403.23	3.976		
14,800.00	7,048.41	7,003.59	7,048.41	223.28	242.77	-90.11	-2,733.20	-8,961.56	1,537.27	1,125.02	412.25	3.729		
14,900.00	7,048.18	7,003.82	7,048.18	226.10	242.78	-90.10	-2,733.20	-8,961.56	1,475.17	1,053.52	421.66	3.499		
14,979.18	7,048.00	7,004.00	7,048.00	228.34	242.79	-90.09	-2,733.20	-8,961.56	1,429.06	999.74	429.32	3.329 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	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	35.00	3.28	3.28	-106.71	-2,700.04	-8,993.81	9,390.43					
100.00	100.00	29.48	64.48	3.28	3.28	-106.71	-2,700.11	-8,993.85	9,390.49	9,383.92	6.57	1,430.317		
200.00	200.00	74.84	109.83	3.34	3.28	-106.71	-2,700.46	-8,994.06	9,391.15	9,384.53	6.62	1,418.448		
300.00	299.98	121.00	155.99	3.44	3.29	67.19	-2,701.13	-8,994.47	9,391.73	9,385.00	6.73	1,395.820		
400.00	399.84	165.42	200.40	3.59	3.31	67.20	-2,701.89	-8,995.09	9,391.53	9,384.63	6.90	1,361.476		
500.00	499.45	208.00	242.97	3.79	3.34	67.24	-2,702.58	-8,995.95	9,390.57	9,383.44	7.13	1,317.777		
600.00	598.70	208.00	242.97	4.03	3.34	67.27	-2,702.58	-8,995.95	9,389.11	9,381.74	7.37	1,273.737		
700.00	697.47	256.76	291.70	4.31	3.39	67.35	-2,703.18	-8,997.55	9,386.83	9,379.13	7.70	1,218.757		
800.00	795.62	300.00	334.88	4.64	3.44	67.45	-2,703.47	-8,999.74	9,384.26	9,376.18	8.08	1,161.867		
900.00	893.16	300.00	334.88	5.00	3.44	67.48	-2,703.47	-8,999.74	9,381.16	9,372.73	8.44	1,111.954		
1,000.00	990.60	300.00	334.88	5.38	3.44	67.48	-2,703.47	-8,999.74	9,378.97	9,370.14	8.82	1,062.859		
1,100.00	1,088.04	352.22	386.97	5.79	3.52	67.55	-2,703.41	-9,003.37	9,377.25	9,367.95	9.30	1,007.923		
1,200.00	1,185.48	391.00	425.60	6.22	3.59	67.61	-2,703.00	-9,006.75	9,376.57	9,366.78	9.79	957.860		
1,244.34	1,228.68	391.00	425.60	6.41	3.59	67.61	-2,703.00	-9,006.75	9,376.47	9,366.48	9.98	939.337		
1,300.00	1,282.92	391.00	425.60	6.66	3.59	67.61	-2,703.00	-9,006.75	9,376.63	9,366.40	10.23	916.831		
1,400.00	1,380.36	425.35	459.76	7.10	3.65	67.66	-2,702.37	-9,010.23	9,377.51	9,366.77	10.74	873.405		
1,500.00	1,477.80	481.00	515.00	7.56	3.78	67.75	-2,700.78	-9,016.83	9,379.43	9,368.12	11.30	829.812		
1,600.00	1,575.24	481.00	515.00	8.03	3.78	67.75	-2,700.78	-9,016.83	9,381.76	9,369.99	11.77	797.282		
1,700.00	1,672.68	481.00	515.00	8.50	3.78	67.75	-2,700.78	-9,016.83	9,385.16	9,372.92	12.24	766.945		
1,800.00	1,770.12	526.69	560.23	8.98	3.90	67.83	-2,699.05	-9,023.08	9,389.21	9,376.40	12.81	732.777		
1,900.00	1,867.56	572.00	604.97	9.46	4.02	67.91	-2,697.08	-9,029.93	9,394.21	9,380.81	13.40	701.074		
2,000.00	1,965.00	572.00	604.97	9.95	4.02	67.91	-2,697.08	-9,029.93	9,399.86	9,385.98	13.88	677.234		
2,100.00	2,062.44	572.00	604.97	10.44	4.02	67.91	-2,697.08	-9,029.93	9,406.58	9,392.22	14.36	654.967		
2,200.00	2,159.88	621.04	653.26	10.93	4.18	68.00	-2,694.74	-9,038.16	9,413.79	9,398.81	14.98	628.492		
2,300.00	2,257.32	642.46	674.30	11.42	4.26	68.04	-2,693.68	-9,042.04	9,422.02	9,406.49	15.52	606.998		
2,400.00	2,354.76	693.00	723.80	11.92	4.44	68.13	-2,691.09	-9,051.90	9,431.28	9,415.12	16.16	583.761		
2,500.00	2,452.20	693.00	723.80	12.42	4.44	68.13	-2,691.09	-9,051.90	9,441.00	9,424.36	16.64	567.355		
2,600.00	2,549.64	693.00	723.80	12.92	4.44	68.13	-2,691.09	-9,051.90	9,451.76	9,434.63	17.12	551.950		
2,700.00	2,647.08	733.49	763.33	13.42	4.60	68.21	-2,689.08	-9,060.40	9,463.24	9,445.50	17.74	533.520		
2,800.00	2,744.52	761.00	790.15	13.93	4.72	68.26	-2,687.85	-9,066.43	9,475.56	9,457.25	18.31	517.490		
2,900.00	2,841.96	791.66	819.98	14.43	4.86	68.32	-2,686.41	-9,073.37	9,488.63	9,469.72	18.91	501.906		
3,000.00	2,939.40	825.67	852.99	14.94	5.02	68.38	-2,684.50	-9,081.34	9,502.40	9,482.89	19.51	487.138		
3,100.00	3,036.84	855.00	881.38	15.44	5.16	68.44	-2,682.58	-9,088.44	9,516.87	9,496.78	20.09	473.783		
3,200.00	3,134.28	855.00	881.38	15.95	5.16	68.44	-2,682.58	-9,088.44	9,532.24	9,511.68	20.56	463.583		
3,300.00	3,231.72	902.37	927.08	16.46	5.42	68.54	-2,679.23	-9,100.47	9,548.14	9,526.93	21.22	449.980		
3,400.00	3,329.16	949.00	971.84	16.97	5.67	68.63	-2,675.83	-9,113.05	9,565.12	9,543.24	21.89	437.040		
3,500.00	3,426.60	949.00	971.84	17.48	5.67	68.63	-2,675.83	-9,113.05	9,582.64	9,560.28	22.35	428.674		
3,600.00	3,524.04	991.30	1,012.31	17.99	5.93	68.72	-2,672.47	-9,124.92	9,600.98	9,577.98	23.00	417.356		
3,700.00	3,621.48	1,044.00	1,062.55	18.50	6.25	68.84	-2,667.63	-9,140.06	9,619.89	9,596.18	23.71	405.786		
3,800.00	3,718.92	1,044.00	1,062.55	19.01	6.25	68.84	-2,667.63	-9,140.06	9,639.51	9,615.34	24.17	398.883		
3,900.00	3,816.36	1,088.40	1,104.69	19.52	6.55	68.94	-2,663.17	-9,153.29	9,659.73	9,634.90	24.84	388.931		
4,000.00	3,913.80	1,139.00	1,152.47	20.03	6.90	69.06	-2,657.88	-9,169.09	9,680.97	9,655.42	25.54	379.029		
4,100.00	4,011.24	1,139.00	1,152.47	20.55	6.90	69.06	-2,657.88	-9,169.09	9,702.67	9,676.68	25.99	373.306		
4,200.00	4,108.68	1,139.00	1,152.47	21.06	6.90	69.06	-2,657.88	-9,169.09	9,725.36	9,698.92	26.44	367.866		
4,300.00	4,206.12	1,182.98	1,193.75	21.57	7.23	69.16	-2,652.97	-9,183.44	9,748.64	9,721.53	27.11	359.561		
4,400.00	4,303.56	1,234.00	1,241.31	22.09	7.62	69.28	-2,646.72	-9,200.83	9,772.90	9,745.07	27.83	351.183		
4,500.00	4,401.00	1,234.00	1,241.31	22.60	7.62	69.28	-2,646.72	-9,200.83	9,797.62	9,769.35	28.26	346.654		
4,600.00	4,498.44	1,234.00	1,241.31	23.11	7.62	69.28	-2,646.72	-9,200.83	9,823.29	9,794.60	28.69	342.344		
4,700.00	4,595.88	1,273.93	1,278.28	23.63	7.95	69.38	-2,641.52	-9,214.99	9,849.58	9,820.23	29.35	335.569		
4,800.00	4,693.32	1,295.38	1,298.05	24.14	8.13	69.43	-2,638.66	-9,222.80	9,876.70	9,846.80	29.90	330.319		
4,900.00	4,790.76	1,329.00	1,328.91	24.66	8.42	69.52	-2,634.09	-9,235.33	9,904.59	9,874.07	30.52	324.542		
5,000.00	4,888.20	1,329.00	1,328.91	25.17	8.42	69.52	-2,634.09	-9,235.33	9,933.17	9,902.24	30.93	321.120		

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 12N-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 12N-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		
5,100.00	4,985.64	1,329.00	1,328.91	25.69	8.42	69.52	-2,634.09	-9,235.33	9,962.68	9,931.34	31.34	317.864		
5,200.00	5,083.08	1,382.43	1,377.63	26.20	8.91	69.65	-2,626.53	-9,255.92	9,992.54	9,960.46	32.08	311.452		
7,800.00	7,064.54	3,452.50	3,255.61	40.06	30.55	-12.20	-2,378.79	-10,089.86	9,909.42	9,854.86	54.56	181.628		
7,900.00	7,064.31	3,481.46	3,282.05	41.52	30.86	-12.23	-2,375.58	-10,101.25	9,817.40	9,762.60	54.81	179.131		
8,000.00	7,064.08	3,511.65	3,309.61	43.14	31.17	-12.27	-2,372.33	-10,113.14	9,725.43	9,670.36	55.07	176.607		
8,100.00	7,063.85	3,561.58	3,355.16	44.90	31.70	-12.34	-2,366.78	-10,132.80	9,633.45	9,577.97	55.48	173.639		
8,200.00	7,063.62	3,611.31	3,400.50	46.78	32.22	-12.39	-2,360.82	-10,152.35	9,541.43	9,485.53	55.89	170.703		
8,300.00	7,063.39	3,636.36	3,423.33	48.76	32.49	-12.42	-2,357.79	-10,162.21	9,449.42	9,393.28	56.14	168.309		
8,400.00	7,063.16	3,841.78	3,611.42	50.83	34.61	-12.70	-2,334.05	-10,241.26	9,356.93	9,299.27	57.66	162.286		
8,500.00	7,062.93	3,859.07	3,627.30	52.97	34.79	-12.72	-2,332.01	-10,247.80	9,264.31	9,206.45	57.86	160.123		
8,600.00	7,062.70	3,887.00	3,652.90	55.18	35.07	-12.76	-2,328.64	-10,258.45	9,171.78	9,113.65	58.14	157.759		
8,700.00	7,062.47	3,887.00	3,652.90	57.46	35.07	-12.76	-2,328.64	-10,258.45	9,079.32	9,021.09	58.24	155.908		
8,800.00	7,062.24	3,887.00	3,652.90	59.78	35.07	-12.76	-2,328.64	-10,258.45	8,987.02	8,928.68	58.34	154.042		
8,900.00	7,062.01	3,920.80	3,683.80	62.14	35.43	-12.80	-2,324.54	-10,271.49	8,894.72	8,836.03	58.69	151.559		
9,000.00	7,061.78	3,935.14	3,696.90	64.55	35.58	-12.82	-2,322.81	-10,277.09	8,802.58	8,743.67	58.91	149.425		
9,100.00	7,061.55	3,949.68	3,710.16	67.00	35.73	-12.85	-2,321.08	-10,282.79	8,710.54	8,651.40	59.14	147.284		
9,200.00	7,061.31	3,982.00	3,739.58	69.47	36.07	-12.89	-2,317.27	-10,295.61	8,618.67	8,559.17	59.50	144.850		
9,300.00	7,061.08	3,982.00	3,739.58	71.98	36.07	-12.89	-2,317.27	-10,295.61	8,526.81	8,467.16	59.65	142.941		
9,400.00	7,060.85	4,001.61	3,757.40	74.51	36.28	-12.92	-2,314.97	-10,303.46	8,435.11	8,375.16	59.95	140.712		
9,500.00	7,060.62	4,025.64	3,779.22	77.06	36.54	-12.96	-2,312.12	-10,313.12	8,343.48	8,283.20	60.28	138.417		
9,600.00	7,060.39	7,253.62	6,873.42	79.64	57.51	-73.35	-2,127.20	-11,003.45	8,244.78	8,171.08	73.70	111.870		
9,700.00	7,060.16	7,254.58	6,874.38	82.23	57.51	-73.44	-2,127.22	-11,003.47	8,145.04	8,071.29	73.74	110.449		
9,800.00	7,059.93	7,255.56	6,875.35	84.84	57.51	-73.53	-2,127.24	-11,003.49	8,045.30	7,971.51	73.79	109.025		
9,900.00	7,059.70	7,256.54	6,876.34	87.47	57.51	-73.62	-2,127.26	-11,003.51	7,945.57	7,871.72	73.85	107.598		
10,000.00	7,059.47	7,257.53	6,877.33	90.11	57.51	-73.72	-2,127.29	-11,003.53	7,845.84	7,771.94	73.90	106.167		
10,100.00	7,059.24	7,258.54	6,878.34	92.76	57.52	-73.81	-2,127.31	-11,003.55	7,746.13	7,672.17	73.96	104.734		
10,200.00	7,059.01	7,259.56	6,879.35	95.42	57.52	-73.91	-2,127.33	-11,003.58	7,646.42	7,572.39	74.02	103.298		
10,300.00	7,058.78	7,260.59	6,880.38	98.10	57.52	-74.01	-2,127.35	-11,003.60	7,546.71	7,472.62	74.09	101.859		
10,400.00	7,058.55	7,261.63	6,881.42	100.79	57.52	-74.11	-2,127.37	-11,003.62	7,447.02	7,372.85	74.16	100.416		
10,500.00	7,058.32	7,262.68	6,882.48	103.48	57.53	-74.21	-2,127.40	-11,003.64	7,347.33	7,273.09	74.24	98.970		
10,600.00	7,058.09	7,263.75	6,883.54	106.19	57.53	-74.31	-2,127.42	-11,003.67	7,247.65	7,173.33	74.32	97.521		
10,700.00	7,057.86	7,264.83	6,884.62	108.90	57.53	-74.41	-2,127.45	-11,003.69	7,147.98	7,073.57	74.40	96.069		
10,800.00	7,057.63	7,265.92	6,885.72	111.62	57.53	-74.51	-2,127.47	-11,003.72	7,048.32	6,973.82	74.50	94.614		
10,900.00	7,057.40	7,267.03	6,886.82	114.35	57.54	-74.62	-2,127.50	-11,003.74	6,948.66	6,874.07	74.59	93.155		
11,000.00	7,057.17	7,268.15	6,887.94	117.08	57.54	-74.73	-2,127.52	-11,003.77	6,849.02	6,774.33	74.70	91.693		
11,100.00	7,056.94	7,269.28	6,889.07	119.82	57.54	-74.83	-2,127.55	-11,003.79	6,749.39	6,674.59	74.80	90.227		
11,200.00	7,056.71	7,270.43	6,890.22	122.56	57.55	-74.94	-2,127.57	-11,003.82	6,649.77	6,574.85	74.92	88.758		
11,300.00	7,056.48	7,271.59	6,891.38	125.31	57.55	-75.05	-2,127.60	-11,003.85	6,550.16	6,475.11	75.04	87.285		
11,400.00	7,056.25	7,272.77	6,892.56	128.06	57.55	-75.17	-2,127.63	-11,003.87	6,450.56	6,375.38	75.17	85.808		
11,500.00	7,056.02	7,273.96	6,893.75	130.82	57.55	-75.28	-2,127.66	-11,003.90	6,350.97	6,275.66	75.31	84.328		
11,600.00	7,055.79	7,275.17	6,894.96	133.59	57.56	-75.40	-2,127.68	-11,003.93	6,251.40	6,175.94	75.46	82.844		
11,700.00	7,055.55	7,276.39	6,896.18	136.35	57.56	-75.51	-2,127.71	-11,003.96	6,151.84	6,076.22	75.62	81.356		
11,800.00	7,055.32	7,277.63	6,897.42	139.12	57.56	-75.63	-2,127.74	-11,003.99	6,052.29	5,976.51	75.78	79.864		
11,900.00	7,055.09	7,278.88	6,898.67	141.90	57.57	-75.75	-2,127.77	-11,004.02	5,952.76	5,876.80	75.96	78.369		
12,000.00	7,054.86	7,280.16	6,899.94	144.67	57.57	-75.88	-2,127.80	-11,004.05	5,853.24	5,777.10	76.15	76.869		
12,100.00	7,054.63	7,281.44	6,901.23	147.45	57.57	-76.00	-2,127.83	-11,004.08	5,753.75	5,677.40	76.34	75.365		
12,200.00	7,054.40	7,282.75	6,902.53	150.24	57.58	-76.13	-2,127.86	-11,004.11	5,654.26	5,577.71	76.56	73.857		
12,300.00	7,054.17	7,284.07	6,903.86	153.02	57.58	-76.25	-2,127.90	-11,004.14	5,554.80	5,478.02	76.78	72.345		
12,400.00	7,053.94	7,285.41	6,905.19	155.81	57.58	-76.38	-2,127.93	-11,004.18	5,455.35	5,378.33	77.02	70.828		
12,500.00	7,053.71	7,286.77	6,906.55	158.60	57.58	-76.52	-2,127.96	-11,004.21	5,355.93	5,278.65	77.28	69.308		
12,600.00	7,053.48	7,288.15	6,907.93	161.40	57.59	-76.65	-2,128.00	-11,004.24	5,256.52	5,178.97	77.55	67.782		
12,700.00	7,053.25	7,289.54	6,909.32	164.19	57.59	-76.78	-2,128.03	-11,004.28	5,157.14	5,079.30	77.84	66.253		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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
12,800.00	7,053.02	7,290.96	6,910.74	166.99	57.60	-76.92	-2,128.07	-11,004.32	5,057.78	4,979.63	78.15	64.719	
12,900.00	7,052.79	7,292.39	6,912.17	169.79	57.60	-77.06	-2,128.10	-11,004.35	4,958.45	4,879.97	78.48	63.180	
13,000.00	7,052.56	7,293.85	6,913.63	172.59	57.60	-77.20	-2,128.14	-11,004.39	4,859.14	4,780.31	78.83	61.637	
13,100.00	7,052.33	7,295.32	6,915.10	175.40	57.61	-77.35	-2,128.18	-11,004.43	4,759.87	4,680.65	79.21	60.090	
13,200.00	7,052.10	7,296.82	6,916.60	178.20	57.61	-77.49	-2,128.22	-11,004.47	4,660.62	4,581.00	79.62	58.538	
13,300.00	7,051.87	7,298.34	6,918.11	181.01	57.61	-77.64	-2,128.26	-11,004.51	4,561.40	4,481.35	80.05	56.983	
13,400.00	7,051.64	7,299.88	6,919.65	183.82	57.62	-77.79	-2,128.30	-11,004.55	4,462.22	4,381.71	80.51	55.423	
13,500.00	7,051.41	7,301.44	6,921.21	186.63	57.62	-77.94	-2,128.34	-11,004.59	4,363.08	4,282.07	81.01	53.859	
13,600.00	7,051.18	7,303.03	6,922.80	189.44	57.62	-78.10	-2,128.38	-11,004.63	4,263.97	4,182.43	81.54	52.291	
13,700.00	7,050.95	7,304.64	6,924.41	192.25	57.63	-78.26	-2,128.42	-11,004.67	4,164.91	4,082.79	82.12	50.720	
13,800.00	7,050.72	7,306.27	6,926.04	195.07	57.63	-78.42	-2,128.47	-11,004.72	4,065.89	3,983.15	82.73	49.145	
13,900.00	7,050.49	7,307.93	6,927.69	197.88	57.64	-78.58	-2,128.51	-11,004.76	3,966.92	3,883.52	83.39	47.568	
14,000.00	7,050.26	7,309.61	6,929.37	200.70	57.64	-78.74	-2,128.56	-11,004.81	3,868.00	3,783.89	84.11	45.988	
14,100.00	7,050.03	7,311.32	6,931.08	203.52	57.64	-78.91	-2,128.60	-11,004.85	3,769.13	3,684.26	84.88	44.406	
14,200.00	7,049.80	7,313.05	6,932.81	206.34	57.65	-79.08	-2,128.65	-11,004.90	3,670.33	3,584.62	85.71	42.823	
14,300.00	7,049.56	7,314.81	6,934.57	209.16	57.65	-79.26	-2,128.70	-11,004.95	3,571.59	3,484.99	86.61	41.240	
14,400.00	7,049.33	7,316.60	6,936.36	211.98	57.66	-79.43	-2,128.75	-11,005.00	3,472.93	3,385.35	87.58	39.656	
14,500.00	7,049.10	7,318.41	6,938.17	214.80	57.66	-79.61	-2,128.80	-11,005.05	3,374.34	3,285.71	88.63	38.074	
14,600.00	7,048.87	7,320.26	6,940.02	217.63	57.67	-79.80	-2,128.85	-11,005.11	3,275.83	3,186.06	89.77	36.493	
14,700.00	7,048.64	7,322.13	6,941.89	220.45	57.67	-79.98	-2,128.91	-11,005.16	3,177.42	3,086.41	91.00	34.916	
14,800.00	7,048.41	7,324.04	6,943.79	223.28	57.67	-80.17	-2,128.96	-11,005.22	3,079.10	2,986.76	92.35	33.343	
14,900.00	7,048.18	7,325.97	6,945.72	226.10	57.68	-80.36	-2,129.02	-11,005.27	2,980.90	2,887.09	93.81	31.777	
14,979.18	7,048.00	7,327.53	6,947.28	228.34	57.68	-80.52	-2,129.06	-11,005.32	2,903.23	2,808.17	95.06	30.542 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-106.71	-2,690.95	-8,961.26	9,356.64					
100.00	100.00	0.00	35.00	3.28	3.28	-106.71	-2,690.95	-8,961.26	9,356.80	9,350.23	6.56	1,425.277		
200.00	200.00	58.13	93.12	3.34	3.28	-106.72	-2,691.32	-8,961.50	9,357.51	9,350.89	6.62	1,413.574		
300.00	299.98	577.00	611.23	3.44	3.96	67.36	-2,676.74	-8,960.35	9,356.13	9,348.72	7.41	1,262.570		
400.00	399.84	577.00	611.23	3.59	3.96	67.45	-2,676.74	-8,960.35	9,351.32	9,343.77	7.55	1,238.072		
500.00	499.45	627.68	661.51	3.79	4.09	67.62	-2,670.43	-8,961.03	9,345.84	9,337.95	7.89	1,185.235		
600.00	598.70	667.00	700.45	4.03	4.21	67.79	-2,665.09	-8,962.08	9,339.81	9,331.57	8.24	1,133.845		
700.00	697.47	775.52	807.64	4.31	4.56	68.12	-2,648.59	-8,965.81	9,332.89	9,324.02	8.88	1,051.541		
800.00	795.62	942.37	971.74	4.64	5.21	68.64	-2,618.98	-8,971.52	9,324.00	9,314.16	9.85	947.030		
900.00	893.16	1,022.16	1,049.72	5.00	5.57	68.93	-2,602.39	-8,974.76	9,314.03	9,303.47	10.56	882.224		
1,000.00	990.60	1,114.29	1,139.17	5.38	6.02	69.18	-2,580.84	-8,979.25	9,304.16	9,292.77	11.39	816.804		
1,100.00	1,088.04	1,179.75	1,202.33	5.79	6.37	69.37	-2,564.01	-8,982.90	9,294.55	9,282.41	12.14	765.393		
1,200.00	1,185.48	1,240.40	1,260.51	6.22	6.72	69.55	-2,547.36	-8,986.79	9,285.46	9,272.55	12.91	719.506		
1,300.00	1,282.92	1,316.80	1,333.27	6.66	7.18	69.79	-2,524.70	-8,992.27	9,276.77	9,262.97	13.80	672.069		
1,400.00	1,380.36	1,384.92	1,397.58	7.10	7.63	70.01	-2,502.92	-8,997.68	9,268.49	9,253.79	14.70	630.629		
1,500.00	1,477.80	1,417.00	1,427.69	7.56	7.85	70.11	-2,492.19	-9,000.39	9,260.75	9,245.39	15.37	602.646		
1,600.00	1,575.24	1,462.93	1,470.64	8.03	8.17	70.27	-2,476.46	-9,004.60	9,253.70	9,237.54	16.16	572.722		
1,700.00	1,672.68	1,512.00	1,516.35	8.50	8.53	70.44	-2,459.35	-9,009.63	9,247.55	9,230.57	16.98	544.604		
1,800.00	1,770.12	1,533.15	1,536.01	8.98	8.69	70.51	-2,451.87	-9,011.94	9,242.07	9,224.46	17.61	524.698		
1,900.00	1,867.56	1,590.88	1,589.50	9.46	9.13	70.71	-2,431.17	-9,018.40	9,237.26	9,218.73	18.53	498.434		
2,000.00	1,965.00	1,637.54	1,632.57	9.95	9.50	70.88	-2,414.08	-9,023.85	9,233.06	9,213.68	19.38	476.361		
2,100.00	2,062.44	1,679.59	1,671.24	10.44	9.83	71.03	-2,398.37	-9,029.02	9,229.56	9,209.35	20.21	456.785		
2,200.00	2,159.88	1,721.01	1,709.16	10.93	10.18	71.18	-2,382.61	-9,034.34	9,226.77	9,205.73	21.03	438.651		
2,300.00	2,257.32	1,761.76	1,746.32	11.42	10.52	71.33	-2,366.79	-9,039.83	9,224.70	9,202.83	21.87	421.821		
2,400.00	2,354.76	1,835.89	1,813.52	11.92	11.17	71.61	-2,337.28	-9,050.25	9,223.35	9,200.34	23.01	400.916		
2,500.00	2,452.20	1,946.22	1,912.95	12.42	12.17	72.03	-2,291.98	-9,065.54	9,222.02	9,197.52	24.50	376.434		
2,600.00	2,549.64	1,989.00	1,951.35	12.92	12.57	72.19	-2,274.08	-9,071.52	9,221.19	9,195.81	25.38	363.262		
2,672.13	2,619.92	2,034.27	1,991.92	13.28	12.99	72.37	-2,255.08	-9,077.98	9,220.97	9,194.81	26.17	352.408		
2,700.00	2,647.08	2,045.70	2,002.17	13.42	13.10	72.41	-2,250.28	-9,079.64	9,221.00	9,194.59	26.41	349.144		
2,800.00	2,744.52	2,092.16	2,043.79	13.93	13.54	72.59	-2,230.82	-9,086.52	9,221.58	9,194.23	27.34	337.280		
2,900.00	2,841.96	2,206.17	2,145.79	14.43	14.64	73.03	-2,182.71	-9,103.25	9,222.41	9,193.48	28.93	318.771		
3,000.00	2,939.40	2,260.34	2,194.17	14.94	15.17	73.24	-2,159.71	-9,111.25	9,223.73	9,193.79	29.95	307.986		
3,100.00	3,036.84	2,310.20	2,238.69	15.44	15.66	73.44	-2,138.54	-9,118.74	9,225.70	9,194.78	30.93	298.321		
3,200.00	3,134.28	2,369.00	2,291.24	15.95	16.24	73.67	-2,113.75	-9,127.76	9,228.35	9,196.36	31.99	288.469		
3,300.00	3,231.72	2,396.86	2,316.15	16.46	16.52	73.77	-2,102.07	-9,132.14	9,231.69	9,198.94	32.75	281.892		
3,400.00	3,329.16	2,432.17	2,347.74	16.97	16.86	73.91	-2,087.35	-9,137.82	9,235.82	9,202.24	33.58	275.046		
3,500.00	3,426.60	2,472.93	2,384.21	17.48	17.27	74.07	-2,070.45	-9,144.56	9,240.72	9,206.26	34.46	268.146		
3,600.00	3,524.04	2,561.80	2,463.79	17.99	18.15	74.41	-2,033.74	-9,159.33	9,246.13	9,210.31	35.82	258.123		
3,700.00	3,621.48	2,618.72	2,514.85	18.50	18.71	74.63	-2,010.44	-9,168.82	9,252.01	9,215.16	36.86	251.021		
3,800.00	3,718.92	2,796.86	2,674.57	19.01	20.50	75.31	-1,937.15	-9,198.00	9,258.20	9,219.09	39.11	236.705		
3,900.00	3,816.36	2,879.58	2,747.85	19.52	21.35	75.63	-1,901.07	-9,211.02	9,264.02	9,223.58	40.44	229.089		
4,000.00	3,913.80	2,937.00	2,798.61	20.03	21.95	75.86	-1,875.86	-9,220.23	9,270.49	9,228.98	41.51	223.340		
4,100.00	4,011.24	4,100.00	2,933.04	20.55	33.71	76.44	-1,812.60	-9,243.86	9,277.32	9,223.85	53.47	173.512		
4,200.00	4,108.68	3,203.04	3,036.42	21.06	24.66	76.89	-1,763.81	-9,260.98	9,283.70	9,238.55	45.15	205.634		
4,300.00	4,206.12	3,252.27	3,080.23	21.57	25.17	77.08	-1,742.58	-9,268.35	9,290.65	9,244.54	46.11	201.471		
4,400.00	4,303.56	3,299.11	3,122.08	22.09	25.65	77.26	-1,722.82	-9,275.50	9,298.28	9,251.23	47.05	197.610		
4,500.00	4,401.00	3,432.01	3,241.48	22.60	26.99	77.76	-1,668.00	-9,295.52	9,306.16	9,257.31	48.85	190.512		
4,600.00	4,498.44	3,478.44	3,283.30	23.11	27.45	77.94	-1,649.07	-9,302.47	9,314.41	9,264.64	49.77	187.162		
4,700.00	4,595.88	3,530.54	3,330.27	23.63	27.98	78.13	-1,627.98	-9,310.45	9,323.32	9,272.58	50.74	183.751		
4,800.00	4,693.32	3,588.51	3,382.44	24.14	28.56	78.35	-1,604.37	-9,319.47	9,332.81	9,281.05	51.77	180.286		
4,900.00	4,790.76	3,710.95	3,492.55	24.66	29.79	78.81	-1,554.27	-9,338.36	9,342.60	9,289.16	53.44	174.823		
5,000.00	4,888.20	3,795.99	3,569.30	25.17	30.64	79.13	-1,519.98	-9,351.27	9,352.58	9,297.85	54.73	170.885		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	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)			
5,100.00	4,985.64	3,893.10	3,656.73	25.69	31.62	79.49	-1,480.34	-9,365.87	9,362.84	9,306.70	56.14	166.777		
5,200.00	5,083.08	3,915.68	3,676.93	26.20	31.86	79.58	-1,470.85	-9,369.34	9,373.70	9,316.88	56.81	164.988		
5,300.00	5,180.52	3,945.97	3,703.91	26.72	32.17	79.69	-1,457.93	-9,374.11	9,385.35	9,327.79	57.56	163.056		
5,400.00	5,277.96	3,976.00	3,730.52	27.24	32.49	79.81	-1,444.89	-9,378.98	9,397.80	9,339.50	58.30	161.208		
5,500.00	5,375.40	4,006.88	3,757.74	27.75	32.82	79.93	-1,431.26	-9,384.13	9,411.05	9,351.99	59.05	159.371		
5,600.00	5,472.84	4,037.51	3,784.62	28.27	33.16	80.05	-1,417.52	-9,389.37	9,425.09	9,365.29	59.80	157.615		
5,700.00	5,570.28	4,071.00	3,813.84	28.79	33.53	80.19	-1,402.27	-9,395.25	9,439.92	9,379.35	60.57	155.850		
5,800.00	5,667.72	4,106.47	3,844.64	29.30	33.93	80.33	-1,385.86	-9,401.61	9,455.52	9,394.15	61.37	154.065		
5,900.00	5,765.16	4,145.71	3,878.53	29.82	34.38	80.49	-1,367.42	-9,408.75	9,471.85	9,409.63	62.21	152.247		
6,000.00	5,862.60	4,165.00	3,895.12	30.34	34.60	80.57	-1,358.25	-9,412.30	9,488.93	9,426.11	62.82	151.045		
6,100.00	5,960.05	6,193.42	5,809.49	30.85	49.77	86.52	-795.12	-9,618.52	9,497.51	9,419.28	78.23	121.402		
6,200.00	6,057.49	6,200.00	5,941.37	31.37	49.80	86.73	-789.32	-9,620.05	9,497.56	9,418.82	78.73	120.629		
6,300.00	6,154.93	6,446.57	6,062.41	31.89	50.50	86.92	-784.87	-9,621.02	9,497.28	9,417.35	79.93	118.820		
6,389.65	6,242.28	6,515.76	6,131.57	32.35	50.68	87.03	-782.84	-9,621.65	9,497.17	9,416.62	80.56	117.893		
6,400.00	6,252.37	6,523.82	6,139.62	32.40	50.71	87.04	-782.63	-9,621.74	9,497.17	9,416.54	80.63	117.787		
6,500.00	6,349.81	6,601.83	6,217.61	32.92	50.91	87.16	-780.81	-9,622.64	9,497.33	9,416.00	81.33	116.771		
6,600.00	6,447.25	6,695.90	6,311.65	33.44	51.16	87.29	-779.17	-9,623.90	9,497.69	9,415.62	82.07	115.730		
6,700.00	6,544.28	6,799.80	6,415.53	33.95	51.42	88.72	-777.87	-9,625.27	9,492.17	9,409.36	82.82	114.617		
6,800.00	6,638.86	6,896.02	6,511.74	34.44	51.66	40.25	-777.05	-9,626.51	9,471.30	9,387.79	83.51	113.409		
6,900.00	6,728.65	6,986.31	6,602.03	34.89	51.88	31.05	-776.48	-9,627.69	9,435.49	9,351.34	84.15	112.121		
7,000.00	6,811.45	7,069.74	6,685.44	35.29	52.08	26.24	-776.08	-9,628.78	9,385.64	9,300.90	84.73	110.766		
7,100.00	6,885.21	7,144.26	6,759.96	35.66	52.26	23.80	-775.72	-9,629.76	9,322.95	9,237.71	85.24	109.369		
7,200.00	6,948.11	7,208.09	6,823.78	35.99	52.42	23.00	-775.42	-9,630.60	9,248.97	9,163.30	85.67	107.956		
7,300.00	6,998.62	7,259.65	6,875.34	36.30	52.55	23.81	-775.17	-9,631.27	9,165.51	9,079.49	86.02	106.547		
7,400.00	7,035.48	7,297.68	6,913.37	36.65	52.64	27.11	-774.99	-9,631.77	9,074.61	8,988.32	86.28	105.171		
7,500.00	7,057.79	7,321.23	6,936.92	37.13	52.70	37.17	-774.87	-9,632.08	8,978.49	8,892.03	86.46	103.849		
7,600.00	7,065.00	7,329.74	6,945.42	37.84	52.72	82.77	-774.83	-9,632.19	8,879.50	8,792.95	86.55	102.597		
7,700.00	7,064.77	7,330.82	6,946.50	38.82	52.73	82.85	-774.83	-9,632.21	8,779.90	8,693.30	86.60	101.386		
7,800.00	7,064.54	7,331.90	6,947.58	40.06	52.73	82.93	-774.82	-9,632.22	8,680.31	8,593.65	86.65	100.171		
7,900.00	7,064.31	7,332.97	6,948.66	41.52	52.73	83.01	-774.82	-9,632.24	8,580.73	8,494.01	86.71	98.954		
8,000.00	7,064.08	7,334.05	6,949.74	43.14	52.73	83.08	-774.81	-9,632.25	8,481.15	8,394.38	86.78	97.734		
8,100.00	7,063.85	7,335.13	6,950.81	44.90	52.74	83.16	-774.81	-9,632.26	8,381.59	8,294.75	86.85	96.511		
8,200.00	7,063.62	7,336.21	6,951.89	46.78	52.74	83.24	-774.80	-9,632.28	8,282.04	8,195.12	86.92	95.285		
8,300.00	7,063.39	7,337.29	6,952.97	48.76	52.74	83.32	-774.80	-9,632.29	8,182.50	8,095.50	87.00	94.057		
8,400.00	7,063.16	7,338.37	6,954.05	50.83	52.75	83.40	-774.79	-9,632.31	8,082.97	7,995.89	87.08	92.825		
8,500.00	7,062.93	7,339.45	6,955.13	52.97	52.75	83.47	-774.79	-9,632.32	7,983.45	7,896.29	87.16	91.591		
8,600.00	7,062.70	7,340.52	6,956.21	55.18	52.75	83.55	-774.78	-9,632.34	7,883.95	7,796.69	87.26	90.354		
8,700.00	7,062.47	7,341.60	6,957.29	57.46	52.75	83.63	-774.78	-9,632.35	7,784.45	7,697.10	87.35	89.114		
8,800.00	7,062.24	7,342.68	6,958.36	59.78	52.76	83.71	-774.77	-9,632.36	7,684.97	7,597.51	87.46	87.871		
8,900.00	7,062.01	7,343.76	6,959.44	62.14	52.76	83.79	-774.77	-9,632.38	7,585.50	7,497.94	87.57	86.626		
9,000.00	7,061.78	7,344.84	6,960.52	64.55	52.76	83.86	-774.76	-9,632.39	7,486.05	7,398.37	87.68	85.377		
9,100.00	7,061.55	7,345.92	6,961.60	67.00	52.76	83.94	-774.76	-9,632.41	7,386.61	7,298.81	87.80	84.126		
9,200.00	7,061.31	7,347.00	6,962.68	69.47	52.77	84.02	-774.75	-9,632.42	7,287.19	7,199.25	87.93	82.871		
9,300.00	7,061.08	7,348.07	6,963.76	71.98	52.77	84.10	-774.75	-9,632.43	7,187.78	7,099.71	88.07	81.614		
9,400.00	7,060.85	7,349.15	6,964.83	74.51	52.77	84.18	-774.74	-9,632.45	7,088.39	7,000.18	88.21	80.354		
9,500.00	7,060.62	7,350.23	6,965.91	77.06	52.78	84.26	-774.74	-9,632.46	6,989.02	6,900.65	88.37	79.091		
9,600.00	7,060.39	7,351.31	6,966.99	79.64	52.78	84.33	-774.73	-9,632.48	6,889.66	6,801.13	88.53	77.825		
9,700.00	7,060.16	7,352.39	6,968.07	82.23	52.78	84.41	-774.73	-9,632.49	6,790.32	6,701.63	88.70	76.556		
9,800.00	7,059.93	7,353.47	6,969.15	84.84	52.78	84.49	-774.72	-9,632.50	6,691.01	6,602.13	88.88	75.285		
9,900.00	7,059.70	7,354.55	6,970.23	87.47	52.79	84.57	-774.71	-9,632.52	6,591.71	6,502.64	89.06	74.010		
10,000.00	7,059.47	7,355.62	6,971.31	90.11	52.79	84.65	-774.71	-9,632.53	6,492.43	6,403.17	89.26	72.733		
10,100.00	7,059.24	7,356.70	6,972.38	92.76	52.79	84.73	-774.70	-9,632.55	6,393.18	6,303.71	89.47	71.453		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,200.00	7,059.01	7,357.78	6,973.46	95.42	52.79	84.80	-774.70	-9,632.56	6,293.95	6,204.25	89.70	70.170		
10,300.00	7,058.78	7,358.86	6,974.54	98.10	52.80	84.88	-774.69	-9,632.58	6,194.74	6,104.81	89.93	68.884		
10,400.00	7,058.55	7,359.94	6,975.62	100.79	52.80	84.96	-774.69	-9,632.59	6,095.56	6,005.39	90.18	67.596		
10,500.00	7,058.32	7,361.02	6,976.70	103.48	52.80	85.04	-774.68	-9,632.60	5,996.41	5,905.97	90.44	66.305		
10,600.00	7,058.09	7,362.10	6,977.78	106.19	52.81	85.12	-774.68	-9,632.62	5,897.29	5,806.58	90.71	65.011		
10,700.00	7,057.86	7,363.17	6,978.85	108.90	52.81	85.20	-774.67	-9,632.63	5,798.19	5,707.19	91.00	63.714		
10,800.00	7,057.63	7,364.25	6,979.93	111.62	52.81	85.27	-774.67	-9,632.65	5,699.13	5,607.82	91.31	62.415		
10,900.00	7,057.40	7,365.33	6,981.01	114.35	52.81	85.35	-774.66	-9,632.66	5,600.10	5,508.47	91.63	61.114		
11,000.00	7,057.17	7,366.41	6,982.09	117.08	52.82	85.43	-774.66	-9,632.67	5,501.11	5,409.13	91.98	59.810		
11,100.00	7,056.94	7,367.49	6,983.17	119.82	52.82	85.51	-774.65	-9,632.69	5,402.15	5,309.81	92.34	58.504		
11,200.00	7,056.71	7,368.57	6,984.25	122.56	52.82	85.59	-774.65	-9,632.70	5,303.23	5,210.51	92.72	57.195		
11,300.00	7,056.48	7,369.65	6,985.33	125.31	52.82	85.67	-774.64	-9,632.72	5,204.35	5,111.23	93.13	55.884		
11,400.00	7,056.25	7,370.72	6,986.40	128.06	52.83	85.75	-774.64	-9,632.73	5,105.52	5,011.96	93.56	54.572		
11,500.00	7,056.02	7,371.80	6,987.48	130.82	52.83	85.82	-774.63	-9,632.75	5,006.73	4,912.72	94.01	53.258		
11,600.00	7,055.79	7,372.88	6,988.56	133.59	52.83	85.90	-774.63	-9,632.76	4,907.99	4,813.50	94.49	51.941		
11,700.00	7,055.55	7,373.96	6,989.64	136.35	52.83	85.98	-774.62	-9,632.77	4,809.30	4,714.30	95.00	50.624		
11,800.00	7,055.32	7,375.04	6,990.72	139.12	52.84	86.06	-774.62	-9,632.79	4,710.67	4,615.13	95.54	49.305		
11,900.00	7,055.09	7,376.12	6,991.80	141.90	52.84	86.14	-774.61	-9,632.80	4,612.10	4,515.98	96.11	47.986		
12,000.00	7,054.86	7,377.20	6,992.88	144.67	52.84	86.22	-774.61	-9,632.82	4,513.58	4,416.86	96.72	46.665		
12,100.00	7,054.63	7,378.27	6,993.95	147.45	52.85	86.30	-774.60	-9,632.83	4,415.14	4,317.77	97.37	45.344		
12,200.00	7,054.40	7,379.35	6,995.03	150.24	52.85	86.37	-774.60	-9,632.84	4,316.77	4,218.71	98.06	44.023		
12,300.00	7,054.17	7,380.43	6,996.11	153.02	52.85	86.45	-774.59	-9,632.86	4,218.47	4,119.68	98.79	42.703		
12,400.00	7,053.94	7,381.51	6,997.19	155.81	52.85	86.53	-774.59	-9,632.87	4,120.25	4,020.69	99.56	41.383		
12,500.00	7,053.71	7,382.59	6,998.27	158.60	52.86	86.61	-774.58	-9,632.89	4,022.13	3,921.73	100.39	40.064		
12,600.00	7,053.48	7,383.67	6,999.35	161.40	52.86	86.69	-774.58	-9,632.90	3,924.09	3,822.82	101.28	38.747		
12,700.00	7,053.25	7,384.75	7,000.42	164.19	52.86	86.77	-774.57	-9,632.92	3,826.16	3,723.94	102.22	37.431		
12,800.00	7,053.02	7,385.82	7,001.50	166.99	52.86	86.85	-774.57	-9,632.93	3,728.34	3,625.11	103.22	36.119		
12,900.00	7,052.79	7,386.90	7,002.58	169.79	52.87	86.93	-774.56	-9,632.94	3,630.63	3,526.33	104.30	34.810		
13,000.00	7,052.56	7,387.98	7,003.66	172.59	52.87	87.00	-774.56	-9,632.96	3,533.06	3,427.61	105.45	33.506		
13,100.00	7,052.33	7,389.07	7,004.75	175.40	52.87	87.08	-774.55	-9,632.97	3,435.62	3,328.94	106.68	32.206		
13,200.00	7,052.10	7,390.26	7,005.94	178.20	52.88	87.17	-774.54	-9,632.99	3,338.33	3,230.34	107.99	30.912		
13,300.00	7,051.87	7,391.45	7,007.13	181.01	52.88	87.26	-774.54	-9,633.00	3,241.21	3,131.80	109.41	29.625		
13,400.00	7,051.64	7,392.63	7,008.31	183.82	52.88	87.34	-774.53	-9,633.02	3,144.27	3,033.34	110.93	28.345		
13,500.00	7,051.41	7,393.80	7,009.48	186.63	52.88	87.43	-774.53	-9,633.03	3,047.53	2,934.96	112.56	27.074		
13,600.00	7,051.18	7,394.96	7,010.64	189.44	52.89	87.51	-774.52	-9,633.05	2,951.00	2,836.68	114.32	25.814		
13,700.00	7,050.95	7,396.12	7,011.80	192.25	52.89	87.60	-774.52	-9,633.06	2,854.71	2,738.49	116.21	24.564		
13,800.00	7,050.72	7,397.27	7,012.95	195.07	52.89	87.68	-774.51	-9,633.08	2,758.68	2,640.42	118.26	23.327		
13,900.00	7,050.49	7,398.41	7,014.09	197.88	52.90	87.77	-774.51	-9,633.09	2,662.95	2,542.48	120.47	22.104		
14,000.00	7,050.26	7,399.55	7,015.22	200.70	52.90	87.85	-774.50	-9,633.11	2,567.54	2,444.68	122.87	20.897		
14,100.00	7,050.03	7,400.67	7,016.35	203.52	52.90	87.93	-774.49	-9,633.12	2,472.50	2,347.03	125.46	19.707		
14,200.00	7,049.80	7,401.79	7,017.47	206.34	52.90	88.01	-774.49	-9,633.14	2,377.86	2,249.57	128.29	18.536		
14,300.00	7,049.56	7,402.91	7,018.58	209.16	52.91	88.09	-774.48	-9,633.15	2,283.67	2,152.32	131.35	17.386		
14,400.00	7,049.33	7,404.01	7,019.69	211.98	52.91	88.18	-774.48	-9,633.16	2,190.01	2,055.31	134.70	16.258		
14,500.00	7,049.10	7,405.11	7,020.79	214.80	52.91	88.26	-774.47	-9,633.18	2,096.92	1,958.57	138.35	15.156		
14,600.00	7,048.87	7,406.21	7,021.88	217.63	52.92	88.34	-774.47	-9,633.19	2,004.50	1,862.15	142.35	14.081		
14,700.00	7,048.64	7,407.29	7,022.97	220.45	52.92	88.42	-774.46	-9,633.21	1,912.85	1,766.12	146.73	13.036		
14,800.00	7,048.41	7,408.37	7,024.05	223.28	52.92	88.49	-774.46	-9,633.22	1,822.07	1,670.53	151.54	12.023		
14,900.00	7,048.18	7,409.44	7,025.12	226.10	52.92	88.57	-774.45	-9,633.23	1,732.31	1,575.47	156.84	11.045		
14,979.18	7,048.00	7,410.29	7,025.96	228.34	52.93	88.63	-774.45	-9,633.24	1,662.06	1,500.65	161.41	10.297 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	2,195.01	2,128.94	3.28	15.29	-103.75	-2,141.70	-8,750.52	9,256.94					
100.00	100.00	2,236.59	2,166.93	3.28	15.66	-103.66	-2,125.66	-8,745.30	9,234.22	9,216.25	17.97	513.868		
200.00	200.00	2,272.84	2,200.13	3.34	15.98	-103.58	-2,111.76	-8,740.95	9,212.18	9,193.88	18.29	503.620		
300.00	299.98	2,319.30	2,242.75	3.44	16.39	70.86	-2,094.05	-8,735.63	9,190.22	9,171.48	18.75	490.212		
400.00	399.84	2,523.04	2,429.46	3.59	18.21	71.83	-2,016.18	-8,711.44	9,166.94	9,146.40	20.54	446.316		
500.00	499.45	2,562.47	2,465.38	3.79	18.57	72.42	-2,000.59	-8,706.78	9,142.43	9,121.38	21.05	434.388		
600.00	598.70	2,617.60	2,515.51	4.03	19.08	73.08	-1,978.51	-8,700.63	9,117.53	9,095.79	21.74	419.455		
700.00	697.47	2,737.02	2,624.11	4.31	20.19	73.99	-1,930.62	-8,687.36	9,091.98	9,068.96	23.02	394.934		
800.00	795.62	2,899.79	2,771.40	4.64	21.72	75.10	-1,864.11	-8,668.04	9,064.78	9,040.05	24.73	366.506		
900.00	893.16	2,947.34	2,814.53	5.00	22.16	75.56	-1,844.91	-8,662.28	9,037.23	9,011.74	25.49	354.481		
1,000.00	990.60	3,010.51	2,872.11	5.38	22.75	75.79	-1,820.11	-8,654.63	9,010.13	8,983.73	26.40	341.228		
1,100.00	1,088.04	3,084.78	2,940.29	5.79	23.42	76.06	-1,792.15	-8,645.36	8,983.44	8,956.01	27.43	327.552		
1,200.00	1,185.48	3,163.11	3,012.12	6.22	24.13	76.34	-1,762.44	-8,635.69	8,957.09	8,928.59	28.50	314.295		
1,300.00	1,282.92	3,253.82	3,095.18	6.66	24.96	76.68	-1,727.73	-8,624.52	8,931.01	8,901.31	29.70	300.712		
1,400.00	1,380.36	3,292.65	3,130.86	7.10	25.30	76.82	-1,713.18	-8,619.75	8,905.42	8,874.94	30.48	292.179		
1,500.00	1,477.80	3,346.00	3,180.19	7.56	25.77	77.01	-1,693.93	-8,613.26	8,880.50	8,849.11	31.39	282.908		
1,600.00	1,575.24	3,371.28	3,203.67	8.03	25.99	77.10	-1,685.04	-8,610.24	8,856.24	8,824.16	32.08	276.071		
1,700.00	1,672.68	3,404.89	3,234.94	8.50	26.27	77.22	-1,673.35	-8,606.37	8,832.74	8,799.90	32.84	268.938		
1,800.00	1,770.12	3,440.00	3,267.68	8.98	26.57	77.34	-1,661.28	-8,602.50	8,810.00	8,776.38	33.63	261.997		
1,900.00	1,867.56	3,557.46	3,377.56	9.46	27.55	77.74	-1,621.96	-8,589.21	8,787.45	8,752.42	35.03	250.850		
2,000.00	1,965.00	3,824.00	3,627.20	9.95	29.76	78.66	-1,534.83	-8,555.73	8,764.35	8,726.82	37.52	233.568		
2,100.00	2,062.44	2,100.00	3,716.64	10.44	15.12	79.00	-1,502.08	-8,542.76	8,740.49	8,715.86	24.63	354.874		
2,200.00	2,159.88	3,967.59	3,760.54	10.93	31.00	79.17	-1,485.14	-8,536.55	8,717.05	8,677.33	39.71	219.500		
2,300.00	2,257.32	4,015.00	3,804.31	11.42	31.42	79.34	-1,467.90	-8,530.71	8,694.36	8,653.72	40.64	213.936		
2,400.00	2,354.76	4,066.53	3,851.82	11.92	31.88	79.54	-1,448.91	-8,524.60	8,672.31	8,630.70	41.61	208.403		
2,500.00	2,452.20	4,131.78	3,911.91	12.42	32.46	79.78	-1,424.64	-8,516.99	8,650.74	8,608.04	42.70	202.578		
2,600.00	2,549.64	4,190.85	3,966.35	12.92	32.99	80.01	-1,402.74	-8,510.23	8,629.70	8,585.95	43.75	197.258		
2,700.00	2,647.08	4,605.04	4,343.71	13.42	36.86	81.63	-1,241.08	-8,456.88	8,607.66	8,559.84	47.81	180.026		
2,800.00	2,744.52	2,800.00	4,415.74	13.93	18.50	81.97	-1,205.43	-8,445.48	8,584.31	8,553.13	31.18	275.328		
2,900.00	2,841.96	4,718.43	4,444.45	14.43	38.01	82.11	-1,191.52	-8,441.00	8,561.60	8,511.57	50.03	171.121		
3,000.00	2,939.40	4,774.00	4,494.17	14.94	38.57	82.34	-1,167.83	-8,433.61	8,539.79	8,488.66	51.13	167.018		
3,100.00	3,036.84	4,774.00	4,494.17	15.44	38.57	82.34	-1,167.83	-8,433.61	8,518.66	8,466.94	51.72	164.693		
3,200.00	3,134.28	4,818.93	4,534.66	15.95	39.00	82.53	-1,149.19	-8,427.91	8,498.39	8,445.68	52.71	161.221		
3,300.00	3,231.72	4,869.00	4,580.16	16.46	39.48	82.73	-1,129.22	-8,421.79	8,478.97	8,425.22	53.75	157.756		
3,400.00	3,329.16	4,916.89	4,623.97	16.97	39.92	82.92	-1,110.76	-8,416.04	8,460.22	8,405.48	54.74	154.541		
3,500.00	3,426.60	5,008.24	4,707.90	17.48	40.75	83.28	-1,076.46	-8,404.90	8,441.88	8,385.77	56.11	150.459		
3,600.00	3,524.04	5,077.13	4,770.94	17.99	41.38	83.55	-1,049.99	-8,396.49	8,423.82	8,366.53	57.28	147.052		
3,700.00	3,621.48	5,117.15	4,807.66	18.50	41.75	83.71	-1,034.78	-8,391.75	8,406.46	8,348.24	58.22	144.392		
3,800.00	3,718.92	5,152.00	4,839.75	19.01	42.06	83.85	-1,021.80	-8,387.75	8,389.88	8,330.77	59.11	141.934		
3,900.00	3,816.36	5,198.37	4,882.64	19.52	42.47	84.03	-1,004.95	-8,382.62	8,374.06	8,313.97	60.08	139.373		
4,000.00	3,913.80	5,247.00	4,927.86	20.03	42.89	84.22	-987.81	-8,377.47	8,359.00	8,297.93	61.07	136.866		
4,100.00	4,011.24	5,281.32	4,959.93	20.55	43.18	84.35	-976.08	-8,373.98	8,344.70	8,282.77	61.93	134.738		
4,200.00	4,108.68	5,342.00	5,016.93	21.06	43.68	84.57	-956.13	-8,368.10	8,331.20	8,268.20	63.00	132.251		
4,300.00	4,206.12	5,342.00	5,016.93	21.57	43.68	84.57	-956.13	-8,368.10	8,318.44	8,254.85	63.58	130.828		
4,400.00	4,303.56	5,390.84	5,063.18	22.09	44.05	84.74	-941.05	-8,363.74	8,306.47	8,241.95	64.52	128.743		
4,500.00	4,401.00	5,437.00	5,107.25	22.60	44.40	84.90	-927.83	-8,360.04	8,295.45	8,230.01	65.44	126.773		
4,600.00	4,498.44	5,459.15	5,128.50	23.11	44.55	84.98	-921.83	-8,358.39	8,285.20	8,219.05	66.16	125.234		
4,700.00	4,595.88	5,499.24	5,167.13	23.63	44.82	85.11	-911.48	-8,355.57	8,275.77	8,208.78	66.99	123.529		
4,800.00	4,693.32	5,561.50	5,227.47	24.14	45.23	85.30	-896.64	-8,351.55	8,267.09	8,199.13	67.96	121.647		
4,900.00	4,790.76	5,659.61	5,323.07	24.66	45.82	85.59	-875.60	-8,345.06	8,258.54	8,189.43	69.10	119.511		
5,000.00	4,888.20	5,732.37	5,394.46	25.17	46.23	85.80	-862.38	-8,340.41	8,250.40	8,180.34	70.06	117.756		
5,100.00	4,985.64	5,814.00	5,474.81	25.69	46.66	86.01	-849.05	-8,334.99	8,242.26	8,171.22	71.04	116.024		

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 12N-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 12N-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	5,083.08	5,870.22	5,530.31	26.20	46.93	86.16	-840.81	-8,331.43	8,234.65	8,162.79	71.86	114.590		
5,300.00	5,180.52	5,909.00	5,568.71	26.72	47.12	86.25	-835.82	-8,329.38	8,227.95	8,155.35	72.60	113.329		
5,400.00	5,277.96	5,978.55	5,637.70	27.24	47.42	86.42	-827.72	-8,326.05	8,221.86	8,148.41	73.45	111.934		
5,500.00	5,375.40	6,045.32	5,704.03	27.75	47.70	86.57	-820.56	-8,323.00	8,216.13	8,141.85	74.28	110.611		
5,600.00	5,472.84	6,097.00	5,755.41	28.27	47.92	86.68	-815.53	-8,320.85	8,210.91	8,135.87	75.04	109.422		
5,700.00	5,570.28	6,150.71	5,808.87	28.79	48.12	86.80	-810.66	-8,318.91	8,206.30	8,130.50	75.79	108.272		
5,800.00	5,667.72	6,192.00	5,849.98	29.30	48.28	86.89	-807.09	-8,317.67	8,202.37	8,125.87	76.50	107.225		
5,900.00	5,765.16	6,259.23	5,916.94	29.82	48.54	87.04	-801.28	-8,315.98	8,199.01	8,121.72	77.30	106.071		
6,000.00	5,862.60	6,332.13	5,989.54	30.34	48.81	87.19	-794.90	-8,314.46	8,196.14	8,118.02	78.12	104.923		
6,100.00	5,960.05	6,415.80	6,072.94	30.85	49.12	87.37	-788.41	-8,312.89	8,193.55	8,114.58	78.97	103.760		
6,200.00	6,057.49	6,501.06	6,158.00	31.37	49.42	87.54	-782.63	-8,311.45	8,191.19	8,111.38	79.81	102.636		
6,300.00	6,154.93	6,570.00	6,226.81	31.89	49.65	87.68	-778.54	-8,310.38	8,189.06	8,108.48	80.58	101.624		
6,400.00	6,252.37	6,634.94	6,291.66	32.40	49.85	87.81	-775.16	-8,309.64	8,187.38	8,106.05	81.33	100.671		
6,500.00	6,349.81	6,703.65	6,360.29	32.92	50.07	87.93	-772.09	-8,309.28	8,186.26	8,104.18	82.08	99.737		
6,600.00	6,447.25	6,807.21	6,463.79	33.44	50.37	88.12	-768.43	-8,308.90	8,185.35	8,102.42	82.93	98.704		
6,700.00	6,544.28	6,916.57	6,573.11	33.95	50.68	89.61	-765.56	-8,308.35	8,178.43	8,094.65	83.78	97.619		
6,800.00	6,638.86	7,012.37	6,668.88	34.44	50.95	41.22	-763.31	-8,307.83	8,156.23	8,071.67	84.56	96.457		
6,900.00	6,728.65	7,104.00	6,760.49	34.89	51.20	32.14	-761.36	-8,307.32	8,119.17	8,033.89	85.28	95.206		
7,000.00	6,811.45	7,188.86	6,845.34	35.29	51.44	27.49	-759.83	-8,306.85	8,068.17	7,982.24	85.94	93.886		
7,100.00	6,885.21	7,263.43	6,919.89	35.66	51.64	25.30	-758.72	-8,306.43	8,004.49	7,917.98	86.51	92.526		
7,200.00	6,948.11	7,325.82	6,982.28	35.99	51.81	24.88	-757.91	-8,306.09	7,929.69	7,842.70	87.00	91.151		
7,300.00	6,998.62	7,375.84	7,032.29	36.30	51.94	26.32	-757.36	-8,305.82	7,845.62	7,758.23	87.39	89.775		
7,400.00	7,035.48	7,412.22	7,068.68	36.65	52.04	30.87	-756.99	-8,305.63	7,754.32	7,666.62	87.69	88.424		
7,500.00	7,057.79	7,437.51	7,093.96	37.13	52.11	44.14	-756.76	-8,305.50	7,658.02	7,570.11	87.91	87.109		
7,600.00	7,065.00	7,446.03	7,102.49	37.84	52.13	93.96	-756.68	-8,305.45	7,559.09	7,471.05	88.04	85.862		
7,700.00	7,064.77	7,444.98	7,101.43	38.82	52.13	93.88	-756.69	-8,305.45	7,459.65	7,371.53	88.12	84.656		
7,800.00	7,064.54	7,443.93	7,100.38	40.06	52.12	93.80	-756.70	-8,305.46	7,360.22	7,272.02	88.20	83.448		
7,900.00	7,064.31	7,442.88	7,099.34	41.52	52.12	93.73	-756.71	-8,305.47	7,260.81	7,172.52	88.29	82.236		
8,000.00	7,064.08	7,441.85	7,098.30	43.14	52.12	93.65	-756.72	-8,305.47	7,161.42	7,073.03	88.39	81.021		
8,100.00	7,063.85	7,440.82	7,097.27	44.90	52.12	93.58	-756.73	-8,305.48	7,062.05	6,973.55	88.49	79.803		
8,200.00	7,063.62	7,439.80	7,096.26	46.78	52.11	93.51	-756.74	-8,305.48	6,962.69	6,874.09	88.60	78.582		
8,300.00	7,063.39	7,438.79	7,095.25	48.76	52.11	93.43	-756.75	-8,305.49	6,863.35	6,774.63	88.72	77.357		
8,400.00	7,063.16	7,437.79	7,094.24	50.83	52.11	93.36	-756.76	-8,305.49	6,764.03	6,675.19	88.85	76.130		
8,500.00	7,062.93	7,436.79	7,093.25	52.97	52.11	93.29	-756.77	-8,305.50	6,664.74	6,575.75	88.98	74.899		
8,600.00	7,062.70	7,435.81	7,092.26	55.18	52.10	93.22	-756.78	-8,305.51	6,565.46	6,476.33	89.13	73.665		
8,700.00	7,062.47	7,434.82	7,091.28	57.46	52.10	93.15	-756.79	-8,305.51	6,466.20	6,376.92	89.28	72.428		
8,800.00	7,062.24	7,433.85	7,090.30	59.78	52.10	93.08	-756.80	-8,305.52	6,366.97	6,277.53	89.44	71.188		
8,900.00	7,062.01	7,432.88	7,089.34	62.14	52.10	93.01	-756.80	-8,305.52	6,267.76	6,178.15	89.61	69.944		
9,000.00	7,061.78	7,431.92	7,088.38	64.55	52.09	92.94	-756.81	-8,305.53	6,168.58	6,078.79	89.79	68.697		
9,100.00	7,061.55	7,430.97	7,087.42	67.00	52.09	92.87	-756.82	-8,305.53	6,069.42	5,979.44	89.99	67.447		
9,200.00	7,061.31	7,430.03	7,086.48	69.47	52.09	92.80	-756.83	-8,305.54	5,970.30	5,880.10	90.19	66.194		
9,300.00	7,061.08	7,429.09	7,085.54	71.98	52.08	92.74	-756.84	-8,305.54	5,871.20	5,780.79	90.41	64.938		
9,400.00	7,060.85	7,428.16	7,084.61	74.51	52.08	92.67	-756.85	-8,305.55	5,772.13	5,681.49	90.65	63.678		
9,500.00	7,060.62	7,427.23	7,083.68	77.06	52.08	92.60	-756.86	-8,305.55	5,673.10	5,582.20	90.89	62.416		
9,600.00	7,060.39	7,426.31	7,082.76	79.64	52.08	92.54	-756.86	-8,305.56	5,574.10	5,482.94	91.15	61.150		
9,700.00	7,060.16	7,425.40	7,081.85	82.23	52.07	92.47	-756.87	-8,305.56	5,475.13	5,383.70	91.43	59.881		
9,800.00	7,059.93	7,424.49	7,080.95	84.84	52.07	92.40	-756.88	-8,305.57	5,376.21	5,284.48	91.73	58.609		
9,900.00	7,059.70	7,423.60	7,080.05	87.47	52.07	92.34	-756.89	-8,305.57	5,277.32	5,185.28	92.05	57.334		
10,000.00	7,059.47	7,422.70	7,079.16	90.11	52.07	92.27	-756.90	-8,305.58	5,178.48	5,086.10	92.38	56.056		
10,100.00	7,059.24	7,421.84	7,078.29	92.76	52.07	92.21	-756.91	-8,305.58	5,079.68	4,986.94	92.74	54.775		
10,200.00	7,059.01	7,421.08	7,077.53	95.42	52.06	92.16	-756.91	-8,305.58	4,980.93	4,887.81	93.12	53.491		
10,300.00	7,058.78	7,420.32	7,076.77	98.10	52.06	92.10	-756.92	-8,305.59	4,882.23	4,788.71	93.52	52.205		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,419.56	7,076.01	100.79	52.06	92.05	-756.93	-8,305.59	4,783.59	4,689.64	93.95	50.916		
10,500.00	7,058.32	7,418.79	7,075.25	103.48	52.06	91.99	-756.93	-8,305.60	4,685.00	4,590.59	94.41	49.625		
10,600.00	7,058.09	7,418.03	7,074.48	106.19	52.06	91.94	-756.94	-8,305.60	4,586.47	4,491.58	94.90	48.332		
10,700.00	7,057.86	7,417.27	7,073.72	108.90	52.05	91.88	-756.95	-8,305.60	4,488.01	4,392.59	95.42	47.036		
10,800.00	7,057.63	7,416.50	7,072.96	111.62	52.05	91.83	-756.95	-8,305.61	4,389.62	4,293.65	95.97	45.739		
10,900.00	7,057.40	7,415.74	7,072.19	114.35	52.05	91.77	-756.96	-8,305.61	4,291.30	4,194.74	96.56	44.440		
11,000.00	7,057.17	7,414.98	7,071.43	117.08	52.05	91.72	-756.97	-8,305.62	4,193.06	4,095.87	97.20	43.141		
11,100.00	7,056.94	7,414.21	7,070.66	119.82	52.04	91.66	-756.98	-8,305.62	4,094.91	3,997.04	97.87	41.840		
11,200.00	7,056.71	7,413.44	7,069.90	122.56	52.04	91.61	-756.98	-8,305.62	3,996.85	3,898.25	98.59	40.539		
11,300.00	7,056.48	7,412.68	7,069.13	125.31	52.04	91.55	-756.99	-8,305.63	3,898.88	3,799.52	99.37	39.238		
11,400.00	7,056.25	7,411.91	7,068.37	128.06	52.04	91.50	-757.00	-8,305.63	3,801.02	3,700.83	100.19	37.937		
11,500.00	7,056.02	7,411.15	7,067.60	130.82	52.04	91.44	-757.00	-8,305.64	3,703.28	3,602.20	101.08	36.637		
11,600.00	7,055.79	7,410.38	7,066.83	133.59	52.03	91.38	-757.01	-8,305.64	3,605.66	3,503.63	102.03	35.339		
11,700.00	7,055.55	7,409.61	7,066.07	136.35	52.03	91.33	-757.02	-8,305.64	3,508.17	3,405.12	103.05	34.043		
11,800.00	7,055.32	7,408.84	7,065.30	139.12	52.03	91.27	-757.03	-8,305.65	3,410.83	3,306.68	104.15	32.750		
11,900.00	7,055.09	7,408.08	7,064.53	141.90	52.03	91.22	-757.03	-8,305.65	3,313.65	3,208.32	105.33	31.460		
12,000.00	7,054.86	7,407.31	7,063.76	144.67	52.03	91.16	-757.04	-8,305.66	3,216.64	3,110.04	106.60	30.175		
12,100.00	7,054.63	7,406.54	7,062.99	147.45	52.02	91.11	-757.05	-8,305.66	3,119.82	3,011.85	107.97	28.896		
12,200.00	7,054.40	7,405.77	7,062.22	150.24	52.02	91.05	-757.06	-8,305.66	3,023.20	2,913.76	109.44	27.624		
12,300.00	7,054.17	7,405.00	7,061.45	153.02	52.02	91.00	-757.06	-8,305.67	2,926.82	2,815.78	111.04	26.359		
12,400.00	7,053.94	7,404.23	7,060.68	155.81	52.02	90.94	-757.07	-8,305.67	2,830.68	2,717.92	112.76	25.104		
12,500.00	7,053.71	7,403.46	7,059.91	158.60	52.02	90.88	-757.08	-8,305.68	2,734.82	2,620.19	114.62	23.859		
12,600.00	7,053.48	7,402.69	7,059.14	161.40	52.01	90.83	-757.09	-8,305.68	2,639.27	2,522.62	116.65	22.626		
12,700.00	7,053.25	7,401.92	7,058.37	164.19	52.01	90.77	-757.09	-8,305.68	2,544.05	2,425.21	118.84	21.407		
12,800.00	7,053.02	7,401.14	7,057.60	166.99	52.01	90.72	-757.10	-8,305.69	2,449.22	2,328.00	121.23	20.203		
12,900.00	7,052.79	7,400.37	7,056.83	169.79	52.01	90.66	-757.11	-8,305.69	2,354.82	2,231.00	123.83	19.017		
13,000.00	7,052.56	7,399.60	7,056.05	172.59	52.01	90.61	-757.12	-8,305.70	2,260.90	2,134.24	126.66	17.850		
13,100.00	7,052.33	7,398.83	7,055.28	175.40	52.00	90.55	-757.12	-8,305.70	2,167.52	2,037.77	129.75	16.705		
13,200.00	7,052.10	7,398.05	7,054.51	178.20	52.00	90.49	-757.13	-8,305.70	2,074.76	1,941.63	133.13	15.584		
13,300.00	7,051.87	7,397.28	7,053.73	181.01	52.00	90.44	-757.14	-8,305.71	1,982.70	1,845.86	136.84	14.489		
13,400.00	7,051.64	7,396.50	7,052.96	183.82	52.00	90.38	-757.15	-8,305.71	1,891.45	1,750.55	140.90	13.424		
13,500.00	7,051.41	7,395.73	7,052.18	186.63	51.99	90.33	-757.15	-8,305.72	1,801.13	1,655.76	145.37	12.390		
13,600.00	7,051.18	7,394.95	7,051.41	189.44	51.99	90.27	-757.16	-8,305.72	1,711.88	1,561.60	150.28	11.391		
13,700.00	7,050.95	7,394.18	7,050.63	192.25	51.99	90.21	-757.17	-8,305.72	1,623.89	1,468.20	155.69	10.430		
13,800.00	7,050.72	7,393.40	7,049.86	195.07	51.99	90.16	-757.18	-8,305.73	1,537.37	1,375.71	161.65	9.510		
13,900.00	7,050.49	7,392.63	7,049.08	197.88	51.99	90.10	-757.18	-8,305.73	1,452.57	1,284.36	168.22	8.635		
14,000.00	7,050.26	7,391.85	7,048.30	200.70	51.98	90.05	-757.19	-8,305.74	1,369.83	1,194.40	175.43	7.808		
14,100.00	7,050.03	7,391.07	7,047.53	203.52	51.98	89.99	-757.20	-8,305.74	1,289.54	1,106.19	183.35	7.033		
14,200.00	7,049.80	7,390.30	7,046.75	206.34	51.98	89.93	-757.21	-8,305.75	1,212.18	1,020.19	191.99	6.314		
14,300.00	7,049.56	7,389.52	7,045.97	209.16	51.98	89.88	-757.22	-8,305.75	1,138.36	937.00	201.35	5.654		
14,400.00	7,049.33	7,388.74	7,045.19	211.98	51.98	89.82	-757.22	-8,305.75	1,068.80	857.44	211.36	5.057		
14,500.00	7,049.10	7,387.96	7,044.42	214.80	51.97	89.76	-757.23	-8,305.76	1,004.39	782.53	221.85	4.527		
14,600.00	7,048.87	7,387.18	7,043.64	217.63	51.97	89.71	-757.24	-8,305.76	946.18	713.63	232.55	4.069		
14,700.00	7,048.64	7,386.40	7,042.86	220.45	51.97	89.65	-757.25	-8,305.77	895.39	652.39	243.00	3.685		
14,800.00	7,048.41	7,385.62	7,042.08	223.28	51.97	89.59	-757.25	-8,305.77	853.34	600.76	252.58	3.379		
14,900.00	7,048.18	7,384.84	7,041.30	226.10	51.97	89.54	-757.26	-8,305.77	821.37	560.83	260.54	3.153		
14,979.18	7,048.00	7,384.22	7,040.68	228.34	51.96	89.49	-757.27	-8,305.78	804.01	538.82	265.19	3.032 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-107.03	-2,756.87	-9,002.46	9,415.19					
100.00	100.00	37.13	72.13	3.28	3.28	-107.03	-2,756.79	-9,002.54	9,415.22	9,408.65	6.57	1,434.017		
200.00	200.00	94.26	129.25	3.34	3.29	-107.02	-2,756.35	-9,002.99	9,415.74	9,409.12	6.62	1,421.705		
300.00	299.98	168.00	202.98	3.44	3.30	66.90	-2,755.23	-9,004.14	9,416.06	9,409.33	6.74	1,397.615		
400.00	399.84	168.00	202.98	3.59	3.30	66.91	-2,755.23	-9,004.14	9,415.57	9,408.68	6.89	1,367.083		
500.00	499.45	211.85	246.80	3.79	3.33	66.96	-2,754.38	-9,005.32	9,414.38	9,407.26	7.11	1,323.720		
600.00	598.70	259.00	293.90	4.03	3.37	67.03	-2,753.48	-9,007.27	9,412.77	9,405.38	7.39	1,272.870		
700.00	697.47	259.00	293.90	4.31	3.37	67.08	-2,753.48	-9,007.27	9,410.41	9,402.73	7.68	1,225.037		
800.00	795.62	290.88	325.74	4.64	3.40	67.17	-2,752.97	-9,008.94	9,407.56	9,399.52	8.04	1,170.109		
900.00	893.16	318.49	353.29	5.00	3.44	67.24	-2,752.66	-9,010.58	9,404.31	9,395.87	8.43	1,115.321		
1,000.00	990.60	350.00	384.74	5.38	3.48	67.28	-2,752.47	-9,012.66	9,401.67	9,392.81	8.86	1,061.117		
1,100.00	1,088.04	402.96	437.56	5.79	3.57	67.36	-2,752.31	-9,016.43	9,399.67	9,390.32	9.35	1,005.461		
1,200.00	1,185.48	474.89	509.30	6.22	3.71	67.46	-2,752.17	-9,021.79	9,398.08	9,388.18	9.90	949.002		
1,300.00	1,282.92	532.00	566.24	6.66	3.84	67.54	-2,751.99	-9,026.14	9,396.75	9,386.29	10.46	898.382		
1,400.00	1,380.36	581.22	615.29	7.10	3.97	67.61	-2,751.93	-9,030.09	9,395.95	9,384.93	11.02	852.556		
1,462.97	1,441.72	604.13	638.12	7.39	4.03	67.64	-2,752.01	-9,032.06	9,395.81	9,384.45	11.36	826.858		
1,500.00	1,477.80	644.00	677.83	7.56	4.14	67.69	-2,752.27	-9,035.67	9,395.96	9,384.33	11.63	807.625		
1,501.81	1,479.56	644.00	677.83	7.57	4.14	67.69	-2,752.27	-9,035.67	9,395.96	9,384.32	11.64	807.046		
1,600.00	1,575.24	662.06	695.80	8.03	4.19	67.72	-2,752.44	-9,037.37	9,396.45	9,384.30	12.14	773.692		
1,700.00	1,672.68	736.89	770.28	8.50	4.42	67.82	-2,753.29	-9,044.54	9,397.49	9,384.67	12.82	732.933		
1,800.00	1,770.12	852.08	884.95	8.98	4.81	67.98	-2,754.75	-9,055.42	9,398.49	9,384.85	13.64	688.838		
1,900.00	1,867.56	962.85	995.21	9.46	5.21	68.13	-2,755.37	-9,066.09	9,399.57	9,385.08	14.48	649.013		
2,000.00	1,965.00	1,096.00	1,127.81	9.95	5.72	68.32	-2,755.41	-9,078.07	9,399.82	9,384.39	15.43	609.225		
2,100.00	2,062.44	1,145.98	1,177.59	10.44	5.91	68.39	-2,755.28	-9,082.58	9,400.45	9,384.36	16.09	584.086		
2,200.00	2,159.88	1,190.00	1,221.36	10.93	6.09	68.46	-2,755.04	-9,087.23	9,402.09	9,385.35	16.74	561.567		
2,300.00	2,257.32	1,190.00	1,221.36	11.42	6.09	68.46	-2,755.04	-9,087.23	9,404.40	9,387.17	17.23	545.831		
2,400.00	2,354.76	1,229.84	1,260.93	11.92	6.26	68.52	-2,754.76	-9,091.91	9,407.51	9,389.64	17.87	526.488		
2,500.00	2,452.20	1,285.00	1,315.63	12.42	6.50	68.60	-2,754.41	-9,098.96	9,411.45	9,392.88	18.57	506.827		
2,600.00	2,549.64	1,285.00	1,315.63	12.92	6.50	68.60	-2,754.41	-9,098.96	9,415.96	9,396.91	19.06	494.084		
2,700.00	2,647.08	1,328.68	1,358.90	13.42	6.69	68.66	-2,754.35	-9,104.94	9,421.25	9,401.53	19.72	477.815		
2,800.00	2,744.52	1,379.00	1,408.70	13.93	6.92	68.74	-2,754.80	-9,112.16	9,427.29	9,406.88	20.41	461.987		
2,900.00	2,841.96	1,379.00	1,408.70	14.43	6.92	68.74	-2,754.80	-9,112.16	9,434.01	9,413.12	20.89	451.553		
3,000.00	2,939.40	1,434.32	1,463.35	14.94	7.18	68.82	-2,755.37	-9,120.64	9,441.34	9,419.74	21.60	437.011		
3,100.00	3,036.84	1,475.00	1,503.49	15.44	7.38	68.88	-2,755.46	-9,127.31	9,449.42	9,427.16	22.26	424.549		
3,200.00	3,134.28	1,507.33	1,535.35	15.95	7.54	68.93	-2,755.48	-9,132.83	9,458.17	9,435.30	22.88	413.432		
3,300.00	3,231.72	1,570.00	1,597.02	16.46	7.85	69.02	-2,755.82	-9,143.96	9,467.68	9,444.05	23.63	400.715		
3,400.00	3,329.16	1,570.00	1,597.02	16.97	7.85	69.02	-2,755.82	-9,143.96	9,477.70	9,453.59	24.11	393.156		
3,500.00	3,426.60	1,630.74	1,656.69	17.48	8.16	69.11	-2,756.28	-9,155.25	9,488.35	9,463.50	24.85	381.819		
3,600.00	3,524.04	1,665.00	1,690.32	17.99	8.34	69.17	-2,756.48	-9,161.83	9,499.62	9,474.14	25.48	372.856		
3,700.00	3,621.48	1,702.33	1,726.91	18.50	8.54	69.22	-2,756.66	-9,169.24	9,511.56	9,485.44	26.12	364.150		
3,800.00	3,718.92	1,759.00	1,782.31	19.01	8.85	69.31	-2,756.87	-9,181.13	9,524.37	9,497.52	26.85	354.732		
3,900.00	3,816.36	1,759.00	1,782.31	19.52	8.85	69.31	-2,756.87	-9,181.13	9,537.67	9,510.35	27.32	349.128		
4,000.00	3,913.80	1,797.23	1,819.61	20.03	9.07	69.37	-2,757.20	-9,189.49	9,551.78	9,523.82	27.96	341.598		
4,100.00	4,011.24	1,853.00	1,873.94	20.55	9.39	69.45	-2,758.45	-9,202.02	9,566.64	9,537.95	28.69	333.481		
4,200.00	4,108.68	1,874.99	1,895.34	21.06	9.52	69.48	-2,759.13	-9,207.05	9,582.03	9,552.78	29.25	327.564		
4,300.00	4,206.12	1,931.52	1,950.31	21.57	9.85	69.56	-2,760.84	-9,220.15	9,597.97	9,567.99	29.98	320.137		
4,400.00	4,303.56	1,992.84	2,009.87	22.09	10.22	69.65	-2,762.68	-9,234.60	9,614.35	9,583.62	30.73	312.828		
4,500.00	4,401.00	2,042.00	2,057.58	22.60	10.52	69.72	-2,764.13	-9,246.34	9,631.13	9,599.70	31.43	306.454		
4,600.00	4,498.44	2,042.00	2,057.58	23.11	10.52	69.72	-2,764.13	-9,246.34	9,648.72	9,616.84	31.88	302.677		
4,700.00	4,595.88	2,042.00	2,057.58	23.63	10.52	69.72	-2,764.13	-9,246.34	9,667.32	9,634.99	32.32	299.077		
4,800.00	4,693.32	2,084.60	2,098.77	24.14	10.79	69.78	-2,765.31	-9,257.16	9,686.23	9,653.25	32.98	293.682		
4,900.00	4,790.76	2,137.00	2,148.98	24.66	11.14	69.86	-2,766.55	-9,272.08	9,706.91	9,673.22	33.69	288.131		

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 12N-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 12N-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		
5,000.00	4,888.20	2,137.00	2,148.98	25.17	11.14	69.86	-2,766.55	-9,272.08	9,727.56	9,693.43	34.12	285.060		
5,100.00	4,985.64	2,513.00	2,511.26	25.69	13.64	70.44	-2,770.37	-9,372.27	9,745.86	9,709.33	36.53	266.787		
5,200.00	5,083.08	2,513.00	2,511.26	26.20	13.64	70.44	-2,770.37	-9,372.27	9,764.82	9,727.85	36.97	264.122		
5,300.00	5,180.52	2,513.00	2,511.26	26.72	13.64	70.44	-2,770.37	-9,372.27	9,784.76	9,747.36	37.41	261.582		
5,400.00	5,277.96	2,570.74	2,566.69	27.24	14.04	70.54	-2,769.39	-9,388.42	9,805.30	9,767.15	38.15	257.012		
5,500.00	5,375.40	2,609.00	2,603.36	27.75	14.31	70.61	-2,768.93	-9,399.33	9,826.45	9,787.67	38.79	253.335		
5,600.00	5,472.84	2,609.00	2,603.36	28.27	14.31	70.61	-2,768.93	-9,399.33	9,848.41	9,809.19	39.21	251.157		
5,700.00	5,570.28	2,647.51	2,640.16	28.79	14.60	70.67	-2,768.66	-9,410.66	9,870.94	9,831.10	39.85	247.721		
5,800.00	5,667.72	2,666.03	2,657.80	29.30	14.73	70.70	-2,768.63	-9,416.31	9,894.37	9,854.00	40.37	245.112		
5,900.00	5,765.16	2,704.00	2,693.83	29.82	15.02	70.76	-2,768.73	-9,428.28	9,918.67	9,877.67	40.99	241.959		
6,000.00	5,862.60	2,704.00	2,693.83	30.34	15.02	70.76	-2,768.73	-9,428.28	9,943.54	9,902.15	41.40	240.185		
6,100.00	5,960.05	3,298.91	3,261.07	30.85	19.48	71.74	-2,763.56	-9,606.30	9,966.45	9,921.23	45.22	220.384		
6,200.00	6,057.49	3,353.94	3,314.02	31.37	19.88	71.81	-2,765.62	-9,621.17	9,987.38	9,941.43	45.95	217.338		
7,100.00	6,885.21	4,339.64	4,263.46	35.66	26.95	5.57	-2,791.15	-9,883.90	9,993.44	9,938.41	55.02	181.621		
7,200.00	6,948.11	6,894.81	6,778.57	35.99	40.28	3.22	-2,793.16	-10,245.35	9,925.78	9,858.93	66.85	148.479		
7,300.00	6,998.62	6,935.78	6,819.53	36.30	40.42	-1.83	-2,793.74	-10,246.00	9,840.49	9,773.29	67.21	146.424		
7,400.00	7,035.48	6,966.18	6,849.92	36.65	40.52	-10.02	-2,794.24	-10,246.51	9,748.41	9,680.96	67.45	144.536		
7,500.00	7,057.79	6,987.49	6,871.23	37.13	40.59	-29.25	-2,794.62	-10,246.87	9,651.75	9,584.17	67.58	142.820		
7,600.00	7,065.00	6,996.00	6,879.74	37.84	40.62	-82.45	-2,794.79	-10,247.01	9,552.90	9,485.29	67.61	141.300		
7,700.00	7,064.77	6,997.40	6,881.13	38.82	40.63	-82.52	-2,794.82	-10,247.03	9,453.76	9,386.17	67.59	139.879		
7,800.00	7,064.54	6,998.79	6,882.52	40.06	40.63	-82.58	-2,794.84	-10,247.06	9,354.64	9,287.07	67.57	138.448		
7,900.00	7,064.31	7,000.17	6,883.91	41.52	40.63	-82.65	-2,794.87	-10,247.08	9,255.54	9,187.98	67.56	137.006		
8,000.00	7,064.08	7,001.56	6,885.29	43.14	40.64	-82.71	-2,794.90	-10,247.10	9,156.45	9,088.91	67.55	135.554		
8,100.00	7,063.85	7,002.94	6,886.67	44.90	40.64	-82.77	-2,794.93	-10,247.13	9,057.39	8,989.84	67.55	134.090		
8,200.00	7,063.62	7,004.31	6,888.05	46.78	40.65	-82.83	-2,794.96	-10,247.15	8,958.35	8,890.80	67.55	132.615		
8,300.00	7,063.39	7,005.69	6,889.42	48.76	40.65	-82.90	-2,794.99	-10,247.17	8,859.33	8,791.77	67.56	131.129		
8,400.00	7,063.16	7,007.06	6,890.79	50.83	40.66	-82.96	-2,795.02	-10,247.20	8,760.33	8,692.75	67.58	129.631		
8,500.00	7,062.93	7,008.43	6,892.16	52.97	40.66	-83.02	-2,795.05	-10,247.22	8,661.35	8,593.75	67.60	128.121		
8,600.00	7,062.70	7,009.80	6,893.53	55.18	40.67	-83.09	-2,795.08	-10,247.24	8,562.40	8,494.77	67.63	126.598		
8,700.00	7,062.47	7,011.16	6,894.89	57.46	40.67	-83.15	-2,795.11	-10,247.26	8,463.47	8,395.80	67.67	125.063		
8,800.00	7,062.24	7,012.52	6,896.25	59.78	40.68	-83.21	-2,795.14	-10,247.29	8,364.57	8,296.85	67.72	123.514		
8,900.00	7,062.01	7,013.88	6,897.61	62.14	40.68	-83.27	-2,795.17	-10,247.31	8,265.69	8,197.92	67.78	121.953		
9,000.00	7,061.78	7,015.23	6,898.96	64.55	40.68	-83.34	-2,795.20	-10,247.33	8,166.85	8,099.00	67.84	120.378		
9,100.00	7,061.55	7,016.59	6,900.31	67.00	40.69	-83.40	-2,795.23	-10,247.35	8,068.02	8,000.10	67.92	118.789		
9,200.00	7,061.31	7,017.94	6,901.66	69.47	40.69	-83.46	-2,795.26	-10,247.38	7,969.23	7,901.23	68.00	117.186		
9,300.00	7,061.08	7,019.28	6,903.01	71.98	40.70	-83.52	-2,795.29	-10,247.40	7,870.47	7,802.37	68.10	115.569		
9,400.00	7,060.85	7,020.63	6,904.35	74.51	40.70	-83.58	-2,795.32	-10,247.42	7,771.74	7,703.53	68.21	113.938		
9,500.00	7,060.62	7,021.97	6,905.69	77.06	40.71	-83.65	-2,795.35	-10,247.44	7,673.04	7,604.71	68.33	112.292		
9,600.00	7,060.39	7,023.31	6,907.03	79.64	40.71	-83.71	-2,795.38	-10,247.47	7,574.38	7,505.91	68.47	110.631		
9,700.00	7,060.16	7,024.64	6,908.37	82.23	40.72	-83.77	-2,795.42	-10,247.49	7,475.75	7,407.14	68.61	108.955		
9,800.00	7,059.93	7,025.98	6,909.70	84.84	40.72	-83.83	-2,795.45	-10,247.51	7,377.16	7,308.38	68.78	107.264		
9,900.00	7,059.70	7,027.31	6,911.03	87.47	40.72	-83.89	-2,795.48	-10,247.53	7,278.60	7,209.65	68.95	105.558		
10,000.00	7,059.47	7,028.63	6,912.36	90.11	40.73	-83.95	-2,795.51	-10,247.55	7,180.09	7,110.94	69.15	103.836		
10,100.00	7,059.24	7,029.96	6,913.68	92.76	40.73	-84.01	-2,795.54	-10,247.58	7,081.62	7,012.26	69.36	102.100		
10,200.00	7,059.01	7,031.28	6,915.00	95.42	40.74	-84.07	-2,795.58	-10,247.60	6,983.19	6,913.60	69.59	100.347		
10,300.00	7,058.78	7,032.60	6,916.32	98.10	40.74	-84.13	-2,795.61	-10,247.62	6,884.80	6,814.96	69.84	98.580		
10,400.00	7,058.55	7,033.92	6,917.64	100.79	40.75	-84.19	-2,795.64	-10,247.64	6,786.46	6,716.35	70.11	96.798		
10,500.00	7,058.32	7,035.23	6,918.95	103.48	40.75	-84.26	-2,795.68	-10,247.66	6,688.18	6,617.77	70.40	95.000		
10,600.00	7,058.09	7,036.55	6,920.27	106.19	40.76	-84.32	-2,795.71	-10,247.68	6,589.94	6,519.22	70.72	93.188		
10,700.00	7,057.86	7,037.86	6,921.57	108.90	40.76	-84.38	-2,795.74	-10,247.70	6,491.75	6,420.70	71.06	91.362		
10,800.00	7,057.63	7,039.16	6,922.88	111.62	40.76	-84.44	-2,795.77	-10,247.73	6,393.63	6,322.21	71.42	89.521		
10,900.00	7,057.40	7,040.47	6,924.18	114.35	40.77	-84.50	-2,795.81	-10,247.75	6,295.56	6,223.75	71.81	87.667		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
11,000.00	7,057.17	7,041.77	6,925.49	117.08	40.77	-84.56	-2,795.84	-10,247.77	6,197.55	6,125.32	72.23	85.800		
11,100.00	7,056.94	7,043.07	6,926.78	119.82	40.78	-84.62	-2,795.88	-10,247.79	6,099.61	6,026.92	72.68	83.920		
11,200.00	7,056.71	7,044.36	6,928.08	122.56	40.78	-84.68	-2,795.91	-10,247.81	6,001.73	5,928.56	73.17	82.029		
11,300.00	7,056.48	7,045.66	6,929.37	125.31	40.79	-84.74	-2,795.94	-10,247.83	5,903.92	5,830.24	73.68	80.127		
11,400.00	7,056.25	7,046.95	6,930.66	128.06	40.79	-84.79	-2,795.98	-10,247.85	5,806.19	5,731.96	74.23	78.215		
11,500.00	7,056.02	7,048.24	6,931.95	130.82	40.79	-84.85	-2,796.01	-10,247.87	5,708.54	5,633.72	74.82	76.293		
11,600.00	7,055.79	7,049.52	6,933.24	133.59	40.80	-84.91	-2,796.05	-10,247.89	5,610.97	5,535.52	75.45	74.363		
11,700.00	7,055.55	7,050.80	6,934.52	136.35	40.80	-84.97	-2,796.08	-10,247.91	5,513.49	5,437.36	76.12	72.427		
11,800.00	7,055.32	7,052.09	6,935.80	139.12	40.81	-85.03	-2,796.11	-10,247.94	5,416.10	5,339.26	76.84	70.485		
11,900.00	7,055.09	7,053.36	6,937.08	141.90	40.81	-85.09	-2,796.15	-10,247.96	5,318.80	5,241.20	77.60	68.538		
12,000.00	7,054.86	7,054.64	6,938.35	144.67	40.82	-85.15	-2,796.18	-10,247.98	5,221.61	5,143.19	78.42	66.589		
12,100.00	7,054.63	7,055.91	6,939.62	147.45	40.82	-85.21	-2,796.22	-10,248.00	5,124.52	5,045.24	79.28	64.638		
12,200.00	7,054.40	7,057.18	6,940.89	150.24	40.82	-85.27	-2,796.25	-10,248.02	5,027.55	4,947.35	80.20	62.688		
12,300.00	7,054.17	7,058.45	6,942.16	153.02	40.83	-85.33	-2,796.29	-10,248.04	4,930.70	4,849.52	81.18	60.739		
12,400.00	7,053.94	7,059.72	6,943.43	155.81	40.83	-85.38	-2,796.33	-10,248.06	4,833.98	4,751.76	82.22	58.794		
12,500.00	7,053.71	7,060.98	6,944.69	158.60	40.84	-85.44	-2,796.36	-10,248.08	4,737.39	4,654.06	83.33	56.854		
12,600.00	7,053.48	7,062.24	6,945.95	161.40	40.84	-85.50	-2,796.40	-10,248.10	4,640.94	4,556.44	84.50	54.922		
12,700.00	7,053.25	7,063.50	6,947.21	164.19	40.84	-85.56	-2,796.43	-10,248.12	4,544.65	4,458.90	85.75	52.999		
12,800.00	7,053.02	7,064.75	6,948.46	166.99	40.85	-85.62	-2,796.47	-10,248.14	4,448.53	4,361.45	87.08	51.087		
12,900.00	7,052.79	7,066.01	6,949.71	169.79	40.85	-85.67	-2,796.50	-10,248.16	4,352.57	4,264.09	88.49	49.189		
13,000.00	7,052.56	7,067.26	6,950.96	172.59	40.86	-85.73	-2,796.54	-10,248.18	4,256.81	4,166.82	89.98	47.306		
13,100.00	7,052.33	7,068.51	6,952.21	175.40	40.86	-85.79	-2,796.58	-10,248.20	4,161.24	4,069.66	91.58	45.440		
13,200.00	7,052.10	7,069.75	6,953.46	178.20	40.87	-85.85	-2,796.61	-10,248.22	4,065.88	3,972.62	93.27	43.594		
13,300.00	7,051.87	7,071.00	6,954.70	181.01	40.87	-85.90	-2,796.65	-10,248.24	3,970.76	3,875.69	95.06	41.770		
13,400.00	7,051.64	7,072.24	6,955.94	183.82	40.87	-85.96	-2,796.69	-10,248.26	3,875.87	3,778.90	96.97	39.969		
13,500.00	7,051.41	7,073.48	6,957.18	186.63	40.88	-86.02	-2,796.72	-10,248.28	3,781.25	3,682.25	99.00	38.194		
13,600.00	7,051.18	7,074.71	6,958.41	189.44	40.88	-86.08	-2,796.76	-10,248.30	3,686.92	3,585.76	101.16	36.447		
13,700.00	7,050.95	7,075.95	6,959.65	192.25	40.89	-86.13	-2,796.80	-10,248.32	3,592.89	3,489.44	103.45	34.730		
13,800.00	7,050.72	7,077.18	6,960.88	195.07	40.89	-86.19	-2,796.83	-10,248.34	3,499.19	3,393.30	105.89	33.045		
13,900.00	7,050.49	7,078.41	6,962.10	197.88	40.89	-86.25	-2,796.87	-10,248.36	3,405.85	3,297.36	108.49	31.393		
14,000.00	7,050.26	7,079.63	6,963.33	200.70	40.90	-86.30	-2,796.91	-10,248.38	3,312.90	3,201.64	111.26	29.777		
14,100.00	7,050.03	7,080.86	6,964.55	203.52	40.90	-86.36	-2,796.95	-10,248.40	3,220.36	3,106.16	114.20	28.199		
14,200.00	7,049.80	7,082.08	6,965.77	206.34	40.91	-86.42	-2,796.98	-10,248.42	3,128.29	3,010.95	117.34	26.659		
14,300.00	7,049.56	7,083.30	6,966.99	209.16	40.91	-86.47	-2,797.02	-10,248.43	3,036.72	2,916.03	120.69	25.161		
14,400.00	7,049.33	7,084.51	6,968.21	211.98	40.91	-86.53	-2,797.06	-10,248.45	2,945.70	2,821.43	124.27	23.705		
14,500.00	7,049.10	7,085.73	6,969.42	214.80	40.92	-86.59	-2,797.10	-10,248.47	2,855.27	2,727.19	128.08	22.293		
14,600.00	7,048.87	7,086.94	6,970.63	217.63	40.92	-86.64	-2,797.14	-10,248.49	2,765.51	2,633.35	132.16	20.926		
14,700.00	7,048.64	7,088.15	6,971.84	220.45	40.93	-86.70	-2,797.17	-10,248.51	2,676.47	2,539.96	136.51	19.606		
14,800.00	7,048.41	7,089.36	6,973.05	223.28	40.93	-86.75	-2,797.21	-10,248.53	2,588.23	2,447.06	141.17	18.335		
14,900.00	7,048.18	7,090.56	6,974.26	226.10	40.93	-86.81	-2,797.25	-10,248.55	2,500.87	2,354.73	146.15	17.112		
14,979.18	7,048.00	7,091.52	6,975.21	228.34	40.94	-86.85	-2,797.28	-10,248.56	2,432.40	2,282.06	150.34	16.179	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-106.73	-2,689.13	-8,946.52	9,341.99					
100.00	100.00	37.15	72.15	3.28	3.28	-106.73	-2,689.05	-8,946.60	9,342.02	9,335.46	6.57	1,422.885		
200.00	200.00	94.30	129.30	3.34	3.29	-106.73	-2,688.63	-8,947.04	9,342.55	9,335.93	6.62	1,410.761		
300.00	299.98	463.83	498.67	3.44	3.72	67.30	-2,679.12	-8,946.04	9,340.03	9,332.87	7.16	1,304.462		
400.00	399.84	720.61	755.27	3.59	4.36	67.51	-2,671.01	-8,940.91	9,335.43	9,327.47	7.96	1,172.682		
500.00	499.45	789.77	824.35	3.79	4.57	67.69	-2,668.21	-8,939.00	9,328.34	9,319.97	8.36	1,115.417		
600.00	598.70	850.00	884.47	4.03	4.76	67.89	-2,664.92	-8,938.05	9,320.54	9,311.74	8.79	1,060.048		
700.00	697.47	878.37	912.78	4.31	4.86	68.09	-2,663.07	-8,937.87	9,311.96	9,302.80	9.17	1,015.924		
800.00	795.62	945.00	979.22	4.64	5.08	68.37	-2,658.01	-8,938.01	9,302.75	9,293.03	9.71	957.974		
900.00	893.16	987.36	1,021.40	5.00	5.23	68.54	-2,654.15	-8,938.48	9,292.86	9,282.65	10.21	909.771		
1,000.00	990.60	1,109.41	1,142.56	5.38	5.69	68.78	-2,639.71	-8,940.89	9,283.13	9,272.08	11.05	839.998		
1,100.00	1,088.04	1,194.06	1,226.35	5.79	6.03	68.96	-2,627.82	-8,942.80	9,273.17	9,261.38	11.79	786.414		
1,200.00	1,185.48	1,583.02	1,607.93	6.22	7.84	69.91	-2,553.34	-8,950.18	9,260.98	9,246.97	14.01	660.895		
1,300.00	1,282.92	1,300.00	1,961.88	6.66	6.32	70.96	-2,457.28	-8,952.88	9,246.57	9,233.83	12.75	725.264		
1,400.00	1,380.36	2,035.73	2,044.25	7.10	10.49	71.21	-2,432.94	-8,952.66	9,231.53	9,214.05	17.48	527.972		
1,500.00	1,477.80	2,081.00	2,087.61	7.56	10.77	71.35	-2,419.96	-8,952.85	9,217.17	9,198.95	18.22	505.822		
1,600.00	1,575.24	2,110.81	2,116.15	8.03	10.97	71.44	-2,411.34	-8,953.16	9,203.50	9,184.63	18.88	487.517		
1,700.00	1,672.68	2,150.74	2,154.31	8.50	11.23	71.56	-2,399.60	-8,953.80	9,190.54	9,170.93	19.61	468.739		
1,800.00	1,770.12	2,328.19	2,323.29	8.98	12.42	72.11	-2,345.53	-8,957.02	9,177.92	9,156.66	21.26	431.732		
1,900.00	1,867.56	2,428.56	2,418.76	9.46	13.11	72.43	-2,314.59	-8,958.07	9,164.69	9,142.26	22.42	408.716		
2,000.00	1,965.00	2,551.63	2,535.88	9.95	13.97	72.82	-2,276.79	-8,959.17	9,151.66	9,127.90	23.75	385.307		
2,100.00	2,062.44	2,627.85	2,608.51	10.44	14.50	73.06	-2,253.71	-8,959.59	9,138.67	9,113.90	24.77	368.957		
2,200.00	2,159.88	2,763.10	2,736.67	10.93	15.48	73.49	-2,210.52	-8,960.55	9,125.75	9,099.53	26.22	347.999		
2,300.00	2,257.32	2,826.63	2,796.67	11.42	15.95	73.70	-2,189.64	-8,961.04	9,113.01	9,085.82	27.19	335.182		
2,400.00	2,354.76	2,884.67	2,851.70	11.92	16.37	73.89	-2,171.18	-8,961.51	9,100.78	9,072.68	28.10	323.825		
2,500.00	2,452.20	2,933.00	2,897.91	12.42	16.71	74.04	-2,157.04	-8,961.78	9,089.09	9,060.14	28.95	313.941		
2,600.00	2,549.64	2,999.23	2,961.39	12.92	17.17	74.25	-2,138.15	-8,962.26	9,077.93	9,048.02	29.91	303.463		
2,700.00	2,647.08	3,175.13	3,129.92	13.42	18.40	74.79	-2,087.78	-8,962.94	9,066.63	9,035.01	31.62	286.724		
2,800.00	2,744.52	2,800.00	3,238.75	13.93	15.83	75.13	-2,056.32	-8,962.51	9,055.13	9,025.55	29.58	306.162		
2,900.00	2,841.96	3,355.49	3,303.12	14.43	19.64	75.33	-2,037.49	-8,962.17	9,043.75	9,009.88	33.87	267.001		
3,000.00	2,939.40	3,409.00	3,354.40	14.94	20.02	75.50	-2,022.22	-8,962.30	9,033.10	8,998.34	34.76	259.887		
3,100.00	3,036.84	3,476.94	3,419.54	15.44	20.49	75.71	-2,002.90	-8,962.64	9,022.98	8,987.24	35.74	252.431		
3,200.00	3,134.28	3,553.46	3,492.97	15.95	21.03	75.94	-1,981.39	-8,962.94	9,013.10	8,976.31	36.79	244.974		
3,300.00	3,231.72	3,619.35	3,556.08	16.46	21.49	76.15	-1,962.45	-8,963.42	9,003.68	8,965.90	37.77	238.373		
3,400.00	3,329.16	3,686.34	3,620.17	16.97	21.97	76.36	-1,942.97	-8,964.10	8,994.71	8,955.94	38.76	232.036		
3,500.00	3,426.60	3,765.97	3,696.11	17.48	22.55	76.61	-1,919.06	-8,965.14	8,986.14	8,946.28	39.86	225.436		
3,600.00	3,524.04	3,849.34	3,775.21	17.99	23.17	76.89	-1,892.74	-8,966.47	8,977.90	8,936.90	41.00	218.970		
3,700.00	3,621.48	3,944.02	3,864.90	18.50	23.89	77.20	-1,862.45	-8,968.01	8,969.93	8,927.70	42.23	212.393		
3,800.00	3,718.92	4,020.29	3,937.17	19.01	24.46	77.46	-1,838.11	-8,969.18	8,962.21	8,918.88	43.33	206.846		
3,900.00	3,816.36	4,071.00	3,985.31	19.52	24.84	77.62	-1,822.18	-8,970.03	8,954.97	8,910.74	44.23	202.455		
4,000.00	3,913.80	4,126.75	4,038.34	20.03	25.26	77.81	-1,805.02	-8,971.12	8,948.34	8,903.17	45.17	198.124		
4,100.00	4,011.24	4,188.27	4,096.99	20.55	25.71	78.01	-1,786.53	-8,972.58	8,942.37	8,896.23	46.14	193.802		
4,200.00	4,108.68	4,572.47	4,460.84	21.06	28.64	79.29	-1,663.30	-8,975.25	8,934.29	8,884.74	49.55	180.301		
4,300.00	4,206.12	4,615.20	4,501.10	21.57	28.98	79.44	-1,648.98	-8,975.11	8,926.33	8,875.91	50.42	177.050		
4,400.00	4,303.56	4,662.65	4,545.92	22.09	29.34	79.60	-1,633.43	-8,975.14	8,919.06	8,867.75	51.31	173.828		
4,500.00	4,401.00	4,716.48	4,597.05	22.60	29.75	79.78	-1,616.61	-8,975.30	8,912.42	8,860.18	52.24	170.600		
4,600.00	4,498.44	4,768.01	4,646.25	23.11	30.13	79.94	-1,601.29	-8,975.56	8,906.38	8,853.23	53.15	167.584		
4,700.00	4,595.88	4,830.00	4,705.59	23.63	30.57	80.14	-1,583.35	-8,976.13	8,900.98	8,846.87	54.12	164.474		
4,800.00	4,693.32	4,913.43	4,785.96	24.14	31.15	80.40	-1,561.00	-8,976.89	8,896.02	8,840.81	55.21	161.128		
4,900.00	4,790.76	4,983.96	4,854.40	24.66	31.61	80.60	-1,543.93	-8,977.40	8,891.30	8,835.10	56.19	158.230		
5,000.00	4,888.20	5,052.82	4,921.38	25.17	32.04	80.80	-1,527.99	-8,978.02	8,887.02	8,829.87	57.15	155.502		
5,100.00	4,985.64	5,128.89	4,995.60	25.69	32.51	81.01	-1,511.37	-8,978.81	8,883.14	8,825.00	58.14	152.791		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,224.85	5,089.73	26.20	33.07	81.26	-1,492.74	-8,979.70	8,879.49	8,820.28	59.21	149.957		
5,300.00	5,180.52	5,317.94	5,181.59	26.72	33.56	81.49	-1,477.61	-8,980.38	8,875.98	8,815.75	60.23	147.370		
5,400.00	5,277.96	5,395.51	5,258.36	27.24	33.95	81.67	-1,466.57	-8,980.95	8,872.71	8,811.57	61.14	145.125		
5,500.00	5,375.40	5,492.88	5,355.06	27.75	34.40	81.88	-1,455.26	-8,981.64	8,869.65	8,807.54	62.11	142.812		
5,600.00	5,472.84	5,566.78	5,428.66	28.27	34.72	82.03	-1,448.60	-8,982.15	8,866.79	8,803.86	62.94	140.883		
5,700.00	5,570.28	5,603.10	5,664.41	28.79	35.64	82.47	-1,432.54	-8,981.82	8,863.19	8,798.82	64.37	137.691		
5,800.00	5,667.72	5,852.06	5,713.32	29.30	35.82	82.55	-1,430.32	-8,981.50	8,859.37	8,794.30	65.07	136.151		
5,900.00	5,765.16	5,905.20	5,766.42	29.82	36.01	82.64	-1,428.27	-8,981.42	8,856.14	8,790.36	65.78	134.639		
6,000.00	5,862.60	5,966.00	5,827.19	30.34	36.21	82.74	-1,426.50	-8,981.61	8,853.43	8,786.93	66.50	133.125		
6,100.00	5,960.05	6,041.06	5,902.24	30.85	36.46	82.86	-1,424.78	-8,982.07	8,851.12	8,783.84	67.27	131.574		
6,200.00	6,057.49	6,146.18	6,007.33	31.37	36.81	83.03	-1,422.59	-8,982.79	8,848.94	8,780.80	68.13	129.875		
6,300.00	6,154.93	6,246.18	6,107.31	31.89	37.14	83.18	-1,420.67	-8,983.32	8,846.69	8,777.71	68.98	128.246		
6,400.00	6,252.37	6,320.07	6,181.18	32.40	37.38	83.30	-1,419.19	-8,983.84	8,844.66	8,774.92	69.75	126.812		
6,500.00	6,349.81	6,395.17	6,256.26	32.92	37.64	83.42	-1,417.57	-8,984.56	8,842.96	8,772.44	70.51	125.406		
6,600.00	6,447.25	6,475.25	6,336.31	33.44	37.91	83.54	-1,415.87	-8,985.50	8,841.52	8,770.22	71.30	124.002		
6,700.00	6,544.28	6,561.45	6,422.49	33.95	38.20	84.93	-1,414.12	-8,986.67	8,834.44	8,762.34	72.10	122.524		
6,800.00	6,638.86	6,666.85	6,527.86	34.44	38.55	36.35	-1,412.07	-8,988.07	8,812.03	8,739.08	72.94	120.809		
6,900.00	6,728.65	6,747.00	6,607.99	34.89	38.82	26.89	-1,410.55	-8,989.09	8,774.68	8,701.03	73.65	119.137		
7,000.00	6,811.45	6,813.99	6,674.96	35.29	39.05	21.65	-1,409.31	-8,990.07	8,723.51	8,649.24	74.27	117.456		
7,100.00	6,885.21	6,877.41	6,738.36	35.66	39.27	18.56	-1,408.16	-8,991.11	8,659.71	8,584.88	74.83	115.730		
7,200.00	6,948.11	6,936.77	6,797.70	35.99	39.47	16.74	-1,406.93	-8,992.13	8,584.76	8,509.44	75.31	113.987		
7,300.00	6,998.62	6,984.80	6,845.71	36.30	39.64	15.82	-1,405.81	-8,992.97	8,500.45	8,424.75	75.70	112.291		
7,400.00	7,035.48	7,023.44	6,884.34	36.65	39.77	15.81	-1,404.83	-8,993.66	8,408.82	8,332.83	75.99	110.655		
7,500.00	7,057.79	7,052.15	6,913.03	37.13	39.88	17.67	-1,404.10	-8,994.16	8,312.10	8,235.91	76.19	109.100		
7,600.00	7,065.00	7,062.77	6,923.64	37.84	39.91	50.69	-1,403.83	-8,994.34	8,212.66	8,136.39	76.27	107.682		
7,700.00	7,064.77	7,064.50	6,925.37	38.82	39.92	51.09	-1,403.79	-8,994.37	8,112.69	8,036.40	76.29	106.336		
7,800.00	7,064.54	7,066.22	6,927.09	40.06	39.92	51.50	-1,403.75	-8,994.40	8,012.72	7,936.40	76.32	104.990		
7,900.00	7,064.31	7,067.93	6,928.80	41.52	39.93	51.92	-1,403.71	-8,994.43	7,912.75	7,836.40	76.35	103.643		
8,000.00	7,064.08	7,069.64	6,930.50	43.14	39.94	52.33	-1,403.66	-8,994.45	7,812.78	7,736.40	76.37	102.295		
8,100.00	7,063.85	7,071.33	6,932.20	44.90	39.94	52.75	-1,403.62	-8,994.48	7,712.81	7,636.40	76.40	100.946		
8,200.00	7,063.62	7,073.02	6,933.89	46.78	39.95	53.17	-1,403.58	-8,994.51	7,612.84	7,536.40	76.44	99.597		
8,300.00	7,063.39	7,074.70	6,935.57	48.76	39.95	53.59	-1,403.54	-8,994.54	7,512.87	7,436.40	76.47	98.247		
8,400.00	7,063.16	7,076.37	6,937.24	50.83	39.96	54.01	-1,403.49	-8,994.57	7,412.90	7,336.39	76.50	96.897		
8,500.00	7,062.93	7,078.04	6,938.90	52.97	39.97	54.44	-1,403.45	-8,994.59	7,312.93	7,236.39	76.54	95.546		
8,600.00	7,062.70	7,079.69	6,940.56	55.18	39.97	54.87	-1,403.41	-8,994.62	7,212.96	7,136.38	76.58	94.194		
8,700.00	7,062.47	7,081.34	6,942.21	57.46	39.98	55.30	-1,403.37	-8,994.65	7,112.99	7,036.38	76.61	92.842		
8,800.00	7,062.24	7,082.99	6,943.85	59.78	39.98	55.73	-1,403.33	-8,994.68	7,013.03	6,936.37	76.65	91.490		
8,900.00	7,062.01	7,084.62	6,945.48	62.14	39.99	56.16	-1,403.29	-8,994.70	6,913.06	6,836.37	76.69	90.138		
9,000.00	7,061.78	7,086.24	6,947.11	64.55	40.00	56.60	-1,403.25	-8,994.73	6,813.09	6,736.36	76.74	88.785		
9,100.00	7,061.55	7,087.86	6,948.72	67.00	40.00	57.04	-1,403.21	-8,994.76	6,713.13	6,636.35	76.78	87.432		
9,200.00	7,061.31	7,089.47	6,950.33	69.47	40.01	57.48	-1,403.17	-8,994.78	6,613.17	6,536.34	76.83	86.078		
9,300.00	7,061.08	7,091.08	6,951.94	71.98	40.01	57.93	-1,403.13	-8,994.81	6,513.20	6,436.33	76.87	84.725		
9,400.00	7,060.85	7,092.67	6,953.53	74.51	40.02	58.37	-1,403.09	-8,994.84	6,413.24	6,336.32	76.92	83.371		
9,500.00	7,060.62	7,094.26	6,955.12	77.06	40.02	58.82	-1,403.05	-8,994.86	6,313.28	6,236.30	76.97	82.018		
9,600.00	7,060.39	7,095.85	6,956.70	79.64	40.03	59.27	-1,403.01	-8,994.89	6,213.32	6,136.29	77.03	80.664		
9,700.00	7,060.16	7,097.42	6,958.28	82.23	40.04	59.72	-1,402.97	-8,994.91	6,113.36	6,036.28	77.08	79.311		
9,800.00	7,059.93	7,098.99	6,959.84	84.84	40.04	60.18	-1,402.94	-8,994.94	6,013.40	5,936.26	77.14	77.957		
9,900.00	7,059.70	7,100.55	6,961.40	87.47	40.05	60.63	-1,402.90	-8,994.96	5,913.44	5,836.25	77.20	76.604		
10,000.00	7,059.47	7,102.10	6,962.96	90.11	40.05	61.09	-1,402.86	-8,994.99	5,813.48	5,736.23	77.25	75.251		
10,100.00	7,059.24	7,103.65	6,964.50	92.76	40.06	61.55	-1,402.82	-8,995.01	5,713.53	5,636.21	77.32	73.898		
10,200.00	7,059.01	7,105.19	6,966.04	95.42	40.06	62.01	-1,402.78	-8,995.04	5,613.57	5,536.19	77.38	72.545		
10,300.00	7,058.78	7,106.72	6,967.57	98.10	40.07	62.47	-1,402.75	-8,995.06	5,513.62	5,436.17	77.45	71.192		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,108.24	6,969.09	100.79	40.07	62.93	-1,402.71	-8,995.09	5,413.67	5,336.15	77.52	69.840		
10,500.00	7,058.32	7,109.76	6,970.61	103.48	40.08	63.40	-1,402.67	-8,995.11	5,313.72	5,236.13	77.59	68.488		
10,600.00	7,058.09	7,111.27	6,972.12	106.19	40.08	63.86	-1,402.63	-8,995.13	5,213.77	5,136.11	77.66	67.137		
10,700.00	7,057.86	7,112.78	6,973.63	108.90	40.09	64.33	-1,402.60	-8,995.16	5,113.82	5,036.09	77.73	65.786		
10,800.00	7,057.63	7,114.28	6,975.13	111.62	40.10	64.80	-1,402.56	-8,995.18	5,013.88	4,936.06	77.81	64.436		
10,900.00	7,057.40	7,115.77	6,976.62	114.35	40.10	65.27	-1,402.52	-8,995.21	4,913.93	4,836.04	77.89	63.086		
11,000.00	7,057.17	7,117.25	6,978.10	117.08	40.11	65.74	-1,402.49	-8,995.23	4,813.99	4,736.01	77.98	61.736		
11,100.00	7,056.94	7,118.73	6,979.58	119.82	40.11	66.22	-1,402.45	-8,995.25	4,714.05	4,635.99	78.06	60.387		
11,200.00	7,056.71	7,120.20	6,981.05	122.56	40.12	66.69	-1,402.42	-8,995.28	4,614.11	4,535.96	78.15	59.039		
11,300.00	7,056.48	7,121.67	6,982.51	125.31	40.12	67.17	-1,402.38	-8,995.30	4,514.18	4,435.93	78.25	57.691		
11,400.00	7,056.25	7,123.13	6,983.97	128.06	40.13	67.64	-1,402.35	-8,995.32	4,414.24	4,335.90	78.35	56.344		
11,500.00	7,056.02	7,124.58	6,985.42	130.82	40.13	68.12	-1,402.31	-8,995.35	4,314.31	4,235.87	78.45	54.997		
11,600.00	7,055.79	7,126.02	6,986.87	133.59	40.14	68.60	-1,402.28	-8,995.37	4,214.39	4,135.84	78.55	53.651		
11,700.00	7,055.55	7,127.46	6,988.31	136.35	40.14	69.08	-1,402.24	-8,995.39	4,114.46	4,035.80	78.66	52.306		
11,800.00	7,055.32	7,128.90	6,989.74	139.12	40.15	69.56	-1,402.21	-8,995.41	4,014.54	3,935.77	78.78	50.961		
11,900.00	7,055.09	7,130.32	6,991.17	141.90	40.15	70.04	-1,402.17	-8,995.43	3,914.62	3,835.73	78.90	49.617		
12,000.00	7,054.86	7,131.75	6,992.59	144.67	40.16	70.52	-1,402.14	-8,995.46	3,814.71	3,735.69	79.02	48.274		
12,100.00	7,054.63	7,133.16	6,994.00	147.45	40.16	71.00	-1,402.10	-8,995.48	3,714.80	3,635.65	79.15	46.932		
12,200.00	7,054.40	7,134.57	6,995.41	150.24	40.17	71.48	-1,402.07	-8,995.50	3,614.90	3,535.60	79.29	45.590		
12,300.00	7,054.17	7,135.97	6,996.81	153.02	40.17	71.97	-1,402.03	-8,995.52	3,515.00	3,435.56	79.44	44.248		
12,400.00	7,053.94	7,137.37	6,998.21	155.81	40.18	72.45	-1,402.00	-8,995.54	3,415.10	3,335.51	79.59	42.908		
12,500.00	7,053.71	7,138.76	6,999.60	158.60	40.18	72.93	-1,401.97	-8,995.57	3,315.21	3,235.46	79.75	41.568		
12,600.00	7,053.48	7,140.14	7,000.98	161.40	40.19	73.42	-1,401.93	-8,995.59	3,215.33	3,135.40	79.93	40.229		
12,700.00	7,053.25	7,141.52	7,002.36	164.19	40.19	73.90	-1,401.90	-8,995.61	3,115.45	3,035.35	80.11	38.890		
12,800.00	7,053.02	7,142.89	7,003.73	166.99	40.20	74.38	-1,401.87	-8,995.63	3,015.59	2,935.28	80.30	37.552		
12,900.00	7,052.79	7,144.26	7,005.10	169.79	40.20	74.87	-1,401.84	-8,995.65	2,915.73	2,835.21	80.51	36.214		
13,000.00	7,052.56	7,145.62	7,006.46	172.59	40.21	75.35	-1,401.80	-8,995.67	2,815.88	2,735.14	80.74	34.877		
13,100.00	7,052.33	7,146.98	7,007.81	175.40	40.21	75.83	-1,401.77	-8,995.69	2,716.04	2,635.06	80.98	33.540		
13,200.00	7,052.10	7,148.33	7,009.16	178.20	40.22	76.32	-1,401.74	-8,995.71	2,616.21	2,534.97	81.24	32.203		
13,300.00	7,051.87	7,149.67	7,010.51	181.01	40.22	76.80	-1,401.71	-8,995.73	2,516.39	2,434.87	81.52	30.867		
13,400.00	7,051.64	7,151.01	7,011.84	183.82	40.23	77.28	-1,401.67	-8,995.75	2,416.59	2,334.76	81.83	29.530		
13,500.00	7,051.41	7,152.34	7,013.18	186.63	40.23	77.76	-1,401.64	-8,995.77	2,316.81	2,234.64	82.17	28.194		
13,600.00	7,051.18	7,153.67	7,014.50	189.44	40.23	78.25	-1,401.61	-8,995.79	2,217.04	2,134.50	82.55	26.858		
13,700.00	7,050.95	7,154.99	7,015.82	192.25	40.24	78.73	-1,401.58	-8,995.81	2,117.30	2,034.34	82.96	25.521		
13,800.00	7,050.72	7,156.31	7,017.14	195.07	40.24	79.21	-1,401.55	-8,995.83	2,017.58	1,934.15	83.43	24.184		
13,900.00	7,050.49	7,157.62	7,018.45	197.88	40.25	79.69	-1,401.52	-8,995.85	1,917.89	1,833.94	83.95	22.847		
14,000.00	7,050.26	7,158.92	7,019.75	200.70	40.25	80.17	-1,401.48	-8,995.87	1,818.23	1,733.70	84.53	21.509		
14,100.00	7,050.03	7,160.22	7,021.05	203.52	40.26	80.64	-1,401.45	-8,995.89	1,718.61	1,633.40	85.21	20.170		
14,200.00	7,049.80	7,161.52	7,022.35	206.34	40.26	81.12	-1,401.42	-8,995.91	1,619.04	1,533.06	85.98	18.831		
14,300.00	7,049.56	7,162.80	7,023.63	209.16	40.27	81.60	-1,401.39	-8,995.93	1,519.52	1,432.64	86.88	17.491		
14,400.00	7,049.33	7,164.09	7,024.92	211.98	40.27	82.07	-1,401.36	-8,995.95	1,420.07	1,332.14	87.93	16.150		
14,500.00	7,049.10	7,165.37	7,026.20	214.80	40.28	82.55	-1,401.33	-8,995.97	1,320.70	1,231.52	89.18	14.810		
14,600.00	7,048.87	7,166.64	7,027.47	217.63	40.28	83.02	-1,401.30	-8,995.99	1,221.43	1,130.75	90.68	13.470		
14,700.00	7,048.64	7,167.91	7,028.74	220.45	40.28	83.49	-1,401.27	-8,996.00	1,122.29	1,029.78	92.51	12.132		
14,800.00	7,048.41	7,169.17	7,030.00	223.28	40.29	83.96	-1,401.24	-8,996.02	1,023.31	928.54	94.77	10.798		
14,900.00	7,048.18	7,170.43	7,031.25	226.10	40.29	84.43	-1,401.21	-8,996.04	924.56	826.93	97.62	9.470		
14,979.18	7,048.00	7,171.42	7,032.25	228.34	40.30	84.81	-1,401.19	-8,996.06	846.56	746.12	100.45	8.428 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-106.71	-2,694.94	-8,977.40	9,373.24					
100.00	100.00	174.52	209.50	3.28	3.33	-106.69	-2,692.26	-8,977.11	9,372.77	9,366.16	6.61	1,418.009		
200.00	200.00	305.64	340.58	3.34	3.47	-106.68	-2,689.18	-8,976.11	9,371.34	9,364.54	6.80	1,377.419		
300.00	299.98	408.91	443.79	3.44	3.64	67.30	-2,686.06	-8,975.45	9,369.19	9,362.11	7.08	1,323.598		
400.00	399.84	494.06	528.89	3.59	3.82	67.41	-2,682.94	-8,975.02	9,365.65	9,358.24	7.41	1,264.615		
500.00	499.45	542.00	576.78	3.79	3.93	67.53	-2,680.89	-8,975.01	9,361.13	9,353.41	7.72	1,213.206		
600.00	598.70	588.85	623.59	4.03	4.05	67.67	-2,678.78	-8,975.30	9,355.84	9,347.76	8.08	1,158.418		
700.00	697.47	648.00	682.67	4.31	4.21	67.85	-2,676.15	-8,976.24	9,349.99	9,341.47	8.52	1,097.557		
800.00	795.62	662.89	697.54	4.64	4.25	68.00	-2,675.51	-8,976.57	9,343.36	9,334.48	8.88	1,051.864		
900.00	893.16	708.01	742.61	5.00	4.38	68.13	-2,673.73	-8,977.74	9,336.33	9,326.97	9.37	996.644		
1,000.00	990.60	790.00	824.51	5.38	4.62	68.26	-2,670.72	-8,980.03	9,329.50	9,319.51	10.00	933.261		
1,100.00	1,088.04	831.68	866.14	5.79	4.76	68.32	-2,669.07	-8,981.39	9,323.11	9,312.58	10.53	885.193		
1,200.00	1,185.48	884.00	918.35	6.22	4.93	68.41	-2,666.56	-8,983.61	9,317.40	9,306.27	11.12	837.655		
1,300.00	1,282.92	884.00	918.35	6.66	4.93	68.41	-2,666.56	-8,983.61	9,312.40	9,300.84	11.56	805.675		
1,400.00	1,380.36	928.51	962.73	7.10	5.08	68.48	-2,664.20	-8,986.04	9,308.08	9,295.93	12.15	765.840		
1,500.00	1,477.80	979.00	1,013.03	7.56	5.25	68.57	-2,661.53	-8,989.49	9,304.74	9,291.96	12.78	727.916		
1,600.00	1,575.24	979.00	1,013.03	8.03	5.25	68.57	-2,661.53	-8,989.49	9,301.98	9,288.73	13.25	702.285		
1,700.00	1,672.68	1,030.50	1,064.27	8.50	5.44	68.66	-2,658.51	-8,993.62	9,300.00	9,286.10	13.90	669.193		
1,800.00	1,770.12	1,079.54	1,113.00	8.98	5.62	68.75	-2,655.07	-8,997.98	9,298.61	9,284.06	14.55	639.085		
1,900.00	1,867.56	1,158.01	1,190.81	9.46	5.93	68.90	-2,648.34	-9,005.54	9,297.64	9,282.31	15.33	606.574		
2,000.00	1,965.00	1,197.66	1,230.05	9.95	6.09	68.98	-2,644.35	-9,009.63	9,297.12	9,281.15	15.97	582.255		
2,022.26	1,986.69	1,205.21	1,237.51	10.06	6.13	69.00	-2,643.55	-9,010.45	9,297.10	9,280.99	16.11	577.263		
2,100.00	2,062.44	1,231.48	1,263.45	10.44	6.24	69.05	-2,640.68	-9,013.43	9,297.32	9,280.73	16.59	560.466		
2,200.00	2,159.88	1,263.00	1,294.53	10.93	6.37	69.12	-2,637.04	-9,017.22	9,298.26	9,281.05	17.20	540.484		
2,300.00	2,257.32	1,294.83	1,325.85	11.42	6.51	69.19	-2,633.12	-9,021.33	9,299.95	9,282.13	17.83	521.662		
2,400.00	2,354.76	1,324.56	1,355.04	11.92	6.65	69.25	-2,629.22	-9,025.43	9,302.42	9,283.98	18.44	504.348		
2,500.00	2,452.20	1,358.00	1,387.78	12.42	6.80	69.33	-2,624.55	-9,030.36	9,305.68	9,286.60	19.08	487.730		
2,600.00	2,549.64	1,440.98	1,468.93	12.92	7.20	69.53	-2,612.65	-9,042.96	9,309.46	9,289.51	19.95	466.589		
2,700.00	2,647.08	1,557.63	1,583.20	13.42	7.78	69.79	-2,596.89	-9,060.32	9,313.28	9,292.28	20.99	443.601		
2,800.00	2,744.52	1,593.30	1,618.16	13.93	7.97	69.87	-2,592.28	-9,065.68	9,317.43	9,295.78	21.65	430.277		
2,900.00	2,841.96	1,642.00	1,665.84	14.43	8.21	69.98	-2,585.93	-9,073.27	9,322.23	9,299.86	22.38	416.564		
3,000.00	2,939.40	1,771.76	1,792.99	14.94	8.89	70.27	-2,569.74	-9,093.52	9,327.42	9,303.91	23.51	396.752		
3,100.00	3,036.84	1,868.67	1,887.95	15.44	9.41	70.49	-2,557.05	-9,108.09	9,332.03	9,307.54	24.49	381.093		
3,200.00	3,134.28	1,926.00	1,944.04	15.95	9.72	70.62	-2,549.42	-9,117.14	9,337.35	9,312.08	25.27	369.511		
3,300.00	3,231.72	2,053.32	2,068.83	16.46	10.42	70.91	-2,533.43	-9,136.69	9,342.64	9,316.22	26.41	353.707		
3,400.00	3,329.16	2,117.00	2,131.24	16.97	10.77	71.05	-2,525.55	-9,146.60	9,348.22	9,321.00	27.23	343.310		
3,500.00	3,426.60	2,352.50	2,361.52	17.48	12.11	71.60	-2,491.51	-9,182.10	9,353.18	9,324.19	28.99	322.685		
3,600.00	3,524.04	2,401.00	2,409.05	17.99	12.38	71.71	-2,484.94	-9,189.16	9,357.95	9,328.21	29.74	314.690		
3,700.00	3,621.48	2,451.28	2,458.37	18.50	12.67	71.82	-2,478.61	-9,196.64	9,363.30	9,332.81	30.49	307.078		
3,800.00	3,718.92	2,495.00	2,501.21	19.01	12.92	71.91	-2,472.93	-9,203.23	9,369.09	9,337.88	31.21	300.194		
3,900.00	3,816.36	2,557.10	2,561.98	19.52	13.28	72.05	-2,464.61	-9,212.91	9,375.39	9,343.35	32.03	292.680		
4,000.00	3,913.80	2,628.18	2,631.43	20.03	13.69	72.22	-2,454.80	-9,224.47	9,382.30	9,349.40	32.91	285.117		
4,100.00	4,011.24	2,726.17	2,727.19	20.55	14.27	72.44	-2,441.29	-9,240.26	9,389.26	9,355.32	33.93	276.703		
4,200.00	4,108.68	2,874.00	2,871.84	21.06	15.14	72.77	-2,421.90	-9,263.79	9,396.35	9,361.12	35.23	266.716		
4,300.00	4,206.12	2,913.12	2,910.22	21.57	15.36	72.86	-2,417.34	-9,269.83	9,403.33	9,367.42	35.92	261.794		
4,400.00	4,303.56	2,969.00	2,965.02	22.09	15.68	72.98	-2,411.27	-9,278.93	9,411.15	9,374.46	36.70	256.457		
4,500.00	4,401.00	2,989.03	2,984.64	22.60	15.80	73.02	-2,409.14	-9,282.31	9,419.52	9,382.24	37.28	252.673		
4,600.00	4,498.44	3,219.10	3,210.34	23.11	17.12	73.50	-2,384.28	-9,319.24	9,427.37	9,388.37	39.00	241.755		
4,700.00	4,595.88	3,405.80	3,394.25	23.63	18.15	73.87	-2,368.02	-9,347.02	9,434.87	9,394.43	40.44	233.321		
4,800.00	4,693.32	3,707.02	3,691.66	24.14	19.76	74.46	-2,340.82	-9,386.07	9,440.12	9,397.66	42.46	222.351		
4,900.00	4,790.76	3,729.00	3,713.36	24.66	19.88	74.51	-2,338.56	-9,388.75	9,445.17	9,402.11	43.05	219.377		
5,000.00	4,888.20	3,781.11	3,764.73	25.17	20.17	74.61	-2,332.87	-9,395.46	9,450.79	9,406.98	43.81	215.700		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	4,985.64	3,824.00	3,806.87	25.69	20.41	74.70	-2,327.72	-9,401.51	9,457.29	9,412.77	44.52	212.413		
5,200.00	5,083.08	3,824.00	3,806.87	26.20	20.41	74.70	-2,327.72	-9,401.51	9,464.54	9,419.54	45.00	210.332		
5,300.00	5,180.52	3,880.95	3,862.70	26.72	20.75	74.83	-2,320.51	-9,410.13	9,472.40	9,426.61	45.79	206.874		
5,400.00	5,277.96	3,919.24	3,900.18	27.24	20.98	74.91	-2,315.56	-9,416.23	9,481.01	9,434.53	46.47	204.017		
5,500.00	5,375.40	4,135.05	4,111.61	27.75	22.26	75.38	-2,288.87	-9,450.20	9,489.94	9,441.79	48.15	197.087		
5,600.00	5,472.84	4,201.00	4,176.33	28.27	22.64	75.52	-2,280.94	-9,460.10	9,498.05	9,449.06	48.99	193.897		
5,700.00	5,570.28	4,279.08	4,252.82	28.79	23.11	75.69	-2,270.82	-9,472.08	9,506.50	9,456.61	49.89	190.531		
5,800.00	5,667.72	4,384.38	4,355.71	29.30	23.75	75.93	-2,255.47	-9,488.35	9,515.07	9,464.09	50.97	186.673		
5,900.00	5,765.16	4,447.48	4,417.20	29.82	24.14	76.08	-2,245.31	-9,498.22	9,523.83	9,472.02	51.81	183.809		
6,000.00	5,862.60	4,503.00	4,471.17	30.34	24.49	76.21	-2,235.79	-9,507.13	9,533.07	9,480.46	52.61	181.199		
6,100.00	5,960.05	4,550.75	4,517.52	30.85	24.80	76.33	-2,227.44	-9,515.02	9,542.87	9,489.50	53.36	178.829		
6,200.00	6,057.49	5,943.22	5,895.00	31.37	31.80	78.93	-2,109.01	-9,647.72	9,550.80	9,490.21	60.59	157.643		
6,300.00	6,154.93	6,166.32	6,118.08	31.89	32.62	79.24	-2,107.20	-9,650.10	9,547.39	9,485.48	61.91	154.212		
6,400.00	6,252.37	6,400.00	6,307.44	32.40	33.45	79.50	-2,105.19	-9,649.36	9,542.31	9,479.04	63.27	150.818		
6,500.00	6,349.81	6,445.99	6,397.72	32.92	33.62	79.63	-2,103.92	-9,648.67	9,537.27	9,473.31	63.96	149.113		
6,600.00	6,447.25	6,488.86	6,440.58	33.44	33.77	79.69	-2,103.22	-9,648.63	9,532.91	9,468.26	64.65	147.444		
6,700.00	6,544.28	6,566.00	6,517.71	33.95	34.06	50.99	-2,101.84	-9,649.19	9,523.43	9,457.97	65.46	145.479		
6,800.00	6,638.86	6,566.00	6,517.71	34.44	34.06	32.07	-2,101.84	-9,649.19	9,498.99	9,433.03	65.96	144.003		
6,900.00	6,728.65	6,628.45	6,580.14	34.89	34.30	22.28	-2,100.74	-9,650.10	9,460.31	9,393.66	66.65	141.945		
7,000.00	6,811.45	6,677.54	6,629.22	35.29	34.49	16.51	-2,100.01	-9,651.02	9,408.08	9,340.85	67.23	139.934		
7,100.00	6,885.21	6,721.75	6,673.42	35.66	34.66	12.61	-2,099.43	-9,651.99	9,343.50	9,275.76	67.74	137.927		
7,200.00	6,948.11	6,755.00	6,706.65	35.99	34.79	9.50	-2,099.06	-9,652.81	9,268.05	9,199.90	68.15	135.998		
7,300.00	6,998.62	6,801.24	6,752.88	36.30	34.97	6.42	-2,098.60	-9,654.05	9,183.44	9,114.90	68.53	134.001		
7,400.00	7,035.48	6,831.11	6,782.73	36.65	35.08	2.05	-2,098.31	-9,654.88	9,091.68	9,022.89	68.79	132.173		
7,500.00	7,057.79	6,850.16	6,801.78	37.13	35.16	-8.22	-2,098.14	-9,655.43	8,994.97	8,926.04	68.93	130.491		
7,600.00	7,065.00	6,857.87	6,809.48	37.84	35.19	-66.50	-2,098.07	-9,655.66	8,895.67	8,826.70	68.98	128.966		
7,700.00	7,064.77	6,859.94	6,811.55	38.82	35.20	-66.69	-2,098.05	-9,655.72	8,795.90	8,726.92	68.98	127.522		
7,800.00	7,064.54	6,862.02	6,813.63	40.06	35.20	-66.87	-2,098.03	-9,655.78	8,696.12	8,627.15	68.98	126.076		
7,900.00	7,064.31	6,864.11	6,815.72	41.52	35.21	-67.06	-2,098.02	-9,655.84	8,596.35	8,527.38	68.98	124.626		
8,000.00	7,064.08	6,866.21	6,817.82	43.14	35.22	-67.25	-2,098.00	-9,655.90	8,496.59	8,427.61	68.98	123.174		
8,100.00	7,063.85	6,868.32	6,819.93	44.90	35.23	-67.44	-2,097.98	-9,655.97	8,396.83	8,327.84	68.99	121.719		
8,200.00	7,063.62	6,870.45	6,822.05	46.78	35.24	-67.63	-2,097.96	-9,656.03	8,297.08	8,228.08	68.99	120.261		
8,300.00	7,063.39	6,872.58	6,824.19	48.76	35.25	-67.82	-2,097.94	-9,656.09	8,197.33	8,128.33	69.00	118.800		
8,400.00	7,063.16	6,874.73	6,826.33	50.83	35.25	-68.02	-2,097.92	-9,656.16	8,097.58	8,028.57	69.01	117.336		
8,500.00	7,062.93	6,876.89	6,828.49	52.97	35.26	-68.21	-2,097.91	-9,656.22	7,997.85	7,928.82	69.02	115.870		
8,600.00	7,062.70	6,879.06	6,830.66	55.18	35.27	-68.41	-2,097.89	-9,656.29	7,898.11	7,829.08	69.04	114.400		
8,700.00	7,062.47	6,881.24	6,832.84	57.46	35.28	-68.61	-2,097.87	-9,656.35	7,798.39	7,729.33	69.06	112.927		
8,800.00	7,062.24	6,883.43	6,835.03	59.78	35.29	-68.81	-2,097.85	-9,656.42	7,698.67	7,629.59	69.08	111.452		
8,900.00	7,062.01	6,885.64	6,837.23	62.14	35.30	-69.01	-2,097.83	-9,656.48	7,598.96	7,529.86	69.10	109.973		
9,000.00	7,061.78	6,887.85	6,839.45	64.55	35.31	-69.22	-2,097.81	-9,656.55	7,499.25	7,430.13	69.12	108.492		
9,100.00	7,061.55	6,890.08	6,841.68	67.00	35.31	-69.42	-2,097.79	-9,656.62	7,399.55	7,330.40	69.15	107.008		
9,200.00	7,061.31	6,892.32	6,843.91	69.47	35.32	-69.63	-2,097.78	-9,656.69	7,299.86	7,230.68	69.18	105.520		
9,300.00	7,061.08	6,894.57	6,846.17	71.98	35.33	-69.84	-2,097.76	-9,656.76	7,200.18	7,130.96	69.21	104.029		
9,400.00	7,060.85	6,896.84	6,848.43	74.51	35.34	-70.05	-2,097.74	-9,656.83	7,100.50	7,031.25	69.25	102.536		
9,500.00	7,060.62	6,899.12	6,850.71	77.06	35.35	-70.27	-2,097.72	-9,656.90	7,000.83	6,931.54	69.29	101.039		
9,600.00	7,060.39	6,901.41	6,852.99	79.64	35.36	-70.48	-2,097.70	-9,656.97	6,901.17	6,831.84	69.33	99.538		
9,700.00	7,060.16	6,903.71	6,855.29	82.23	35.37	-70.70	-2,097.68	-9,657.04	6,801.52	6,732.15	69.38	98.035		
9,800.00	7,059.93	6,906.02	6,857.61	84.84	35.38	-70.92	-2,097.66	-9,657.11	6,701.88	6,632.46	69.43	96.528		
9,900.00	7,059.70	6,908.35	6,859.93	87.47	35.39	-71.14	-2,097.64	-9,657.18	6,602.25	6,532.77	69.48	95.018		
10,000.00	7,059.47	6,910.69	6,862.27	90.11	35.39	-71.36	-2,097.62	-9,657.26	6,502.63	6,433.09	69.54	93.504		
10,100.00	7,059.24	6,913.04	6,864.63	92.76	35.40	-71.58	-2,097.61	-9,657.33	6,403.02	6,333.42	69.61	91.987		
10,200.00	7,059.01	6,915.41	6,866.99	95.42	35.41	-71.81	-2,097.59	-9,657.40	6,303.43	6,233.75	69.68	90.466		

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 12N-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 12N-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	7,058.78	6,917.79	6,869.37	98.10	35.42	-72.03	-2,097.57	-9,657.48	6,203.84	6,134.09	69.75	88.941		
10,400.00	7,058.55	6,920.18	6,871.76	100.79	35.43	-72.26	-2,097.55	-9,657.55	6,104.27	6,034.43	69.83	87.413		
10,500.00	7,058.32	6,922.59	6,874.16	103.48	35.44	-72.49	-2,097.53	-9,657.63	6,004.71	5,934.79	69.92	85.880		
10,600.00	7,058.09	6,925.01	6,876.58	106.19	35.45	-72.73	-2,097.51	-9,657.70	5,905.16	5,835.15	70.01	84.344		
10,700.00	7,057.86	6,927.44	6,879.01	108.90	35.46	-72.96	-2,097.49	-9,657.78	5,805.63	5,735.51	70.11	82.803		
10,800.00	7,057.63	6,929.89	6,881.46	111.62	35.47	-73.20	-2,097.47	-9,657.86	5,706.11	5,635.89	70.22	81.258		
10,900.00	7,057.40	6,932.35	6,883.92	114.35	35.48	-73.44	-2,097.45	-9,657.94	5,606.61	5,536.27	70.34	79.709		
11,000.00	7,057.17	6,934.82	6,886.39	117.08	35.49	-73.68	-2,097.44	-9,658.02	5,507.12	5,436.66	70.46	78.155		
11,100.00	7,056.94	6,937.31	6,888.88	119.82	35.50	-73.92	-2,097.42	-9,658.10	5,407.65	5,337.05	70.60	76.596		
11,200.00	7,056.71	6,939.81	6,891.38	122.56	35.51	-74.17	-2,097.40	-9,658.18	5,308.20	5,237.46	70.74	75.033		
11,300.00	7,056.48	6,942.33	6,893.90	125.31	35.52	-74.41	-2,097.38	-9,658.26	5,208.78	5,137.87	70.90	73.465		
11,400.00	7,056.25	6,944.86	6,896.43	128.06	35.53	-74.66	-2,097.36	-9,658.34	5,109.37	5,038.30	71.07	71.892		
11,500.00	7,056.02	6,947.40	6,898.97	130.82	35.54	-74.90	-2,097.34	-9,658.42	5,009.98	4,938.74	71.25	70.320		
11,600.00	7,055.79	6,949.93	6,896.50	133.59	35.55	-75.15	-2,097.32	-9,658.50	4,910.62	4,839.18	71.44	68.740		
11,700.00	7,055.55	6,952.47	6,894.03	136.35	35.56	-75.40	-2,097.30	-9,658.58	4,811.29	4,739.64	71.64	67.155		
11,800.00	7,055.32	6,955.00	6,891.56	139.12	35.57	-75.65	-2,097.28	-9,658.66	4,711.98	4,640.11	71.87	65.563		
11,900.00	7,055.09	6,957.53	6,889.09	141.90	35.58	-75.90	-2,097.26	-9,658.74	4,612.71	4,540.59	72.11	63.965		
12,000.00	7,054.86	6,960.06	6,886.62	144.67	35.59	-76.15	-2,097.24	-9,658.82	4,513.43	4,441.04	72.40	62.342		
12,100.00	7,054.63	6,962.59	6,884.15	147.45	35.60	-76.40	-2,097.22	-9,658.90	4,414.21	4,341.53	72.69	60.730		
12,200.00	7,054.40	6,965.12	6,881.68	150.24	35.61	-76.65	-2,097.20	-9,658.98	4,315.03	4,242.03	73.00	59.111		
12,300.00	7,054.17	6,967.65	6,879.21	153.02	35.62	-76.90	-2,097.18	-9,659.06	4,215.88	4,142.54	73.34	57.487		
12,400.00	7,053.94	6,970.18	6,876.74	155.81	35.63	-77.15	-2,097.16	-9,659.14	4,116.77	4,043.07	73.70	55.856		
12,500.00	7,053.71	6,972.71	6,874.27	158.60	35.64	-77.40	-2,097.14	-9,659.22	4,017.70	3,943.60	74.10	54.219		
12,600.00	7,053.48	6,975.24	6,871.80	161.40	35.65	-77.65	-2,097.12	-9,659.30	3,918.68	3,844.15	74.53	52.577		
12,700.00	7,053.25	6,977.77	6,869.33	164.19	35.66	-77.90	-2,097.10	-9,659.38	3,819.71	3,744.70	75.00	50.928		
12,800.00	7,053.02	6,980.30	6,866.86	166.99	35.67	-78.15	-2,097.08	-9,659.46	3,720.79	3,645.27	75.51	49.273		
12,900.00	7,052.79	6,982.83	6,864.39	169.79	35.68	-78.40	-2,097.06	-9,659.54	3,621.92	3,545.85	76.07	47.612		
13,000.00	7,052.56	6,985.36	6,861.92	172.59	35.69	-78.65	-2,097.04	-9,659.62	3,523.12	3,446.44	76.68	45.947		
13,100.00	7,052.33	6,987.89	6,859.45	175.40	35.70	-78.90	-2,097.02	-9,659.70	3,424.39	3,347.05	77.34	44.276		
13,200.00	7,052.10	6,990.42	6,856.98	178.20	35.71	-79.15	-2,097.00	-9,659.78	3,325.72	3,247.66	78.07	42.602		
13,300.00	7,051.87	6,992.95	6,854.51	181.01	35.72	-79.40	-2,096.98	-9,659.86	3,227.14	3,148.28	78.86	40.923		
13,400.00	7,051.64	6,995.48	6,852.04	183.82	35.73	-79.65	-2,096.96	-9,659.94	3,128.65	3,048.92	79.73	39.242		
13,500.00	7,051.41	6,998.01	6,849.57	186.63	35.74	-79.90	-2,096.94	-9,660.02	3,030.25	2,949.57	80.68	37.559		
13,600.00	7,051.18	6,999.54	6,847.10	189.44	35.75	-80.15	-2,096.92	-9,660.10	2,931.95	2,850.23	81.72	35.876		
13,700.00	7,050.95	7,002.07	6,844.63	192.25	35.76	-80.40	-2,096.90	-9,660.18	2,833.78	2,750.90	82.87	34.193		
13,800.00	7,050.72	7,004.60	6,842.16	195.07	35.77	-80.65	-2,096.88	-9,660.26	2,735.72	2,651.58	84.14	32.513		
13,900.00	7,050.49	7,007.13	6,839.69	197.88	35.78	-80.90	-2,096.86	-9,660.34	2,637.82	2,552.28	85.54	30.837		
14,000.00	7,050.26	7,009.66	6,837.22	200.70	35.79	-81.15	-2,096.84	-9,660.42	2,540.07	2,452.98	87.08	29.168		
14,100.00	7,050.03	7,012.19	6,834.75	203.52	35.80	-81.40	-2,096.82	-9,660.50	2,442.50	2,353.70	88.79	27.508		
14,200.00	7,049.80	7,014.72	6,832.28	206.34	35.81	-81.65	-2,096.80	-9,660.58	2,345.13	2,254.44	90.69	25.859		
14,300.00	7,049.56	7,017.25	6,829.81	209.16	35.82	-81.90	-2,096.78	-9,660.66	2,247.98	2,155.18	92.80	24.225		
14,400.00	7,049.33	7,019.78	6,827.34	211.98	35.83	-82.15	-2,096.76	-9,660.74	2,151.09	2,055.95	95.14	22.609		
14,500.00	7,049.10	7,022.31	6,824.87	214.80	35.84	-82.40	-2,096.74	-9,660.82	2,054.50	1,956.73	97.76	21.015		
14,600.00	7,048.87	7,024.84	6,822.40	217.63	35.85	-82.65	-2,096.72	-9,660.90	1,958.23	1,857.54	100.69	19.447		
14,700.00	7,048.64	7,027.37	6,819.93	220.45	35.86	-82.90	-2,096.70	-9,660.98	1,862.36	1,758.38	103.98	17.910		
14,800.00	7,048.41	7,029.90	6,817.46	223.28	35.87	-83.15	-2,096.68	-9,661.06	1,766.94	1,659.25	107.68	16.408		
14,900.00	7,048.18	7,032.43	6,814.99	226.10	35.88	-83.40	-2,096.66	-9,661.14	1,672.04	1,560.18	111.86	14.947		
14,979.18	7,048.00	7,034.96	6,812.52	228.34	35.89	-83.65	-2,096.64	-9,661.22	1,597.34	1,481.78	115.56	13.822 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 12N-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 12N-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	-107.04	-2,753.23	-8,985.77	9,398.16					
100.00	100.00	43.12	78.12	3.28	3.28	-107.03	-2,753.12	-8,985.85	9,398.17	9,391.61	6.57	1,431.413		
200.00	200.00	112.39	147.38	3.34	3.29	-107.03	-2,752.49	-8,986.34	9,398.58	9,391.95	6.63	1,417.690		
300.00	299.98	171.00	205.98	3.44	3.33	66.89	-2,751.53	-8,987.05	9,398.61	9,391.85	6.76	1,389.497		
400.00	399.84	209.02	243.99	3.59	3.36	66.92	-2,750.85	-8,987.74	9,397.85	9,390.90	6.95	1,353.088		
500.00	499.45	263.00	297.94	3.79	3.41	66.98	-2,750.15	-8,989.24	9,396.53	9,389.33	7.20	1,304.712		
600.00	598.70	263.00	297.94	4.03	3.41	67.02	-2,750.15	-8,989.24	9,394.43	9,386.98	7.45	1,261.393		
700.00	697.47	263.00	297.94	4.31	3.41	67.07	-2,750.15	-8,989.24	9,392.03	9,384.30	7.74	1,214.122		
800.00	795.62	304.82	339.73	4.64	3.47	67.17	-2,750.03	-8,990.97	9,388.83	9,380.72	8.11	1,157.064		
900.00	893.16	354.00	388.82	5.00	3.55	67.26	-2,750.71	-8,993.85	9,385.76	9,377.22	8.55	1,098.139		
1,000.00	990.60	354.00	388.82	5.38	3.55	67.26	-2,750.71	-8,993.85	9,382.90	9,373.96	8.93	1,050.177		
1,100.00	1,088.04	354.00	388.82	5.79	3.55	67.26	-2,750.71	-8,993.85	9,381.10	9,371.76	9.34	1,004.016		
1,200.00	1,185.48	386.39	421.11	6.22	3.61	67.30	-2,751.67	-8,996.15	9,380.15	9,370.32	9.82	955.048		
1,267.12	1,250.88	403.23	437.88	6.51	3.64	67.32	-2,752.36	-8,997.42	9,379.96	9,369.82	10.14	924.667		
1,300.00	1,282.92	411.49	446.11	6.66	3.66	67.33	-2,752.74	-8,998.07	9,380.01	9,369.70	10.30	910.303		
1,400.00	1,380.36	445.00	479.46	7.10	3.73	67.37	-2,754.61	-9,000.82	9,380.69	9,369.87	10.82	867.278		
1,500.00	1,477.80	556.33	590.12	7.56	4.00	67.48	-2,763.04	-9,009.55	9,381.71	9,370.20	11.52	814.601		
1,600.00	1,575.24	628.13	661.42	8.03	4.20	67.54	-2,769.64	-9,014.83	9,382.74	9,370.58	12.16	771.358		
1,700.00	1,672.68	747.54	779.88	8.50	4.59	67.63	-2,782.12	-9,023.20	9,383.80	9,370.82	12.98	722.957		
1,800.00	1,770.12	1,335.98	1,365.95	8.98	6.83	68.22	-2,818.99	-9,057.13	9,384.23	9,368.69	15.54	603.926		
1,900.00	1,867.56	1,383.00	1,412.90	9.46	7.01	68.28	-2,819.88	-9,059.42	9,380.68	9,364.49	16.20	579.166		
2,000.00	1,965.00	1,383.00	1,412.90	9.95	7.01	68.28	-2,819.88	-9,059.42	9,377.66	9,360.97	16.68	562.146		
2,100.00	2,062.44	1,383.00	1,412.90	10.44	7.01	68.28	-2,819.88	-9,059.42	9,375.70	9,358.53	17.17	546.077		
2,200.00	2,159.88	1,383.00	1,412.90	10.93	7.01	68.28	-2,819.88	-9,059.42	9,374.80	9,357.15	17.66	530.905		
2,233.75	2,192.77	1,383.00	1,412.90	11.10	7.01	68.28	-2,819.88	-9,059.42	9,374.74	9,356.92	17.82	525.977		
2,300.00	2,257.32	1,383.00	1,412.90	11.42	7.01	68.28	-2,819.88	-9,059.42	9,374.98	9,356.83	18.15	516.579		
2,400.00	2,354.76	1,445.00	1,474.62	11.92	7.27	68.36	-2,821.60	-9,064.94	9,375.97	9,357.09	18.88	496.628		
2,500.00	2,452.20	1,445.00	1,474.62	12.42	7.27	68.36	-2,821.60	-9,064.94	9,377.63	9,358.26	19.37	484.125		
2,600.00	2,549.64	1,445.00	1,474.62	12.92	7.27	68.36	-2,821.60	-9,064.94	9,380.35	9,360.49	19.86	472.300		
2,700.00	2,647.08	1,445.00	1,474.62	13.42	7.27	68.36	-2,821.60	-9,064.94	9,384.14	9,363.79	20.35	461.112		
2,800.00	2,744.52	1,511.33	1,540.41	13.93	7.57	68.44	-2,824.52	-9,072.87	9,388.66	9,367.55	21.11	444.736		
2,900.00	2,841.96	1,569.00	1,597.58	14.43	7.83	68.51	-2,827.70	-9,079.76	9,393.53	9,371.70	21.84	430.157		
3,000.00	2,939.40	1,604.80	1,633.03	14.94	8.00	68.55	-2,830.14	-9,084.13	9,399.00	9,376.52	22.48	418.119		
3,100.00	3,036.84	1,665.00	1,692.49	15.44	8.29	68.60	-2,835.53	-9,091.81	9,405.35	9,382.12	23.23	404.932		
3,200.00	3,134.28	1,665.00	1,692.49	15.95	8.29	68.60	-2,835.53	-9,091.81	9,412.15	9,388.43	23.71	396.911		
3,300.00	3,231.72	1,665.00	1,692.49	16.46	8.29	68.60	-2,835.53	-9,091.81	9,420.00	9,395.80	24.20	389.293		
3,400.00	3,329.16	1,707.32	1,734.14	16.97	8.50	68.64	-2,840.19	-9,097.65	9,428.45	9,403.58	24.87	379.077		
3,500.00	3,426.60	3,500.00	1,808.38	17.48	18.40	68.70	-2,849.49	-9,108.93	9,437.89	9,404.29	33.60	280.870		
3,600.00	3,524.04	1,911.18	1,934.29	17.99	9.57	68.80	-2,865.20	-9,127.16	9,446.70	9,419.91	26.78	352.697		
3,700.00	3,621.48	2,073.90	2,094.10	18.50	10.45	68.92	-2,886.39	-9,149.25	9,455.05	9,427.00	28.05	337.136		
3,800.00	3,718.92	2,099.74	2,119.48	19.01	10.59	68.94	-2,889.64	-9,152.85	9,463.74	9,435.09	28.65	330.299		
3,900.00	3,816.36	2,136.00	2,155.05	19.52	10.79	68.96	-2,894.23	-9,158.23	9,473.24	9,443.93	29.31	323.229		
4,000.00	3,913.80	2,189.54	2,207.50	20.03	11.09	69.00	-2,901.11	-9,166.46	9,483.35	9,453.30	30.05	315.584		
4,100.00	4,011.24	2,392.96	2,406.88	20.55	12.24	69.15	-2,928.30	-9,196.20	9,492.88	9,461.34	31.54	300.933		
4,200.00	4,108.68	2,448.27	2,461.09	21.06	12.55	69.19	-2,936.07	-9,204.01	9,502.23	9,469.92	32.31	294.136		
4,300.00	4,206.12	2,489.09	2,501.02	21.57	12.79	69.21	-2,942.14	-9,209.95	9,512.17	9,479.18	32.99	288.307		
4,400.00	4,303.56	2,541.36	2,552.04	22.09	13.10	69.24	-2,950.31	-9,217.78	9,522.71	9,488.97	33.74	282.231		
4,500.00	4,401.00	2,607.00	2,616.09	22.60	13.49	69.28	-2,960.67	-9,227.78	9,533.59	9,499.03	34.56	275.850		
4,600.00	4,498.44	3,331.42	3,326.75	23.11	17.65	69.75	-3,062.21	-9,321.66	9,544.12	9,505.34	38.78	246.087		
4,700.00	4,595.88	3,496.79	3,490.08	23.63	18.54	69.86	-3,083.25	-9,336.65	9,548.16	9,508.05	40.11	238.064		
4,800.00	4,693.32	3,550.00	3,542.56	24.14	18.83	69.89	-3,090.57	-9,341.47	9,552.45	9,511.57	40.88	233.687		
4,900.00	4,790.76	3,550.00	3,542.56	24.66	18.83	69.89	-3,090.57	-9,341.47	9,557.41	9,516.04	41.38	230.990		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,000.00	4,888.20	3,607.03	3,598.74	25.17	19.14	69.92	-3,098.56	-9,347.18	9,562.93	9,520.77	42.16	226.799		
5,100.00	4,985.64	3,644.00	3,635.14	25.69	19.35	69.94	-3,103.62	-9,351.24	9,569.20	9,526.35	42.85	223.323		
5,200.00	5,083.08	3,644.00	3,635.14	26.20	19.35	69.94	-3,103.62	-9,351.24	9,576.31	9,532.97	43.34	220.970		
5,300.00	5,180.52	3,689.40	3,679.75	26.72	19.62	69.97	-3,110.01	-9,356.71	9,584.00	9,539.94	44.06	217.499		
5,400.00	5,277.96	3,739.00	3,728.32	27.24	19.91	70.00	-3,117.52	-9,363.37	9,592.75	9,547.94	44.81	214.063		
5,500.00	5,375.40	3,739.00	3,728.32	27.75	19.91	70.00	-3,117.52	-9,363.37	9,601.98	9,556.69	45.29	212.010		
5,600.00	5,472.84	3,773.34	3,761.86	28.27	20.12	70.02	-3,123.00	-9,368.30	9,612.10	9,566.14	45.96	209.161		
5,700.00	5,570.28	4,305.00	4,282.41	28.79	23.29	70.30	-3,206.10	-9,435.90	9,621.80	9,572.45	49.35	194.987		
5,800.00	5,667.72	4,305.00	4,282.41	29.30	23.29	70.30	-3,206.10	-9,435.90	9,628.29	9,578.45	49.84	193.191		
5,900.00	5,765.16	4,365.32	4,341.78	29.82	23.64	70.34	-3,214.17	-9,442.81	9,635.23	9,584.58	50.65	190.245		
6,000.00	5,862.60	4,399.00	4,374.88	30.34	23.83	70.37	-3,218.82	-9,446.99	9,643.00	9,591.69	51.31	187.932		
6,100.00	5,960.05	4,448.33	4,423.32	30.85	24.12	70.40	-3,225.52	-9,453.44	9,651.39	9,599.33	52.06	185.400		
6,200.00	6,057.49	4,495.00	4,469.16	31.37	24.40	70.43	-3,231.50	-9,459.83	9,660.26	9,607.48	52.79	183.004		
6,300.00	6,154.93	4,544.23	4,517.48	31.89	24.69	70.47	-3,237.85	-9,466.83	9,669.68	9,616.15	53.53	180.639		
6,400.00	6,252.37	4,589.69	4,562.01	32.40	24.96	70.50	-3,244.09	-9,473.48	9,679.66	9,625.41	54.25	178.424		
6,500.00	6,349.81	6,299.00	6,256.85	32.92	33.19	72.20	-3,353.87	-9,611.92	9,682.48	9,620.04	62.45	155.051		
6,600.00	6,447.25	6,393.51	6,351.36	33.44	33.53	72.32	-3,353.81	-9,612.88	9,676.47	9,613.13	63.35	152.756		
6,700.00	6,544.28	6,494.94	6,452.78	33.95	33.90	43.50	-3,353.52	-9,613.94	9,664.74	9,600.49	64.25	150.415		
6,800.00	6,638.86	6,593.86	6,551.69	34.44	34.26	24.35	-3,352.96	-9,614.99	9,638.06	9,572.95	65.11	148.019		
6,900.00	6,728.65	6,716.77	6,674.58	34.89	34.69	14.00	-3,351.85	-9,616.24	9,596.90	9,530.91	65.99	145.423		
7,000.00	6,811.45	6,895.44	6,853.23	35.29	35.30	7.38	-3,349.03	-9,616.93	9,541.70	9,474.72	66.97	142.471		
7,100.00	6,885.21	6,982.80	6,940.57	35.66	35.59	2.01	-3,347.14	-9,616.77	9,473.98	9,406.39	67.59	140.160		
7,200.00	6,948.11	7,029.15	6,986.92	35.99	35.75	-3.49	-3,346.20	-9,616.73	9,396.07	9,328.06	68.01	138.154		
7,300.00	6,998.62	7,066.53	7,024.28	36.30	35.88	-10.71	-3,345.49	-9,616.74	9,309.86	9,241.54	68.32	136.270		
7,400.00	7,035.48	7,093.95	7,051.70	36.65	35.97	-22.89	-3,345.00	-9,616.78	9,217.43	9,148.91	68.51	134.533		
7,500.00	7,057.79	7,110.67	7,068.42	37.13	36.03	-48.13	-3,344.71	-9,616.81	9,121.02	9,052.42	68.60	132.958		
7,600.00	7,065.00	7,116.22	7,073.96	37.84	36.05	-90.94	-3,344.62	-9,616.82	9,023.01	8,954.42	68.59	131.548		
7,700.00	7,064.77	7,116.22	7,073.97	38.82	36.05	-90.94	-3,344.62	-9,616.82	8,925.02	8,856.47	68.55	130.206		
7,800.00	7,064.54	7,116.22	7,073.97	40.06	36.05	-90.94	-3,344.62	-9,616.82	8,827.06	8,758.56	68.51	128.844		
7,900.00	7,064.31	7,116.22	7,073.97	41.52	36.05	-90.94	-3,344.62	-9,616.82	8,729.16	8,660.68	68.49	127.460		
8,000.00	7,064.08	7,116.23	7,073.98	43.14	36.05	-90.94	-3,344.62	-9,616.82	8,631.30	8,562.83	68.47	126.054		
8,100.00	7,063.85	7,116.23	7,073.98	44.90	36.05	-90.94	-3,344.62	-9,616.82	8,533.50	8,465.03	68.47	124.626		
8,200.00	7,063.62	7,116.23	7,073.98	46.78	36.05	-90.94	-3,344.62	-9,616.82	8,435.74	8,367.26	68.49	123.174		
8,300.00	7,063.39	7,116.24	7,073.99	48.76	36.05	-90.94	-3,344.62	-9,616.82	8,338.04	8,269.53	68.51	121.698		
8,400.00	7,063.16	7,116.24	7,073.99	50.83	36.05	-90.94	-3,344.62	-9,616.82	8,240.40	8,171.84	68.56	120.197		
8,500.00	7,062.93	7,116.24	7,073.99	52.97	36.05	-90.94	-3,344.62	-9,616.82	8,142.81	8,074.19	68.62	118.671		
8,600.00	7,062.70	7,116.24	7,073.99	55.18	36.05	-90.94	-3,344.62	-9,616.82	8,045.28	7,976.58	68.69	117.119		
8,700.00	7,062.47	7,116.25	7,074.00	57.46	36.05	-90.94	-3,344.62	-9,616.82	7,947.81	7,879.02	68.79	115.541		
8,800.00	7,062.24	7,116.25	7,074.00	59.78	36.05	-90.94	-3,344.62	-9,616.82	7,850.40	7,781.50	68.90	113.936		
8,900.00	7,062.01	7,116.25	7,074.00	62.14	36.05	-90.94	-3,344.62	-9,616.82	7,753.06	7,684.03	69.04	112.305		
9,000.00	7,061.78	7,116.26	7,074.01	64.55	36.05	-90.94	-3,344.62	-9,616.82	7,655.79	7,586.60	69.19	110.646		
9,100.00	7,061.55	7,116.26	7,074.01	67.00	36.05	-90.94	-3,344.62	-9,616.82	7,558.59	7,489.22	69.37	108.960		
9,200.00	7,061.31	7,116.26	7,074.01	69.47	36.05	-90.94	-3,344.62	-9,616.82	7,461.47	7,391.89	69.57	107.247		
9,300.00	7,061.08	7,116.27	7,074.02	71.98	36.05	-90.94	-3,344.62	-9,616.82	7,364.42	7,294.62	69.80	105.507		
9,400.00	7,060.85	7,116.27	7,074.02	74.51	36.05	-90.94	-3,344.62	-9,616.82	7,267.45	7,197.40	70.06	103.739		
9,500.00	7,060.62	7,116.27	7,074.02	77.06	36.05	-90.94	-3,344.62	-9,616.82	7,170.57	7,100.23	70.34	101.945		
9,600.00	7,060.39	7,116.28	7,074.02	79.64	36.05	-90.94	-3,344.62	-9,616.82	7,073.77	7,003.12	70.65	100.124		
9,700.00	7,060.16	7,116.28	7,074.03	82.23	36.05	-90.94	-3,344.62	-9,616.82	6,977.06	6,906.07	70.99	98.278		
9,800.00	7,059.93	7,116.28	7,074.03	84.84	36.05	-90.94	-3,344.62	-9,616.82	6,880.45	6,809.08	71.37	96.407		
9,900.00	7,059.70	7,116.28	7,074.03	87.47	36.05	-90.94	-3,344.62	-9,616.82	6,783.93	6,712.15	71.78	94.512		
10,000.00	7,059.47	7,116.29	7,074.04	90.11	36.05	-90.94	-3,344.62	-9,616.82	6,687.52	6,615.29	72.22	92.594		
10,100.00	7,059.24	7,116.29	7,074.04	92.76	36.05	-90.94	-3,344.62	-9,616.82	6,591.21	6,518.50	72.71	90.654		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,059.01	7,116.29	7,074.04	95.42	36.05	-90.94	-3,344.62	-9,616.82	6,495.02	6,421.79	73.23	88.694		
10,300.00	7,058.78	7,116.30	7,074.05	98.10	36.05	-90.94	-3,344.62	-9,616.82	6,398.94	6,325.14	73.79	86.716		
10,400.00	7,058.55	7,116.30	7,074.05	100.79	36.05	-90.94	-3,344.62	-9,616.82	6,302.98	6,228.58	74.40	84.720		
10,500.00	7,058.32	7,116.30	7,074.05	103.48	36.05	-90.94	-3,344.62	-9,616.82	6,207.15	6,132.10	75.05	82.708		
10,600.00	7,058.09	7,116.31	7,074.06	106.19	36.05	-90.94	-3,344.62	-9,616.82	6,111.46	6,035.71	75.75	80.684		
10,700.00	7,057.86	7,116.31	7,074.06	108.90	36.05	-90.94	-3,344.62	-9,616.82	6,015.90	5,939.41	76.49	78.648		
10,800.00	7,057.63	7,116.31	7,074.06	111.62	36.05	-90.94	-3,344.62	-9,616.82	5,920.49	5,843.21	77.29	76.603		
10,900.00	7,057.40	7,116.32	7,074.07	114.35	36.05	-90.94	-3,344.62	-9,616.82	5,825.24	5,747.10	78.14	74.551		
11,000.00	7,057.17	7,116.32	7,074.07	117.08	36.05	-90.94	-3,344.62	-9,616.82	5,730.15	5,651.11	79.04	72.495		
11,100.00	7,056.94	7,116.32	7,074.07	119.82	36.05	-90.94	-3,344.62	-9,616.82	5,635.23	5,555.22	80.00	70.437		
11,200.00	7,056.71	7,116.33	7,074.08	122.56	36.05	-90.94	-3,344.62	-9,616.82	5,540.48	5,459.46	81.03	68.379		
11,300.00	7,056.48	7,116.33	7,074.08	125.31	36.05	-90.94	-3,344.62	-9,616.82	5,445.93	5,363.82	82.11	66.325		
11,400.00	7,056.25	7,116.33	7,074.08	128.06	36.05	-90.94	-3,344.62	-9,616.82	5,351.57	5,268.31	83.26	64.276		
11,500.00	7,056.02	7,116.34	7,074.09	130.82	36.05	-90.94	-3,344.62	-9,616.82	5,257.42	5,172.94	84.48	62.235		
11,600.00	7,055.79	7,116.34	7,074.09	133.59	36.05	-90.94	-3,344.62	-9,616.82	5,163.49	5,077.73	85.76	60.206		
11,700.00	7,055.55	7,116.35	7,074.09	136.35	36.05	-90.94	-3,344.62	-9,616.82	5,069.79	4,982.67	87.13	58.189		
11,800.00	7,055.32	7,116.35	7,074.10	139.12	36.05	-90.94	-3,344.62	-9,616.82	4,976.34	4,887.78	88.56	56.189		
11,900.00	7,055.09	7,116.35	7,074.10	141.90	36.05	-90.94	-3,344.62	-9,616.82	4,883.15	4,793.07	90.08	54.207		
12,000.00	7,054.86	7,116.36	7,074.11	144.67	36.05	-90.94	-3,344.62	-9,616.82	4,790.23	4,698.55	91.69	52.245		
12,100.00	7,054.63	7,116.36	7,074.11	147.45	36.05	-90.94	-3,344.62	-9,616.82	4,697.61	4,604.23	93.38	50.307		
12,200.00	7,054.40	7,116.36	7,074.11	150.24	36.05	-90.95	-3,344.62	-9,616.82	4,605.29	4,510.13	95.16	48.395		
12,300.00	7,054.17	7,116.37	7,074.12	153.02	36.05	-90.95	-3,344.62	-9,616.82	4,513.30	4,416.26	97.04	46.509		
12,400.00	7,053.94	7,116.37	7,074.12	155.81	36.05	-90.95	-3,344.62	-9,616.82	4,421.65	4,322.63	99.02	44.654		
12,500.00	7,053.71	7,116.37	7,074.12	158.60	36.05	-90.95	-3,344.62	-9,616.82	4,330.38	4,229.27	101.11	42.830		
12,600.00	7,053.48	7,116.38	7,074.13	161.40	36.05	-90.95	-3,344.62	-9,616.82	4,239.50	4,136.20	103.30	41.040		
12,700.00	7,053.25	7,116.38	7,074.13	164.19	36.05	-90.95	-3,344.62	-9,616.82	4,149.04	4,043.43	105.61	39.285		
12,800.00	7,053.02	7,116.38	7,074.13	166.99	36.05	-90.95	-3,344.62	-9,616.82	4,059.03	3,950.98	108.05	37.567		
12,900.00	7,052.79	7,116.39	7,074.14	169.79	36.05	-90.95	-3,344.62	-9,616.82	3,969.49	3,858.88	110.61	35.887		
13,000.00	7,052.56	7,116.39	7,074.14	172.59	36.05	-90.95	-3,344.62	-9,616.82	3,880.47	3,767.17	113.31	34.248		
13,100.00	7,052.33	7,116.40	7,074.15	175.40	36.05	-90.95	-3,344.62	-9,616.82	3,792.00	3,675.85	116.14	32.649		
13,200.00	7,052.10	7,116.40	7,074.15	178.20	36.05	-90.95	-3,344.62	-9,616.82	3,704.11	3,584.98	119.13	31.093		
13,300.00	7,051.87	7,116.40	7,074.15	181.01	36.05	-90.95	-3,344.62	-9,616.82	3,616.85	3,494.57	122.27	29.580		
13,400.00	7,051.64	7,116.41	7,074.16	183.82	36.05	-90.95	-3,344.62	-9,616.82	3,530.26	3,404.68	125.58	28.112		
13,500.00	7,051.41	7,116.41	7,074.16	186.63	36.05	-90.95	-3,344.62	-9,616.82	3,444.41	3,315.35	129.06	26.689		
13,600.00	7,051.18	7,116.41	7,074.16	189.44	36.05	-90.95	-3,344.62	-9,616.82	3,359.33	3,226.62	132.72	25.312		
13,700.00	7,050.95	7,116.42	7,074.17	192.25	36.05	-90.95	-3,344.62	-9,616.82	3,275.10	3,138.54	136.56	23.982		
13,800.00	7,050.72	7,116.42	7,074.17	195.07	36.05	-90.95	-3,344.62	-9,616.82	3,191.78	3,051.17	140.61	22.699		
13,900.00	7,050.49	7,116.43	7,074.18	197.88	36.05	-90.95	-3,344.62	-9,616.82	3,109.44	2,964.57	144.87	21.464		
14,000.00	7,050.26	7,116.43	7,074.18	200.70	36.05	-90.95	-3,344.62	-9,616.82	3,028.17	2,878.83	149.34	20.277		
14,100.00	7,050.03	7,116.43	7,074.18	203.52	36.05	-90.95	-3,344.62	-9,616.82	2,948.04	2,794.01	154.04	19.138		
14,200.00	7,049.80	7,116.44	7,074.19	206.34	36.05	-90.95	-3,344.62	-9,616.82	2,869.17	2,710.20	158.97	18.048		
14,300.00	7,049.56	7,116.44	7,074.19	209.16	36.05	-90.95	-3,344.62	-9,616.82	2,791.65	2,627.50	164.15	17.007		
14,400.00	7,049.33	7,116.45	7,074.20	211.98	36.05	-90.95	-3,344.62	-9,616.82	2,715.60	2,546.03	169.57	16.014		
14,500.00	7,049.10	7,116.45	7,074.20	214.80	36.05	-90.95	-3,344.62	-9,616.82	2,641.15	2,465.89	175.25	15.071		
14,600.00	7,048.87	7,116.45	7,074.20	217.63	36.05	-90.95	-3,344.62	-9,616.82	2,568.43	2,387.24	181.19	14.175		
14,700.00	7,048.64	7,116.46	7,074.21	220.45	36.05	-90.95	-3,344.62	-9,616.82	2,497.60	2,310.21	187.39	13.329		
14,800.00	7,048.41	7,116.46	7,074.21	223.28	36.05	-90.95	-3,344.62	-9,616.82	2,428.82	2,234.98	193.84	12.530		
14,900.00	7,048.18	7,116.47	7,074.22	226.10	36.05	-90.95	-3,344.62	-9,616.82	2,362.28	2,161.74	200.54	11.780		
14,979.18	7,048.00	7,116.47	7,074.22	228.34	36.05	-90.95	-3,344.62	-9,616.82	2,311.29	2,105.28	206.01	11.219 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 12N-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 12N-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						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	941.66	967.15	3.28	5.60	-107.77	-2,832.91	-8,841.08	9,334.10				
100.00	100.00	1,003.00	1,026.88	3.28	5.92	-107.84	-2,842.96	-8,831.36	9,323.86	9,314.70	9.16	1,018.099	
200.00	200.00	1,060.79	1,083.15	3.34	6.23	-107.92	-2,852.57	-8,822.41	9,314.07	9,304.58	9.50	980.875	
300.00	299.98	1,098.00	1,119.48	3.44	6.43	66.13	-2,858.51	-8,816.94	9,304.18	9,294.40	9.78	951.234	
400.00	399.84	1,139.47	1,160.05	3.59	6.65	66.29	-2,864.87	-8,811.19	9,293.54	9,283.40	10.13	917.299	
500.00	499.45	1,193.00	1,212.58	3.79	6.93	66.47	-2,872.63	-8,804.44	9,282.24	9,271.65	10.60	876.037	
600.00	598.70	1,228.10	1,247.06	4.03	7.12	66.68	-2,877.72	-8,800.23	9,270.11	9,259.09	11.01	841.904	
700.00	697.47	1,302.34	1,319.78	4.31	7.52	66.91	-2,889.52	-8,791.15	9,256.97	9,245.30	11.68	792.723	
800.00	795.62	1,379.00	1,394.91	4.64	7.94	67.17	-2,901.73	-8,781.98	9,242.75	9,230.35	12.40	745.120	
900.00	893.16	1,701.40	1,712.24	5.00	9.67	67.40	-2,943.63	-8,743.73	9,227.30	9,212.87	14.43	639.492	
1,000.00	990.60	1,757.00	1,766.95	5.38	9.97	67.42	-2,950.64	-8,736.69	9,209.94	9,194.84	15.09	610.242	
1,100.00	1,088.04	1,769.73	1,779.48	5.79	10.04	67.42	-2,952.28	-8,735.16	9,193.07	9,177.52	15.55	591.110	
1,200.00	1,185.48	1,832.30	1,841.03	6.22	10.39	67.44	-2,960.65	-8,727.70	9,176.81	9,160.52	16.30	563.098	
1,300.00	1,282.92	2,244.60	2,245.54	6.66	12.76	67.54	-3,016.07	-8,670.91	9,158.06	9,139.09	18.97	482.658	
1,400.00	1,380.36	2,306.96	2,306.82	7.10	13.11	67.56	-3,023.22	-8,661.86	9,138.82	9,119.08	19.74	462.885	
1,500.00	1,477.80	2,321.00	2,320.65	7.56	13.19	67.57	-3,024.69	-8,659.91	9,120.17	9,099.90	20.27	450.005	
1,600.00	1,575.24	2,383.00	2,381.73	8.03	13.53	67.60	-3,031.34	-8,651.65	9,101.97	9,080.92	21.05	432.496	
1,700.00	1,672.68	2,482.66	2,479.82	8.50	14.10	67.63	-3,043.47	-8,638.89	9,084.54	9,062.50	22.04	412.166	
1,800.00	1,770.12	2,575.01	2,570.46	8.98	14.63	67.66	-3,055.83	-8,626.28	9,066.67	9,043.66	23.01	393.976	
1,900.00	1,867.56	2,747.73	2,739.86	9.46	15.65	67.70	-3,079.38	-8,602.25	9,048.65	9,024.20	24.45	370.074	
2,000.00	1,965.00	2,840.71	2,830.59	9.95	16.23	67.70	-3,094.09	-8,588.24	9,030.14	9,004.67	25.47	354.518	
2,100.00	2,062.44	2,890.00	2,878.83	10.44	16.53	67.71	-3,101.25	-8,581.08	9,011.86	8,985.62	26.24	343.395	
2,200.00	2,159.88	2,941.51	2,929.37	10.93	16.83	67.73	-3,108.21	-8,574.03	8,994.11	8,967.09	27.02	332.922	
2,300.00	2,257.32	2,984.00	2,971.18	11.42	17.08	67.74	-3,113.66	-8,568.69	8,977.05	8,949.31	27.74	323.590	
2,400.00	2,354.76	3,059.27	3,045.17	11.92	17.52	67.76	-3,123.86	-8,559.42	8,960.47	8,931.81	28.65	312.737	
2,500.00	2,452.20	3,111.20	3,096.15	12.42	17.81	67.77	-3,131.40	-8,552.99	8,944.16	8,914.73	29.43	303.901	
2,600.00	2,549.64	3,169.00	3,153.18	12.92	18.14	67.79	-3,138.39	-8,546.72	8,928.50	8,898.26	30.24	295.249	
2,700.00	2,647.08	3,197.77	3,181.65	13.42	18.28	67.81	-3,141.43	-8,543.92	8,913.40	8,882.51	30.89	288.598	
2,800.00	2,744.52	3,262.00	3,245.28	13.93	18.62	67.85	-3,147.98	-8,538.15	8,898.96	8,867.26	31.71	280.679	
2,900.00	2,841.96	3,303.04	3,285.96	14.43	18.83	67.87	-3,152.22	-8,534.66	8,884.99	8,852.58	32.41	274.113	
3,000.00	2,939.40	3,371.99	3,354.20	14.94	19.18	67.90	-3,160.07	-8,528.78	8,871.42	8,838.16	33.26	266.714	
3,100.00	3,036.84	3,100.00	3,495.97	15.44	17.79	67.98	-3,175.51	-8,516.90	8,857.96	8,825.58	32.38	273.591	
3,200.00	3,134.28	3,598.99	3,579.04	15.95	20.35	68.02	-3,184.60	-8,509.40	8,843.90	8,808.49	35.40	249.794	
3,300.00	3,231.72	4,082.36	4,054.47	16.46	23.12	68.17	-3,249.46	-8,453.40	8,827.94	8,789.45	38.50	229.319	
3,400.00	3,329.16	4,112.00	4,083.51	16.97	23.30	68.18	-3,253.72	-8,449.29	8,810.28	8,771.09	39.19	224.811	
3,500.00	3,426.60	4,176.52	4,146.89	17.48	23.68	68.20	-3,262.33	-8,440.92	8,793.13	8,753.07	40.06	219.516	
3,600.00	3,524.04	4,233.44	4,202.95	17.99	24.01	68.22	-3,269.49	-8,434.05	8,776.53	8,735.65	40.89	214.653	
3,700.00	3,621.48	4,301.00	4,269.26	18.50	24.40	68.23	-3,279.35	-8,425.74	8,760.32	8,718.55	41.78	209.686	
3,800.00	3,718.92	4,344.78	4,312.18	19.01	24.66	68.24	-3,286.16	-8,420.46	8,744.60	8,702.06	42.55	205.537	
3,900.00	3,816.36	4,396.00	4,362.53	19.52	24.96	68.25	-3,293.68	-8,414.78	8,729.51	8,686.15	43.35	201.359	
4,000.00	3,913.80	4,450.67	4,416.36	20.03	25.27	68.27	-3,301.33	-8,409.12	8,714.94	8,670.77	44.17	197.313	
4,100.00	4,011.24	4,491.00	4,456.11	20.55	25.50	68.28	-3,306.83	-8,405.10	8,700.81	8,655.90	44.91	193.754	
4,200.00	4,108.68	4,550.66	4,515.01	21.06	25.82	68.31	-3,314.62	-8,399.61	8,687.20	8,641.46	45.74	189.941	
4,300.00	4,206.12	4,585.00	4,548.97	21.57	26.01	68.32	-3,318.85	-8,396.77	8,674.28	8,627.84	46.43	186.806	
4,400.00	4,303.56	4,628.44	4,592.00	22.09	26.23	68.35	-3,323.89	-8,393.58	8,662.04	8,614.87	47.17	183.654	
4,500.00	4,401.00	4,680.00	4,643.17	22.60	26.49	68.38	-3,329.33	-8,390.47	8,650.57	8,602.63	47.93	180.467	
4,600.00	4,498.44	4,680.00	4,643.17	23.11	26.49	68.38	-3,329.33	-8,390.47	8,639.82	8,591.37	48.45	178.333	
4,700.00	4,595.88	4,742.09	4,704.90	23.63	26.78	68.42	-3,335.36	-8,387.57	8,629.65	8,580.41	49.25	175.226	
4,800.00	4,693.32	4,921.54	4,883.66	24.14	27.58	68.57	-3,349.15	-8,380.27	8,619.39	8,568.83	50.56	170.483	
4,900.00	4,790.76	4,964.00	4,926.00	24.66	27.76	68.61	-3,351.79	-8,378.61	8,609.01	8,557.75	51.25	167.965	
5,000.00	4,888.20	5,027.26	4,989.13	25.17	28.03	68.67	-3,355.49	-8,376.56	8,599.14	8,547.11	52.03	165.269	
5,100.00	4,985.64	5,091.11	5,052.88	25.69	28.28	68.74	-3,358.60	-8,375.08	8,589.85	8,537.05	52.80	162.700	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,171.74	5,133.49	26.20	28.58	68.84	-3,359.66	-8,374.18	8,580.81	8,527.21	53.60	160.088		
5,300.00	5,180.52	5,237.72	5,199.47	26.72	28.80	68.94	-3,359.60	-8,373.92	8,572.11	8,517.78	54.33	157.779		
5,400.00	5,277.96	5,302.52	5,264.27	27.24	29.01	69.03	-3,359.61	-8,373.89	8,563.83	8,508.78	55.05	155.556		
5,500.00	5,375.40	5,376.67	5,338.42	27.75	29.25	69.13	-3,359.89	-8,374.08	8,555.96	8,500.15	55.81	153.308		
5,600.00	5,472.84	5,466.77	5,428.52	28.27	29.55	69.26	-3,360.35	-8,374.40	8,548.28	8,491.65	56.62	150.968		
5,700.00	5,570.28	5,556.92	5,518.66	28.79	29.85	69.38	-3,360.89	-8,374.78	8,540.73	8,483.29	57.44	148.694		
5,800.00	5,667.72	5,652.32	5,614.06	29.30	30.16	69.51	-3,361.54	-8,375.24	8,533.30	8,475.03	58.27	146.444		
5,900.00	5,765.16	5,761.18	5,722.92	29.82	30.52	69.66	-3,362.07	-8,375.73	8,525.86	8,466.71	59.14	144.155		
6,000.00	5,862.60	5,869.90	5,831.63	30.34	30.87	69.82	-3,362.28	-8,376.16	8,518.33	8,458.31	60.02	141.931		
6,100.00	5,960.05	5,976.53	5,938.26	30.85	31.23	69.97	-3,362.36	-8,376.48	8,510.74	8,449.84	60.90	139.756		
6,200.00	6,057.49	6,082.43	6,044.16	31.37	31.60	70.12	-3,362.89	-8,376.57	8,503.10	8,441.32	61.78	137.634		
6,300.00	6,154.93	6,189.15	6,150.88	31.89	31.97	70.26	-3,363.93	-8,376.42	8,495.41	8,432.74	62.67	135.561		
6,400.00	6,252.37	6,337.64	6,299.35	32.40	32.53	70.46	-3,365.73	-8,375.58	8,487.42	8,423.67	63.75	133.135		
6,500.00	6,349.81	6,486.09	6,447.79	32.92	33.10	70.66	-3,367.60	-8,373.81	8,478.89	8,414.06	64.83	130.785		
6,600.00	6,447.25	6,555.25	6,516.93	33.44	33.37	70.75	-3,368.70	-8,372.89	8,470.33	8,404.71	65.62	129.077		
6,700.00	6,544.28	6,631.96	6,593.62	33.95	33.68	41.83	-3,370.26	-8,371.95	8,456.34	8,389.91	66.43	127.289		
6,800.00	6,638.86	6,706.77	6,668.40	34.44	33.97	22.53	-3,372.11	-8,371.15	8,427.83	8,360.63	67.20	125.411		
6,900.00	6,728.65	6,785.14	6,746.73	34.89	34.28	11.94	-3,374.37	-8,370.40	8,385.30	8,317.36	67.94	123.430		
7,000.00	6,811.45	6,870.57	6,832.13	35.29	34.62	4.96	-3,376.62	-8,369.66	8,329.60	8,260.96	68.65	121.343		
7,100.00	6,885.21	6,946.48	6,908.02	35.66	34.92	-0.82	-3,378.31	-8,369.06	8,262.06	8,192.81	69.25	119.299		
7,200.00	6,948.11	7,011.03	6,972.56	35.99	35.18	-6.94	-3,379.52	-8,368.58	8,184.34	8,114.59	69.75	117.338		
7,300.00	6,998.62	7,075.37	7,036.88	36.30	35.43	-15.18	-3,380.56	-8,368.09	8,098.36	8,028.19	70.17	115.413		
7,400.00	7,035.48	7,128.34	7,089.85	36.65	35.64	-29.02	-3,381.40	-8,367.57	8,006.20	7,935.73	70.47	113.613		
7,500.00	7,057.79	7,159.39	7,120.89	37.13	35.77	-55.22	-3,381.90	-8,367.22	7,910.23	7,839.61	70.62	112.011		
7,600.00	7,065.00	7,168.13	7,129.63	37.84	35.80	-92.57	-3,382.03	-8,367.11	7,812.90	7,742.27	70.64	110.605		
7,700.00	7,064.77	7,166.02	7,127.52	38.82	35.79	-92.50	-3,382.00	-8,367.13	7,715.73	7,645.13	70.61	109.279		
7,800.00	7,064.54	7,163.94	7,125.44	40.06	35.79	-92.44	-3,381.97	-8,367.16	7,618.64	7,548.05	70.59	107.929		
7,900.00	7,064.31	7,161.88	7,123.38	41.52	35.78	-92.37	-3,381.93	-8,367.18	7,521.62	7,451.03	70.59	106.555		
8,000.00	7,064.08	7,159.85	7,121.35	43.14	35.77	-92.31	-3,381.90	-8,367.21	7,424.67	7,354.07	70.61	105.154		
8,100.00	7,063.85	7,157.83	7,119.33	44.90	35.76	-92.25	-3,381.87	-8,367.23	7,327.81	7,257.17	70.65	103.727		
8,200.00	7,063.62	7,155.84	7,117.35	46.78	35.75	-92.18	-3,381.84	-8,367.26	7,231.04	7,160.33	70.70	102.272		
8,300.00	7,063.39	7,153.88	7,115.38	48.76	35.75	-92.12	-3,381.81	-8,367.28	7,134.35	7,063.57	70.78	100.790		
8,400.00	7,063.16	7,151.93	7,113.43	50.83	35.74	-92.06	-3,381.78	-8,367.30	7,037.76	6,966.87	70.89	99.279		
8,500.00	7,062.93	7,150.01	7,111.51	52.97	35.73	-92.00	-3,381.75	-8,367.33	6,941.26	6,870.24	71.02	97.739		
8,600.00	7,062.70	7,148.11	7,109.61	55.18	35.72	-91.94	-3,381.72	-8,367.35	6,844.86	6,773.68	71.18	96.169		
8,700.00	7,062.47	7,146.22	7,107.73	57.46	35.71	-91.88	-3,381.69	-8,367.37	6,748.56	6,677.20	71.36	94.569		
8,800.00	7,062.24	7,144.36	7,105.87	59.78	35.71	-91.82	-3,381.66	-8,367.39	6,652.38	6,580.80	71.58	92.940		
8,900.00	7,062.01	7,142.52	7,104.03	62.14	35.70	-91.77	-3,381.63	-8,367.41	6,556.31	6,484.48	71.83	91.280		
9,000.00	7,061.78	7,140.70	7,102.21	64.55	35.69	-91.71	-3,381.60	-8,367.43	6,460.35	6,388.24	72.11	89.590		
9,100.00	7,061.55	7,138.90	7,100.41	67.00	35.69	-91.65	-3,381.57	-8,367.45	6,364.53	6,292.10	72.43	87.871		
9,200.00	7,061.31	7,137.12	7,098.62	69.47	35.68	-91.60	-3,381.54	-8,367.47	6,268.83	6,196.04	72.79	86.123		
9,300.00	7,061.08	7,135.36	7,096.86	71.98	35.67	-91.54	-3,381.51	-8,367.49	6,173.26	6,100.08	73.19	84.347		
9,400.00	7,060.85	7,133.61	7,095.12	74.51	35.66	-91.49	-3,381.49	-8,367.51	6,077.84	6,004.21	73.63	82.544		
9,500.00	7,060.62	7,131.89	7,093.39	77.06	35.66	-91.44	-3,381.46	-8,367.53	5,982.57	5,908.45	74.12	80.714		
9,600.00	7,060.39	7,130.18	7,091.69	79.64	35.65	-91.38	-3,381.43	-8,367.55	5,887.46	5,812.80	74.66	78.860		
9,700.00	7,060.16	7,128.49	7,090.00	82.23	35.64	-91.33	-3,381.40	-8,367.57	5,792.51	5,717.27	75.24	76.983		
9,800.00	7,059.93	7,126.82	7,088.32	84.84	35.64	-91.28	-3,381.38	-8,367.59	5,697.73	5,621.85	75.88	75.085		
9,900.00	7,059.70	7,125.16	7,086.67	87.47	35.63	-91.22	-3,381.35	-8,367.61	5,603.13	5,526.56	76.58	73.168		
10,000.00	7,059.47	7,123.52	7,085.03	90.11	35.62	-91.17	-3,381.33	-8,367.62	5,508.73	5,431.40	77.33	71.235		
10,100.00	7,059.24	7,121.90	7,083.41	92.76	35.62	-91.12	-3,381.30	-8,367.64	5,414.52	5,336.38	78.15	69.287		
10,200.00	7,059.01	7,120.30	7,081.80	95.42	35.61	-91.07	-3,381.27	-8,367.66	5,320.53	5,241.50	79.02	67.328		
10,300.00	7,058.78	7,118.71	7,080.22	98.10	35.61	-91.02	-3,381.25	-8,367.67	5,226.76	5,146.79	79.97	65.360		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,117.13	7,078.64	100.79	35.60	-90.97	-3,381.22	-8,367.69	5,133.22	5,052.24	80.98	63.387		
10,500.00	7,058.32	7,115.58	7,077.09	103.48	35.59	-90.93	-3,381.20	-8,367.71	5,039.93	4,957.86	82.07	61.411		
10,600.00	7,058.09	7,114.03	7,075.54	106.19	35.59	-90.88	-3,381.17	-8,367.72	4,946.90	4,863.67	83.23	59.435		
10,700.00	7,057.86	7,112.51	7,074.02	108.90	35.58	-90.83	-3,381.15	-8,367.74	4,854.15	4,769.68	84.47	57.463		
10,800.00	7,057.63	7,111.00	7,072.51	111.62	35.57	-90.78	-3,381.13	-8,367.75	4,761.69	4,675.89	85.80	55.499		
10,900.00	7,057.40	7,109.50	7,071.01	114.35	35.57	-90.74	-3,381.10	-8,367.77	4,669.54	4,582.33	87.21	53.544		
11,000.00	7,057.17	7,108.02	7,069.53	117.08	35.56	-90.69	-3,381.08	-8,367.78	4,577.73	4,489.02	88.71	51.603		
11,100.00	7,056.94	7,106.55	7,068.06	119.82	35.56	-90.64	-3,381.06	-8,367.80	4,486.26	4,395.95	90.31	49.679		
11,200.00	7,056.71	7,105.10	7,066.61	122.56	35.55	-90.60	-3,381.03	-8,367.81	4,395.16	4,303.16	92.00	47.774		
11,300.00	7,056.48	7,103.66	7,065.17	125.31	35.55	-90.55	-3,381.01	-8,367.83	4,304.46	4,210.66	93.79	45.893		
11,400.00	7,056.25	7,102.23	7,063.74	128.06	35.54	-90.51	-3,380.99	-8,367.84	4,214.17	4,118.48	95.70	44.037		
11,500.00	7,056.02	7,100.82	7,062.33	130.82	35.53	-90.46	-3,380.96	-8,367.85	4,124.34	4,026.63	97.71	42.209		
11,600.00	7,055.79	7,099.42	7,060.93	133.59	35.53	-90.42	-3,380.94	-8,367.87	4,034.98	3,935.14	99.84	40.413		
11,700.00	7,055.55	7,098.04	7,059.55	136.35	35.52	-90.38	-3,380.92	-8,367.88	3,946.14	3,844.04	102.10	38.650		
11,800.00	7,055.32	7,096.66	7,058.18	139.12	35.52	-90.33	-3,380.90	-8,367.89	3,857.84	3,753.36	104.48	36.924		
11,900.00	7,055.09	7,095.30	7,056.82	141.90	35.51	-90.29	-3,380.88	-8,367.91	3,770.12	3,663.12	107.00	35.236		
12,000.00	7,054.86	7,093.96	7,055.47	144.67	35.51	-90.25	-3,380.86	-8,367.92	3,683.03	3,573.38	109.65	33.588		
12,100.00	7,054.63	7,092.62	7,054.14	147.45	35.50	-90.21	-3,380.83	-8,367.93	3,596.61	3,484.15	112.46	31.982		
12,200.00	7,054.40	7,091.30	7,052.81	150.24	35.50	-90.17	-3,380.81	-8,367.94	3,510.91	3,395.50	115.41	30.421		
12,300.00	7,054.17	7,089.99	7,051.51	153.02	35.49	-90.13	-3,380.79	-8,367.96	3,425.99	3,307.46	118.53	28.905		
12,400.00	7,053.94	7,088.69	7,050.21	155.81	35.49	-90.08	-3,380.77	-8,367.97	3,341.90	3,220.09	121.81	27.435		
12,500.00	7,053.71	7,087.41	7,048.92	158.60	35.48	-90.04	-3,380.75	-8,367.98	3,258.70	3,133.44	125.27	26.014		
12,600.00	7,053.48	7,086.13	7,047.65	161.40	35.48	-90.00	-3,380.73	-8,367.99	3,176.48	3,047.57	128.91	24.642		
12,700.00	7,053.25	7,084.87	7,046.38	164.19	35.47	-89.97	-3,380.71	-8,368.00	3,095.30	2,962.57	132.73	23.319		
12,800.00	7,053.02	7,083.62	7,045.13	166.99	35.47	-89.93	-3,380.69	-8,368.02	3,015.26	2,878.50	136.76	22.048		
12,900.00	7,052.79	7,082.38	7,043.89	169.79	35.46	-89.89	-3,380.67	-8,368.03	2,936.44	2,795.45	140.98	20.828		
13,000.00	7,052.56	7,081.15	7,042.66	172.59	35.46	-89.85	-3,380.65	-8,368.04	2,858.94	2,713.52	145.42	19.660		
13,100.00	7,052.33	7,079.93	7,041.44	175.40	35.45	-89.81	-3,380.63	-8,368.05	2,782.87	2,632.81	150.06	18.545		
13,200.00	7,052.10	7,078.72	7,040.24	178.20	35.45	-89.77	-3,380.61	-8,368.06	2,708.37	2,553.44	154.93	17.482		
13,300.00	7,051.87	7,077.52	7,039.04	181.01	35.44	-89.74	-3,380.59	-8,368.07	2,635.55	2,475.54	160.01	16.471		
13,400.00	7,051.64	7,076.34	7,037.85	183.82	35.44	-89.70	-3,380.57	-8,368.08	2,564.56	2,399.25	165.31	15.514		
13,500.00	7,051.41	7,075.16	7,036.68	186.63	35.43	-89.66	-3,380.56	-8,368.09	2,495.56	2,324.74	170.83	14.609		
13,600.00	7,051.18	7,074.59	7,036.10	189.44	35.43	-89.64	-3,380.50	-8,368.14	2,428.71	2,252.17	176.55	13.757		
13,700.00	7,050.95	7,073.62	7,035.14	192.25	35.42	-89.61	-3,380.49	-8,368.14	2,364.21	2,181.74	182.47	12.957		
13,800.00	7,050.72	7,072.66	7,034.18	195.07	35.42	-89.58	-3,380.48	-8,368.15	2,302.25	2,113.67	188.57	12.209		
13,900.00	7,050.49	7,071.69	7,033.21	197.88	35.42	-89.55	-3,380.46	-8,368.16	2,243.03	2,048.19	194.84	11.512		
14,000.00	7,050.26	7,070.72	7,032.24	200.70	35.41	-89.52	-3,380.45	-8,368.16	2,186.78	1,985.55	201.23	10.867		
14,100.00	7,050.03	7,069.75	7,031.27	203.52	35.41	-89.49	-3,380.44	-8,368.17	2,133.74	1,926.02	207.72	10.272		
14,200.00	7,049.80	7,068.78	7,030.30	206.34	35.41	-89.46	-3,380.42	-8,368.18	2,084.15	1,869.90	214.25	9.727		
14,300.00	7,049.56	7,067.81	7,029.33	209.16	35.40	-89.43	-3,380.41	-8,368.18	2,038.27	1,817.48	220.78	9.232		
14,400.00	7,049.33	7,066.83	7,028.35	211.98	35.40	-89.40	-3,380.39	-8,368.19	1,996.34	1,769.09	227.24	8.785		
14,500.00	7,049.10	7,065.86	7,027.38	214.80	35.39	-89.37	-3,380.38	-8,368.20	1,958.62	1,725.05	233.57	8.386		
14,600.00	7,048.87	7,064.88	7,026.40	217.63	35.39	-89.34	-3,380.37	-8,368.20	1,925.36	1,685.69	239.67	8.033		
14,700.00	7,048.64	7,063.90	7,025.42	220.45	35.39	-89.31	-3,380.35	-8,368.21	1,896.80	1,651.31	245.49	7.727		
14,800.00	7,048.41	7,062.92	7,024.44	223.28	35.38	-89.28	-3,380.34	-8,368.22	1,873.14	1,622.22	250.92	7.465		
14,900.00	7,048.18	7,061.93	7,023.45	226.10	35.38	-89.25	-3,380.32	-8,368.22	1,854.59	1,598.69	255.90	7.247		
14,979.18	7,048.00	7,061.15	7,022.67	228.34	35.38	-89.22	-3,380.31	-8,368.23	1,843.61	1,584.15	259.46	7.105 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-132.49	-3,086.16	-3,369.53	4,569.71					
100.00	100.00	36.00	100.00	3.28	3.34	-132.49	-3,086.16	-3,369.53	4,569.26	4,562.63	6.62	689.765		
200.00	200.00	136.00	200.00	3.34	4.45	-132.49	-3,086.16	-3,369.53	4,569.26	4,561.47	7.78	587.037		
300.00	299.98	235.98	299.98	3.44	7.27	41.46	-3,086.16	-3,369.53	4,567.95	4,557.24	10.71	426.362		
400.00	399.84	335.84	399.84	3.59	10.50	41.55	-3,086.16	-3,369.53	4,564.03	4,549.93	14.09	323.820		
500.00	499.45	435.45	499.45	3.79	13.85	41.71	-3,086.16	-3,369.53	4,557.50	4,539.86	17.64	258.365		
600.00	598.70	534.70	598.70	4.03	17.24	41.94	-3,086.16	-3,369.53	4,548.39	4,527.12	21.27	213.862		
700.00	697.47	633.47	697.47	4.31	20.63	42.23	-3,086.16	-3,369.53	4,536.72	4,511.77	24.94	181.877		
800.00	795.62	731.62	795.62	4.64	24.02	42.58	-3,086.16	-3,369.53	4,522.51	4,493.86	28.65	157.863		
900.00	893.16	829.16	893.16	5.00	27.40	42.88	-3,086.16	-3,369.53	4,506.12	4,473.75	32.37	139.204		
1,000.00	990.60	926.60	990.60	5.38	30.78	43.07	-3,086.16	-3,369.53	4,489.48	4,453.36	36.11	124.314		
1,100.00	1,088.04	1,024.04	1,088.04	5.79	34.16	43.27	-3,086.16	-3,369.53	4,472.88	4,433.00	39.88	112.155		
1,200.00	1,185.48	1,121.48	1,185.48	6.22	37.55	43.46	-3,086.16	-3,369.53	4,456.34	4,412.67	43.67	102.051		
1,300.00	1,282.92	1,218.92	1,282.92	6.66	40.94	43.66	-3,086.16	-3,369.53	4,439.85	4,392.38	47.47	93.530		
1,400.00	1,380.36	1,316.36	1,380.36	7.10	44.33	43.86	-3,086.16	-3,369.53	4,423.41	4,372.13	51.29	86.252		
1,500.00	1,477.80	1,413.80	1,477.80	7.56	47.72	44.06	-3,086.16	-3,369.53	4,407.03	4,351.92	55.11	79.967		
1,600.00	1,575.24	1,511.24	1,575.24	8.03	51.12	44.26	-3,086.16	-3,369.53	4,390.70	4,331.75	58.95	74.488		
1,700.00	1,672.68	1,608.68	1,672.68	8.50	54.51	44.46	-3,086.16	-3,369.53	4,374.42	4,311.64	62.79	69.671		
1,800.00	1,770.12	1,706.12	1,770.12	8.98	57.91	44.67	-3,086.16	-3,369.53	4,358.20	4,291.57	66.64	65.404		
1,900.00	1,867.56	1,803.56	1,867.56	9.46	61.30	44.87	-3,086.16	-3,369.53	4,342.04	4,271.55	70.49	61.599		
2,000.00	1,965.00	1,901.00	1,965.00	9.95	64.70	45.08	-3,086.16	-3,369.53	4,325.93	4,251.58	74.35	58.185		
2,100.00	2,062.44	2,001.56	2,062.44	10.44	68.21	45.29	-3,086.16	-3,369.53	4,309.88	4,231.56	78.32	55.030		
2,200.00	2,159.88	2,104.12	2,159.88	10.93	71.78	45.50	-3,086.16	-3,369.53	4,293.89	4,211.52	82.36	52.133		
2,300.00	2,257.32	2,206.68	2,257.32	11.42	75.36	45.71	-3,086.16	-3,369.53	4,277.95	4,191.54	86.41	49.507		
2,400.00	2,354.76	2,309.24	2,354.76	11.92	78.94	45.92	-3,086.16	-3,369.53	4,262.08	4,171.61	90.46	47.114		
2,500.00	2,452.20	2,388.20	2,452.20	12.42	81.69	46.14	-3,086.16	-3,369.53	4,246.26	4,152.57	94.69	45.321		
2,600.00	2,549.64	2,485.64	2,549.64	12.92	85.09	46.36	-3,086.16	-3,369.53	4,230.50	4,132.93	97.57	43.358		
2,700.00	2,647.08	2,583.08	2,647.08	13.42	88.49	46.57	-3,086.16	-3,369.53	4,214.81	4,113.36	101.45	41.545		
2,800.00	2,744.52	2,680.52	2,744.52	13.93	91.89	46.79	-3,086.16	-3,369.53	4,199.17	4,093.84	105.33	39.866		
2,900.00	2,841.96	2,777.96	2,841.96	14.43	95.29	47.02	-3,086.16	-3,369.53	4,183.60	4,074.39	109.22	38.306		
3,000.00	2,939.40	2,875.40	2,939.40	14.94	98.69	47.24	-3,086.16	-3,369.53	4,168.10	4,055.00	113.10	36.853		
3,100.00	3,036.84	2,972.84	3,036.84	15.44	102.09	47.46	-3,086.16	-3,369.53	4,152.65	4,035.66	116.99	35.497		
3,200.00	3,134.28	3,070.28	3,134.28	15.95	105.49	47.69	-3,086.16	-3,369.53	4,137.27	4,016.40	120.88	34.228		
3,300.00	3,231.72	3,167.72	3,231.72	16.46	108.89	47.92	-3,086.16	-3,369.53	4,121.96	3,997.19	124.76	33.038		
3,400.00	3,329.16	3,265.16	3,329.16	16.97	112.29	48.15	-3,086.16	-3,369.53	4,106.71	3,978.05	128.66	31.920		
3,500.00	3,426.60	3,362.60	3,426.60	17.48	115.69	48.38	-3,086.16	-3,369.53	4,091.53	3,958.98	132.55	30.868		
3,600.00	3,524.04	3,460.04	3,524.04	17.99	119.09	48.61	-3,086.16	-3,369.53	4,076.41	3,939.97	136.44	29.877		
3,700.00	3,621.48	3,557.48	3,621.48	18.50	122.49	48.85	-3,086.16	-3,369.53	4,061.37	3,921.03	140.33	28.941		
3,800.00	3,718.92	3,654.92	3,718.92	19.01	125.89	49.08	-3,086.16	-3,369.53	4,046.39	3,902.16	144.23	28.055		
3,900.00	3,816.36	3,752.36	3,816.36	19.52	129.29	49.32	-3,086.16	-3,369.53	4,031.48	3,883.36	148.13	27.217		
4,000.00	3,913.80	3,849.80	3,913.80	20.03	132.69	49.56	-3,086.16	-3,369.53	4,016.65	3,864.62	152.02	26.421		
4,100.00	4,011.24	3,947.24	4,011.24	20.55	136.09	49.80	-3,086.16	-3,369.53	4,001.88	3,845.96	155.92	25.666		
4,200.00	4,108.68	4,044.68	4,108.68	21.06	139.49	50.04	-3,086.16	-3,369.53	3,987.19	3,827.37	159.82	24.948		
4,300.00	4,206.12	4,142.12	4,206.12	21.57	142.89	50.29	-3,086.16	-3,369.53	3,972.57	3,808.85	163.72	24.264		
4,400.00	4,303.56	4,239.56	4,303.56	22.09	146.29	50.53	-3,086.16	-3,369.53	3,958.02	3,790.40	167.62	23.613		
4,500.00	4,401.00	4,337.00	4,401.00	22.60	149.70	50.78	-3,086.16	-3,369.53	3,943.55	3,772.02	171.52	22.991		
4,600.00	4,498.44	4,434.44	4,498.44	23.11	153.10	51.03	-3,086.16	-3,369.53	3,929.15	3,753.72	175.43	22.398		
4,700.00	4,595.88	4,531.88	4,595.88	23.63	156.50	51.28	-3,086.16	-3,369.53	3,914.83	3,735.50	179.33	21.830		
4,800.00	4,693.32	4,629.32	4,693.32	24.14	159.90	51.54	-3,086.16	-3,369.53	3,900.59	3,717.35	183.23	21.287		
4,900.00	4,790.76	4,726.76	4,790.76	24.66	163.30	51.79	-3,086.16	-3,369.53	3,886.42	3,699.28	187.14	20.768		
5,000.00	4,888.20	4,824.20	4,888.20	25.17	166.70	52.05	-3,086.16	-3,369.53	3,872.33	3,681.29	191.04	20.269		
5,100.00	4,985.64	4,921.64	4,985.64	25.69	170.10	52.31	-3,086.16	-3,369.53	3,858.33	3,663.37	194.95	19.791		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,019.08	5,083.08	26.20	173.50	52.57	-3,086.16	-3,369.53	3,844.40	3,645.54	198.86	19.332		
5,300.00	5,180.52	5,116.52	5,180.52	26.72	176.90	52.83	-3,086.16	-3,369.53	3,830.55	3,627.79	202.77	18.892		
5,400.00	5,277.96	5,213.96	5,277.96	27.24	180.30	53.10	-3,086.16	-3,369.53	3,816.79	3,610.11	206.67	18.468		
5,500.00	5,375.40	5,311.40	5,375.40	27.75	183.71	53.36	-3,086.16	-3,369.53	3,803.11	3,592.52	210.58	18.060		
5,600.00	5,472.84	5,408.84	5,472.84	28.27	187.11	53.63	-3,086.16	-3,369.53	3,789.51	3,575.02	214.49	17.667		
5,700.00	5,570.28	5,506.28	5,570.28	28.79	190.51	53.90	-3,086.16	-3,369.53	3,776.00	3,557.59	218.40	17.289		
5,800.00	5,667.72	5,603.72	5,667.72	29.30	193.91	54.18	-3,086.16	-3,369.53	3,762.57	3,540.26	222.32	16.924		
5,900.00	5,765.16	5,701.16	5,765.16	29.82	197.31	54.45	-3,086.16	-3,369.53	3,749.23	3,523.01	226.23	16.573		
6,000.00	5,862.60	5,801.40	5,862.60	30.34	200.81	54.72	-3,086.16	-3,369.53	3,735.98	3,505.74	230.24	16.227		
6,100.00	5,960.05	5,903.96	5,960.05	30.85	204.39	55.00	-3,086.16	-3,369.53	3,722.82	3,488.49	234.33	15.887		
6,200.00	6,057.49	6,006.51	6,057.49	31.37	207.97	55.28	-3,086.16	-3,369.53	3,709.74	3,471.32	238.42	15.560		
6,300.00	6,154.93	6,109.07	6,154.93	31.89	211.55	55.56	-3,086.16	-3,369.53	3,696.76	3,454.25	242.52	15.243		
6,400.00	6,252.37	6,188.37	6,252.37	32.40	214.32	55.85	-3,086.16	-3,369.53	3,683.87	3,438.07	245.80	14.987		
6,500.00	6,349.81	6,285.81	6,349.81	32.92	217.72	56.13	-3,086.16	-3,369.53	3,671.07	3,421.36	249.71	14.701		
6,600.00	6,447.25	6,383.25	6,447.25	33.44	221.12	56.42	-3,086.16	-3,369.53	3,658.36	3,404.73	253.63	14.424		
6,700.00	6,544.28	6,480.28	6,544.28	33.95	224.51	56.72	-3,086.16	-3,369.53	3,645.77	3,388.05	257.52	14.137		
6,800.00	6,638.86	6,574.86	6,638.86	34.44	227.81	57.02	-3,086.16	-3,369.53	3,633.28	3,371.21	261.28	13.815		
6,900.00	6,728.65	6,664.65	6,728.65	34.89	230.94	57.32	-3,086.16	-3,369.53	3,620.79	3,354.32	264.82	13.465		
7,000.00	6,814.45	6,747.45	6,814.45	35.29	233.83	57.62	-3,086.16	-3,369.53	3,608.30	3,337.33	268.05	13.096		
7,100.00	6,885.21	6,821.21	6,885.21	35.66	236.41	57.92	-3,086.16	-3,369.53	3,595.81	3,320.24	270.90	12.716		
7,200.00	6,948.11	6,884.11	6,948.11	35.99	238.60	58.22	-3,086.16	-3,369.53	3,583.32	3,303.15	273.30	12.333		
7,300.00	6,998.62	6,934.62	6,998.62	36.30	240.36	58.52	-3,086.16	-3,369.53	3,570.83	3,286.06	275.20	11.955		
7,400.00	7,035.48	6,971.48	7,035.48	36.65	241.65	58.82	-3,086.16	-3,369.53	3,558.34	3,268.97	276.58	11.588		
7,500.00	7,057.79	7,006.21	7,057.79	37.13	242.86	59.12	-3,086.16	-3,369.53	3,545.85	3,251.88	277.86	11.222		
7,600.00	7,065.00	7,010.00	7,065.00	37.84	242.68	59.42	-3,086.16	-3,369.53	3,533.36	3,234.79	277.76	10.914		
7,700.00	7,064.77	7,009.77	7,064.77	38.82	242.67	59.72	-3,086.16	-3,369.53	3,520.87	3,217.70	277.90	10.602		
7,800.00	7,064.54	7,009.54	7,064.54	40.06	242.67	59.92	-3,086.16	-3,369.53	3,508.38	3,200.61	278.15	10.290		
7,900.00	7,064.31	7,009.31	7,064.31	41.52	242.66	60.22	-3,086.16	-3,369.53	3,495.89	3,183.52	278.52	9.978		
8,000.00	7,064.08	7,009.08	7,064.08	43.14	242.65	60.52	-3,086.16	-3,369.53	3,483.40	3,166.43	279.04	9.665		
8,100.00	7,063.85	7,008.85	7,063.85	44.90	242.65	60.82	-3,086.16	-3,369.53	3,470.91	3,149.34	279.71	9.353		
8,200.00	7,063.62	7,008.62	7,063.62	46.78	242.66	61.12	-3,086.16	-3,369.53	3,458.42	3,132.25	280.57	9.042		
8,300.00	7,063.39	7,008.39	7,063.39	48.76	242.67	61.42	-3,086.16	-3,369.53	3,445.93	3,115.16	281.62	8.731		
8,400.00	7,063.16	7,008.16	7,063.16	50.83	242.68	61.72	-3,086.16	-3,369.53	3,433.44	3,098.07	282.88	8.423		
8,500.00	7,062.93	7,007.93	7,062.93	52.97	242.68	62.02	-3,086.16	-3,369.53	3,420.95	3,080.98	284.35	8.118		
8,600.00	7,062.70	7,007.70	7,062.70	55.18	242.69	62.32	-3,086.16	-3,369.53	3,408.46	3,063.89	286.07	7.816		
8,700.00	7,062.47	7,007.47	7,062.47	57.46	242.70	62.62	-3,086.16	-3,369.53	3,395.97	3,046.80	288.02	7.519		
8,800.00	7,062.24	7,007.24	7,062.24	59.78	242.71	62.92	-3,086.16	-3,369.53	3,383.48	3,029.71	290.23	7.228		
8,900.00	7,062.01	7,007.01	7,062.01	62.14	242.72	63.22	-3,086.16	-3,369.53	3,370.99	3,012.62	292.70	6.945		
9,000.00	7,061.78	7,006.78	7,061.78	64.55	242.72	63.52	-3,086.16	-3,369.53	3,358.50	3,000.00	295.42	6.670		
9,100.00	7,061.55	7,006.55	7,061.55	67.00	242.73	63.82	-3,086.16	-3,369.53	3,346.01	2,987.41	298.39	6.406		
9,200.00	7,061.31	7,006.31	7,061.31	69.47	242.74	64.12	-3,086.16	-3,369.53	3,333.52	2,974.92	301.59	6.154		
9,300.00	7,061.08	7,006.08	7,061.08	71.98	242.75	64.42	-3,086.16	-3,369.53	3,321.03	2,962.43	305.00	5.916		
9,400.00	7,060.85	7,005.85	7,060.85	74.51	242.76	64.72	-3,086.16	-3,369.53	3,308.54	2,949.94	308.60	5.693		
9,500.00	7,060.62	7,005.62	7,060.62	77.06	242.77	65.02	-3,086.16	-3,369.53	3,296.05	2,937.45	312.35	5.487		
9,600.00	7,060.39	7,005.39	7,060.39	79.64	242.77	65.32	-3,086.16	-3,369.53	3,283.56	2,924.96	316.19	5.300		
9,700.00	7,060.16	7,005.16	7,060.16	82.23	242.78	65.62	-3,086.16	-3,369.53	3,271.07	2,912.47	320.09	5.133		
9,800.00	7,059.93	7,004.93	7,059.93	84.84	242.79	65.92	-3,086.16	-3,369.53	3,258.58	2,900.00	323.98	4.987		
9,900.00	7,059.70	7,004.70	7,059.70	87.47	242.80	66.22	-3,086.16	-3,369.53	3,246.09	2,887.51	327.78	4.863		
10,000.00	7,059.47	7,004.47	7,059.47	90.11	242.81	66.52	-3,086.16	-3,369.53	3,233.60	2,875.02	331.44	4.763		
10,100.00	7,059.24	7,004.24	7,059.24	92.76	242.81	66.82	-3,086.16	-3,369.53	3,221.11	2,862.53	334.89	4.686		
10,195.46	7,059.02	7,004.02	7,059.02	95.30	242.82	67.12	-3,086.16	-3,369.53	3,208.62	2,850.04	337.93	4.635 CC		
10,200.00	7,059.01	7,004.01	7,059.01	95.42	242.82	67.22	-3,086.16	-3,369.53	3,206.13	2,847.55	338.07	4.633 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 12N-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 12N-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	7,058.78	7,005.22	7,058.78	98.10	242.83	-89.99	-3,086.16	-3,369.53	1,569.93	1,229.00	340.93	4.605		
10,400.00	7,058.55	7,005.45	7,058.55	100.79	242.84	-89.98	-3,086.16	-3,369.53	1,579.74	1,236.31	343.44	4.600 SF		
10,500.00	7,058.32	7,005.68	7,058.32	103.48	242.85	-89.97	-3,086.16	-3,369.53	1,595.77	1,250.21	345.56	4.618		
10,600.00	7,058.09	7,005.91	7,058.09	106.19	242.85	-89.97	-3,086.16	-3,369.53	1,617.84	1,270.53	347.31	4.658		
10,700.00	7,057.86	7,006.14	7,057.86	108.90	242.86	-89.96	-3,086.16	-3,369.53	1,645.69	1,297.01	348.68	4.720		
10,800.00	7,057.63	7,006.37	7,057.63	111.62	242.87	-89.95	-3,086.16	-3,369.53	1,679.05	1,329.35	349.70	4.801		
10,900.00	7,057.40	7,006.60	7,057.40	114.35	242.88	-89.94	-3,086.16	-3,369.53	1,717.59	1,367.20	350.39	4.902		
11,000.00	7,057.17	7,006.83	7,057.17	117.08	242.89	-89.93	-3,086.16	-3,369.53	1,760.97	1,410.18	350.79	5.020		
11,100.00	7,056.94	7,007.06	7,056.94	119.82	242.89	-89.92	-3,086.16	-3,369.53	1,808.85	1,457.92	350.93	5.154		
11,200.00	7,056.71	7,007.29	7,056.71	122.56	242.90	-89.92	-3,086.16	-3,369.53	1,860.87	1,510.02	350.85	5.304		
11,300.00	7,056.48	7,007.52	7,056.48	125.31	242.91	-89.91	-3,086.16	-3,369.53	1,916.70	1,566.11	350.59	5.467		
11,400.00	7,056.25	7,007.75	7,056.25	128.06	242.92	-89.90	-3,086.16	-3,369.53	1,976.02	1,625.85	350.17	5.643		
11,500.00	7,056.02	7,007.98	7,056.02	130.82	242.93	-89.89	-3,086.16	-3,369.53	2,038.52	1,688.88	349.64	5.830		
11,600.00	7,055.79	7,008.21	7,055.79	133.59	242.93	-89.88	-3,086.16	-3,369.53	2,103.92	1,754.91	349.00	6.028		
11,700.00	7,055.55	7,008.45	7,055.55	136.35	242.94	-89.87	-3,086.16	-3,369.53	2,171.95	1,823.65	348.30	6.236		
11,800.00	7,055.32	7,008.68	7,055.32	139.12	242.95	-89.86	-3,086.16	-3,369.53	2,242.38	1,894.84	347.54	6.452		
11,900.00	7,055.09	7,008.91	7,055.09	141.90	242.96	-89.86	-3,086.16	-3,369.53	2,314.99	1,968.24	346.75	6.676		
12,000.00	7,054.86	7,009.14	7,054.86	144.67	242.97	-89.85	-3,086.16	-3,369.53	2,389.58	2,043.65	345.93	6.908		
12,100.00	7,054.63	7,009.37	7,054.63	147.45	242.97	-89.84	-3,086.16	-3,369.53	2,465.97	2,120.87	345.10	7.146		
12,200.00	7,054.40	7,009.60	7,054.40	150.24	242.98	-89.83	-3,086.16	-3,369.53	2,543.99	2,199.73	344.27	7.390		
12,300.00	7,054.17	7,009.83	7,054.17	153.02	242.99	-89.82	-3,086.16	-3,369.53	2,623.51	2,280.08	343.44	7.639		
12,400.00	7,053.94	6,989.94	7,053.94	155.81	242.30	-89.81	-3,086.16	-3,369.53	2,704.39	2,362.48	341.91	7.910		
12,500.00	7,053.71	6,989.71	7,053.71	158.60	242.29	-89.81	-3,086.16	-3,369.53	2,786.51	2,445.42	341.09	8.169		
12,600.00	7,053.48	6,989.48	7,053.48	161.40	242.28	-89.80	-3,086.16	-3,369.53	2,869.76	2,529.48	340.28	8.434		
12,700.00	7,053.25	6,989.25	7,053.25	164.19	242.27	-89.79	-3,086.16	-3,369.53	2,954.05	2,614.57	339.49	8.701		
12,800.00	7,053.02	6,989.02	7,053.02	166.99	242.26	-89.78	-3,086.16	-3,369.53	3,039.30	2,700.58	338.72	8.973		
12,900.00	7,052.79	6,988.79	7,052.79	169.79	242.26	-89.77	-3,086.16	-3,369.53	3,125.42	2,787.45	337.97	9.248		
13,000.00	7,052.56	6,988.56	7,052.56	172.59	242.25	-89.76	-3,086.16	-3,369.53	3,212.34	2,875.10	337.25	9.525		
13,100.00	7,052.33	6,988.33	7,052.33	175.40	242.24	-89.76	-3,086.16	-3,369.53	3,300.01	2,963.47	336.54	9.806		
13,200.00	7,052.10	6,988.10	7,052.10	178.20	242.23	-89.75	-3,086.16	-3,369.53	3,388.36	3,052.49	335.86	10.089		
13,300.00	7,051.87	6,987.87	7,051.87	181.01	242.22	-89.74	-3,086.16	-3,369.53	3,477.34	3,142.13	335.21	10.374		
13,400.00	7,051.64	6,987.64	7,051.64	183.82	242.22	-89.73	-3,086.16	-3,369.53	3,566.90	3,232.33	334.57	10.661		
13,500.00	7,051.41	6,987.41	7,051.41	186.63	242.21	-89.72	-3,086.16	-3,369.53	3,657.00	3,323.04	333.96	10.950		
13,600.00	7,051.18	6,987.18	7,051.18	189.44	242.20	-89.71	-3,086.16	-3,369.53	3,747.61	3,414.24	333.37	11.242		
13,700.00	7,050.95	6,986.95	7,050.95	192.25	242.19	-89.70	-3,086.16	-3,369.53	3,838.68	3,505.88	332.80	11.535		
13,800.00	7,050.72	6,986.72	7,050.72	195.07	242.18	-89.70	-3,086.16	-3,369.53	3,930.19	3,597.94	332.25	11.829		
13,900.00	7,050.49	6,986.49	7,050.49	197.88	242.18	-89.69	-3,086.16	-3,369.53	4,022.10	3,690.38	331.72	12.125		
14,000.00	7,050.26	6,986.26	7,050.26	200.70	242.17	-89.68	-3,086.16	-3,369.53	4,114.39	3,783.18	331.21	12.422		
14,100.00	7,050.03	6,986.03	7,050.03	203.52	242.16	-89.67	-3,086.16	-3,369.53	4,207.03	3,876.31	330.72	12.721		
14,200.00	7,049.80	6,985.80	7,049.80	206.34	242.15	-89.66	-3,086.16	-3,369.53	4,300.00	3,969.76	330.24	13.021		
14,300.00	7,049.56	6,985.56	7,049.56	209.16	242.14	-89.65	-3,086.16	-3,369.53	4,393.28	4,063.49	329.79	13.322		
14,400.00	7,049.33	6,985.33	7,049.33	211.98	242.14	-89.65	-3,086.16	-3,369.53	4,486.85	4,157.50	329.35	13.623		
14,500.00	7,049.10	6,985.10	7,049.10	214.80	242.13	-89.64	-3,086.16	-3,369.53	4,580.69	4,251.76	328.92	13.926		
14,600.00	7,048.87	6,984.87	7,048.87	217.63	242.12	-89.63	-3,086.16	-3,369.53	4,674.78	4,346.27	328.52	14.230		
14,700.00	7,048.64	6,984.64	7,048.64	220.45	242.11	-89.62	-3,086.16	-3,369.53	4,769.12	4,441.00	328.12	14.535		
14,800.00	7,048.41	6,984.41	7,048.41	223.28	242.10	-89.61	-3,086.16	-3,369.53	4,863.68	4,535.94	327.74	14.840		
14,900.00	7,048.18	6,984.18	7,048.18	226.10	242.10	-89.60	-3,086.16	-3,369.53	4,958.46	4,631.08	327.38	15.146		
14,979.18	7,048.00	6,984.00	7,048.00	228.34	242.09	-89.60	-3,086.16	-3,369.53	5,033.65	4,706.55	327.10	15.389		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	23.00	1,157.77	491.45	1,257.80				
100.00	100.00	87.21	97.21	3.28	3.29	23.00	1,157.85	491.51	1,257.86	1,251.29	6.57	191.453	
200.00	200.00	187.46	197.46	3.34	3.33	23.01	1,158.01	491.71	1,258.09	1,251.42	6.67	188.631	
300.00	299.98	290.64	300.64	3.44	3.44	-163.09	1,158.03	491.91	1,259.85	1,252.97	6.88	183.174	
400.00	399.84	383.35	393.35	3.59	3.58	-163.10	1,158.03	492.35	1,265.05	1,257.88	7.17	176.458	
500.00	499.45	486.17	496.16	3.79	3.78	-163.13	1,158.12	493.36	1,273.85	1,266.29	7.57	168.359	
600.00	598.70	580.55	590.54	4.03	3.99	-163.17	1,158.13	494.29	1,285.91	1,277.89	8.02	160.245	
700.00	697.47	683.87	693.85	4.31	4.26	-163.22	1,158.10	495.82	1,301.44	1,292.87	8.57	151.846	
800.00	795.62	783.75	793.72	4.64	4.54	-163.30	1,157.76	497.11	1,319.92	1,310.75	9.17	144.015	
900.00	893.16	878.13	888.09	5.00	4.83	-163.45	1,157.54	498.23	1,341.33	1,331.54	9.79	137.016	
1,000.00	990.60	978.30	988.25	5.38	5.16	-163.67	1,157.29	499.72	1,363.26	1,352.80	10.46	130.336	
1,100.00	1,088.04	1,070.28	1,080.22	5.79	5.47	-163.87	1,157.15	500.76	1,385.17	1,374.04	11.13	124.428	
1,200.00	1,185.48	1,168.03	1,177.96	6.22	5.81	-164.07	1,157.29	502.15	1,407.46	1,395.61	11.85	118.757	
1,300.00	1,282.92	1,274.61	1,284.53	6.66	6.19	-164.28	1,156.97	503.69	1,429.38	1,416.76	12.63	113.191	
1,400.00	1,380.36	1,373.51	1,383.42	7.10	6.56	-164.48	1,156.36	504.61	1,450.84	1,437.44	13.39	108.331	
1,500.00	1,477.80	1,472.50	1,482.41	7.56	6.93	-164.68	1,155.83	505.34	1,472.32	1,458.15	14.17	103.884	
1,600.00	1,575.24	1,569.74	1,579.64	8.03	7.30	-164.86	1,155.06	506.45	1,493.73	1,478.77	14.96	99.857	
1,700.00	1,672.68	1,664.37	1,674.26	8.50	7.66	-165.03	1,154.45	507.47	1,515.26	1,499.52	15.74	96.249	
1,800.00	1,770.12	1,762.86	1,772.75	8.98	8.05	-165.21	1,154.08	508.23	1,536.95	1,520.39	16.55	92.845	
1,900.00	1,867.56	1,869.19	1,879.07	9.46	8.46	-165.41	1,153.39	508.85	1,558.34	1,540.93	17.41	89.511	
2,000.00	1,965.00	1,964.10	1,973.98	9.95	8.84	-165.61	1,152.65	508.71	1,579.38	1,561.16	18.22	86.692	
2,100.00	2,062.44	2,062.31	2,072.19	10.44	9.23	-165.82	1,152.28	508.36	1,600.73	1,581.68	19.05	84.035	
2,200.00	2,159.88	2,155.13	2,165.01	10.93	9.60	-166.00	1,151.77	508.14	1,621.99	1,602.13	19.86	81.682	
2,300.00	2,257.32	2,246.35	2,256.23	11.42	9.96	-166.19	1,151.82	507.90	1,643.80	1,623.14	20.66	79.558	
2,400.00	2,354.76	2,342.42	2,352.30	11.92	10.35	-166.36	1,151.86	508.05	1,665.77	1,644.27	21.49	77.498	
2,500.00	2,452.20	2,441.49	2,451.37	12.42	10.75	-166.54	1,151.99	508.19	1,687.82	1,665.48	22.35	75.532	
2,600.00	2,549.64	2,539.89	2,549.76	12.92	11.15	-166.73	1,152.02	507.82	1,709.63	1,686.44	23.20	73.700	
2,700.00	2,647.08	2,632.00	2,641.88	13.42	11.53	-166.91	1,152.35	507.43	1,731.74	1,707.72	24.02	72.103	
2,800.00	2,744.52	2,730.75	2,740.62	13.93	11.93	-167.10	1,152.80	507.00	1,753.96	1,729.09	24.88	70.508	
2,900.00	2,841.96	2,836.29	2,846.16	14.43	12.36	-167.30	1,153.13	506.18	1,775.96	1,750.19	25.77	68.905	
3,000.00	2,939.40	2,938.73	2,948.60	14.94	12.78	-167.50	1,152.91	505.14	1,797.41	1,770.75	26.66	67.426	
3,100.00	3,036.84	3,033.75	3,043.61	15.44	13.17	-167.68	1,152.98	503.91	1,819.06	1,791.56	27.50	66.141	
3,200.00	3,134.28	3,134.28	3,144.11	15.95	13.59	-167.90	1,153.00	502.02	1,840.51	1,812.13	28.38	64.853	
3,300.00	3,231.72	3,229.85	3,239.67	16.46	13.99	-168.09	1,153.13	500.45	1,862.16	1,832.93	29.23	63.705	
3,400.00	3,329.16	3,335.73	3,345.54	16.97	14.43	-168.28	1,152.79	499.01	1,883.48	1,853.34	30.14	62.488	
3,500.00	3,426.60	3,432.84	3,442.64	17.48	14.83	-168.45	1,152.36	497.55	1,904.67	1,873.67	31.00	61.433	
3,600.00	3,524.04	3,526.54	3,536.34	17.99	15.22	-168.62	1,152.02	496.24	1,925.98	1,894.13	31.85	60.473	
3,700.00	3,621.48	3,615.52	3,625.31	18.50	15.59	-168.75	1,151.82	495.53	1,947.61	1,914.94	32.67	59.622	
3,800.00	3,718.92	3,698.25	3,708.04	19.01	15.94	-168.87	1,152.03	495.34	1,969.86	1,936.41	33.45	58.897	
3,900.00	3,816.36	3,798.96	3,808.75	19.52	16.36	-169.01	1,152.57	495.22	1,992.41	1,958.07	34.33	58.033	
4,000.00	3,913.80	3,900.99	3,910.78	20.03	16.79	-169.15	1,152.99	494.78	2,014.76	1,979.53	35.23	57.192	
4,100.00	4,011.24	3,995.97	4,005.75	20.55	17.18	-169.29	1,153.39	494.15	2,037.07	2,000.99	36.08	56.456	
4,200.00	4,108.68	4,097.44	4,107.22	21.06	17.61	-169.43	1,153.74	493.57	2,059.36	2,022.38	36.98	55.693	
4,300.00	4,206.12	4,197.05	4,206.82	21.57	18.03	-169.56	1,153.92	493.03	2,081.50	2,043.64	37.86	54.977	
4,400.00	4,303.56	4,291.22	4,300.99	22.09	18.42	-169.68	1,154.12	492.47	2,103.67	2,064.96	38.71	54.341	
4,500.00	4,401.00	4,388.33	4,398.10	22.60	18.83	-169.81	1,154.39	492.01	2,125.94	2,086.36	39.58	53.709	
4,600.00	4,498.44	4,482.91	4,492.68	23.11	19.23	-169.92	1,154.69	491.63	2,148.28	2,107.84	40.44	53.126	
4,700.00	4,595.88	4,574.32	4,584.10	23.63	19.61	-170.02	1,155.09	491.53	2,170.82	2,129.55	41.27	52.597	
4,800.00	4,693.32	4,672.69	4,682.46	24.14	20.03	-170.13	1,155.65	491.62	2,193.54	2,151.38	42.15	52.039	
4,900.00	4,790.76	4,763.76	4,773.53	24.66	20.41	-170.22	1,156.17	491.69	2,216.26	2,173.28	42.99	51.559	
5,000.00	4,888.20	4,848.95	4,858.71	25.17	20.77	-170.30	1,156.93	492.22	2,239.44	2,195.66	43.78	51.151	
5,100.00	4,985.64	4,939.97	4,949.72	25.69	21.16	-170.38	1,158.17	493.06	2,263.13	2,218.52	44.61	50.728	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	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	5,083.08	5,050.04	5,059.78	26.20	21.62	-170.48	1,159.63	493.50	2,286.68	2,241.11	45.57	50.178		
5,300.00	5,180.52	5,167.54	5,177.28	26.72	22.12	-170.60	1,160.29	493.54	2,309.40	2,262.83	46.58	49.583		
5,400.00	5,277.96	5,266.63	5,276.36	27.24	22.54	-170.70	1,160.45	492.99	2,331.61	2,284.14	47.46	49.125		
5,500.00	5,375.40	5,377.30	5,387.03	27.75	23.00	-170.83	1,160.62	491.96	2,353.74	2,305.32	48.42	48.608		
5,600.00	5,472.84	5,481.49	5,491.21	28.27	23.44	-170.95	1,160.23	490.62	2,375.27	2,325.92	49.34	48.138		
5,700.00	5,570.28	5,575.43	5,585.14	28.79	23.84	-171.07	1,159.94	489.08	2,396.78	2,346.58	50.20	47.747		
5,800.00	5,667.72	5,672.47	5,682.17	29.30	24.25	-171.18	1,159.67	487.88	2,418.44	2,367.36	51.07	47.353		
5,900.00	5,765.16	5,770.28	5,779.97	29.82	24.67	-171.29	1,159.45	486.38	2,440.08	2,388.12	51.95	46.967		
6,000.00	5,862.60	5,864.06	5,873.73	30.34	25.07	-171.41	1,159.40	484.50	2,461.78	2,408.97	52.81	46.618		
6,100.00	5,960.05	5,958.08	5,967.73	30.85	25.46	-171.52	1,159.48	482.80	2,483.66	2,430.00	53.66	46.281		
6,200.00	6,057.49	6,055.54	6,065.18	31.37	25.88	-171.64	1,159.67	480.93	2,505.63	2,451.09	54.54	45.939		
6,300.00	6,154.93	6,162.64	6,172.25	31.89	26.33	-171.78	1,159.79	478.54	2,527.48	2,471.99	55.48	45.553		
6,400.00	6,252.37	6,257.99	6,267.57	32.40	26.74	-171.89	1,159.56	476.49	2,549.00	2,492.65	56.35	45.235		
6,500.00	6,349.81	6,357.13	6,366.69	32.92	27.16	-172.02	1,159.67	473.97	2,570.78	2,513.54	57.24	44.912		
6,600.00	6,447.25	6,450.92	6,460.43	33.44	27.56	-172.15	1,159.68	471.10	2,592.36	2,534.26	58.10	44.621		
6,700.00	6,544.28	6,538.84	6,548.31	33.95	27.93	157.25	1,160.11	468.36	2,615.73	2,556.81	58.91	44.399		
6,800.00	6,638.86	6,636.18	6,645.57	34.44	28.35	136.37	1,160.85	464.68	2,642.44	2,582.66	59.78	44.201		
6,900.00	6,728.65	6,734.33	6,743.64	34.89	28.76	124.69	1,161.46	460.67	2,671.80	2,611.16	60.64	44.058		
7,000.00	6,811.45	6,822.06	6,831.31	35.29	29.14	117.18	1,161.75	457.29	2,703.56	2,642.13	61.43	44.010 SF		
7,100.00	6,885.21	6,895.69	6,904.87	35.66	29.45	111.57	1,162.11	454.16	2,737.76	2,675.62	62.14	44.057		
7,200.00	6,948.11	6,959.85	6,968.95	35.99	29.73	106.92	1,162.57	451.10	2,774.29	2,711.46	62.84	44.150		
7,300.00	6,998.62	7,015.12	7,024.15	36.30	29.96	102.77	1,163.06	448.31	2,812.91	2,749.35	63.55	44.259		
7,400.00	7,035.48	7,062.62	7,071.59	36.65	30.17	98.88	1,163.43	445.84	2,853.20	2,788.87	64.33	44.352		
7,500.00	7,057.79	7,093.96	7,102.88	37.13	30.30	94.97	1,163.62	444.20	2,894.75	2,829.63	65.12	44.453		
7,600.00	7,065.00	7,108.25	7,117.15	37.84	30.36	91.06	1,163.69	443.44	2,936.96	2,871.06	65.91	44.563		
7,700.00	7,064.77	7,114.07	7,122.96	38.82	30.39	91.19	1,163.72	443.14	2,980.66	2,913.92	66.74	44.662		
7,800.00	7,064.54	7,119.88	7,128.77	40.06	30.41	91.31	1,163.76	442.79	3,027.02	2,959.37	67.65	44.743		
7,900.00	7,064.31	7,126.32	7,135.19	41.52	30.44	91.45	1,163.81	442.42	3,075.92	3,007.28	68.64	44.815		
8,000.00	7,064.08	7,133.07	7,141.93	43.14	30.47	91.59	1,163.85	442.02	3,127.24	3,057.58	69.67	44.889		
8,100.00	7,063.85	7,140.17	7,149.02	44.90	30.50	91.75	1,163.91	441.59	3,180.87	3,110.14	70.73	44.972		
8,200.00	7,063.62	7,147.64	7,156.48	46.78	30.53	91.91	1,163.96	441.13	3,236.69	3,164.87	71.81	45.070		
8,300.00	7,063.39	7,155.52	7,164.34	48.76	30.56	92.08	1,164.03	440.63	3,294.58	3,221.67	72.91	45.189		
8,400.00	7,063.16	7,163.83	7,172.63	50.83	30.60	92.25	1,164.10	440.09	3,354.44	3,280.44	74.00	45.330		
8,500.00	7,062.93	7,172.61	7,181.39	52.97	30.64	92.44	1,164.19	439.50	3,416.16	3,341.08	75.09	45.496		
8,600.00	7,062.70	7,181.91	7,190.67	55.18	30.68	92.64	1,164.28	438.86	3,479.65	3,403.49	76.16	45.688		
8,700.00	7,062.47	7,191.77	7,200.50	57.46	30.72	92.85	1,164.38	438.17	3,544.80	3,467.58	77.22	45.905		
8,800.00	7,062.24	7,202.24	7,210.94	59.78	30.76	93.08	1,164.50	437.40	3,611.53	3,533.27	78.26	46.148		
8,900.00	7,062.01	7,213.38	7,222.05	62.14	30.81	93.32	1,164.63	436.57	3,679.74	3,600.46	79.28	46.416		
9,000.00	7,061.78	7,216.25	7,224.92	64.55	30.82	93.38	1,164.64	436.39	3,749.38	3,669.16	80.22	46.741		
9,100.00	7,061.55	7,223.44	7,232.09	67.00	30.86	93.53	1,164.71	435.87	3,820.34	3,739.19	81.15	47.076		
9,200.00	7,061.31	7,230.53	7,239.16	69.47	30.89	93.68	1,164.78	435.36	3,892.57	3,810.51	82.06	47.435		
9,300.00	7,061.08	7,237.53	7,246.13	71.98	30.92	93.83	1,164.84	434.86	3,966.00	3,883.06	82.94	47.819		
9,400.00	7,060.85	7,244.42	7,253.01	74.51	30.95	93.98	1,164.89	434.38	4,040.55	3,956.76	83.79	48.224		
9,500.00	7,060.62	7,268.78	7,259.80	77.06	31.05	94.12	1,164.95	433.90	4,116.17	4,031.49	84.68	48.608		
9,600.00	7,060.39	7,262.08	7,266.47	79.64	31.02	94.27	1,164.99	433.43	4,192.80	4,107.38	85.41	49.089		
9,700.00	7,060.16	7,264.61	7,273.15	82.23	31.03	94.41	1,165.03	432.97	4,270.38	4,184.23	86.16	49.566		
9,800.00	7,059.93	7,271.31	7,279.83	84.84	31.06	94.55	1,165.08	432.51	4,348.87	4,261.98	86.89	50.050		
9,900.00	7,059.70	7,278.00	7,286.51	87.47	31.09	94.70	1,165.12	432.04	4,428.22	4,340.62	87.60	50.551		
10,000.00	7,059.47	7,284.69	7,293.19	90.11	31.12	94.84	1,165.16	431.58	4,508.38	4,420.10	88.28	51.068		
10,100.00	7,059.24	7,291.39	7,299.87	92.76	31.15	94.98	1,165.21	431.11	4,589.31	4,500.37	88.94	51.599		
10,200.00	7,059.01	7,298.08	7,306.54	95.42	31.18	95.12	1,165.25	430.65	4,670.97	4,581.39	89.58	52.145		
10,300.00	7,058.78	7,304.78	7,313.22	98.10	31.21	95.27	1,165.29	430.19	4,753.32	4,663.13	90.19	52.703		

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 12N-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 12N-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		
10,400.00	7,058.55	7,311.47	7,319.90	100.79	31.24	95.41	1,165.34	429.72	4,836.33	4,745.55	90.78	53.274		
10,500.00	7,058.32	7,318.17	7,326.58	103.48	31.27	95.55	1,165.38	429.26	4,919.96	4,828.60	91.35	53.857		
10,600.00	7,058.09	7,324.86	7,333.26	106.19	31.30	95.69	1,165.42	428.79	5,004.18	4,912.27	91.90	54.450		
10,700.00	7,057.86	7,331.56	7,339.93	108.90	31.32	95.84	1,165.46	428.33	5,088.96	4,996.53	92.44	55.054		
10,800.00	7,057.63	7,338.25	7,346.61	111.62	31.35	95.98	1,165.51	427.87	5,174.28	5,081.33	92.95	55.668		
10,900.00	7,057.40	7,344.94	7,353.29	114.35	31.38	96.12	1,165.55	427.40	5,260.11	5,166.66	93.45	56.290		
11,000.00	7,057.17	7,351.64	7,359.97	117.08	31.41	96.26	1,165.59	426.94	5,346.42	5,252.49	93.93	56.921		
11,100.00	7,056.94	7,358.33	7,366.65	119.82	31.44	96.40	1,165.64	426.48	5,433.19	5,338.80	94.39	57.560		
11,200.00	7,056.71	7,365.03	7,373.33	122.56	31.47	96.55	1,165.68	426.01	5,520.40	5,425.56	94.84	58.206		
11,300.00	7,056.48	7,371.72	7,380.00	125.31	31.50	96.69	1,165.72	425.55	5,608.03	5,512.76	95.28	58.860		
11,400.00	7,056.25	7,378.42	7,386.68	128.06	31.53	96.83	1,165.77	425.08	5,696.06	5,600.36	95.70	59.520		
11,500.00	7,056.02	7,385.11	7,393.36	130.82	31.56	96.97	1,165.81	424.62	5,784.47	5,688.37	96.11	60.187		
11,600.00	7,055.79	7,391.81	7,400.04	133.59	31.59	97.11	1,165.85	424.16	5,873.25	5,776.74	96.51	60.859		
11,700.00	7,055.55	7,398.50	7,406.72	136.35	31.62	97.25	1,165.90	423.69	5,962.37	5,865.48	96.89	61.537		
11,800.00	7,055.32	7,405.19	7,413.40	139.12	31.65	97.39	1,165.94	423.23	6,051.83	5,954.57	97.27	62.220		
11,900.00	7,055.09	7,411.89	7,420.07	141.90	31.67	97.54	1,165.98	422.77	6,141.60	6,043.98	97.63	62.908		
12,000.00	7,054.86	7,418.58	7,426.75	144.67	31.70	97.68	1,166.03	422.30	6,231.68	6,133.70	97.98	63.600		
12,100.00	7,054.63	7,425.28	7,433.43	147.45	31.73	97.82	1,166.07	421.84	6,322.05	6,223.73	98.33	64.297		
12,200.00	7,054.40	7,431.97	7,440.11	150.24	31.76	97.96	1,166.11	421.37	6,412.70	6,314.04	98.66	64.998		
12,300.00	7,054.17	7,438.67	7,446.79	153.02	31.79	98.10	1,166.16	420.91	6,503.62	6,404.63	98.99	65.703		
12,400.00	7,053.94	7,445.36	7,453.46	155.81	31.82	98.24	1,166.20	420.45	6,594.79	6,495.49	99.30	66.411		
12,500.00	7,053.71	7,452.06	7,460.14	158.60	31.85	98.38	1,166.24	419.98	6,686.21	6,586.60	99.61	67.123		
12,600.00	7,053.48	7,458.75	7,466.82	161.40	31.88	98.52	1,166.29	419.52	6,777.86	6,677.95	99.91	67.837		
12,700.00	7,053.25	7,443.00	7,451.11	164.19	31.81	98.19	1,166.18	420.61	6,869.78	6,769.70	100.08	68.644		
12,800.00	7,053.02	7,443.00	7,451.11	166.99	31.81	98.19	1,166.18	420.61	6,961.90	6,861.57	100.33	69.392		
12,900.00	7,052.79	7,443.00	7,451.11	169.79	31.81	98.19	1,166.18	420.61	7,054.23	6,953.66	100.57	70.143		
13,000.00	7,052.56	7,443.00	7,451.11	172.59	31.81	98.19	1,166.18	420.61	7,146.78	7,045.97	100.81	70.896		
13,100.00	7,052.33	7,443.00	7,451.11	175.40	31.81	98.19	1,166.18	420.61	7,239.52	7,138.48	101.04	71.653		
13,200.00	7,052.10	7,443.00	7,451.11	178.20	31.81	98.19	1,166.18	420.61	7,332.45	7,231.19	101.26	72.412		
13,300.00	7,051.87	7,443.00	7,451.11	181.01	31.81	98.19	1,166.18	420.61	7,425.56	7,324.09	101.48	73.174		
13,400.00	7,051.64	7,443.00	7,451.11	183.82	31.81	98.19	1,166.18	420.61	7,518.86	7,417.16	101.69	73.938		
13,500.00	7,051.41	7,443.00	7,451.11	186.63	31.81	98.19	1,166.18	420.61	7,612.32	7,510.42	101.90	74.704		
13,600.00	7,051.18	7,443.00	7,451.11	189.44	31.81	98.19	1,166.18	420.61	7,705.94	7,603.84	102.10	75.473		
13,700.00	7,050.95	7,443.00	7,451.11	192.25	31.81	98.19	1,166.18	420.61	7,799.73	7,697.43	102.30	76.243		
13,800.00	7,050.72	7,443.00	7,451.11	195.07	31.81	98.19	1,166.18	420.61	7,893.67	7,791.17	102.50	77.015		
13,900.00	7,050.49	7,443.00	7,451.11	197.88	31.81	98.19	1,166.18	420.61	7,987.75	7,885.07	102.69	77.789		
14,000.00	7,050.26	7,443.00	7,451.11	200.70	31.81	98.19	1,166.18	420.61	8,081.98	7,979.11	102.87	78.564		
14,100.00	7,050.03	7,443.00	7,451.11	203.52	31.81	98.19	1,166.18	420.61	8,176.34	8,073.29	103.05	79.341		
14,200.00	7,049.80	7,443.00	7,451.11	206.34	31.81	98.19	1,166.18	420.61	8,270.84	8,167.61	103.23	80.119		
14,300.00	7,049.56	7,443.00	7,451.11	209.16	31.81	98.19	1,166.18	420.61	8,365.46	8,262.06	103.41	80.899		
14,400.00	7,049.33	7,443.00	7,451.11	211.98	31.81	98.19	1,166.18	420.61	8,460.21	8,356.63	103.58	81.680		
14,500.00	7,049.10	7,443.00	7,451.11	214.80	31.81	98.19	1,166.18	420.61	8,555.08	8,451.33	103.75	82.462		
14,600.00	7,048.87	7,443.00	7,451.11	217.63	31.81	98.19	1,166.18	420.61	8,650.06	8,546.15	103.91	83.246		
14,700.00	7,048.64	7,443.00	7,451.11	220.45	31.81	98.19	1,166.18	420.61	8,745.15	8,641.08	104.07	84.030		
14,800.00	7,048.41	7,443.00	7,451.11	223.28	31.81	98.19	1,166.18	420.61	8,840.36	8,736.13	104.23	84.815		
14,900.00	7,048.18	7,443.00	7,451.11	226.10	31.81	98.19	1,166.18	420.61	8,935.67	8,831.28	104.39	85.601		
14,979.18	7,048.00	7,443.00	7,451.11	228.34	31.81	98.19	1,166.18	420.61	9,011.20	8,906.69	104.51	86.225		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	78.64	104.93	522.07	532.88					
100.00	100.00	78.04	98.04	3.28	3.28	78.58	105.46	522.11	532.66	526.09	6.57	81.080 CC, ES		
200.00	200.00	180.27	200.25	3.34	3.33	78.41	107.06	522.05	532.91	526.25	6.67	79.932		
212.10	212.10	192.80	212.78	3.35	3.34	-107.70	107.24	522.00	532.91	526.23	6.69	79.697		
300.00	299.98	281.36	301.34	3.44	3.43	-108.00	108.37	521.58	533.26	526.38	6.87	77.613		
400.00	399.84	378.80	398.77	3.59	3.58	-108.61	109.51	521.25	534.82	527.66	7.16	74.655		
500.00	499.45	476.23	496.19	3.79	3.76	-109.53	110.67	521.40	538.11	530.56	7.55	71.302		
600.00	598.70	574.02	593.97	4.03	3.98	-110.74	111.96	521.83	543.08	535.07	8.01	67.794		
700.00	697.47	672.27	692.21	4.31	4.23	-112.26	113.52	522.35	549.82	541.28	8.55	64.331		
800.00	795.62	769.15	789.08	4.64	4.51	-113.97	114.86	522.98	558.48	549.34	9.14	61.095		
900.00	893.16	865.31	885.22	5.00	4.80	-115.97	116.49	523.73	569.30	559.52	9.79	58.178		
1,000.00	990.60	962.74	982.63	5.38	5.11	-118.03	117.95	524.63	581.16	570.69	10.47	55.494		
1,100.00	1,088.04	1,060.02	1,079.91	5.79	5.44	-120.01	119.36	525.44	593.65	582.46	11.19	53.049		
1,200.00	1,185.48	1,158.11	1,177.97	6.22	5.78	-121.93	120.87	526.18	606.80	594.86	11.94	50.834		
1,300.00	1,282.92	1,256.27	1,276.13	6.66	6.13	-123.76	122.23	526.73	620.36	607.66	12.70	48.830		
1,400.00	1,380.36	1,352.98	1,372.82	7.10	6.48	-125.52	123.81	527.07	634.49	621.01	13.48	47.063		
1,500.00	1,477.80	1,452.06	1,471.89	7.56	6.85	-127.23	125.28	527.53	649.22	634.93	14.28	45.453		
1,600.00	1,575.24	1,551.17	1,570.99	8.03	7.23	-128.86	126.45	527.56	663.97	648.88	15.10	43.985		
1,700.00	1,672.68	1,650.52	1,670.33	8.50	7.61	-130.45	127.78	527.37	679.14	663.22	15.92	42.666		
1,800.00	1,770.12	1,749.27	1,769.08	8.98	8.00	-131.95	128.73	526.83	694.29	677.54	16.74	41.464		
1,900.00	1,867.56	1,844.91	1,864.72	9.46	8.37	-133.32	129.50	526.60	710.02	692.45	17.56	40.430		
2,000.00	1,965.00	1,943.53	1,963.33	9.95	8.76	-134.68	130.44	526.37	726.26	707.86	18.40	39.472		
2,100.00	2,062.44	2,045.65	2,065.45	10.44	9.17	-136.02	131.07	525.72	742.36	723.10	19.26	38.545		
2,200.00	2,159.88	2,144.54	2,164.34	10.93	9.57	-137.25	131.11	524.88	758.30	738.19	20.11	37.716		
2,300.00	2,257.32	2,241.92	2,261.70	11.42	9.96	-138.40	131.14	524.20	774.66	753.71	20.95	36.983		
2,400.00	2,354.76	2,341.94	2,361.73	11.92	10.36	-139.51	130.82	523.49	791.07	769.26	21.81	36.279		
2,500.00	2,452.20	2,440.90	2,460.68	12.42	10.76	-140.57	130.34	522.59	807.50	784.84	22.66	35.634		
2,600.00	2,549.64	2,539.23	2,559.01	12.92	11.16	-141.56	129.52	521.89	824.08	800.56	23.52	35.044		
2,700.00	2,647.08	2,635.94	2,655.70	13.42	11.55	-142.47	128.53	521.33	840.84	816.47	24.36	34.512		
2,800.00	2,744.52	2,732.46	2,752.22	13.93	11.94	-143.33	127.57	521.15	858.08	832.86	25.21	34.034		
2,900.00	2,841.96	2,832.01	2,851.76	14.43	12.35	-144.19	126.42	520.80	875.28	849.20	26.08	33.560		
3,000.00	2,939.40	2,927.34	2,947.09	14.94	12.74	-145.00	125.65	520.28	892.80	865.88	26.93	33.159		
3,100.00	3,036.84	3,023.82	3,043.56	15.44	13.14	-145.80	125.08	519.74	910.66	882.88	27.78	32.784		
3,200.00	3,134.28	3,120.19	3,139.93	15.95	13.54	-146.58	124.84	519.05	928.84	900.21	28.63	32.443		
3,300.00	3,231.72	3,218.56	3,238.30	16.46	13.95	-147.37	124.67	518.21	947.18	917.68	29.50	32.113		
3,400.00	3,329.16	3,315.22	3,334.95	16.97	14.35	-148.11	124.49	517.38	965.66	935.31	30.35	31.816		
3,500.00	3,426.60	3,409.58	3,429.32	17.48	14.75	-148.78	124.27	517.03	984.55	953.35	31.19	31.562		
3,600.00	3,524.04	3,508.77	3,528.50	17.99	15.16	-149.45	123.94	516.87	1,003.61	971.55	32.07	31.295		
3,700.00	3,621.48	3,608.00	3,627.74	18.50	15.57	-150.10	123.52	516.56	1,022.64	989.70	32.95	31.040		
3,800.00	3,718.92	3,707.29	3,727.02	19.01	15.99	-150.72	122.99	516.11	1,041.63	1,007.80	33.82	30.796		
3,900.00	3,816.36	3,806.62	3,826.35	19.52	16.41	-151.33	122.37	515.51	1,060.57	1,025.86	34.70	30.562		
4,000.00	3,913.80	3,906.01	3,925.73	20.03	16.82	-151.92	121.64	514.76	1,079.45	1,043.87	35.58	30.337		
4,100.00	4,011.24	4,005.44	4,025.16	20.55	17.24	-152.50	120.82	513.87	1,098.28	1,061.82	36.46	30.120		
4,200.00	4,108.68	4,104.93	4,124.63	21.06	17.66	-153.05	119.90	512.82	1,117.05	1,079.70	37.34	29.912		
4,300.00	4,206.12	4,204.45	4,224.15	21.57	18.08	-153.60	118.88	511.63	1,135.75	1,097.53	38.23	29.711		
4,400.00	4,303.56	4,300.01	4,319.69	22.09	18.48	-154.10	117.87	510.56	1,154.57	1,115.49	39.08	29.541		
4,500.00	4,401.00	4,393.32	4,412.99	22.60	18.87	-154.56	116.99	509.83	1,173.74	1,133.81	39.93	29.398		
4,600.00	4,498.44	4,485.98	4,505.65	23.11	19.26	-155.01	116.46	509.26	1,193.37	1,152.61	40.76	29.277		
4,700.00	4,595.88	4,583.46	4,603.12	23.63	19.67	-155.49	116.27	508.48	1,213.32	1,171.69	41.63	29.144		
4,800.00	4,693.32	4,678.77	4,698.44	24.14	20.08	-155.93	116.10	507.78	1,233.38	1,190.89	42.49	29.029		
4,900.00	4,790.76	4,776.65	4,796.32	24.66	20.49	-156.37	115.90	507.33	1,253.64	1,210.27	43.36	28.911		
5,000.00	4,888.20	4,869.58	4,889.24	25.17	20.88	-156.75	115.68	507.10	1,274.03	1,229.83	44.20	28.824		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	4,985.64	4,965.06	4,984.72	25.69	21.28	-157.15	115.85	506.90	1,294.85	1,249.80	45.06	28.738		
5,200.00	5,083.08	5,063.98	5,083.64	26.20	21.70	-157.56	116.12	506.47	1,315.71	1,269.77	45.94	28.639		
5,300.00	5,180.52	5,161.26	5,180.92	26.72	22.11	-157.94	116.28	506.03	1,336.53	1,289.71	46.81	28.551		
5,400.00	5,277.96	5,260.88	5,280.54	27.24	22.54	-158.33	116.50	505.48	1,357.41	1,309.71	47.70	28.457		
5,500.00	5,375.40	5,362.84	5,382.49	27.75	22.97	-158.73	116.60	504.49	1,378.05	1,329.45	48.61	28.350		
5,600.00	5,472.84	5,459.75	5,479.40	28.27	23.38	-159.10	116.50	503.48	1,398.55	1,349.08	49.48	28.266		
5,700.00	5,570.28	5,555.47	5,575.11	28.79	23.79	-159.44	116.48	502.71	1,419.27	1,368.94	50.34	28.195		
5,800.00	5,667.72	5,656.08	5,675.72	29.30	24.21	-159.78	116.32	502.14	1,440.03	1,388.79	51.24	28.105		
5,900.00	5,765.16	5,756.56	5,776.20	29.82	24.64	-160.11	115.81	501.58	1,460.52	1,408.39	52.14	28.014		
6,000.00	5,862.60	5,849.74	5,869.38	30.34	25.03	-160.40	115.34	501.07	1,481.08	1,428.10	52.98	27.956		
6,100.00	5,960.05	5,943.18	5,962.82	30.85	25.43	-160.68	115.25	500.74	1,502.10	1,448.27	53.82	27.908		
6,200.00	6,057.49	6,043.79	6,063.43	31.37	25.86	-160.99	115.25	500.13	1,523.14	1,468.42	54.72	27.833		
6,300.00	6,154.93	6,143.27	6,162.90	31.89	26.28	-161.29	115.04	499.37	1,543.97	1,488.35	55.62	27.762		
6,400.00	6,252.37	6,237.66	6,257.29	32.40	26.68	-161.56	114.86	498.76	1,564.91	1,508.44	56.47	27.713		
6,500.00	6,349.81	6,332.07	6,351.70	32.92	27.08	-161.82	114.81	498.43	1,586.12	1,528.80	57.32	27.671		
6,600.00	6,447.25	6,429.37	6,449.00	33.44	27.50	-162.08	114.80	498.18	1,607.44	1,549.24	58.20	27.621		
6,700.00	6,544.28	6,526.28	6,545.91	33.95	27.91	167.34	114.80	497.94	1,631.08	1,572.01	59.07	27.612 SF		
6,800.00	6,638.86	6,620.77	6,640.40	34.44	28.31	146.46	114.79	497.73	1,660.49	1,600.57	59.92	27.710		
6,900.00	6,728.65	6,710.50	6,730.13	34.89	28.69	134.61	114.78	497.55	1,695.30	1,634.56	60.74	27.913		
7,000.00	6,811.45	6,793.25	6,812.88	35.29	29.04	126.73	114.78	497.40	1,735.26	1,673.76	61.50	28.217		
7,100.00	6,885.21	6,866.98	6,886.61	35.66	29.36	120.54	114.77	497.28	1,780.19	1,717.98	62.21	28.617		
7,200.00	6,948.11	6,929.88	6,949.51	35.99	29.63	114.94	114.77	497.19	1,829.84	1,766.97	62.87	29.105		
7,300.00	6,998.62	6,980.40	7,000.02	36.30	29.84	109.31	114.76	497.12	1,883.83	1,820.34	63.49	29.670		
7,400.00	7,035.48	7,017.29	7,036.92	36.65	30.00	103.30	114.76	497.07	1,941.54	1,877.46	64.08	30.298		
7,500.00	7,057.79	7,039.66	7,059.29	37.13	30.09	96.77	114.76	497.04	2,002.05	1,937.41	64.63	30.976		
7,600.00	7,065.00	7,046.97	7,066.60	37.84	30.12	89.95	114.76	497.03	2,064.17	1,999.04	65.13	31.691		
7,700.00	7,064.77	7,046.86	7,066.49	38.82	30.12	89.95	114.76	497.03	2,128.11	2,062.47	65.63	32.424		
7,800.00	7,064.54	7,046.75	7,066.38	40.06	30.12	89.94	114.76	497.03	2,194.74	2,128.57	66.17	33.169		
7,900.00	7,064.31	7,046.64	7,066.27	41.52	30.12	89.94	114.76	497.03	2,263.83	2,197.11	66.72	33.930		
8,000.00	7,064.08	7,046.53	7,066.16	43.14	30.12	89.94	114.76	497.03	2,335.16	2,267.88	67.28	34.707		
8,100.00	7,063.85	7,046.42	7,066.04	44.90	30.12	89.93	114.76	497.03	2,408.53	2,340.69	67.84	35.502		
8,200.00	7,063.62	7,046.31	7,065.93	46.78	30.12	89.93	114.76	497.03	2,483.76	2,415.36	68.40	36.315		
8,300.00	7,063.39	7,046.20	7,065.82	48.76	30.12	89.92	114.76	497.03	2,560.68	2,491.75	68.94	37.145		
8,400.00	7,063.16	7,046.09	7,065.71	50.83	30.12	89.92	114.76	497.03	2,639.16	2,569.69	69.46	37.993		
8,500.00	7,062.93	7,045.97	7,065.60	52.97	30.12	89.92	114.76	497.03	2,719.04	2,649.07	69.97	38.858		
8,600.00	7,062.70	7,045.86	7,065.49	55.18	30.12	89.91	114.76	497.03	2,800.22	2,729.75	70.47	39.738		
8,700.00	7,062.47	7,045.75	7,065.38	57.46	30.12	89.91	114.76	497.03	2,882.58	2,811.64	70.94	40.634		
8,800.00	7,062.24	7,045.64	7,065.27	59.78	30.12	89.90	114.76	497.03	2,966.03	2,894.63	71.39	41.545		
8,900.00	7,062.01	7,045.53	7,065.16	62.14	30.12	89.90	114.76	497.03	3,050.47	2,978.64	71.83	42.469		
9,000.00	7,061.78	7,045.42	7,065.05	64.55	30.12	89.90	114.76	497.03	3,135.82	3,063.58	72.25	43.405		
9,100.00	7,061.55	7,045.31	7,064.94	67.00	30.12	89.89	114.76	497.03	3,222.02	3,149.38	72.64	44.354		
9,200.00	7,061.31	7,045.20	7,064.83	69.47	30.12	89.89	114.76	497.03	3,309.00	3,235.98	73.02	45.314		
9,300.00	7,061.08	7,045.09	7,064.72	71.98	30.12	89.88	114.76	497.03	3,396.69	3,323.30	73.39	46.284		
9,400.00	7,060.85	7,044.98	7,064.61	74.51	30.12	89.88	114.76	497.03	3,485.05	3,411.31	73.74	47.264		
9,500.00	7,060.62	7,044.87	7,064.50	77.06	30.12	89.88	114.76	497.03	3,574.02	3,499.95	74.07	48.252		
9,600.00	7,060.39	7,044.76	7,064.39	79.64	30.11	89.87	114.76	497.03	3,663.56	3,589.17	74.39	49.249		
9,700.00	7,060.16	7,044.65	7,064.28	82.23	30.11	89.87	114.76	497.03	3,753.62	3,678.93	74.69	50.254		
9,800.00	7,059.93	7,044.54	7,064.17	84.84	30.11	89.86	114.76	497.03	3,844.18	3,769.20	74.99	51.266		
9,900.00	7,059.70	7,044.43	7,064.06	87.47	30.11	89.86	114.76	497.03	3,935.20	3,859.93	75.27	52.284		
10,000.00	7,059.47	7,044.32	7,063.95	90.11	30.11	89.86	114.76	497.03	4,026.64	3,951.10	75.54	53.308		
10,100.00	7,059.24	7,044.21	7,063.84	92.76	30.11	89.85	114.76	497.04	4,118.48	4,042.68	75.79	54.338		
10,200.00	7,059.01	7,044.10	7,063.73	95.42	30.11	89.85	114.76	497.04	4,210.69	4,134.65	76.04	55.373		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.78	7,043.99	7,063.62	98.10	30.11	89.85	114.76	497.04	4,303.25	4,226.97	76.28	56.413		
10,400.00	7,058.55	7,043.88	7,063.51	100.79	30.11	89.84	114.76	497.04	4,396.13	4,319.62	76.51	57.458		
10,500.00	7,058.32	7,043.77	7,063.40	103.48	30.11	89.84	114.76	497.04	4,489.32	4,412.59	76.73	58.506		
10,600.00	7,058.09	7,043.66	7,063.29	106.19	30.11	89.83	114.76	497.04	4,582.80	4,505.85	76.95	59.558		
10,700.00	7,057.86	7,043.55	7,063.18	108.90	30.11	89.83	114.76	497.04	4,676.55	4,599.40	77.15	60.614		
10,800.00	7,057.63	7,043.44	7,063.07	111.62	30.11	89.83	114.76	497.04	4,770.55	4,693.20	77.35	61.673		
10,900.00	7,057.40	7,043.33	7,062.96	114.35	30.11	89.82	114.76	497.04	4,864.79	4,787.24	77.55	62.734		
11,000.00	7,057.17	7,043.23	7,062.85	117.08	30.11	89.82	114.76	497.04	4,959.26	4,881.52	77.73	63.798		
11,100.00	7,056.94	7,043.12	7,062.74	119.82	30.11	89.81	114.76	497.04	5,053.94	4,976.02	77.91	64.865		
11,200.00	7,056.71	7,043.01	7,062.63	122.56	30.11	89.81	114.76	497.04	5,148.82	5,070.73	78.09	65.934		
11,300.00	7,056.48	7,042.90	7,062.53	125.31	30.11	89.81	114.76	497.04	5,243.89	5,165.63	78.26	67.004		
11,400.00	7,056.25	7,042.79	7,062.42	128.06	30.11	89.80	114.76	497.04	5,339.14	5,260.71	78.43	68.077		
11,500.00	7,056.02	7,042.68	7,062.31	130.82	30.11	89.80	114.76	497.04	5,434.56	5,355.97	78.59	69.151		
11,600.00	7,055.79	7,042.57	7,062.20	133.59	30.11	89.79	114.76	497.04	5,530.14	5,451.40	78.75	70.227		
11,700.00	7,055.55	7,042.46	7,062.09	136.35	30.10	89.79	114.76	497.04	5,625.88	5,546.98	78.90	71.303		
11,800.00	7,055.32	7,042.35	7,061.98	139.12	30.10	89.79	114.76	497.04	5,721.76	5,642.71	79.05	72.381		
11,900.00	7,055.09	7,042.24	7,061.87	141.90	30.10	89.78	114.76	497.04	5,817.78	5,738.59	79.20	73.460		
12,000.00	7,054.86	7,042.13	7,061.76	144.67	30.10	89.78	114.76	497.04	5,913.94	5,834.60	79.34	74.540		
12,100.00	7,054.63	7,042.02	7,061.65	147.45	30.10	89.78	114.76	497.04	6,010.21	5,930.74	79.48	75.620		
12,200.00	7,054.40	7,041.92	7,061.54	150.24	30.10	89.77	114.76	497.04	6,106.61	6,027.00	79.62	76.701		
12,300.00	7,054.17	7,041.81	7,061.43	153.02	30.10	89.77	114.76	497.04	6,203.13	6,123.38	79.75	77.782		
12,400.00	7,053.94	7,041.70	7,061.33	155.81	30.10	89.76	114.76	497.04	6,299.75	6,219.86	79.88	78.863		
12,500.00	7,053.71	7,041.59	7,061.22	158.60	30.10	89.76	114.76	497.04	6,396.47	6,316.46	80.01	79.945		
12,600.00	7,053.48	7,041.48	7,061.11	161.40	30.10	89.76	114.76	497.04	6,493.30	6,413.16	80.14	81.027		
12,700.00	7,053.25	7,041.37	7,061.00	164.19	30.10	89.75	114.76	497.04	6,590.21	6,509.95	80.26	82.109		
12,800.00	7,053.02	7,041.26	7,060.89	166.99	30.10	89.75	114.76	497.04	6,687.22	6,606.84	80.38	83.191		
12,900.00	7,052.79	7,041.16	7,060.78	169.79	30.10	89.74	114.76	497.04	6,784.32	6,703.82	80.50	84.273		
13,000.00	7,052.56	7,041.05	7,060.67	172.59	30.10	89.74	114.76	497.04	6,881.50	6,800.88	80.62	85.354		
13,100.00	7,052.33	7,040.94	7,060.57	175.40	30.10	89.74	114.76	497.04	6,978.76	6,898.02	80.74	86.435		
13,200.00	7,052.10	7,040.83	7,060.46	178.20	30.10	89.73	114.76	497.04	7,076.10	6,995.24	80.85	87.516		
13,300.00	7,051.87	7,040.72	7,060.35	181.01	30.10	89.73	114.76	497.04	7,173.50	7,092.54	80.97	88.596		
13,400.00	7,051.64	7,040.61	7,060.24	183.82	30.10	89.73	114.76	497.04	7,270.98	7,189.90	81.08	89.676		
13,500.00	7,051.41	7,040.50	7,060.13	186.63	30.10	89.72	114.76	497.04	7,368.53	7,287.34	81.19	90.755		
13,600.00	7,051.18	7,040.40	7,060.02	189.44	30.10	89.72	114.76	497.04	7,466.14	7,384.84	81.30	91.834		
13,700.00	7,050.95	7,040.29	7,059.92	192.25	30.10	89.71	114.76	497.04	7,563.82	7,482.41	81.41	92.911		
13,800.00	7,050.72	7,040.18	7,059.81	195.07	30.10	89.71	114.76	497.04	7,661.55	7,580.04	81.52	93.988		
13,900.00	7,050.49	7,040.07	7,059.70	197.88	30.09	89.71	114.76	497.04	7,759.34	7,677.72	81.62	95.064		
14,000.00	7,050.26	7,039.96	7,059.59	200.70	30.09	89.70	114.76	497.04	7,857.19	7,775.46	81.73	96.139		
14,100.00	7,050.03	7,039.86	7,059.48	203.52	30.09	89.70	114.76	497.04	7,955.09	7,873.26	81.83	97.213		
14,200.00	7,049.80	7,039.75	7,059.38	206.34	30.09	89.69	114.76	497.04	8,053.05	7,971.11	81.93	98.286		
14,300.00	7,049.56	7,039.64	7,059.27	209.16	30.09	89.69	114.76	497.04	8,151.05	8,069.01	82.04	99.358		
14,400.00	7,049.33	7,039.53	7,059.16	211.98	30.09	89.69	114.76	497.04	8,249.10	8,166.96	82.14	100.429		
14,500.00	7,049.10	7,039.42	7,059.05	214.80	30.09	89.68	114.76	497.04	8,347.19	8,264.96	82.24	101.499		
14,600.00	7,048.87	7,039.32	7,058.94	217.63	30.09	89.68	114.76	497.04	8,445.34	8,363.00	82.34	102.568		
14,700.00	7,048.64	7,039.21	7,058.84	220.45	30.09	89.68	114.76	497.04	8,543.52	8,461.08	82.44	103.635		
14,800.00	7,048.41	7,039.10	7,058.73	223.28	30.09	89.67	114.76	497.04	8,641.75	8,559.21	82.54	104.701		
14,900.00	7,048.18	7,038.99	7,058.62	226.10	30.09	89.67	114.76	497.04	8,740.01	8,657.38	82.64	105.765		
14,979.18	7,048.00	7,038.91	7,058.54	228.34	30.09	89.66	114.76	497.04	8,817.85	8,735.14	82.71	106.607		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	8.59	1,630.64	246.42	1,649.15					
100.00	100.00	110.29	110.29	3.28	3.29	8.60	1,630.28	246.48	1,648.84	1,642.27	6.57	250.820		
200.00	200.00	216.40	216.40	3.34	3.34	8.60	1,629.36	246.56	1,647.99	1,641.31	6.68	246.800		
230.74	230.74	248.41	248.40	3.36	3.37	-177.48	1,629.03	246.52	1,647.84	1,641.11	6.73	244.737		
300.00	299.98	319.66	319.65	3.44	3.45	-177.48	1,628.23	246.47	1,648.64	1,641.74	6.89	239.127		
400.00	399.84	411.04	411.03	3.59	3.60	-177.49	1,627.35	246.30	1,652.89	1,645.70	7.19	229.864		
500.00	499.45	506.00	505.99	3.79	3.79	-177.50	1,626.92	245.89	1,661.09	1,653.51	7.58	219.158		
600.00	598.70	613.88	613.86	4.03	4.05	-177.52	1,626.29	245.52	1,672.64	1,664.57	8.08	207.088		
700.00	697.47	708.31	708.28	4.31	4.30	-177.55	1,625.68	244.90	1,687.55	1,678.94	8.61	196.032		
800.00	795.62	805.92	805.89	4.64	4.58	-177.59	1,625.28	243.85	1,706.05	1,696.84	9.20	185.405		
900.00	893.16	908.46	908.42	5.00	4.91	-177.65	1,624.58	242.69	1,727.27	1,717.41	9.86	175.204		
1,000.00	990.60	993.67	993.62	5.38	5.19	-177.72	1,624.18	241.54	1,749.11	1,738.63	10.48	166.857		
1,100.00	1,088.04	1,067.13	1,067.05	5.79	5.44	-177.80	1,624.85	239.60	1,772.08	1,760.99	11.09	159.826		
1,200.00	1,185.48	1,144.02	1,143.84	6.22	5.70	-177.94	1,626.68	236.29	1,796.24	1,784.52	11.72	153.254		
1,300.00	1,282.92	1,214.74	1,214.39	6.66	5.95	-178.11	1,629.43	232.04	1,821.65	1,809.30	12.35	147.542		
1,400.00	1,380.36	1,291.43	1,290.72	7.10	6.23	-178.34	1,633.66	226.04	1,848.39	1,835.37	13.01	142.072		
1,500.00	1,477.80	1,371.12	1,369.82	7.56	6.53	-178.63	1,638.92	217.96	1,875.94	1,862.24	13.70	136.913		
1,600.00	1,575.24	1,446.23	1,444.18	8.03	6.82	-178.94	1,644.80	209.18	1,904.56	1,890.17	14.39	132.384		
1,700.00	1,672.68	1,532.35	1,529.31	8.50	7.18	-179.31	1,652.25	198.46	1,933.94	1,918.81	15.14	127.752		
1,800.00	1,770.12	1,627.33	1,623.14	8.98	7.58	-179.72	1,660.69	186.43	1,963.62	1,947.67	15.95	123.105		
1,900.00	1,867.56	1,745.65	1,740.10	9.46	8.10	-179.80	1,670.36	171.35	1,992.69	1,975.78	16.90	117.878		
2,000.00	1,965.00	1,849.13	1,842.49	9.95	8.57	-179.40	1,678.20	158.64	2,021.33	2,003.54	17.79	113.590		
2,100.00	2,062.44	1,966.32	1,958.55	10.44	9.11	-178.97	1,685.89	144.33	2,049.07	2,030.30	18.77	109.152		
2,200.00	2,159.88	2,056.54	2,047.98	10.93	9.52	-178.67	1,691.36	133.72	2,076.46	2,056.86	19.61	105.892		
2,300.00	2,257.32	2,135.62	2,126.31	11.42	9.89	-178.40	1,696.70	124.30	2,104.56	2,084.17	20.39	103.229		
2,400.00	2,354.76	2,219.32	2,209.14	11.92	10.29	-178.11	1,703.02	114.06	2,133.43	2,112.24	21.20	100.654		
2,500.00	2,452.20	2,316.84	2,305.69	12.42	10.76	-177.80	1,710.33	102.38	2,162.35	2,140.26	22.09	97.883		
2,600.00	2,549.64	2,398.24	2,386.26	12.92	11.15	-177.54	1,716.79	92.85	2,191.75	2,168.86	22.89	95.749		
2,700.00	2,647.08	2,497.84	2,484.91	13.42	11.63	-177.25	1,724.73	81.59	2,221.25	2,197.45	23.80	93.314		
2,800.00	2,744.52	2,579.38	2,565.67	13.93	12.03	-177.02	1,731.46	72.49	2,251.09	2,226.48	24.61	91.484		
2,900.00	2,841.96	2,693.48	2,678.67	14.43	12.58	-176.71	1,740.65	59.73	2,280.76	2,255.14	25.62	89.027		
3,000.00	2,939.40	2,789.45	2,773.72	14.94	13.06	-176.44	1,747.98	48.67	2,310.09	2,283.57	26.52	87.103		
3,100.00	3,036.84	2,877.65	2,861.00	15.44	13.50	-176.19	1,754.89	38.02	2,339.62	2,312.24	27.38	85.453		
3,200.00	3,134.28	2,969.13	2,951.47	15.95	13.96	-175.93	1,762.33	26.68	2,369.47	2,341.21	28.26	83.840		
3,300.00	3,231.72	3,060.44	3,061.65	16.46	14.52	-175.64	1,770.83	13.28	2,398.89	2,369.61	29.28	81.937		
3,400.00	3,329.16	3,168.13	3,148.46	16.97	14.96	-175.41	1,777.51	2.90	2,428.35	2,398.21	30.14	80.578		
3,500.00	3,426.60	3,278.96	3,258.10	17.48	15.52	-175.12	1,786.02	-10.86	2,457.95	2,426.79	31.16	78.893		
3,600.00	3,524.04	3,405.24	3,383.27	17.99	16.15	-174.82	1,793.86	-25.67	2,486.07	2,453.80	32.27	77.029		
3,700.00	3,621.48	3,501.20	3,478.48	18.50	16.62	-174.61	1,799.43	-36.25	2,513.93	2,480.75	33.19	75.749		
3,800.00	3,718.92	3,577.11	3,553.88	19.01	16.99	-174.47	1,804.05	-43.71	2,542.12	2,508.16	33.96	74.847		
3,900.00	3,816.36	3,649.83	3,626.05	19.52	17.35	-174.33	1,809.21	-50.95	2,571.27	2,536.55	34.72	74.066		
4,000.00	3,913.80	3,733.67	3,709.22	20.03	17.76	-174.18	1,815.74	-59.26	2,601.09	2,565.55	35.54	73.185		
4,100.00	4,011.24	3,830.84	3,805.63	20.55	18.24	-174.02	1,823.24	-68.79	2,630.88	2,594.42	36.46	72.163		
4,200.00	4,108.68	3,897.78	3,872.03	21.06	18.57	-173.91	1,828.84	-75.11	2,661.31	2,624.15	37.16	71.614		
4,300.00	4,206.12	3,991.04	3,964.49	21.57	19.04	-173.76	1,837.23	-84.06	2,692.35	2,654.30	38.05	70.756		
4,400.00	4,303.56	4,074.16	4,046.79	22.09	19.46	-173.61	1,844.82	-92.78	2,723.55	2,684.68	38.87	70.062		
4,500.00	4,401.00	4,158.62	4,130.37	22.60	19.89	-173.45	1,852.90	-102.01	2,755.20	2,715.49	39.71	69.388		
4,600.00	4,498.44	4,652.45	7,198.48	23.11	65.19	-173.38	-880.55	-167.41	2,701.13	2,669.78	31.34	86.178		
4,700.00	4,595.88	9,797.02	7,196.77	23.63	67.96	-173.40	-1,025.08	-166.21	2,603.34	2,571.44	31.90	81.606		
4,800.00	4,693.32	9,815.93	7,196.11	24.14	68.33	-173.41	-1,043.99	-166.05	2,505.15	2,473.00	32.15	77.928		
4,900.00	4,790.76	9,834.76	7,195.45	24.66	68.69	-173.41	-1,062.80	-165.89	2,406.96	2,374.56	32.40	74.293		
5,000.00	4,888.20	9,853.56	7,194.79	25.17	69.06	-173.41	-1,081.59	-165.78	2,308.76	2,276.11	32.66	70.701		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	4,985.64	9,872.49	7,194.13	25.69	69.42	173.41	-1,100.51	-165.68	2,210.57	2,177.65	32.92	67.152		
5,200.00	5,083.08	9,884.00	7,193.73	26.20	69.65	173.40	-1,112.01	-165.62	2,112.39	2,079.20	33.19	63.643		
5,300.00	5,180.52	9,898.80	7,193.26	26.72	69.93	173.40	-1,126.80	-165.57	2,014.26	1,980.79	33.48	60.170		
5,400.00	5,277.96	9,909.99	7,192.95	27.24	70.15	173.39	-1,137.99	-165.56	1,916.22	1,882.44	33.78	56.726		
5,500.00	5,375.40	9,916.00	7,192.81	27.75	70.27	173.38	-1,144.00	-165.56	1,818.28	1,784.16	34.12	53.291		
5,600.00	5,472.84	9,927.20	7,192.62	28.27	70.48	173.36	-1,155.20	-165.60	1,720.47	1,686.00	34.47	49.910		
5,700.00	5,570.28	9,935.46	7,192.55	28.79	70.64	173.34	-1,163.45	-165.66	1,622.83	1,587.96	34.86	46.547		
5,800.00	5,667.72	9,947.00	7,192.57	29.30	70.87	173.31	-1,174.99	-165.78	1,525.37	1,490.10	35.27	43.246		
5,900.00	5,765.16	9,959.51	7,192.67	29.82	71.11	173.26	-1,187.50	-165.95	1,428.08	1,392.37	35.71	39.995		
6,000.00	5,862.60	9,977.48	7,192.88	30.34	71.46	173.18	-1,205.47	-166.25	1,330.89	1,294.76	36.12	36.842		
6,100.00	5,960.05	9,996.14	7,193.17	30.85	71.82	173.08	-1,224.12	-166.62	1,233.79	1,197.24	36.56	33.749		
6,200.00	6,057.49	10,020.06	7,193.64	31.37	72.29	172.92	-1,248.03	-167.11	1,136.79	1,099.84	36.95	30.769		
6,300.00	6,154.93	10,050.93	7,194.05	31.89	72.89	172.69	-1,278.90	-167.68	1,039.63	1,002.40	37.23	27.924		
6,400.00	6,252.37	10,072.19	7,194.31	32.40	73.31	172.49	-1,300.15	-168.09	942.46	904.80	37.66	25.027		
6,500.00	6,349.81	10,104.45	7,194.61	32.92	73.94	172.08	-1,332.40	-168.77	845.22	807.35	37.87	22.322		
6,600.00	6,447.25	10,124.96	7,194.71	33.44	74.34	171.75	-1,352.90	-169.18	747.88	709.57	38.31	19.522		
6,700.00	6,544.28	10,150.88	7,194.88	33.95	74.85	175.12	-1,378.82	-169.63	650.81	612.21	38.61	16.857		
6,800.00	6,638.86	10,180.71	7,194.76	34.44	75.44	-177.63	-1,408.64	-170.11	555.97	517.02	38.95	14.272		
6,900.00	6,728.65	10,206.40	7,194.34	34.89	75.94	-173.93	-1,434.33	-170.51	467.96	426.78	41.18	11.365		
7,000.00	6,811.45	10,222.82	7,194.06	35.29	76.27	-173.22	-1,450.74	-170.78	394.78	345.48	49.29	8.009		
7,100.00	6,885.21	10,240.14	7,193.78	35.66	76.61	-172.47	-1,468.06	-171.09	348.47	282.57	65.90	5.288		
7,165.69	6,927.86	10,251.00	7,193.60	35.87	76.83	-171.99	-1,478.91	-171.30	339.06	259.51	79.55	4.262 CC		
7,200.00	6,948.11	10,256.32	7,193.51	35.99	76.93	-171.76	-1,484.23	-171.41	341.66	255.30	86.36	3.956 ES		
7,300.00	6,998.62	10,270.31	7,193.27	36.30	77.21	-171.11	-1,498.22	-171.73	376.90	275.57	101.33	3.720 SF		
7,400.00	7,035.48	10,281.81	7,193.06	36.65	77.43	-170.48	-1,509.71	-172.01	443.82	335.08	108.74	4.082		
7,500.00	7,057.79	10,290.45	7,192.90	37.13	77.61	-169.88	-1,518.35	-172.24	529.45	417.69	111.76	4.737		
7,600.00	7,065.00	10,295.92	7,192.79	37.84	77.71	-169.56	-1,523.82	-172.39	624.64	511.74	112.90	5.533		
7,700.00	7,064.77	10,299.83	7,192.72	38.82	77.79	-167.85	-1,527.72	-172.50	722.79	609.37	113.42	6.373		
7,800.00	7,064.54	10,303.02	7,192.65	40.06	77.85	-166.47	-1,530.91	-172.59	821.37	707.59	113.77	7.219		
7,900.00	7,064.31	10,306.66	7,192.58	41.52	77.93	-164.91	-1,534.55	-172.70	920.24	806.19	114.05	8.069		
8,000.00	7,064.08	10,310.35	7,192.51	43.14	78.00	-163.36	-1,538.24	-172.80	1,019.32	905.04	114.27	8.920		
8,100.00	7,063.85	10,314.08	7,192.43	44.90	78.07	-161.81	-1,541.96	-172.91	1,118.55	1,004.08	114.47	9.772		
8,200.00	7,063.62	10,317.85	7,192.36	46.78	78.15	-160.26	-1,545.73	-173.02	1,217.89	1,103.26	114.64	10.624		
8,300.00	7,063.39	10,321.67	7,192.28	48.76	78.22	-158.73	-1,549.55	-173.13	1,317.33	1,202.53	114.79	11.476		
8,400.00	7,063.16	10,325.53	7,192.20	50.83	78.30	-157.20	-1,553.41	-173.24	1,416.83	1,301.89	114.94	12.326		
8,500.00	7,062.93	10,329.44	7,192.12	52.97	78.38	-155.70	-1,557.32	-173.36	1,516.40	1,401.31	115.09	13.176		
8,600.00	7,062.70	10,333.40	7,192.03	55.18	78.46	-154.20	-1,561.27	-173.48	1,616.00	1,500.78	115.23	14.025		
8,700.00	7,062.47	10,337.40	7,191.95	57.46	78.53	-152.72	-1,565.27	-173.60	1,715.65	1,600.28	115.36	14.872		
8,800.00	7,062.24	10,341.46	7,191.86	59.78	78.62	-151.27	-1,569.33	-173.72	1,815.32	1,699.82	115.50	15.717		
8,900.00	7,062.01	10,345.56	7,191.77	62.14	78.70	-149.83	-1,573.43	-173.85	1,915.02	1,799.39	115.63	16.561		
9,000.00	7,061.78	10,349.72	7,191.68	64.55	78.78	-148.41	-1,577.58	-173.97	2,014.75	1,898.98	115.77	17.403		
9,100.00	7,061.55	10,353.92	7,191.58	67.00	78.86	-147.02	-1,581.78	-174.11	2,114.49	1,998.58	115.91	18.243		
9,200.00	7,061.31	10,358.18	7,191.49	69.47	78.95	-145.65	-1,586.04	-174.24	2,214.25	2,098.20	116.05	19.081		
9,300.00	7,061.08	10,362.49	7,191.39	71.98	79.03	-144.31	-1,590.34	-174.37	2,314.02	2,197.83	116.19	19.916		
9,400.00	7,060.85	10,366.67	7,191.30	74.51	79.12	-143.04	-1,594.52	-174.51	2,413.80	2,297.48	116.32	20.751		
9,500.00	7,060.62	10,370.98	7,191.21	77.06	79.20	-141.78	-1,598.83	-174.64	2,513.60	2,397.13	116.47	21.582		
9,600.00	7,060.39	10,375.35	7,191.11	79.64	79.29	-140.55	-1,603.19	-174.78	2,613.40	2,496.79	116.61	22.412		
9,700.00	7,060.16	10,379.77	7,191.02	82.23	79.38	-139.34	-1,607.61	-174.93	2,713.22	2,596.46	116.75	23.239		
9,800.00	7,059.93	10,384.25	7,190.93	84.84	79.46	-138.15	-1,612.09	-175.07	2,813.04	2,696.13	116.90	24.063		
9,900.00	7,059.70	10,388.79	7,190.84	87.47	79.55	-137.00	-1,616.62	-175.22	2,912.86	2,795.81	117.05	24.885		
10,000.00	7,059.47	10,394.04	7,190.74	90.11	79.66	-135.71	-1,621.87	-175.40	3,012.69	2,895.47	117.23	25.700		
10,100.00	7,059.24	10,400.09	7,190.62	92.76	79.78	-134.29	-1,627.91	-175.60	3,112.53	2,995.11	117.42	26.508		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,059.01	10,406.33	7,190.50	95.42	79.90	-132.89	-1,634.15	-175.82	3,212.37	3,094.75	117.62	27.311	
10,300.00	7,058.78	10,412.80	7,190.37	98.10	80.03	-131.52	-1,640.61	-176.04	3,312.21	3,194.38	117.83	28.110	
10,400.00	7,058.55	10,419.49	7,190.23	100.79	80.16	-130.16	-1,647.29	-176.28	3,412.05	3,294.00	118.05	28.904	
10,500.00	7,058.32	10,426.42	7,190.09	103.48	80.30	-128.83	-1,654.22	-176.54	3,511.89	3,393.62	118.27	29.693	
10,600.00	7,058.09	10,428.24	7,190.05	106.19	80.34	-128.50	-1,656.04	-176.60	3,611.74	3,493.38	118.36	30.516	
10,700.00	7,057.86	10,431.73	7,189.98	108.90	80.41	-127.86	-1,659.52	-176.73	3,711.59	3,593.10	118.49	31.325	
10,800.00	7,057.63	10,435.18	7,189.91	111.62	80.48	-127.25	-1,662.97	-176.85	3,811.44	3,692.82	118.62	32.132	
10,900.00	7,057.40	10,438.60	7,189.84	114.35	80.54	-126.67	-1,666.39	-176.98	3,911.30	3,792.55	118.75	32.938	
11,000.00	7,057.17	10,441.99	7,189.77	117.08	80.61	-126.10	-1,669.77	-177.10	4,011.16	3,892.28	118.88	33.741	
11,100.00	7,056.94	10,445.34	7,189.70	119.82	80.68	-125.55	-1,673.13	-177.22	4,111.03	3,992.02	119.01	34.543	
11,200.00	7,056.71	10,448.67	7,189.64	122.56	80.74	-125.02	-1,676.45	-177.33	4,210.90	4,091.75	119.14	35.343	
11,300.00	7,056.48	10,451.97	7,189.57	125.31	80.81	-124.51	-1,679.75	-177.45	4,310.77	4,191.49	119.28	36.141	
11,400.00	7,056.25	10,456.98	7,189.48	128.06	80.91	-123.75	-1,684.76	-177.63	4,410.64	4,291.18	119.46	36.922	
11,500.00	7,056.02	10,465.10	7,189.32	130.82	81.07	-122.59	-1,692.86	-177.91	4,510.51	4,390.78	119.73	37.672	
11,600.00	7,055.79	10,473.56	7,189.16	133.59	81.24	-121.45	-1,701.33	-178.22	4,610.38	4,490.37	120.01	38.416	
11,700.00	7,055.55	10,482.41	7,188.99	136.35	81.42	-120.33	-1,710.16	-178.56	4,710.25	4,589.94	120.31	39.151	
11,800.00	7,055.32	10,491.66	7,188.81	139.12	81.60	-119.22	-1,719.41	-178.91	4,810.12	4,689.50	120.62	39.878	
11,900.00	7,055.09	10,500.88	7,188.65	141.90	81.78	-118.20	-1,728.62	-179.28	4,909.98	4,789.05	120.93	40.601	
12,000.00	7,054.86	10,510.71	7,188.48	144.67	81.98	-117.17	-1,738.44	-179.67	5,009.84	4,888.58	121.26	41.314	
12,100.00	7,054.63	10,521.00	7,188.32	147.45	82.18	-116.17	-1,748.72	-180.10	5,109.70	4,988.09	121.61	42.017	
12,200.00	7,054.40	10,528.00	7,188.14	150.24	82.33	-115.62	-1,753.03	-179.87	5,209.55	5,054.48	121.96	42.719	
12,300.00	7,054.17	10,535.00	7,188.00	153.02	82.47	-115.07	-1,757.31	-180.10	5,309.42	5,152.26	122.31	43.421	
12,400.00	7,053.94	10,542.00	7,187.86	155.81	82.61	-114.52	-1,761.55	-180.33	5,409.29	5,252.03	122.66	44.123	
12,500.00	7,053.71	10,549.00	7,187.72	158.60	82.75	-113.97	-1,765.79	-180.56	5,509.16	5,351.80	123.01	44.825	
12,600.00	7,053.48	10,556.00	7,187.58	161.40	82.89	-113.42	-1,769.99	-180.79	5,609.04	5,451.57	123.36	45.527	
12,700.00	7,053.25	10,563.00	7,187.44	164.19	83.03	-112.87	-1,774.19	-181.02	5,708.90	5,551.34	123.71	46.229	
12,800.00	7,053.02	10,569.00	7,187.30	166.99	83.17	-112.32	-1,778.39	-181.25	5,808.78	5,651.11	124.06	46.931	
12,900.00	7,052.79	10,576.00	7,187.16	169.79	83.31	-111.77	-1,782.59	-181.48	5,908.66	5,750.88	124.41	47.633	
13,000.00	7,052.56	10,583.00	7,187.02	172.59	83.45	-111.22	-1,786.79	-181.71	6,008.54	5,850.65	124.76	48.335	
13,100.00	7,052.33	10,590.00	7,186.88	175.40	83.59	-110.67	-1,790.99	-181.94	6,108.43	5,950.42	125.11	49.037	
13,200.00	7,052.10	10,597.00	7,186.74	178.20	83.73	-110.12	-1,795.19	-182.17	6,208.32	6,050.19	125.46	49.739	
13,300.00	7,051.87	10,604.00	7,186.60	181.01	83.87	-109.57	-1,799.39	-182.40	6,308.21	6,150.00	125.81	50.441	
13,400.00	7,051.64	10,611.00	7,186.46	183.82	84.01	-109.02	-1,803.59	-182.63	6,408.11	6,249.81	126.16	51.143	
13,500.00	7,051.41	10,618.00	7,186.32	186.63	84.15	-108.47	-1,807.79	-182.86	6,508.01	6,349.62	126.51	51.845	
13,600.00	7,051.18	10,625.00	7,186.18	189.44	84.29	-107.92	-1,811.99	-183.09	6,607.93	6,449.43	126.86	52.547	
13,700.00	7,050.95	10,632.00	7,186.04	192.25	84.43	-107.37	-1,816.19	-183.32	6,707.82	6,549.24	127.21	53.249	
13,800.00	7,050.72	10,639.00	7,185.90	195.07	84.57	-106.82	-1,820.39	-183.55	6,807.72	6,649.05	127.56	53.951	
13,900.00	7,050.49	10,646.00	7,185.76	197.88	84.71	-106.27	-1,824.59	-183.78	6,907.63	6,748.86	127.91	54.653	
14,000.00	7,050.26	10,653.00	7,185.62	200.70	84.85	-105.72	-1,828.79	-184.01	7,007.53	6,848.67	128.26	55.355	
14,100.00	7,050.03	10,660.00	7,185.48	203.52	84.99	-105.17	-1,832.99	-184.24	7,107.44	6,948.48	128.61	56.057	
14,200.00	7,049.80	10,667.00	7,185.34	206.34	85.13	-104.62	-1,837.19	-184.47	7,207.35	7,048.29	128.96	56.759	
14,300.00	7,049.56	10,674.00	7,185.20	209.16	85.27	-104.07	-1,841.39	-184.70	7,307.27	7,148.10	129.31	57.461	
14,400.00	7,049.33	10,681.00	7,185.06	211.98	85.41	-103.52	-1,845.59	-184.93	7,407.18	7,247.91	129.66	58.163	
14,500.00	7,049.10	10,688.00	7,184.92	214.80	85.55	-102.97	-1,849.79	-185.16	7,507.10	7,347.72	130.01	58.865	
14,600.00	7,048.87	10,695.00	7,184.78	217.63	85.69	-102.42	-1,853.99	-185.39	7,607.02	7,447.53	130.36	59.567	
14,700.00	7,048.64	10,702.00	7,184.64	220.45	85.83	-101.87	-1,858.19	-185.62	7,706.94	7,547.34	130.71	60.269	
14,800.00	7,048.41	10,709.00	7,184.50	223.28	85.97	-101.32	-1,862.39	-185.85	7,806.87	7,647.15	131.06	60.971	
14,900.00	7,048.18	10,716.00	7,184.36	226.10	86.11	-100.77	-1,866.59	-186.08	7,906.78	7,746.96	131.41	61.673	
14,979.18	7,048.00	10,723.00	7,184.22	228.94	86.25	-100.22	-1,870.79	-186.31	8,006.70	7,846.77	131.76	62.375	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	9.65	1,632.10	277.57	1,655.53					
100.00	100.00	103.96	103.96	3.28	3.29	9.66	1,631.94	277.77	1,655.41	1,648.84	6.57	251.864		
200.00	200.00	212.43	212.43	3.34	3.34	9.68	1,631.36	278.28	1,654.97	1,648.30	6.67	247.975		
226.94	226.94	242.48	242.48	3.36	3.36	-176.40	1,631.08	278.40	1,654.87	1,648.15	6.72	246.128		
300.00	299.98	316.00	316.00	3.44	3.45	-176.41	1,630.44	278.09	1,655.80	1,648.91	6.89	240.446		
400.00	399.84	419.91	419.90	3.59	3.61	-176.44	1,629.46	277.13	1,659.95	1,652.75	7.20	230.546		
500.00	499.45	524.63	524.60	3.79	3.82	-176.45	1,628.02	277.13	1,667.29	1,659.68	7.61	218.991		
600.00	598.70	615.31	615.27	4.03	4.04	-176.44	1,626.92	277.36	1,678.30	1,670.22	8.07	207.875		
700.00	697.47	717.85	717.81	4.31	4.32	-176.43	1,625.72	277.87	1,692.85	1,684.22	8.63	196.177		
800.00	795.62	819.97	819.92	4.64	4.63	-176.42	1,624.17	278.50	1,710.52	1,701.28	9.24	185.083		
900.00	893.16	913.54	913.47	5.00	4.92	-176.42	1,622.83	279.21	1,731.29	1,721.42	9.87	175.335		
1,000.00	990.60	1,004.58	1,004.49	5.38	5.23	-176.42	1,621.67	280.33	1,752.71	1,742.19	10.52	166.588		
1,100.00	1,088.04	1,092.79	1,092.70	5.79	5.53	-176.43	1,621.11	281.22	1,774.69	1,763.51	11.19	158.661		
1,200.00	1,185.48	1,188.82	1,188.73	6.22	5.87	-176.45	1,620.79	281.91	1,796.94	1,785.03	11.90	150.975		
1,300.00	1,282.92	1,288.07	1,287.97	6.66	6.23	-176.47	1,620.46	282.65	1,819.17	1,806.52	12.65	143.760		
1,400.00	1,380.36	1,383.93	1,383.83	7.10	6.59	-176.49	1,620.05	283.20	1,841.30	1,827.89	13.41	137.298		
1,500.00	1,477.80	1,475.26	1,475.16	7.56	6.94	-176.51	1,619.99	283.80	1,863.78	1,849.62	14.16	131.617		
1,600.00	1,575.24	1,572.39	1,572.29	8.03	7.31	-176.53	1,620.01	284.49	1,886.36	1,871.41	14.95	126.216		
1,700.00	1,672.68	1,670.26	1,670.16	8.50	7.69	-176.55	1,620.05	285.28	1,908.97	1,893.22	15.75	121.238		
1,800.00	1,770.12	1,774.34	1,774.23	8.98	8.10	-176.57	1,619.95	285.92	1,931.42	1,914.83	16.59	116.447		
1,900.00	1,867.56	1,867.96	1,867.84	9.46	8.47	-176.59	1,619.58	286.51	1,953.59	1,936.21	17.38	112.393		
2,000.00	1,965.00	1,948.94	1,948.82	9.95	8.78	-176.64	1,619.96	286.11	1,976.41	1,958.30	18.11	109.119		
2,100.00	2,062.44	2,026.88	2,026.74	10.44	9.07	-176.71	1,621.16	284.91	2,000.10	1,981.27	18.82	106.250		
2,200.00	2,159.88	2,098.75	2,098.56	10.93	9.34	-176.79	1,623.18	283.25	2,024.88	2,005.37	19.51	103.790		
2,300.00	2,257.32	2,166.54	2,166.27	11.42	9.60	-176.89	1,626.03	281.37	2,050.94	2,030.77	20.17	101.662		
2,400.00	2,354.76	2,239.42	2,239.00	11.92	9.89	-176.99	1,630.14	279.25	2,078.32	2,057.46	20.86	99.613		
2,500.00	2,452.20	2,318.75	2,318.14	12.42	10.20	-177.10	1,635.27	277.08	2,106.55	2,084.96	21.59	97.575		
2,600.00	2,549.64	2,398.05	2,397.21	12.92	10.51	-177.21	1,641.01	274.99	2,135.54	2,113.22	22.32	95.697		
2,700.00	2,647.08	2,482.47	2,481.32	13.42	10.85	-177.33	1,647.73	272.36	2,165.14	2,142.07	23.07	93.839		
2,800.00	2,744.52	2,560.40	2,558.90	13.93	11.17	-177.46	1,654.48	269.57	2,195.37	2,171.58	23.80	92.260		
2,900.00	2,841.96	2,639.43	2,637.53	14.43	11.50	-177.59	1,661.95	266.76	2,226.35	2,201.83	24.53	90.778		
3,000.00	2,939.40	2,715.52	2,713.16	14.94	11.82	-177.71	1,669.71	263.89	2,258.04	2,232.80	25.24	89.471		
3,100.00	3,036.84	2,793.74	2,790.82	15.44	12.15	-177.85	1,678.48	260.50	2,290.59	2,264.62	25.96	88.222		
3,200.00	3,134.28	2,898.56	2,894.83	15.95	12.60	-178.05	1,690.38	255.51	2,323.27	2,296.41	26.86	86.488		
3,300.00	3,231.72	3,007.80	3,003.32	16.46	13.07	-178.25	1,701.99	250.14	2,355.24	2,327.44	27.79	84.739		
3,400.00	3,329.16	3,105.40	3,100.23	16.97	13.50	-178.44	1,712.24	244.62	2,387.03	2,358.37	28.66	83.300		
3,500.00	3,426.60	3,214.20	3,208.28	17.48	13.98	-178.65	1,723.32	238.42	2,418.55	2,388.96	29.59	81.725		
3,600.00	3,524.04	3,308.66	3,302.19	17.99	14.40	-178.80	1,732.40	233.65	2,449.62	2,419.18	30.44	80.469		
3,700.00	3,621.48	3,393.62	3,386.64	18.50	14.78	-178.93	1,740.80	229.79	2,481.03	2,449.80	31.23	79.446		
3,800.00	3,718.92	3,480.59	3,473.06	19.01	15.17	-179.06	1,749.74	225.79	2,512.80	2,480.77	32.03	78.449		
3,900.00	3,816.36	3,573.89	3,565.76	19.52	15.59	-179.19	1,759.48	221.72	2,544.78	2,511.90	32.88	77.404		
4,000.00	3,913.80	3,673.63	3,664.86	20.03	16.04	-179.34	1,769.82	217.14	2,576.67	2,542.90	33.77	76.304		
4,100.00	4,011.24	3,776.25	3,766.81	20.55	16.51	-179.49	1,780.26	211.83	2,608.33	2,573.65	34.68	75.207		
4,200.00	4,108.68	3,860.38	3,850.38	21.06	16.90	-179.62	1,788.72	207.35	2,639.90	2,604.43	35.47	74.422		
4,300.00	4,206.12	3,935.41	3,924.83	21.57	17.25	-179.75	1,796.95	202.75	2,672.22	2,636.02	36.20	73.819		
4,400.00	4,303.56	4,021.89	4,010.55	22.09	17.65	-179.90	1,806.80	197.12	2,704.95	2,667.94	37.01	73.090		
4,500.00	4,401.00	4,099.08	4,087.02	22.60	18.02	-179.96	1,815.97	192.01	2,738.16	2,700.40	37.75	72.531		
4,600.00	4,498.44	4,175.04	4,162.07	23.11	18.46	-180.00	1,825.44	186.88	2,771.59	2,729.59	38.44	72.047		
4,700.00	4,595.88	4,251.23	4,237.03	23.63	18.90	-180.04	1,835.22	181.71	2,804.90	2,761.35	39.09	71.619		
4,800.00	4,693.32	4,327.47	4,312.07	24.14	19.34	-180.08	1,845.31	176.51	2,838.16	2,792.35	39.71	71.245		
4,900.00	4,790.76	4,403.71	4,387.07	24.66	19.78	-180.12	1,855.71	171.28	2,871.37	2,822.96	40.29	70.915		
5,000.00	4,888.20	4,480.00	4,462.00	25.17	20.22	-180.16	1,866.41	166.03	2,904.53	2,854.61	40.83	70.629		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	4,985.64	9,849.24	7,235.84	25.69	67.38	-157.25	-1,003.49	124.55	2,262.38	2,227.89	34.49	65.592		
5,200.00	5,083.08	9,865.00	7,235.82	26.20	67.69	-156.36	-1,019.15	126.35	2,166.00	2,130.98	35.02	61.855		
5,300.00	5,180.52	9,881.60	7,235.83	26.72	68.01	-155.38	-1,035.62	128.38	2,069.78	2,034.19	35.59	58.158		
5,400.00	5,277.96	9,900.20	7,235.86	27.24	68.38	-154.22	-1,054.08	130.72	1,973.74	1,937.52	36.21	54.501		
5,500.00	5,375.40	9,918.24	7,235.92	27.75	68.73	-153.04	-1,071.97	133.03	1,877.89	1,841.00	36.89	50.899		
5,600.00	5,472.84	9,947.74	7,236.02	28.27	69.31	-150.97	-1,101.22	136.86	1,782.25	1,744.58	37.66	47.321		
5,700.00	5,570.28	9,975.18	7,235.94	28.79	69.85	-148.89	-1,128.43	140.38	1,686.66	1,648.16	38.50	43.807		
5,800.00	5,667.72	9,994.62	7,235.88	29.30	70.23	-147.31	-1,147.70	142.95	1,591.33	1,551.91	39.42	40.370		
5,900.00	5,765.16	10,010.22	7,235.86	29.82	70.54	-145.98	-1,163.15	145.08	1,496.36	1,455.92	40.44	37.000		
6,000.00	5,862.60	10,034.57	7,235.90	30.34	71.02	-143.78	-1,187.27	148.47	1,401.84	1,360.21	41.63	33.677		
6,100.00	5,960.05	10,068.86	7,235.64	30.85	71.70	-140.44	-1,221.25	152.99	1,307.50	1,264.49	43.00	30.404		
6,200.00	6,057.49	10,087.38	7,235.47	31.37	72.07	-138.50	-1,239.61	155.46	1,213.70	1,169.13	44.57	27.233		
6,300.00	6,154.93	10,126.08	7,234.86	31.89	72.84	-134.16	-1,277.98	160.46	1,120.42	1,073.94	46.48	24.104		
6,400.00	6,252.37	10,151.37	7,234.33	32.40	73.35	-131.12	-1,303.10	163.28	1,027.81	979.11	48.70	21.103		
6,500.00	6,349.81	10,174.31	7,233.83	32.92	73.81	-128.22	-1,325.93	165.57	936.21	884.83	51.38	18.221		
6,600.00	6,447.25	10,190.34	7,233.49	33.44	74.13	-126.11	-1,341.88	167.10	846.03	791.39	54.64	15.483		
6,700.00	6,544.28	10,202.55	7,233.32	33.95	74.37	-147.79	-1,354.03	168.32	760.81	701.66	59.15	12.862		
6,800.00	6,638.86	10,215.07	7,233.26	34.44	74.62	-161.86	-1,366.48	169.64	688.91	622.88	66.03	10.433		
6,900.00	6,728.65	10,246.26	7,232.98	34.89	75.25	-166.83	-1,397.51	172.67	636.79	561.25	75.53	8.431		
7,000.00	6,811.45	10,257.66	7,232.83	35.29	75.48	-170.62	-1,408.88	173.66	611.15	525.09	86.06	7.102		
7,033.51	6,837.27	10,261.17	7,232.80	35.41	75.55	-171.54	-1,412.37	173.96	609.38	519.88	89.50	6.809 CC, ES		
7,100.00	6,885.21	10,267.47	7,232.76	35.66	75.67	-173.09	-1,418.65	174.50	616.32	520.61	95.72	6.439		
7,200.00	6,948.11	10,274.98	7,232.73	35.99	75.82	-175.12	-1,426.13	175.13	651.57	548.73	102.84	6.336 SF		
7,300.00	6,998.62	10,285.02	7,232.73	36.30	76.02	-176.74	-1,436.14	175.94	711.77	604.44	107.32	6.632		
7,400.00	7,035.48	10,350.47	7,232.46	36.65	77.33	-171.10	-1,501.53	177.97	789.65	678.53	111.11	7.107		
7,500.00	7,057.79	10,354.20	7,232.43	37.13	77.41	-172.68	-1,505.26	177.96	879.38	767.05	112.32	7.829		
7,600.00	7,065.00	10,355.71	7,232.42	37.84	77.44	-177.11	-1,506.77	177.96	975.93	863.09	112.84	8.649		
7,700.00	7,064.77	10,264.32	7,232.77	38.82	75.61	153.39	-1,415.51	174.23	1,074.71	963.90	110.81	9.699		
7,800.00	7,064.54	10,256.03	7,232.85	40.06	75.44	151.16	-1,407.25	173.52	1,173.31	1,062.53	110.78	10.592		
7,900.00	7,064.31	7,900.00	7,233.09	41.52	38.70	145.49	-1,384.42	171.39	1,272.01	1,209.92	62.09	20.487		
8,000.00	7,064.08	10,214.00	7,233.26	43.14	74.60	141.29	-1,365.41	169.53	1,370.85	1,260.90	109.95	12.468		
8,100.00	7,063.85	10,205.14	7,233.30	44.90	74.42	139.50	-1,356.60	168.59	1,469.67	1,359.84	109.84	13.381		
8,200.00	7,063.62	10,199.74	7,233.35	46.78	74.31	138.45	-1,351.24	168.03	1,568.62	1,458.81	109.80	14.286		
8,300.00	7,063.39	10,194.61	7,233.42	48.76	74.21	137.49	-1,346.13	167.52	1,667.65	1,557.89	109.77	15.193		
8,400.00	7,063.16	10,189.71	7,233.50	50.83	74.11	136.60	-1,341.26	167.04	1,766.77	1,657.05	109.73	16.102		
8,500.00	7,062.93	8,500.00	7,233.73	52.97	42.57	134.72	-1,330.34	165.97	1,865.96	1,790.56	75.40	24.746		
8,600.00	7,062.70	10,172.47	7,233.87	55.18	73.77	133.70	-1,324.10	165.39	1,965.21	1,855.76	109.45	17.956		
8,700.00	7,062.47	10,083.07	7,235.51	57.46	71.99	122.60	-1,235.34	154.88	2,064.16	1,956.82	107.33	19.231		
8,800.00	7,062.24	10,074.38	7,235.59	59.78	71.81	121.78	-1,226.72	153.72	2,163.03	2,055.82	107.22	20.174		
8,900.00	7,062.01	10,065.93	7,235.67	62.14	71.64	121.02	-1,218.35	152.60	2,261.96	2,154.85	107.10	21.119		
9,000.00	7,061.78	10,056.00	7,235.77	64.55	71.45	120.17	-1,208.51	151.32	2,360.93	2,253.97	106.96	22.074		
9,100.00	7,061.55	10,017.60	7,235.87	67.00	70.69	117.21	-1,170.46	146.10	2,459.82	2,353.65	106.17	23.170		
9,200.00	7,061.31	10,009.22	7,235.86	69.47	70.52	116.63	-1,162.17	144.94	2,558.71	2,452.64	106.07	24.124		
9,300.00	7,061.08	10,001.07	7,235.86	71.98	70.36	116.09	-1,154.09	143.83	2,657.64	2,551.67	105.97	25.079		
9,400.00	7,060.85	9,992.00	7,235.89	74.51	70.18	115.52	-1,145.10	142.60	2,756.61	2,650.76	105.85	26.042		
9,500.00	7,060.62	9,985.33	7,235.91	77.06	70.05	115.11	-1,138.50	141.71	2,855.62	2,749.83	105.79	26.993		
9,600.00	7,060.39	9,977.73	7,235.93	79.64	69.90	114.66	-1,130.96	140.71	2,954.66	2,848.95	105.71	27.951		
9,700.00	7,060.16	9,970.33	7,235.96	82.23	69.75	114.24	-1,123.62	139.75	3,053.73	2,948.10	105.63	28.910		
9,800.00	7,059.93	9,966.94	7,235.97	84.84	69.69	114.05	-1,120.26	139.31	3,152.84	3,047.20	105.63	29.847		
9,900.00	7,059.70	9,946.79	7,236.02	87.47	69.29	112.97	-1,100.27	136.74	3,251.96	3,146.65	105.30	30.882		
10,000.00	7,059.47	9,929.00	7,235.97	90.11	68.94	112.09	-1,082.64	134.43	3,351.06	3,246.03	105.03	31.907		
10,100.00	7,059.24	9,918.67	7,235.92	92.76	68.74	111.60	-1,072.39	133.09	3,450.16	3,345.26	104.90	32.889		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,059.01	9,909.81	7,235.88	95.42	68.57	111.20	-1,063.60	131.95	3,549.28	3,444.48	104.81	33.865		
10,300.00	7,058.78	9,901.08	7,235.86	98.10	68.40	110.82	-1,054.95	130.83	3,648.42	3,543.71	104.72	34.841		
10,400.00	7,058.55	9,896.00	7,235.85	100.79	68.30	110.60	-1,049.91	130.18	3,747.58	3,642.89	104.69	35.796		
10,500.00	7,058.32	9,886.88	7,235.84	103.48	68.12	110.23	-1,040.87	129.03	3,846.76	3,742.16	104.60	36.776		
10,600.00	7,058.09	9,880.61	7,235.83	106.19	68.00	109.98	-1,034.64	128.25	3,945.97	3,841.41	104.56	37.740		
10,700.00	7,057.86	9,874.48	7,235.83	108.90	67.88	109.74	-1,028.56	127.50	4,045.19	3,940.67	104.52	38.703		
10,800.00	7,057.63	9,865.00	7,235.82	111.62	67.69	109.38	-1,019.15	126.35	4,144.44	4,040.01	104.42	39.689		
10,900.00	7,057.40	9,865.00	7,235.82	114.35	67.69	109.38	-1,019.15	126.35	4,243.70	4,139.21	104.49	40.613		
11,000.00	7,057.17	9,865.00	7,235.82	117.08	67.69	109.38	-1,019.15	126.35	4,343.00	4,238.44	104.56	41.536		
11,100.00	7,056.94	9,865.00	7,235.82	119.82	67.69	109.38	-1,019.15	126.35	4,442.32	4,337.70	104.63	42.459		
11,200.00	7,056.71	9,865.00	7,235.82	122.56	67.69	109.38	-1,019.15	126.35	4,541.68	4,436.99	104.69	43.381		
11,300.00	7,056.48	9,865.00	7,235.82	125.31	67.69	109.38	-1,019.15	126.35	4,641.07	4,536.31	104.76	44.302		
11,400.00	7,056.25	9,851.71	7,235.84	128.06	67.43	108.90	-1,005.95	124.82	4,740.39	4,635.79	104.61	45.317		
11,500.00	7,056.02	9,849.51	7,235.84	130.82	67.39	108.82	-1,003.76	124.58	4,839.80	4,735.16	104.64	46.254		
11,600.00	7,055.79	9,847.37	7,235.85	133.59	67.35	108.75	-1,001.64	124.35	4,939.22	4,834.55	104.67	47.190		
11,700.00	7,055.55	9,845.30	7,235.85	136.35	67.31	108.68	-999.58	124.13	5,038.66	4,933.96	104.70	48.124		
11,800.00	7,055.32	9,833.00	7,235.91	139.12	67.07	108.27	-987.34	122.89	5,138.17	5,033.60	104.57	49.136		
11,900.00	7,055.09	9,833.00	7,235.91	141.90	67.07	108.27	-987.34	122.89	5,237.63	5,133.00	104.64	50.055		
12,000.00	7,054.86	9,833.00	7,235.91	144.67	67.07	108.27	-987.34	122.89	5,337.11	5,232.41	104.70	50.973		
12,100.00	7,054.63	9,833.00	7,235.91	147.45	67.07	108.27	-987.34	122.89	5,436.61	5,331.84	104.77	51.890		
12,200.00	7,054.40	9,833.00	7,235.91	150.24	67.07	108.27	-987.34	122.89	5,536.13	5,431.29	104.84	52.806		
12,300.00	7,054.17	12,300.00	7,235.91	153.02	115.09	108.29	-987.99	122.96	5,635.66	5,482.81	152.86	36.869		
12,400.00	7,053.94	9,828.59	7,235.93	155.81	66.98	108.12	-982.95	122.47	5,735.21	5,630.31	104.90	54.671		
12,500.00	7,053.71	9,814.99	7,235.98	158.60	66.72	107.69	-969.41	121.16	5,834.76	5,729.99	104.77	55.693		
12,600.00	7,053.48	9,801.17	7,235.99	161.40	66.45	107.28	-955.66	119.82	5,934.30	5,829.67	104.63	56.717		
12,700.00	7,053.25	9,800.00	7,235.99	164.19	66.43	107.24	-954.49	119.70	6,033.85	5,929.17	104.68	57.640		
12,800.00	7,053.02	9,791.42	7,236.00	166.99	66.26	106.99	-945.95	118.87	6,133.40	6,028.77	104.63	58.622		
12,900.00	7,052.79	9,787.05	7,236.00	169.79	66.18	106.86	-941.60	118.45	6,232.96	6,128.32	104.63	59.570		
13,000.00	7,052.56	9,782.75	7,236.00	172.59	66.09	106.74	-937.32	118.04	6,332.52	6,227.88	104.64	60.516		
13,100.00	7,052.33	9,778.51	7,236.01	175.40	66.01	106.63	-933.10	117.64	6,432.10	6,327.44	104.65	61.461		
13,200.00	7,052.10	9,769.00	7,236.02	178.20	65.83	106.37	-923.63	116.76	6,531.68	6,427.09	104.59	62.450		
13,300.00	7,051.87	9,769.00	7,236.02	181.01	65.83	106.37	-923.63	116.76	6,631.27	6,526.60	104.66	63.359		
13,400.00	7,051.64	9,769.00	7,236.02	183.82	65.83	106.37	-923.63	116.76	6,730.86	6,626.13	104.73	64.266		
13,500.00	7,051.41	9,769.00	7,236.02	186.63	65.83	106.37	-923.63	116.76	6,830.47	6,725.67	104.81	65.172		
13,600.00	7,051.18	9,769.00	7,236.02	189.44	65.83	106.37	-923.63	116.76	6,930.09	6,825.21	104.88	66.076		
13,700.00	7,050.95	9,769.00	7,236.02	192.25	65.83	106.37	-923.63	116.76	7,029.72	6,924.77	104.95	66.979		
13,800.00	7,050.72	9,769.00	7,236.02	195.07	65.83	106.37	-923.63	116.76	7,129.36	7,024.34	105.03	67.881		
13,900.00	7,050.49	9,769.00	7,236.02	197.88	65.83	106.37	-923.63	116.76	7,229.01	7,123.91	105.10	68.781		
14,000.00	7,050.26	9,769.00	7,236.02	200.70	65.83	106.37	-923.63	116.76	7,328.67	7,223.50	105.18	69.680		
14,100.00	7,050.03	9,769.00	7,236.02	203.52	65.83	106.37	-923.63	116.76	7,428.34	7,323.09	105.25	70.577		
14,200.00	7,049.80	9,769.00	7,236.02	206.34	65.83	106.37	-923.63	116.76	7,528.02	7,422.70	105.33	71.473		
14,300.00	7,049.56	9,755.07	7,236.06	209.16	65.56	106.01	-909.75	115.53	7,627.63	7,522.42	105.22	72.495		
14,400.00	7,049.33	9,753.79	7,236.06	211.98	65.54	105.97	-908.48	115.43	7,727.31	7,622.04	105.28	73.401		
14,500.00	7,049.10	9,752.55	7,236.06	214.80	65.51	105.94	-907.24	115.33	7,827.00	7,721.66	105.34	74.305		
14,600.00	7,048.87	9,751.33	7,236.07	217.63	65.49	105.91	-906.03	115.23	7,926.69	7,821.30	105.40	75.208		
14,700.00	7,048.64	9,750.14	7,236.07	220.45	65.47	105.88	-904.84	115.13	8,026.39	7,920.93	105.46	76.108		
14,800.00	7,048.41	9,737.00	7,236.13	223.28	65.21	105.56	-891.74	114.14	8,126.16	8,020.79	105.37	77.122		
14,900.00	7,048.18	9,737.00	7,236.13	226.10	65.21	105.56	-891.74	114.14	8,225.86	8,120.41	105.45	78.010		
14,979.18	7,048.00	9,737.00	7,236.13	228.34	65.21	105.56	-891.74	114.14	8,304.81	8,199.30	105.51	78.711		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	10.62	1,627.73	305.10	1,656.07				
100.00	100.00	78.41	78.41	3.28	3.29	10.63	1,628.13	305.71	1,656.73	1,650.16	6.57	252.164	
200.00	200.00	161.23	161.19	3.34	3.31	10.69	1,629.41	307.67	1,658.66	1,652.02	6.64	249.674	
300.00	299.98	280.79	280.69	3.44	3.41	-175.28	1,631.05	311.28	1,662.34	1,655.49	6.85	242.764	
400.00	399.84	373.68	373.53	3.59	3.54	-175.19	1,631.31	314.05	1,668.42	1,661.29	7.13	233.913	
500.00	499.45	466.10	465.93	3.79	3.71	-175.18	1,633.37	314.93	1,679.43	1,671.92	7.50	223.853	
600.00	598.70	591.48	591.29	4.03	3.99	-175.21	1,634.65	314.89	1,692.50	1,684.48	8.02	211.000	
700.00	697.47	679.52	679.33	4.31	4.22	-175.22	1,635.17	315.21	1,708.75	1,700.22	8.53	200.332	
800.00	795.62	768.08	767.88	4.64	4.47	-175.21	1,636.27	315.91	1,729.10	1,720.01	9.09	190.187	
900.00	893.16	877.11	876.90	5.00	4.81	-175.24	1,637.65	316.73	1,752.45	1,742.69	9.76	179.516	
1,000.00	990.60	972.37	972.16	5.38	5.12	-175.29	1,638.53	317.30	1,775.85	1,765.43	10.42	170.471	
1,100.00	1,088.04	1,055.56	1,055.34	5.79	5.41	-175.33	1,639.66	317.73	1,799.65	1,788.59	11.06	162.719	
1,200.00	1,185.48	1,150.75	1,150.50	6.22	5.74	-175.38	1,641.40	318.25	1,823.90	1,812.13	11.77	154.961	
1,300.00	1,282.92	1,260.26	1,260.00	6.66	6.14	-175.46	1,643.21	318.04	1,847.87	1,835.31	12.56	147.170	
1,400.00	1,380.36	1,351.99	1,351.72	7.10	6.48	-175.55	1,644.68	317.35	1,871.68	1,858.39	13.29	140.855	
1,500.00	1,477.80	1,453.22	1,452.93	7.56	6.85	-175.64	1,646.30	316.48	1,895.48	1,881.41	14.07	134.671	
1,600.00	1,575.24	1,523.31	1,523.01	8.03	7.12	-175.67	1,647.73	317.00	1,919.95	1,905.21	14.74	130.235	
1,700.00	1,672.68	1,593.68	1,593.31	8.50	7.40	-175.65	1,649.78	319.04	1,945.66	1,930.25	15.42	126.208	
1,800.00	1,770.12	1,668.82	1,668.31	8.98	7.70	-175.60	1,652.73	322.64	1,972.64	1,956.52	16.12	122.393	
1,900.00	1,867.56	1,747.20	1,746.43	9.46	8.02	-175.50	1,656.16	327.96	2,000.43	1,983.59	16.84	118.799	
2,000.00	1,965.00	1,822.00	1,820.86	9.95	8.33	-175.38	1,660.14	334.21	2,029.35	2,011.80	17.55	115.654	
2,100.00	2,062.44	1,883.59	1,882.06	10.44	8.59	-175.27	1,664.17	339.78	2,059.54	2,041.35	18.19	113.240	
2,200.00	2,159.88	1,960.21	1,958.13	10.93	8.92	-175.15	1,670.13	346.79	2,090.94	2,072.03	18.91	110.576	
2,300.00	2,257.32	2,045.87	2,043.12	11.42	9.29	-175.00	1,677.16	354.89	2,122.84	2,103.15	19.69	107.837	
2,400.00	2,354.76	2,133.40	2,130.01	11.92	9.68	-174.90	1,684.98	361.93	2,155.17	2,134.70	20.48	105.254	
2,500.00	2,452.20	2,230.80	2,226.66	12.42	10.11	-174.77	1,693.64	370.30	2,187.58	2,166.25	21.33	102.562	
2,600.00	2,549.64	2,347.25	2,342.15	12.92	10.64	-174.58	1,703.24	381.68	2,219.65	2,197.35	22.30	99.516	
2,700.00	2,647.08	2,454.20	2,448.36	13.42	11.12	-174.42	1,710.85	391.72	2,250.54	2,227.31	23.23	96.886	
2,800.00	2,744.52	2,539.04	2,532.63	13.93	11.51	-174.30	1,717.09	399.34	2,281.62	2,257.60	24.02	94.975	
2,900.00	2,841.96	2,618.01	2,611.01	14.43	11.88	-174.20	1,723.29	406.69	2,313.25	2,288.47	24.78	93.338	
3,000.00	2,939.40	2,700.27	2,692.57	14.94	12.26	-174.08	1,730.34	414.72	2,345.62	2,320.05	25.57	91.749	
3,100.00	3,036.84	2,835.42	2,826.54	15.44	12.90	-173.86	1,740.99	428.96	2,377.63	2,350.93	26.69	89.083	
3,200.00	3,134.28	2,948.98	2,939.17	15.95	13.44	-173.65	1,747.81	441.71	2,407.92	2,380.24	27.68	86.986	
3,300.00	3,231.72	3,052.86	3,042.40	16.46	13.92	-173.51	1,754.11	451.52	2,437.95	2,409.34	28.61	85.211	
3,400.00	3,329.16	3,134.07	3,123.14	16.97	14.31	-173.42	1,759.23	458.53	2,468.05	2,438.65	29.40	83.956	
3,500.00	3,426.60	3,211.83	3,200.36	17.48	14.67	-173.32	1,764.46	466.12	2,498.78	2,468.62	30.16	82.843	
3,600.00	3,524.04	3,337.38	3,325.05	17.99	15.27	-173.17	1,773.10	477.90	2,529.69	2,498.45	31.24	80.981	
3,700.00	3,621.48	3,426.90	3,414.09	18.50	15.69	-173.08	1,778.73	485.24	2,559.70	2,527.62	32.08	79.793	
3,800.00	3,718.92	3,517.78	3,504.44	19.01	16.12	-172.99	1,784.56	493.16	2,589.94	2,557.01	32.93	78.646	
3,900.00	3,816.36	3,601.65	3,587.78	19.52	16.52	-172.90	1,790.13	500.65	2,620.45	2,586.72	33.74	77.669	
4,000.00	3,913.80	3,697.28	3,682.80	20.03	16.97	-172.81	1,796.77	509.20	2,651.26	2,616.63	34.63	76.570	
4,100.00	4,011.24	3,798.39	3,783.19	20.55	17.46	-172.69	1,803.35	519.23	2,681.88	2,646.33	35.55	75.434	
4,200.00	4,108.68	3,867.77	3,852.03	21.06	17.80	-172.59	1,807.90	526.63	2,712.75	2,676.48	36.27	74.796	
4,300.00	4,206.12	3,935.65	3,919.22	21.57	18.14	-172.49	1,812.95	534.87	2,744.73	2,707.76	36.97	74.237	
4,400.00	4,303.56	4,017.53	4,000.17	22.09	18.55	-172.35	1,819.42	545.27	2,777.30	2,739.53	37.78	73.520	
4,500.00	4,401.00	4,091.82	4,073.62	22.60	18.92	-172.24	1,825.82	554.41	2,810.46	2,771.93	38.52	72.955	
4,600.00	4,498.44	4,174.65	4,156.11	23.11	19.40	-172.11	1,832.85	564.20	2,843.25	2,804.52	39.31	72.407	
4,700.00	4,595.88	4,262.91	4,243.11	23.63	19.92	-171.96	1,840.41	574.54	2,876.45	2,836.52	40.11	71.864	
4,800.00	4,693.32	4,351.16	4,330.16	24.14	20.48	-171.80	1,848.51	585.43	2,909.95	2,868.82	40.93	71.326	
4,900.00	4,790.76	4,439.40	4,417.11	24.66	21.08	-171.63	1,857.07	596.87	2,943.75	2,901.92	41.77	70.793	
5,000.00	4,888.20	4,527.64	4,504.11	25.17	21.72	-171.46	1,866.10	608.86	2,977.95	2,934.52	42.63	70.264	
5,100.00	4,985.64	4,615.88	4,591.11	25.69	22.40	-171.29	1,875.60	621.39	3,012.45	2,971.42	43.51	69.740	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	9,859.61	7,124.31	26.20	69.48	-120.71	-1,130.08	650.86	2,180.58	2,135.29	45.30	48.141		
5,300.00	5,180.52	9,885.32	7,123.35	26.72	69.98	-119.23	-1,155.78	650.41	2,089.60	2,042.86	46.74	44.707		
5,400.00	5,277.96	9,903.96	7,122.63	27.24	70.34	-118.14	-1,174.39	650.09	1,999.30	1,951.02	48.28	41.412		
5,500.00	5,375.40	9,919.85	7,122.04	27.75	70.65	-117.19	-1,190.27	649.79	1,909.78	1,859.84	49.95	38.235		
5,600.00	5,472.84	9,935.73	7,121.50	28.27	70.96	-116.23	-1,206.14	649.44	1,821.20	1,769.42	51.78	35.169		
5,700.00	5,570.28	9,953.78	7,120.95	28.79	71.31	-115.13	-1,224.17	648.97	1,733.68	1,679.86	53.82	32.213		
5,800.00	5,667.72	9,972.74	7,120.44	29.30	71.68	-113.96	-1,243.12	648.38	1,647.35	1,591.28	56.07	29.381		
5,900.00	5,765.16	9,991.66	7,119.98	29.82	72.05	-112.77	-1,262.02	647.70	1,562.41	1,503.85	58.55	26.684		
6,000.00	5,862.60	10,013.92	7,119.50	30.34	72.48	-111.36	-1,284.26	646.81	1,479.08	1,417.76	61.32	24.121		
6,100.00	5,960.05	10,039.23	7,118.93	30.85	72.97	-109.73	-1,309.54	645.69	1,397.59	1,333.19	64.40	21.702		
6,200.00	6,057.49	10,063.42	7,118.39	31.37	73.44	-108.15	-1,333.69	644.50	1,318.26	1,250.46	67.80	19.443		
6,300.00	6,154.93	10,073.50	7,118.20	31.89	73.64	-107.48	-1,343.75	643.97	1,241.64	1,170.14	71.50	17.365		
6,400.00	6,252.37	10,083.54	7,118.13	32.40	73.83	-106.82	-1,353.78	643.46	1,168.38	1,092.81	75.58	15.459		
6,500.00	6,349.81	10,096.00	7,118.22	32.92	74.07	-105.99	-1,366.22	642.85	1,099.13	1,019.10	80.03	13.734		
6,600.00	6,447.25	10,114.37	7,118.49	33.44	74.43	-104.76	-1,384.57	641.97	1,034.58	949.73	84.85	12.193		
6,700.00	6,544.28	10,136.82	7,118.87	33.95	74.87	-131.43	-1,406.99	640.94	980.51	890.36	90.15	10.877		
6,800.00	6,638.86	10,162.43	7,119.29	34.44	75.37	-148.31	-1,432.57	639.78	947.85	852.01	95.84	9.890		
6,882.14	6,713.07	10,187.54	7,119.66	34.81	75.86	-155.05	-1,457.65	638.55	939.28	838.93	100.35	9.360 CC		
6,900.00	6,728.65	10,192.95	7,119.74	34.89	75.97	-156.05	-1,463.05	638.27	939.69	838.42	101.27	9.279 ES		
7,000.00	6,811.45	10,218.44	7,120.09	35.29	76.47	-159.98	-1,488.50	636.90	956.90	851.11	105.79	9.046 SF		
7,100.00	6,885.21	10,237.90	7,120.36	35.66	76.85	-162.09	-1,507.93	635.84	997.92	888.86	109.07	9.149		
7,200.00	6,948.11	10,254.08	7,120.56	35.99	77.17	-163.02	-1,524.10	635.02	1,059.26	948.04	111.22	9.524		
7,300.00	6,998.62	10,271.12	7,120.75	36.30	77.50	-162.63	-1,541.11	634.18	1,136.34	1,023.77	112.57	10.094		
7,400.00	7,035.48	10,285.23	7,120.87	36.65	77.78	-160.79	-1,555.20	633.49	1,224.60	1,111.22	113.37	10.801		
7,500.00	7,057.79	10,297.64	7,120.95	37.13	78.02	-155.07	-1,567.59	632.88	1,319.93	1,206.07	113.86	11.593		
7,600.00	7,065.00	10,306.37	7,120.99	37.84	78.19	-123.19	-1,576.32	632.44	1,418.89	1,304.76	114.13	12.433		
7,700.00	7,064.77	10,313.26	7,121.02	38.82	78.33	-121.10	-1,583.19	632.09	1,518.66	1,404.35	114.31	13.286		
7,800.00	7,064.54	10,320.33	7,121.05	40.06	78.47	-119.18	-1,590.25	631.72	1,618.43	1,503.94	114.49	14.136		
7,900.00	7,064.31	10,325.78	7,121.06	41.52	78.58	-117.84	-1,595.70	631.43	1,718.21	1,603.56	114.65	14.986		
8,000.00	7,064.08	10,331.64	7,121.08	43.14	78.69	-116.52	-1,601.56	631.12	1,818.00	1,703.18	114.82	15.834		
8,100.00	7,063.85	10,337.51	7,121.09	44.90	78.81	-115.32	-1,607.41	630.82	1,917.79	1,802.80	114.99	16.678		
8,200.00	7,063.62	10,343.38	7,121.09	46.78	78.92	-114.20	-1,613.27	630.51	2,017.58	1,902.43	115.16	17.521		
8,300.00	7,063.39	10,349.24	7,121.10	48.76	79.04	-113.18	-1,619.13	630.20	2,117.38	2,002.06	115.32	18.360		
8,400.00	7,063.16	10,354.51	7,121.05	50.83	79.34	-110.85	-1,634.38	629.38	2,217.17	2,101.49	115.68	19.166		
8,500.00	7,062.93	10,363.90	7,120.84	52.97	79.72	-108.41	-1,653.73	628.23	2,316.93	2,200.80	116.13	19.951		
8,600.00	7,062.70	10,366.49	7,120.80	55.18	79.77	-108.12	-1,656.31	628.07	2,416.68	2,300.44	116.24	20.790		
8,700.00	7,062.47	10,391.18	7,120.72	57.46	79.87	-107.62	-1,661.00	627.79	2,516.44	2,400.04	116.40	21.619		
8,800.00	7,062.24	10,395.77	7,120.64	59.78	79.96	-107.15	-1,665.57	627.52	2,616.21	2,499.65	116.55	22.446		
8,900.00	7,062.01	10,400.24	7,120.56	62.14	80.04	-106.71	-1,670.04	627.26	2,715.98	2,599.27	116.71	23.272		
9,000.00	7,061.78	10,404.62	7,120.47	64.55	80.13	-106.29	-1,674.41	627.01	2,815.76	2,698.90	116.86	24.096		
9,100.00	7,061.55	10,408.89	7,120.38	67.00	80.21	-105.91	-1,678.67	626.77	2,915.54	2,798.54	117.01	24.918		
9,200.00	7,061.31	10,412.00	7,120.31	69.47	80.28	-105.64	-1,681.78	626.60	3,015.33	2,898.20	117.13	25.744		
9,300.00	7,061.08	10,416.65	7,120.20	71.98	80.37	-105.24	-1,686.42	626.34	3,115.13	2,997.84	117.29	26.560		
9,400.00	7,060.85	10,420.24	7,120.12	74.51	80.44	-104.95	-1,690.00	626.14	3,214.93	3,097.51	117.42	27.379		
9,500.00	7,060.62	10,423.73	7,120.04	77.06	80.51	-104.68	-1,693.49	625.96	3,314.74	3,197.18	117.56	28.197		
9,600.00	7,060.39	10,427.14	7,119.96	79.64	80.58	-104.42	-1,696.89	625.78	3,414.55	3,296.86	117.69	29.013		
9,700.00	7,060.16	10,430.47	7,119.87	82.23	80.64	-104.17	-1,700.21	625.60	3,514.37	3,396.55	117.82	29.828		
9,800.00	7,059.93	10,433.71	7,119.79	84.84	80.71	-103.94	-1,703.45	625.44	3,614.19	3,496.24	117.95	30.642		
9,900.00	7,059.70	10,436.88	7,119.71	87.47	80.77	-103.72	-1,706.61	625.28	3,714.01	3,595.94	118.08	31.454		
10,000.00	7,059.47	10,440.00	7,119.53	90.11	80.91	-103.24	-1,713.72	624.92	3,813.85	3,695.55	118.30	32.239		
10,100.00	7,059.24	10,444.00	7,119.53	92.76	80.91	-103.24	-1,713.72	624.92	3,913.68	3,795.33	118.35	33.068		
10,200.00	7,059.01	10,200.00	7,118.04	95.42	76.08	-100.55	-1,763.11	622.20	4,013.47	3,899.71	113.76	35.279		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.78	10,300.00	7,117.83	98.10	78.06	-100.26	-1,769.72	621.80	4,113.24	3,997.39	115.85	35.506		
10,400.00	7,058.55	10,400.00	7,117.62	100.79	80.04	-99.98	-1,776.32	621.40	4,213.01	4,095.08	117.93	35.724		
10,500.00	7,058.32	10,517.17	7,117.27	103.48	82.36	-99.57	-1,786.74	620.75	4,312.76	4,192.38	120.38	35.826		
10,600.00	7,058.09	10,646.23	7,112.51	106.19	84.91	-96.03	-1,915.34	611.14	4,412.48	4,288.72	123.76	35.654		
10,700.00	7,057.86	10,650.04	7,112.38	108.90	84.99	-95.96	-1,919.14	610.81	4,512.02	4,388.08	123.94	36.405		
10,800.00	7,057.63	10,653.76	7,112.26	111.62	85.06	-95.89	-1,922.84	610.48	4,611.58	4,487.47	124.12	37.155		
10,900.00	7,057.40	10,657.38	7,112.14	114.35	85.13	-95.83	-1,926.45	610.17	4,711.16	4,586.86	124.29	37.904		
11,000.00	7,057.17	10,667.00	7,111.83	117.08	85.32	-95.66	-1,936.03	609.37	4,810.75	4,686.12	124.63	38.602		
11,100.00	7,056.94	10,667.00	7,111.83	119.82	85.32	-95.66	-1,936.03	609.37	4,910.33	4,785.63	124.70	39.376		
11,200.00	7,056.71	10,667.00	7,111.83	122.56	85.32	-95.66	-1,936.03	609.37	5,009.93	4,885.15	124.78	40.150		
11,300.00	7,056.48	10,667.00	7,111.83	125.31	85.32	-95.66	-1,936.03	609.37	5,109.55	4,984.70	124.85	40.924		
11,400.00	7,056.25	10,667.00	7,111.83	128.06	85.32	-95.66	-1,936.03	609.37	5,209.18	5,084.25	124.93	41.697		
11,500.00	7,056.02	10,667.00	7,111.83	130.82	85.32	-95.66	-1,936.03	609.37	5,308.83	5,183.83	125.00	42.469		
11,600.00	7,055.79	10,679.04	7,111.47	133.59	85.56	-95.47	-1,948.03	608.41	5,408.45	5,283.03	125.41	43.126		
11,700.00	7,055.55	10,681.72	7,111.39	136.35	85.62	-95.42	-1,950.69	608.21	5,508.10	5,382.54	125.56	43.868		
11,800.00	7,055.32	10,684.33	7,111.32	139.12	85.67	-95.39	-1,953.30	608.01	5,607.76	5,482.05	125.71	44.610		
11,900.00	7,055.09	10,686.88	7,111.25	141.90	85.72	-95.35	-1,955.84	607.82	5,707.42	5,581.57	125.85	45.350		
12,000.00	7,054.86	12,000.00	7,109.47	144.67	111.82	-94.20	-2,057.52	599.42	5,807.06	5,654.03	153.03	37.948		
12,100.00	7,054.63	10,802.95	7,109.29	147.45	88.02	-94.09	-2,071.48	598.14	5,906.57	5,777.22	129.35	45.663		
12,200.00	7,054.40	10,808.76	7,109.23	150.24	88.14	-94.04	-2,077.26	597.61	6,006.10	5,876.49	129.61	46.341		
12,300.00	7,054.17	10,814.49	7,109.19	153.02	88.25	-94.00	-2,082.97	597.09	6,105.63	5,975.77	129.86	47.017		
12,400.00	7,053.94	10,820.15	7,109.16	155.81	88.36	-93.96	-2,088.61	596.58	6,205.17	6,075.06	130.11	47.691		
12,500.00	7,053.71	10,826.45	7,109.14	158.60	88.49	-93.92	-2,093.99	596.10	6,304.71	6,174.34	130.37	48.359		
12,600.00	7,053.48	10,835.04	7,109.13	161.40	88.66	-93.86	-2,103.44	595.26	6,404.26	6,273.54	130.72	48.991		
12,700.00	7,053.25	10,844.52	7,109.11	164.19	88.85	-93.80	-2,112.89	594.42	6,503.81	6,372.71	131.09	49.612		
12,800.00	7,053.02	10,854.01	7,109.09	166.99	89.04	-93.74	-2,122.33	593.57	6,603.35	6,471.89	131.47	50.229		
12,900.00	7,052.79	12,900.00	7,109.03	169.79	129.85	-93.58	-2,149.30	591.10	6,702.86	6,530.11	172.75	38.801		
13,000.00	7,052.56	10,898.35	7,108.97	172.59	89.92	-93.48	-2,166.49	589.51	6,802.37	6,669.37	133.00	51.146		
13,100.00	7,052.33	10,902.99	7,108.95	175.40	90.01	-93.46	-2,171.11	589.08	6,901.88	6,768.66	133.23	51.805		
13,200.00	7,052.10	10,907.56	7,108.92	178.20	90.10	-93.43	-2,175.66	588.66	7,001.41	6,867.95	133.46	52.462		
13,300.00	7,051.87	10,912.06	7,108.90	181.01	90.19	-93.41	-2,180.14	588.25	7,100.94	6,967.25	133.68	53.117		
13,400.00	7,051.64	10,921.00	7,108.84	183.82	90.37	-93.36	-2,189.05	587.45	7,200.48	7,066.43	134.05	53.715		
13,500.00	7,051.41	10,921.00	7,108.84	186.63	90.37	-93.36	-2,189.05	587.45	7,300.02	7,165.88	134.14	54.422		
13,600.00	7,051.18	10,921.00	7,108.84	189.44	90.37	-93.36	-2,189.05	587.45	7,399.57	7,265.35	134.22	55.129		
13,700.00	7,050.95	10,931.22	7,108.78	192.25	90.57	-93.31	-2,199.22	586.55	7,499.12	7,364.49	134.63	55.701		
13,800.00	7,050.72	10,936.32	7,108.75	195.07	90.67	-93.28	-2,204.30	586.10	7,598.68	7,463.80	134.88	56.336		
13,900.00	7,050.49	10,941.36	7,108.73	197.88	90.77	-93.26	-2,209.32	585.66	7,698.25	7,563.12	135.13	56.970		
14,000.00	7,050.26	10,946.34	7,108.71	200.70	90.87	-93.23	-2,214.29	585.23	7,797.82	7,662.45	135.37	57.602		
14,100.00	7,050.03	10,953.00	7,108.70	203.52	91.01	-93.20	-2,220.92	584.66	7,897.39	7,761.72	135.67	58.209		
14,200.00	7,049.80	10,953.00	7,108.70	206.34	91.01	-93.20	-2,220.92	584.66	7,996.98	7,861.22	135.76	58.906		
14,300.00	7,049.56	10,960.88	7,108.70	209.16	91.17	-93.17	-2,228.78	583.99	8,096.56	7,960.46	136.10	59.490		
14,400.00	7,049.33	10,965.60	7,108.71	211.98	91.26	-93.15	-2,233.48	583.60	8,196.15	8,059.81	136.34	60.116		
14,500.00	7,049.10	10,970.27	7,108.73	214.80	91.35	-93.13	-2,238.13	583.20	8,295.75	8,159.17	136.58	60.740		
14,600.00	7,048.87	10,974.89	7,108.75	217.63	91.45	-93.11	-2,242.73	582.82	8,395.35	8,258.53	136.81	61.363		
14,700.00	7,048.64	10,985.00	7,108.84	220.45	91.65	-93.08	-2,252.81	581.99	8,494.96	8,357.72	137.23	61.902		
14,800.00	7,048.41	10,985.00	7,108.84	223.28	91.65	-93.08	-2,252.81	581.99	8,594.56	8,457.24	137.32	62.588		
14,900.00	7,048.18	10,985.00	7,108.84	226.10	91.65	-93.08	-2,252.81	581.99	8,694.18	8,556.77	137.41	63.274		
14,979.18	7,048.00	10,985.00	7,108.84	228.34	91.65	-93.08	-2,252.81	581.99	8,773.06	8,635.58	137.48	63.816		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
0.00	0.00	13.14	3.14	3.28	3.28	46.23	1,624.13	1,695.70	2,348.02					
100.00	100.00	144.48	134.47	3.28	3.30	46.21	1,624.03	1,694.34	2,347.22	2,340.64	6.58	356.831		
200.00	200.00	256.89	246.84	3.34	3.37	46.16	1,624.28	1,691.39	2,345.48	2,338.77	6.71	349.584		
277.09	277.08	343.59	333.47	3.41	3.48	-140.03	1,625.03	1,688.02	2,344.58	2,337.69	6.89	340.153		
300.00	299.98	358.57	348.44	3.44	3.50	-140.05	1,625.24	1,687.40	2,344.64	2,337.70	6.94	337.724		
400.00	399.84	445.90	435.67	3.59	3.66	-140.19	1,626.98	1,683.63	2,346.93	2,339.69	7.25	323.892		
500.00	499.45	543.57	533.21	3.79	3.87	-140.37	1,629.44	1,679.19	2,352.14	2,344.48	7.66	307.191		
600.00	598.70	638.06	627.52	4.03	4.12	-140.58	1,632.49	1,674.44	2,360.25	2,352.11	8.14	289.946		
700.00	697.47	730.11	719.38	4.31	4.38	-140.80	1,635.99	1,669.51	2,371.31	2,362.62	8.68	273.036		
800.00	795.62	825.24	814.26	4.64	4.68	-141.07	1,640.28	1,664.18	2,385.49	2,376.20	9.30	256.562		
900.00	893.16	921.92	910.68	5.00	5.00	-141.46	1,644.53	1,658.55	2,401.96	2,392.00	9.97	241.007		
1,000.00	990.60	1,002.96	991.51	5.38	5.29	-141.87	1,648.42	1,654.05	2,419.40	2,408.79	10.61	227.956		
1,100.00	1,088.04	1,267.69	1,253.24	5.79	6.38	-143.61	1,668.85	1,621.63	2,435.91	2,423.82	12.09	201.496		
1,200.00	1,185.48	1,373.12	1,356.70	6.22	6.89	-144.38	1,676.34	1,602.81	2,447.52	2,434.54	12.98	188.550		
1,300.00	1,282.92	1,466.06	1,447.82	6.66	7.35	-145.06	1,682.90	1,585.66	2,459.10	2,445.26	13.84	177.666		
1,400.00	1,380.36	1,650.04	1,628.07	7.10	8.30	-146.39	1,694.54	1,550.79	2,470.94	2,455.75	15.19	162.666		
1,500.00	1,477.80	1,759.79	1,735.53	7.56	8.89	-147.15	1,698.33	1,528.85	2,479.73	2,463.55	16.18	153.240		
1,600.00	1,575.24	1,851.02	1,824.91	8.03	9.38	-147.76	1,700.71	1,510.76	2,488.36	2,471.27	17.09	145.613		
1,700.00	1,672.68	1,916.00	1,888.74	8.50	9.73	-148.18	1,702.61	1,498.73	2,498.29	2,480.42	17.87	139.829		
1,800.00	1,770.12	1,982.50	1,954.22	8.98	10.08	-148.60	1,704.85	1,487.30	2,509.67	2,491.02	18.65	134.566		
1,900.00	1,867.56	2,044.78	2,015.64	9.46	10.40	-148.98	1,707.23	1,477.32	2,522.40	2,502.99	19.41	129.946		
2,000.00	1,965.00	2,106.00	2,076.11	9.95	10.72	-149.34	1,710.23	1,468.22	2,536.83	2,516.67	20.16	125.806		
2,100.00	2,062.44	2,187.22	2,156.33	10.44	11.14	-149.83	1,714.94	1,456.46	2,552.46	2,531.44	21.03	121.383		
2,200.00	2,159.88	2,265.78	2,233.87	10.93	11.55	-150.31	1,720.06	1,444.89	2,568.80	2,546.91	21.88	117.383		
2,300.00	2,257.32	2,343.09	2,310.11	11.42	11.96	-150.78	1,725.80	1,433.45	2,586.07	2,563.33	22.74	113.734		
2,400.00	2,354.76	2,433.64	2,399.38	11.92	12.44	-151.34	1,733.11	1,420.13	2,604.15	2,580.48	23.67	110.017		
2,500.00	2,452.20	2,529.39	2,493.95	12.42	12.95	-151.89	1,740.02	1,406.83	2,622.27	2,597.64	24.63	106.471		
2,600.00	2,549.64	2,617.36	2,580.92	12.92	13.40	-152.38	1,746.30	1,395.25	2,640.96	2,615.43	25.54	103.419		
2,700.00	2,647.08	2,718.69	2,681.20	13.42	13.92	-152.93	1,753.19	1,382.37	2,659.85	2,633.33	26.52	100.297		
2,800.00	2,744.52	2,852.08	2,813.04	13.93	14.62	-153.66	1,762.00	1,364.17	2,678.39	2,650.69	27.70	96.689		
2,900.00	2,841.96	2,974.87	2,933.87	14.43	15.30	-154.38	1,770.11	1,343.90	2,695.63	2,666.78	28.85	93.428		
3,000.00	2,939.40	3,069.85	3,027.35	14.94	15.83	-154.93	1,776.00	1,328.12	2,712.78	2,682.94	29.84	90.912		
3,100.00	3,036.84	3,169.70	3,125.73	15.44	16.38	-155.48	1,781.72	1,312.04	2,730.04	2,699.19	30.85	88.493		
3,200.00	3,134.28	3,260.30	3,214.97	15.95	16.88	-155.98	1,787.00	1,297.38	2,747.59	2,715.78	31.80	86.390		
3,300.00	3,231.72	3,375.27	3,328.65	16.46	17.49	-156.55	1,792.27	1,281.02	2,765.29	2,732.40	32.88	84.093		
3,400.00	3,329.16	3,484.33	3,436.65	16.97	18.05	-157.06	1,795.44	1,266.23	2,782.00	2,748.09	33.91	82.044		
3,500.00	3,426.60	3,556.29	3,508.02	17.48	18.41	-157.37	1,797.54	1,257.25	2,799.45	2,764.73	34.72	80.632		
3,600.00	3,524.04	3,626.00	3,577.13	17.99	18.76	-157.68	1,800.33	1,248.59	2,817.97	2,782.46	35.51	79.352		
3,700.00	3,621.48	3,695.80	3,646.26	18.50	19.12	-158.00	1,803.97	1,239.69	2,837.54	2,801.23	36.31	78.147		
3,800.00	3,718.92	3,778.75	3,728.29	19.01	19.56	-158.39	1,809.28	1,228.53	2,857.96	2,820.76	37.20	76.831		
3,900.00	3,816.36	3,873.45	3,821.62	19.52	20.08	-158.87	1,816.37	1,214.16	2,878.76	2,840.58	38.18	75.404		
4,000.00	3,913.80	3,989.97	3,936.18	20.03	20.75	-159.49	1,825.44	1,194.95	2,899.48	2,860.16	39.32	73.740		
4,100.00	4,011.24	4,126.25	4,070.05	20.55	21.53	-160.21	1,834.86	1,171.22	2,919.30	2,878.69	40.61	71.893		
4,200.00	4,108.68	4,237.66	4,179.42	21.06	22.17	-160.79	1,841.44	1,151.07	2,938.16	2,896.44	41.72	70.430		
4,300.00	4,206.12	4,323.17	4,263.58	21.57	22.65	-161.21	1,846.07	1,136.65	2,957.34	2,914.69	42.65	69.340		
4,400.00	4,303.56	4,409.07	4,348.35	22.09	23.13	-161.60	1,850.45	1,123.42	2,977.01	2,933.44	43.58	68.314		
4,500.00	4,401.00	4,494.75	4,432.98	22.60	23.59	-161.98	1,854.84	1,110.82	2,997.16	2,952.67	44.49	67.368		
4,600.00	4,498.44	4,588.96	4,523.61	23.11	24.04	-162.46	-957.59	973.93	2,936.85	2,888.68	48.17	60.970		
4,700.00	4,595.88	4,681.32	4,623.34	23.63	24.57	-121.57	-979.94	973.59	2,846.88	2,797.51	49.37	57.660		
4,800.00	4,693.32	4,777.71	4,723.14	24.14	25.08	-120.91	-996.32	973.41	2,757.47	2,706.88	50.59	54.505		
4,900.00	4,790.76	4,884.00	4,823.07	24.66	25.59	-120.66	-1,002.62	973.36	2,668.70	2,616.92	51.78	51.540		
5,000.00	4,888.20	4,989.38	4,931.95	25.17	26.09	-120.07	-1,016.99	973.27	2,580.66	2,527.52	53.14	48.567		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	4,985.64	9,915.00	7,231.96	25.69	68.88	-119.38	-1,033.61	973.17	2,493.47	2,438.86	54.60	45.665		
5,200.00	5,083.08	9,919.05	7,231.98	26.20	68.96	-119.22	-1,037.66	973.15	2,407.13	2,351.10	56.03	42.962		
5,300.00	5,180.52	9,934.45	7,232.12	26.72	69.25	-118.58	-1,053.07	973.04	2,321.78	2,264.10	57.68	40.253		
5,400.00	5,277.96	9,951.88	7,232.37	27.24	69.58	-117.84	-1,070.49	972.88	2,237.48	2,178.01	59.46	37.627		
5,500.00	5,375.40	9,974.44	7,232.73	27.75	70.01	-116.89	-1,093.05	972.66	2,154.29	2,092.86	61.43	35.068		
5,600.00	5,472.84	9,992.46	7,233.01	28.27	70.36	-116.11	-1,111.06	972.54	2,072.35	2,008.87	63.48	32.646		
5,700.00	5,570.28	10,011.00	7,233.30	28.79	70.71	-115.31	-1,129.60	972.54	1,991.85	1,926.18	65.68	30.328		
5,800.00	5,667.72	10,026.46	7,233.56	29.30	71.01	-114.63	-1,145.06	972.61	1,912.99	1,845.00	67.98	28.138		
5,900.00	5,765.16	10,044.46	7,233.92	29.82	71.36	-113.83	-1,163.05	972.72	1,835.95	1,765.47	70.48	26.048		
6,000.00	5,862.60	10,065.94	7,234.39	30.34	71.77	-112.87	-1,184.53	972.89	1,760.95	1,687.75	73.20	24.057		
6,100.00	5,960.05	10,093.01	7,234.99	30.85	72.29	-111.64	-1,211.59	973.10	1,688.21	1,612.03	76.17	22.163		
6,200.00	6,057.49	10,118.36	7,235.52	31.37	72.78	-110.48	-1,236.94	973.26	1,617.95	1,538.65	79.30	20.403		
6,300.00	6,154.93	10,140.21	7,235.98	31.89	73.20	-109.47	-1,258.78	973.43	1,550.60	1,468.06	82.54	18.787		
6,400.00	6,252.37	10,162.98	7,236.44	32.40	73.65	-108.41	-1,281.54	973.66	1,486.57	1,400.63	85.94	17.297		
6,500.00	6,349.81	10,187.40	7,236.89	32.92	74.12	-107.26	-1,305.96	973.97	1,426.28	1,336.77	89.51	15.934		
6,600.00	6,447.25	10,211.55	7,237.28	33.44	74.59	-106.12	-1,330.10	974.31	1,370.21	1,277.05	93.17	14.707		
6,700.00	6,544.28	10,234.64	7,237.61	33.95	75.04	-133.19	-1,353.19	974.66	1,324.15	1,227.24	96.91	13.663		
6,800.00	6,638.86	10,255.97	7,237.91	34.44	75.46	-150.68	-1,374.52	975.01	1,298.53	1,197.85	100.68	12.897		
6,864.39	6,697.36	10,278.11	7,238.19	34.73	75.89	-156.51	-1,396.65	975.36	1,293.85	1,190.67	103.19	12.539 CC		
6,900.00	6,728.65	10,298.74	7,238.34	34.89	76.29	-158.40	-1,417.27	975.52	1,295.28	1,190.57	104.70	12.371 ES		
7,000.00	6,811.45	10,342.88	7,238.44	35.29	77.15	-161.98	-1,461.42	975.14	1,314.27	1,206.02	108.26	12.140 SF		
7,100.00	6,885.21	10,363.81	7,238.39	35.66	77.56	-164.50	-1,482.35	974.82	1,354.66	1,244.04	110.61	12.247		
7,200.00	6,948.11	10,380.78	7,238.33	35.99	77.90	-166.00	-1,499.31	974.54	1,413.82	1,301.55	112.26	12.594		
7,300.00	6,998.62	10,395.52	7,238.27	36.30	78.18	-166.77	-1,514.05	974.28	1,488.24	1,374.87	113.37	13.127		
7,400.00	7,035.48	10,407.32	7,238.22	36.65	78.42	-167.01	-1,525.85	974.07	1,574.16	1,460.09	114.06	13.801		
7,500.00	7,057.79	10,415.65	7,238.17	37.13	78.58	-166.72	-1,534.17	973.92	1,667.91	1,553.44	114.47	14.571		
7,600.00	7,065.00	10,420.31	7,238.14	37.84	78.67	-165.05	-1,538.83	973.83	1,766.18	1,651.53	114.66	15.404		
7,700.00	7,064.77	10,423.48	7,238.12	38.82	78.73	-164.05	-1,542.01	973.77	1,865.72	1,750.95	114.77	16.256		
7,800.00	7,064.54	10,427.27	7,238.09	40.06	78.81	-162.87	-1,545.79	973.69	1,965.29	1,850.40	114.89	17.106		
7,900.00	7,064.31	10,431.24	7,238.06	41.52	78.89	-161.64	-1,549.76	973.61	2,064.90	1,949.89	115.02	17.953		
8,000.00	7,064.08	10,435.42	7,238.03	43.14	78.97	-160.37	-1,553.94	973.52	2,164.54	2,049.40	115.14	18.798		
8,100.00	7,063.85	10,439.82	7,238.00	44.90	79.06	-159.06	-1,558.34	973.43	2,264.21	2,148.93	115.28	19.641		
8,200.00	7,063.62	10,444.46	7,237.96	46.78	79.15	-157.69	-1,562.98	973.33	2,363.90	2,248.49	115.42	20.482		
8,300.00	7,063.39	10,449.36	7,237.92	48.76	79.24	-156.28	-1,567.87	973.21	2,463.61	2,348.05	115.56	21.319		
8,400.00	7,063.16	10,454.53	7,237.87	50.83	79.34	-154.82	-1,573.05	973.09	2,563.34	2,447.63	115.71	22.153		
8,500.00	7,062.93	10,460.01	7,237.82	52.97	79.45	-153.31	-1,578.53	972.95	2,663.08	2,547.21	115.87	22.983		
8,600.00	7,062.70	10,460.50	7,237.82	55.18	79.46	-153.18	-1,579.01	972.94	2,762.84	2,646.94	115.90	23.837		
8,700.00	7,062.47	10,463.60	7,237.79	57.46	79.52	-152.34	-1,582.11	972.87	2,862.62	2,746.61	116.00	24.677		
8,800.00	7,062.24	10,466.70	7,237.76	59.78	79.58	-151.52	-1,585.21	972.79	2,962.40	2,846.30	116.10	25.515		
8,900.00	7,062.01	10,469.79	7,237.73	62.14	79.64	-150.71	-1,588.30	972.72	3,062.19	2,945.99	116.20	26.352		
9,000.00	7,061.78	10,472.89	7,237.69	64.55	79.71	-149.91	-1,591.40	972.64	3,162.00	3,045.69	116.31	27.187		
9,100.00	7,061.55	10,475.99	7,237.66	67.00	79.77	-149.13	-1,594.49	972.56	3,261.81	3,145.41	116.41	28.021		
9,200.00	7,061.31	10,479.08	7,237.62	69.47	79.83	-148.35	-1,597.59	972.49	3,361.64	3,245.13	116.51	28.853		
9,300.00	7,061.08	10,482.18	7,237.59	71.98	79.89	-147.59	-1,600.68	972.41	3,461.47	3,344.85	116.61	29.683		
9,400.00	7,060.85	10,485.28	7,237.55	74.51	79.95	-146.84	-1,603.78	972.34	3,561.30	3,444.58	116.72	30.512		
9,500.00	7,060.62	10,489.94	7,237.49	77.06	80.04	-145.74	-1,608.44	972.22	3,661.15	3,544.28	116.86	31.328		
9,600.00	7,060.39	10,495.24	7,237.43	79.64	80.15	-144.51	-1,613.74	972.09	3,760.99	3,643.96	117.03	32.137		
9,700.00	7,060.16	10,500.75	7,237.36	82.23	80.26	-143.28	-1,619.25	971.95	3,860.84	3,743.64	117.20	32.943		
9,800.00	7,059.93	10,506.48	7,237.28	84.84	80.37	-142.03	-1,624.97	971.80	3,960.70	3,843.32	117.38	33.744		
9,900.00	7,059.70	10,512.43	7,237.20	87.47	80.49	-140.78	-1,630.92	971.64	4,060.55	3,942.99	117.56	34.540		
10,000.00	7,059.47	10,518.62	7,237.11	90.11	80.61	-139.52	-1,637.11	971.47	4,160.41	4,042.66	117.75	35.332		
10,100.00	7,059.24	10,100.00	7,237.17	92.76	72.36	-140.43	-1,632.63	971.59	4,260.27	4,150.80	109.47	38.917		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,059.01	10,525.25	7,237.02	95.42	80.74	-138.23	-1,643.74	971.28	4,360.14	4,242.15	117.99	36.953		
10,300.00	7,058.78	10,528.71	7,236.97	98.10	80.81	-137.57	-1,647.19	971.19	4,460.00	4,341.89	118.11	37.760		
10,400.00	7,058.55	10,532.17	7,236.91	100.79	80.88	-136.92	-1,650.65	971.09	4,559.88	4,441.64	118.24	38.565		
10,500.00	7,058.32	10,535.62	7,236.86	103.48	80.94	-136.29	-1,654.10	970.99	4,659.75	4,541.38	118.37	39.367		
10,600.00	7,058.09	10,539.08	7,236.80	106.19	81.01	-135.67	-1,657.56	970.90	4,759.63	4,641.13	118.49	40.168		
10,700.00	7,057.86	10,542.54	7,236.75	108.90	81.08	-135.07	-1,661.01	970.80	4,859.51	4,740.89	118.62	40.967		
10,800.00	7,057.63	10,545.99	7,236.69	111.62	81.15	-134.47	-1,664.47	970.71	4,959.39	4,840.64	118.75	41.763		
10,900.00	7,057.40	10,549.45	7,236.63	114.35	81.22	-133.89	-1,667.92	970.61	5,059.27	4,940.39	118.88	42.557		
11,000.00	7,057.17	10,552.87	7,236.57	117.08	81.28	-133.32	-1,671.34	970.51	5,159.16	5,040.15	119.01	43.350		
11,100.00	7,056.94	10,556.29	7,236.51	119.82	81.35	-132.77	-1,674.76	970.42	5,259.05	5,139.91	119.14	44.140		
11,200.00	7,056.71	10,559.71	7,236.45	122.56	81.42	-132.22	-1,678.17	970.32	5,358.94	5,239.66	119.28	44.929		
11,300.00	7,056.48	10,563.13	7,236.38	125.31	81.49	-131.69	-1,681.59	970.23	5,458.83	5,339.42	119.41	45.715		
11,400.00	7,056.25	10,566.55	7,236.32	128.06	81.56	-131.17	-1,685.01	970.13	5,558.73	5,439.18	119.55	46.499		
11,500.00	7,056.02	10,569.97	7,236.26	130.82	81.62	-130.65	-1,688.43	970.04	5,658.62	5,538.94	119.68	47.281		
11,600.00	7,055.79	10,573.39	7,236.19	133.59	81.69	-130.15	-1,691.85	969.94	5,758.52	5,638.70	119.82	48.060		
11,700.00	7,055.55	10,576.81	7,236.13	136.35	81.76	-129.66	-1,695.27	969.85	5,858.42	5,738.47	119.96	48.838		
11,800.00	7,055.32	10,580.23	7,236.06	139.12	81.83	-129.17	-1,698.69	969.75	5,958.32	5,838.23	120.10	49.613		
11,900.00	7,055.09	10,583.65	7,235.97	141.90	81.92	-128.51	-1,703.50	969.62	6,058.22	5,937.95	120.27	50.370		
12,000.00	7,054.86	10,587.07	7,235.87	144.67	82.03	-127.80	-1,708.78	969.47	6,158.13	6,037.66	120.47	51.119		
12,100.00	7,054.63	10,590.49	7,235.76	147.45	82.13	-127.10	-1,714.16	969.32	6,258.03	6,137.37	120.66	51.864		
12,200.00	7,054.40	10,593.91	7,235.64	150.24	82.24	-126.41	-1,719.63	969.16	6,357.93	6,237.07	120.86	52.604		
12,300.00	7,054.17	10,597.33	7,235.52	153.02	82.35	-125.72	-1,725.20	969.00	6,457.83	6,336.77	121.07	53.341		
12,400.00	7,053.94	10,600.75	7,235.39	155.81	82.46	-125.05	-1,730.86	968.83	6,557.74	6,436.46	121.28	54.073		
12,500.00	7,053.71	10,604.17	7,235.26	158.60	82.58	-124.38	-1,736.62	968.66	6,657.64	6,536.15	121.49	54.801		
12,600.00	7,053.48	10,607.59	7,235.12	161.40	82.69	-123.73	-1,742.48	968.48	6,757.54	6,635.84	121.70	55.525		
12,700.00	7,053.25	10,611.01	7,234.98	164.19	82.81	-123.08	-1,748.45	968.30	6,857.44	6,735.52	121.92	56.244		
12,800.00	7,053.02	10,614.43	7,234.83	166.99	82.93	-122.44	-1,754.53	968.11	6,957.34	6,835.20	122.15	56.958		
12,900.00	7,052.79	10,617.85	7,234.67	169.79	83.06	-121.81	-1,760.72	967.92	7,057.25	6,934.87	122.38	57.667		
13,000.00	7,052.56	10,621.27	7,234.50	172.59	83.18	-121.19	-1,767.03	967.72	7,157.15	7,034.53	122.61	58.372		
13,100.00	7,052.33	10,624.69	7,234.34	175.40	83.31	-120.56	-1,773.21	967.53	7,257.05	7,134.31	122.84	59.077		
13,200.00	7,052.10	10,628.11	7,234.17	178.20	83.44	-119.94	-1,779.40	967.34	7,356.95	7,234.05	123.07	59.782		
13,300.00	7,051.87	10,631.53	7,234.00	181.01	83.57	-119.32	-1,785.60	967.15	7,456.85	7,333.78	123.30	60.487		
13,400.00	7,051.64	10,634.95	7,233.83	183.82	83.70	-118.70	-1,791.80	966.96	7,556.76	7,433.52	123.53	61.192		
13,500.00	7,051.41	10,638.37	7,233.66	186.63	83.83	-118.08	-1,798.00	966.77	7,656.66	7,533.25	123.76	61.897		
13,600.00	7,051.18	10,641.79	7,233.49	189.44	83.96	-117.46	-1,804.20	966.58	7,756.56	7,633.00	123.99	62.602		
13,700.00	7,050.95	10,645.21	7,233.32	192.25	84.09	-116.84	-1,810.40	966.39	7,856.44	7,732.75	124.22	63.307		
13,800.00	7,050.72	10,648.63	7,233.15	195.07	84.22	-116.22	-1,816.60	966.20	7,956.31	7,832.50	124.45	64.012		
13,900.00	7,050.49	10,652.05	7,232.98	197.88	84.35	-115.60	-1,822.80	966.01	8,056.19	7,932.25	124.68	64.717		
14,000.00	7,050.26	10,655.47	7,232.81	200.70	84.48	-114.98	-1,829.00	965.82	8,156.07	8,032.00	124.91	65.422		
14,100.00	7,050.03	10,658.89	7,232.64	203.52	84.61	-114.36	-1,835.20	965.63	8,255.95	8,131.75	125.14	66.127		
14,200.00	7,049.80	10,662.31	7,232.47	206.34	84.74	-113.74	-1,841.40	965.44	8,355.84	8,231.50	125.37	66.832		
14,300.00	7,049.56	10,665.73	7,232.30	209.16	84.87	-113.12	-1,847.60	965.25	8,455.72	8,331.25	125.60	67.537		
14,400.00	7,049.33	10,669.15	7,232.13	211.98	85.00	-112.50	-1,853.80	965.06	8,555.61	8,431.00	125.83	68.242		
14,500.00	7,049.10	10,672.57	7,231.96	214.80	85.13	-111.88	-1,860.00	964.87	8,655.51	8,530.75	126.06	68.947		
14,600.00	7,048.87	10,675.99	7,231.79	217.63	85.26	-111.26	-1,866.20	964.68	8,755.40	8,630.50	126.29	69.652		
14,700.00	7,048.64	10,679.41	7,231.62	220.45	85.39	-110.64	-1,872.40	964.49	8,855.30	8,730.25	126.52	70.357		
14,800.00	7,048.41	10,682.83	7,231.45	223.28	85.52	-110.02	-1,878.60	964.30	8,955.20	8,830.00	126.75	71.062		
14,900.00	7,048.18	10,686.25	7,231.28	226.10	85.65	-109.40	-1,884.80	964.11	9,055.10	8,929.75	126.98	71.767		
14,979.18	7,048.00	10,689.67	7,231.11	228.94	85.78	-108.78	-1,891.00	963.92	9,155.00	9,029.50	127.21	72.472		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	0.49	359.94	3.06	359.95					
100.00	100.00	102.00	100.00	3.28	3.29	0.49	359.94	3.06	359.95	353.38	6.57	54.788		
200.00	200.00	202.00	200.00	3.34	3.34	0.49	359.94	3.06	359.95	353.28	6.68	53.920	CC, ES	
300.00	299.98	290.58	288.56	3.44	3.43	174.39	361.36	2.92	363.29	356.41	6.88	52.779		
400.00	399.84	378.81	376.70	3.59	3.57	174.37	365.49	2.50	373.16	365.96	7.20	51.850		
500.00	499.45	465.94	463.56	3.79	3.74	174.34	372.21	1.83	389.49	381.89	7.60	51.247		
600.00	598.70	551.44	548.56	4.03	3.94	174.30	381.36	0.91	412.16	404.09	8.07	51.061		
700.00	697.47	634.84	631.17	4.31	4.16	174.25	392.71	-0.23	441.02	432.43	8.59	51.328		
800.00	795.62	715.71	710.93	4.64	4.40	174.19	406.00	-1.56	475.87	466.73	9.14	52.041		
900.00	893.16	793.82	787.58	5.00	4.65	174.16	420.96	-3.07	516.09	506.38	9.71	53.130		
1,000.00	990.60	869.90	861.81	5.38	4.90	174.15	437.52	-4.73	559.13	548.86	10.27	54.432		
1,100.00	1,088.04	944.05	933.71	5.79	5.16	174.12	455.54	-6.54	604.51	593.67	10.84	55.745		
1,200.00	1,185.48	1,016.24	1,003.24	6.22	5.44	174.08	474.86	-8.48	652.14	640.72	11.41	57.130		
1,300.00	1,282.92	1,103.72	1,079.86	6.66	5.79	174.01	497.89	-10.79	701.57	689.51	12.06	58.193		
1,400.00	1,380.36	1,183.10	1,162.92	7.10	6.13	173.95	523.04	-13.31	751.20	738.50	12.69	59.184		
1,500.00	1,477.80	1,269.91	1,245.97	7.56	6.51	173.90	548.18	-15.84	800.82	787.44	13.38	59.850		
1,600.00	1,575.24	1,356.73	1,329.03	8.03	6.91	173.85	573.33	-18.36	850.45	836.36	14.09	60.367		
1,700.00	1,672.68	1,443.54	1,412.09	8.50	7.31	173.81	598.47	-20.89	900.07	885.26	14.81	60.768		
1,800.00	1,770.12	1,530.36	1,495.14	8.98	7.72	173.77	623.61	-23.41	949.70	934.15	15.55	61.076		
1,900.00	1,867.56	1,617.17	1,578.20	9.46	8.13	173.74	648.76	-25.94	999.33	983.03	16.30	61.310		
2,000.00	1,965.00	1,703.99	1,661.25	9.95	8.55	173.71	673.90	-28.46	1,048.96	1,031.90	17.06	61.485		
2,100.00	2,062.44	1,809.20	1,744.31	10.44	9.07	173.68	699.05	-30.99	1,098.58	1,080.67	17.91	61.324		
2,200.00	2,159.88	1,877.62	1,827.36	10.93	9.41	173.66	724.19	-33.51	1,148.21	1,129.60	18.61	61.704		
2,300.00	2,257.32	1,964.43	1,910.42	11.42	9.84	173.63	749.34	-36.03	1,197.84	1,178.45	19.39	61.764		
2,400.00	2,354.76	2,051.25	1,993.48	11.92	10.27	173.61	774.48	-38.56	1,247.47	1,227.28	20.19	61.801		
2,500.00	2,452.20	2,138.07	2,076.53	12.42	10.71	173.59	799.63	-41.08	1,297.10	1,276.11	20.98	61.819		
2,600.00	2,549.64	2,224.88	2,159.59	12.92	11.15	173.58	824.77	-43.61	1,346.72	1,324.94	21.78	61.821		
2,700.00	2,647.08	2,311.70	2,242.64	13.42	11.60	173.56	849.91	-46.13	1,396.35	1,373.76	22.59	61.811		
2,800.00	2,744.52	2,401.49	2,325.70	13.93	12.06	173.54	875.06	-48.66	1,445.98	1,422.57	23.42	61.753		
2,900.00	2,841.96	2,485.33	2,408.76	14.43	12.49	173.53	900.20	-51.18	1,495.61	1,471.40	24.22	61.763		
3,000.00	2,939.40	2,572.14	2,491.81	14.94	12.93	173.51	925.35	-53.71	1,545.24	1,520.21	25.03	61.729		
3,100.00	3,036.84	2,658.96	2,574.87	15.44	13.38	173.50	950.49	-56.23	1,594.87	1,569.01	25.85	61.690		
3,200.00	3,134.28	2,745.77	2,657.92	15.95	13.83	173.49	975.64	-58.75	1,644.50	1,617.82	26.68	61.648		
3,300.00	3,231.72	2,832.59	2,740.98	16.46	14.29	173.48	1,000.78	-61.28	1,694.13	1,666.62	27.50	61.602		
3,400.00	3,329.16	2,919.40	2,824.03	16.97	14.74	173.47	1,025.93	-63.80	1,743.75	1,715.43	28.33	61.555		
3,500.00	3,426.60	3,006.22	2,907.09	17.48	15.19	173.46	1,051.07	-66.33	1,793.38	1,764.23	29.16	61.505		
3,600.00	3,524.04	3,106.97	2,990.15	17.99	15.72	173.45	1,076.22	-68.85	1,843.01	1,812.95	30.06	61.315		
3,700.00	3,621.48	3,179.85	3,073.20	18.50	16.10	173.44	1,101.36	-71.38	1,892.64	1,861.82	30.82	61.404		
3,800.00	3,718.92	3,266.66	3,156.26	19.01	16.56	173.43	1,126.50	-73.90	1,942.27	1,910.61	31.66	61.352		
3,900.00	3,816.36	3,353.48	3,239.31	19.52	17.01	173.42	1,151.65	-76.43	1,991.90	1,959.41	32.49	61.301		
4,000.00	3,913.80	3,440.29	3,322.37	20.03	17.47	173.41	1,176.79	-78.95	2,041.53	2,008.20	33.33	61.249		
4,100.00	4,011.24	3,527.11	3,405.43	20.55	17.93	173.41	1,201.94	-81.47	2,091.16	2,056.99	34.17	61.198		
4,200.00	4,108.68	3,613.93	3,488.48	21.06	18.38	173.40	1,227.08	-84.00	2,140.79	2,105.78	35.01	61.146		
4,300.00	4,206.12	3,700.74	3,571.54	21.57	18.84	173.39	1,252.23	-86.52	2,190.42	2,154.56	35.85	61.096		
4,400.00	4,303.56	3,787.56	3,654.59	22.09	19.30	173.39	1,277.37	-89.05	2,240.05	2,203.35	36.69	61.046		
4,500.00	4,401.00	3,874.37	3,737.65	22.60	19.76	173.38	1,302.52	-91.57	2,289.67	2,252.14	37.54	60.996		
4,600.00	4,498.44	3,961.19	3,820.70	23.11	20.22	173.37	1,327.66	-94.10	2,339.30	2,300.92	38.38	60.947		
4,700.00	4,595.88	4,048.00	3,903.76	23.63	20.68	173.37	1,352.81	-96.62	2,388.93	2,349.71	39.23	60.899		
4,800.00	4,693.32	4,134.82	3,986.82	24.14	21.14	173.36	1,377.95	-99.14	2,438.56	2,398.49	40.07	60.852		
4,900.00	4,790.76	4,221.63	4,069.87	24.66	21.60	173.36	1,403.09	-101.67	2,488.19	2,447.27	40.92	60.805		
5,000.00	4,888.20	4,308.45	4,152.93	25.17	22.06	173.35	1,428.24	-104.19	2,537.82	2,496.05	41.77	60.760		
5,100.00	4,985.64	4,404.74	4,235.98	25.69	22.57	173.35	1,453.38	-106.72	2,587.45	2,544.79	42.66	60.647		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	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	5,083.08	4,482.08	4,319.04	26.20	22.98	173.34	1,478.53	-109.24	2,637.08	2,593.61	43.47	60.670		
5,300.00	5,180.52	4,568.89	4,402.10	26.72	23.44	173.34	1,503.67	-111.77	2,686.71	2,642.39	44.32	60.627		
5,400.00	5,277.96	4,655.71	4,485.15	27.24	23.90	173.33	1,528.82	-114.29	2,736.34	2,691.17	45.17	60.584		
5,500.00	5,375.40	4,742.52	4,568.21	27.75	24.37	173.33	1,553.96	-116.82	2,785.97	2,739.95	46.02	60.542		
5,600.00	5,472.84	4,829.34	4,651.26	28.27	24.83	173.33	1,579.11	-119.34	2,835.60	2,788.73	46.87	60.501		
5,700.00	5,570.28	4,916.15	4,734.32	28.79	25.29	173.32	1,604.25	-121.86	2,885.23	2,837.51	47.72	60.460		
5,800.00	5,667.72	5,002.97	4,817.37	29.30	25.75	173.32	1,629.39	-124.39	2,934.86	2,886.28	48.57	60.420		
5,900.00	5,765.16	5,089.78	4,900.43	29.82	26.22	173.31	1,654.54	-126.91	2,984.49	2,935.06	49.43	60.381		
6,000.00	5,862.60	5,176.60	4,983.49	30.34	26.68	173.31	1,679.68	-129.44	3,034.12	2,983.83	50.28	60.343		
6,100.00	5,960.05	5,263.42	5,066.54	30.85	27.14	173.31	1,704.83	-131.96	3,083.74	3,032.61	51.14	60.305		
6,200.00	6,057.49	5,350.23	5,149.60	31.37	27.61	173.30	1,729.97	-134.49	3,133.37	3,081.38	51.99	60.268		
6,300.00	6,154.93	6,369.57	6,154.93	31.89	32.04	173.56	1,865.18	-148.06	3,156.54	3,097.67	58.87	53.620		
6,400.00	6,252.37	6,467.01	6,252.37	32.40	32.39	173.61	1,865.18	-148.06	3,178.89	3,119.18	59.71	53.241		
6,500.00	6,349.81	6,564.45	6,349.81	32.92	32.74	173.65	1,865.18	-148.06	3,201.24	3,140.69	60.55	52.871		
6,600.00	6,447.25	6,661.89	6,447.25	33.44	33.09	173.70	1,865.18	-148.06	3,223.59	3,162.20	61.39	52.509		
6,700.00	6,544.68	6,758.92	6,544.68	33.95	33.44	143.31	1,865.18	-148.06	3,245.89	3,183.66	62.23	52.157		
6,800.00	6,638.86	6,855.03	6,640.39	34.44	33.79	122.95	1,865.18	-148.32	3,267.85	3,204.79	63.06	51.823		
6,900.00	6,728.65	6,959.90	6,744.50	34.89	34.17	111.94	1,865.09	-159.88	3,288.97	3,225.09	63.88	51.484		
7,000.00	6,811.45	7,070.97	6,851.10	35.29	34.55	105.28	1,864.85	-190.56	3,308.69	3,243.96	64.73	51.118		
7,100.00	6,885.21	7,189.02	6,956.72	35.66	34.94	100.89	1,864.44	-242.92	3,326.46	3,260.84	65.62	50.692		
7,200.00	6,948.11	7,314.52	7,056.35	35.99	35.31	97.88	1,863.84	-318.89	3,341.77	3,275.12	66.65	50.143		
7,300.00	6,998.62	7,447.29	7,143.39	36.30	35.66	95.80	1,863.06	-418.83	3,354.13	3,286.21	67.92	49.383		
7,400.00	7,035.48	7,586.23	7,210.24	36.65	36.11	94.42	1,862.11	-540.31	3,363.12	3,293.51	69.61	48.311		
7,500.00	7,057.79	7,729.18	7,249.89	37.13	37.04	93.60	1,861.04	-677.34	3,368.42	3,296.60	71.83	46.897		
7,600.00	7,065.00	7,862.91	7,258.91	37.84	38.42	93.30	1,860.00	-810.55	3,369.89	3,295.49	74.40	45.294		
7,700.00	7,064.77	7,962.91	7,258.53	38.82	39.69	93.30	1,859.21	-910.55	3,369.69	3,292.74	76.96	43.787		
7,800.00	7,064.54	8,062.91	7,258.15	40.06	41.12	93.29	1,858.43	-1,010.54	3,369.50	3,289.68	79.83	42.210		
7,900.00	7,064.31	8,162.91	7,257.77	41.52	42.69	93.29	1,857.65	-1,110.54	3,369.31	3,286.32	82.99	40.599		
8,000.00	7,064.08	8,262.91	7,257.39	43.14	44.40	93.29	1,856.87	-1,210.54	3,369.12	3,282.70	86.42	38.987		
8,100.00	7,063.85	8,362.91	7,257.01	44.90	46.22	93.29	1,856.09	-1,310.53	3,368.93	3,278.85	90.07	37.402		
8,200.00	7,063.62	8,462.91	7,256.63	46.78	48.15	93.28	1,855.30	-1,410.53	3,368.74	3,274.80	93.94	35.862		
8,300.00	7,063.39	8,562.91	7,256.25	48.76	50.16	93.28	1,854.52	-1,510.52	3,368.55	3,270.57	97.98	34.380		
8,400.00	7,063.16	8,662.91	7,255.87	50.83	52.25	93.28	1,853.74	-1,610.52	3,368.35	3,266.17	102.18	32.964		
8,500.00	7,062.93	8,762.91	7,255.49	52.97	54.41	93.28	1,852.96	-1,710.52	3,368.16	3,261.64	106.52	31.619		
8,600.00	7,062.70	8,862.91	7,255.11	55.18	56.64	93.28	1,852.18	-1,810.51	3,367.97	3,256.98	110.99	30.345		
8,700.00	7,062.47	8,962.91	7,254.73	57.46	58.92	93.27	1,851.39	-1,910.51	3,367.78	3,252.21	115.57	29.142		
8,800.00	7,062.24	9,062.91	7,254.35	59.78	61.25	93.27	1,850.61	-2,010.50	3,367.59	3,247.35	120.24	28.008		
8,900.00	7,062.01	9,162.91	7,253.97	62.14	63.62	93.27	1,849.83	-2,110.50	3,367.40	3,242.40	125.00	26.940		
9,000.00	7,061.78	9,262.91	7,253.59	64.55	66.03	93.27	1,849.05	-2,210.50	3,367.21	3,237.37	129.83	25.935		
9,100.00	7,061.55	9,362.91	7,253.21	67.00	68.47	93.26	1,848.27	-2,310.49	3,367.01	3,232.28	134.74	24.990		
9,200.00	7,061.31	9,462.91	7,252.83	69.47	70.95	93.26	1,847.48	-2,410.49	3,366.82	3,227.12	139.70	24.100		
9,300.00	7,061.08	9,562.91	7,252.45	71.98	73.45	93.26	1,846.70	-2,510.48	3,366.63	3,221.91	144.72	23.263		
9,400.00	7,060.85	9,662.91	7,252.08	74.51	75.98	93.26	1,845.92	-2,610.48	3,366.44	3,216.65	149.79	22.474		
9,500.00	7,060.62	9,762.91	7,251.70	77.06	78.53	93.25	1,845.14	-2,710.48	3,366.25	3,211.35	154.90	21.731		
9,600.00	7,060.39	9,862.91	7,251.32	79.64	81.10	93.25	1,844.36	-2,810.47	3,366.06	3,206.00	160.06	21.030		
9,700.00	7,060.16	9,962.91	7,250.94	82.23	83.69	93.25	1,843.57	-2,910.47	3,365.87	3,200.62	165.25	20.369		
9,800.00	7,059.93	10,062.91	7,250.56	84.84	86.30	93.25	1,842.79	-3,010.46	3,365.68	3,195.20	170.47	19.743		
9,900.00	7,059.70	10,162.91	7,250.18	87.47	88.92	93.24	1,842.01	-3,110.46	3,365.48	3,189.76	175.72	19.152		
10,000.00	7,059.47	10,262.91	7,249.80	90.11	91.56	93.24	1,841.23	-3,210.46	3,365.29	3,184.29	181.01	18.592		
10,100.00	7,059.24	10,362.91	7,249.42	92.76	94.21	93.24	1,840.45	-3,310.45	3,365.10	3,178.79	186.31	18.062		
10,200.00	7,059.01	10,462.91	7,249.04	95.42	96.87	93.24	1,839.66	-3,410.45	3,364.91	3,173.27	191.64	17.558		
10,300.00	7,058.78	10,562.91	7,248.66	98.10	99.54	93.24	1,838.88	-3,510.44	3,364.72	3,167.73	196.99	17.080		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	7,058.55	10,662.91	7,248.28	100.79	102.22	93.23	1,838.10	-3,610.44	3,364.53	3,162.16	202.36	16.626		
10,500.00	7,058.32	10,762.91	7,247.90	103.48	104.91	93.23	1,837.32	-3,710.43	3,364.34	3,156.58	207.75	16.194		
10,600.00	7,058.09	10,862.91	7,247.52	106.19	107.61	93.23	1,836.54	-3,810.43	3,364.14	3,150.99	213.16	15.783		
10,700.00	7,057.86	10,962.91	7,247.14	108.90	110.32	93.23	1,835.75	-3,910.43	3,363.95	3,145.38	218.58	15.390		
10,800.00	7,057.63	11,062.91	7,246.76	111.62	113.04	93.22	1,834.97	-4,010.42	3,363.76	3,139.75	224.01	15.016		
10,900.00	7,057.40	11,162.91	7,246.38	114.35	115.76	93.22	1,834.19	-4,110.42	3,363.57	3,134.11	229.46	14.659		
11,000.00	7,057.17	11,262.90	7,246.00	117.08	118.49	93.22	1,833.41	-4,210.41	3,363.38	3,128.46	234.92	14.317		
11,100.00	7,056.94	11,362.90	7,245.62	119.82	121.22	93.22	1,832.63	-4,310.41	3,363.19	3,122.80	240.39	13.990		
11,200.00	7,056.71	11,462.90	7,245.24	122.56	123.96	93.21	1,831.84	-4,410.41	3,363.00	3,117.12	245.88	13.678		
11,300.00	7,056.48	11,562.90	7,244.86	125.31	126.71	93.21	1,831.06	-4,510.40	3,362.81	3,111.44	251.37	13.378		
11,400.00	7,056.25	11,662.90	7,244.48	128.06	129.46	93.21	1,830.28	-4,610.40	3,362.61	3,105.74	256.87	13.091		
11,500.00	7,056.02	11,762.90	7,244.11	130.82	132.21	93.21	1,829.50	-4,710.39	3,362.42	3,100.04	262.38	12.815		
11,600.00	7,055.79	11,862.90	7,243.73	133.59	134.97	93.20	1,828.72	-4,810.39	3,362.23	3,094.33	267.90	12.550		
11,700.00	7,055.55	11,962.90	7,243.35	136.35	137.74	93.20	1,827.93	-4,910.39	3,362.04	3,088.61	273.43	12.296		
11,800.00	7,055.32	12,062.90	7,242.97	139.12	140.50	93.20	1,827.15	-5,010.38	3,361.85	3,082.89	278.96	12.051		
11,900.00	7,055.09	12,162.90	7,242.59	141.90	143.27	93.20	1,826.37	-5,110.38	3,361.66	3,077.15	284.51	11.816		
12,000.00	7,054.86	12,262.90	7,242.21	144.67	146.05	93.20	1,825.59	-5,210.37	3,361.47	3,071.41	290.05	11.589		
12,100.00	7,054.63	12,362.90	7,241.83	147.45	148.83	93.19	1,824.81	-5,310.37	3,361.28	3,065.67	295.61	11.371		
12,200.00	7,054.40	12,462.90	7,241.45	150.24	151.61	93.19	1,824.02	-5,410.37	3,361.08	3,059.92	301.17	11.160		
12,300.00	7,054.17	12,562.90	7,241.07	153.02	154.39	93.19	1,823.24	-5,510.36	3,360.89	3,054.16	306.73	10.957		
12,400.00	7,053.94	12,662.90	7,240.69	155.81	157.17	93.19	1,822.46	-5,610.36	3,360.70	3,048.40	312.30	10.761		
12,500.00	7,053.71	12,762.90	7,240.31	158.60	159.96	93.18	1,821.68	-5,710.35	3,360.51	3,042.63	317.88	10.572		
12,600.00	7,053.48	12,862.90	7,239.93	161.40	162.75	93.18	1,820.90	-5,810.35	3,360.32	3,036.86	323.46	10.389		
12,700.00	7,053.25	12,962.90	7,239.55	164.19	165.55	93.18	1,820.11	-5,910.35	3,360.13	3,031.08	329.05	10.212		
12,800.00	7,053.02	13,062.90	7,239.17	166.99	168.34	93.18	1,819.33	-6,010.34	3,359.94	3,025.30	334.63	10.041		
12,900.00	7,052.79	13,162.90	7,238.79	169.79	171.14	93.17	1,818.55	-6,110.34	3,359.75	3,019.52	340.23	9.875		
13,000.00	7,052.56	13,262.90	7,238.41	172.59	173.94	93.17	1,817.77	-6,210.33	3,359.56	3,013.73	345.82	9.715		
13,100.00	7,052.33	13,362.90	7,238.03	175.40	176.74	93.17	1,816.99	-6,310.33	3,359.36	3,007.94	351.42	9.559		
13,200.00	7,052.10	13,462.90	7,237.65	178.20	179.54	93.17	1,816.20	-6,410.33	3,359.17	3,002.14	357.03	9.409		
13,300.00	7,051.87	13,562.90	7,237.27	181.01	182.35	93.16	1,815.42	-6,510.32	3,358.98	2,996.35	362.64	9.263		
13,400.00	7,051.64	13,662.90	7,236.89	183.82	185.15	93.16	1,814.64	-6,610.32	3,358.79	2,990.54	368.25	9.121		
13,500.00	7,051.41	13,762.90	7,236.51	186.63	187.96	93.16	1,813.86	-6,710.31	3,358.60	2,984.74	373.86	8.984		
13,600.00	7,051.18	13,862.90	7,236.14	189.44	190.77	93.16	1,813.08	-6,810.31	3,358.41	2,978.93	379.48	8.850		
13,700.00	7,050.95	13,962.90	7,235.76	192.25	193.58	93.15	1,812.29	-6,910.31	3,358.22	2,973.12	385.09	8.720		
13,800.00	7,050.72	14,062.90	7,235.38	195.07	196.39	93.15	1,811.51	-7,010.30	3,358.03	2,967.31	390.72	8.595		
13,900.00	7,050.49	14,162.90	7,235.00	197.88	199.21	93.15	1,810.73	-7,110.30	3,357.83	2,961.49	396.34	8.472		
14,000.00	7,050.26	14,262.90	7,234.62	200.70	202.02	93.15	1,809.95	-7,210.29	3,357.64	2,955.68	401.97	8.353		
14,100.00	7,050.03	14,362.90	7,234.24	203.52	204.84	93.15	1,809.17	-7,310.29	3,357.45	2,949.86	407.60	8.237		
14,200.00	7,049.80	14,462.90	7,233.86	206.34	207.66	93.14	1,808.38	-7,410.28	3,357.26	2,944.03	413.23	8.124		
14,300.00	7,049.56	14,562.90	7,233.48	209.16	210.47	93.14	1,807.60	-7,510.28	3,357.07	2,938.21	418.86	8.015		
14,400.00	7,049.33	14,662.90	7,233.10	211.98	213.29	93.14	1,806.82	-7,610.28	3,356.88	2,932.38	424.50	7.908		
14,500.00	7,049.10	14,762.90	7,232.72	214.80	216.11	93.14	1,806.04	-7,710.27	3,356.69	2,926.56	430.13	7.804		
14,600.00	7,048.87	14,862.89	7,232.34	217.63	218.94	93.13	1,805.26	-7,810.27	3,356.50	2,920.72	435.77	7.702		
14,700.00	7,048.64	14,962.89	7,231.96	220.45	221.76	93.13	1,804.47	-7,910.26	3,356.31	2,914.89	441.41	7.604		
14,800.00	7,048.41	15,062.89	7,231.58	223.28	224.58	93.13	1,803.69	-8,010.26	3,356.12	2,909.06	447.06	7.507		
14,900.00	7,048.18	15,162.89	7,231.20	226.10	227.40	93.13	1,802.91	-8,110.26	3,355.92	2,903.22	452.70	7.413		
14,959.53	7,048.05	15,216.01	7,231.00	227.78	228.91	93.13	1,802.49	-8,163.37	3,355.82	2,899.94	455.88	7.361		
14,979.18	7,048.00	15,216.01	7,231.00	228.34	228.91	93.13	1,802.49	-8,163.37	3,355.87	2,899.45	456.42	7.353 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	0.52	340.27	3.06	340.28					
100.00	100.00	102.00	100.00	3.28	3.29	0.52	340.27	3.06	340.28	333.71	6.57	51.795		
200.00	200.00	202.00	200.00	3.34	3.34	0.52	340.27	3.06	340.28	333.61	6.68	50.974	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	174.45	340.27	3.06	342.02	335.13	6.89	49.657		
400.00	399.84	390.89	388.88	3.59	3.59	174.48	341.70	2.88	348.83	341.64	7.19	48.513		
500.00	499.45	479.15	477.04	3.79	3.76	174.48	345.82	2.35	362.15	354.56	7.59	47.723		
600.00	598.70	566.01	563.63	4.03	3.97	174.46	352.51	1.49	381.87	373.81	8.06	47.383		
700.00	697.47	650.98	648.10	4.31	4.20	174.41	361.57	0.33	407.87	399.29	8.58	47.523		
800.00	795.62	733.58	729.92	4.64	4.44	174.34	372.75	-1.10	439.97	430.83	9.14	48.132		
900.00	893.16	813.57	808.82	5.00	4.69	174.29	385.81	-2.78	477.54	467.82	9.72	49.133		
1,000.00	990.60	905.02	888.73	5.38	5.00	174.25	401.25	-4.75	517.95	507.62	10.33	50.129		
1,100.00	1,088.04	986.14	978.07	5.79	5.27	174.20	419.20	-7.06	559.06	548.14	10.92	51.174		
1,200.00	1,185.48	1,077.29	1,067.41	6.22	5.61	174.16	437.15	-9.36	600.17	588.58	11.59	51.792		
1,300.00	1,282.92	1,168.45	1,156.75	6.66	5.96	174.12	455.11	-11.66	641.28	629.01	12.28	52.242		
1,400.00	1,380.36	1,259.61	1,246.10	7.10	6.33	174.09	473.06	-13.96	682.40	669.41	12.98	52.554		
1,500.00	1,477.80	1,350.77	1,335.44	7.56	6.70	174.06	491.01	-16.26	723.51	709.80	13.71	52.762		
1,600.00	1,575.24	1,441.92	1,424.78	8.03	7.08	174.04	508.97	-18.56	764.62	750.16	14.46	52.891		
1,700.00	1,672.68	1,533.08	1,514.12	8.50	7.47	174.01	526.92	-20.86	805.73	790.52	15.21	52.959		
1,800.00	1,770.12	1,624.24	1,603.47	8.98	7.86	173.99	544.87	-23.16	846.85	830.86	15.98	52.983		
1,900.00	1,867.56	1,715.39	1,692.81	9.46	8.26	173.97	562.83	-25.46	887.96	871.20	16.76	52.973		
2,000.00	1,965.00	1,806.55	1,782.15	9.95	8.66	173.95	580.78	-27.76	929.07	911.52	17.55	52.937		
2,100.00	2,062.44	1,902.29	1,871.49	10.44	9.09	173.94	598.73	-30.06	970.18	951.82	18.37	52.825		
2,200.00	2,159.88	1,988.87	1,960.84	10.93	9.48	173.92	616.69	-32.36	1,011.30	992.15	19.15	52.814		
2,300.00	2,257.32	2,080.02	2,050.18	11.42	9.89	173.91	634.64	-34.66	1,052.41	1,032.45	19.96	52.736		
2,400.00	2,354.76	2,171.18	2,139.52	11.92	10.31	173.90	652.59	-36.96	1,093.52	1,072.75	20.77	52.651		
2,500.00	2,452.20	2,262.34	2,228.86	12.42	10.72	173.89	670.55	-39.26	1,134.64	1,113.05	21.59	52.561		
2,600.00	2,549.64	2,353.50	2,318.21	12.92	11.14	173.88	688.50	-41.56	1,175.75	1,153.34	22.41	52.468		
2,700.00	2,647.08	2,444.65	2,407.55	13.42	11.56	173.87	706.45	-43.86	1,216.86	1,193.63	23.23	52.374		
2,800.00	2,744.52	2,535.81	2,496.89	13.93	11.98	173.86	724.41	-46.17	1,257.98	1,233.91	24.06	52.279		
2,900.00	2,841.96	2,626.97	2,586.23	14.43	12.41	173.85	742.36	-48.47	1,299.09	1,274.19	24.89	52.184		
3,000.00	2,939.40	2,718.13	2,675.58	14.94	12.83	173.84	760.31	-50.77	1,340.20	1,314.47	25.73	52.090		
3,100.00	3,036.84	2,809.28	2,764.92	15.44	13.26	173.83	778.27	-53.07	1,381.32	1,354.75	26.57	51.997		
3,200.00	3,134.28	2,900.44	2,854.26	15.95	13.68	173.82	796.22	-55.37	1,422.43	1,395.02	27.40	51.905		
3,300.00	3,231.72	3,008.40	2,943.60	16.46	14.19	173.82	814.17	-57.67	1,463.54	1,435.22	28.32	51.675		
3,400.00	3,329.16	3,082.76	3,032.95	16.97	14.54	173.81	832.13	-59.97	1,504.65	1,475.57	29.09	51.728		
3,500.00	3,426.60	3,173.91	3,122.29	17.48	14.97	173.80	850.08	-62.27	1,545.77	1,515.84	29.93	51.642		
3,600.00	3,524.04	3,265.07	3,211.63	17.99	15.40	173.80	868.03	-64.57	1,586.88	1,556.10	30.78	51.559		
3,700.00	3,621.48	3,356.23	3,300.97	18.50	15.83	173.79	885.99	-66.87	1,627.99	1,596.37	31.63	51.477		
3,800.00	3,718.92	3,447.39	3,390.31	19.01	16.26	173.79	903.94	-69.17	1,669.11	1,636.63	32.47	51.398		
3,900.00	3,816.36	3,538.54	3,479.66	19.52	16.69	173.78	921.89	-71.47	1,710.22	1,676.90	33.32	51.321		
4,000.00	3,913.80	3,629.70	3,569.00	20.03	17.12	173.78	939.85	-73.77	1,751.33	1,717.16	34.18	51.246		
4,100.00	4,011.24	3,720.86	3,658.34	20.55	17.56	173.77	957.80	-76.07	1,792.45	1,757.42	35.03	51.173		
4,200.00	4,108.68	3,812.02	3,747.68	21.06	17.99	173.77	975.75	-78.37	1,833.56	1,797.68	35.88	51.102		
4,300.00	4,206.12	3,903.17	3,837.03	21.57	18.42	173.77	993.71	-80.67	1,874.67	1,837.94	36.73	51.033		
4,400.00	4,303.56	3,994.33	3,926.37	22.09	18.86	173.76	1,011.66	-82.98	1,915.79	1,878.20	37.59	50.966		
4,500.00	4,401.00	4,085.49	4,015.71	22.60	19.29	173.76	1,029.61	-85.28	1,956.90	1,918.46	38.45	50.901		
4,600.00	4,498.44	4,176.65	4,105.05	23.11	19.73	173.75	1,047.57	-87.58	1,998.01	1,958.71	39.30	50.838		
4,700.00	4,595.88	4,267.80	4,194.40	23.63	20.16	173.75	1,065.52	-89.88	2,039.13	1,998.97	40.16	50.777		
4,800.00	4,693.32	4,358.96	4,283.74	24.14	20.60	173.75	1,083.47	-92.18	2,080.24	2,039.22	41.02	50.717		
4,900.00	4,790.76	4,450.12	4,373.08	24.66	21.03	173.74	1,101.43	-94.48	2,121.35	2,079.48	41.88	50.659		
5,000.00	4,888.20	4,541.28	4,462.42	25.17	21.47	173.74	1,119.38	-96.78	2,162.47	2,119.73	42.73	50.602		
5,100.00	4,985.64	4,632.43	4,551.77	25.69	21.90	173.74	1,137.33	-99.08	2,203.58	2,159.99	43.59	50.547		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	5,083.08	4,723.59	4,641.11	26.20	22.34	173.73	1,155.29	-101.38	2,244.69	2,200.24	44.45	50.494		
5,300.00	5,180.52	4,814.75	4,730.45	26.72	22.77	173.73	1,173.24	-103.68	2,285.81	2,240.49	45.32	50.442		
5,400.00	5,277.96	4,905.91	4,819.79	27.24	23.21	173.73	1,191.19	-105.98	2,326.92	2,280.74	46.18	50.391		
5,500.00	5,375.40	5,002.94	4,909.14	27.75	23.68	173.73	1,209.15	-108.28	2,368.03	2,320.97	47.07	50.313		
5,600.00	5,472.84	5,088.22	4,998.48	28.27	24.08	173.72	1,227.10	-110.58	2,409.15	2,361.25	47.90	50.294		
5,700.00	5,570.28	5,179.38	5,087.82	28.79	24.52	173.72	1,245.05	-112.88	2,450.26	2,401.50	48.76	50.247		
5,800.00	5,667.72	5,270.54	5,177.16	29.30	24.96	173.72	1,263.01	-115.18	2,491.38	2,441.75	49.63	50.201		
5,900.00	5,765.16	5,361.69	5,266.51	29.82	25.40	173.72	1,280.96	-117.48	2,532.49	2,482.00	50.49	50.157		
6,000.00	5,862.60	5,452.85	5,355.85	30.34	25.83	173.71	1,298.91	-119.78	2,573.60	2,522.25	51.36	50.113		
6,100.00	5,960.05	5,544.01	5,445.19	30.85	26.27	173.71	1,316.87	-122.09	2,614.72	2,562.49	52.22	50.071		
6,200.00	6,057.49	5,635.17	5,534.53	31.37	26.71	173.71	1,334.82	-124.39	2,655.83	2,602.74	53.09	50.029		
6,300.00	6,154.93	5,726.32	5,623.87	31.89	27.15	173.71	1,352.77	-126.69	2,696.94	2,642.99	53.95	49.989		
6,400.00	6,252.37	5,817.48	5,713.22	32.40	27.58	173.71	1,370.73	-128.99	2,738.06	2,683.24	54.82	49.949		
6,500.00	6,349.81	5,908.64	5,802.56	32.92	28.02	173.70	1,388.68	-131.29	2,779.17	2,723.49	55.68	49.911		
6,600.00	6,447.25	5,999.79	5,891.90	33.44	28.46	173.70	1,406.63	-133.59	2,820.28	2,763.73	56.55	49.873		
6,700.00	6,544.28	6,109.29	5,981.01	33.95	28.99	141.57	1,424.54	-135.88	2,861.29	2,803.79	57.50	49.761		
6,800.00	6,638.86	6,179.70	6,068.23	34.44	29.32	119.32	1,442.07	-138.13	2,901.54	2,843.29	58.25	49.809		
6,900.00	6,728.65	6,264.58	6,151.41	34.89	29.73	106.66	1,458.78	-140.27	2,940.36	2,881.31	59.05	49.798		
7,000.00	6,811.45	6,343.24	6,228.51	35.29	30.11	98.62	1,474.28	-142.26	2,977.30	2,917.51	59.79	49.798		
7,100.00	6,885.21	6,413.76	6,297.63	35.66	30.45	93.01	1,488.16	-144.04	3,012.11	2,951.61	60.49	49.793		
7,200.00	6,948.11	6,474.40	6,357.06	35.99	30.74	88.85	1,500.11	-145.57	3,044.62	2,983.43	61.19	49.755		
7,300.00	6,998.62	6,523.66	6,405.34	36.30	30.98	85.59	1,509.81	-146.81	3,074.76	3,012.84	61.92	49.656		
7,400.00	7,035.48	6,560.34	6,441.29	36.65	31.16	82.94	1,517.03	-147.74	3,102.42	3,039.71	62.71	49.471		
7,500.00	7,057.79	7,500.00	6,472.48	37.13	35.69	80.89	1,523.30	-148.72	3,127.43	3,059.48	67.95	46.028		
7,600.00	7,065.00	7,586.69	7,069.95	37.84	37.55	90.09	1,638.89	-807.17	3,143.18	3,069.62	73.56	42.730		
7,700.00	7,064.77	7,686.69	7,069.66	38.82	38.86	90.09	1,638.14	-907.17	3,143.03	3,066.88	76.15	41.276		
7,800.00	7,064.54	7,786.69	7,069.38	40.06	40.32	90.09	1,637.38	-1,007.17	3,142.87	3,063.82	79.06	39.755		
7,900.00	7,064.31	7,886.69	7,069.09	41.52	41.92	90.09	1,636.63	-1,107.16	3,142.72	3,060.46	82.26	38.204		
8,000.00	7,064.08	7,986.69	7,068.81	43.14	43.66	90.09	1,635.88	-1,207.16	3,142.57	3,056.84	85.73	36.657		
8,100.00	7,063.85	8,086.69	7,068.52	44.90	45.51	90.09	1,635.13	-1,307.15	3,142.41	3,052.98	89.43	35.139		
8,200.00	7,063.62	8,186.69	7,068.24	46.78	47.46	90.08	1,634.37	-1,407.15	3,142.26	3,048.93	93.33	33.669		
8,300.00	7,063.39	8,286.69	7,067.95	48.76	49.50	90.08	1,633.62	-1,507.15	3,142.10	3,044.69	97.41	32.256		
8,400.00	7,063.16	8,386.69	7,067.67	50.83	51.62	90.08	1,632.87	-1,607.14	3,141.95	3,040.30	101.65	30.909		
8,500.00	7,062.93	8,486.69	7,067.38	52.97	53.81	90.08	1,632.12	-1,707.14	3,141.80	3,035.77	106.03	29.632		
8,600.00	7,062.70	8,586.69	7,067.10	55.18	56.06	90.08	1,631.36	-1,807.14	3,141.64	3,031.11	110.53	28.424		
8,700.00	7,062.47	8,686.69	7,066.81	57.46	58.36	90.08	1,630.61	-1,907.13	3,141.49	3,026.35	115.14	27.284		
8,800.00	7,062.24	8,786.69	7,066.53	59.78	60.71	90.08	1,629.86	-2,007.13	3,141.34	3,021.49	119.84	26.212		
8,900.00	7,062.01	8,886.69	7,066.24	62.14	63.10	90.08	1,629.11	-2,107.13	3,141.18	3,016.55	124.63	25.204		
9,000.00	7,061.78	8,986.69	7,065.96	64.55	65.53	90.08	1,628.36	-2,207.12	3,141.03	3,011.53	129.50	24.256		
9,100.00	7,061.55	9,086.69	7,065.67	67.00	67.99	90.08	1,627.60	-2,307.12	3,140.87	3,006.45	134.43	23.365		
9,200.00	7,061.31	9,186.69	7,065.39	69.47	70.48	90.07	1,626.85	-2,407.12	3,140.72	3,001.30	139.42	22.527		
9,300.00	7,061.08	9,286.69	7,065.11	71.98	73.00	90.07	1,626.10	-2,507.11	3,140.57	2,996.10	144.47	21.739		
9,400.00	7,060.85	9,386.69	7,064.82	74.51	75.54	90.07	1,625.35	-2,607.11	3,140.41	2,990.85	149.56	20.998		
9,500.00	7,060.62	9,486.69	7,064.54	77.06	78.11	90.07	1,624.59	-2,707.11	3,140.26	2,985.56	154.70	20.299		
9,600.00	7,060.39	9,586.69	7,064.25	79.64	80.69	90.07	1,623.84	-2,807.10	3,140.11	2,980.23	159.87	19.641		
9,700.00	7,060.16	9,686.69	7,063.97	82.23	83.30	90.07	1,623.09	-2,907.10	3,139.95	2,974.87	165.09	19.020		
9,800.00	7,059.93	9,786.69	7,063.68	84.84	85.91	90.07	1,622.34	-3,007.10	3,139.80	2,969.47	170.33	18.434		
9,900.00	7,059.70	9,886.69	7,063.40	87.47	88.55	90.07	1,621.58	-3,107.09	3,139.65	2,964.04	175.60	17.879		
10,000.00	7,059.47	9,986.69	7,063.11	90.11	91.20	90.07	1,620.83	-3,207.09	3,139.49	2,958.59	180.91	17.354		
10,100.00	7,059.24	10,086.69	7,062.83	92.76	93.86	90.07	1,620.08	-3,307.09	3,139.34	2,953.11	186.23	16.857		
10,200.00	7,059.01	10,186.69	7,062.54	95.42	96.53	90.06	1,619.33	-3,407.08	3,139.18	2,947.60	191.58	16.386		
10,300.00	7,058.78	10,286.69	7,062.26	98.10	99.21	90.06	1,618.57	-3,507.08	3,139.03	2,942.08	196.95	15.938		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,058.55	10,386.69	7,061.97	100.79	101.90	90.06	1,617.82	-3,607.08	3,138.88	2,936.54	202.34	15.513		
10,500.00	7,058.32	10,486.69	7,061.69	103.48	104.60	90.06	1,617.07	-3,707.07	3,138.72	2,930.98	207.74	15.109		
10,600.00	7,058.09	10,586.69	7,061.40	106.19	107.31	90.06	1,616.32	-3,807.07	3,138.57	2,925.40	213.17	14.724		
10,700.00	7,057.86	10,686.69	7,061.12	108.90	110.02	90.06	1,615.56	-3,907.07	3,138.42	2,919.81	218.60	14.357		
10,800.00	7,057.63	10,786.69	7,060.83	111.62	112.75	90.06	1,614.81	-4,007.06	3,138.26	2,914.21	224.05	14.007		
10,900.00	7,057.40	10,886.69	7,060.55	114.35	115.48	90.06	1,614.06	-4,107.06	3,138.11	2,908.59	229.52	13.673		
11,000.00	7,057.17	10,986.69	7,060.26	117.08	118.21	90.06	1,613.31	-4,207.06	3,137.95	2,902.96	234.99	13.353		
11,100.00	7,056.94	11,086.69	7,059.98	119.82	120.95	90.06	1,612.55	-4,307.05	3,137.80	2,897.32	240.48	13.048		
11,200.00	7,056.71	11,186.69	7,059.69	122.56	123.70	90.05	1,611.80	-4,407.05	3,137.65	2,891.67	245.98	12.756		
11,300.00	7,056.48	11,286.69	7,059.41	125.31	126.45	90.05	1,611.05	-4,507.05	3,137.49	2,886.01	251.49	12.476		
11,400.00	7,056.25	11,386.69	7,059.13	128.06	129.21	90.05	1,610.30	-4,607.04	3,137.34	2,880.34	257.00	12.207		
11,500.00	7,056.02	11,486.69	7,058.84	130.82	131.97	90.05	1,609.54	-4,707.04	3,137.19	2,874.66	262.53	11.950		
11,600.00	7,055.79	11,586.69	7,058.56	133.59	134.73	90.05	1,608.79	-4,807.04	3,137.03	2,868.97	268.06	11.703		
11,700.00	7,055.55	11,686.69	7,058.27	136.35	137.50	90.05	1,608.04	-4,907.03	3,136.88	2,863.28	273.60	11.465		
11,800.00	7,055.32	11,786.69	7,057.99	139.12	140.27	90.05	1,607.29	-5,007.03	3,136.73	2,857.58	279.15	11.237		
11,900.00	7,055.09	11,886.69	7,057.70	141.90	143.05	90.05	1,606.53	-5,107.03	3,136.57	2,851.87	284.70	11.017		
12,000.00	7,054.86	11,986.69	7,057.42	144.67	145.83	90.05	1,605.78	-5,207.02	3,136.42	2,846.15	290.27	10.805		
12,100.00	7,054.63	12,086.69	7,057.13	147.45	148.61	90.05	1,605.03	-5,307.02	3,136.26	2,840.43	295.83	10.601		
12,200.00	7,054.40	12,186.69	7,056.85	150.24	151.39	90.04	1,604.28	-5,407.02	3,136.11	2,834.71	301.40	10.405		
12,300.00	7,054.17	12,286.69	7,056.56	153.02	154.18	90.04	1,603.52	-5,507.01	3,135.96	2,828.97	306.98	10.215		
12,400.00	7,053.94	12,386.69	7,056.28	155.81	156.97	90.04	1,602.77	-5,607.01	3,135.80	2,823.24	312.57	10.032		
12,500.00	7,053.71	12,486.69	7,055.99	158.60	159.76	90.04	1,602.02	-5,707.01	3,135.65	2,817.50	318.15	9.856		
12,600.00	7,053.48	12,586.69	7,055.71	161.40	162.56	90.04	1,601.27	-5,807.00	3,135.50	2,811.75	323.75	9.685		
12,700.00	7,053.25	12,686.69	7,055.42	164.19	165.36	90.04	1,600.51	-5,907.00	3,135.34	2,806.00	329.34	9.520		
12,800.00	7,053.02	12,786.69	7,055.14	166.99	168.15	90.04	1,599.76	-6,007.00	3,135.19	2,800.25	334.94	9.360		
12,900.00	7,052.79	12,886.69	7,054.85	169.79	170.95	90.04	1,599.01	-6,106.99	3,135.04	2,794.49	340.55	9.206		
13,000.00	7,052.56	12,986.69	7,054.57	172.59	173.76	90.04	1,598.26	-6,206.99	3,134.88	2,788.73	346.16	9.056		
13,100.00	7,052.33	13,086.69	7,054.28	175.40	176.56	90.04	1,597.50	-6,306.99	3,134.73	2,782.96	351.77	8.911		
13,200.00	7,052.10	13,186.69	7,054.00	178.20	179.37	90.03	1,596.75	-6,406.98	3,134.57	2,777.19	357.38	8.771		
13,300.00	7,051.87	13,286.69	7,053.71	181.01	182.18	90.03	1,596.00	-6,506.98	3,134.42	2,771.42	363.00	8.635		
13,400.00	7,051.64	13,386.69	7,053.43	183.82	184.99	90.03	1,595.25	-6,606.98	3,134.27	2,765.65	368.62	8.503		
13,500.00	7,051.41	13,486.69	7,053.15	186.63	187.80	90.03	1,594.49	-6,706.97	3,134.11	2,759.87	374.24	8.374		
13,600.00	7,051.18	13,586.69	7,052.86	189.44	190.61	90.03	1,593.74	-6,806.97	3,133.96	2,754.09	379.87	8.250		
13,700.00	7,050.95	13,686.69	7,052.58	192.25	193.42	90.03	1,592.99	-6,906.97	3,133.81	2,748.30	385.50	8.129		
13,800.00	7,050.72	13,786.69	7,052.29	195.07	196.24	90.03	1,592.24	-7,006.96	3,133.65	2,742.52	391.13	8.012		
13,900.00	7,050.49	13,886.69	7,052.01	197.88	199.05	90.03	1,591.49	-7,106.96	3,133.50	2,736.73	396.77	7.898		
14,000.00	7,050.26	13,986.69	7,051.72	200.70	201.87	90.03	1,590.73	-7,206.96	3,133.35	2,730.94	402.40	7.787		
14,100.00	7,050.03	14,086.69	7,051.44	203.52	204.69	90.03	1,589.98	-7,306.95	3,133.19	2,725.15	408.04	7.679		
14,200.00	7,049.80	14,186.69	7,051.15	206.34	207.51	90.03	1,589.23	-7,406.95	3,133.04	2,719.35	413.69	7.573		
14,300.00	7,049.56	14,286.69	7,050.87	209.16	210.33	90.02	1,588.48	-7,506.95	3,132.88	2,713.56	419.33	7.471		
14,400.00	7,049.33	14,386.68	7,050.58	211.98	213.15	90.02	1,587.72	-7,606.94	3,132.73	2,707.76	424.97	7.372		
14,500.00	7,049.10	14,486.68	7,050.30	214.80	215.97	90.02	1,586.97	-7,706.94	3,132.58	2,701.96	430.62	7.275		
14,600.00	7,048.87	14,586.68	7,050.01	217.63	218.80	90.02	1,586.22	-7,806.94	3,132.42	2,696.15	436.27	7.180		
14,700.00	7,048.64	14,686.68	7,049.73	220.45	221.62	90.02	1,585.47	-7,906.93	3,132.27	2,690.35	441.92	7.088		
14,800.00	7,048.41	14,786.68	7,049.44	223.28	224.45	90.02	1,584.71	-8,006.93	3,132.12	2,684.54	447.57	6.998		
14,900.00	7,048.18	14,886.68	7,049.16	226.10	227.27	90.02	1,583.96	-8,106.93	3,131.96	2,678.74	453.23	6.910		
14,959.76	7,048.04	14,946.45	7,048.99	227.79	228.96	90.02	1,583.51	-8,166.69	3,131.87	2,675.26	456.61	6.859		
14,979.18	7,048.00	14,942.37	7,049.00	228.34	228.85	90.02	1,583.54	-8,162.61	3,131.93	2,674.90	457.03	6.853 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	0.49	260.12	2.23	260.13					
100.00	100.00	101.00	100.00	3.28	3.28	0.49	260.12	2.23	260.13	253.56	6.57	39.596		
200.00	200.00	201.00	200.00	3.34	3.34	0.49	260.12	2.23	260.13	253.45	6.67	38.971	CC, ES	
300.00	299.98	300.98	299.98	3.44	3.45	174.44	260.12	2.23	261.86	254.98	6.89	38.027		
400.00	399.84	400.84	399.84	3.59	3.60	174.54	260.12	2.23	267.07	259.88	7.20	37.109		
500.00	499.45	500.45	499.45	3.79	3.81	174.69	260.12	2.23	275.75	268.15	7.60	36.285		
600.00	598.70	599.70	598.70	4.03	4.05	174.89	260.12	2.23	287.89	279.81	8.08	35.629		
700.00	697.47	698.76	688.75	4.31	4.29	175.00	261.41	1.68	304.88	296.27	8.61	35.422		
800.00	795.62	778.12	777.01	4.64	4.55	174.92	265.22	0.07	328.06	318.88	9.18	35.730		
900.00	893.16	873.15	871.83	5.00	4.85	174.78	270.94	-2.35	355.83	346.02	9.81	36.279		
1,000.00	990.60	969.09	967.56	5.38	5.17	174.69	276.74	-4.80	384.03	373.57	10.46	36.714		
1,100.00	1,088.04	1,065.03	1,063.30	5.79	5.50	174.61	282.53	-7.24	412.23	401.08	11.14	36.992		
1,200.00	1,185.48	1,160.97	1,159.03	6.22	5.84	174.54	288.33	-9.69	440.42	428.57	11.86	37.149		
1,300.00	1,282.92	1,256.91	1,254.76	6.66	6.20	174.48	294.13	-12.14	468.62	456.03	12.59	37.223		
1,400.00	1,380.36	1,352.85	1,350.50	7.10	6.56	174.42	299.92	-14.59	496.82	483.48	13.34	37.236		
1,500.00	1,477.80	1,448.79	1,446.23	7.56	6.93	174.38	305.72	-17.04	525.02	510.91	14.11	37.206		
1,600.00	1,575.24	1,544.73	1,541.97	8.03	7.30	174.33	311.51	-19.48	553.22	538.33	14.89	37.147		
1,700.00	1,672.68	1,640.67	1,637.70	8.50	7.69	174.29	317.31	-21.93	581.42	565.73	15.69	37.066		
1,800.00	1,770.12	1,736.61	1,733.44	8.98	8.07	174.26	323.10	-24.38	609.62	593.13	16.49	36.972		
1,900.00	1,867.56	1,832.55	1,829.17	9.46	8.46	174.23	328.90	-26.83	637.82	620.52	17.30	36.868		
2,000.00	1,965.00	1,928.49	1,924.90	9.95	8.85	174.20	334.70	-29.28	666.02	647.90	18.12	36.760		
2,100.00	2,062.44	2,024.44	2,020.64	10.44	9.25	174.17	340.49	-31.72	694.22	675.28	18.94	36.648		
2,200.00	2,159.88	2,120.38	2,116.37	10.93	9.64	174.15	346.29	-34.17	722.42	702.65	19.77	36.536		
2,300.00	2,257.32	2,216.32	2,212.11	11.42	10.04	174.12	352.08	-36.62	750.62	730.01	20.61	36.424		
2,400.00	2,354.76	2,312.26	2,307.84	11.92	10.45	174.10	357.88	-39.07	778.82	757.38	21.45	36.314		
2,500.00	2,452.20	2,408.20	2,403.58	12.42	10.85	174.08	363.67	-41.52	807.02	784.73	22.29	36.206		
2,600.00	2,549.64	2,504.14	2,499.31	12.92	11.26	174.06	369.47	-43.96	835.22	812.09	23.14	36.101		
2,700.00	2,647.08	2,600.08	2,595.04	13.42	11.66	174.04	375.27	-46.41	863.43	839.44	23.99	35.998		
2,800.00	2,744.52	2,703.98	2,690.78	13.93	12.10	174.03	381.06	-48.86	891.63	866.76	24.87	35.850		
2,900.00	2,841.96	2,808.04	2,786.51	14.43	12.55	174.01	386.86	-51.31	919.83	894.07	25.76	35.707		
3,000.00	2,939.40	2,887.90	2,882.25	14.94	12.89	174.00	392.65	-53.76	948.03	921.48	26.55	35.710		
3,100.00	3,036.84	2,983.84	2,977.98	15.44	13.30	173.99	398.45	-56.20	976.23	948.82	27.41	35.620		
3,200.00	3,134.28	3,079.78	3,073.72	15.95	13.71	173.97	404.24	-58.65	1,004.43	976.16	28.27	35.534		
3,300.00	3,231.72	3,175.72	3,169.45	16.46	14.12	173.96	410.04	-61.10	1,032.63	1,003.50	29.13	35.450		
3,400.00	3,329.16	3,271.67	3,265.18	16.97	14.54	173.95	415.84	-63.55	1,060.83	1,030.84	29.99	35.370		
3,500.00	3,426.60	3,367.61	3,360.92	17.48	14.95	173.94	421.63	-66.00	1,089.04	1,058.18	30.86	35.292		
3,600.00	3,524.04	3,463.55	3,456.65	17.99	15.37	173.93	427.43	-68.45	1,117.24	1,085.51	31.72	35.218		
3,700.00	3,621.48	3,559.49	3,552.39	18.50	15.78	173.92	433.22	-70.89	1,145.44	1,112.85	32.59	35.146		
3,800.00	3,718.92	3,655.43	3,648.12	19.01	16.20	173.91	439.02	-73.34	1,173.64	1,140.18	33.46	35.076		
3,900.00	3,816.36	3,751.37	3,743.86	19.52	16.61	173.90	444.81	-75.79	1,201.84	1,167.51	34.33	35.009		
4,000.00	3,913.80	3,847.31	3,839.59	20.03	17.03	173.89	450.61	-78.24	1,230.04	1,194.84	35.20	34.945		
4,100.00	4,011.24	3,943.25	3,935.32	20.55	17.45	173.88	456.41	-80.69	1,258.25	1,222.17	36.07	34.883		
4,200.00	4,108.68	4,039.19	4,031.06	21.06	17.86	173.88	462.20	-83.13	1,286.45	1,249.50	36.94	34.822		
4,300.00	4,206.12	4,135.13	4,126.79	21.57	18.28	173.87	468.00	-85.58	1,314.65	1,276.83	37.82	34.764		
4,400.00	4,303.56	4,231.07	4,222.53	22.09	18.70	173.86	473.79	-88.03	1,342.85	1,304.16	38.69	34.708		
4,500.00	4,401.00	4,327.01	4,318.26	22.60	19.12	173.85	479.59	-90.48	1,371.05	1,331.49	39.56	34.654		
4,600.00	4,498.44	4,422.96	4,414.00	23.11	19.54	173.85	485.38	-92.93	1,399.25	1,358.82	40.44	34.602		
4,700.00	4,595.88	4,518.90	4,509.73	23.63	19.95	173.84	491.18	-95.37	1,427.46	1,386.14	41.31	34.551		
4,800.00	4,693.32	4,614.84	4,605.46	24.14	20.37	173.84	496.98	-97.82	1,455.66	1,413.47	42.19	34.503		
4,900.00	4,790.76	4,710.78	4,701.20	24.66	20.79	173.83	502.77	-100.27	1,483.86	1,440.79	43.07	34.455		
5,000.00	4,888.20	4,806.72	4,796.93	25.17	21.21	173.82	508.57	-102.72	1,512.06	1,468.12	43.94	34.409		
5,100.00	4,985.64	4,902.66	4,892.67	25.69	21.63	173.82	514.36	-105.17	1,540.26	1,495.44	44.82	34.365		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	5,083.08	4,998.60	4,988.40	26.20	22.05	173.81	520.16	-107.61	1,568.47	1,522.77	45.70	34.322		
5,300.00	5,180.52	5,105.46	5,084.14	26.72	22.52	173.81	525.95	-110.06	1,596.67	1,550.04	46.63	34.245		
5,400.00	5,277.96	5,209.52	5,179.87	27.24	22.97	173.80	531.75	-112.51	1,624.87	1,577.33	47.54	34.179		
5,500.00	5,375.40	5,286.42	5,275.60	27.75	23.31	173.80	537.55	-114.96	1,653.07	1,604.74	48.34	34.200		
5,600.00	5,472.84	5,382.36	5,371.34	28.27	23.73	173.79	543.34	-117.41	1,681.27	1,632.06	49.21	34.162		
5,700.00	5,570.28	5,478.30	5,467.07	28.79	24.15	173.79	549.14	-119.86	1,709.47	1,659.38	50.09	34.125		
5,800.00	5,667.72	5,574.25	5,562.81	29.30	24.57	173.79	554.93	-122.30	1,737.68	1,686.70	50.97	34.089		
5,900.00	5,765.16	5,670.19	5,658.54	29.82	24.99	173.78	560.73	-124.75	1,765.88	1,714.02	51.86	34.054		
6,000.00	5,862.60	5,766.13	5,754.28	30.34	25.42	173.78	566.52	-127.20	1,794.08	1,741.34	52.74	34.020		
6,100.00	5,960.05	5,862.07	5,850.01	30.85	25.84	173.77	572.32	-129.65	1,822.28	1,768.67	53.62	33.987		
6,200.00	6,057.49	5,958.01	5,945.74	31.37	26.26	173.77	578.12	-132.10	1,850.48	1,795.99	54.50	33.955		
6,300.00	6,154.93	6,053.95	6,041.48	31.89	26.68	173.77	583.91	-134.54	1,878.69	1,823.31	55.38	33.923		
6,400.00	6,252.37	6,149.89	6,137.21	32.40	27.10	173.76	589.71	-136.99	1,906.89	1,850.63	56.26	33.893		
6,500.00	6,349.81	6,245.83	6,232.95	32.92	27.52	173.76	595.50	-139.44	1,935.09	1,877.95	57.14	33.863		
6,600.00	6,447.25	6,341.77	6,328.68	33.44	27.95	173.76	601.30	-141.89	1,963.29	1,905.26	58.03	33.834		
6,700.00	6,544.28	6,437.46	6,424.16	33.95	28.37	142.89	607.08	-144.33	1,991.43	1,932.52	58.91	33.806		
6,800.00	6,638.86	6,531.12	6,517.62	34.44	28.78	122.15	612.74	-146.72	2,019.15	1,959.39	59.76	33.787		
6,900.00	6,728.65	6,620.44	6,606.75	34.89	29.17	110.99	618.13	-149.00	2,046.22	1,985.65	60.57	33.782		
7,000.00	6,811.45	6,714.07	6,699.96	35.29	29.58	104.44	623.80	-154.94	2,072.58	2,011.15	61.43	33.741		
7,100.00	6,885.21	6,819.75	6,802.91	35.66	30.05	100.28	630.15	-177.39	2,097.57	2,035.15	62.42	33.606		
7,200.00	6,948.11	6,938.30	6,912.16	35.99	30.58	97.60	637.01	-222.44	2,120.49	2,056.93	63.57	33.359		
7,300.00	6,998.62	7,073.56	7,024.13	36.30	31.22	95.98	644.21	-297.52	2,140.52	2,075.58	64.94	32.960		
7,400.00	7,035.48	7,229.17	7,130.00	36.65	32.09	95.16	651.27	-410.82	2,156.68	2,090.00	66.68	32.344		
7,500.00	7,057.79	7,406.29	7,213.08	37.13	33.43	94.89	657.21	-566.49	2,167.86	2,098.83	69.03	31.405		
7,600.00	7,065.00	7,600.20	7,251.29	37.84	35.47	94.92	660.63	-755.81	2,173.00	2,100.79	72.21	30.091		
7,700.00	7,064.77	7,716.32	7,251.69	38.82	36.96	94.93	661.34	-871.91	2,174.21	2,099.25	74.96	29.005		
7,800.00	7,064.54	7,816.31	7,251.32	40.06	38.42	94.92	661.90	-971.90	2,175.36	2,097.54	77.83	27.952		
7,900.00	7,064.31	7,916.31	7,250.96	41.52	40.03	94.92	662.47	-1,071.89	2,176.51	2,095.52	80.99	26.873		
8,000.00	7,064.08	8,016.30	7,250.59	43.14	41.77	94.91	663.04	-1,171.88	2,177.66	2,093.24	84.42	25.794		
8,100.00	7,063.85	8,116.29	7,250.23	44.90	43.63	94.91	663.60	-1,271.87	2,178.81	2,090.72	88.09	24.733		
8,200.00	7,063.62	8,216.29	7,249.86	46.78	45.59	94.90	664.17	-1,371.86	2,179.96	2,087.99	91.97	23.703		
8,300.00	7,063.39	8,316.28	7,249.49	48.76	47.65	94.89	664.74	-1,471.85	2,181.11	2,085.09	96.03	22.713		
8,400.00	7,063.16	8,416.27	7,249.13	50.83	49.78	94.89	665.31	-1,571.85	2,182.26	2,082.02	100.25	21.769		
8,500.00	7,062.93	8,516.27	7,248.76	52.97	51.99	94.88	665.87	-1,671.84	2,183.41	2,078.81	104.60	20.873		
8,600.00	7,062.70	8,616.26	7,248.40	55.18	54.25	94.88	666.44	-1,771.83	2,184.56	2,075.47	109.09	20.026		
8,700.00	7,062.47	8,716.25	7,248.03	57.46	56.57	94.87	667.01	-1,871.82	2,185.71	2,072.03	113.68	19.227		
8,800.00	7,062.24	8,816.24	7,247.66	59.78	58.94	94.86	667.57	-1,971.81	2,186.86	2,068.49	118.37	18.475		
8,900.00	7,062.01	8,916.24	7,247.30	62.14	61.35	94.86	668.14	-2,071.80	2,188.01	2,064.87	123.14	17.768		
9,000.00	7,061.78	9,016.23	7,246.93	64.55	63.80	94.85	668.71	-2,171.79	2,189.16	2,061.17	127.99	17.104		
9,100.00	7,061.55	9,116.22	7,246.56	67.00	66.28	94.84	669.27	-2,271.78	2,190.31	2,057.40	132.91	16.479		
9,200.00	7,061.31	9,216.22	7,246.20	69.47	68.79	94.84	669.84	-2,371.77	2,191.46	2,053.57	137.89	15.893		
9,300.00	7,061.08	9,316.21	7,245.83	71.98	71.33	94.83	670.41	-2,471.76	2,192.61	2,049.69	142.92	15.341		
9,400.00	7,060.85	9,416.20	7,245.47	74.51	73.89	94.83	670.97	-2,571.75	2,193.76	2,045.76	148.01	14.822		
9,500.00	7,060.62	9,516.20	7,245.10	77.06	76.47	94.82	671.54	-2,671.74	2,194.91	2,041.78	153.13	14.334		
9,600.00	7,060.39	9,616.19	7,244.73	79.64	79.07	94.81	672.11	-2,771.74	2,196.06	2,037.77	158.30	13.873		
9,700.00	7,060.16	9,716.18	7,244.37	82.23	81.69	94.81	672.67	-2,871.73	2,197.21	2,033.72	163.50	13.439		
9,800.00	7,059.93	9,816.18	7,244.00	84.84	84.33	94.80	673.24	-2,971.72	2,198.36	2,029.63	168.73	13.029		
9,900.00	7,059.70	9,916.17	7,243.64	87.47	86.98	94.80	673.81	-3,071.71	2,199.51	2,025.52	173.99	12.642		
10,000.00	7,059.47	10,016.16	7,243.27	90.11	89.64	94.79	674.37	-3,171.70	2,200.66	2,021.38	179.28	12.275		
10,100.00	7,059.24	10,116.16	7,242.90	92.76	92.31	94.78	674.94	-3,271.69	2,201.81	2,017.22	184.60	11.928		
10,200.00	7,059.01	10,216.15	7,242.54	95.42	95.00	94.78	675.51	-3,371.68	2,202.96	2,013.03	189.93	11.599		
10,300.00	7,058.78	10,316.14	7,242.17	98.10	97.69	94.77	676.07	-3,471.67	2,204.12	2,008.82	195.29	11.286		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	7,058.55	10,416.13	7,241.80	100.79	100.40	94.77	676.64	-3,571.66	2,205.27	2,004.60	200.67	10.990		
10,500.00	7,058.32	10,516.13	7,241.44	103.48	103.11	94.76	677.21	-3,671.65	2,206.42	2,000.35	206.06	10.708		
10,600.00	7,058.09	10,616.12	7,241.07	106.19	105.83	94.75	677.78	-3,771.64	2,207.57	1,996.09	211.47	10.439		
10,700.00	7,057.86	10,716.11	7,240.71	108.90	108.56	94.75	678.34	-3,871.64	2,208.72	1,991.82	216.90	10.183		
10,800.00	7,057.63	10,816.11	7,240.34	111.62	111.29	94.74	678.91	-3,971.63	2,209.87	1,987.53	222.34	9.939		
10,900.00	7,057.40	10,916.10	7,239.97	114.35	114.04	94.74	679.48	-4,071.62	2,211.02	1,983.23	227.79	9.706		
11,000.00	7,057.17	11,016.09	7,239.61	117.08	116.78	94.73	680.04	-4,171.61	2,212.17	1,978.91	233.26	9.484		
11,100.00	7,056.94	11,116.09	7,239.24	119.82	119.54	94.72	680.61	-4,271.60	2,213.32	1,974.59	238.73	9.271		
11,200.00	7,056.71	11,216.08	7,238.87	122.56	122.29	94.72	681.18	-4,371.59	2,214.47	1,970.25	244.22	9.068		
11,300.00	7,056.48	11,316.07	7,238.51	125.31	125.05	94.71	681.74	-4,471.58	2,215.62	1,965.90	249.71	8.873		
11,400.00	7,056.25	11,416.07	7,238.14	128.06	127.82	94.71	682.31	-4,571.57	2,216.77	1,961.55	255.22	8.686		
11,500.00	7,056.02	11,516.06	7,237.78	130.82	130.59	94.70	682.88	-4,671.56	2,217.92	1,957.19	260.73	8.506		
11,600.00	7,055.79	11,616.05	7,237.41	133.59	133.37	94.69	683.44	-4,771.55	2,219.07	1,952.81	266.26	8.334		
11,700.00	7,055.55	11,716.05	7,237.04	136.35	136.14	94.69	684.01	-4,871.54	2,220.22	1,948.44	271.79	8.169		
11,800.00	7,055.32	11,816.04	7,236.68	139.12	138.93	94.68	684.58	-4,971.53	2,221.37	1,944.05	277.32	8.010		
11,900.00	7,055.09	11,916.03	7,236.31	141.90	141.71	94.68	685.14	-5,071.53	2,222.52	1,939.66	282.87	7.857		
12,000.00	7,054.86	12,016.02	7,235.95	144.67	144.50	94.67	685.71	-5,171.52	2,223.67	1,935.26	288.42	7.710		
12,100.00	7,054.63	12,116.02	7,235.58	147.45	147.29	94.66	686.28	-5,271.51	2,224.83	1,930.85	293.97	7.568		
12,200.00	7,054.40	12,216.01	7,235.21	150.24	150.08	94.66	686.84	-5,371.50	2,225.98	1,926.44	299.54	7.431		
12,300.00	7,054.17	12,316.00	7,234.85	153.02	152.88	94.65	687.41	-5,471.49	2,227.13	1,922.02	305.10	7.300		
12,400.00	7,053.94	12,416.00	7,234.48	155.81	155.68	94.65	687.98	-5,571.48	2,228.28	1,917.60	310.68	7.172		
12,500.00	7,053.71	12,515.99	7,234.11	158.60	158.48	94.64	688.54	-5,671.47	2,229.43	1,913.18	316.25	7.050		
12,600.00	7,053.48	12,615.98	7,233.75	161.40	161.28	94.63	689.11	-5,771.46	2,230.58	1,908.75	321.83	6.931		
12,700.00	7,053.25	12,715.98	7,233.38	164.19	164.09	94.63	689.68	-5,871.45	2,231.73	1,904.31	327.42	6.816		
12,800.00	7,053.02	12,815.97	7,233.02	166.99	166.89	94.62	690.25	-5,971.44	2,232.88	1,899.87	333.01	6.705		
12,900.00	7,052.79	12,915.96	7,232.65	169.79	169.70	94.62	690.81	-6,071.43	2,234.03	1,895.43	338.60	6.598		
13,000.00	7,052.56	13,015.96	7,232.28	172.59	172.51	94.61	691.38	-6,171.42	2,235.18	1,890.98	344.20	6.494		
13,100.00	7,052.33	13,115.95	7,231.92	175.40	175.32	94.60	691.95	-6,271.42	2,236.33	1,886.53	349.80	6.393		
13,200.00	7,052.10	13,215.94	7,231.55	178.20	178.14	94.60	692.51	-6,371.41	2,237.49	1,882.08	355.41	6.296		
13,300.00	7,051.87	13,315.94	7,231.19	181.01	180.95	94.59	693.08	-6,471.40	2,238.64	1,877.62	361.02	6.201		
13,400.00	7,051.64	13,415.93	7,230.82	183.82	183.77	94.59	693.65	-6,571.39	2,239.79	1,873.16	366.63	6.109		
13,500.00	7,051.41	13,515.92	7,230.45	186.63	186.59	94.58	694.21	-6,671.38	2,240.94	1,868.70	372.24	6.020		
13,600.00	7,051.18	13,615.91	7,230.09	189.44	189.41	94.58	694.78	-6,771.37	2,242.09	1,864.23	377.86	5.934		
13,700.00	7,050.95	13,715.91	7,229.72	192.25	192.23	94.57	695.35	-6,871.36	2,243.24	1,859.76	383.48	5.850		
13,800.00	7,050.72	13,815.90	7,229.35	195.07	195.05	94.56	695.91	-6,971.35	2,244.39	1,855.29	389.10	5.768		
13,900.00	7,050.49	13,915.89	7,228.99	197.88	197.87	94.56	696.48	-7,071.34	2,245.54	1,850.82	394.72	5.689		
14,000.00	7,050.26	14,015.89	7,228.62	200.70	200.70	94.55	697.05	-7,171.33	2,246.69	1,846.34	400.35	5.612		
14,100.00	7,050.03	14,115.88	7,228.26	203.52	203.52	94.55	697.61	-7,271.32	2,247.85	1,841.87	405.98	5.537		
14,200.00	7,049.80	14,215.87	7,227.89	206.34	206.35	94.54	698.18	-7,371.31	2,249.00	1,837.39	411.61	5.464		
14,300.00	7,049.56	14,315.87	7,227.52	209.16	209.18	94.53	698.75	-7,471.31	2,250.15	1,832.90	417.24	5.393		
14,400.00	7,049.33	14,415.86	7,227.16	211.98	212.00	94.53	699.31	-7,571.30	2,251.30	1,828.42	422.88	5.324		
14,500.00	7,049.10	14,515.85	7,226.79	214.80	214.83	94.52	699.88	-7,671.29	2,252.45	1,823.93	428.52	5.256		
14,600.00	7,048.87	14,615.85	7,226.43	217.63	217.66	94.52	700.45	-7,771.28	2,253.60	1,819.45	434.16	5.191		
14,700.00	7,048.64	14,715.84	7,226.06	220.45	220.49	94.51	701.02	-7,871.27	2,254.75	1,814.96	439.80	5.127		
14,800.00	7,048.41	14,815.83	7,225.69	223.28	223.33	94.51	701.58	-7,971.26	2,255.90	1,810.46	445.44	5.064		
14,900.00	7,048.18	14,915.82	7,225.33	226.10	226.16	94.50	702.15	-8,071.25	2,257.06	1,805.97	451.09	5.004		
14,979.18	7,048.00	14,995.00	7,225.04	228.34	228.40	94.50	702.60	-8,150.42	2,257.97	1,802.41	455.56	4.957 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	-179.60	-39.71	-0.28	39.71				
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-39.71	-0.28	39.71	33.14	6.57	6.045	
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-39.71	-0.28	39.71	33.04	6.67	5.950	
300.00	299.98	298.64	298.62	3.44	3.44	-5.75	-41.40	-0.42	39.69	32.80	6.89	5.762	
400.00	399.84	397.28	397.12	3.59	3.59	-5.93	-46.48	-0.84	39.63	32.42	7.21	5.497	
500.00	499.45	495.92	495.39	3.79	3.78	-6.23	-54.93	-1.54	39.53	31.90	7.63	5.179	
600.00	598.70	594.56	593.32	4.03	4.02	-6.65	-66.74	-2.53	39.39	31.25	8.14	4.839	
700.00	697.47	693.21	690.78	4.31	4.29	-7.21	-81.92	-3.79	39.22	30.50	8.72	4.497	
800.00	795.62	791.87	787.67	4.64	4.61	-7.88	-100.42	-5.33	39.02	29.66	9.36	4.168	
812.90	808.24	804.60	800.12	4.68	4.65	-7.98	-103.05	-5.55	39.00	29.56	9.45	4.129 CC	
900.00	893.16	890.54	883.87	5.00	4.96	-8.60	-122.25	-7.14	39.22	29.17	10.04	3.904	
1,000.00	990.60	989.10	979.16	5.38	5.35	-8.75	-147.33	-9.23	42.41	31.64	10.77	3.938	
1,100.00	1,088.04	1,088.94	1,075.21	5.79	5.77	-8.60	-174.48	-11.49	47.41	35.91	11.50	4.122	
1,200.00	1,185.48	1,188.81	1,171.29	6.22	6.22	-8.48	-201.64	-13.74	52.40	40.13	12.26	4.272	
1,300.00	1,282.92	1,288.69	1,267.38	6.66	6.67	-8.37	-228.89	-16.00	57.39	44.33	13.06	4.395	
1,400.00	1,380.36	1,388.56	1,363.46	7.10	7.15	-8.29	-255.95	-18.26	62.38	48.51	13.87	4.496	
1,500.00	1,477.80	1,488.44	1,459.55	7.56	7.63	-8.22	-283.11	-20.52	67.37	52.66	14.71	4.580	
1,600.00	1,575.24	1,588.31	1,555.63	8.03	8.12	-8.15	-310.27	-22.78	72.37	56.80	15.56	4.650	
1,700.00	1,672.68	1,688.19	1,651.72	8.50	8.62	-8.10	-337.43	-25.04	77.36	60.93	16.43	4.708	
1,800.00	1,770.12	1,788.06	1,747.80	8.98	9.13	-8.05	-364.59	-27.30	82.35	65.04	17.31	4.758	
1,900.00	1,867.56	1,887.94	1,843.89	9.46	9.64	-8.01	-391.75	-29.55	87.35	69.15	18.20	4.799	
2,000.00	1,965.00	1,987.81	1,939.97	9.95	10.15	-7.97	-418.91	-31.81	92.34	73.24	19.10	4.835	
2,100.00	2,062.44	2,087.69	2,036.06	10.44	10.67	-7.94	-446.07	-34.07	97.33	77.33	20.00	4.866	
2,200.00	2,159.88	2,187.56	2,132.14	10.93	11.19	-7.90	-473.23	-36.33	102.32	81.41	20.92	4.892	
2,300.00	2,257.32	2,287.44	2,228.23	11.42	11.72	-7.88	-500.38	-38.59	107.32	85.48	21.83	4.915	
2,400.00	2,354.76	2,387.31	2,324.31	11.92	12.24	-7.85	-527.54	-40.85	112.31	89.55	22.76	4.935	
2,500.00	2,452.20	2,487.19	2,420.40	12.42	12.77	-7.83	-554.70	-43.11	117.30	93.62	23.68	4.953	
2,600.00	2,549.64	2,587.07	2,516.48	12.92	13.31	-7.81	-581.86	-45.36	122.30	97.68	24.62	4.968	
2,700.00	2,647.08	2,686.94	2,612.57	13.42	13.84	-7.79	-609.02	-47.62	127.29	101.74	25.55	4.982	
2,800.00	2,744.52	2,786.82	2,708.66	13.93	14.37	-7.77	-636.18	-49.88	132.28	105.79	26.49	4.994	
2,900.00	2,841.96	2,886.69	2,804.74	14.43	14.91	-7.75	-663.34	-52.14	137.27	109.84	27.43	5.004	
3,000.00	2,939.40	2,986.57	2,900.83	14.94	15.44	-7.74	-690.50	-54.40	142.27	113.89	28.38	5.014	
3,100.00	3,036.84	3,086.44	2,996.91	15.44	15.98	-7.72	-717.66	-56.66	147.26	117.94	29.32	5.022	
3,200.00	3,134.28	3,186.32	3,093.00	15.95	16.52	-7.71	-744.81	-58.92	152.25	121.98	30.27	5.030	
3,300.00	3,231.72	3,286.19	3,189.08	16.46	17.06	-7.69	-771.97	-61.17	157.25	126.03	31.22	5.037	
3,400.00	3,329.16	3,386.07	3,285.17	16.97	17.60	-7.68	-799.13	-63.43	162.24	130.07	32.17	5.043	
3,500.00	3,426.60	3,485.94	3,381.25	17.48	18.14	-7.67	-826.29	-65.69	167.23	134.11	33.13	5.048	
3,600.00	3,524.04	3,585.82	3,477.34	17.99	18.68	-7.66	-853.45	-67.95	172.23	138.14	34.08	5.053	
3,700.00	3,621.48	3,685.69	3,573.42	18.50	19.23	-7.65	-880.61	-70.21	177.22	142.18	35.04	5.058	
3,800.00	3,718.92	3,785.57	3,669.51	19.01	19.77	-7.64	-907.77	-72.47	182.21	146.22	36.00	5.062	
3,900.00	3,816.36	3,885.44	3,765.59	19.52	20.31	-7.63	-934.93	-74.73	187.21	150.25	36.95	5.066	
4,000.00	3,913.80	3,985.32	3,861.68	20.03	20.86	-7.62	-962.09	-76.98	192.20	154.28	37.91	5.069	
4,100.00	4,011.24	4,085.19	3,957.76	20.55	21.40	-7.62	-989.25	-79.24	197.19	158.32	38.87	5.073	
4,200.00	4,108.68	4,185.07	4,053.85	21.06	21.95	-7.61	-1,016.40	-81.50	202.18	162.35	39.84	5.075	
4,300.00	4,206.12	4,284.94	4,149.93	21.57	22.49	-7.60	-1,043.56	-83.76	207.18	166.38	40.80	5.078	
4,400.00	4,303.56	4,384.82	4,246.02	22.09	23.04	-7.59	-1,070.72	-86.02	212.17	170.41	41.76	5.081	
4,500.00	4,401.00	4,484.70	4,342.10	22.60	23.58	-7.59	-1,097.88	-88.28	217.16	174.44	42.73	5.083	
4,600.00	4,498.44	4,584.57	4,438.19	23.11	24.13	-7.58	-1,125.04	-90.54	222.16	178.47	43.69	5.085	
4,700.00	4,595.88	4,684.45	4,534.27	23.63	24.68	-7.57	-1,152.20	-92.80	227.15	182.49	44.66	5.087	
4,800.00	4,693.32	4,784.32	4,630.36	24.14	25.22	-7.57	-1,179.36	-95.05	232.14	186.52	45.62	5.088	
4,900.00	4,790.76	4,884.20	4,726.44	24.66	25.77	-7.56	-1,206.52	-97.31	237.14	190.55	46.59	5.090	
5,000.00	4,888.20	4,984.07	4,822.53	25.17	26.32	-7.56	-1,233.68	-99.57	242.13	194.57	47.56	5.092	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	
5,100.00	4,985.64	5,083.95	4,918.61	25.69	26.86	-7.55	-1,260.83	-101.83	247.12	198.60	48.52	5.093	
5,200.00	5,083.08	5,183.82	5,014.70	26.20	27.41	-7.55	-1,287.99	-104.09	252.12	202.63	49.49	5.094	
5,300.00	5,180.52	5,283.70	5,110.78	26.72	27.96	-7.54	-1,315.15	-106.35	257.11	206.65	50.46	5.095	
5,400.00	5,277.96	5,383.57	5,206.87	27.24	28.51	-7.54	-1,342.31	-108.61	262.10	210.67	51.43	5.097	
5,500.00	5,375.40	5,483.45	5,302.95	27.75	29.06	-7.53	-1,369.47	-110.86	267.10	214.70	52.40	5.098	
5,600.00	5,472.84	5,583.32	5,399.04	28.27	29.60	-7.53	-1,396.63	-113.12	272.09	218.72	53.37	5.099	
5,700.00	5,570.28	5,683.20	5,495.13	28.79	30.15	-7.53	-1,423.79	-115.38	277.08	222.75	54.34	5.099	
5,800.00	5,667.72	5,783.07	5,591.21	29.30	30.70	-7.52	-1,450.95	-117.64	282.07	226.77	55.31	5.100	
5,900.00	5,765.16	5,882.95	5,687.30	29.82	31.25	-7.52	-1,478.11	-119.90	287.07	230.79	56.28	5.101	
6,000.00	5,862.60	5,982.82	5,783.38	30.34	31.80	-7.51	-1,505.26	-122.16	292.06	234.81	57.25	5.102	
6,100.00	5,960.05	6,082.70	5,879.47	30.85	32.35	-7.51	-1,532.42	-124.42	297.05	238.83	58.22	5.102	
6,200.00	6,057.49	6,182.57	5,975.55	31.37	32.90	-7.51	-1,559.58	-126.67	302.05	242.86	59.19	5.103	
6,300.00	6,154.93	6,282.45	6,071.64	31.89	33.45	-7.50	-1,586.74	-128.93	307.04	246.88	60.16	5.104	
6,400.00	6,252.37	6,382.33	6,167.72	32.40	34.00	-7.50	-1,613.90	-131.19	312.03	250.90	61.13	5.104	
6,500.00	6,349.81	6,482.20	6,263.81	32.92	34.55	-7.50	-1,641.06	-133.45	317.03	254.92	62.11	5.105	
6,600.00	6,447.25	6,582.08	6,359.89	33.44	35.09	-7.50	-1,668.22	-135.71	322.02	258.94	63.08	5.105	
6,700.00	6,544.28	6,681.68	6,455.71	33.95	35.64	-36.87	-1,695.30	-137.96	327.18	263.10	64.08	5.106	
6,800.00	6,638.86	6,779.14	6,549.48	34.44	36.18	-58.60	-1,721.81	-140.16	333.55	268.38	65.17	5.118	
6,900.00	6,728.65	6,872.06	6,638.87	34.89	36.69	-72.89	-1,747.07	-142.27	343.75	277.34	66.40	5.177	
7,000.00	6,811.45	6,974.70	6,737.18	35.29	37.25	-84.16	-1,774.91	-150.87	359.89	291.96	67.93	5.298	
7,100.00	6,885.21	7,089.24	6,843.69	35.66	37.83	-93.03	-1,805.21	-179.52	379.95	310.79	69.15	5.494	
7,200.00	6,948.11	7,216.54	6,954.07	35.99	38.41	-100.16	-1,836.80	-234.02	401.96	332.62	69.33	5.797	
7,300.00	6,998.62	7,358.99	7,062.39	36.30	38.96	-105.84	-1,868.05	-320.61	423.50	355.55	67.95	6.232	
7,400.00	7,035.48	7,517.86	7,157.93	36.65	39.47	-110.10	-1,895.96	-443.91	441.85	376.70	65.15	6.782	
7,500.00	7,057.79	7,691.58	7,225.25	37.13	39.98	-112.78	-1,916.17	-602.18	454.25	391.97	62.28	7.294	
7,600.00	7,065.00	7,874.33	7,248.99	37.84	40.72	-113.66	-1,924.23	-782.58	458.57	396.85	61.71	7.430	
7,700.00	7,064.77	7,973.91	7,248.40	38.82	41.41	-113.61	-1,924.82	-882.15	458.41	394.41	64.00	7.163	
7,800.00	7,064.54	8,073.90	7,247.80	40.06	42.37	-113.57	-1,925.40	-982.14	458.25	391.64	66.61	6.879	
7,900.00	7,064.31	8,173.90	7,247.21	41.52	43.61	-113.53	-1,925.98	-1,082.14	458.09	388.55	69.54	6.588	
8,000.00	7,064.08	8,273.90	7,246.61	43.14	45.06	-113.49	-1,926.57	-1,182.13	457.93	385.20	72.73	6.296	
8,100.00	7,063.85	8,373.90	7,246.02	44.90	46.69	-113.45	-1,927.15	-1,282.13	457.77	381.60	76.17	6.010	
8,200.00	7,063.62	8,473.90	7,245.42	46.78	48.45	-113.41	-1,927.74	-1,382.13	457.61	377.80	79.82	5.733	
8,300.00	7,063.39	8,573.90	7,244.82	48.76	50.34	-113.37	-1,928.32	-1,482.12	457.45	373.81	83.64	5.469	
8,400.00	7,063.16	8,673.90	7,244.23	50.83	52.32	-113.33	-1,928.90	-1,582.12	457.29	369.66	87.63	5.218	
8,500.00	7,062.93	8,773.90	7,243.63	52.97	54.39	-113.29	-1,929.49	-1,682.11	457.13	365.37	91.76	4.982	
8,600.00	7,062.70	8,873.90	7,243.04	55.18	56.53	-113.24	-1,930.07	-1,782.11	456.98	360.97	96.01	4.760	
8,700.00	7,062.47	8,973.90	7,242.44	57.46	58.74	-113.20	-1,930.65	-1,882.11	456.82	356.45	100.37	4.552	
8,800.00	7,062.24	9,073.90	7,241.85	59.78	61.00	-113.16	-1,931.24	-1,982.10	456.66	351.85	104.81	4.357	
8,900.00	7,062.01	9,173.90	7,241.25	62.14	63.32	-113.12	-1,931.82	-2,082.10	456.50	347.16	109.35	4.175	
9,000.00	7,061.78	9,273.90	7,240.65	64.55	65.67	-113.08	-1,932.41	-2,182.09	456.35	342.39	113.95	4.005	
9,100.00	7,061.55	9,373.90	7,240.06	67.00	68.07	-113.04	-1,932.99	-2,282.09	456.19	337.57	118.62	3.846	
9,200.00	7,061.31	9,473.90	7,239.46	69.47	70.50	-113.00	-1,933.57	-2,382.08	456.03	332.68	123.35	3.697	
9,300.00	7,061.08	9,573.89	7,238.87	71.98	72.97	-112.95	-1,934.16	-2,482.08	455.88	327.74	128.13	3.558	
9,400.00	7,060.85	9,673.89	7,238.27	74.51	75.46	-112.91	-1,934.74	-2,582.08	455.72	322.76	132.96	3.428	
9,500.00	7,060.62	9,773.89	7,237.67	77.06	77.98	-112.87	-1,935.32	-2,682.07	455.56	317.74	137.83	3.305	
9,600.00	7,060.39	9,873.89	7,237.08	79.64	80.52	-112.83	-1,935.91	-2,782.07	455.41	312.67	142.74	3.191	
9,700.00	7,060.16	9,973.89	7,236.48	82.23	83.08	-112.79	-1,936.49	-2,882.06	455.25	307.58	147.68	3.083	
9,800.00	7,059.93	10,073.89	7,235.89	84.84	85.67	-112.75	-1,937.08	-2,982.06	455.10	302.45	152.65	2.981	
9,900.00	7,059.70	10,173.89	7,235.29	87.47	88.26	-112.70	-1,937.66	-3,082.06	454.94	297.29	157.65	2.886	
10,000.00	7,059.47	10,273.89	7,234.70	90.11	90.88	-112.66	-1,938.24	-3,182.05	454.79	292.11	162.68	2.796	
10,100.00	7,059.24	10,373.89	7,234.10	92.76	93.51	-112.62	-1,938.83	-3,282.05	454.63	286.90	167.73	2.710	
10,200.00	7,059.01	10,473.89	7,233.50	95.42	96.15	-112.58	-1,939.41	-3,382.04	454.48	281.67	172.81	2.630	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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		
10,300.00	7,058.78	10,573.89	7,232.91	98.10	98.80	-112.54	-1,939.99	-3,482.04	454.32	276.42	177.91	2.554		
10,400.00	7,058.55	10,673.89	7,232.31	100.79	101.47	-112.49	-1,940.58	-3,582.03	454.17	271.15	183.02	2.482		
10,500.00	7,058.32	10,773.89	7,231.72	103.48	104.15	-112.45	-1,941.16	-3,682.03	454.02	265.86	188.15	2.413		
10,600.00	7,058.09	10,873.89	7,231.12	106.19	106.83	-112.41	-1,941.75	-3,782.03	453.86	260.56	193.31	2.348		
10,700.00	7,057.86	10,973.89	7,230.52	108.90	109.53	-112.37	-1,942.33	-3,882.02	453.71	255.24	198.47	2.286		
10,800.00	7,057.63	11,073.88	7,229.93	111.62	112.23	-112.33	-1,942.91	-3,982.02	453.56	249.91	203.65	2.227		
10,900.00	7,057.40	11,173.88	7,229.33	114.35	114.94	-112.28	-1,943.50	-4,082.01	453.40	244.56	208.85	2.171		
11,000.00	7,057.17	11,273.88	7,228.74	117.08	117.66	-112.24	-1,944.08	-4,182.01	453.25	239.20	214.05	2.117		
11,100.00	7,056.94	11,373.88	7,228.14	119.82	120.38	-112.20	-1,944.66	-4,282.01	453.10	233.83	219.27	2.066		
11,200.00	7,056.71	11,473.88	7,227.54	122.56	123.11	-112.16	-1,945.25	-4,382.00	452.95	228.44	224.50	2.018		
11,300.00	7,056.48	11,573.88	7,226.95	125.31	125.84	-112.12	-1,945.83	-4,482.00	452.80	223.05	229.75	1.971		
11,400.00	7,056.25	11,673.88	7,226.35	128.06	128.59	-112.07	-1,946.42	-4,581.99	452.65	217.65	235.00	1.926		
11,500.00	7,056.02	11,773.88	7,225.76	130.82	131.33	-112.03	-1,947.00	-4,681.99	452.49	212.23	240.26	1.883		
11,600.00	7,055.79	11,873.88	7,225.16	133.59	134.08	-111.99	-1,947.58	-4,781.99	452.34	206.81	245.53	1.842		
11,700.00	7,055.55	11,973.88	7,224.57	136.35	136.84	-111.95	-1,948.17	-4,881.98	452.19	201.38	250.81	1.803		
11,800.00	7,055.32	12,073.88	7,223.97	139.12	139.60	-111.91	-1,948.75	-4,981.98	452.04	195.94	256.10	1.765		
11,900.00	7,055.09	12,173.88	7,223.37	141.90	142.36	-111.86	-1,949.34	-5,081.97	451.89	190.49	261.40	1.729		
12,000.00	7,054.86	12,273.88	7,222.78	144.67	145.13	-111.82	-1,949.92	-5,181.97	451.74	185.04	266.71	1.694		
12,100.00	7,054.63	12,373.88	7,222.18	147.45	147.90	-111.78	-1,950.50	-5,281.96	451.59	179.57	272.02	1.660		
12,200.00	7,054.40	12,473.88	7,221.59	150.24	150.67	-111.74	-1,951.09	-5,381.96	451.44	174.10	277.34	1.628		
12,300.00	7,054.17	12,573.87	7,220.99	153.02	153.45	-111.69	-1,951.67	-5,481.96	451.29	168.62	282.67	1.597		
12,400.00	7,053.94	12,673.87	7,220.39	155.81	156.23	-111.65	-1,952.25	-5,581.95	451.14	163.14	288.00	1.566		
12,500.00	7,053.71	12,773.87	7,219.80	158.60	159.01	-111.61	-1,952.84	-5,681.95	451.00	157.65	293.34	1.537		
12,600.00	7,053.48	12,873.87	7,219.20	161.40	161.80	-111.57	-1,953.42	-5,781.94	450.85	152.15	298.69	1.509		
12,700.00	7,053.25	12,973.87	7,218.61	164.19	164.59	-111.52	-1,954.01	-5,881.94	450.70	146.65	304.05	1.482 Level 3		
12,800.00	7,053.02	13,073.87	7,218.01	166.99	167.38	-111.48	-1,954.59	-5,981.94	450.55	141.14	309.41	1.456 Level 3		
12,900.00	7,052.79	13,173.87	7,217.42	169.79	170.17	-111.44	-1,955.17	-6,081.93	450.40	135.63	314.77	1.431 Level 3		
13,000.00	7,052.56	13,273.87	7,216.82	172.59	172.97	-111.40	-1,955.76	-6,181.93	450.26	130.11	320.14	1.406 Level 3		
13,100.00	7,052.33	13,373.87	7,216.22	175.40	175.76	-111.35	-1,956.34	-6,281.92	450.11	124.59	325.52	1.383 Level 3		
13,200.00	7,052.10	13,473.87	7,215.63	178.20	178.56	-111.31	-1,956.92	-6,381.92	449.96	119.06	330.90	1.360 Level 3		
13,300.00	7,051.87	13,573.87	7,215.03	181.01	181.36	-111.27	-1,957.51	-6,481.91	449.81	113.52	336.29	1.338 Level 3		
13,400.00	7,051.64	13,673.87	7,214.44	183.82	184.16	-111.23	-1,958.09	-6,581.91	449.67	107.99	341.68	1.316 Level 3		
13,500.00	7,051.41	13,773.87	7,213.84	186.63	186.97	-111.18	-1,958.68	-6,681.91	449.52	102.44	347.08	1.295 Level 3		
13,600.00	7,051.18	13,873.87	7,213.24	189.44	189.77	-111.14	-1,959.26	-6,781.90	449.38	96.89	352.48	1.275 Level 3		
13,700.00	7,050.95	13,973.87	7,212.65	192.25	192.58	-111.10	-1,959.84	-6,881.90	449.23	91.34	357.89	1.255 Level 3		
13,800.00	7,050.72	14,073.86	7,212.05	195.07	195.39	-111.05	-1,960.43	-6,981.89	449.09	85.78	363.30	1.236 Level 2		
13,900.00	7,050.49	14,173.86	7,211.46	197.88	198.20	-111.01	-1,961.01	-7,081.89	448.94	80.22	368.72	1.218 Level 2		
14,000.00	7,050.26	14,273.86	7,210.86	200.70	201.01	-110.97	-1,961.59	-7,181.89	448.79	74.66	374.14	1.200 Level 2		
14,100.00	7,050.03	14,373.86	7,210.27	203.52	203.83	-110.93	-1,962.18	-7,281.88	448.65	69.09	379.56	1.182 Level 2		
14,200.00	7,049.80	14,473.86	7,209.67	206.34	206.64	-110.88	-1,962.76	-7,381.88	448.51	63.51	384.99	1.165 Level 2		
14,300.00	7,049.56	14,573.86	7,209.07	209.16	209.46	-110.84	-1,963.35	-7,481.87	448.36	57.93	390.43	1.148 Level 2		
14,400.00	7,049.33	14,673.86	7,208.48	211.98	212.27	-110.80	-1,963.93	-7,581.87	448.22	52.35	395.87	1.132 Level 2		
14,500.00	7,049.10	14,773.86	7,207.88	214.80	215.09	-110.75	-1,964.51	-7,681.86	448.07	46.77	401.31	1.117 Level 2		
14,600.00	7,048.87	14,873.86	7,207.29	217.63	217.91	-110.71	-1,965.10	-7,781.86	447.93	41.18	406.75	1.101 Level 2		
14,700.00	7,048.64	14,973.86	7,206.69	220.45	220.73	-110.67	-1,965.68	-7,881.86	447.79	35.58	412.20	1.086 Level 2		
14,800.00	7,048.41	15,073.86	7,206.09	223.28	223.55	-110.63	-1,966.26	-7,981.85	447.64	29.99	417.66	1.072 Level 2		
14,900.00	7,048.18	15,173.86	7,205.50	226.10	226.37	-110.58	-1,966.85	-8,081.85	447.50	24.38	423.12	1.058 Level 2		
14,979.18	7,048.00	15,253.04	7,205.03	228.34	228.61	-110.55	-1,967.31	-8,161.03	447.39	19.95	427.44	1.047 Level 2, 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 12N-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 12N-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 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	-179.60	-159.92	-1.11	159.93					
100.00	100.00	101.00	100.00	3.28	3.28	-179.60	-159.92	-1.11	159.93	153.36	6.57	24.343		
200.00	200.00	199.00	200.00	3.34	3.34	-179.60	-159.92	-1.11	159.93	153.25	6.67	23.965		
300.00	299.98	293.77	294.75	3.44	3.43	-5.73	-161.45	-1.18	159.81	152.93	6.88	23.225		
400.00	399.84	388.49	389.36	3.59	3.57	-5.84	-166.11	-1.40	159.52	152.33	7.19	22.180		
500.00	499.45	483.23	483.77	3.79	3.76	-6.02	-173.90	-1.76	159.07	151.47	7.60	20.927		
600.00	598.70	577.98	577.88	4.03	3.98	-6.28	-184.79	-2.26	158.45	150.35	8.09	19.578		
700.00	697.47	672.75	671.61	4.31	4.23	-6.62	-198.80	-2.91	157.67	149.01	8.66	18.217		
800.00	795.62	767.54	764.84	4.64	4.53	-7.04	-215.90	-3.70	156.73	147.45	9.28	16.897		
884.66	878.30	847.82	843.32	4.94	4.81	-7.43	-232.78	-4.48	156.44	146.61	9.83	15.910		
900.00	893.16	862.37	857.49	5.00	4.86	-7.52	-236.07	-4.63	156.08	146.14	9.94	15.704 CC, ES		
1,000.00	990.60	957.16	949.37	5.38	5.22	-7.93	-259.29	-5.71	158.32	147.67	10.65	14.871		
1,100.00	1,088.04	1,051.71	1,040.22	5.79	5.62	-8.23	-285.47	-6.92	163.85	152.47	11.38	14.399		
1,200.00	1,185.48	1,145.82	1,129.73	6.22	6.04	-8.42	-314.48	-8.26	172.66	160.53	12.13	14.233		
1,300.00	1,282.92	1,239.28	1,217.64	6.66	6.49	-8.50	-346.18	-9.73	184.72	171.82	12.90	14.324		
1,400.00	1,380.36	1,331.92	1,303.70	7.10	6.96	-8.49	-380.41	-11.31	199.98	186.31	13.67	14.632		
1,500.00	1,477.80	1,423.55	1,387.69	7.56	7.46	-8.41	-416.99	-13.00	218.39	203.95	14.44	15.125		
1,600.00	1,575.24	1,514.01	1,469.41	8.03	7.98	-8.28	-455.71	-14.79	239.91	224.71	15.21	15.776		
1,700.00	1,672.68	1,603.13	1,548.70	8.50	8.52	-8.12	-496.36	-16.67	264.47	248.50	15.97	16.561		
1,800.00	1,770.12	1,690.78	1,625.40	8.98	9.07	-7.94	-538.73	-18.63	292.01	275.28	16.72	17.462		
1,900.00	1,867.56	1,776.84	1,699.41	9.46	9.64	-7.75	-582.58	-20.66	322.43	304.97	17.46	18.463		
2,000.00	1,965.00	1,865.05	1,773.99	9.95	10.25	-7.56	-629.64	-22.84	355.49	337.23	18.25	19.475		
2,100.00	2,062.44	1,959.22	1,853.33	10.44	10.91	-7.38	-680.33	-25.18	389.09	369.93	19.16	20.307		
2,200.00	2,159.88	2,053.40	1,932.67	10.93	11.59	-7.24	-731.02	-27.53	422.70	402.61	20.08	21.048		
2,300.00	2,257.32	2,147.58	2,012.01	11.42	12.27	-7.11	-781.71	-29.87	456.31	435.29	21.02	21.711		
2,400.00	2,354.76	2,241.76	2,091.35	11.92	12.97	-7.00	-832.40	-32.21	489.92	467.95	21.96	22.305		
2,500.00	2,452.20	2,335.94	2,170.69	12.42	13.66	-6.90	-883.08	-34.56	523.53	500.61	22.92	22.841		
2,600.00	2,549.64	2,430.12	2,250.03	12.92	14.37	-6.82	-933.77	-36.90	557.14	533.26	23.89	23.325		
2,700.00	2,647.08	2,524.29	2,329.37	13.42	15.07	-6.75	-984.46	-39.25	590.76	565.90	24.86	23.765		
2,800.00	2,744.52	2,618.47	2,408.71	13.93	15.79	-6.68	-1,035.15	-41.59	624.37	598.53	25.84	24.165		
2,900.00	2,841.96	2,712.65	2,488.05	14.43	16.50	-6.62	-1,085.84	-43.94	657.99	631.16	26.82	24.530		
3,000.00	2,939.40	2,806.83	2,567.39	14.94	17.22	-6.57	-1,136.52	-46.28	691.60	663.79	27.81	24.865		
3,100.00	3,036.84	2,901.01	2,646.73	15.44	17.94	-6.52	-1,187.21	-48.63	725.22	696.41	28.81	25.172		
3,200.00	3,134.28	3,004.81	2,726.07	15.95	18.74	-6.47	-1,237.90	-50.97	758.84	728.97	29.87	25.405		
3,300.00	3,231.72	3,089.37	2,805.41	16.46	19.39	-6.43	-1,288.59	-53.31	792.45	761.64	30.81	25.717		
3,400.00	3,329.16	3,183.54	2,884.75	16.97	20.12	-6.40	-1,339.28	-55.66	826.07	794.25	31.82	25.959		
3,500.00	3,426.60	3,277.72	2,964.09	17.48	20.85	-6.36	-1,389.97	-58.00	859.69	826.86	32.83	26.184		
3,600.00	3,524.04	3,371.90	3,043.42	17.99	21.58	-6.33	-1,440.65	-60.35	893.31	859.46	33.85	26.393		
3,700.00	3,621.48	3,466.08	3,122.76	18.50	22.31	-6.30	-1,491.34	-62.69	926.93	892.06	34.86	26.588		
3,800.00	3,718.92	3,560.26	3,202.10	19.01	23.04	-6.27	-1,542.03	-65.04	960.55	924.66	35.88	26.770		
3,900.00	3,816.36	3,654.44	3,281.44	19.52	23.78	-6.25	-1,592.72	-67.38	994.17	957.26	36.90	26.940		
4,000.00	3,913.80	3,748.62	3,360.78	20.03	24.51	-6.22	-1,643.41	-69.72	1,027.78	989.86	37.93	27.100		
4,100.00	4,011.24	3,842.79	3,440.12	20.55	25.25	-6.20	-1,694.09	-72.07	1,061.40	1,022.45	38.95	27.250		
4,200.00	4,108.68	3,936.97	3,519.46	21.06	25.99	-6.18	-1,744.78	-74.41	1,095.02	1,055.05	39.98	27.391		
4,300.00	4,206.12	4,031.15	3,598.80	21.57	26.73	-6.16	-1,795.47	-76.76	1,128.64	1,087.64	41.01	27.524		
4,400.00	4,303.56	4,125.33	3,678.14	22.09	27.46	-6.14	-1,846.16	-79.10	1,162.26	1,120.23	42.04	27.650		
4,500.00	4,401.00	4,219.51	3,757.48	22.60	28.20	-6.12	-1,896.85	-81.45	1,195.88	1,152.82	43.07	27.768		
4,600.00	4,498.44	4,313.69	3,836.82	23.11	28.94	-6.11	-1,947.54	-83.79	1,229.50	1,185.40	44.10	27.881		
4,700.00	4,595.88	4,407.86	3,916.16	23.63	29.68	-6.09	-1,998.22	-86.13	1,263.12	1,217.99	45.13	27.987		
4,800.00	4,693.32	4,502.04	3,995.50	24.14	30.43	-6.08	-2,048.91	-88.48	1,296.74	1,250.57	46.17	28.088		
4,900.00	4,790.76	4,596.22	4,074.84	24.66	31.17	-6.06	-2,099.60	-90.82	1,330.36	1,283.16	47.20	28.184		
5,000.00	4,888.20	4,709.60	4,154.18	25.17	32.06	-6.05	-2,150.29	-93.17	1,363.98	1,315.62	48.36	28.204		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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		
5,100.00	4,985.64	4,784.58	4,233.52	25.69	32.65	-6.04	-2,200.98	-95.51	1,397.60	1,348.32	49.28	28.361		
5,200.00	5,083.08	4,878.76	4,312.86	26.20	33.39	-6.02	-2,251.66	-97.86	1,431.22	1,380.91	50.32	28.444		
5,300.00	5,180.52	4,972.94	4,392.20	26.72	34.14	-6.01	-2,302.35	-100.20	1,464.84	1,413.49	51.36	28.523		
5,400.00	5,277.96	5,067.11	4,471.54	27.24	34.88	-6.00	-2,353.04	-102.55	1,498.46	1,446.07	52.40	28.598		
5,500.00	5,375.40	5,161.29	4,550.88	27.75	35.62	-5.99	-2,403.73	-104.89	1,532.08	1,478.65	53.44	28.670		
5,600.00	5,472.84	5,255.47	4,630.22	28.27	36.37	-5.98	-2,454.42	-107.23	1,565.71	1,511.22	54.48	28.739		
5,700.00	5,570.28	5,349.65	4,709.56	28.79	37.11	-5.97	-2,505.11	-109.58	1,599.33	1,543.80	55.52	28.805		
5,800.00	5,667.72	5,443.83	4,788.90	29.30	37.86	-5.96	-2,555.79	-111.92	1,632.95	1,576.38	56.57	28.868		
5,900.00	5,765.16	5,538.01	4,868.24	29.82	38.60	-5.95	-2,606.48	-114.27	1,666.57	1,608.96	57.61	28.928		
6,000.00	5,862.60	5,632.19	4,947.58	30.34	39.35	-5.94	-2,657.17	-116.61	1,700.19	1,641.53	58.66	28.986		
6,100.00	5,960.05	5,726.36	5,026.92	30.85	40.09	-5.94	-2,707.86	-118.96	1,733.81	1,674.11	59.70	29.042		
6,200.00	6,057.49	5,906.96	5,106.26	31.37	41.49	-5.93	-2,802.13	-123.32	1,766.11	1,704.29	61.82	28.568		
6,300.00	6,154.93	6,162.13	5,407.65	31.89	43.30	-5.94	-2,918.78	-128.71	1,790.83	1,726.42	64.40	27.807		
6,400.00	6,252.37	6,400.00	5,607.59	32.40	44.82	-5.98	-3,001.31	-132.53	1,806.60	1,740.30	66.31	27.247		
6,500.00	6,349.81	6,697.63	5,912.21	32.92	46.44	-6.08	-3,095.65	-136.89	1,813.21	1,745.43	67.77	26.754		
6,600.00	6,447.25	6,969.09	6,178.34	33.44	47.67	-6.21	-3,148.62	-139.34	1,810.30	1,741.92	68.38	26.475		
6,700.00	6,544.28	7,235.59	6,443.34	33.95	48.64	-36.65	-3,175.92	-140.60	1,798.09	1,729.83	68.26	26.343		
6,800.00	6,638.86	7,432.57	6,640.21	34.44	49.18	-58.65	-3,180.45	-141.82	1,778.25	1,710.14	68.11	26.110		
6,900.00	6,728.65	7,532.69	6,739.32	34.89	49.43	-70.99	-3,180.53	-155.28	1,758.20	1,689.45	68.75	25.572		
7,000.00	6,811.45	7,637.81	6,839.75	35.29	49.68	-78.98	-3,180.72	-185.92	1,740.17	1,670.89	69.27	25.120		
7,100.00	6,885.21	7,748.64	6,938.65	35.66	49.92	-84.66	-3,181.02	-235.63	1,724.55	1,654.87	69.68	24.750		
7,200.00	6,948.11	7,865.74	7,032.11	35.99	50.15	-88.87	-3,181.45	-305.90	1,711.67	1,641.63	70.04	24.439		
7,300.00	6,998.62	7,989.29	7,115.02	36.30	50.34	-91.99	-3,182.01	-397.24	1,701.68	1,631.19	70.49	24.142		
7,400.00	7,035.48	8,118.90	7,181.34	36.65	50.49	-94.19	-3,182.69	-508.33	1,694.65	1,623.41	71.25	23.785		
7,500.00	7,057.79	8,253.42	7,224.95	37.13	50.58	-95.51	-3,183.47	-635.32	1,690.56	1,618.01	72.55	23.301		
7,595.23	7,065.09	8,384.32	7,240.89	37.80	50.64	-95.97	-3,184.27	-765.01	1,689.30	1,614.84	74.46	22.686		
7,600.00	7,065.00	8,390.92	7,240.98	37.84	50.64	-95.98	-3,184.31	-771.61	1,689.34	1,614.77	74.57	22.655		
7,700.00	7,064.77	8,506.76	7,240.62	38.82	50.69	-95.98	-3,184.93	-873.93	1,689.34	1,612.26	77.08	21.916		
7,800.00	7,064.54	8,606.76	7,240.22	40.06	50.76	-95.97	-3,185.54	-973.92	1,689.34	1,609.56	79.78	21.176		
7,900.00	7,064.31	8,706.76	7,239.81	41.52	50.86	-95.96	-3,186.16	-1,073.92	1,689.33	1,606.56	82.77	20.409		
8,000.00	7,064.08	8,806.76	7,239.41	43.14	51.03	-95.96	-3,186.77	-1,173.92	1,689.33	1,603.28	86.04	19.633		
8,100.00	7,063.85	8,893.24	7,239.00	44.90	51.30	-95.95	-3,187.38	-1,273.92	1,689.32	1,600.00	89.32	18.912		
8,200.00	7,063.62	9,006.76	7,238.59	46.78	52.01	-95.95	-3,187.99	-1,373.91	1,689.32	1,596.03	93.29	18.109		
8,300.00	7,063.39	9,106.76	7,238.19	48.76	53.20	-95.94	-3,188.61	-1,473.91	1,689.31	1,592.11	97.21	17.379		
8,400.00	7,063.16	9,206.76	7,237.78	50.83	54.81	-95.93	-3,189.22	-1,573.91	1,689.31	1,588.01	101.29	16.677		
8,500.00	7,062.93	9,306.76	7,237.38	52.97	56.66	-95.93	-3,189.83	-1,673.90	1,689.30	1,583.77	105.53	16.008		
8,600.00	7,062.70	9,406.76	7,236.97	55.18	58.67	-95.92	-3,190.44	-1,773.90	1,689.30	1,579.40	109.90	15.371		
8,700.00	7,062.47	9,506.76	7,236.57	57.46	60.77	-95.92	-3,191.06	-1,873.90	1,689.29	1,574.91	114.38	14.769		
8,800.00	7,062.24	9,606.76	7,236.16	59.78	62.95	-95.91	-3,191.67	-1,973.90	1,689.29	1,570.32	118.97	14.199		
8,900.00	7,062.01	9,706.76	7,235.75	62.14	65.19	-95.90	-3,192.28	-2,073.89	1,689.29	1,565.63	123.65	13.662		
9,000.00	7,061.78	9,806.76	7,235.35	64.55	67.48	-95.90	-3,192.89	-2,173.89	1,689.28	1,560.87	128.41	13.155		
9,100.00	7,061.55	9,906.76	7,234.94	67.00	69.82	-95.89	-3,193.51	-2,273.89	1,689.28	1,556.03	133.25	12.678		
9,200.00	7,061.31	10,006.76	7,234.54	69.47	72.20	-95.89	-3,194.12	-2,373.88	1,689.27	1,551.12	138.15	12.228		
9,300.00	7,061.08	10,106.76	7,234.13	71.98	74.61	-95.88	-3,194.73	-2,473.88	1,689.27	1,546.16	143.11	11.804		
9,400.00	7,060.85	10,206.76	7,233.73	74.51	77.06	-95.87	-3,195.34	-2,573.88	1,689.26	1,541.14	148.12	11.405		
9,500.00	7,060.62	10,306.76	7,233.32	77.06	79.53	-95.87	-3,195.96	-2,673.88	1,689.26	1,536.08	153.18	11.028		
9,600.00	7,060.39	10,406.76	7,232.91	79.64	82.03	-95.86	-3,196.57	-2,773.87	1,689.26	1,530.97	158.29	10.672		
9,700.00	7,060.16	10,506.76	7,232.51	82.23	84.56	-95.86	-3,197.18	-2,873.87	1,689.25	1,525.82	163.43	10.336		
9,800.00	7,059.93	10,606.76	7,232.10	84.84	87.10	-95.85	-3,197.79	-2,973.87	1,689.25	1,520.64	168.61	10.019		
9,900.00	7,059.70	10,706.76	7,231.70	87.47	89.66	-95.84	-3,198.41	-3,073.86	1,689.24	1,515.43	173.82	9.719		
10,000.00	7,059.47	10,806.76	7,231.29	90.11	92.25	-95.84	-3,199.02	-3,173.86	1,689.24	1,510.18	179.06	9.434		
10,100.00	7,059.24	10,906.76	7,230.89	92.76	94.84	-95.83	-3,199.63	-3,273.86	1,689.23	1,504.91	184.32	9.164		

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 12N-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 12N-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 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		
10,200.00	7,059.01	11,006.76	7,230.48	95.42	97.46	-95.83	-3,200.24	-3,373.86	1,689.23	1,499.61	189.62	8.909		
10,300.00	7,058.78	11,106.77	7,230.07	98.10	100.08	-95.82	-3,200.86	-3,473.85	1,689.23	1,494.29	194.93	8.666		
10,400.00	7,058.55	11,206.77	7,229.67	100.79	102.72	-95.81	-3,201.47	-3,573.85	1,689.22	1,488.95	200.27	8.435		
10,500.00	7,058.32	11,306.77	7,229.26	103.48	105.37	-95.81	-3,202.08	-3,673.85	1,689.22	1,483.59	205.62	8.215		
10,600.00	7,058.09	11,406.77	7,228.86	106.19	108.03	-95.80	-3,202.69	-3,773.84	1,689.21	1,478.22	211.00	8.006		
10,700.00	7,057.86	11,506.77	7,228.45	108.90	110.70	-95.80	-3,203.31	-3,873.84	1,689.21	1,472.82	216.38	7.806		
10,800.00	7,057.63	11,606.77	7,228.05	111.62	113.38	-95.79	-3,203.92	-3,973.84	1,689.20	1,467.41	221.79	7.616		
10,900.00	7,057.40	11,706.77	7,227.64	114.35	116.07	-95.78	-3,204.53	-4,073.84	1,689.20	1,461.99	227.21	7.435		
11,000.00	7,057.17	11,806.77	7,227.23	117.08	118.77	-95.78	-3,205.14	-4,173.83	1,689.20	1,456.55	232.64	7.261		
11,100.00	7,056.94	11,893.23	7,226.83	119.82	121.11	-95.77	-3,205.76	-4,273.83	1,689.19	1,451.47	237.72	7.106		
11,200.00	7,056.71	12,006.77	7,226.42	122.56	124.19	-95.77	-3,206.37	-4,373.83	1,689.19	1,445.64	243.54	6.936		
11,300.00	7,056.48	12,106.77	7,226.02	125.31	126.90	-95.76	-3,206.98	-4,473.82	1,689.18	1,440.17	249.01	6.784		
11,400.00	7,056.25	12,206.77	7,225.61	128.06	129.63	-95.75	-3,207.59	-4,573.82	1,689.18	1,434.69	254.49	6.638		
11,500.00	7,056.02	12,306.77	7,225.21	130.82	132.36	-95.75	-3,208.21	-4,673.82	1,689.18	1,429.20	259.98	6.497		
11,600.00	7,055.79	12,406.77	7,224.80	133.59	135.09	-95.74	-3,208.82	-4,773.82	1,689.17	1,423.70	265.47	6.363		
11,700.00	7,055.55	12,506.77	7,224.39	136.35	137.83	-95.74	-3,209.43	-4,873.81	1,689.17	1,418.19	270.98	6.234		
11,800.00	7,055.32	12,606.77	7,223.99	139.12	140.58	-95.73	-3,210.04	-4,973.81	1,689.16	1,412.67	276.49	6.109		
11,900.00	7,055.09	12,706.77	7,223.58	141.90	143.33	-95.72	-3,210.66	-5,073.81	1,689.16	1,407.15	282.01	5.990		
12,000.00	7,054.86	12,806.77	7,223.18	144.67	146.08	-95.72	-3,211.27	-5,173.80	1,689.16	1,401.62	287.54	5.875		
12,100.00	7,054.63	12,906.77	7,222.77	147.45	148.84	-95.71	-3,211.88	-5,273.80	1,689.15	1,396.08	293.07	5.764		
12,200.00	7,054.40	13,006.77	7,222.37	150.24	151.60	-95.71	-3,212.49	-5,373.80	1,689.15	1,390.54	298.61	5.657		
12,300.00	7,054.17	13,106.77	7,221.96	153.02	154.36	-95.70	-3,213.11	-5,473.80	1,689.14	1,384.99	304.16	5.554		
12,400.00	7,053.94	13,206.77	7,221.55	155.81	157.13	-95.69	-3,213.72	-5,573.79	1,689.14	1,379.43	309.71	5.454		
12,500.00	7,053.71	13,293.23	7,221.15	158.60	159.53	-95.69	-3,214.33	-5,673.79	1,689.14	1,374.25	314.89	5.364		
12,600.00	7,053.48	13,406.77	7,220.74	161.40	162.68	-95.68	-3,214.94	-5,773.79	1,689.13	1,368.31	320.83	5.265		
12,700.00	7,053.25	13,506.77	7,220.34	164.19	165.45	-95.68	-3,215.56	-5,873.79	1,689.13	1,362.73	326.39	5.175		
12,800.00	7,053.02	13,606.77	7,219.93	166.99	168.23	-95.67	-3,216.17	-5,973.78	1,689.13	1,357.16	331.97	5.088		
12,900.00	7,052.79	13,706.77	7,219.53	169.79	171.02	-95.66	-3,216.78	-6,073.78	1,689.12	1,351.58	337.54	5.004		
13,000.00	7,052.56	13,806.77	7,219.12	172.59	173.80	-95.66	-3,217.39	-6,173.78	1,689.12	1,346.00	343.12	4.923		
13,100.00	7,052.33	13,906.77	7,218.71	175.40	176.59	-95.65	-3,218.01	-6,273.77	1,689.11	1,340.41	348.70	4.844		
13,200.00	7,052.10	14,006.77	7,218.31	178.20	179.38	-95.65	-3,218.62	-6,373.77	1,689.11	1,334.82	354.29	4.768		
13,300.00	7,051.87	14,106.77	7,217.90	181.01	182.17	-95.64	-3,219.23	-6,473.77	1,689.11	1,329.22	359.88	4.693		
13,400.00	7,051.64	14,206.77	7,217.50	183.82	184.97	-95.64	-3,219.84	-6,573.77	1,689.10	1,323.63	365.48	4.622		
13,500.00	7,051.41	14,306.77	7,217.09	186.63	187.76	-95.63	-3,220.46	-6,673.76	1,689.10	1,318.03	371.07	4.552		
13,600.00	7,051.18	14,406.77	7,216.68	189.44	190.56	-95.62	-3,221.07	-6,773.76	1,689.10	1,312.42	376.68	4.484		
13,700.00	7,050.95	14,493.23	7,216.28	192.25	192.98	-95.62	-3,221.68	-6,873.76	1,689.09	1,307.19	381.90	4.423		
13,800.00	7,050.72	14,606.77	7,215.87	195.07	196.16	-95.61	-3,222.29	-6,973.75	1,689.09	1,301.20	387.89	4.355		
13,900.00	7,050.49	14,706.77	7,215.47	197.88	198.96	-95.61	-3,222.91	-7,073.75	1,689.09	1,295.59	393.50	4.293		
14,000.00	7,050.26	14,806.77	7,215.06	200.70	201.77	-95.60	-3,223.52	-7,173.75	1,689.08	1,289.97	399.11	4.232		
14,100.00	7,050.03	14,906.77	7,214.66	203.52	204.57	-95.59	-3,224.13	-7,273.75	1,689.08	1,284.36	404.72	4.173		
14,200.00	7,049.80	15,006.77	7,214.25	206.34	207.38	-95.59	-3,224.74	-7,373.74	1,689.07	1,278.74	410.34	4.116		
14,300.00	7,049.56	15,106.77	7,213.84	209.16	210.19	-95.58	-3,225.36	-7,473.74	1,689.07	1,273.11	415.96	4.061		
14,400.00	7,049.33	15,206.77	7,213.44	211.98	213.00	-95.58	-3,225.97	-7,573.74	1,689.07	1,267.49	421.58	4.007		
14,500.00	7,049.10	15,306.77	7,213.03	214.80	215.81	-95.57	-3,226.58	-7,673.73	1,689.06	1,261.86	427.20	3.954		
14,600.00	7,048.87	15,406.77	7,212.63	217.63	218.62	-95.56	-3,227.19	-7,773.73	1,689.06	1,256.23	432.83	3.902		
14,700.00	7,048.64	15,506.77	7,212.22	220.45	221.44	-95.56	-3,227.81	-7,873.73	1,689.06	1,250.60	438.46	3.852		
14,800.00	7,048.41	15,606.77	7,211.82	223.28	224.25	-95.55	-3,228.42	-7,973.73	1,689.05	1,244.97	444.09	3.803		
14,900.00	7,048.18	15,706.77	7,211.41	226.10	227.07	-95.55	-3,229.03	-8,073.72	1,689.05	1,239.33	449.72	3.756		
14,979.18	7,048.00	15,772.41	7,211.09	228.34	228.92	-95.54	-3,229.52	-8,152.90	1,689.05	1,235.25	453.80	3.722 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	0.51	220.04	1.95	220.05					
100.00	100.00	101.00	100.00	3.28	3.28	0.51	220.04	1.95	220.05	213.48	6.57	33.496		
200.00	200.00	201.00	200.00	3.34	3.34	0.51	220.04	1.95	220.05	213.38	6.67	32.967	CC, ES	
300.00	299.98	300.98	299.98	3.44	3.45	174.46	220.04	1.95	221.79	214.90	6.89	32.208		
400.00	399.84	400.84	399.84	3.59	3.60	174.58	220.04	1.95	227.00	219.80	7.20	31.540		
500.00	499.45	500.45	499.45	3.79	3.81	174.76	220.04	1.95	235.68	228.08	7.60	31.012		
600.00	598.70	599.70	598.70	4.03	4.05	175.00	220.04	1.95	247.82	239.74	8.08	30.670		
700.00	697.47	705.54	693.44	4.31	4.33	174.96	220.86	0.64	264.22	255.58	8.65	30.563		
800.00	795.62	807.67	791.27	4.64	4.63	174.75	222.40	-1.82	284.72	275.47	9.25	30.771		
900.00	893.16	889.53	888.43	5.00	4.89	174.63	223.93	-4.27	308.19	298.34	9.84	31.309		
1,000.00	990.60	986.64	985.49	5.38	5.21	174.56	225.46	-6.71	332.07	321.56	10.51	31.606		
1,100.00	1,088.04	1,083.74	1,082.56	5.79	5.54	174.49	226.98	-9.16	355.95	344.75	11.20	31.776		
1,200.00	1,185.48	1,180.85	1,179.62	6.22	5.89	174.44	228.51	-11.60	379.83	367.91	11.92	31.854		
1,300.00	1,282.92	1,277.95	1,276.68	6.66	6.25	174.39	230.04	-14.04	403.72	391.05	12.67	31.868		
1,400.00	1,380.36	1,375.06	1,373.74	7.10	6.61	174.34	231.56	-16.49	427.60	414.17	13.43	31.836		
1,500.00	1,477.80	1,472.17	1,470.81	7.56	6.99	174.30	233.09	-18.93	451.48	437.27	14.21	31.773		
1,600.00	1,575.24	1,569.27	1,567.87	8.03	7.37	174.26	234.62	-21.37	475.36	460.36	15.00	31.689		
1,700.00	1,672.68	1,666.38	1,664.93	8.50	7.75	174.23	236.14	-23.82	499.25	483.44	15.80	31.591		
1,800.00	1,770.12	1,763.48	1,762.00	8.98	8.14	174.20	237.67	-26.26	523.13	506.51	16.62	31.484		
1,900.00	1,867.56	1,860.59	1,859.06	9.46	8.53	174.18	239.20	-28.70	547.01	529.58	17.44	31.373		
2,000.00	1,965.00	1,957.70	1,956.12	9.95	8.92	174.15	240.72	-31.15	570.90	552.63	18.26	31.260		
2,100.00	2,062.44	2,054.80	2,053.19	10.44	9.32	174.13	242.25	-33.59	594.78	575.68	19.10	31.146		
2,200.00	2,159.88	2,151.91	2,150.25	10.93	9.72	174.11	243.78	-36.03	618.66	598.73	19.94	31.034		
2,300.00	2,257.32	2,249.01	2,247.31	11.42	10.13	174.09	245.30	-38.48	642.55	621.77	20.78	30.923		
2,400.00	2,354.76	2,346.12	2,344.37	11.92	10.53	174.07	246.83	-40.92	666.43	644.80	21.63	30.816		
2,500.00	2,452.20	2,443.22	2,441.44	12.42	10.94	174.05	248.36	-43.36	690.31	667.84	22.48	30.711		
2,600.00	2,549.64	2,540.33	2,538.50	12.92	11.34	174.04	249.88	-45.80	714.20	690.87	23.33	30.610		
2,700.00	2,647.08	2,637.44	2,635.56	13.42	11.75	174.02	251.41	-48.25	738.08	713.89	24.19	30.512		
2,800.00	2,744.52	2,734.54	2,732.63	13.93	12.16	174.01	252.94	-50.69	761.97	736.92	25.05	30.418		
2,900.00	2,841.96	2,831.65	2,829.69	14.43	12.58	174.00	254.46	-53.13	785.85	759.94	25.91	30.327		
3,000.00	2,939.40	2,928.75	2,926.75	14.94	12.99	173.98	255.99	-55.58	809.73	782.96	26.78	30.239		
3,100.00	3,036.84	3,025.86	3,023.82	15.44	13.40	173.97	257.52	-58.02	833.62	805.97	27.64	30.155		
3,200.00	3,134.28	3,122.96	3,120.88	15.95	13.82	173.96	259.04	-60.46	857.50	828.99	28.51	30.074		
3,300.00	3,231.72	3,220.07	3,217.94	16.46	14.23	173.95	260.57	-62.91	881.39	852.00	29.38	29.997		
3,400.00	3,329.16	3,317.18	3,315.00	16.97	14.65	173.94	262.10	-65.35	905.27	875.02	30.25	29.922		
3,500.00	3,426.60	3,414.28	3,412.07	17.48	15.06	173.93	263.62	-67.79	929.15	898.03	31.13	29.850		
3,600.00	3,524.04	3,511.39	3,509.13	17.99	15.48	173.92	265.15	-70.24	953.04	921.04	32.00	29.781		
3,700.00	3,621.48	3,608.49	3,606.19	18.50	15.90	173.92	266.68	-72.68	976.92	944.05	32.88	29.715		
3,800.00	3,718.92	3,705.60	3,703.26	19.01	16.32	173.91	268.20	-75.12	1,000.81	967.05	33.75	29.651		
3,900.00	3,816.36	3,802.70	3,800.32	19.52	16.73	173.90	269.73	-77.57	1,024.69	990.06	34.63	29.589		
4,000.00	3,913.80	3,900.19	3,897.38	20.03	17.16	173.89	271.26	-80.01	1,048.58	1,013.06	35.51	29.529		
4,100.00	4,011.24	4,003.08	3,994.45	20.55	17.60	173.89	272.78	-82.45	1,072.46	1,036.04	36.41	29.451		
4,200.00	4,108.68	4,105.98	4,091.51	21.06	18.04	173.88	274.31	-84.90	1,096.34	1,059.02	37.32	29.377		
4,300.00	4,206.12	4,208.87	4,188.57	21.57	18.49	173.87	275.84	-87.34	1,120.23	1,082.00	38.23	29.306		
4,400.00	4,303.56	4,288.23	4,285.63	22.09	18.83	173.87	277.36	-89.78	1,144.11	1,105.08	39.03	29.314		
4,500.00	4,401.00	4,385.34	4,382.70	22.60	19.25	173.86	278.89	-92.23	1,168.00	1,128.08	39.91	29.265		
4,600.00	4,498.44	4,482.45	4,479.76	23.11	19.68	173.86	280.42	-94.67	1,191.88	1,151.09	40.79	29.217		
4,700.00	4,595.88	4,579.55	4,576.82	23.63	20.10	173.85	281.94	-97.11	1,215.77	1,174.09	41.68	29.171		
4,800.00	4,693.32	4,676.66	4,673.89	24.14	20.52	173.85	283.47	-99.56	1,239.65	1,197.09	42.56	29.126		
4,900.00	4,790.76	4,773.76	4,770.95	24.66	20.94	173.84	285.00	-102.00	1,263.53	1,220.09	43.45	29.083		
5,000.00	4,888.20	4,870.87	4,868.01	25.17	21.36	173.84	286.53	-104.44	1,287.42	1,243.09	44.33	29.042		
5,100.00	4,985.64	4,967.97	4,965.08	25.69	21.78	173.83	288.05	-106.89	1,311.30	1,266.09	45.22	29.001		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	5,083.08	5,065.08	5,062.14	26.20	22.21	173.83	289.58	-109.33	1,335.19	1,289.09	46.10	28.962		
5,300.00	5,180.52	5,162.19	5,159.20	26.72	22.63	173.82	291.11	-111.77	1,359.07	1,312.08	46.99	28.925		
5,400.00	5,277.96	5,259.29	5,256.26	27.24	23.05	173.82	292.63	-114.22	1,382.96	1,335.08	47.87	28.888		
5,500.00	5,375.40	5,356.40	5,353.33	27.75	23.48	173.81	294.16	-116.66	1,406.84	1,358.08	48.76	28.853		
5,600.00	5,472.84	5,453.50	5,450.39	28.27	23.90	173.81	295.69	-119.10	1,430.72	1,381.08	49.65	28.818		
5,700.00	5,570.28	5,550.61	5,547.45	28.79	24.32	173.81	297.21	-121.55	1,454.61	1,404.07	50.53	28.785		
5,800.00	5,667.72	5,647.71	5,644.52	29.30	24.75	173.80	298.74	-123.99	1,478.49	1,427.07	51.42	28.752		
5,900.00	5,765.16	5,744.82	5,741.58	29.82	25.17	173.80	300.27	-126.43	1,502.38	1,450.07	52.31	28.721		
6,000.00	5,862.60	5,841.93	5,838.64	30.34	25.59	173.80	301.79	-128.88	1,526.26	1,473.06	53.20	28.690		
6,100.00	5,960.05	5,939.03	5,935.71	30.85	26.02	173.79	303.32	-131.32	1,550.15	1,496.06	54.09	28.660		
6,200.00	6,057.49	6,036.14	6,032.77	31.37	26.44	173.79	304.85	-133.76	1,574.03	1,519.06	54.98	28.632		
6,300.00	6,154.93	6,133.24	6,129.83	31.89	26.86	173.79	306.37	-136.21	1,597.92	1,542.05	55.86	28.603		
6,400.00	6,252.37	6,230.35	6,226.89	32.40	27.29	173.78	307.90	-138.65	1,621.80	1,565.05	56.75	28.576		
6,500.00	6,349.81	6,327.45	6,323.96	32.92	27.71	173.78	309.43	-141.09	1,645.68	1,588.04	57.64	28.549		
6,600.00	6,447.25	6,424.56	6,421.02	33.44	28.14	173.78	310.95	-143.54	1,669.57	1,611.03	58.53	28.523		
6,700.00	6,544.28	6,521.41	6,517.83	33.95	28.56	143.31	312.48	-145.97	1,693.41	1,633.99	59.42	28.499		
6,800.00	6,638.86	6,616.20	6,612.57	34.44	28.97	123.09	313.97	-148.36	1,716.95	1,656.67	60.28	28.483		
6,900.00	6,728.65	6,716.96	6,712.85	34.89	29.42	112.43	315.50	-150.79	1,739.92	1,678.74	61.19	28.437		
7,000.00	6,811.45	6,824.86	6,817.27	35.29	29.90	106.12	316.96	-183.71	1,761.67	1,699.52	62.15	28.343		
7,100.00	6,885.21	6,940.15	6,922.16	35.66	30.42	102.09	318.26	-231.17	1,781.59	1,718.39	63.20	28.189		
7,200.00	6,948.11	7,063.68	7,023.07	35.99	31.01	99.41	319.33	-302.07	1,799.03	1,734.66	64.38	27.946		
7,300.00	6,998.62	7,195.77	7,113.67	36.30	31.75	97.64	320.04	-397.85	1,813.36	1,747.58	65.78	27.565		
7,400.00	7,035.48	7,335.75	7,185.97	36.65	32.74	96.52	320.28	-517.39	1,823.97	1,756.38	67.59	26.987		
7,500.00	7,057.79	7,481.68	7,231.69	37.13	34.10	95.88	319.95	-655.64	1,830.35	1,760.43	69.92	26.178		
7,600.00	7,065.00	7,625.02	7,244.96	37.84	35.75	95.64	319.08	-798.06	1,832.19	1,759.49	72.70	25.202		
7,700.00	7,064.77	7,725.02	7,244.65	38.82	37.09	95.64	318.31	-898.06	1,832.02	1,756.73	75.29	24.333		
7,800.00	7,064.54	7,825.02	7,244.34	40.06	38.59	95.63	317.54	-998.06	1,831.84	1,753.64	78.20	23.424		
7,900.00	7,064.31	7,925.02	7,244.03	41.52	40.23	95.63	316.78	-1,098.05	1,831.67	1,750.26	81.41	22.500		
8,000.00	7,064.08	8,025.02	7,243.71	43.14	42.01	95.63	316.01	-1,198.05	1,831.49	1,746.62	84.87	21.579		
8,100.00	7,063.85	8,125.02	7,243.40	44.90	43.90	95.63	315.24	-1,298.05	1,831.32	1,742.74	88.57	20.676		
8,200.00	7,063.62	8,225.02	7,243.09	46.78	45.89	95.62	314.47	-1,398.04	1,831.14	1,738.67	92.47	19.802		
8,300.00	7,063.39	8,325.01	7,242.78	48.76	47.97	95.62	313.71	-1,498.04	1,830.96	1,734.41	96.55	18.964		
8,400.00	7,063.16	8,425.01	7,242.47	50.83	50.13	95.62	312.94	-1,598.04	1,830.79	1,730.00	100.78	18.166		
8,500.00	7,062.93	8,525.01	7,242.16	52.97	52.35	95.62	312.17	-1,698.03	1,830.61	1,725.46	105.15	17.409		
8,600.00	7,062.70	8,625.01	7,241.84	55.18	54.63	95.62	311.40	-1,798.03	1,830.44	1,720.79	109.65	16.694		
8,700.00	7,062.47	8,725.01	7,241.53	57.46	56.97	95.61	310.64	-1,898.02	1,830.26	1,716.01	114.25	16.020		
8,800.00	7,062.24	8,825.01	7,241.22	59.78	59.35	95.61	309.87	-1,998.02	1,830.08	1,711.14	118.94	15.386		
8,900.00	7,062.01	8,925.01	7,240.91	62.14	61.77	95.61	309.10	-2,098.02	1,829.91	1,706.19	123.72	14.791		
9,000.00	7,061.78	9,025.01	7,240.60	64.55	64.23	95.61	308.33	-2,198.01	1,829.73	1,701.16	128.57	14.231		
9,100.00	7,061.55	9,125.01	7,240.28	67.00	66.71	95.61	307.57	-2,298.01	1,829.56	1,696.06	133.49	13.705		
9,200.00	7,061.31	9,225.01	7,239.97	69.47	69.23	95.60	306.80	-2,398.01	1,829.38	1,690.91	138.47	13.211		
9,300.00	7,061.08	9,325.01	7,239.66	71.98	71.78	95.60	306.03	-2,498.00	1,829.20	1,685.70	143.50	12.747		
9,400.00	7,060.85	9,425.01	7,239.35	74.51	74.34	95.60	305.26	-2,598.00	1,829.03	1,680.45	148.58	12.310		
9,500.00	7,060.62	9,525.01	7,239.04	77.06	76.93	95.60	304.50	-2,698.00	1,828.85	1,675.15	153.70	11.899		
9,600.00	7,060.39	9,625.01	7,238.72	79.64	79.53	95.60	303.73	-2,797.99	1,828.68	1,669.82	158.86	11.511		
9,700.00	7,060.16	9,725.01	7,238.41	82.23	82.16	95.59	302.96	-2,897.99	1,828.50	1,664.44	164.06	11.146		
9,800.00	7,059.93	9,825.01	7,238.10	84.84	84.79	95.59	302.19	-2,997.98	1,828.32	1,659.04	169.28	10.800		
9,900.00	7,059.70	9,925.01	7,237.79	87.47	87.44	95.59	301.43	-3,097.98	1,828.15	1,653.61	174.54	10.474		
10,000.00	7,059.47	10,025.01	7,237.48	90.11	90.11	95.59	300.66	-3,197.98	1,827.97	1,648.15	179.82	10.165		
10,100.00	7,059.24	10,125.01	7,237.16	92.76	92.78	95.59	299.89	-3,297.97	1,827.80	1,642.66	185.13	9.873		
10,200.00	7,059.01	10,225.01	7,236.85	95.42	95.47	95.58	299.12	-3,397.97	1,827.62	1,637.16	190.46	9.596		
10,300.00	7,058.78	10,325.01	7,236.54	98.10	98.16	95.58	298.35	-3,497.97	1,827.45	1,631.63	195.81	9.333		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	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	7,058.55	10,425.01	7,236.23	100.79	100.87	95.58	297.59	-3,597.96	1,827.27	1,626.09	201.18	9.083														
10,500.00	7,058.32	10,525.01	7,235.92	103.48	103.58	95.58	296.82	-3,697.96	1,827.09	1,620.53	206.57	8.845														
10,600.00	7,058.09	10,625.01	7,235.61	106.19	106.30	95.58	296.05	-3,797.96	1,826.92	1,614.95	211.97	8.619														
10,700.00	7,057.86	10,725.01	7,235.29	108.90	109.03	95.57	295.28	-3,897.95	1,826.74	1,609.35	217.39	8.403														
10,800.00	7,057.63	10,825.01	7,234.98	111.62	111.76	95.57	294.52	-3,997.95	1,826.57	1,603.75	222.82	8.198														
10,900.00	7,057.40	10,925.01	7,234.67	114.35	114.51	95.57	293.75	-4,097.94	1,826.39	1,598.13	228.26	8.001														
														11,000.00	7,057.17	11,025.01	7,234.36	117.08	117.25	95.57	292.98	-4,197.94	1,826.21	1,592.50	233.72	7.814
														11,100.00	7,056.94	11,125.01	7,234.05	119.82	120.00	95.57	292.21	-4,297.94	1,826.04	1,586.85	239.18	7.634
														11,200.00	7,056.71	11,225.01	7,233.73	122.56	122.76	95.56	291.45	-4,397.93	1,825.86	1,581.20	244.66	7.463
														11,300.00	7,056.48	11,325.01	7,233.42	125.31	125.52	95.56	290.68	-4,497.93	1,825.69	1,575.54	250.15	7.298
11,400.00	7,056.25	11,425.01	7,233.11	128.06	128.28	95.56	289.91	-4,597.93	1,825.51	1,569.87	255.64	7.141														
														11,500.00	7,056.02	11,525.01	7,232.80	130.82	131.05	95.56	289.14	-4,697.92	1,825.33	1,564.19	261.15	6.990
														11,600.00	7,055.79	11,625.01	7,232.49	133.59	133.83	95.56	288.38	-4,797.92	1,825.16	1,558.50	266.66	6.845
														11,700.00	7,055.55	11,725.01	7,232.17	136.35	136.60	95.55	287.61	-4,897.92	1,824.98	1,552.81	272.18	6.705
														11,800.00	7,055.32	11,825.01	7,231.86	139.12	139.38	95.55	286.84	-4,997.91	1,824.81	1,547.10	277.70	6.571
11,900.00	7,055.09	11,925.01	7,231.55	141.90	142.16	95.55	286.07	-5,097.91	1,824.63	1,541.39	283.24	6.442														
														12,000.00	7,054.86	12,025.01	7,231.24	144.67	144.95	95.55	285.31	-5,197.91	1,824.46	1,535.68	288.78	6.318
														12,100.00	7,054.63	12,125.01	7,230.93	147.45	147.74	95.55	284.54	-5,297.90	1,824.28	1,529.96	294.32	6.198
														12,200.00	7,054.40	12,225.01	7,230.61	150.24	150.53	95.54	283.77	-5,397.90	1,824.10	1,524.23	299.87	6.083
														12,300.00	7,054.17	12,325.01	7,230.30	153.02	153.32	95.54	283.00	-5,497.89	1,823.93	1,518.50	305.43	5.972
12,400.00	7,053.94	12,425.01	7,229.99	155.81	156.12	95.54	282.24	-5,597.89	1,823.75	1,512.76	310.99	5.864														
														12,500.00	7,053.71	12,525.01	7,229.68	158.60	158.92	95.54	281.47	-5,697.89	1,823.58	1,507.02	316.55	5.761
														12,600.00	7,053.48	12,625.01	7,229.37	161.40	161.72	95.54	280.70	-5,797.88	1,823.40	1,501.28	322.12	5.661
														12,700.00	7,053.25	12,725.01	7,229.05	164.19	164.52	95.53	279.93	-5,897.88	1,823.22	1,495.53	327.70	5.564
														12,800.00	7,053.02	12,825.01	7,228.74	166.99	167.32	95.53	279.17	-5,997.88	1,823.05	1,489.77	333.28	5.470
12,900.00	7,052.79	12,925.01	7,228.43	169.79	170.13	95.53	278.40	-6,097.87	1,822.87	1,484.01	338.86	5.379														
														13,000.00	7,052.56	13,025.01	7,228.12	172.59	172.93	95.53	277.63	-6,197.87	1,822.70	1,478.25	344.45	5.292
														13,100.00	7,052.33	13,125.01	7,227.81	175.40	175.74	95.53	276.86	-6,297.87	1,822.52	1,472.49	350.03	5.207
														13,200.00	7,052.10	13,225.01	7,227.50	178.20	178.55	95.52	276.09	-6,397.86	1,822.35	1,466.72	355.63	5.124
														13,300.00	7,051.87	13,325.01	7,227.18	181.01	181.37	95.52	275.33	-6,497.86	1,822.17	1,460.95	361.22	5.044
13,400.00	7,051.64	13,425.01	7,226.87	183.82	184.18	95.52	274.56	-6,597.85	1,821.99	1,455.17	366.82	4.967														
														13,500.00	7,051.41	13,525.01	7,226.56	186.63	187.00	95.52	273.79	-6,697.85	1,821.82	1,449.39	372.42	4.892
														13,600.00	7,051.18	13,625.01	7,226.25	189.44	189.81	95.52	273.02	-6,797.85	1,821.64	1,443.61	378.03	4.819
														13,700.00	7,050.95	13,725.01	7,225.94	192.25	192.63	95.51	272.26	-6,897.84	1,821.47	1,437.83	383.64	4.748
														13,800.00	7,050.72	13,825.01	7,225.62	195.07	195.45	95.51	271.49	-6,997.84	1,821.29	1,432.05	389.24	4.679
13,900.00	7,050.49	13,925.01	7,225.31	197.88	198.27	95.51	270.72	-7,097.84	1,821.11	1,426.26	394.86	4.612														
														14,000.00	7,050.26	14,025.01	7,225.00	200.70	201.09	95.51	269.95	-7,197.83	1,820.94	1,420.47	400.47	4.547
														14,100.00	7,050.03	14,125.00	7,224.69	203.52	203.91	95.50	269.19	-7,297.83	1,820.76	1,414.68	406.09	4.484
														14,200.00	7,049.80	14,225.00	7,224.38	206.34	206.73	95.50	268.42	-7,397.83	1,820.59	1,408.88	411.71	4.422
														14,300.00	7,049.56	14,325.00	7,224.06	209.16	209.56	95.50	267.65	-7,497.82	1,820.41	1,403.08	417.33	4.362
14,400.00	7,049.33	14,425.00	7,223.75	211.98	212.38	95.50	266.88	-7,597.82	1,820.24	1,397.29	422.95	4.304														
														14,500.00	7,049.10	14,525.00	7,223.44	214.80	215.21	95.50	266.12	-7,697.82	1,820.06	1,391.48	428.58	4.247
														14,600.00	7,048.87	14,625.00	7,223.13	217.63	218.03	95.49	265.35	-7,797.81	1,819.88	1,385.68	434.20	4.191
														14,700.00	7,048.64	14,725.00	7,222.82	220.45	220.86	95.49	264.58	-7,897.81	1,819.71	1,379.88	439.83	4.137
														14,800.00	7,048.41	14,825.00	7,222.50	223.28	223.69	95.49	263.81	-7,997.80	1,819.53	1,374.07	445.46	4.085
14,900.00	7,048.18	14,925.00	7,222.19	226.10	226.52	95.49	263.05	-8,097.80	1,819.36	1,368.27	451.09	4.033														
														14,966.02	7,048.03	14,991.02	7,221.99	227.97	228.39	95.49	262.54	-8,163.82	1,819.24	1,364.43	454.81	4.000
14,979.18	7,048.00	14,987.41	7,222.00	228.34	228.28	95.49	262.57	-8,160.21	1,819.30	1,364.28	455.02	3.998 SF														



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	180.00	-20.03	0.00	20.03					
100.00	100.00	100.00	100.00	3.28	3.28	180.00	-20.03	0.00	20.03	13.46	6.57	3.049		
200.00	200.00	200.00	200.00	3.34	3.34	180.00	-20.03	0.00	20.03	13.35	6.67	3.001		
300.00	299.98	299.31	299.29	3.44	3.44	-6.15	-21.74	-0.16	20.02	13.13	6.89	2.906		
400.00	399.84	398.62	398.46	3.59	3.59	-6.34	-26.88	-0.65	19.99	12.78	7.21	2.772		
500.00	499.45	497.93	497.39	3.79	3.79	-6.67	-35.44	-1.45	19.94	12.30	7.64	2.611		
600.00	598.70	597.24	595.97	4.03	4.03	-7.12	-47.41	-2.58	19.87	11.73	8.15	2.439		
700.00	697.47	696.56	694.08	4.31	4.30	-7.70	-62.77	-4.03	19.79	11.06	8.73	2.267		
800.00	795.62	795.88	791.59	4.64	4.62	-8.42	-81.51	-5.79	19.69	10.32	9.37	2.101		
806.17	801.66	802.01	797.59	4.66	4.64	-8.47	-82.77	-5.91	19.69	10.27	9.42	2.091 CC		
900.00	893.16	895.20	888.40	5.00	4.98	-9.08	-103.60	-7.87	20.02	9.95	10.06	1.989		
1,000.00	990.60	1,005.20	984.76	5.38	5.41	-8.71	-128.68	-10.23	22.92	12.11	10.81	2.120		
1,100.00	1,088.04	1,105.25	1,081.34	5.79	5.84	-8.29	-154.27	-12.64	26.26	14.71	11.55	2.274		
1,200.00	1,185.48	1,194.69	1,177.93	6.22	6.23	-7.97	-179.85	-15.06	29.60	17.33	12.27	2.412		
1,300.00	1,282.92	1,305.36	1,274.51	6.66	6.73	-7.71	-205.44	-17.47	32.94	19.83	13.11	2.513		
1,400.00	1,380.36	1,405.42	1,371.10	7.10	7.20	-7.50	-231.02	-19.88	36.28	22.35	13.93	2.605		
1,500.00	1,477.80	1,494.53	1,467.68	7.56	7.62	-7.33	-256.61	-22.29	39.62	24.91	14.71	2.693		
1,600.00	1,575.24	1,605.53	1,564.26	8.03	8.16	-7.18	-282.20	-24.70	42.96	27.35	15.61	2.752		
1,700.00	1,672.68	1,705.59	1,660.85	8.50	8.65	-7.05	-307.78	-27.11	46.30	29.83	16.48	2.810		
1,800.00	1,770.12	1,805.64	1,757.43	8.98	9.15	-6.95	-333.37	-29.52	49.65	32.29	17.36	2.860		
1,900.00	1,867.56	1,894.30	1,854.01	9.46	9.59	-6.85	-358.96	-31.93	52.99	34.80	18.19	2.913		
2,000.00	1,965.00	2,005.75	1,950.60	9.95	10.16	-6.77	-384.54	-34.34	56.33	37.19	19.14	2.943		
2,100.00	2,062.44	2,105.81	2,047.18	10.44	10.67	-6.69	-410.13	-36.75	59.67	39.63	20.04	2.978		
2,200.00	2,159.88	2,205.87	2,143.76	10.93	11.18	-6.63	-435.71	-39.16	63.02	42.07	20.95	3.008		
2,300.00	2,257.32	2,294.08	2,240.35	11.42	11.63	-6.57	-461.30	-41.57	66.36	44.55	21.81	3.043		
2,400.00	2,354.76	2,394.02	2,336.93	11.92	12.15	-6.51	-486.89	-43.98	69.70	46.97	22.73	3.067		
2,500.00	2,452.20	2,493.97	2,433.51	12.42	12.67	-6.46	-512.47	-46.39	73.04	49.39	23.65	3.088		
2,600.00	2,549.64	2,606.09	2,530.10	12.92	13.25	-6.42	-538.06	-48.80	76.39	51.75	24.63	3.101		
2,700.00	2,647.08	2,706.15	2,626.68	13.42	13.78	-6.38	-563.64	-51.21	79.73	54.16	25.57	3.119		
2,800.00	2,744.52	2,806.20	2,723.26	13.93	14.30	-6.34	-589.23	-53.62	83.07	56.57	26.50	3.135		
2,900.00	2,841.96	2,906.26	2,819.85	14.43	14.83	-6.30	-614.82	-56.03	86.41	58.98	27.44	3.150		
3,000.00	2,939.40	3,006.31	2,916.43	14.94	15.36	-6.27	-640.40	-58.44	89.76	61.38	28.38	3.163		
3,100.00	3,036.84	3,093.63	3,013.01	15.44	15.82	-6.24	-665.99	-60.85	93.10	63.84	29.26	3.182		
3,200.00	3,134.28	3,206.43	3,109.60	15.95	16.41	-6.21	-691.58	-63.26	96.44	66.18	30.26	3.187		
3,300.00	3,231.72	3,306.48	3,206.18	16.46	16.94	-6.19	-717.16	-65.67	99.78	68.58	31.21	3.198		
3,400.00	3,329.16	3,406.54	3,302.76	16.97	17.47	-6.16	-742.75	-68.08	103.13	70.97	32.15	3.207		
3,500.00	3,426.60	3,506.59	3,399.35	17.48	18.00	-6.14	-768.33	-70.49	106.47	73.37	33.10	3.217		
3,600.00	3,524.04	3,606.65	3,495.93	17.99	18.54	-6.12	-793.92	-72.90	109.81	75.76	34.05	3.225		
3,700.00	3,621.48	3,693.30	3,592.51	18.50	19.00	-6.10	-819.51	-75.31	113.16	78.22	34.94	3.239		
3,800.00	3,718.92	3,806.76	3,689.10	19.01	19.60	-6.08	-845.09	-77.72	116.50	80.54	35.95	3.240		
3,900.00	3,816.36	3,906.82	3,785.68	19.52	20.14	-6.06	-870.68	-80.13	119.84	82.93	36.91	3.247		
4,000.00	3,913.80	4,006.87	3,882.26	20.03	20.67	-6.04	-896.26	-82.54	123.19	85.32	37.86	3.253		
4,100.00	4,011.24	4,106.93	3,978.85	20.55	21.20	-6.03	-921.85	-84.95	126.53	87.71	38.82	3.259		
4,200.00	4,108.68	4,193.02	4,075.43	21.06	21.66	-6.01	-947.44	-87.36	129.87	90.16	39.71	3.271		
4,300.00	4,206.12	4,307.04	4,172.02	21.57	22.27	-6.00	-973.02	-89.77	133.21	92.48	40.73	3.271		
4,400.00	4,303.56	4,407.10	4,268.60	22.09	22.81	-5.98	-998.61	-92.18	136.56	94.87	41.69	3.276		
4,500.00	4,401.00	4,507.15	4,365.18	22.60	23.35	-5.97	-1,024.19	-94.59	139.90	97.25	42.65	3.280		
4,600.00	4,498.44	4,607.21	4,461.77	23.11	23.88	-5.96	-1,049.78	-97.00	143.24	99.64	43.61	3.285		
4,700.00	4,595.88	4,707.26	4,558.35	23.63	24.42	-5.95	-1,075.37	-99.41	146.59	102.02	44.57	3.289		
4,800.00	4,693.32	4,792.68	4,654.93	24.14	24.88	-5.94	-1,100.95	-101.82	149.93	104.47	45.46	3.298		
4,900.00	4,790.76	4,907.38	4,751.52	24.66	25.49	-5.92	-1,126.54	-104.23	153.27	106.78	46.49	3.297		
5,000.00	4,888.20	4,992.57	4,848.10	25.17	25.95	-5.91	-1,152.13	-106.64	156.61	109.24	47.38	3.306		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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
5,100.00	4,985.64	5,107.49	4,944.68	25.69	26.57	-5.90	-1,177.71	-109.05	159.96	111.55	48.41	3.304	
5,200.00	5,083.08	5,207.54	5,041.27	26.20	27.10	-5.89	-1,203.30	-111.46	163.30	113.93	49.37	3.307	
5,300.00	5,180.52	5,307.60	5,137.85	26.72	27.64	-5.89	-1,228.88	-113.87	166.64	116.31	50.34	3.311	
5,400.00	5,277.96	5,407.65	5,234.43	27.24	28.18	-5.88	-1,254.47	-116.28	169.99	118.69	51.30	3.314	
5,500.00	5,375.40	5,507.71	5,331.02	27.75	28.72	-5.87	-1,280.06	-118.69	173.33	121.07	52.26	3.316	
5,600.00	5,472.84	5,607.77	5,427.60	28.27	29.25	-5.86	-1,305.64	-121.10	176.67	123.44	53.23	3.319	
5,700.00	5,570.28	5,707.82	5,524.18	28.79	29.79	-5.85	-1,331.23	-123.51	180.02	125.82	54.19	3.322	
5,800.00	5,667.72	5,807.88	5,620.77	29.30	30.33	-5.84	-1,356.81	-125.92	183.36	128.20	55.16	3.324	
5,900.00	5,765.16	5,907.93	5,717.35	29.82	30.87	-5.84	-1,382.40	-128.33	186.70	130.58	56.12	3.327	
6,000.00	5,862.60	6,007.99	5,813.93	30.34	31.41	-5.83	-1,407.99	-130.74	190.05	132.96	57.09	3.329	
6,100.00	5,960.05	6,108.05	5,910.52	30.85	31.95	-5.82	-1,433.57	-133.15	193.39	135.33	58.05	3.331	
6,200.00	6,057.49	6,191.90	6,007.10	31.37	32.40	-5.82	-1,459.16	-135.56	196.73	137.79	58.94	3.338	
6,300.00	6,154.93	6,308.16	6,103.68	31.89	33.02	-5.81	-1,484.75	-137.97	200.07	140.09	59.99	3.335	
6,400.00	6,252.37	6,408.21	6,200.27	32.40	33.56	-5.80	-1,510.33	-140.38	203.42	142.47	60.95	3.337	
6,500.00	6,349.81	6,491.73	6,296.85	32.92	34.01	-5.80	-1,535.92	-142.79	206.76	144.92	61.84	3.344	
6,600.00	6,447.25	6,591.48	6,393.17	33.44	34.55	-5.37	-1,561.45	-146.73	210.12	147.33	62.79	3.346	
6,700.00	6,544.28	6,689.85	6,486.76	33.95	35.06	-31.53	-1,586.34	-163.44	213.77	150.09	63.68	3.357	
6,800.00	6,638.86	6,786.92	6,575.57	34.44	35.53	-47.78	-1,610.07	-194.34	217.67	153.16	64.51	3.374	
6,900.00	6,728.65	6,882.82	6,657.82	34.89	35.95	-55.12	-1,632.15	-238.23	221.65	156.41	65.24	3.398	
7,000.00	6,811.45	6,977.68	6,731.99	35.29	36.33	-58.53	-1,652.17	-293.73	225.54	159.66	65.88	3.424	
7,100.00	6,885.21	7,071.64	6,796.77	35.66	36.66	-60.11	-1,669.78	-359.35	229.16	162.68	66.48	3.447	
7,200.00	6,948.11	7,164.85	6,851.11	35.99	36.96	-60.82	-1,684.68	-433.50	232.37	165.23	67.14	3.461	
7,300.00	6,998.62	7,257.46	6,894.15	36.30	37.25	-61.09	-1,696.65	-514.52	235.02	167.02	68.00	3.456	
7,400.00	7,035.48	7,349.62	6,925.26	36.65	37.56	-61.18	-1,705.48	-600.74	237.00	167.83	69.17	3.426	
7,500.00	7,057.79	7,441.48	6,943.96	37.13	37.95	-61.19	-1,711.06	-690.42	238.22	167.48	70.74	3.367	
7,600.00	7,065.00	7,533.38	6,950.00	37.84	38.49	-61.19	-1,713.30	-781.82	238.64	165.89	72.76	3.280	
7,700.00	7,064.77	7,633.19	6,949.62	38.82	39.34	-61.16	-1,713.90	-881.82	238.72	163.61	75.10	3.178	
7,800.00	7,064.54	7,733.19	6,949.24	40.06	40.47	-61.13	-1,714.50	-981.81	238.79	161.08	77.70	3.073	
7,900.00	7,064.31	7,833.19	6,948.87	41.52	41.84	-61.10	-1,715.10	-1,081.81	238.86	158.32	80.54	2.966	
8,000.00	7,064.08	7,933.19	6,948.49	43.14	43.41	-61.07	-1,715.69	-1,181.81	238.93	155.35	83.58	2.859	
8,100.00	7,063.85	8,033.19	6,948.11	44.90	45.13	-61.04	-1,716.29	-1,281.81	239.00	152.18	86.82	2.753	
8,200.00	7,063.62	8,133.19	6,947.73	46.78	46.98	-61.00	-1,716.89	-1,381.80	239.07	148.85	90.22	2.650	
8,300.00	7,063.39	8,233.19	6,947.35	48.76	48.93	-60.97	-1,717.49	-1,481.80	239.15	145.37	93.77	2.550	
8,400.00	7,063.16	8,333.19	6,946.97	50.83	50.98	-60.94	-1,718.09	-1,581.80	239.22	141.76	97.46	2.455	
8,500.00	7,062.93	8,433.19	6,946.59	52.97	53.11	-60.91	-1,718.69	-1,681.80	239.29	138.03	101.26	2.363	
8,600.00	7,062.70	8,533.19	6,946.21	55.18	55.31	-60.88	-1,719.29	-1,781.79	239.36	134.20	105.16	2.276	
8,700.00	7,062.47	8,633.19	6,945.83	57.46	57.56	-60.85	-1,719.88	-1,881.79	239.44	130.27	109.16	2.193	
8,800.00	7,062.24	8,733.19	6,945.45	59.78	59.87	-60.82	-1,720.48	-1,981.79	239.51	126.27	113.24	2.115	
8,900.00	7,062.01	8,833.19	6,945.07	62.14	62.23	-60.79	-1,721.08	-2,081.78	239.58	122.18	117.40	2.041	
9,000.00	7,061.78	8,933.19	6,944.69	64.55	64.63	-60.75	-1,721.68	-2,181.78	239.65	118.04	121.62	1.971	
9,100.00	7,061.55	9,033.19	6,944.31	67.00	67.07	-60.72	-1,722.28	-2,281.78	239.73	113.83	125.90	1.904	
9,200.00	7,061.31	9,133.19	6,943.93	69.47	69.54	-60.69	-1,722.88	-2,381.78	239.80	109.57	130.23	1.841	
9,300.00	7,061.08	9,233.19	6,943.55	71.98	72.03	-60.66	-1,723.48	-2,481.77	239.87	105.26	134.61	1.782	
9,400.00	7,060.85	9,333.19	6,943.18	74.51	74.56	-60.63	-1,724.07	-2,581.77	239.94	100.91	139.03	1.726	
9,500.00	7,060.62	9,433.19	6,942.80	77.06	77.11	-60.60	-1,724.67	-2,681.77	240.02	96.53	143.49	1.673	
9,600.00	7,060.39	9,533.19	6,942.42	79.64	79.68	-60.57	-1,725.27	-2,781.77	240.09	92.10	147.99	1.622	
9,700.00	7,060.16	9,633.19	6,942.04	82.23	82.27	-60.54	-1,725.87	-2,881.76	240.16	87.65	152.51	1.575	
9,800.00	7,059.93	9,733.19	6,941.66	84.84	84.87	-60.51	-1,726.47	-2,981.76	240.24	83.17	157.07	1.530	
9,900.00	7,059.70	9,833.19	6,941.28	87.47	87.49	-60.48	-1,727.07	-3,081.76	240.31	78.66	161.65	1.487 Level 3	
10,000.00	7,059.47	9,933.18	6,940.90	90.11	90.13	-60.44	-1,727.67	-3,181.76	240.38	74.13	166.25	1.446 Level 3	
10,100.00	7,059.24	10,033.18	6,940.52	92.76	92.78	-60.41	-1,728.27	-3,281.75	240.46	69.58	170.87	1.407 Level 3	
10,200.00	7,059.01	10,133.18	6,940.14	95.42	95.44	-60.38	-1,728.86	-3,381.75	240.53	65.01	175.52	1.370 Level 3	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,300.00	7,058.78	10,233.18	6,939.76	98.10	98.12	-60.35	-1,729.46	-3,481.75	240.60	60.42	180.18	1.335	Level 3	
10,400.00	7,058.55	10,333.18	6,939.38	100.79	100.80	-60.32	-1,730.06	-3,581.75	240.68	55.82	184.86	1.302	Level 3	
10,500.00	7,058.32	10,433.18	6,939.00	103.48	103.49	-60.29	-1,730.66	-3,681.74	240.75	51.20	189.55	1.270	Level 3	
10,600.00	7,058.09	10,533.18	6,938.62	106.19	106.19	-60.26	-1,731.26	-3,781.74	240.82	46.57	194.25	1.240	Level 2	
10,700.00	7,057.86	10,633.18	6,938.24	108.90	108.90	-60.23	-1,731.86	-3,881.74	240.90	41.93	198.97	1.211	Level 2	
10,800.00	7,057.63	10,733.18	6,937.87	111.62	111.62	-60.20	-1,732.46	-3,981.73	240.97	37.27	203.70	1.183	Level 2	
10,900.00	7,057.40	10,833.18	6,937.49	114.35	114.35	-60.17	-1,733.05	-4,081.73	241.05	32.61	208.44	1.156	Level 2	
11,000.00	7,057.17	10,933.18	6,937.11	117.08	117.08	-60.14	-1,733.65	-4,181.73	241.12	27.93	213.19	1.131	Level 2	
11,100.00	7,056.94	11,033.18	6,936.73	119.82	119.81	-60.11	-1,734.25	-4,281.73	241.19	23.25	217.94	1.107	Level 2	
11,200.00	7,056.71	11,133.18	6,936.35	122.56	122.56	-60.08	-1,734.85	-4,381.72	241.27	18.56	222.71	1.083	Level 2	
11,300.00	7,056.48	11,233.18	6,935.97	125.31	125.30	-60.04	-1,735.45	-4,481.72	241.34	13.86	227.48	1.061	Level 2	
11,400.00	7,056.25	11,333.18	6,935.59	128.06	128.06	-60.01	-1,736.05	-4,581.72	241.42	9.16	232.26	1.039	Level 2	
11,500.00	7,056.02	11,433.18	6,935.21	130.82	130.81	-59.98	-1,736.65	-4,681.72	241.49	4.45	237.04	1.019	Level 2	
11,600.00	7,055.79	11,533.18	6,934.83	133.59	133.57	-59.95	-1,737.25	-4,781.71	241.56	-0.27	241.83	0.999	Level 1	
11,700.00	7,055.55	11,633.18	6,934.45	136.35	136.34	-59.92	-1,737.84	-4,881.71	241.64	-4.99	246.63	0.980	Level 1	
11,800.00	7,055.32	11,733.18	6,934.07	139.12	139.11	-59.89	-1,738.44	-4,981.71	241.71	-9.71	251.43	0.961	Level 1	
11,900.00	7,055.09	11,833.18	6,933.69	141.90	141.88	-59.86	-1,739.04	-5,081.71	241.79	-14.44	256.23	0.944	Level 1	
12,000.00	7,054.86	11,933.18	6,933.31	144.67	144.66	-59.83	-1,739.64	-5,181.70	241.86	-19.17	261.04	0.927	Level 1	
12,100.00	7,054.63	12,033.18	6,932.93	147.45	147.44	-59.80	-1,740.24	-5,281.70	241.94	-23.91	265.85	0.910	Level 1	
12,200.00	7,054.40	12,133.18	6,932.55	150.24	150.22	-59.77	-1,740.84	-5,381.70	242.01	-28.65	270.66	0.894	Level 1	
12,300.00	7,054.17	12,233.18	6,932.18	153.02	153.00	-59.74	-1,741.44	-5,481.70	242.09	-33.39	275.48	0.879	Level 1	
12,400.00	7,053.94	12,333.18	6,931.80	155.81	155.79	-59.71	-1,742.03	-5,581.69	242.16	-38.13	280.30	0.864	Level 1	
12,500.00	7,053.71	12,433.18	6,931.42	158.60	158.58	-59.68	-1,742.63	-5,681.69	242.24	-42.88	285.12	0.850	Level 1	
12,600.00	7,053.48	12,533.18	6,931.04	161.40	161.37	-59.65	-1,743.23	-5,781.69	242.31	-47.63	289.94	0.836	Level 1	
12,700.00	7,053.25	12,633.18	6,930.66	164.19	164.17	-59.62	-1,743.83	-5,881.69	242.39	-52.38	294.76	0.822	Level 1	
12,800.00	7,053.02	12,733.18	6,930.28	166.99	166.97	-59.59	-1,744.43	-5,981.68	242.46	-57.13	299.59	0.809	Level 1	
12,900.00	7,052.79	12,833.18	6,929.90	169.79	169.77	-59.56	-1,745.03	-6,081.68	242.54	-61.88	304.42	0.797	Level 1	
13,000.00	7,052.56	12,933.18	6,929.52	172.59	172.57	-59.53	-1,745.63	-6,181.68	242.61	-66.63	309.24	0.785	Level 1	
13,100.00	7,052.33	13,033.18	6,929.14	175.40	175.37	-59.50	-1,746.22	-6,281.67	242.69	-71.38	314.07	0.773	Level 1	
13,200.00	7,052.10	13,133.18	6,928.76	178.20	178.18	-59.47	-1,746.82	-6,381.67	242.76	-76.14	318.90	0.761	Level 1	
13,300.00	7,051.87	13,233.18	6,928.38	181.01	180.98	-59.43	-1,747.42	-6,481.67	242.84	-80.89	323.73	0.750	Level 1	
13,400.00	7,051.64	13,333.18	6,928.00	183.82	183.79	-59.40	-1,748.02	-6,581.67	242.91	-85.65	328.56	0.739	Level 1	
13,500.00	7,051.41	13,433.18	6,927.62	186.63	186.60	-59.37	-1,748.62	-6,681.66	242.99	-90.40	333.39	0.729	Level 1	
13,600.00	7,051.18	13,533.18	6,927.24	189.44	189.41	-59.34	-1,749.22	-6,781.66	243.07	-95.16	338.23	0.719	Level 1	
13,700.00	7,050.95	13,633.18	6,926.86	192.25	192.22	-59.31	-1,749.82	-6,881.66	243.14	-99.92	343.06	0.709	Level 1	
13,800.00	7,050.72	13,733.18	6,926.49	195.07	195.04	-59.28	-1,750.42	-6,981.66	243.22	-104.67	347.89	0.699	Level 1	
13,900.00	7,050.49	13,833.18	6,926.11	197.88	197.85	-59.25	-1,751.01	-7,081.65	243.29	-109.43	352.72	0.690	Level 1	
14,000.00	7,050.26	13,933.18	6,925.73	200.70	200.67	-59.22	-1,751.61	-7,181.65	243.37	-114.18	357.55	0.681	Level 1	
14,100.00	7,050.03	14,033.18	6,925.35	203.52	203.49	-59.19	-1,752.21	-7,281.65	243.45	-118.93	362.38	0.672	Level 1	
14,200.00	7,049.80	14,133.18	6,924.97	206.34	206.30	-59.16	-1,752.81	-7,381.65	243.52	-123.69	367.21	0.663	Level 1	
14,300.00	7,049.56	14,233.18	6,924.59	209.16	209.12	-59.13	-1,753.41	-7,481.64	243.60	-128.44	372.04	0.655	Level 1	
14,400.00	7,049.33	14,333.18	6,924.21	211.98	211.95	-59.10	-1,754.01	-7,581.64	243.67	-133.19	376.87	0.647	Level 1	
14,500.00	7,049.10	14,433.18	6,923.83	214.80	214.77	-59.07	-1,754.61	-7,681.64	243.75	-137.94	381.70	0.639	Level 1	
14,600.00	7,048.87	14,533.18	6,923.45	217.63	217.59	-59.04	-1,755.20	-7,781.64	243.83	-142.70	386.52	0.631	Level 1	
14,700.00	7,048.64	14,633.18	6,923.07	220.45	220.41	-59.01	-1,755.80	-7,881.63	243.90	-147.45	391.35	0.623	Level 1	
14,800.00	7,048.41	14,733.18	6,922.69	223.28	223.24	-58.98	-1,756.40	-7,981.63	243.98	-152.19	396.17	0.616	Level 1	
14,900.00	7,048.18	14,833.18	6,922.31	226.10	226.06	-58.95	-1,757.00	-8,081.63	244.06	-156.94	401.00	0.609	Level 1	
14,979.18	7,048.00	14,912.36	6,922.01	228.34	228.30	-58.93	-1,757.47	-8,160.81	244.12	-160.70	404.82	0.603	Level 1, ES, SF	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	0.79	20.05	0.28	20.05					
100.00	100.00	100.00	100.00	3.28	3.28	0.79	20.05	0.28	20.05	13.48	6.57	3.052		
200.00	200.00	200.00	200.00	3.34	3.34	0.79	20.05	0.28	20.05	13.38	6.67	3.004		
300.00	299.98	300.70	300.68	3.44	3.44	174.59	18.29	0.05	20.04	13.15	6.89	2.909		
400.00	399.84	401.40	401.23	3.59	3.59	174.25	13.03	-0.63	20.02	12.80	7.22	2.774		
500.00	499.45	502.10	501.54	3.79	3.80	173.68	4.27	-1.76	19.98	12.33	7.65	2.613		
600.00	598.70	602.79	601.46	4.03	4.04	172.87	-7.99	-3.34	19.93	11.77	8.16	2.441		
700.00	697.47	703.48	700.89	4.31	4.32	171.84	-23.72	-5.37	19.87	11.12	8.75	2.270		
726.39	723.43	730.05	727.03	4.40	4.41	171.52	-28.44	-5.98	19.86	10.94	8.92	2.226 CC		
800.00	795.62	803.64	799.37	4.64	4.65	171.08	-41.81	-7.70	20.81	11.45	9.36	2.223		
900.00	893.16	903.56	897.61	5.00	5.00	171.54	-59.95	-10.04	24.66	14.65	10.02	2.462		
1,000.00	990.60	1,003.47	995.83	5.38	5.37	171.99	-78.09	-12.38	28.94	18.23	10.71	2.701		
1,100.00	1,088.04	1,103.38	1,094.05	5.79	5.77	172.32	-96.24	-14.72	33.22	21.78	11.45	2.902		
1,200.00	1,185.48	1,203.29	1,192.27	6.22	6.17	172.58	-114.38	-17.06	37.50	25.30	12.21	3.072		
1,300.00	1,282.92	1,303.19	1,290.49	6.66	6.59	172.79	-132.52	-19.40	41.79	28.79	13.00	3.216		
1,400.00	1,380.36	1,403.10	1,388.71	7.10	7.02	172.96	-150.66	-21.74	46.07	32.27	13.80	3.338		
1,500.00	1,477.80	1,503.01	1,486.92	7.56	7.46	173.10	-168.81	-24.08	50.35	35.73	14.62	3.443		
1,600.00	1,575.24	1,602.92	1,585.14	8.03	7.90	173.21	-186.95	-26.42	54.63	39.17	15.46	3.533		
1,700.00	1,672.68	1,702.83	1,683.36	8.50	8.35	173.31	-205.09	-28.76	58.92	42.61	16.31	3.612		
1,800.00	1,770.12	1,802.73	1,781.58	8.98	8.81	173.40	-223.23	-31.10	63.20	46.03	17.17	3.681		
1,900.00	1,867.56	1,902.64	1,879.80	9.46	9.27	173.48	-241.37	-33.44	67.48	49.44	18.04	3.741		
2,000.00	1,965.00	2,002.55	1,978.02	9.95	9.73	173.54	-259.52	-35.78	71.77	52.85	18.92	3.794		
2,100.00	2,062.44	2,102.46	2,076.24	10.44	10.20	173.60	-277.66	-38.12	76.05	56.25	19.80	3.841		
2,200.00	2,159.88	2,202.37	2,174.46	10.93	10.66	173.66	-295.80	-40.46	80.33	59.65	20.69	3.883		
2,300.00	2,257.32	2,302.28	2,272.68	11.42	11.13	173.70	-313.94	-42.80	84.62	63.04	21.58	3.921		
2,400.00	2,354.76	2,402.18	2,370.90	11.92	11.61	173.75	-332.09	-45.14	88.90	66.42	22.48	3.955		
2,500.00	2,452.20	2,502.09	2,469.12	12.42	12.08	173.79	-350.23	-47.48	93.19	69.81	23.38	3.986		
2,600.00	2,549.64	2,602.00	2,567.34	12.92	12.56	173.82	-368.37	-49.82	97.47	73.19	24.28	4.014		
2,700.00	2,647.08	2,701.91	2,665.56	13.42	13.03	173.85	-386.51	-52.16	101.75	76.56	25.19	4.039		
2,800.00	2,744.52	2,801.82	2,763.78	13.93	13.51	173.88	-404.65	-54.50	106.04	79.93	26.10	4.062		
2,900.00	2,841.96	2,901.72	2,861.99	14.43	13.99	173.91	-422.80	-56.84	110.32	83.30	27.02	4.083		
3,000.00	2,939.40	3,001.63	2,960.21	14.94	14.47	173.94	-440.94	-59.18	114.60	86.67	27.93	4.103		
3,100.00	3,036.84	3,101.54	3,058.43	15.44	14.96	173.96	-459.08	-61.52	118.89	90.04	28.85	4.121		
3,200.00	3,134.28	3,201.45	3,156.65	15.95	15.44	173.98	-477.22	-63.86	123.17	93.40	29.77	4.138		
3,300.00	3,231.72	3,301.36	3,254.87	16.46	15.92	174.00	-495.37	-66.21	127.46	96.77	30.69	4.153		
3,400.00	3,329.16	3,401.27	3,353.09	16.97	16.41	174.02	-513.51	-68.55	131.74	100.13	31.61	4.167		
3,500.00	3,426.60	3,501.17	3,451.31	17.48	16.89	174.04	-531.65	-70.89	136.02	103.49	32.54	4.181		
3,600.00	3,524.04	3,601.08	3,549.53	17.99	17.38	174.06	-549.79	-73.23	140.31	106.85	33.46	4.193		
3,700.00	3,621.48	3,700.99	3,647.75	18.50	17.86	174.07	-567.93	-75.57	144.59	110.20	34.39	4.205		
3,800.00	3,718.92	3,800.90	3,745.97	19.01	18.35	174.09	-586.08	-77.91	148.88	113.56	35.32	4.215		
3,900.00	3,816.36	3,900.81	3,844.19	19.52	18.84	174.10	-604.22	-80.25	153.16	116.92	36.25	4.226		
4,000.00	3,913.80	4,000.71	3,942.41	20.03	19.32	174.12	-622.36	-82.59	157.44	120.27	37.17	4.235		
4,100.00	4,011.24	4,100.62	4,040.63	20.55	19.81	174.13	-640.50	-84.93	161.73	123.62	38.11	4.244		
4,200.00	4,108.68	4,200.53	4,138.85	21.06	20.30	174.14	-658.65	-87.27	166.01	126.98	39.04	4.253		
4,300.00	4,206.12	4,300.44	4,237.06	21.57	20.79	174.15	-676.79	-89.61	170.30	130.33	39.97	4.261		
4,400.00	4,303.56	4,400.35	4,335.28	22.09	21.28	174.16	-694.93	-91.95	174.58	133.68	40.90	4.268		
4,500.00	4,401.00	4,500.26	4,433.50	22.60	21.76	174.17	-713.07	-94.29	178.86	137.03	41.83	4.276		
4,600.00	4,498.44	4,600.16	4,531.72	23.11	22.25	174.18	-731.21	-96.63	183.15	140.38	42.77	4.282		
4,700.00	4,595.88	4,700.07	4,629.94	23.63	22.74	174.19	-749.36	-98.97	187.43	143.73	43.70	4.289		
4,800.00	4,693.32	4,800.02	4,728.16	24.14	23.23	174.20	-767.50	-101.31	191.72	147.08	44.64	4.295		
4,900.00	4,790.76	4,900.11	4,826.38	24.66	23.72	174.21	-785.64	-103.65	196.00	150.43	45.57	4.301		
5,000.00	4,888.20	5,000.20	4,924.60	25.17	24.21	174.22	-803.78	-105.99	200.29	153.77	46.51	4.306		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,100.00	4,985.64	5,099.70	5,022.82	25.69	24.70	174.23	-821.93	-108.33	204.57	157.12	47.45	4.312		
5,200.00	5,083.08	5,200.39	5,121.04	26.20	25.20	174.23	-840.07	-110.67	208.85	160.47	48.39	4.316		
5,300.00	5,180.52	5,299.52	5,219.26	26.72	25.68	174.24	-858.21	-113.01	213.14	163.82	49.32	4.322		
5,400.00	5,277.96	5,400.57	5,317.48	27.24	26.18	174.25	-876.35	-115.35	217.42	167.16	50.26	4.326		
5,500.00	5,375.40	5,500.66	5,415.70	27.75	26.67	174.25	-894.49	-117.69	221.71	170.50	51.20	4.330		
5,600.00	5,472.84	5,600.75	5,513.92	28.27	27.16	174.26	-912.64	-120.03	225.99	173.85	52.14	4.334		
5,700.00	5,570.28	5,700.85	5,612.13	28.79	27.66	174.27	-930.78	-122.37	230.27	177.19	53.08	4.338		
5,800.00	5,667.72	5,800.94	5,710.35	29.30	28.15	174.27	-948.92	-124.71	234.56	180.54	54.02	4.342		
5,900.00	5,765.16	5,901.03	5,808.57	29.82	28.64	174.28	-967.06	-127.05	238.84	183.88	54.96	4.346		
6,000.00	5,862.60	6,001.12	5,906.79	30.34	29.13	174.28	-985.21	-129.39	243.13	187.23	55.90	4.349		
6,100.00	5,960.05	6,101.21	6,005.01	30.85	29.63	174.29	-1,003.35	-131.73	247.41	190.57	56.84	4.353		
6,200.00	6,057.49	6,201.31	6,103.23	31.37	30.12	174.30	-1,021.49	-134.07	251.69	193.91	57.78	4.356		
6,300.00	6,154.93	6,301.40	6,201.45	31.89	30.61	174.30	-1,039.63	-136.41	255.98	197.26	58.72	4.359		
6,400.00	6,252.37	6,398.51	6,299.67	32.40	31.09	174.30	-1,057.77	-138.75	260.26	200.61	59.65	4.363		
6,500.00	6,349.81	6,498.42	6,397.89	32.92	31.58	174.31	-1,075.92	-141.09	264.55	203.96	60.59	4.366		
6,600.00	6,447.25	6,601.67	6,496.11	33.44	32.09	174.31	-1,094.06	-143.43	268.83	207.29	61.55	4.368		
6,700.00	6,544.28	6,698.96	6,594.83	33.95	32.57	145.77	-1,112.35	-149.17	273.11	210.64	62.47	4.372		
6,800.00	6,638.86	6,800.45	6,692.37	34.44	33.05	127.33	-1,130.67	-169.93	277.17	213.78	63.39	4.372		
6,900.00	6,728.65	6,902.49	6,785.85	34.89	33.50	117.99	-1,148.51	-206.41	280.90	216.61	64.28	4.370		
7,000.00	6,811.45	7,005.03	6,872.77	35.29	33.91	112.82	-1,165.40	-257.90	284.18	219.02	65.16	4.361		
7,100.00	6,885.21	7,108.00	6,950.71	35.66	34.29	109.70	-1,180.85	-323.23	286.93	220.85	66.08	4.342		
7,200.00	6,948.11	7,211.34	7,017.46	35.99	34.64	107.72	-1,194.45	-400.79	289.07	221.94	67.13	4.306		
7,300.00	6,998.62	7,314.95	7,071.09	36.30	34.99	106.44	-1,205.80	-488.57	290.54	222.14	68.40	4.248		
7,400.00	7,035.48	7,418.72	7,110.05	36.65	35.43	105.62	-1,214.58	-584.23	291.29	221.30	69.99	4.162		
7,500.00	7,057.79	7,522.55	7,133.21	37.13	36.09	105.14	-1,220.53	-685.15	291.30	219.36	71.93	4.050		
7,600.00	7,065.00	7,626.10	7,139.96	37.84	37.03	104.95	-1,223.50	-788.32	290.57	216.36	74.22	3.915		
7,700.00	7,064.77	7,726.09	7,139.42	38.82	38.19	104.94	-1,225.07	-888.30	289.55	212.82	76.73	3.773		
7,800.00	7,064.54	7,826.09	7,138.88	40.06	39.55	104.93	-1,226.64	-988.28	288.54	208.99	79.55	3.627		
7,900.00	7,064.31	7,926.08	7,138.34	41.52	41.09	104.92	-1,228.21	-1,088.26	287.52	204.88	82.64	3.479		
8,000.00	7,064.08	8,026.08	7,137.80	43.14	42.77	104.91	-1,229.78	-1,188.24	286.50	200.52	85.98	3.332		
8,100.00	7,063.85	8,126.07	7,137.25	44.90	44.59	104.90	-1,231.35	-1,288.23	285.48	195.94	89.54	3.188		
8,200.00	7,063.62	8,226.07	7,136.71	46.78	46.51	104.89	-1,232.92	-1,388.21	284.46	191.17	93.29	3.049		
8,300.00	7,063.39	8,326.06	7,136.17	48.76	48.52	104.88	-1,234.49	-1,488.19	283.44	186.23	97.21	2.916		
8,400.00	7,063.16	8,426.06	7,135.63	50.83	50.62	104.87	-1,236.06	-1,588.17	282.42	181.14	101.29	2.788		
8,500.00	7,062.93	8,526.05	7,135.09	52.97	52.79	104.86	-1,237.63	-1,688.15	281.41	175.91	105.49	2.668		
8,600.00	7,062.70	8,626.05	7,134.54	55.18	55.02	104.85	-1,239.20	-1,788.13	280.39	170.57	109.82	2.553		
8,700.00	7,062.47	8,726.04	7,134.00	57.46	57.31	104.84	-1,240.77	-1,888.11	279.37	165.11	114.25	2.445		
8,800.00	7,062.24	8,826.04	7,133.46	59.78	59.65	104.83	-1,242.34	-1,988.09	278.35	159.57	118.78	2.343		
8,900.00	7,062.01	8,926.03	7,132.92	62.14	62.03	104.82	-1,243.91	-2,088.07	277.33	153.94	123.39	2.248		
9,000.00	7,061.78	9,026.03	7,132.38	64.55	64.45	104.81	-1,245.48	-2,188.05	276.31	148.24	128.08	2.157		
9,100.00	7,061.55	9,126.02	7,131.83	67.00	66.91	104.80	-1,247.05	-2,288.04	275.29	142.47	132.83	2.073		
9,200.00	7,061.31	9,226.01	7,131.29	69.47	69.40	104.78	-1,248.62	-2,388.02	274.27	136.64	137.64	1.993		
9,300.00	7,061.08	9,326.01	7,130.75	71.98	71.91	104.77	-1,250.19	-2,488.00	273.26	130.75	142.50	1.918		
9,400.00	7,060.85	9,426.00	7,130.21	74.51	74.45	104.76	-1,251.76	-2,587.98	272.24	124.82	147.42	1.847		
9,500.00	7,060.62	9,526.00	7,129.67	77.06	77.01	104.75	-1,253.33	-2,687.96	271.22	118.84	152.38	1.780		
9,600.00	7,060.39	9,625.99	7,129.12	79.64	79.59	104.74	-1,254.90	-2,787.94	270.20	112.83	157.37	1.717		
9,700.00	7,060.16	9,725.99	7,128.58	82.23	82.19	104.73	-1,256.47	-2,887.92	269.18	106.77	162.41	1.657		
9,800.00	7,059.93	9,825.98	7,128.04	84.84	84.81	104.72	-1,258.04	-2,987.90	268.16	100.69	167.47	1.601		
9,900.00	7,059.70	9,925.98	7,127.50	87.47	87.44	104.70	-1,259.61	-3,087.88	267.14	94.57	172.57	1.548		
10,000.00	7,059.47	10,025.97	7,126.96	90.11	90.09	104.69	-1,261.18	-3,187.86	266.13	88.43	177.70	1.498 Level 3		
10,100.00	7,059.24	10,125.97	7,126.41	92.76	92.74	104.68	-1,262.75	-3,287.85	265.11	82.26	182.85	1.450 Level 3		
10,200.00	7,059.01	10,225.96	7,125.87	95.42	95.41	104.67	-1,264.32	-3,387.83	264.09	76.07	188.02	1.405 Level 3		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,300.00	7,058.78	10,325.96	7,125.33	98.10	98.09	104.66	-1,265.89	-3,487.81	263.07	69.85	193.22	1.362	Level 3	
10,400.00	7,058.55	10,425.95	7,124.79	100.79	100.78	104.64	-1,267.46	-3,587.79	262.05	63.62	198.43	1.321	Level 3	
10,500.00	7,058.32	10,525.95	7,124.25	103.48	103.48	104.63	-1,269.03	-3,687.77	261.03	57.37	203.66	1.282	Level 3	
10,600.00	7,058.09	10,625.94	7,123.71	106.19	106.19	104.62	-1,270.60	-3,787.75	260.02	51.10	208.91	1.245	Level 2	
10,700.00	7,057.86	10,725.94	7,123.16	108.90	108.90	104.61	-1,272.17	-3,887.73	259.00	44.82	214.18	1.209	Level 2	
10,800.00	7,057.63	10,825.93	7,122.62	111.62	111.62	104.59	-1,273.74	-3,987.71	257.98	38.52	219.46	1.176	Level 2	
10,900.00	7,057.40	10,925.93	7,122.08	114.35	114.35	104.58	-1,275.31	-4,087.69	256.96	32.20	224.76	1.143	Level 2	
11,000.00	7,057.17	11,025.92	7,121.54	117.08	117.08	104.57	-1,276.88	-4,187.67	255.94	25.88	230.07	1.112	Level 2	
11,100.00	7,056.94	11,125.92	7,121.00	119.82	119.82	104.56	-1,278.45	-4,287.66	254.92	19.54	235.39	1.083	Level 2	
11,200.00	7,056.71	11,225.91	7,120.45	122.56	122.57	104.54	-1,280.02	-4,387.64	253.90	13.19	240.72	1.055	Level 2	
11,300.00	7,056.48	11,325.91	7,119.91	125.31	125.32	104.53	-1,281.59	-4,487.62	252.89	6.83	246.06	1.028	Level 2	
11,400.00	7,056.25	11,425.90	7,119.37	128.06	128.07	104.52	-1,283.16	-4,587.60	251.87	0.46	251.41	1.002	Level 2	
11,500.00	7,056.02	11,525.90	7,118.83	130.82	130.83	104.50	-1,284.73	-4,687.58	250.85	-5.92	256.77	0.977	Level 1	
11,600.00	7,055.79	11,625.89	7,118.29	133.59	133.59	104.49	-1,286.30	-4,787.56	249.83	-12.31	262.14	0.953	Level 1	
11,700.00	7,055.55	11,725.88	7,117.74	136.35	136.36	104.48	-1,287.87	-4,887.54	248.81	-18.71	267.52	0.930	Level 1	
11,800.00	7,055.32	11,825.88	7,117.20	139.12	139.13	104.46	-1,289.44	-4,987.52	247.79	-25.11	272.91	0.908	Level 1	
11,900.00	7,055.09	11,925.87	7,116.66	141.90	141.90	104.45	-1,291.01	-5,087.50	246.78	-31.53	278.30	0.887	Level 1	
12,000.00	7,054.86	12,025.87	7,116.12	144.67	144.68	104.44	-1,292.58	-5,187.49	245.76	-37.95	283.70	0.866	Level 1	
12,100.00	7,054.63	12,125.86	7,115.58	147.45	147.46	104.42	-1,294.15	-5,287.47	244.74	-44.37	289.11	0.847	Level 1	
12,200.00	7,054.40	12,225.86	7,115.03	150.24	150.24	104.41	-1,295.72	-5,387.45	243.72	-50.81	294.53	0.828	Level 1	
12,300.00	7,054.17	12,325.85	7,114.49	153.02	153.03	104.39	-1,297.29	-5,487.43	242.70	-57.24	299.95	0.809	Level 1	
12,400.00	7,053.94	12,425.85	7,113.95	155.81	155.82	104.38	-1,298.86	-5,587.41	241.69	-63.69	305.37	0.791	Level 1	
12,500.00	7,053.71	12,525.84	7,113.41	158.60	158.61	104.36	-1,300.43	-5,687.39	240.67	-70.14	310.81	0.774	Level 1	
12,600.00	7,053.48	12,625.84	7,112.87	161.40	161.40	104.35	-1,302.00	-5,787.37	239.65	-76.60	316.24	0.758	Level 1	
12,700.00	7,053.25	12,725.83	7,112.32	164.19	164.19	104.33	-1,303.57	-5,887.35	238.63	-83.06	321.69	0.742	Level 1	
12,800.00	7,053.02	12,825.83	7,111.78	166.99	166.99	104.32	-1,305.14	-5,987.33	237.61	-89.52	327.14	0.726	Level 1	
12,900.00	7,052.79	12,925.82	7,111.24	169.79	169.79	104.31	-1,306.71	-6,087.31	236.59	-95.99	332.59	0.711	Level 1	
13,000.00	7,052.56	13,025.82	7,110.70	172.59	172.59	104.29	-1,308.28	-6,187.30	235.58	-102.47	338.05	0.697	Level 1	
13,100.00	7,052.33	13,125.81	7,110.16	175.40	175.39	104.27	-1,309.85	-6,287.28	234.56	-108.95	343.51	0.683	Level 1	
13,200.00	7,052.10	13,225.81	7,109.61	178.20	178.19	104.26	-1,311.42	-6,387.26	233.54	-115.43	348.97	0.669	Level 1	
13,300.00	7,051.87	13,325.80	7,109.07	181.01	181.00	104.24	-1,312.99	-6,487.24	232.52	-121.92	354.44	0.656	Level 1	
13,400.00	7,051.64	13,425.80	7,108.53	183.82	183.81	104.23	-1,314.56	-6,587.22	231.50	-128.41	359.92	0.643	Level 1	
13,500.00	7,051.41	13,525.79	7,107.99	186.63	186.62	104.21	-1,316.13	-6,687.20	230.49	-134.91	365.40	0.631	Level 1	
13,600.00	7,051.18	13,625.79	7,107.45	189.44	189.43	104.20	-1,317.70	-6,787.18	229.47	-141.41	370.88	0.619	Level 1	
13,700.00	7,050.95	13,725.78	7,106.91	192.25	192.24	104.18	-1,319.27	-6,887.16	228.45	-147.91	376.36	0.607	Level 1	
13,800.00	7,050.72	13,825.78	7,106.36	195.07	195.05	104.16	-1,320.84	-6,987.14	227.43	-154.42	381.85	0.596	Level 1	
13,900.00	7,050.49	13,925.77	7,105.82	197.88	197.86	104.15	-1,322.41	-7,087.12	226.41	-160.93	387.34	0.585	Level 1	
14,000.00	7,050.26	14,025.77	7,105.28	200.70	200.68	104.13	-1,323.98	-7,187.11	225.40	-167.44	392.84	0.574	Level 1	
14,100.00	7,050.03	14,125.76	7,104.74	203.52	203.50	104.12	-1,325.55	-7,287.09	224.38	-173.96	398.34	0.563	Level 1	
14,200.00	7,049.80	14,225.75	7,104.20	206.34	206.31	104.10	-1,327.12	-7,387.07	223.36	-180.48	403.84	0.553	Level 1	
14,300.00	7,049.56	14,325.75	7,103.65	209.16	209.13	104.08	-1,328.69	-7,487.05	222.34	-187.00	409.35	0.543	Level 1	
14,400.00	7,049.33	14,425.74	7,103.11	211.98	211.95	104.06	-1,330.26	-7,587.03	221.32	-193.53	414.85	0.534	Level 1	
14,500.00	7,049.10	14,525.74	7,102.57	214.80	214.77	104.05	-1,331.83	-7,687.01	220.31	-200.06	420.36	0.524	Level 1	
14,600.00	7,048.87	14,625.73	7,102.03	217.63	217.59	104.03	-1,333.40	-7,786.99	219.29	-206.59	425.88	0.515	Level 1	
14,700.00	7,048.64	14,725.73	7,101.49	220.45	220.41	104.01	-1,334.97	-7,886.97	218.27	-213.12	431.39	0.506	Level 1	
14,800.00	7,048.41	14,825.72	7,100.94	223.28	223.24	103.99	-1,336.54	-7,986.95	217.25	-219.66	436.91	0.497	Level 1	
14,900.00	7,048.18	14,925.72	7,100.40	226.10	226.06	103.98	-1,338.11	-8,086.93	216.24	-226.20	442.43	0.489	Level 1	
14,979.18	7,048.00	15,004.90	7,099.97	228.34	228.30	103.96	-1,339.35	-8,166.10	215.43	-231.38	446.81	0.482	Level 1, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	-179.52	-99.82	-0.83	99.82					
100.00	100.00	101.00	100.00	3.28	3.28	-179.52	-99.82	-0.83	99.82	93.25	6.57	15.195		
200.00	200.00	199.00	200.00	3.34	3.34	-179.52	-99.82	-0.83	99.82	93.15	6.67	14.959		
300.00	299.98	295.67	296.65	3.44	3.43	-5.65	-101.41	-0.94	99.74	92.85	6.88	14.489		
400.00	399.84	392.32	393.17	3.59	3.58	-5.78	-106.26	-1.24	99.54	92.35	7.20	13.826		
500.00	499.45	488.97	489.48	3.79	3.77	-6.00	-114.35	-1.76	99.25	91.63	7.62	13.033		
600.00	598.70	585.63	585.47	4.03	4.00	-6.31	-125.68	-2.48	98.85	90.74	8.12	12.181		
700.00	697.47	682.31	681.03	4.31	4.26	-6.71	-140.24	-3.40	98.36	89.67	8.69	11.324		
800.00	795.62	779.00	776.07	4.64	4.57	-7.20	-158.01	-4.53	97.76	88.45	9.32	10.495		
870.88	864.87	847.55	843.05	4.89	4.81	-7.57	-172.55	-5.46	97.73	87.94	9.79	9.987		
900.00	893.16	875.72	870.47	5.00	4.91	-7.75	-178.98	-5.87	97.52	87.53	9.99	9.764 CC, ES		
1,000.00	990.60	972.36	964.04	5.38	5.28	-8.14	-203.10	-7.40	100.22	89.52	10.70	9.362		
1,100.00	1,088.04	1,068.73	1,056.47	5.79	5.69	-8.33	-230.27	-9.13	106.27	94.82	11.45	9.284		
1,200.00	1,185.48	1,164.60	1,147.48	6.22	6.13	-8.32	-260.36	-11.04	115.65	103.44	12.21	9.473		
1,300.00	1,282.92	1,261.03	1,238.00	6.66	6.59	-8.17	-293.54	-13.15	128.18	115.19	12.98	9.871		
1,400.00	1,380.36	1,360.14	1,330.75	7.10	7.10	-8.01	-328.38	-15.36	141.51	127.72	13.79	10.258		
1,500.00	1,477.80	1,459.25	1,423.50	7.56	7.62	-7.88	-363.22	-17.58	154.85	140.22	14.63	10.585		
1,600.00	1,575.24	1,558.35	1,516.26	8.03	8.15	-7.77	-398.06	-19.79	168.18	152.70	15.48	10.861		
1,700.00	1,672.68	1,657.46	1,609.01	8.50	8.69	-7.67	-432.90	-22.00	181.52	165.16	16.36	11.097		
1,800.00	1,770.12	1,756.57	1,701.76	8.98	9.24	-7.59	-467.75	-24.22	194.85	177.61	17.24	11.299		
1,900.00	1,867.56	1,855.67	1,794.52	9.46	9.80	-7.52	-502.59	-26.43	208.19	190.04	18.14	11.474		
2,000.00	1,965.00	1,954.78	1,887.27	9.95	10.37	-7.46	-537.43	-28.65	221.53	202.47	19.06	11.625		
2,100.00	2,062.44	2,053.88	1,980.03	10.44	10.93	-7.40	-572.27	-30.86	234.86	214.89	19.98	11.757		
2,200.00	2,159.88	2,152.99	2,072.78	10.93	11.51	-7.35	-607.11	-33.08	248.20	227.30	20.90	11.873		
2,300.00	2,257.32	2,252.10	2,165.53	11.42	12.09	-7.31	-641.95	-35.29	261.54	239.70	21.84	11.976		
2,400.00	2,354.76	2,351.20	2,258.29	11.92	12.67	-7.27	-676.80	-37.51	274.87	252.09	22.78	12.066		
2,500.00	2,452.20	2,450.31	2,351.04	12.42	13.25	-7.23	-711.64	-39.72	288.21	264.48	23.73	12.147		
2,600.00	2,549.64	2,549.42	2,443.79	12.92	13.83	-7.20	-746.48	-41.93	301.55	276.87	24.68	12.219		
2,700.00	2,647.08	2,648.52	2,536.55	13.42	14.42	-7.17	-781.32	-44.15	314.89	289.25	25.63	12.284		
2,800.00	2,744.52	2,747.63	2,629.30	13.93	15.01	-7.14	-816.16	-46.36	328.22	301.63	26.59	12.342		
2,900.00	2,841.96	2,846.74	2,722.05	14.43	15.60	-7.12	-851.00	-48.58	341.56	314.00	27.56	12.395		
3,000.00	2,939.40	2,945.84	2,814.81	14.94	16.19	-7.09	-885.85	-50.79	354.90	326.38	28.52	12.442		
3,100.00	3,036.84	3,044.95	2,907.56	15.44	16.79	-7.07	-920.69	-53.01	368.24	338.75	29.49	12.486		
3,200.00	3,134.28	3,144.06	3,000.31	15.95	17.38	-7.05	-955.53	-55.22	381.58	351.11	30.46	12.526		
3,300.00	3,231.72	3,243.16	3,093.07	16.46	17.98	-7.03	-990.37	-57.44	394.91	363.48	31.44	12.562		
3,400.00	3,329.16	3,342.27	3,185.82	16.97	18.58	-7.01	-1,025.21	-59.65	408.25	375.84	32.41	12.595		
3,500.00	3,426.60	3,441.37	3,278.58	17.48	19.17	-7.00	-1,060.05	-61.86	421.59	388.20	33.39	12.626		
3,600.00	3,524.04	3,540.48	3,371.33	17.99	19.77	-6.98	-1,094.90	-64.08	434.93	400.56	34.37	12.654		
3,700.00	3,621.48	3,639.59	3,464.08	18.50	20.37	-6.97	-1,129.74	-66.29	448.27	412.91	35.35	12.681		
3,800.00	3,718.92	3,738.69	3,556.84	19.01	20.97	-6.95	-1,164.58	-68.51	461.60	425.27	36.33	12.705		
3,900.00	3,816.36	3,837.80	3,649.59	19.52	21.57	-6.94	-1,199.42	-70.72	474.94	437.62	37.32	12.727		
4,000.00	3,913.80	3,936.91	3,742.34	20.03	22.17	-6.93	-1,234.26	-72.94	488.28	449.98	38.30	12.748		
4,100.00	4,011.24	4,036.01	3,835.10	20.55	22.78	-6.91	-1,269.10	-75.15	501.62	462.33	39.29	12.768		
4,200.00	4,108.68	4,135.12	3,927.85	21.06	23.38	-6.90	-1,303.95	-77.37	514.96	474.68	40.27	12.786		
4,300.00	4,206.12	4,234.23	4,020.60	21.57	23.98	-6.89	-1,338.79	-79.58	528.29	487.03	41.26	12.803		
4,400.00	4,303.56	4,333.33	4,113.36	22.09	24.58	-6.88	-1,373.63	-81.79	541.63	499.38	42.25	12.819		
4,500.00	4,401.00	4,432.44	4,206.11	22.60	25.19	-6.87	-1,408.47	-84.01	554.97	511.73	43.24	12.834		
4,600.00	4,498.44	4,531.55	4,298.87	23.11	25.79	-6.86	-1,443.31	-86.22	568.31	524.08	44.23	12.848		
4,700.00	4,595.88	4,630.65	4,391.62	23.63	26.40	-6.85	-1,478.15	-88.44	581.65	536.42	45.22	12.861		
4,800.00	4,693.32	4,729.76	4,484.37	24.14	27.00	-6.85	-1,513.00	-90.65	594.99	548.77	46.22	12.874		
4,900.00	4,790.76	4,828.86	4,577.13	24.66	27.60	-6.84	-1,547.84	-92.87	608.32	561.11	47.21	12.886		
5,000.00	4,888.20	4,927.97	4,669.88	25.17	28.21	-6.83	-1,582.68	-95.08	621.66	573.46	48.20	12.897		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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		
5,100.00	4,985.64	5,027.08	4,762.63	25.69	28.81	-6.82	-1,617.52	-97.30	635.00	585.80	49.20	12.908		
5,200.00	5,083.08	5,126.18	4,855.39	26.20	29.42	-6.82	-1,652.36	-99.51	648.34	598.15	50.19	12.918		
5,300.00	5,180.52	5,225.29	4,948.14	26.72	30.03	-6.81	-1,687.21	-101.73	661.68	610.49	51.19	12.927		
5,400.00	5,277.96	5,324.40	5,040.89	27.24	30.63	-6.80	-1,722.05	-103.94	675.02	622.83	52.18	12.936		
5,500.00	5,375.40	5,423.50	5,133.65	27.75	31.24	-6.80	-1,756.89	-106.15	688.35	635.18	53.18	12.945		
5,600.00	5,472.84	5,522.61	5,226.40	28.27	31.84	-6.79	-1,791.73	-108.37	701.69	647.52	54.17	12.953		
5,700.00	5,570.28	5,621.72	5,319.16	28.79	32.45	-6.79	-1,826.57	-110.58	715.03	659.86	55.17	12.960		
5,800.00	5,667.72	5,720.82	5,411.91	29.30	33.06	-6.78	-1,861.41	-112.80	728.37	672.20	56.17	12.968		
5,900.00	5,765.16	5,819.93	5,504.66	29.82	33.66	-6.77	-1,896.26	-115.01	741.71	684.54	57.17	12.975		
6,000.00	5,862.60	5,919.04	5,597.42	30.34	34.27	-6.77	-1,931.10	-117.23	755.05	696.88	58.16	12.982		
6,100.00	5,960.05	6,018.14	5,690.17	30.85	34.88	-6.76	-1,965.94	-119.44	768.38	709.22	59.16	12.988		
6,200.00	6,057.49	6,117.25	5,782.92	31.37	35.48	-6.76	-2,000.78	-121.66	781.72	721.56	60.16	12.994		
6,300.00	6,154.93	6,216.35	5,875.68	31.89	36.09	-6.76	-2,035.62	-123.87	795.06	733.90	61.16	13.000		
6,400.00	6,252.37	6,315.46	5,968.43	32.40	36.70	-6.75	-2,070.46	-126.08	808.40	746.24	62.16	13.006		
6,500.00	6,349.81	6,414.57	6,061.18	32.92	37.31	-6.75	-2,105.31	-128.30	821.74	758.58	63.16	13.011		
6,600.00	6,447.25	6,513.67	6,153.94	33.44	37.91	-6.74	-2,140.15	-130.51	835.08	770.92	64.16	13.016		
6,700.00	6,544.28	6,612.51	6,246.44	33.95	38.52	-34.84	-2,174.90	-132.72	848.44	783.28	65.17	13.019		
6,800.00	6,638.86	6,709.23	6,336.96	34.44	39.11	-53.74	-2,208.90	-134.88	862.03	795.84	66.20	13.023		
6,900.00	6,728.65	6,801.46	6,423.27	34.89	39.68	-64.22	-2,241.32	-136.94	876.59	809.35	67.24	13.036		
7,000.00	6,811.45	6,886.91	6,503.25	35.29	40.20	-70.87	-2,271.36	-138.85	893.45	825.12	68.34	13.075		
7,100.00	6,885.21	6,963.49	6,574.92	35.66	40.67	-75.33	-2,298.28	-140.56	914.27	844.76	69.51	13.154		
7,200.00	6,948.11	7,029.31	6,636.52	35.99	41.08	-78.06	-2,321.42	-142.03	940.66	869.86	70.79	13.287		
7,300.00	6,998.62	7,109.86	6,711.81	36.30	41.57	-80.47	-2,349.72	-145.81	973.56	901.08	72.48	13.433		
7,400.00	7,035.48	7,252.89	6,842.32	36.65	42.39	-84.87	-2,388.96	-176.05	1,010.45	936.01	74.44	13.574		
7,500.00	7,057.79	7,506.55	7,046.13	37.13	43.56	-92.26	-2,476.46	-302.36	1,046.65	972.01	74.65	14.022		
7,600.00	7,065.00	8,030.23	7,245.87	37.84	45.07	-99.76	-2,555.03	-763.93	1,066.47	994.57	71.90	14.833		
7,700.00	7,064.77	8,144.53	7,245.51	38.82	45.47	-99.76	-2,555.78	-878.23	1,066.43	992.16	74.27	14.359		
7,800.00	7,064.54	8,244.53	7,245.01	40.06	46.00	-99.74	-2,556.37	-978.22	1,066.37	989.44	76.94	13.861		
7,900.00	7,064.31	8,344.53	7,244.51	41.52	46.76	-99.73	-2,556.96	-1,078.22	1,066.32	986.40	79.92	13.343		
8,000.00	7,064.08	8,444.53	7,244.01	43.14	47.79	-99.72	-2,557.55	-1,178.22	1,066.26	983.09	83.17	12.820		
8,100.00	7,063.85	8,544.53	7,243.51	44.90	49.07	-99.70	-2,558.14	-1,278.21	1,066.20	979.53	86.68	12.301		
8,200.00	7,063.62	8,644.53	7,243.01	46.78	50.57	-99.69	-2,558.73	-1,378.21	1,066.15	975.75	90.40	11.794		
8,300.00	7,063.39	8,744.53	7,242.51	48.76	52.25	-99.67	-2,559.31	-1,478.21	1,066.09	971.78	94.31	11.304		
8,400.00	7,063.16	8,844.53	7,242.01	50.83	54.07	-99.66	-2,559.90	-1,578.20	1,066.04	967.64	98.40	10.834		
8,500.00	7,062.93	8,944.53	7,241.50	52.97	56.01	-99.64	-2,560.49	-1,678.20	1,065.98	963.35	102.63	10.387		
8,600.00	7,062.70	9,044.53	7,241.00	55.18	58.03	-99.63	-2,561.08	-1,778.20	1,065.92	958.93	106.99	9.962		
8,700.00	7,062.47	9,144.53	7,240.50	57.46	60.14	-99.62	-2,561.67	-1,878.19	1,065.87	954.39	111.48	9.561		
8,800.00	7,062.24	9,244.53	7,240.00	59.78	62.32	-99.60	-2,562.25	-1,978.19	1,065.81	949.75	116.06	9.183		
8,900.00	7,062.01	9,344.53	7,239.50	62.14	64.55	-99.59	-2,562.84	-2,078.19	1,065.76	945.02	120.73	8.827		
9,000.00	7,061.78	9,444.53	7,239.00	64.55	66.84	-99.57	-2,563.43	-2,178.18	1,065.70	940.21	125.49	8.492		
9,100.00	7,061.55	9,544.53	7,238.50	67.00	69.18	-99.56	-2,564.02	-2,278.18	1,065.65	935.33	130.32	8.177		
9,200.00	7,061.31	9,644.53	7,238.00	69.47	71.55	-99.54	-2,564.61	-2,378.18	1,065.59	930.38	135.21	7.881		
9,300.00	7,061.08	9,744.53	7,237.50	71.98	73.96	-99.53	-2,565.20	-2,478.17	1,065.54	925.38	140.16	7.602		
9,400.00	7,060.85	9,844.53	7,237.00	74.51	76.41	-99.52	-2,565.78	-2,578.17	1,065.48	920.32	145.16	7.340		
9,500.00	7,060.62	9,944.53	7,236.50	77.06	78.88	-99.50	-2,566.37	-2,678.17	1,065.43	915.21	150.21	7.093		
9,600.00	7,060.39	10,044.53	7,236.00	79.64	81.38	-99.49	-2,566.96	-2,778.16	1,065.37	910.07	155.30	6.860		
9,700.00	7,060.16	10,144.53	7,235.50	82.23	83.90	-99.47	-2,567.55	-2,878.16	1,065.32	904.88	160.43	6.640		
9,800.00	7,059.93	10,244.52	7,235.00	84.84	86.44	-99.46	-2,568.14	-2,978.16	1,065.26	899.66	165.60	6.433		
9,900.00	7,059.70	10,344.52	7,234.50	87.47	89.01	-99.44	-2,568.72	-3,078.15	1,065.21	894.41	170.80	6.237		
10,000.00	7,059.47	10,444.52	7,233.99	90.11	91.59	-99.43	-2,569.31	-3,178.15	1,065.15	889.13	176.02	6.051		
10,100.00	7,059.24	10,544.52	7,233.49	92.76	94.19	-99.42	-2,569.90	-3,278.15	1,065.10	883.82	181.27	5.876		
10,200.00	7,059.01	10,644.52	7,232.99	95.42	96.80	-99.40	-2,570.49	-3,378.14	1,065.04	878.49	186.55	5.709		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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		
10,300.00	7,058.78	10,744.52	7,232.49	98.10	99.43	-99.39	-2,571.08	-3,478.14	1,064.99	873.14	191.85	5.551		
10,400.00	7,058.55	10,844.52	7,231.99	100.79	102.07	-99.37	-2,571.67	-3,578.14	1,064.93	867.77	197.17	5.401		
10,500.00	7,058.32	10,944.52	7,231.49	103.48	104.72	-99.36	-2,572.25	-3,678.13	1,064.88	862.37	202.50	5.259		
10,600.00	7,058.09	11,044.52	7,230.99	106.19	107.38	-99.34	-2,572.84	-3,778.13	1,064.82	856.96	207.86	5.123		
10,700.00	7,057.86	11,144.52	7,230.49	108.90	110.06	-99.33	-2,573.43	-3,878.13	1,064.77	851.54	213.23	4.994		
10,800.00	7,057.63	11,244.52	7,229.99	111.62	112.74	-99.32	-2,574.02	-3,978.12	1,064.71	846.10	218.62	4.870		
10,900.00	7,057.40	11,344.52	7,229.49	114.35	115.43	-99.30	-2,574.61	-4,078.12	1,064.66	840.64	224.02	4.753		
11,000.00	7,057.17	11,444.52	7,228.99	117.08	118.13	-99.29	-2,575.19	-4,178.12	1,064.61	835.17	229.43	4.640		
11,100.00	7,056.94	11,544.52	7,228.49	119.82	120.83	-99.27	-2,575.78	-4,278.11	1,064.55	829.69	234.86	4.533		
11,200.00	7,056.71	11,644.52	7,227.99	122.56	123.55	-99.26	-2,576.37	-4,378.11	1,064.50	824.20	240.30	4.430		
11,300.00	7,056.48	11,744.52	7,227.49	125.31	126.27	-99.25	-2,576.96	-4,478.11	1,064.44	818.70	245.74	4.332		
11,400.00	7,056.25	11,844.52	7,226.99	128.06	128.99	-99.23	-2,577.55	-4,578.10	1,064.39	813.19	251.20	4.237		
11,500.00	7,056.02	11,944.52	7,226.48	130.82	131.72	-99.22	-2,578.14	-4,678.10	1,064.34	807.67	256.67	4.147		
11,600.00	7,055.79	12,044.52	7,225.98	133.59	134.46	-99.20	-2,578.72	-4,778.10	1,064.28	802.14	262.14	4.060		
11,700.00	7,055.55	12,144.52	7,225.48	136.35	137.20	-99.19	-2,579.31	-4,878.09	1,064.23	796.60	267.63	3.977		
11,800.00	7,055.32	12,244.52	7,224.98	139.12	139.95	-99.17	-2,579.90	-4,978.09	1,064.18	791.05	273.12	3.896		
11,900.00	7,055.09	12,344.52	7,224.48	141.90	142.70	-99.16	-2,580.49	-5,078.09	1,064.12	785.50	278.62	3.819		
12,000.00	7,054.86	12,444.52	7,223.98	144.67	145.45	-99.15	-2,581.08	-5,178.08	1,064.07	779.94	284.13	3.745		
12,100.00	7,054.63	12,544.52	7,223.48	147.45	148.21	-99.13	-2,581.66	-5,278.08	1,064.01	774.37	289.64	3.674		
12,200.00	7,054.40	12,644.52	7,222.98	150.24	150.98	-99.12	-2,582.25	-5,378.08	1,063.96	768.80	295.16	3.605		
12,300.00	7,054.17	12,744.52	7,222.48	153.02	153.74	-99.10	-2,582.84	-5,478.07	1,063.91	763.22	300.69	3.538		
12,400.00	7,053.94	12,844.52	7,221.98	155.81	156.51	-99.09	-2,583.43	-5,578.07	1,063.85	757.64	306.22	3.474		
12,500.00	7,053.71	12,944.52	7,221.48	158.60	159.28	-99.07	-2,584.02	-5,678.07	1,063.80	752.05	311.75	3.412		
12,600.00	7,053.48	13,044.51	7,220.98	161.40	162.06	-99.06	-2,584.61	-5,778.06	1,063.75	746.45	317.29	3.353		
12,700.00	7,053.25	13,144.51	7,220.48	164.19	164.84	-99.05	-2,585.19	-5,878.06	1,063.70	740.86	322.84	3.295		
12,800.00	7,053.02	13,244.51	7,219.98	166.99	167.62	-99.03	-2,585.78	-5,978.06	1,063.64	735.25	328.39	3.239		
12,900.00	7,052.79	13,344.51	7,219.47	169.79	170.40	-99.02	-2,586.37	-6,078.05	1,063.59	729.64	333.95	3.185		
13,000.00	7,052.56	13,444.51	7,218.97	172.59	173.19	-99.00	-2,586.96	-6,178.05	1,063.54	724.03	339.51	3.133		
13,100.00	7,052.33	13,544.51	7,218.47	175.40	175.98	-98.99	-2,587.55	-6,278.05	1,063.48	718.41	345.07	3.082		
13,200.00	7,052.10	13,644.51	7,217.97	178.20	178.77	-98.97	-2,588.13	-6,378.04	1,063.43	712.79	350.64	3.033		
13,300.00	7,051.87	13,744.51	7,217.47	181.01	181.56	-98.96	-2,588.72	-6,478.04	1,063.38	707.17	356.21	2.985		
13,400.00	7,051.64	13,844.51	7,216.97	183.82	184.36	-98.95	-2,589.31	-6,578.04	1,063.33	701.54	361.78	2.939		
13,500.00	7,051.41	13,944.51	7,216.47	186.63	187.16	-98.93	-2,589.90	-6,678.03	1,063.27	695.91	367.36	2.894		
13,600.00	7,051.18	14,044.51	7,215.97	189.44	189.95	-98.92	-2,590.49	-6,778.03	1,063.22	690.28	372.94	2.851		
13,700.00	7,050.95	14,144.51	7,215.47	192.25	192.76	-98.90	-2,591.08	-6,878.03	1,063.17	684.64	378.53	2.809		
13,800.00	7,050.72	14,244.51	7,214.97	195.07	195.56	-98.89	-2,591.66	-6,978.02	1,063.12	679.00	384.11	2.768		
13,900.00	7,050.49	14,344.51	7,214.47	197.88	198.36	-98.87	-2,592.25	-7,078.02	1,063.06	673.36	389.70	2.728		
14,000.00	7,050.26	14,444.51	7,213.97	200.70	201.17	-98.86	-2,592.84	-7,178.02	1,063.01	667.72	395.30	2.689		
14,100.00	7,050.03	14,544.51	7,213.47	203.52	203.97	-98.85	-2,593.43	-7,278.01	1,062.96	662.07	400.89	2.651		
14,200.00	7,049.80	14,644.51	7,212.97	206.34	206.78	-98.83	-2,594.02	-7,378.01	1,062.91	656.42	406.49	2.615		
14,300.00	7,049.56	14,744.51	7,212.47	209.16	209.59	-98.82	-2,594.60	-7,478.01	1,062.86	650.77	412.09	2.579		
14,400.00	7,049.33	14,844.51	7,211.96	211.98	212.40	-98.80	-2,595.19	-7,578.00	1,062.80	645.11	417.69	2.544		
14,500.00	7,049.10	14,944.51	7,211.46	214.80	215.22	-98.79	-2,595.78	-7,678.00	1,062.75	639.45	423.30	2.511		
14,600.00	7,048.87	15,044.51	7,210.96	217.63	218.03	-98.77	-2,596.37	-7,778.00	1,062.70	633.79	428.91	2.478		
14,700.00	7,048.64	15,144.51	7,210.46	220.45	220.84	-98.76	-2,596.96	-7,877.99	1,062.65	628.13	434.52	2.446		
14,800.00	7,048.41	15,244.51	7,209.96	223.28	223.66	-98.74	-2,597.55	-7,977.99	1,062.60	622.47	440.13	2.414		
14,900.00	7,048.18	15,344.51	7,209.46	226.10	226.48	-98.73	-2,598.13	-8,077.99	1,062.55	616.80	445.74	2.384		
14,979.18	7,048.00	15,423.69	7,209.07	228.34	228.71	-98.72	-2,598.60	-8,157.17	1,062.50	612.32	450.19	2.360 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-179.60	-119.84	-0.83	119.85					
100.00	100.00	101.00	100.00	3.28	3.28	-179.60	-119.84	-0.83	119.85	113.28	6.57	18.243		
200.00	200.00	199.00	200.00	3.34	3.34	-179.60	-119.84	-0.83	119.85	113.17	6.67	17.959		
300.00	299.98	295.03	296.01	3.44	3.43	-5.73	-121.42	-0.93	119.75	112.87	6.88	17.399		
400.00	399.84	391.03	391.89	3.59	3.58	-5.85	-126.20	-1.21	119.53	112.33	7.20	16.607		
500.00	499.45	487.03	487.55	3.79	3.76	-6.04	-134.19	-1.69	119.18	111.57	7.61	15.660		
600.00	598.70	583.05	582.91	4.03	3.99	-6.32	-145.37	-2.36	118.70	110.60	8.11	14.641		
700.00	697.47	679.08	677.85	4.31	4.25	-6.68	-159.74	-3.21	118.11	109.43	8.68	13.614		
800.00	795.62	775.14	772.28	4.64	4.55	-7.13	-177.28	-4.26	117.40	108.10	9.30	12.621		
875.94	869.80	848.10	843.58	4.91	4.81	-7.49	-192.71	-5.18	117.29	107.48	9.80	11.963		
900.00	893.16	871.22	866.09	5.00	4.89	-7.63	-197.98	-5.49	117.02	107.05	9.97	11.735 CC, ES		
1,000.00	990.60	967.24	959.10	5.38	5.26	-8.01	-221.79	-6.91	119.56	108.87	10.68	11.189		
1,100.00	1,088.04	1,063.00	1,051.00	5.79	5.67	-8.23	-248.62	-8.51	125.43	114.01	11.42	10.979		
1,200.00	1,185.48	1,158.27	1,141.50	6.22	6.10	-8.29	-278.35	-10.28	134.61	122.43	12.18	11.050		
1,300.00	1,282.92	1,252.87	1,230.33	6.66	6.56	-8.22	-310.81	-12.21	147.08	134.12	12.95	11.355		
1,400.00	1,380.36	1,346.96	1,317.57	7.10	7.04	-8.05	-345.99	-14.31	162.77	149.04	13.73	11.855		
1,500.00	1,477.80	1,445.49	1,408.40	7.56	7.57	-7.86	-384.10	-16.58	179.85	165.29	14.56	12.354		
1,600.00	1,575.24	1,544.02	1,499.23	8.03	8.12	-7.71	-422.22	-18.85	196.93	181.52	15.41	12.780		
1,700.00	1,672.68	1,642.55	1,590.06	8.50	8.68	-7.58	-460.33	-21.12	214.02	197.73	16.28	13.146		
1,800.00	1,770.12	1,741.08	1,680.89	8.98	9.25	-7.47	-498.44	-23.39	231.10	213.93	17.17	13.461		
1,900.00	1,867.56	1,839.61	1,771.72	9.46	9.83	-7.37	-536.56	-25.66	248.19	230.12	18.07	13.735		
2,000.00	1,965.00	1,938.14	1,862.55	9.95	10.41	-7.29	-574.67	-27.93	265.27	246.29	18.98	13.975		
2,100.00	2,062.44	2,036.67	1,953.38	10.44	11.00	-7.22	-612.79	-30.21	282.36	262.45	19.91	14.184		
2,200.00	2,159.88	2,135.19	2,044.21	10.93	11.60	-7.15	-650.90	-32.48	299.44	278.61	20.84	14.370		
2,300.00	2,257.32	2,233.72	2,135.04	11.42	12.20	-7.09	-689.01	-34.75	316.53	294.75	21.78	14.534		
2,400.00	2,354.76	2,332.25	2,225.87	11.92	12.80	-7.04	-727.13	-37.02	333.62	310.89	22.73	14.680		
2,500.00	2,452.20	2,430.78	2,316.70	12.42	13.41	-6.99	-765.24	-39.29	350.71	327.03	23.68	14.810		
2,600.00	2,549.64	2,529.31	2,407.53	12.92	14.02	-6.95	-803.36	-41.56	367.79	343.16	24.64	14.928		
2,700.00	2,647.08	2,627.84	2,498.36	13.42	14.63	-6.91	-841.47	-43.83	384.88	359.28	25.60	15.034		
2,800.00	2,744.52	2,726.37	2,589.19	13.93	15.25	-6.88	-879.58	-46.10	401.97	375.40	26.57	15.129		
2,900.00	2,841.96	2,824.90	2,680.02	14.43	15.86	-6.85	-917.70	-48.37	419.06	391.52	27.54	15.216		
3,000.00	2,939.40	2,923.42	2,770.85	14.94	16.48	-6.82	-955.81	-50.64	436.15	407.63	28.51	15.296		
3,100.00	3,036.84	3,021.95	2,861.68	15.44	17.10	-6.79	-993.93	-52.91	453.23	423.74	29.49	15.368		
3,200.00	3,134.28	3,120.48	2,952.51	15.95	17.72	-6.76	-1,032.04	-55.19	470.32	439.85	30.47	15.434		
3,300.00	3,231.72	3,219.01	3,043.34	16.46	18.34	-6.74	-1,070.15	-57.46	487.41	455.96	31.46	15.495		
3,400.00	3,329.16	3,317.54	3,134.17	16.97	18.97	-6.72	-1,108.27	-59.73	504.50	472.06	32.44	15.552		
3,500.00	3,426.60	3,416.07	3,225.00	17.48	19.59	-6.69	-1,146.38	-62.00	521.59	488.16	33.43	15.604		
3,600.00	3,524.04	3,514.60	3,315.83	17.99	20.21	-6.68	-1,184.50	-64.27	538.68	504.26	34.42	15.652		
3,700.00	3,621.48	3,613.13	3,406.66	18.50	20.84	-6.66	-1,222.61	-66.54	555.77	520.36	35.41	15.697		
3,800.00	3,718.92	3,711.66	3,497.49	19.01	21.47	-6.64	-1,260.72	-68.81	572.86	536.46	36.40	15.738		
3,900.00	3,816.36	3,810.18	3,588.32	19.52	22.09	-6.62	-1,298.84	-71.08	589.95	552.55	37.39	15.777		
4,000.00	3,913.80	3,908.71	3,679.15	20.03	22.72	-6.61	-1,336.95	-73.35	607.03	568.65	38.39	15.813		
4,100.00	4,011.24	4,007.24	3,769.98	20.55	23.35	-6.59	-1,375.07	-75.62	624.12	584.74	39.38	15.847		
4,200.00	4,108.68	4,105.77	3,860.81	21.06	23.98	-6.58	-1,413.18	-77.89	641.21	600.83	40.38	15.879		
4,300.00	4,206.12	4,204.30	3,951.64	21.57	24.61	-6.57	-1,451.29	-80.17	658.30	616.92	41.38	15.909		
4,400.00	4,303.56	4,302.83	4,042.47	22.09	25.24	-6.55	-1,489.41	-82.44	675.39	633.01	42.38	15.937		
4,500.00	4,401.00	4,401.36	4,133.30	22.60	25.87	-6.54	-1,527.52	-84.71	692.48	649.10	43.38	15.963		
4,600.00	4,498.44	4,499.89	4,224.13	23.11	26.50	-6.53	-1,565.64	-86.98	709.57	665.19	44.38	15.988		
4,700.00	4,595.88	4,598.42	4,314.96	23.63	27.13	-6.52	-1,603.75	-89.25	726.66	681.28	45.38	16.011		
4,800.00	4,693.32	4,703.06	4,405.79	24.14	27.80	-6.51	-1,641.86	-91.52	743.75	697.33	46.42	16.022		
4,900.00	4,790.76	4,804.53	4,496.62	24.66	28.45	-6.50	-1,679.98	-93.79	760.84	713.40	47.44	16.038		
5,000.00	4,888.20	4,906.00	4,587.45	25.17	29.10	-6.49	-1,718.09	-96.06	777.93	729.47	48.46	16.053		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,100.00	4,985.64	5,007.47	4,678.28	25.69	29.75	-6.48	-1,756.21	-98.33	795.02	745.54	49.48	16.067		
5,200.00	5,083.08	5,108.94	4,769.11	26.20	30.40	-6.47	-1,794.32	-100.60	812.11	761.60	50.50	16.080		
5,300.00	5,180.52	5,189.59	4,859.94	26.72	30.92	-6.47	-1,832.43	-102.88	829.20	777.78	51.41	16.129		
5,400.00	5,277.96	5,288.12	4,950.77	27.24	31.55	-6.46	-1,870.55	-105.15	846.28	793.87	52.42	16.145		
5,500.00	5,375.40	5,386.65	5,041.60	27.75	32.18	-6.45	-1,908.66	-107.42	863.37	809.95	53.42	16.161		
5,600.00	5,472.84	5,485.18	5,132.43	28.27	32.82	-6.44	-1,946.78	-109.69	880.46	826.03	54.43	16.175		
5,700.00	5,570.28	5,583.70	5,223.26	28.79	33.45	-6.44	-1,984.89	-111.96	897.55	842.11	55.44	16.190		
5,800.00	5,667.72	5,682.23	5,314.09	29.30	34.08	-6.43	-2,023.00	-114.23	914.64	858.19	56.45	16.203		
5,900.00	5,765.16	5,780.76	5,404.92	29.82	34.72	-6.42	-2,061.12	-116.50	931.73	874.27	57.46	16.216		
6,000.00	5,862.60	5,879.29	5,495.75	30.34	35.35	-6.42	-2,099.23	-118.77	948.82	890.35	58.47	16.228		
6,100.00	5,960.05	5,977.82	5,586.58	30.85	35.98	-6.41	-2,137.35	-121.04	965.91	906.43	59.48	16.240		
6,200.00	6,057.49	6,076.35	5,677.41	31.37	36.62	-6.41	-2,175.46	-123.31	983.00	922.51	60.49	16.252		
6,300.00	6,154.93	6,174.88	5,768.24	31.89	37.25	-6.40	-2,213.57	-125.58	1,000.09	938.59	61.50	16.263		
6,400.00	6,252.37	6,273.41	5,859.07	32.40	37.88	-6.40	-2,251.69	-127.86	1,017.18	954.67	62.51	16.273		
6,500.00	6,349.81	6,371.94	5,949.90	32.92	38.52	-6.39	-2,289.80	-130.13	1,034.27	970.75	63.52	16.283		
6,600.00	6,447.25	6,470.46	6,040.73	33.44	39.15	-6.38	-2,327.92	-132.40	1,051.36	986.83	64.53	16.293		
6,700.00	6,544.28	6,568.73	6,131.32	33.95	39.79	-6.37	-2,366.03	-134.66	1,068.43	1,002.88	65.55	16.300		
6,800.00	6,638.86	6,664.91	6,219.99	34.44	40.41	-6.36	-2,403.14	-136.88	1,085.46	1,018.88	66.58	16.303		
6,900.00	6,728.65	6,756.64	6,304.55	34.89	41.00	-6.35	-2,438.62	-138.99	1,102.90	1,035.28	67.62	16.311		
7,000.00	6,811.45	6,841.65	6,382.91	35.29	41.54	-6.34	-2,471.50	-140.95	1,121.66	1,052.99	68.68	16.332		
7,100.00	6,885.21	6,917.85	6,453.16	35.66	42.03	-6.33	-2,500.98	-142.71	1,142.96	1,073.16	69.80	16.376		
7,200.00	6,948.11	6,994.72	6,524.00	35.99	42.53	-6.32	-2,530.71	-144.10	1,167.95	1,096.81	71.14	16.418		
7,300.00	6,998.62	7,114.74	6,633.03	36.30	43.27	-6.31	-2,576.58	-146.37	1,195.61	1,122.58	73.03	16.372		
7,400.00	7,035.48	7,280.65	6,774.20	36.65	44.17	-6.30	-2,636.24	-148.66	1,223.81	1,148.98	74.83	16.354		
7,500.00	7,057.79	7,538.43	6,951.45	37.13	45.20	-6.29	-2,711.81	-149.25	1,248.40	1,172.82	75.58	16.518		
7,600.00	7,065.00	7,932.14	7,069.77	37.84	46.23	-6.28	-2,764.07	-150.49	1,260.09	1,183.62	76.48	16.476		
7,700.00	7,064.77	8,047.64	7,069.71	38.82	46.57	-6.27	-2,764.89	-150.98	1,260.12	1,181.20	78.92	15.967		
7,800.00	7,064.54	8,147.64	7,069.42	40.06	47.00	-6.26	-2,765.48	-151.98	1,260.12	1,178.51	81.61	15.440		
7,900.00	7,064.31	8,247.64	7,069.12	41.52	47.62	-6.25	-2,766.08	-152.98	1,260.12	1,175.51	84.61	14.893		
8,000.00	7,064.08	8,347.64	7,068.82	43.14	48.47	-6.24	-2,766.68	-153.98	1,260.12	1,172.24	87.87	14.340		
8,100.00	7,063.85	8,447.64	7,068.52	44.90	49.59	-6.23	-2,767.28	-154.98	1,260.12	1,168.73	91.38	13.790		
8,200.00	7,063.62	8,547.64	7,068.22	46.78	50.96	-6.22	-2,767.87	-155.97	1,260.12	1,165.01	95.10	13.250		
8,300.00	7,063.39	8,647.64	7,067.93	48.76	52.53	-6.21	-2,768.47	-156.97	1,260.11	1,161.10	99.01	12.727		
8,400.00	7,063.16	8,747.64	7,067.63	50.83	54.28	-6.20	-2,769.07	-157.97	1,260.11	1,157.02	103.10	12.223		
8,500.00	7,062.93	8,847.64	7,067.33	52.97	56.16	-6.19	-2,769.67	-158.97	1,260.11	1,152.79	107.32	11.741		
8,600.00	7,062.70	8,947.64	7,067.03	55.18	58.14	-6.18	-2,770.27	-159.96	1,260.11	1,148.42	111.69	11.283		
8,700.00	7,062.47	9,047.64	7,066.74	57.46	60.22	-6.17	-2,770.86	-160.96	1,260.11	1,143.94	116.17	10.847		
8,800.00	7,062.24	9,147.64	7,066.44	59.78	62.37	-6.16	-2,771.46	-161.96	1,260.11	1,139.36	120.75	10.436		
8,900.00	7,062.01	9,247.64	7,066.14	62.14	64.58	-6.15	-2,772.06	-162.96	1,260.11	1,134.68	125.43	10.046		
9,000.00	7,061.78	9,347.64	7,065.84	64.55	66.85	-6.14	-2,772.66	-163.96	1,260.11	1,129.92	130.19	9.679		
9,100.00	7,061.55	9,447.64	7,065.55	67.00	69.17	-6.13	-2,773.26	-164.95	1,260.10	1,125.08	135.02	9.333		
9,200.00	7,061.31	9,547.64	7,065.25	69.47	71.53	-6.12	-2,773.85	-165.95	1,260.10	1,120.18	139.92	9.006		
9,300.00	7,061.08	9,647.64	7,064.95	71.98	73.93	-6.11	-2,774.45	-166.95	1,260.10	1,115.22	144.89	8.697		
9,400.00	7,060.85	9,747.64	7,064.65	74.51	76.37	-6.10	-2,775.05	-167.95	1,260.10	1,110.20	149.90	8.406		
9,500.00	7,060.62	9,847.64	7,064.36	77.06	78.83	-6.09	-2,775.65	-168.94	1,260.10	1,105.14	154.96	8.132		
9,600.00	7,060.39	9,947.64	7,064.06	79.64	81.32	-6.08	-2,776.25	-169.94	1,260.10	1,100.03	160.07	7.872		
9,700.00	7,060.16	10,047.64	7,063.76	82.23	83.84	-6.07	-2,776.84	-170.94	1,260.10	1,094.88	165.22	7.627		
9,800.00	7,059.93	10,147.64	7,063.46	84.84	86.38	-6.06	-2,777.44	-171.94	1,260.10	1,089.69	170.40	7.395		
9,900.00	7,059.70	10,247.64	7,063.17	87.47	88.94	-6.05	-2,778.04	-172.94	1,260.10	1,084.48	175.62	7.175		
10,000.00	7,059.47	10,347.64	7,062.87	90.11	91.52	-6.04	-2,778.64	-173.93	1,260.09	1,079.23	180.87	6.967		
10,100.00	7,059.24	10,447.64	7,062.57	92.76	94.11	-6.03	-2,779.24	-174.93	1,260.09	1,073.95	186.14	6.770		
10,200.00	7,059.01	10,547.64	7,062.27	95.42	96.72	-6.02	-2,779.83	-175.93	1,260.09	1,068.65	191.44	6.582		

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 12N-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 12N-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	
10,300.00	7,058.78	10,647.64	7,061.98	98.10	99.34	-90.15	-2,780.43	-3,475.93	1,260.09	1,063.32	196.77	6.404	
10,400.00	7,058.55	10,747.64	7,061.68	100.79	101.98	-90.14	-2,781.03	-3,575.92	1,260.09	1,057.98	202.11	6.235	
10,500.00	7,058.32	10,847.64	7,061.38	103.48	104.63	-90.14	-2,781.63	-3,675.92	1,260.09	1,052.61	207.48	6.073	
10,600.00	7,058.09	10,947.64	7,061.08	106.19	107.29	-90.14	-2,782.23	-3,775.92	1,260.09	1,047.23	212.86	5.920	
10,700.00	7,057.86	11,047.64	7,060.79	108.90	109.96	-90.13	-2,782.82	-3,875.92	1,260.09	1,041.83	218.26	5.773	
10,800.00	7,057.63	11,147.64	7,060.49	111.62	112.64	-90.13	-2,783.42	-3,975.92	1,260.09	1,036.41	223.68	5.633	
10,900.00	7,057.40	11,247.64	7,060.19	114.35	115.33	-90.13	-2,784.02	-4,075.91	1,260.09	1,030.98	229.11	5.500	
11,000.00	7,057.17	11,347.64	7,059.89	117.08	118.02	-90.12	-2,784.62	-4,175.91	1,260.08	1,025.53	234.55	5.372	
11,100.00	7,056.94	11,447.64	7,059.59	119.82	120.73	-90.12	-2,785.21	-4,275.91	1,260.08	1,020.07	240.01	5.250	
11,200.00	7,056.71	11,547.64	7,059.30	122.56	123.44	-90.12	-2,785.81	-4,375.91	1,260.08	1,014.60	245.48	5.133	
11,300.00	7,056.48	11,647.64	7,059.00	125.31	126.16	-90.11	-2,786.41	-4,475.90	1,260.08	1,009.12	250.96	5.021	
11,400.00	7,056.25	11,747.64	7,058.70	128.06	128.88	-90.11	-2,787.01	-4,575.90	1,260.08	1,003.63	256.45	4.914	
11,500.00	7,056.02	11,847.64	7,058.40	130.82	131.61	-90.11	-2,787.61	-4,675.90	1,260.08	998.13	261.95	4.810	
11,600.00	7,055.79	11,947.64	7,058.11	133.59	134.35	-90.11	-2,788.20	-4,775.90	1,260.08	992.62	267.46	4.711	
11,700.00	7,055.55	12,047.64	7,057.81	136.35	137.09	-90.10	-2,788.80	-4,875.89	1,260.08	987.10	272.98	4.616	
11,800.00	7,055.32	12,147.64	7,057.51	139.12	139.83	-90.10	-2,789.40	-4,975.89	1,260.08	981.57	278.51	4.524	
11,900.00	7,055.09	12,247.64	7,057.21	141.90	142.58	-90.10	-2,790.00	-5,075.89	1,260.07	976.03	284.04	4.436	
12,000.00	7,054.86	12,347.64	7,056.92	144.67	145.33	-90.09	-2,790.60	-5,175.89	1,260.07	970.49	289.58	4.351	
12,100.00	7,054.63	12,447.64	7,056.62	147.45	148.09	-90.09	-2,791.19	-5,275.89	1,260.07	964.94	295.13	4.270	
12,200.00	7,054.40	12,547.64	7,056.32	150.24	150.85	-90.09	-2,791.79	-5,375.88	1,260.07	959.39	300.68	4.191	
12,300.00	7,054.17	12,647.64	7,056.02	153.02	153.62	-90.08	-2,792.39	-5,475.88	1,260.07	953.83	306.24	4.115	
12,400.00	7,053.94	12,747.64	7,055.73	155.81	156.39	-90.08	-2,792.99	-5,575.88	1,260.07	948.26	311.81	4.041	
12,500.00	7,053.71	12,847.64	7,055.43	158.60	159.16	-90.08	-2,793.59	-5,675.88	1,260.07	942.69	317.38	3.970	
12,600.00	7,053.48	12,947.64	7,055.13	161.40	161.94	-90.07	-2,794.18	-5,775.87	1,260.07	937.11	322.96	3.902	
12,700.00	7,053.25	13,047.64	7,054.83	164.19	164.71	-90.07	-2,794.78	-5,875.87	1,260.07	931.53	328.54	3.835	
12,800.00	7,053.02	13,147.64	7,054.54	166.99	167.49	-90.07	-2,795.38	-5,975.87	1,260.07	925.94	334.13	3.771	
12,900.00	7,052.79	13,247.64	7,054.24	169.79	170.28	-90.07	-2,795.98	-6,075.87	1,260.06	920.35	339.72	3.709	
13,000.00	7,052.56	13,347.64	7,053.94	172.59	173.06	-90.06	-2,796.58	-6,175.87	1,260.06	914.75	345.31	3.649	
13,100.00	7,052.33	13,447.64	7,053.64	175.40	175.85	-90.06	-2,797.17	-6,275.86	1,260.06	909.15	350.91	3.591	
13,200.00	7,052.10	13,547.64	7,053.35	178.20	178.64	-90.06	-2,797.77	-6,375.86	1,260.06	903.55	356.51	3.534	
13,300.00	7,051.87	13,647.64	7,053.05	181.01	181.43	-90.05	-2,798.37	-6,475.86	1,260.06	897.94	362.12	3.480	
13,400.00	7,051.64	13,747.64	7,052.75	183.82	184.23	-90.05	-2,798.97	-6,575.86	1,260.06	892.33	367.73	3.427	
13,500.00	7,051.41	13,847.64	7,052.45	186.63	187.02	-90.05	-2,799.56	-6,675.85	1,260.06	886.72	373.34	3.375	
13,600.00	7,051.18	13,947.64	7,052.15	189.44	189.82	-90.04	-2,800.16	-6,775.85	1,260.06	881.10	378.96	3.325	
13,700.00	7,050.95	14,047.64	7,051.86	192.25	192.62	-90.04	-2,800.76	-6,875.85	1,260.06	875.48	384.57	3.277	
13,800.00	7,050.72	14,147.64	7,051.56	195.07	195.42	-90.04	-2,801.36	-6,975.85	1,260.06	869.86	390.20	3.229	
13,900.00	7,050.49	14,247.64	7,051.26	197.88	198.23	-90.04	-2,801.96	-7,075.85	1,260.05	864.23	395.82	3.183	
14,000.00	7,050.26	14,347.64	7,050.96	200.70	201.03	-90.03	-2,802.55	-7,175.84	1,260.05	858.61	401.45	3.139	
14,100.00	7,050.03	14,447.64	7,050.67	203.52	203.84	-90.03	-2,803.15	-7,275.84	1,260.05	852.98	407.08	3.095	
14,200.00	7,049.80	14,547.64	7,050.37	206.34	206.65	-90.03	-2,803.75	-7,375.84	1,260.05	847.34	412.71	3.053	
14,300.00	7,049.56	14,647.64	7,050.07	209.16	209.46	-90.02	-2,804.35	-7,475.84	1,260.05	841.71	418.34	3.012	
14,400.00	7,049.33	14,747.64	7,049.77	211.98	212.27	-90.02	-2,804.95	-7,575.83	1,260.05	836.07	423.98	2.972	
14,500.00	7,049.10	14,847.64	7,049.48	214.80	215.08	-90.02	-2,805.54	-7,675.83	1,260.05	830.43	429.62	2.933	
14,600.00	7,048.87	14,947.64	7,049.18	217.63	217.89	-90.01	-2,806.14	-7,775.83	1,260.05	824.79	435.26	2.895	
14,700.00	7,048.64	15,047.64	7,048.88	220.45	220.71	-90.01	-2,806.74	-7,875.83	1,260.05	819.14	440.90	2.858	
14,800.00	7,048.41	15,147.64	7,048.58	223.28	223.52	-90.01	-2,807.34	-7,975.83	1,260.05	813.50	446.55	2.822	
14,900.00	7,048.18	15,247.64	7,048.29	226.10	226.34	-90.00	-2,807.94	-8,075.82	1,260.05	807.85	452.19	2.787	
14,979.18	7,048.00	15,326.82	7,048.05	228.34	228.57	-90.00	-2,808.41	-8,155.00	1,260.04	803.38	456.67	2.759 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	240.09	2.23	240.10					
100.00	100.00	101.00	100.00	3.28	3.28	0.53	240.09	2.23	240.10	233.53	6.57	36.548		
200.00	200.00	201.00	200.00	3.34	3.34	0.53	240.09	2.23	240.10	233.43	6.67	35.971	CC, ES	
300.00	299.98	300.98	299.98	3.44	3.45	174.48	240.09	2.23	241.84	234.95	6.89	35.119		
400.00	399.84	400.84	399.84	3.59	3.60	174.59	240.09	2.23	247.05	239.85	7.20	34.326		
500.00	499.45	500.45	499.45	3.79	3.81	174.76	240.09	2.23	255.73	248.13	7.60	33.651		
600.00	598.70	592.10	591.08	4.03	4.03	174.80	241.41	1.54	269.28	261.21	8.07	33.375		
700.00	697.47	685.16	684.04	4.31	4.28	174.62	245.23	-0.43	288.85	280.24	8.60	33.581		
800.00	795.62	782.34	781.09	4.64	4.56	174.45	249.78	-2.79	312.39	303.20	9.19	33.989		
900.00	893.16	878.77	877.38	5.00	4.87	174.36	254.29	-5.13	338.87	329.04	9.82	34.494		
1,000.00	990.60	975.08	973.56	5.38	5.19	174.32	258.80	-7.46	365.76	355.28	10.48	34.900		
1,100.00	1,088.04	1,071.40	1,069.74	5.79	5.52	174.28	263.31	-9.80	392.65	381.48	11.17	35.153		
1,200.00	1,185.48	1,167.71	1,165.93	6.22	5.87	174.25	267.82	-12.13	419.55	407.66	11.89	35.297		
1,300.00	1,282.92	1,264.03	1,262.11	6.66	6.22	174.23	272.33	-14.47	446.44	433.82	12.62	35.364		
1,400.00	1,380.36	1,360.35	1,358.29	7.10	6.59	174.20	276.84	-16.80	473.33	459.95	13.38	35.373		
1,500.00	1,477.80	1,456.66	1,454.47	7.56	6.96	174.18	281.35	-19.14	500.23	486.07	14.15	35.343		
1,600.00	1,575.24	1,552.98	1,550.65	8.03	7.33	174.16	285.86	-21.48	527.12	512.18	14.94	35.285		
1,700.00	1,672.68	1,649.29	1,646.83	8.50	7.72	174.14	290.37	-23.81	554.01	538.28	15.74	35.208		
1,800.00	1,770.12	1,745.61	1,743.02	8.98	8.10	174.13	294.88	-26.15	580.91	564.37	16.54	35.118		
1,900.00	1,867.56	1,841.92	1,839.20	9.46	8.49	174.11	299.39	-28.48	607.80	590.44	17.36	35.020		
2,000.00	1,965.00	1,938.24	1,935.38	9.95	8.89	174.10	303.90	-30.82	634.69	616.52	18.18	34.917		
2,100.00	2,062.44	2,034.56	2,031.56	10.44	9.28	174.08	308.41	-33.15	661.59	642.58	19.00	34.812		
2,200.00	2,159.88	2,130.87	2,127.74	10.93	9.68	174.07	312.92	-35.49	688.48	668.64	19.84	34.706		
2,300.00	2,257.32	2,227.19	2,223.92	11.42	10.08	174.06	317.43	-37.82	715.37	694.70	20.68	34.601		
2,400.00	2,354.76	2,323.50	2,320.11	11.92	10.48	174.05	321.94	-40.16	742.27	720.75	21.52	34.497		
2,500.00	2,452.20	2,419.82	2,416.29	12.42	10.89	174.04	326.45	-42.50	769.16	746.80	22.36	34.395		
2,600.00	2,549.64	2,516.13	2,512.47	12.92	11.29	174.04	330.96	-44.83	796.06	772.84	23.21	34.296		
2,700.00	2,647.08	2,612.45	2,608.65	13.42	11.70	174.03	335.46	-47.17	822.95	798.89	24.06	34.199		
2,800.00	2,744.52	2,708.77	2,704.83	13.93	12.11	174.02	339.97	-49.50	849.84	824.93	24.92	34.106		
2,900.00	2,841.96	2,805.08	2,801.02	14.43	12.52	174.01	344.48	-51.84	876.74	850.96	25.77	34.015		
3,000.00	2,939.40	2,901.40	2,897.20	14.94	12.93	174.01	348.99	-54.17	903.63	877.00	26.63	33.928		
3,100.00	3,036.84	3,002.29	2,993.38	15.44	13.36	174.00	353.50	-56.51	930.52	903.01	27.51	33.820		
3,200.00	3,134.28	3,105.97	3,089.56	15.95	13.81	173.99	358.01	-58.84	957.42	929.01	28.41	33.701		
3,300.00	3,231.72	3,209.66	3,185.74	16.46	14.25	173.99	362.52	-61.18	984.31	955.01	29.30	33.589		
3,400.00	3,329.16	3,286.66	3,281.92	16.97	14.58	173.98	367.03	-63.51	1,011.21	981.12	30.09	33.608		
3,500.00	3,426.60	3,382.98	3,378.11	17.48	15.00	173.98	371.54	-65.85	1,038.10	1,007.14	30.96	33.536		
3,600.00	3,524.04	3,479.29	3,474.29	17.99	15.41	173.97	376.05	-68.19	1,064.99	1,033.17	31.82	33.465		
3,700.00	3,621.48	3,575.61	3,570.47	18.50	15.83	173.97	380.56	-70.52	1,091.89	1,059.19	32.69	33.398		
3,800.00	3,718.92	3,671.92	3,666.65	19.01	16.24	173.97	385.07	-72.86	1,118.78	1,085.22	33.56	33.333		
3,900.00	3,816.36	3,768.24	3,762.83	19.52	16.66	173.96	389.58	-75.19	1,145.67	1,111.24	34.44	33.270		
4,000.00	3,913.80	3,864.55	3,859.01	20.03	17.08	173.96	394.09	-77.53	1,172.57	1,137.26	35.31	33.209		
4,100.00	4,011.24	3,960.87	3,955.20	20.55	17.49	173.95	398.60	-79.86	1,199.46	1,163.28	36.18	33.151		
4,200.00	4,108.68	4,057.19	4,051.38	21.06	17.91	173.95	403.11	-82.20	1,226.36	1,189.30	37.06	33.094		
4,300.00	4,206.12	4,153.50	4,147.56	21.57	18.33	173.95	407.62	-84.53	1,253.25	1,215.32	37.93	33.040		
4,400.00	4,303.56	4,249.82	4,243.74	22.09	18.75	173.94	412.13	-86.87	1,280.14	1,241.34	38.81	32.987		
4,500.00	4,401.00	4,346.13	4,339.92	22.60	19.17	173.94	416.64	-89.21	1,307.04	1,267.35	39.68	32.936		
4,600.00	4,498.44	4,442.45	4,436.10	23.11	19.58	173.94	421.15	-91.54	1,333.93	1,293.37	40.56	32.887		
4,700.00	4,595.88	4,538.76	4,532.29	23.63	20.00	173.93	425.66	-93.88	1,360.83	1,319.39	41.44	32.840		
4,800.00	4,693.32	4,635.08	4,628.47	24.14	20.42	173.93	430.17	-96.21	1,387.72	1,345.40	42.32	32.794		
4,900.00	4,790.76	4,731.40	4,724.65	24.66	20.84	173.93	434.68	-98.55	1,414.61	1,371.42	43.19	32.749		
5,000.00	4,888.20	4,827.71	4,820.83	25.17	21.26	173.93	439.19	-100.88	1,441.51	1,397.43	44.07	32.706		
5,100.00	4,985.64	4,924.03	4,917.01	25.69	21.68	173.92	443.70	-103.22	1,468.40	1,423.45	44.95	32.665		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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+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	5,083.08	5,020.34	5,013.20	26.20	22.10	173.92	448.21	-105.55	1,495.29	1,449.46	45.83	32.624		
5,300.00	5,180.52	5,116.66	5,109.38	26.72	22.52	173.92	452.72	-107.89	1,522.19	1,475.47	46.71	32.585		
5,400.00	5,277.96	5,212.97	5,205.56	27.24	22.94	173.92	457.23	-110.22	1,549.08	1,501.49	47.60	32.547		
5,500.00	5,375.40	5,309.29	5,301.74	27.75	23.36	173.92	461.74	-112.56	1,575.98	1,527.50	48.48	32.510		
5,600.00	5,472.84	5,405.61	5,397.92	28.27	23.79	173.91	466.25	-114.90	1,602.87	1,553.51	49.36	32.474		
5,700.00	5,570.28	5,501.92	5,494.10	28.79	24.21	173.91	470.75	-117.23	1,629.76	1,579.52	50.24	32.440		
5,800.00	5,667.72	5,601.76	5,590.29	29.30	24.64	173.91	475.26	-119.57	1,656.66	1,605.52	51.14	32.396		
5,900.00	5,765.16	5,705.45	5,686.47	29.82	25.10	173.91	479.77	-121.90	1,683.55	1,631.50	52.05	32.343		
6,000.00	5,862.60	5,809.13	5,782.65	30.34	25.55	173.91	484.28	-124.24	1,710.45	1,657.48	52.97	32.292		
6,100.00	5,960.05	5,887.18	5,878.83	30.85	25.89	173.90	488.79	-126.57	1,737.34	1,683.57	53.77	32.310		
6,200.00	6,057.49	5,983.50	5,975.01	31.37	26.31	173.90	493.30	-128.91	1,764.23	1,709.58	54.65	32.280		
6,300.00	6,154.93	6,079.82	6,071.19	31.89	26.74	173.90	497.81	-131.24	1,791.13	1,735.59	55.54	32.251		
6,400.00	6,252.37	6,176.13	6,167.38	32.40	27.16	173.90	502.32	-133.58	1,818.02	1,761.60	56.42	32.222		
6,500.00	6,349.81	6,272.45	6,263.56	32.92	27.58	173.90	506.83	-135.92	1,844.91	1,787.61	57.31	32.194		
6,600.00	6,447.25	6,368.76	6,359.74	33.44	28.00	173.90	511.34	-138.25	1,871.81	1,813.62	58.19	32.167		
6,700.00	6,544.28	6,465.49	6,456.32	33.95	28.43	143.15	515.87	-140.82	1,898.66	1,839.58	59.08	32.138		
6,800.00	6,638.86	6,566.21	6,555.98	34.44	28.87	122.31	520.47	-153.86	1,924.94	1,864.94	59.99	32.086		
6,900.00	6,728.65	6,669.25	6,654.51	34.89	29.32	110.75	524.91	-183.30	1,949.96	1,889.05	60.91	32.012		
7,000.00	6,811.45	6,774.90	6,749.27	35.29	29.80	103.57	529.06	-229.57	1,973.11	1,911.26	61.85	31.901		
7,100.00	6,885.21	6,883.33	6,837.20	35.66	30.32	98.71	532.77	-292.68	1,993.79	1,930.94	62.85	31.722		
7,200.00	6,948.11	6,994.49	6,914.92	35.99	30.92	95.28	535.90	-371.89	2,011.47	1,947.47	64.00	31.431		
7,300.00	6,998.62	7,108.11	6,978.92	36.30	31.68	92.85	538.28	-465.55	2,025.67	1,960.28	65.40	30.975		
7,400.00	7,035.48	7,223.63	7,025.92	36.65	32.66	91.20	539.78	-570.91	2,036.02	1,968.86	67.15	30.319		
7,500.00	7,057.79	7,340.28	7,053.32	37.13	33.86	90.22	540.31	-684.12	2,042.22	1,972.91	69.30	29.469		
7,600.00	7,065.00	7,455.30	7,059.81	37.84	35.24	89.85	539.85	-798.80	2,044.11	1,972.33	71.78	28.478		
7,700.00	7,064.77	7,555.29	7,058.06	38.82	36.63	89.81	539.10	-898.77	2,043.96	1,969.55	74.42	27.467		
7,800.00	7,064.54	7,655.28	7,056.31	40.06	38.17	89.77	538.35	-998.74	2,043.81	1,966.45	77.37	26.417		
7,900.00	7,064.31	7,755.26	7,054.56	41.52	39.85	89.73	537.59	-1,098.71	2,043.67	1,963.05	80.62	25.350		
8,000.00	7,064.08	7,855.25	7,052.81	43.14	41.66	89.68	536.84	-1,198.68	2,043.52	1,959.39	84.13	24.290		
8,100.00	7,063.85	7,955.24	7,051.06	44.90	43.58	89.64	536.09	-1,298.65	2,043.38	1,955.50	87.87	23.254		
8,200.00	7,063.62	8,055.23	7,049.31	46.78	45.61	89.60	535.34	-1,398.62	2,043.23	1,951.41	91.82	22.253		
8,300.00	7,063.39	8,155.22	7,047.56	48.76	47.71	89.56	534.58	-1,498.59	2,043.09	1,947.15	95.94	21.295		
8,400.00	7,063.16	8,255.21	7,045.81	50.83	49.89	89.51	533.83	-1,598.56	2,042.95	1,942.73	100.22	20.384		
8,500.00	7,062.93	8,355.19	7,044.07	52.97	52.14	89.47	533.08	-1,698.53	2,042.81	1,938.17	104.64	19.522		
8,600.00	7,062.70	8,455.18	7,042.32	55.18	54.44	89.43	532.33	-1,798.51	2,042.67	1,933.49	109.18	18.710		
8,700.00	7,062.47	8,555.17	7,040.57	57.46	56.80	89.39	531.57	-1,898.48	2,042.53	1,928.71	113.82	17.945		
8,800.00	7,062.24	8,655.16	7,038.82	59.78	59.20	89.34	530.82	-1,998.45	2,042.39	1,923.84	118.56	17.227		
8,900.00	7,062.01	8,755.15	7,037.07	62.14	61.64	89.30	530.07	-2,098.42	2,042.26	1,918.88	123.38	16.553		
9,000.00	7,061.78	8,855.14	7,035.32	64.55	64.11	89.26	529.32	-2,198.39	2,042.12	1,913.85	128.27	15.921		
9,100.00	7,061.55	8,955.12	7,033.57	67.00	66.61	89.22	528.56	-2,298.36	2,041.99	1,908.76	133.23	15.327		
9,200.00	7,061.31	9,055.11	7,031.82	69.47	69.14	89.17	527.81	-2,398.33	2,041.86	1,903.61	138.24	14.770		
9,300.00	7,061.08	9,155.10	7,030.07	71.98	71.70	89.13	527.06	-2,498.30	2,041.73	1,898.41	143.31	14.247		
9,400.00	7,060.85	9,255.09	7,028.32	74.51	74.28	89.09	526.31	-2,598.27	2,041.59	1,893.17	148.43	13.755		
9,500.00	7,060.62	9,355.08	7,026.57	77.06	76.88	89.04	525.55	-2,698.24	2,041.47	1,887.88	153.58	13.292		
9,600.00	7,060.39	9,455.07	7,024.82	79.64	79.49	89.00	524.80	-2,798.21	2,041.34	1,882.56	158.78	12.857		
9,700.00	7,060.16	9,555.05	7,023.07	82.23	82.12	88.96	524.05	-2,898.18	2,041.21	1,877.21	164.01	12.446		
9,800.00	7,059.93	9,655.04	7,021.32	84.84	84.77	88.92	523.30	-2,998.15	2,041.09	1,871.82	169.27	12.058		
9,900.00	7,059.70	9,755.03	7,019.57	87.47	87.43	88.87	522.54	-3,098.12	2,040.96	1,866.41	174.55	11.692		
10,000.00	7,059.47	9,855.02	7,017.83	90.11	90.10	88.83	521.79	-3,198.09	2,040.84	1,860.97	179.87	11.346		
10,100.00	7,059.24	9,955.01	7,016.08	92.76	92.78	88.79	521.04	-3,298.06	2,040.71	1,855.51	185.20	11.019		
10,200.00	7,059.01	10,055.00	7,014.33	95.42	95.48	88.75	520.29	-3,398.03	2,040.59	1,850.03	190.56	10.708		
10,300.00	7,058.78	10,154.98	7,012.58	98.10	98.18	88.70	519.53	-3,498.00	2,040.47	1,844.53	195.94	10.414		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	10,254.97	7,010.83	100.79	100.89	88.66	518.78	-3,597.97	2,040.35	1,839.02	201.34	10.134		
10,500.00	7,058.32	10,354.96	7,009.08	103.48	103.61	88.62	518.03	-3,697.94	2,040.24	1,833.49	206.75	9.868		
10,600.00	7,058.09	10,454.95	7,007.33	106.19	106.33	88.57	517.27	-3,797.91	2,040.12	1,827.94	212.18	9.615		
10,700.00	7,057.86	10,554.94	7,005.58	108.90	109.07	88.53	516.52	-3,897.88	2,040.00	1,822.38	217.62	9.374		
10,800.00	7,057.63	10,654.93	7,003.83	111.62	111.81	88.49	515.77	-3,997.85	2,039.89	1,816.81	223.08	9.144		
10,900.00	7,057.40	10,754.91	7,002.08	114.35	114.55	88.45	515.02	-4,097.82	2,039.78	1,811.23	228.54	8.925		
11,000.00	7,057.17	10,854.90	7,000.33	117.08	117.30	88.40	514.26	-4,197.79	2,039.67	1,805.64	234.02	8.716		
11,100.00	7,056.94	10,954.89	6,998.58	119.82	120.06	88.36	513.51	-4,297.76	2,039.55	1,800.04	239.51	8.515		
11,200.00	7,056.71	11,054.88	6,996.83	122.56	122.82	88.32	512.76	-4,397.73	2,039.44	1,794.43	245.01	8.324		
11,300.00	7,056.48	11,154.87	6,995.08	125.31	125.58	88.28	512.01	-4,497.70	2,039.34	1,788.82	250.52	8.140		
11,400.00	7,056.25	11,254.86	6,993.33	128.06	128.35	88.23	511.25	-4,597.67	2,039.23	1,783.19	256.04	7.965		
11,500.00	7,056.02	11,354.84	6,991.59	130.82	131.12	88.19	510.50	-4,697.64	2,039.12	1,777.56	261.56	7.796		
11,600.00	7,055.79	11,454.83	6,989.84	133.59	133.90	88.15	509.75	-4,797.61	2,039.02	1,771.92	267.09	7.634		
11,700.00	7,055.55	11,554.82	6,988.09	136.35	136.68	88.10	509.00	-4,897.58	2,038.91	1,766.28	272.63	7.479		
11,800.00	7,055.32	11,654.81	6,986.34	139.12	139.46	88.06	508.24	-4,997.55	2,038.81	1,760.63	278.18	7.329		
11,900.00	7,055.09	11,754.80	6,984.59	141.90	142.24	88.02	507.49	-5,097.52	2,038.71	1,754.98	283.73	7.185		
12,000.00	7,054.86	11,854.79	6,982.84	144.67	145.03	87.98	506.74	-5,197.49	2,038.61	1,749.32	289.28	7.047		
12,100.00	7,054.63	11,954.77	6,981.09	147.45	147.82	87.93	505.99	-5,297.46	2,038.51	1,743.66	294.85	6.914		
12,200.00	7,054.40	12,054.76	6,979.34	150.24	150.62	87.89	505.23	-5,397.43	2,038.41	1,738.00	300.41	6.785		
12,300.00	7,054.17	12,154.75	6,977.59	153.02	153.41	87.85	504.48	-5,497.40	2,038.31	1,732.33	305.98	6.662		
12,400.00	7,053.94	12,254.74	6,975.84	155.81	156.21	87.80	503.73	-5,597.37	2,038.22	1,726.66	311.56	6.542		
12,500.00	7,053.71	12,354.73	6,974.09	158.60	159.01	87.76	502.98	-5,697.34	2,038.12	1,720.98	317.14	6.427		
12,600.00	7,053.48	12,454.72	6,972.34	161.40	161.81	87.72	502.22	-5,797.31	2,038.03	1,715.30	322.72	6.315		
12,700.00	7,053.25	12,554.70	6,970.59	164.19	164.62	87.68	501.47	-5,897.28	2,037.93	1,709.62	328.31	6.207		
12,800.00	7,053.02	12,654.69	6,968.84	166.99	167.42	87.63	500.72	-5,997.25	2,037.84	1,703.94	333.90	6.103		
12,900.00	7,052.79	12,754.68	6,967.09	169.79	170.23	87.59	499.97	-6,097.22	2,037.75	1,698.26	339.50	6.002		
13,000.00	7,052.56	12,854.67	6,965.35	172.59	173.04	87.55	499.21	-6,197.19	2,037.66	1,692.57	345.09	5.905		
13,100.00	7,052.33	12,954.66	6,963.60	175.40	175.85	87.50	498.46	-6,297.16	2,037.57	1,686.88	350.69	5.810		
13,200.00	7,052.10	13,054.65	6,961.85	178.20	178.66	87.46	497.71	-6,397.13	2,037.49	1,681.19	356.30	5.718		
13,300.00	7,051.87	13,154.63	6,960.10	181.01	181.47	87.42	496.96	-6,497.10	2,037.40	1,675.50	361.90	5.630		
13,400.00	7,051.64	13,254.62	6,958.35	183.82	184.29	87.38	496.20	-6,597.07	2,037.32	1,669.81	367.51	5.544		
13,500.00	7,051.41	13,354.61	6,956.60	186.63	187.11	87.33	495.45	-6,697.05	2,037.23	1,664.11	373.12	5.460		
13,600.00	7,051.18	13,454.60	6,954.85	189.44	189.92	87.29	494.70	-6,797.02	2,037.15	1,658.42	378.73	5.379		
13,700.00	7,050.95	13,554.59	6,953.10	192.25	192.74	87.25	493.95	-6,896.99	2,037.07	1,652.72	384.35	5.300		
13,800.00	7,050.72	13,654.58	6,951.35	195.07	195.56	87.20	493.19	-6,996.96	2,036.99	1,647.03	389.96	5.224		
13,900.00	7,050.49	13,754.56	6,949.60	197.88	198.38	87.16	492.44	-7,096.93	2,036.91	1,641.33	395.58	5.149		
14,000.00	7,050.26	13,854.55	6,947.85	200.70	201.20	87.12	491.69	-7,196.90	2,036.83	1,635.63	401.20	5.077		
14,100.00	7,050.03	13,954.54	6,946.10	203.52	204.03	87.08	490.94	-7,296.87	2,036.76	1,629.93	406.82	5.006		
14,200.00	7,049.80	14,054.53	6,944.35	206.34	206.85	87.03	490.18	-7,396.84	2,036.68	1,624.23	412.45	4.938		
14,300.00	7,049.56	14,154.52	6,942.60	209.16	209.68	86.99	489.43	-7,496.81	2,036.61	1,618.54	418.07	4.871		
14,400.00	7,049.33	14,254.51	6,940.85	211.98	212.50	86.95	488.68	-7,596.78	2,036.53	1,612.84	423.70	4.807		
14,500.00	7,049.10	14,354.49	6,939.10	214.80	215.33	86.90	487.93	-7,696.75	2,036.46	1,607.14	429.32	4.743		
14,600.00	7,048.87	14,454.48	6,937.36	217.63	218.16	86.86	487.17	-7,796.72	2,036.39	1,601.44	434.95	4.682		
14,700.00	7,048.64	14,554.47	6,935.61	220.45	220.98	86.82	486.42	-7,896.69	2,036.32	1,595.74	440.58	4.622		
14,800.00	7,048.41	14,654.46	6,933.86	223.28	223.81	86.78	485.67	-7,996.66	2,036.25	1,590.04	446.21	4.563		
14,900.00	7,048.18	14,754.45	6,932.11	226.10	226.64	86.73	484.92	-8,096.63	2,036.18	1,584.34	451.84	4.506		
14,965.08	7,048.03	14,819.52	6,930.97	227.94	228.48	86.70	484.43	-8,161.68	2,036.14	1,580.64	455.50	4.470		
14,979.18	7,048.00	14,817.75	6,931.00	228.34	228.43	86.70	484.44	-8,159.92	2,036.19	1,580.39	455.80	4.467 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	0.80	40.09	0.56	40.09					
100.00	100.00	100.00	100.00	3.28	3.28	0.80	40.09	0.56	40.09	33.52	6.57	6.102		
200.00	200.00	200.00	200.00	3.34	3.34	0.80	40.09	0.56	40.09	33.42	6.67	6.007		
300.00	299.98	301.41	301.39	3.44	3.44	174.62	38.31	0.31	40.07	33.18	6.89	5.814		
400.00	399.84	402.81	402.64	3.59	3.60	174.35	32.98	-0.45	40.02	32.80	7.22	5.542		
500.00	499.45	504.21	503.64	3.79	3.81	173.89	24.11	-1.70	39.93	32.28	7.65	5.217		
600.00	598.70	605.61	604.26	4.03	4.07	173.26	11.70	-3.45	39.82	31.64	8.17	4.871		
672.79	670.65	679.41	677.18	4.23	4.31	172.68	0.46	-5.04	39.72	31.12	8.60	4.618 CC		
700.00	697.47	706.52	703.92	4.31	4.40	172.49	-3.93	-5.66	39.88	31.13	8.75	4.559		
800.00	795.62	806.47	802.52	4.64	4.77	172.22	-20.17	-7.96	42.66	33.31	9.35	4.563		
900.00	893.16	906.30	901.00	5.00	5.17	172.48	-36.38	-10.25	48.46	38.45	10.01	4.843		
1,000.00	990.60	1,006.11	999.45	5.38	5.60	172.75	-52.59	-12.54	54.69	43.98	10.70	5.109		
1,100.00	1,088.04	1,105.92	1,097.91	5.79	6.06	172.96	-68.80	-14.83	60.91	49.47	11.44	5.326		
1,200.00	1,185.48	1,205.72	1,196.36	6.22	6.52	173.14	-85.01	-17.12	67.14	54.94	12.20	5.504		
1,300.00	1,282.92	1,305.53	1,294.82	6.66	7.01	173.28	-101.22	-19.41	73.36	60.38	12.98	5.651		
1,400.00	1,380.36	1,405.33	1,393.27	7.10	7.50	173.41	-117.43	-21.70	79.59	65.80	13.79	5.773		
1,500.00	1,477.80	1,505.14	1,491.72	7.56	8.00	173.51	-133.64	-23.99	85.82	71.21	14.61	5.874		
1,600.00	1,575.24	1,604.95	1,590.18	8.03	8.51	173.60	-149.85	-26.28	92.04	76.60	15.44	5.960		
1,700.00	1,672.68	1,704.75	1,688.63	8.50	9.02	173.68	-166.06	-28.57	98.27	81.98	16.29	6.033		
1,800.00	1,770.12	1,804.56	1,787.09	8.98	9.54	173.75	-182.27	-30.86	104.50	87.35	17.15	6.095		
1,900.00	1,867.56	1,904.36	1,885.54	9.46	10.07	173.81	-198.48	-33.15	110.73	92.72	18.01	6.148		
2,000.00	1,965.00	2,004.17	1,983.99	9.95	10.60	173.87	-214.69	-35.44	116.95	98.07	18.88	6.193		
2,100.00	2,062.44	2,103.97	2,082.45	10.44	11.13	173.92	-230.90	-37.73	123.18	103.42	19.76	6.233		
2,200.00	2,159.88	2,203.78	2,180.90	10.93	11.66	173.96	-247.11	-40.02	129.41	108.76	20.65	6.268		
2,300.00	2,257.32	2,303.59	2,279.36	11.42	12.20	174.00	-263.32	-42.31	135.64	114.10	21.54	6.298		
2,400.00	2,354.76	2,403.39	2,377.81	11.92	12.74	174.04	-279.53	-44.60	141.87	119.44	22.43	6.325		
2,500.00	2,452.20	2,503.20	2,476.26	12.42	13.28	174.07	-295.74	-46.89	148.09	124.77	23.33	6.349		
2,600.00	2,549.64	2,603.00	2,574.72	12.92	13.82	174.10	-311.95	-49.18	154.32	130.10	24.23	6.370		
2,700.00	2,647.08	2,702.81	2,673.17	13.42	14.36	174.13	-328.16	-51.47	160.55	135.42	25.13	6.389		
2,800.00	2,744.52	2,802.62	2,771.63	13.93	14.91	174.16	-344.37	-53.76	166.78	140.74	26.04	6.405		
2,900.00	2,841.96	2,902.42	2,870.08	14.43	15.45	174.19	-360.58	-56.05	173.01	146.06	26.95	6.420		
3,000.00	2,939.40	3,002.23	2,968.53	14.94	16.00	174.21	-376.79	-58.34	179.24	151.38	27.86	6.434		
3,100.00	3,036.84	3,102.03	3,066.99	15.44	16.55	174.23	-393.00	-60.63	185.47	156.69	28.77	6.446		
3,200.00	3,134.28	3,201.84	3,165.44	15.95	17.09	174.25	-409.21	-62.92	191.69	162.01	29.69	6.457		
3,300.00	3,231.72	3,301.64	3,263.90	16.46	17.64	174.27	-425.41	-65.21	197.92	167.32	30.60	6.468		
3,400.00	3,329.16	3,401.45	3,362.35	16.97	18.19	174.29	-441.62	-67.50	204.15	172.63	31.52	6.477		
3,500.00	3,426.60	3,501.26	3,460.80	17.48	18.74	174.30	-457.83	-69.79	210.38	177.94	32.44	6.485		
3,600.00	3,524.04	3,601.06	3,559.26	17.99	19.29	174.32	-474.04	-72.08	216.61	183.25	33.36	6.493		
3,700.00	3,621.48	3,700.87	3,657.71	18.50	19.84	174.33	-490.25	-74.37	222.84	188.55	34.28	6.500		
3,800.00	3,718.92	3,800.67	3,756.17	19.01	20.40	174.35	-506.46	-76.66	229.07	193.86	35.20	6.507		
3,900.00	3,816.36	3,900.48	3,854.62	19.52	20.95	174.36	-522.67	-78.94	235.29	199.17	36.13	6.513		
4,000.00	3,913.80	4,000.29	3,953.07	20.03	21.50	174.37	-538.88	-81.23	241.52	204.47	37.05	6.518		
4,100.00	4,011.24	4,100.09	4,051.53	20.55	22.05	174.39	-555.09	-83.52	247.75	209.77	37.98	6.523		
4,200.00	4,108.68	4,200.10	4,149.98	21.06	22.61	174.40	-571.30	-85.81	253.98	215.07	38.91	6.528		
4,300.00	4,206.12	4,299.70	4,248.44	21.57	23.16	174.41	-587.51	-88.10	260.21	220.38	39.83	6.533		
4,400.00	4,303.56	4,400.49	4,346.89	22.09	23.72	174.42	-603.72	-90.39	266.44	225.67	40.76	6.536		
4,500.00	4,401.00	4,500.69	4,445.35	22.60	24.28	174.43	-619.93	-92.68	272.67	230.97	41.70	6.539		
4,600.00	4,498.44	4,599.12	4,543.80	23.11	24.82	174.44	-636.14	-94.97	278.89	236.28	42.62	6.544		
4,700.00	4,595.88	4,701.07	4,642.25	23.63	25.39	174.45	-652.35	-97.26	285.12	241.57	43.56	6.546		
4,800.00	4,693.32	4,798.73	4,740.71	24.14	25.93	174.45	-668.56	-99.55	291.35	246.87	44.48	6.551		
4,900.00	4,790.76	4,901.46	4,839.16	24.66	26.51	174.46	-684.77	-101.84	297.58	252.16	45.42	6.552		
5,000.00	4,888.20	5,001.66	4,937.62	25.17	27.06	174.47	-700.98	-104.13	303.81	257.45	46.35	6.554		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,100.00	4,985.64	5,101.85	5,036.07	25.69	27.62	174.48	-717.19	-106.42	310.04	262.75	47.29	6.556		
5,200.00	5,083.08	5,202.05	5,134.52	26.20	28.18	174.49	-733.40	-108.71	316.27	268.05	48.22	6.559		
5,300.00	5,180.52	5,302.24	5,232.98	26.72	28.74	174.49	-749.61	-111.00	322.50	273.34	49.16	6.561		
5,400.00	5,277.96	5,402.43	5,331.43	27.24	29.30	174.50	-765.82	-113.29	328.72	278.63	50.09	6.563		
5,500.00	5,375.40	5,502.63	5,429.89	27.75	29.85	174.51	-782.03	-115.58	334.95	283.93	51.02	6.564		
5,600.00	5,472.84	5,597.18	5,528.34	28.27	30.38	174.51	-798.24	-117.87	341.18	289.25	51.93	6.570		
5,700.00	5,570.28	5,696.98	5,626.79	28.79	30.94	174.52	-814.45	-120.16	347.41	294.54	52.87	6.571		
5,800.00	5,667.72	5,803.21	5,725.25	29.30	31.53	174.52	-830.66	-122.45	353.64	299.81	53.83	6.569		
5,900.00	5,765.16	5,903.40	5,823.70	29.82	32.09	174.53	-846.87	-124.74	359.87	305.10	54.77	6.571		
6,000.00	5,862.60	6,003.60	5,922.16	30.34	32.65	174.54	-863.08	-127.03	366.10	310.39	55.70	6.572		
6,100.00	5,960.05	6,103.79	6,020.61	30.85	33.21	174.54	-879.29	-129.32	372.33	315.69	56.64	6.574		
6,200.00	6,057.49	6,203.99	6,119.06	31.37	33.77	174.55	-895.50	-131.61	378.55	320.98	57.58	6.575		
6,300.00	6,154.93	6,304.18	6,217.52	31.89	34.33	174.55	-911.71	-133.90	384.78	326.27	58.51	6.576		
6,400.00	6,252.37	6,404.38	6,315.97	32.40	34.89	174.55	-927.92	-136.19	391.01	331.56	59.45	6.577		
6,500.00	6,349.81	6,504.57	6,414.43	32.92	35.44	174.56	-944.13	-138.48	397.24	336.85	60.39	6.578		
6,600.00	6,447.25	6,604.76	6,512.88	33.44	36.00	174.56	-960.33	-140.77	403.47	342.14	61.33	6.579		
6,700.00	6,544.28	6,694.77	6,611.06	33.95	36.51	146.14	-976.50	-143.06	409.81	347.62	62.19	6.590		
6,800.00	6,638.86	6,796.02	6,710.62	34.44	37.08	129.08	-992.92	-150.28	416.70	353.64	63.07	6.607		
6,900.00	6,728.65	6,900.69	6,811.07	34.89	37.66	121.14	-1,009.61	-174.05	423.91	359.96	63.95	6.628		
7,000.00	6,811.45	7,008.49	6,909.03	35.29	38.26	117.25	-1,026.00	-215.61	431.14	366.34	64.80	6.653		
7,100.00	6,885.21	7,119.42	7,001.12	35.66	38.87	115.30	-1,041.55	-275.21	438.05	372.43	65.62	6.675		
7,200.00	6,948.11	7,233.35	7,083.59	35.99	39.51	114.31	-1,055.63	-352.32	444.30	377.79	66.51	6.680		
7,300.00	6,998.62	7,349.99	7,152.59	36.30	40.22	113.83	-1,067.60	-445.39	449.52	381.87	67.65	6.645		
7,400.00	7,035.48	7,468.81	7,204.47	36.65	41.05	113.60	-1,076.85	-551.70	453.42	384.11	69.31	6.542		
7,500.00	7,057.79	7,589.13	7,236.23	37.13	42.11	113.46	-1,082.85	-667.41	455.75	384.06	71.69	6.357		
7,600.00	7,065.00	7,709.23	7,245.98	37.84	43.44	113.36	-1,085.26	-786.91	456.37	381.56	74.82	6.100		
7,700.00	7,064.77	7,809.23	7,245.45	38.82	44.78	113.33	-1,085.84	-886.91	456.27	378.54	77.72	5.870		
7,800.00	7,064.54	7,909.23	7,244.92	40.06	46.36	113.29	-1,086.43	-986.90	456.16	375.25	80.92	5.637		
7,900.00	7,064.31	8,009.23	7,244.39	41.52	48.17	113.26	-1,087.01	-1,086.90	456.06	371.65	84.40	5.403		
8,000.00	7,064.08	8,109.23	7,243.87	43.14	50.16	113.22	-1,087.59	-1,186.90	455.95	367.84	88.12	5.174		
8,100.00	7,063.85	8,209.23	7,243.34	44.90	52.30	113.19	-1,088.18	-1,286.89	455.85	363.82	92.03	4.953		
8,200.00	7,063.62	8,309.23	7,242.81	46.78	54.60	113.15	-1,088.76	-1,386.89	455.75	359.60	96.15	4.740		
8,300.00	7,063.39	8,409.23	7,242.28	48.76	57.01	113.12	-1,089.35	-1,486.89	455.64	355.22	100.42	4.537		
8,400.00	7,063.16	8,509.23	7,241.75	50.83	59.52	113.08	-1,089.93	-1,586.88	455.54	350.71	104.82	4.346		
8,500.00	7,062.93	8,609.23	7,241.22	52.97	62.12	113.05	-1,090.52	-1,686.88	455.43	346.07	109.37	4.164		
8,600.00	7,062.70	8,709.23	7,240.69	55.18	64.79	113.01	-1,091.10	-1,786.88	455.33	341.32	114.01	3.994		
8,700.00	7,062.47	8,809.23	7,240.16	57.46	67.53	112.98	-1,091.69	-1,886.87	455.23	336.46	118.77	3.833		
8,800.00	7,062.24	8,909.23	7,239.64	59.78	70.32	112.94	-1,092.27	-1,986.87	455.12	331.52	123.60	3.682		
8,900.00	7,062.01	9,009.23	7,239.11	62.14	73.16	112.91	-1,092.85	-2,086.87	455.02	326.51	128.52	3.541		
9,000.00	7,061.78	9,109.23	7,238.58	64.55	76.04	112.87	-1,093.44	-2,186.86	454.92	321.41	133.50	3.408		
9,100.00	7,061.55	9,209.23	7,238.05	67.00	78.96	112.84	-1,094.02	-2,286.86	454.82	316.27	138.55	3.283		
9,200.00	7,061.31	9,309.23	7,237.52	69.47	81.92	112.80	-1,094.61	-2,386.86	454.71	311.06	143.66	3.165		
9,300.00	7,061.08	9,409.23	7,236.99	71.98	84.90	112.76	-1,095.19	-2,486.85	454.61	305.80	148.81	3.055		
9,400.00	7,060.85	9,509.23	7,236.46	74.51	87.91	112.73	-1,095.78	-2,586.85	454.51	300.49	154.02	2.951		
9,500.00	7,060.62	9,609.23	7,235.93	77.06	90.94	112.69	-1,096.36	-2,686.84	454.41	295.15	159.26	2.853		
9,600.00	7,060.39	9,709.22	7,235.41	79.64	94.00	112.66	-1,096.94	-2,786.84	454.31	289.76	164.54	2.761		
9,700.00	7,060.16	9,809.22	7,234.88	82.23	97.07	112.62	-1,097.53	-2,886.84	454.21	284.34	169.86	2.674		
9,800.00	7,059.93	9,909.22	7,234.35	84.84	100.16	112.59	-1,098.11	-2,986.83	454.10	278.89	175.21	2.592		
9,900.00	7,059.70	10,009.22	7,233.82	87.47	103.27	112.55	-1,098.70	-3,086.83	454.00	273.41	180.59	2.514		
10,000.00	7,059.47	10,109.22	7,233.29	90.11	106.39	112.52	-1,099.28	-3,186.83	453.90	267.91	186.00	2.440		
10,100.00	7,059.24	10,209.22	7,232.76	92.76	109.52	112.48	-1,099.87	-3,286.82	453.80	262.37	191.43	2.371		
10,200.00	7,059.01	10,309.22	7,232.23	95.42	112.67	112.45	-1,100.45	-3,386.82	453.70	256.82	196.88	2.304		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,300.00	7,058.78	10,409.22	7,231.71	98.10	115.82	112.41	-1,101.04	-3,486.82	453.60	251.24	202.36	2.242		
10,400.00	7,058.55	10,509.22	7,231.18	100.79	118.99	112.37	-1,101.62	-3,586.81	453.50	245.64	207.86	2.182		
10,500.00	7,058.32	10,609.22	7,230.65	103.48	122.17	112.34	-1,102.20	-3,686.81	453.40	240.03	213.37	2.125		
10,600.00	7,058.09	10,709.22	7,230.12	106.19	125.35	112.30	-1,102.79	-3,786.81	453.30	234.39	218.91	2.071		
10,700.00	7,057.86	10,809.22	7,229.59	108.90	128.54	112.27	-1,103.37	-3,886.80	453.20	228.74	224.46	2.019		
10,800.00	7,057.63	10,909.22	7,229.06	111.62	131.74	112.23	-1,103.96	-3,986.80	453.10	223.08	230.02	1.970		
10,900.00	7,057.40	11,009.22	7,228.53	114.35	134.94	112.20	-1,104.54	-4,086.79	453.00	217.40	235.60	1.923		
11,000.00	7,057.17	11,109.22	7,228.00	117.08	138.16	112.16	-1,105.13	-4,186.79	452.90	211.71	241.19	1.878		
11,100.00	7,056.94	11,209.22	7,227.48	119.82	141.37	112.13	-1,105.71	-4,286.79	452.80	206.00	246.80	1.835		
11,200.00	7,056.71	11,309.22	7,226.95	122.56	144.59	112.09	-1,106.29	-4,386.78	452.70	200.29	252.42	1.793		
11,300.00	7,056.48	11,409.22	7,226.42	125.31	147.82	112.05	-1,106.88	-4,486.78	452.61	194.56	258.05	1.754		
11,400.00	7,056.25	11,509.22	7,225.89	128.06	151.05	112.02	-1,107.46	-4,586.78	452.51	188.82	263.69	1.716		
11,500.00	7,056.02	11,609.22	7,225.36	130.82	154.29	111.98	-1,108.05	-4,686.77	452.41	183.07	269.34	1.680		
11,600.00	7,055.79	11,709.22	7,224.83	133.59	157.53	111.95	-1,108.63	-4,786.77	452.31	177.31	275.00	1.645		
11,700.00	7,055.55	11,809.22	7,224.30	136.35	160.78	111.91	-1,109.22	-4,886.77	452.21	171.54	280.67	1.611		
11,800.00	7,055.32	11,909.22	7,223.77	139.12	164.02	111.88	-1,109.80	-4,986.76	452.11	165.76	286.35	1.579		
11,900.00	7,055.09	12,009.21	7,223.25	141.90	167.28	111.84	-1,110.38	-5,086.76	452.02	159.97	292.04	1.548		
12,000.00	7,054.86	12,109.21	7,222.72	144.67	170.53	111.80	-1,110.97	-5,186.76	451.92	154.18	297.74	1.518		
12,100.00	7,054.63	12,209.21	7,222.19	147.45	173.79	111.77	-1,111.55	-5,286.75	451.82	148.37	303.45	1.489 Level 3		
12,200.00	7,054.40	12,309.21	7,221.66	150.24	177.05	111.73	-1,112.14	-5,386.75	451.72	142.56	309.16	1.461 Level 3		
12,300.00	7,054.17	12,409.21	7,221.13	153.02	180.31	111.70	-1,112.72	-5,486.75	451.63	136.75	314.88	1.434 Level 3		
12,400.00	7,053.94	12,509.21	7,220.60	155.81	183.58	111.66	-1,113.31	-5,586.74	451.53	130.92	320.61	1.408 Level 3		
12,500.00	7,053.71	12,609.21	7,220.07	158.60	186.85	111.62	-1,113.89	-5,686.74	451.43	125.09	326.35	1.383 Level 3		
12,600.00	7,053.48	12,709.21	7,219.54	161.40	190.12	111.59	-1,114.48	-5,786.73	451.34	119.25	332.09	1.359 Level 3		
12,700.00	7,053.25	12,809.21	7,219.02	164.19	193.39	111.55	-1,115.06	-5,886.73	451.24	113.40	337.84	1.336 Level 3		
12,800.00	7,053.02	12,909.21	7,218.49	166.99	196.66	111.52	-1,115.64	-5,986.73	451.15	107.55	343.59	1.313 Level 3		
12,900.00	7,052.79	13,009.21	7,217.96	169.79	199.94	111.48	-1,116.23	-6,086.72	451.05	101.70	349.35	1.291 Level 3		
13,000.00	7,052.56	13,109.21	7,217.43	172.59	203.22	111.44	-1,116.81	-6,186.72	450.95	95.83	355.12	1.270 Level 3		
13,100.00	7,052.33	13,209.21	7,216.90	175.40	206.50	111.41	-1,117.40	-6,286.72	450.86	89.96	360.89	1.249 Level 2		
13,200.00	7,052.10	13,309.21	7,216.37	178.20	209.78	111.37	-1,117.98	-6,386.71	450.76	84.09	366.67	1.229 Level 2		
13,300.00	7,051.87	13,409.21	7,215.84	181.01	213.07	111.34	-1,118.57	-6,486.71	450.67	78.21	372.46	1.210 Level 2		
13,400.00	7,051.64	13,509.21	7,215.32	183.82	216.35	111.30	-1,119.15	-6,586.71	450.57	72.33	378.25	1.191 Level 2		
13,500.00	7,051.41	13,609.21	7,214.79	186.63	219.64	111.26	-1,119.73	-6,686.70	450.48	66.44	384.04	1.173 Level 2		
13,600.00	7,051.18	13,709.21	7,214.26	189.44	222.93	111.23	-1,120.32	-6,786.70	450.38	60.54	389.84	1.155 Level 2		
13,700.00	7,050.95	13,809.21	7,213.73	192.25	226.21	111.19	-1,120.90	-6,886.70	450.29	54.65	395.64	1.138 Level 2		
13,800.00	7,050.72	13,909.21	7,213.20	195.07	229.51	111.16	-1,121.49	-6,986.69	450.20	48.74	401.45	1.121 Level 2		
13,900.00	7,050.49	14,009.21	7,212.67	197.88	232.80	111.12	-1,122.07	-7,086.69	450.10	42.83	407.27	1.105 Level 2		
14,000.00	7,050.26	14,109.21	7,212.14	200.70	236.09	111.08	-1,122.66	-7,186.68	450.01	36.92	413.09	1.089 Level 2		
14,100.00	7,050.03	14,209.20	7,211.61	203.52	239.38	111.05	-1,123.24	-7,286.68	449.91	31.00	418.91	1.074 Level 2		
14,200.00	7,049.80	14,309.20	7,211.09	206.34	242.68	111.01	-1,123.83	-7,386.68	449.82	25.08	424.74	1.059 Level 2		
14,300.00	7,049.56	14,409.20	7,210.56	209.16	245.98	110.98	-1,124.41	-7,486.67	449.73	19.16	430.57	1.044 Level 2		
14,400.00	7,049.33	14,509.20	7,210.03	211.98	249.27	110.94	-1,124.99	-7,586.67	449.63	13.23	436.41	1.030 Level 2		
14,500.00	7,049.10	14,609.20	7,209.50	214.80	252.57	110.90	-1,125.58	-7,686.67	449.54	7.29	442.25	1.016 Level 2		
14,600.00	7,048.87	14,709.20	7,208.97	217.63	255.87	110.87	-1,126.16	-7,786.66	449.45	1.36	448.09	1.003 Level 2		
14,700.00	7,048.64	14,809.20	7,208.44	220.45	259.17	110.83	-1,126.75	-7,886.66	449.35	-4.59	453.94	0.990 Level 1		
14,800.00	7,048.41	14,909.20	7,207.91	223.28	262.47	110.80	-1,127.33	-7,986.66	449.26	-10.53	459.79	0.977 Level 1		
14,900.00	7,048.18	15,009.20	7,207.38	226.10	265.77	110.76	-1,127.92	-8,086.65	449.17	-16.48	465.65	0.965 Level 1		
14,979.18	7,048.00	15,088.38	7,206.97	228.34	268.39	110.73	-1,128.38	-8,165.83	449.10	-21.19	470.29	0.955 Level 1, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	0.50	159.94	1.39	159.95					
100.00	100.00	101.00	100.00	3.28	3.28	0.50	159.94	1.39	159.95	153.38	6.57	24.347		
200.00	200.00	201.00	200.00	3.34	3.34	0.50	159.94	1.39	159.95	153.27	6.67	23.963	CC, ES	
300.00	299.98	300.98	299.98	3.44	3.45	174.47	159.94	1.39	161.69	154.80	6.89	23.479		
400.00	399.84	400.84	399.84	3.59	3.60	174.63	159.94	1.39	166.89	159.70	7.20	23.189		
500.00	499.45	500.48	499.48	3.79	3.81	174.88	159.94	1.39	175.57	167.97	7.60	23.103		
600.00	598.70	606.32	605.30	4.03	4.05	175.04	158.07	0.78	185.94	177.86	8.09	22.991		
700.00	697.47	712.57	711.37	4.31	4.32	174.94	152.45	-1.07	196.26	187.61	8.65	22.692		
800.00	795.62	812.70	811.20	4.64	4.61	174.75	145.01	-3.51	207.87	198.63	9.24	22.490		
900.00	893.16	911.63	909.82	5.00	4.91	174.65	137.64	-5.93	222.47	212.59	9.88	22.511		
1,000.00	990.60	1,010.49	1,008.38	5.38	5.23	174.60	130.27	-8.35	237.50	226.94	10.56	22.500		
1,100.00	1,088.04	1,109.36	1,106.94	5.79	5.58	174.54	122.90	-10.76	252.52	241.26	11.26	22.421		
1,200.00	1,185.48	1,208.22	1,205.50	6.22	5.93	174.50	115.53	-13.18	267.54	255.55	12.00	22.298		
1,300.00	1,282.92	1,307.09	1,304.06	6.66	6.30	174.46	108.16	-15.60	282.57	269.81	12.76	22.150		
1,400.00	1,380.36	1,405.95	1,402.62	7.10	6.68	174.42	100.78	-18.02	297.59	284.06	13.54	21.986		
1,500.00	1,477.80	1,504.82	1,501.18	7.56	7.07	174.39	93.41	-20.44	312.62	298.29	14.33	21.816		
1,600.00	1,575.24	1,603.68	1,599.74	8.03	7.46	174.36	86.04	-22.85	327.64	312.51	15.14	21.644		
1,700.00	1,672.68	1,702.54	1,698.30	8.50	7.86	174.33	78.67	-25.27	342.67	326.71	15.96	21.474		
1,800.00	1,770.12	1,801.41	1,796.86	8.98	8.26	174.30	71.30	-27.69	357.69	340.91	16.79	21.308		
1,900.00	1,867.56	1,900.27	1,895.42	9.46	8.67	174.28	63.93	-30.11	372.72	355.09	17.63	21.147		
2,000.00	1,965.00	2,000.86	1,993.98	9.95	9.09	174.26	56.56	-32.53	387.74	369.27	18.48	20.985		
2,100.00	2,062.44	2,102.00	2,092.54	10.44	9.51	174.24	49.19	-34.95	402.77	383.43	19.34	20.827		
2,200.00	2,159.88	2,203.13	2,191.10	10.93	9.94	174.22	41.82	-37.36	417.80	397.59	20.21	20.677		
2,300.00	2,257.32	2,295.73	2,289.66	11.42	10.33	174.20	34.45	-39.78	432.82	411.78	21.04	20.570		
2,400.00	2,354.76	2,405.40	2,388.22	11.92	10.80	174.19	27.08	-42.20	447.85	425.89	21.95	20.400		
2,500.00	2,452.20	2,506.54	2,486.78	12.42	11.23	174.17	19.71	-44.62	462.87	440.04	22.83	20.271		
2,600.00	2,549.64	2,607.67	2,585.34	12.92	11.67	174.16	12.34	-47.04	477.90	454.18	23.72	20.150		
2,700.00	2,647.08	2,708.81	2,683.90	13.42	12.10	174.15	4.97	-49.45	492.92	468.32	24.60	20.034		
2,800.00	2,744.52	2,809.94	2,782.46	13.93	12.54	174.13	-2.40	-51.87	507.95	482.45	25.49	19.925		
2,900.00	2,841.96	2,888.92	2,861.02	14.43	12.89	174.12	-9.77	-54.29	522.97	496.68	26.29	19.892		
3,000.00	2,939.40	2,987.79	2,979.58	14.94	13.32	174.11	-17.15	-56.71	538.00	510.82	27.17	19.798		
3,100.00	3,036.84	3,086.65	3,078.14	15.44	13.75	174.10	-24.52	-59.13	553.02	524.96	28.06	19.708		
3,200.00	3,134.28	3,185.51	3,176.70	15.95	14.18	174.09	-31.89	-61.55	568.05	539.10	28.95	19.623		
3,300.00	3,231.72	3,284.38	3,275.26	16.46	14.62	174.08	-39.26	-63.96	583.08	553.24	29.84	19.541		
3,400.00	3,329.16	3,383.24	3,373.82	16.97	15.05	174.07	-46.63	-66.38	598.10	567.37	30.73	19.464		
3,500.00	3,426.60	3,482.11	3,472.38	17.48	15.48	174.06	-54.00	-68.80	613.13	581.51	31.62	19.389		
3,600.00	3,524.04	3,580.97	3,570.94	17.99	15.92	174.06	-61.37	-71.22	628.15	595.64	32.52	19.318		
3,700.00	3,621.48	3,679.84	3,669.50	18.50	16.36	174.05	-68.74	-73.64	643.18	609.77	33.41	19.251		
3,800.00	3,718.92	3,778.70	3,768.06	19.01	16.79	174.04	-76.11	-76.06	658.20	623.90	34.31	19.186		
3,900.00	3,816.36	3,877.57	3,866.62	19.52	17.23	174.03	-83.48	-78.47	673.23	638.03	35.20	19.124		
4,000.00	3,913.80	3,976.43	3,965.18	20.03	17.67	174.03	-90.85	-80.89	688.26	652.15	36.10	19.064		
4,100.00	4,011.24	4,075.30	4,063.74	20.55	18.11	174.02	-98.22	-83.31	703.28	666.28	37.00	19.007		
4,200.00	4,108.68	4,174.16	4,162.30	21.06	18.55	174.01	-105.59	-85.73	718.31	680.41	37.90	18.953		
4,300.00	4,206.12	4,273.03	4,260.86	21.57	18.99	174.01	-112.96	-88.15	733.33	694.53	38.80	18.900		
4,400.00	4,303.56	4,371.89	4,359.42	22.09	19.42	174.00	-120.33	-90.56	748.36	708.66	39.70	18.850		
4,500.00	4,401.00	4,470.76	4,457.98	22.60	19.86	174.00	-127.70	-92.98	763.39	722.78	40.60	18.801		
4,600.00	4,498.44	4,569.62	4,556.54	23.11	20.30	173.99	-135.08	-95.40	778.41	736.91	41.51	18.754		
4,700.00	4,595.88	4,668.48	4,655.10	23.63	20.74	173.99	-142.45	-97.82	793.44	751.03	42.41	18.710		
4,800.00	4,693.32	4,767.35	4,753.66	24.14	21.19	173.98	-149.82	-100.24	808.46	765.15	43.31	18.666		
4,900.00	4,790.76	4,866.21	4,852.22	24.66	21.63	173.98	-157.19	-102.66	823.49	779.27	44.22	18.624		
5,000.00	4,888.20	4,965.08	4,950.78	25.17	22.07	173.97	-164.56	-105.07	838.51	793.39	45.12	18.584		
5,100.00	4,985.64	5,063.94	5,049.34	25.69	22.51	173.97	-171.93	-107.49	853.54	807.52	46.02	18.545		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,162.81	5,147.90	26.20	22.95	173.97	-179.30	-109.91	868.57	821.64	46.93	18.508		
5,300.00	5,180.52	5,261.67	5,246.46	26.72	23.39	173.96	-186.67	-112.33	883.59	835.76	47.84	18.471		
5,400.00	5,277.96	5,360.54	5,345.02	27.24	23.83	173.96	-194.04	-114.75	898.62	849.88	48.74	18.436		
5,500.00	5,375.40	5,459.40	5,443.57	27.75	24.28	173.95	-201.41	-117.16	913.64	864.00	49.65	18.402		
5,600.00	5,472.84	5,558.27	5,542.13	28.27	24.72	173.95	-208.78	-119.58	928.67	878.11	50.55	18.370		
5,700.00	5,570.28	5,657.13	5,640.69	28.79	25.16	173.95	-216.15	-122.00	943.69	892.23	51.46	18.338		
5,800.00	5,667.72	5,756.00	5,739.25	29.30	25.60	173.94	-223.52	-124.42	958.72	906.35	52.37	18.307		
5,900.00	5,765.16	5,854.86	5,837.81	29.82	26.05	173.94	-230.89	-126.84	973.75	920.47	53.28	18.277		
6,000.00	5,862.60	5,953.73	5,936.37	30.34	26.49	173.94	-238.26	-129.26	988.77	934.59	54.18	18.248		
6,100.00	5,960.05	6,052.59	6,034.93	30.85	26.93	173.93	-245.63	-131.67	1,003.80	948.71	55.09	18.220		
6,200.00	6,057.49	6,151.45	6,133.49	31.37	27.37	173.93	-253.01	-134.09	1,018.82	962.82	56.00	18.193		
6,300.00	6,154.93	6,250.32	6,232.05	31.89	27.82	173.93	-260.38	-136.51	1,033.85	976.94	56.91	18.166		
6,400.00	6,252.37	6,349.18	6,330.61	32.40	28.26	173.92	-267.75	-138.93	1,048.88	991.06	57.82	18.141		
6,500.00	6,349.81	6,448.05	6,429.17	32.92	28.70	173.92	-275.12	-141.35	1,063.90	1,005.17	58.73	18.116		
6,600.00	6,447.25	6,546.91	6,527.73	33.44	29.15	173.92	-282.49	-143.76	1,078.93	1,019.29	59.64	18.092		
6,700.00	6,544.28	6,645.59	6,626.10	33.95	29.59	144.29	-289.84	-146.19	1,093.95	1,033.41	60.54	18.069		
6,800.00	6,638.86	6,747.22	6,726.74	34.44	30.04	124.89	-297.44	-157.24	1,108.77	1,047.31	61.46	18.041		
6,900.00	6,728.65	6,851.22	6,826.55	34.89	30.49	114.67	-305.11	-185.01	1,122.96	1,060.59	62.37	18.006		
7,000.00	6,811.45	6,957.71	6,922.67	35.29	30.93	108.71	-312.64	-229.91	1,136.15	1,072.88	63.27	17.956		
7,100.00	6,885.21	7,066.68	7,011.90	35.66	31.35	104.92	-319.80	-291.83	1,147.99	1,083.76	64.23	17.874		
7,200.00	6,948.11	7,178.03	7,090.83	35.99	31.79	102.38	-326.32	-369.88	1,158.13	1,092.82	65.30	17.734		
7,300.00	6,998.62	7,291.46	7,156.06	36.30	32.36	100.67	-331.94	-462.34	1,166.27	1,099.65	66.62	17.506		
7,400.00	7,035.48	7,406.54	7,204.46	36.65	33.18	99.54	-336.39	-566.48	1,172.18	1,103.89	68.29	17.165		
7,500.00	7,057.79	7,522.68	7,233.57	37.13	34.28	98.89	-339.47	-678.70	1,175.65	1,105.27	70.38	16.705		
7,600.00	7,065.00	7,637.75	7,241.97	37.84	35.59	98.65	-341.03	-793.30	1,176.59	1,103.76	72.83	16.155		
7,700.00	7,064.77	7,737.75	7,241.57	38.82	36.92	98.64	-341.81	-893.30	1,176.39	1,100.97	75.42	15.598		
7,800.00	7,064.54	7,837.75	7,241.18	40.06	38.41	98.64	-342.59	-993.29	1,176.18	1,097.86	78.32	15.018		
7,900.00	7,064.31	7,937.75	7,240.79	41.52	40.05	98.63	-343.38	-1,093.29	1,175.98	1,094.47	81.51	14.428		
8,000.00	7,064.08	8,037.75	7,240.39	43.14	41.82	98.62	-344.16	-1,193.29	1,175.77	1,090.82	84.95	13.840		
8,100.00	7,063.85	8,137.75	7,240.00	44.90	43.71	98.62	-344.94	-1,293.28	1,175.56	1,086.94	88.63	13.264		
8,200.00	7,063.62	8,237.75	7,239.61	46.78	45.70	98.61	-345.72	-1,393.28	1,175.36	1,082.86	92.50	12.706		
8,300.00	7,063.39	8,337.75	7,239.21	48.76	47.77	98.61	-346.51	-1,493.27	1,175.15	1,078.60	96.55	12.171		
8,400.00	7,063.16	8,437.75	7,238.82	50.83	49.93	98.60	-347.29	-1,593.27	1,174.95	1,074.19	100.76	11.661		
8,500.00	7,062.93	8,537.75	7,238.43	52.97	52.15	98.59	-348.07	-1,693.26	1,174.74	1,069.64	105.10	11.177		
8,600.00	7,062.70	8,637.75	7,238.03	55.18	54.43	98.59	-348.85	-1,793.26	1,174.54	1,064.97	109.56	10.720		
8,700.00	7,062.47	8,737.75	7,237.64	57.46	56.76	98.58	-349.63	-1,893.26	1,174.33	1,060.20	114.13	10.289		
8,800.00	7,062.24	8,837.75	7,237.25	59.78	59.14	98.57	-350.42	-1,993.25	1,174.12	1,055.33	118.80	9.884		
8,900.00	7,062.01	8,937.75	7,236.85	62.14	61.56	98.57	-351.20	-2,093.25	1,173.92	1,050.38	123.54	9.502		
9,000.00	7,061.78	9,037.75	7,236.46	64.55	64.02	98.56	-351.98	-2,193.24	1,173.71	1,045.35	128.36	9.144		
9,100.00	7,061.55	9,137.75	7,236.07	67.00	66.51	98.55	-352.76	-2,293.24	1,173.51	1,040.26	133.25	8.807		
9,200.00	7,061.31	9,237.75	7,235.67	69.47	69.03	98.55	-353.55	-2,393.24	1,173.30	1,035.11	138.19	8.490		
9,300.00	7,061.08	9,337.75	7,235.28	71.98	71.57	98.54	-354.33	-2,493.23	1,173.10	1,029.90	143.19	8.192		
9,400.00	7,060.85	9,437.75	7,234.89	74.51	74.14	98.53	-355.11	-2,593.23	1,172.89	1,024.65	148.24	7.912		
9,500.00	7,060.62	9,537.75	7,234.49	77.06	76.72	98.53	-355.89	-2,693.22	1,172.69	1,019.36	153.33	7.648		
9,600.00	7,060.39	9,637.75	7,234.10	79.64	79.33	98.52	-356.67	-2,793.22	1,172.48	1,014.02	158.46	7.399		
9,700.00	7,060.16	9,737.74	7,233.71	82.23	81.95	98.51	-357.46	-2,893.21	1,172.27	1,008.65	163.62	7.165		
9,800.00	7,059.93	9,837.74	7,233.31	84.84	84.59	98.51	-358.24	-2,993.21	1,172.07	1,003.25	168.82	6.943		
9,900.00	7,059.70	9,937.74	7,232.92	87.47	87.24	98.50	-359.02	-3,093.21	1,171.86	997.82	174.04	6.733		
10,000.00	7,059.47	10,037.74	7,232.53	90.11	89.91	98.49	-359.80	-3,193.20	1,171.66	992.37	179.29	6.535		
10,100.00	7,059.24	10,137.74	7,232.13	92.76	92.58	98.49	-360.59	-3,293.20	1,171.45	986.89	184.57	6.347		
10,200.00	7,059.01	10,237.74	7,231.74	95.42	95.27	98.48	-361.37	-3,393.19	1,171.25	981.38	189.86	6.169		
10,300.00	7,058.78	10,337.74	7,231.35	98.10	97.97	98.47	-362.15	-3,493.19	1,171.04	975.86	195.18	6.000		

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 12N-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 12N-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	7,058.55	10,437.74	7,230.95	100.79	100.67	98.47	-362.93	-3,593.19	1,170.84	970.32	200.52	5.839		
10,500.00	7,058.32	10,537.74	7,230.56	103.48	103.38	98.46	-363.71	-3,693.18	1,170.63	964.76	205.88	5.686		
10,600.00	7,058.09	10,637.74	7,230.17	106.19	106.11	98.45	-364.50	-3,793.18	1,170.43	959.18	211.25	5.541		
10,700.00	7,057.86	10,737.74	7,229.77	108.90	108.83	98.45	-365.28	-3,893.17	1,170.22	953.59	216.63	5.402		
10,800.00	7,057.63	10,837.74	7,229.38	111.62	111.57	98.44	-366.06	-3,993.17	1,170.02	947.98	222.03	5.270		
10,900.00	7,057.40	10,937.74	7,228.99	114.35	114.31	98.43	-366.84	-4,093.17	1,169.81	942.36	227.45	5.143		
11,000.00	7,057.17	11,037.74	7,228.59	117.08	117.05	98.43	-367.63	-4,193.16	1,169.60	936.73	232.87	5.023		
11,100.00	7,056.94	11,137.74	7,228.20	119.82	119.81	98.42	-368.41	-4,293.16	1,169.40	931.09	238.31	4.907		
11,200.00	7,056.71	11,237.74	7,227.81	122.56	122.56	98.42	-369.19	-4,393.15	1,169.19	925.44	243.75	4.797		
11,300.00	7,056.48	11,337.74	7,227.41	125.31	125.32	98.41	-369.97	-4,493.15	1,168.99	919.78	249.21	4.691		
11,400.00	7,056.25	11,437.74	7,227.02	128.06	128.09	98.40	-370.75	-4,593.14	1,168.78	914.11	254.67	4.589		
11,500.00	7,056.02	11,537.74	7,226.63	130.82	130.86	98.40	-371.54	-4,693.14	1,168.58	908.43	260.15	4.492		
11,600.00	7,055.79	11,637.74	7,226.23	133.59	133.63	98.39	-372.32	-4,793.14	1,168.37	902.74	265.63	4.398		
11,700.00	7,055.55	11,737.74	7,225.84	136.35	136.41	98.38	-373.10	-4,893.13	1,168.17	897.05	271.12	4.309		
11,800.00	7,055.32	11,837.74	7,225.45	139.12	139.19	98.38	-373.88	-4,993.13	1,167.96	891.34	276.62	4.222		
11,900.00	7,055.09	11,937.74	7,225.05	141.90	141.97	98.37	-374.67	-5,093.12	1,167.76	885.64	282.12	4.139		
12,000.00	7,054.86	12,037.74	7,224.66	144.67	144.76	98.36	-375.45	-5,193.12	1,167.55	879.92	287.63	4.059		
12,100.00	7,054.63	12,137.74	7,224.27	147.45	147.55	98.36	-376.23	-5,293.12	1,167.35	874.20	293.15	3.982		
12,200.00	7,054.40	12,237.74	7,223.87	150.24	150.34	98.35	-377.01	-5,393.11	1,167.14	868.47	298.67	3.908		
12,300.00	7,054.17	12,337.74	7,223.48	153.02	153.13	98.34	-377.79	-5,493.11	1,166.94	862.74	304.20	3.836		
12,400.00	7,053.94	12,437.74	7,223.09	155.81	155.93	98.34	-378.58	-5,593.10	1,166.73	857.00	309.73	3.767		
12,500.00	7,053.71	12,537.74	7,222.69	158.60	158.72	98.33	-379.36	-5,693.10	1,166.53	851.26	315.27	3.700		
12,600.00	7,053.48	12,637.74	7,222.30	161.40	161.52	98.32	-380.14	-5,793.10	1,166.32	845.51	320.81	3.636		
12,700.00	7,053.25	12,737.74	7,221.91	164.19	164.33	98.32	-380.92	-5,893.09	1,166.12	839.76	326.36	3.573		
12,800.00	7,053.02	12,837.74	7,221.51	166.99	167.13	98.31	-381.71	-5,993.09	1,165.91	834.01	331.91	3.513		
12,900.00	7,052.79	12,937.74	7,221.12	169.79	169.94	98.30	-382.49	-6,093.08	1,165.71	828.25	337.46	3.454		
13,000.00	7,052.56	13,037.73	7,220.73	172.59	172.75	98.30	-383.27	-6,193.08	1,165.50	822.48	343.02	3.398		
13,100.00	7,052.33	13,137.73	7,220.33	175.40	175.55	98.29	-384.05	-6,293.07	1,165.30	816.72	348.58	3.343		
13,200.00	7,052.10	13,237.73	7,219.94	178.20	178.37	98.28	-384.83	-6,393.07	1,165.09	810.95	354.15	3.290		
13,300.00	7,051.87	13,337.73	7,219.55	181.01	181.18	98.28	-385.62	-6,493.07	1,164.89	805.17	359.72	3.238		
13,400.00	7,051.64	13,437.73	7,219.15	183.82	183.99	98.27	-386.40	-6,593.06	1,164.68	799.39	365.29	3.188		
13,500.00	7,051.41	13,537.73	7,218.76	186.63	186.81	98.26	-387.18	-6,693.06	1,164.48	793.61	370.86	3.140		
13,600.00	7,051.18	13,637.73	7,218.37	189.44	189.62	98.26	-387.96	-6,793.05	1,164.27	787.83	376.44	3.093		
13,700.00	7,050.95	13,737.73	7,217.97	192.25	192.44	98.25	-388.75	-6,893.05	1,164.07	782.05	382.02	3.047		
13,800.00	7,050.72	13,837.73	7,217.58	195.07	195.26	98.24	-389.53	-6,993.05	1,163.86	776.26	387.60	3.003		
13,900.00	7,050.49	13,937.73	7,217.19	197.88	198.08	98.24	-390.31	-7,093.04	1,163.66	770.47	393.19	2.960		
14,000.00	7,050.26	14,037.73	7,216.79	200.70	200.90	98.23	-391.09	-7,193.04	1,163.45	764.67	398.78	2.918		
14,100.00	7,050.03	14,137.73	7,216.40	203.52	203.72	98.22	-391.87	-7,293.03	1,163.25	758.88	404.37	2.877		
14,200.00	7,049.80	14,237.73	7,216.01	206.34	206.55	98.22	-392.66	-7,393.03	1,163.04	753.08	409.96	2.837		
14,300.00	7,049.56	14,337.73	7,215.61	209.16	209.37	98.21	-393.44	-7,493.02	1,162.84	747.28	415.56	2.798		
14,400.00	7,049.33	14,437.73	7,215.22	211.98	212.20	98.20	-394.22	-7,593.02	1,162.63	741.48	421.16	2.761		
14,500.00	7,049.10	14,537.73	7,214.83	214.80	215.02	98.20	-395.00	-7,693.02	1,162.43	735.67	426.75	2.724		
14,600.00	7,048.87	14,637.73	7,214.43	217.63	217.85	98.19	-395.78	-7,793.01	1,162.22	729.87	432.36	2.688		
14,700.00	7,048.64	14,737.73	7,214.04	220.45	220.68	98.18	-396.57	-7,893.01	1,162.02	724.06	437.96	2.653		
14,800.00	7,048.41	14,837.73	7,213.65	223.28	223.50	98.18	-397.35	-7,993.00	1,161.82	718.25	443.56	2.619		
14,900.00	7,048.18	14,937.73	7,213.25	226.10	226.33	98.17	-398.13	-8,093.00	1,161.61	712.44	449.17	2.586		
14,973.62	7,048.01	15,011.34	7,212.97	228.18	228.42	98.17	-398.71	-8,166.61	1,161.46	708.16	453.30	2.562 SF		
14,979.18	7,048.00	15,002.44	7,213.00	228.34	228.16	98.17	-398.64	-8,157.71	1,161.54	708.46	453.08	2.564		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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-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	0.53	60.12	0.56	60.13					
100.00	100.00	100.00	100.00	3.28	3.28	0.53	60.12	0.56	60.13	53.56	6.57	9.152		
200.00	200.00	200.00	200.00	3.34	3.34	0.53	60.12	0.56	60.13	53.45	6.67	9.009	CC, ES	
300.00	299.98	299.98	299.98	3.44	3.44	174.60	60.12	0.56	61.86	54.98	6.88	8.985		
400.00	399.84	402.16	402.14	3.59	3.60	174.78	58.33	0.24	65.32	58.12	7.20	9.073		
500.00	499.45	504.47	504.29	3.79	3.80	174.74	52.94	-0.69	68.72	61.11	7.61	9.026		
600.00	598.70	606.89	606.31	4.03	4.04	174.50	43.94	-2.25	72.07	63.95	8.12	8.876		
700.00	697.47	709.44	708.05	4.31	4.32	174.10	31.34	-4.44	75.37	66.67	8.70	8.661		
800.00	795.62	809.23	806.84	4.64	4.62	173.80	17.43	-6.85	80.47	71.17	9.30	8.655		
900.00	893.16	908.90	905.50	5.00	4.95	173.76	3.54	-9.27	88.59	78.65	9.95	8.906		
1,000.00	990.60	1,008.54	1,004.14	5.38	5.30	173.76	-10.35	-11.68	97.14	86.51	10.64	9.133		
1,100.00	1,088.04	1,108.17	1,102.77	5.79	5.67	173.76	-24.24	-14.09	105.69	94.33	11.36	9.304		
1,200.00	1,185.48	1,207.80	1,201.40	6.22	6.06	173.76	-38.13	-16.50	114.24	102.13	12.11	9.431		
1,300.00	1,282.92	1,307.44	1,300.03	6.66	6.45	173.76	-52.01	-18.91	122.79	109.90	12.89	9.526		
1,400.00	1,380.36	1,407.07	1,398.66	7.10	6.86	173.76	-65.90	-21.32	131.34	117.66	13.69	9.597		
1,500.00	1,477.80	1,506.71	1,497.29	7.56	7.28	173.76	-79.79	-23.73	139.89	125.39	14.50	9.649		
1,600.00	1,575.24	1,606.34	1,595.93	8.03	7.70	173.76	-93.68	-26.15	148.44	133.12	15.33	9.686		
1,700.00	1,672.68	1,705.97	1,694.56	8.50	8.12	173.76	-107.57	-28.56	156.99	140.83	16.16	9.713		
1,800.00	1,770.12	1,805.61	1,793.19	8.98	8.56	173.76	-121.46	-30.97	165.54	148.53	17.01	9.731		
1,900.00	1,867.56	1,905.24	1,891.82	9.46	8.99	173.76	-135.35	-33.38	174.09	156.22	17.87	9.743		
2,000.00	1,965.00	2,004.87	1,990.45	9.95	9.43	173.76	-149.23	-35.79	182.64	163.91	18.73	9.750		
2,100.00	2,062.44	2,104.51	2,089.08	10.44	9.87	173.76	-163.12	-38.20	191.19	171.59	19.60	9.753		
2,200.00	2,159.88	2,204.14	2,187.71	10.93	10.32	173.76	-177.01	-40.61	199.74	179.26	20.48	9.754		
2,300.00	2,257.32	2,303.78	2,286.35	11.42	10.77	173.77	-190.90	-43.02	208.29	186.93	21.36	9.752		
2,400.00	2,354.76	2,403.41	2,384.98	11.92	11.22	173.77	-204.79	-45.44	216.84	194.59	22.24	9.748		
2,500.00	2,452.20	2,503.04	2,483.61	12.42	11.67	173.77	-218.68	-47.85	225.39	202.25	23.13	9.743		
2,600.00	2,549.64	2,602.68	2,582.24	12.92	12.12	173.77	-232.57	-50.26	233.94	209.91	24.03	9.737		
2,700.00	2,647.08	2,702.31	2,680.87	13.42	12.58	173.77	-246.45	-52.67	242.49	217.56	24.92	9.730		
2,800.00	2,744.52	2,801.95	2,779.50	13.93	13.03	173.77	-260.34	-55.08	251.04	225.22	25.82	9.723		
2,900.00	2,841.96	2,901.58	2,878.14	14.43	13.49	173.77	-274.23	-57.49	259.59	232.87	26.72	9.715		
3,000.00	2,939.40	3,001.21	2,976.77	14.94	13.95	173.77	-288.12	-59.90	268.14	240.51	27.62	9.707		
3,100.00	3,036.84	3,100.85	3,075.40	15.44	14.41	173.77	-302.01	-62.31	276.68	248.16	28.53	9.699		
3,200.00	3,134.28	3,200.48	3,174.03	15.95	14.87	173.77	-315.90	-64.72	285.23	255.80	29.43	9.690		
3,300.00	3,231.72	3,300.11	3,272.66	16.46	15.33	173.77	-329.79	-67.14	293.78	263.44	30.34	9.682		
3,400.00	3,329.16	3,399.75	3,371.29	16.97	15.79	173.77	-343.67	-69.55	302.33	271.08	31.25	9.674		
3,500.00	3,426.60	3,500.62	3,469.93	17.48	16.26	173.77	-357.56	-71.96	310.88	278.71	32.17	9.664		
3,600.00	3,524.04	3,599.02	3,568.56	17.99	16.72	173.77	-371.45	-74.37	319.43	286.36	33.08	9.658		
3,700.00	3,621.48	3,701.35	3,667.19	18.50	17.19	173.77	-385.34	-76.78	327.98	293.98	34.00	9.646		
3,800.00	3,718.92	3,801.72	3,765.82	19.01	17.66	173.77	-399.23	-79.19	336.53	301.61	34.92	9.637		
3,900.00	3,816.36	3,897.92	3,864.45	19.52	18.11	173.77	-413.12	-81.60	345.08	309.26	35.82	9.634		
4,000.00	3,913.80	4,002.45	3,963.08	20.03	18.60	173.77	-427.01	-84.01	353.63	316.87	36.76	9.620		
4,100.00	4,011.24	4,102.81	4,061.72	20.55	19.07	173.77	-440.90	-86.43	362.18	324.50	37.68	9.612		
4,200.00	4,108.68	4,203.18	4,160.35	21.06	19.53	173.77	-454.78	-88.84	370.73	332.13	38.60	9.604		
4,300.00	4,206.12	4,303.55	4,258.98	21.57	20.00	173.77	-468.67	-91.25	379.28	339.76	39.52	9.596		
4,400.00	4,303.56	4,403.91	4,357.61	22.09	20.47	173.77	-482.56	-93.66	387.83	347.38	40.45	9.589		
4,500.00	4,401.00	4,504.28	4,456.24	22.60	20.94	173.77	-496.45	-96.07	396.38	355.01	41.37	9.581		
4,600.00	4,498.44	4,604.65	4,554.87	23.11	21.41	173.77	-510.34	-98.48	404.93	362.64	42.29	9.574		
4,700.00	4,595.88	4,705.01	4,653.51	23.63	21.89	173.77	-524.23	-100.89	413.48	370.26	43.22	9.567		
4,800.00	4,693.32	4,805.38	4,752.14	24.14	22.36	173.77	-538.12	-103.30	422.03	377.88	44.14	9.560		
4,900.00	4,790.76	4,905.74	4,850.77	24.66	22.83	173.77	-552.00	-105.72	430.58	385.51	45.07	9.554		
5,000.00	4,888.20	5,006.11	4,949.40	25.17	23.30	173.77	-565.89	-108.13	439.13	393.13	46.00	9.547		
5,100.00	4,985.64	5,093.52	5,048.03	25.69	23.71	173.77	-579.78	-110.54	447.68	400.81	46.86	9.553		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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-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	5,083.08	5,206.84	5,146.66	26.20	24.24	173.77	-593.67	-112.95	456.23	408.38	47.85	9.535	
5,300.00	5,180.52	5,292.79	5,245.30	26.72	24.65	173.77	-607.56	-115.36	464.78	416.06	48.71	9.541	
5,400.00	5,277.96	5,407.57	5,343.93	27.24	25.19	173.77	-621.45	-117.77	473.33	423.62	49.70	9.523	
5,500.00	5,375.40	5,492.06	5,442.56	27.75	25.58	173.77	-635.34	-120.18	481.88	431.31	50.56	9.531	
5,600.00	5,472.84	5,608.31	5,541.19	28.27	26.13	173.77	-649.22	-122.59	490.42	438.86	51.56	9.512	
5,700.00	5,570.28	5,708.67	5,639.82	28.79	26.60	173.77	-663.11	-125.01	498.97	446.48	52.49	9.506	
5,800.00	5,667.72	5,809.04	5,738.45	29.30	27.08	173.77	-677.00	-127.42	507.52	454.11	53.42	9.501	
5,900.00	5,765.16	5,909.41	5,837.08	29.82	27.55	173.77	-690.89	-129.83	516.07	461.73	54.35	9.496	
6,000.00	5,862.60	6,009.77	5,935.72	30.34	28.02	173.77	-704.78	-132.24	524.62	469.35	55.28	9.491	
6,100.00	5,960.05	6,089.86	6,034.35	30.85	28.40	173.77	-718.67	-134.65	533.17	477.06	56.12	9.501	
6,200.00	6,057.49	6,189.50	6,132.98	31.37	28.87	173.77	-732.56	-137.06	541.72	484.68	57.04	9.497	
6,300.00	6,154.93	6,289.13	6,231.61	31.89	29.34	173.77	-746.44	-139.47	550.27	492.30	57.97	9.492	
6,400.00	6,252.37	6,388.76	6,330.24	32.40	29.81	173.77	-760.33	-141.88	558.82	499.92	58.90	9.488	
6,500.00	6,349.81	6,488.40	6,428.87	32.92	30.28	173.77	-774.22	-144.29	567.37	507.55	59.82	9.484	
6,600.00	6,447.25	6,588.02	6,527.19	33.44	30.75	173.29	-788.11	-151.43	575.91	515.16	60.76	9.479	
6,700.00	6,544.28	6,685.40	6,621.12	33.95	31.19	142.53	-801.50	-172.92	584.62	522.94	61.68	9.478	
6,800.00	6,638.86	6,780.84	6,708.97	34.44	31.60	121.77	-814.15	-207.76	593.37	530.81	62.55	9.486	
6,900.00	6,728.65	6,874.59	6,789.28	34.89	31.97	110.32	-825.85	-254.52	601.88	538.51	63.37	9.498	
7,000.00	6,811.45	6,966.87	6,860.84	35.29	32.31	103.25	-836.41	-311.69	609.90	545.75	64.15	9.508	
7,100.00	6,885.21	7,057.91	6,922.68	35.66	32.63	98.50	-845.68	-377.75	617.15	552.21	64.94	9.504	
7,200.00	6,948.11	7,147.93	6,974.04	35.99	32.96	95.17	-853.53	-451.17	623.40	557.57	65.83	9.470	
7,300.00	6,998.62	7,237.12	7,014.31	36.30	33.37	92.82	-859.88	-530.42	628.45	561.54	66.91	9.393	
7,400.00	7,035.48	7,325.68	7,043.05	36.65	33.96	91.25	-864.65	-613.97	632.13	563.87	68.26	9.260	
7,500.00	7,057.79	7,413.80	7,059.99	37.13	34.75	90.32	-867.78	-700.33	634.33	564.41	69.93	9.071	
7,600.00	7,065.00	7,502.36	7,064.97	37.84	35.71	90.00	-869.25	-788.66	634.97	563.06	71.92	8.829	
7,700.00	7,064.77	7,602.36	7,064.58	38.82	36.98	89.98	-870.06	-888.66	634.76	560.28	74.48	8.522	
7,800.00	7,064.54	7,702.36	7,064.19	40.06	38.43	89.97	-870.87	-988.65	634.55	557.16	77.39	8.199	
7,900.00	7,064.31	7,802.36	7,063.79	41.52	40.05	89.95	-871.68	-1,088.65	634.33	553.74	80.60	7.871	
8,000.00	7,064.08	7,902.36	7,063.40	43.14	41.79	89.94	-872.49	-1,188.64	634.12	550.05	84.07	7.543	
8,100.00	7,063.85	8,002.36	7,063.01	44.90	43.66	89.92	-873.30	-1,288.64	633.91	546.13	87.78	7.222	
8,200.00	7,063.62	8,102.36	7,062.62	46.78	45.64	89.91	-874.12	-1,388.63	633.70	542.01	91.69	6.911	
8,300.00	7,063.39	8,202.36	7,062.22	48.76	47.70	89.89	-874.93	-1,488.63	633.48	537.70	95.78	6.614	
8,400.00	7,063.16	8,302.36	7,061.83	50.83	49.84	89.88	-875.74	-1,588.63	633.27	533.23	100.04	6.330	
8,500.00	7,062.93	8,402.36	7,061.44	52.97	52.05	89.87	-876.55	-1,688.62	633.06	528.63	104.43	6.062	
8,600.00	7,062.70	8,502.36	7,061.04	55.18	54.33	89.85	-877.36	-1,788.62	632.85	523.90	108.95	5.809	
8,700.00	7,062.47	8,602.36	7,060.65	57.46	56.65	89.84	-878.17	-1,888.61	632.63	519.06	113.57	5.570	
8,800.00	7,062.24	8,702.36	7,060.26	59.78	59.02	89.82	-878.99	-1,988.61	632.42	514.13	118.29	5.346	
8,900.00	7,062.01	8,802.36	7,059.86	62.14	61.44	89.81	-879.80	-2,088.60	632.21	509.11	123.09	5.136	
9,000.00	7,061.78	8,902.36	7,059.47	64.55	63.89	89.79	-880.61	-2,188.60	632.00	504.02	127.97	4.938	
9,100.00	7,061.55	9,002.36	7,059.08	67.00	66.37	89.78	-881.42	-2,288.59	631.78	498.87	132.92	4.753	
9,200.00	7,061.31	9,102.36	7,058.68	69.47	68.89	89.76	-882.23	-2,388.59	631.57	493.65	137.92	4.579	
9,300.00	7,061.08	9,202.36	7,058.29	71.98	71.43	89.75	-883.04	-2,488.59	631.36	488.38	142.98	4.416	
9,400.00	7,060.85	9,302.35	7,057.90	74.51	73.99	89.73	-883.86	-2,588.58	631.15	483.06	148.09	4.262	
9,500.00	7,060.62	9,402.35	7,057.50	77.06	76.57	89.72	-884.67	-2,688.58	630.94	477.70	153.24	4.117	
9,600.00	7,060.39	9,502.35	7,057.11	79.64	79.17	89.70	-885.48	-2,788.57	630.72	472.30	158.42	3.981	
9,700.00	7,060.16	9,602.35	7,056.72	82.23	81.79	89.69	-886.29	-2,888.57	630.51	466.86	163.65	3.853	
9,800.00	7,059.93	9,702.35	7,056.32	84.84	84.43	89.67	-887.10	-2,988.56	630.30	461.40	168.90	3.732	
9,900.00	7,059.70	9,802.35	7,055.93	87.47	87.08	89.66	-887.92	-3,088.56	630.09	455.90	174.19	3.617	
10,000.00	7,059.47	9,902.35	7,055.54	90.11	89.74	89.64	-888.73	-3,188.55	629.88	450.38	179.50	3.509	
10,100.00	7,059.24	10,002.35	7,055.15	92.76	92.41	89.63	-889.54	-3,288.55	629.66	444.83	184.83	3.407	
10,200.00	7,059.01	10,102.35	7,054.75	95.42	95.10	89.61	-890.35	-3,388.55	629.45	439.27	190.19	3.310	
10,300.00	7,058.78	10,202.35	7,054.36	98.10	97.79	89.60	-891.16	-3,488.54	629.24	433.68	195.56	3.218	

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 12N-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 12N-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-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	7,058.55	10,302.35	7,053.97	100.79	100.49	89.58	-891.97	-3,588.54	629.03	428.07	200.96	3.130		
10,500.00	7,058.32	10,402.35	7,053.57	103.48	103.21	89.57	-892.79	-3,688.53	628.82	422.45	206.37	3.047		
10,600.00	7,058.09	10,502.35	7,053.18	106.19	105.93	89.55	-893.60	-3,788.53	628.61	416.81	211.80	2.968		
10,700.00	7,057.86	10,602.35	7,052.79	108.90	108.65	89.54	-894.41	-3,888.52	628.39	411.15	217.24	2.893		
10,800.00	7,057.63	10,702.35	7,052.39	111.62	111.38	89.52	-895.22	-3,988.52	628.18	405.49	222.70	2.821		
10,900.00	7,057.40	10,802.35	7,052.00	114.35	114.12	89.51	-896.03	-4,088.51	627.97	399.80	228.17	2.752		
11,000.00	7,057.17	10,902.35	7,051.61	117.08	116.87	89.49	-896.84	-4,188.51	627.76	394.11	233.65	2.687		
11,100.00	7,056.94	11,002.35	7,051.21	119.82	119.62	89.48	-897.66	-4,288.51	627.55	388.41	239.14	2.624		
11,200.00	7,056.71	11,102.35	7,050.82	122.56	122.37	89.46	-898.47	-4,388.50	627.34	382.70	244.64	2.564		
11,300.00	7,056.48	11,202.35	7,050.43	125.31	125.13	89.45	-899.28	-4,488.50	627.12	376.97	250.15	2.507		
11,400.00	7,056.25	11,302.35	7,050.03	128.06	127.90	89.43	-900.09	-4,588.49	626.91	371.24	255.67	2.452		
11,500.00	7,056.02	11,402.35	7,049.64	130.82	130.67	89.42	-900.90	-4,688.49	626.70	365.50	261.20	2.399		
11,600.00	7,055.79	11,502.35	7,049.25	133.59	133.44	89.40	-901.71	-4,788.48	626.49	359.75	266.74	2.349		
11,700.00	7,055.55	11,602.35	7,048.85	136.35	136.21	89.39	-902.53	-4,888.48	626.28	354.00	272.28	2.300		
11,800.00	7,055.32	11,702.35	7,048.46	139.12	138.99	89.37	-903.34	-4,988.48	626.07	348.24	277.83	2.253		
11,900.00	7,055.09	11,802.35	7,048.07	141.90	141.77	89.36	-904.15	-5,088.47	625.86	342.47	283.39	2.208		
12,000.00	7,054.86	11,902.35	7,047.68	144.67	144.56	89.34	-904.96	-5,188.47	625.65	336.70	288.95	2.165		
12,100.00	7,054.63	12,002.35	7,047.28	147.45	147.35	89.33	-905.77	-5,288.46	625.44	330.92	294.52	2.124		
12,200.00	7,054.40	12,102.34	7,046.89	150.24	150.14	89.31	-906.58	-5,388.46	625.22	325.13	300.09	2.083		
12,300.00	7,054.17	12,202.34	7,046.50	153.02	152.93	89.30	-907.40	-5,488.45	625.01	319.34	305.67	2.045		
12,400.00	7,053.94	12,302.34	7,046.10	155.81	155.73	89.28	-908.21	-5,588.45	624.80	313.55	311.26	2.007		
12,500.00	7,053.71	12,402.34	7,045.71	158.60	158.52	89.27	-909.02	-5,688.44	624.59	307.75	316.85	1.971		
12,600.00	7,053.48	12,502.34	7,045.32	161.40	161.32	89.25	-909.83	-5,788.44	624.38	301.94	322.44	1.936		
12,700.00	7,053.25	12,602.34	7,044.92	164.19	164.13	89.24	-910.64	-5,888.44	624.17	296.13	328.04	1.903		
12,800.00	7,053.02	12,702.34	7,044.53	166.99	166.93	89.22	-911.46	-5,988.43	623.96	290.32	333.64	1.870		
12,900.00	7,052.79	12,802.34	7,044.14	169.79	169.73	89.21	-912.27	-6,088.43	623.75	284.51	339.24	1.839		
13,000.00	7,052.56	12,902.34	7,043.74	172.59	172.54	89.19	-913.08	-6,188.42	623.54	278.69	344.85	1.808		
13,100.00	7,052.33	13,002.34	7,043.35	175.40	175.35	89.17	-913.89	-6,288.42	623.33	272.87	350.46	1.779		
13,200.00	7,052.10	13,102.34	7,042.96	178.20	178.16	89.16	-914.70	-6,388.41	623.12	267.04	356.08	1.750		
13,300.00	7,051.87	13,202.34	7,042.56	181.01	180.97	89.14	-915.51	-6,488.41	622.91	261.21	361.70	1.722		
13,400.00	7,051.64	13,302.34	7,042.17	183.82	183.79	89.13	-916.33	-6,588.40	622.70	255.38	367.32	1.695		
13,500.00	7,051.41	13,402.34	7,041.78	186.63	186.60	89.11	-917.14	-6,688.40	622.49	249.55	372.94	1.669		
13,600.00	7,051.18	13,502.34	7,041.38	189.44	189.42	89.10	-917.95	-6,788.40	622.28	243.71	378.57	1.644		
13,700.00	7,050.95	13,602.34	7,040.99	192.25	192.23	89.08	-918.76	-6,888.39	622.07	237.87	384.20	1.619		
13,800.00	7,050.72	13,702.34	7,040.60	195.07	195.05	89.07	-919.57	-6,988.39	621.86	232.03	389.83	1.595		
13,900.00	7,050.49	13,802.34	7,040.21	197.88	197.87	89.05	-920.38	-7,088.38	621.65	226.19	395.46	1.572		
14,000.00	7,050.26	13,902.34	7,039.81	200.70	200.69	89.04	-921.20	-7,188.38	621.44	220.34	401.10	1.549		
14,100.00	7,050.03	14,002.34	7,039.42	203.52	203.51	89.02	-922.01	-7,288.37	621.23	214.49	406.73	1.527		
14,200.00	7,049.80	14,102.34	7,039.03	206.34	206.34	89.01	-922.82	-7,388.37	621.02	208.64	412.37	1.506		
14,300.00	7,049.56	14,202.34	7,038.63	209.16	209.16	88.99	-923.63	-7,488.36	620.81	202.79	418.02	1.485 Level 3		
14,400.00	7,049.33	14,302.34	7,038.24	211.98	211.98	88.98	-924.44	-7,588.36	620.60	196.94	423.66	1.465 Level 3		
14,500.00	7,049.10	14,402.34	7,037.85	214.80	214.81	88.96	-925.25	-7,688.36	620.39	191.08	429.30	1.445 Level 3		
14,600.00	7,048.87	14,502.34	7,037.45	217.63	217.64	88.95	-926.07	-7,788.35	620.18	185.22	434.95	1.426 Level 3		
14,700.00	7,048.64	14,602.34	7,037.06	220.45	220.46	88.93	-926.88	-7,888.35	619.97	179.37	440.60	1.407 Level 3		
14,800.00	7,048.41	14,702.34	7,036.67	223.28	223.29	88.91	-927.69	-7,988.34	619.76	173.51	446.25	1.389 Level 3		
14,900.00	7,048.18	14,802.34	7,036.27	226.10	226.12	88.90	-928.50	-8,088.34	619.55	167.64	451.90	1.371 Level 3		
14,974.00	7,048.01	14,876.34	7,035.98	228.19	228.21	88.89	-929.10	-8,162.34	619.39	163.31	456.08	1.358 Level 3, SF		
14,979.18	7,048.00	14,871.88	7,036.00	228.34	228.09	88.89	-929.07	-8,157.88	619.45	163.55	455.91	1.359 Level 3		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis 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	1.00	0.00	3.28	3.28	0.57	140.27	1.39	140.28					
100.00	100.00	101.00	100.00	3.28	3.28	0.57	140.27	1.39	140.28	133.71	6.57	21.353		
200.00	200.00	201.00	200.00	3.34	3.34	0.57	140.27	1.39	140.28	133.61	6.67	21.016	CC, ES	
300.00	299.98	300.98	299.98	3.44	3.45	174.55	140.27	1.39	142.02	135.13	6.89	20.623		
400.00	399.84	400.84	399.84	3.59	3.60	174.73	140.27	1.39	147.23	140.03	7.20	20.457		
500.00	499.45	500.45	499.45	3.79	3.81	175.01	140.27	1.39	155.91	148.31	7.60	20.516		
600.00	598.70	600.90	599.90	4.03	4.05	175.35	140.20	1.37	167.98	159.90	8.08	20.790		
700.00	697.47	706.33	705.29	4.31	4.31	175.58	137.56	0.76	181.09	172.46	8.63	20.996		
800.00	795.62	812.29	811.03	4.64	4.61	175.63	131.11	-0.75	194.06	184.82	9.25	20.991		
900.00	893.16	917.37	915.60	5.00	4.93	175.55	121.01	-3.11	206.51	196.59	9.92	20.826		
1,000.00	990.60	1,016.68	1,014.30	5.38	5.25	175.43	110.29	-5.62	218.20	207.61	10.59	20.604		
1,100.00	1,088.04	1,115.99	1,113.00	5.79	5.60	175.32	99.57	-8.12	229.90	218.60	11.30	20.347		
1,200.00	1,185.48	1,215.31	1,211.70	6.22	5.96	175.22	88.85	-10.63	241.59	229.55	12.04	20.070		
1,300.00	1,282.92	1,314.62	1,310.40	6.66	6.33	175.13	78.13	-13.13	253.29	240.49	12.80	19.788		
1,400.00	1,380.36	1,413.93	1,409.10	7.10	6.72	175.05	67.41	-15.64	264.98	251.40	13.58	19.508		
1,500.00	1,477.80	1,513.25	1,507.80	7.56	7.11	174.98	56.68	-18.14	276.68	262.30	14.38	19.237		
1,600.00	1,575.24	1,612.56	1,606.50	8.03	7.51	174.91	45.96	-20.65	288.38	273.18	15.20	18.976		
1,700.00	1,672.68	1,711.87	1,705.20	8.50	7.92	174.85	35.24	-23.15	300.08	284.05	16.02	18.728		
1,800.00	1,770.12	1,811.19	1,803.90	8.98	8.33	174.79	24.52	-25.66	311.77	294.91	16.86	18.493		
1,900.00	1,867.56	1,910.50	1,902.60	9.46	8.75	174.74	13.80	-28.16	323.47	305.77	17.70	18.272		
2,000.00	1,965.00	2,009.81	2,001.30	9.95	9.17	174.69	3.08	-30.67	335.17	316.61	18.56	18.063		
2,100.00	2,062.44	2,109.12	2,100.01	10.44	9.60	174.64	-7.64	-33.17	346.87	327.45	19.41	17.866		
2,200.00	2,159.88	2,208.44	2,198.71	10.93	10.02	174.60	-18.37	-35.68	358.57	338.29	20.28	17.681		
2,300.00	2,257.32	2,307.75	2,297.41	11.42	10.45	174.56	-29.09	-38.18	370.27	349.12	21.15	17.507		
2,400.00	2,354.76	2,407.06	2,396.11	11.92	10.89	174.52	-39.81	-40.69	381.97	359.94	22.02	17.343		
2,500.00	2,452.20	2,506.38	2,494.81	12.42	11.32	174.48	-50.53	-43.20	393.67	370.76	22.90	17.189		
2,600.00	2,549.64	2,605.69	2,593.51	12.92	11.76	174.45	-61.25	-45.70	405.37	381.58	23.78	17.044		
2,700.00	2,647.08	2,705.00	2,692.21	13.42	12.20	174.42	-71.97	-48.21	417.06	392.40	24.67	16.906		
2,800.00	2,744.52	2,804.32	2,790.91	13.93	12.64	174.39	-82.70	-50.71	428.76	403.21	25.56	16.777		
2,900.00	2,841.96	2,903.63	2,889.61	14.43	13.08	174.36	-93.42	-53.22	440.46	414.02	26.45	16.655		
3,000.00	2,939.40	3,002.94	2,988.31	14.94	13.52	174.33	-104.14	-55.72	452.16	424.83	27.34	16.539		
3,100.00	3,036.84	3,102.25	3,087.01	15.44	13.96	174.30	-114.86	-58.23	463.86	435.63	28.23	16.429		
3,200.00	3,134.28	3,201.57	3,185.71	15.95	14.41	174.28	-125.58	-60.73	475.57	446.43	29.13	16.325		
3,300.00	3,231.72	3,300.88	3,284.41	16.46	14.85	174.26	-136.30	-63.24	487.27	457.24	30.03	16.227		
3,400.00	3,329.16	3,400.19	3,383.12	16.97	15.30	174.23	-147.02	-65.74	498.97	468.04	30.93	16.133		
3,500.00	3,426.60	3,500.49	3,481.82	17.48	15.75	174.21	-157.75	-68.25	510.67	478.83	31.83	16.042		
3,600.00	3,524.04	3,598.82	3,580.52	17.99	16.20	174.19	-168.47	-70.75	522.37	489.63	32.73	15.959		
3,700.00	3,621.48	3,701.87	3,679.22	18.50	16.66	174.17	-179.19	-73.26	534.07	500.42	33.65	15.870		
3,800.00	3,718.92	3,802.56	3,777.92	19.01	17.12	174.15	-189.91	-75.77	545.77	511.21	34.56	15.791		
3,900.00	3,816.36	3,896.76	3,876.62	19.52	17.54	174.14	-200.63	-78.27	557.47	522.02	35.45	15.727		
4,000.00	3,913.80	4,003.93	3,975.32	20.03	18.03	174.12	-211.35	-80.78	569.17	532.78	36.39	15.642		
4,100.00	4,011.24	4,104.62	4,074.02	20.55	18.48	174.10	-222.08	-83.28	580.87	543.57	37.30	15.572		
4,200.00	4,108.68	4,205.30	4,172.72	21.06	18.94	174.09	-232.80	-85.79	592.57	554.36	38.22	15.506		
4,300.00	4,206.12	4,305.99	4,271.42	21.57	19.40	174.07	-243.52	-88.29	604.27	565.14	39.13	15.442		
4,400.00	4,303.56	4,393.32	4,370.12	22.09	19.80	174.06	-254.24	-90.80	615.97	575.98	39.99	15.404		
4,500.00	4,401.00	4,507.36	4,468.82	22.60	20.31	174.04	-264.96	-93.30	627.67	586.71	40.96	15.323		
4,600.00	4,498.44	4,591.95	4,567.52	23.11	20.70	174.03	-275.68	-95.81	639.38	597.57	41.81	15.292		
4,700.00	4,595.88	4,708.74	4,666.22	23.63	21.23	174.02	-286.40	-98.31	651.08	608.28	42.80	15.212		
4,800.00	4,693.32	4,809.43	4,764.93	24.14	21.69	174.01	-297.13	-100.82	662.78	619.06	43.72	15.160		
4,900.00	4,790.76	4,889.89	4,863.63	24.66	22.06	173.99	-307.85	-103.32	674.48	629.93	44.55	15.141		
5,000.00	4,888.20	4,989.20	4,962.33	25.17	22.51	173.98	-318.57	-105.83	686.18	640.72	45.46	15.094		
5,100.00	4,985.64	5,088.51	5,061.03	25.69	22.96	173.97	-329.29	-108.33	697.88	651.51	46.37	15.049		

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 12N-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 12N-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	5,083.08	5,187.83	5,159.73	26.20	23.42	173.96	-340.01	-110.84	709.58	662.29	47.29	15.005		
5,300.00	5,180.52	5,287.14	5,258.43	26.72	23.87	173.95	-350.73	-113.35	721.28	673.08	48.20	14.963		
5,400.00	5,277.96	5,386.45	5,357.13	27.24	24.33	173.94	-361.46	-115.85	732.98	683.87	49.12	14.923		
5,500.00	5,375.40	5,485.77	5,455.83	27.75	24.78	173.93	-372.18	-118.36	744.69	694.65	50.03	14.884		
5,600.00	5,472.84	5,585.08	5,554.53	28.27	25.24	173.92	-382.90	-120.86	756.39	705.44	50.95	14.846		
5,700.00	5,570.28	5,684.39	5,653.23	28.79	25.69	173.91	-393.62	-123.37	768.09	716.22	51.87	14.809		
5,800.00	5,667.72	5,783.70	5,751.93	29.30	26.15	173.90	-404.34	-125.87	779.79	727.01	52.78	14.774		
5,900.00	5,765.16	5,883.02	5,850.63	29.82	26.60	173.89	-415.06	-128.38	791.49	737.79	53.70	14.740		
6,000.00	5,862.60	5,982.33	5,949.33	30.34	27.06	173.88	-425.78	-130.88	803.19	748.58	54.62	14.706		
6,100.00	5,960.05	6,081.64	6,048.04	30.85	27.51	173.88	-436.51	-133.39	814.89	759.36	55.53	14.674		
6,200.00	6,057.49	6,180.96	6,146.74	31.37	27.97	173.87	-447.23	-135.89	826.59	770.15	56.45	14.643		
6,300.00	6,154.93	6,280.27	6,245.44	31.89	28.42	173.86	-457.95	-138.40	838.30	780.93	57.37	14.613		
6,400.00	6,252.37	6,379.58	6,344.14	32.40	28.88	173.85	-468.67	-140.90	850.00	791.71	58.29	14.583		
6,500.00	6,349.81	6,478.89	6,442.84	32.92	29.33	173.84	-479.39	-143.41	861.70	802.50	59.20	14.555		
6,600.00	6,447.25	6,578.46	6,541.77	33.44	29.79	173.80	-490.14	-146.55	873.40	813.27	60.12	14.527		
6,700.00	6,544.28	6,677.95	6,639.48	33.95	30.24	143.71	-500.86	-161.20	885.02	823.98	61.04	14.498		
6,800.00	6,638.86	6,776.50	6,732.87	34.44	30.67	123.54	-511.23	-190.61	896.37	834.44	61.93	14.473		
6,900.00	6,728.65	6,874.23	6,819.90	34.89	31.07	112.60	-521.02	-233.74	907.16	844.36	62.79	14.447		
7,000.00	6,811.45	6,971.22	6,898.79	35.29	31.44	105.98	-530.03	-289.29	917.10	853.46	63.64	14.410		
7,100.00	6,885.21	7,067.59	6,967.95	35.66	31.79	101.60	-538.07	-355.79	925.96	861.41	64.54	14.346		
7,200.00	6,948.11	7,163.44	7,026.05	35.99	32.18	98.57	-545.00	-431.58	933.49	867.92	65.57	14.236		
7,300.00	6,998.62	7,258.84	7,072.01	36.30	32.70	96.46	-550.67	-514.89	939.52	872.70	66.82	14.060		
7,400.00	7,035.48	7,353.88	7,104.98	36.65	33.42	95.05	-554.98	-603.83	943.89	875.52	68.37	13.806		
7,500.00	7,057.79	7,448.64	7,124.39	37.13	34.33	94.23	-557.84	-696.45	946.48	876.25	70.23	13.477		
7,600.00	7,065.00	7,543.59	7,129.96	37.84	35.42	93.93	-559.23	-791.13	947.23	874.82	72.41	13.082		
7,700.00	7,064.77	7,643.59	7,129.53	38.82	36.74	93.92	-560.01	-891.13	947.04	872.03	75.01	12.626		
7,800.00	7,064.54	7,743.59	7,129.10	40.06	38.23	93.91	-560.78	-991.13	946.85	868.92	77.93	12.151		
7,900.00	7,064.31	7,843.59	7,128.66	41.52	39.86	93.90	-561.56	-1,091.12	946.65	865.51	81.14	11.667		
8,000.00	7,064.08	7,943.58	7,128.23	43.14	41.63	93.89	-562.34	-1,191.12	946.46	861.85	84.62	11.185		
8,100.00	7,063.85	8,043.58	7,127.79	44.90	43.52	93.88	-563.12	-1,291.11	946.27	857.94	88.33	10.713		
8,200.00	7,063.62	8,143.58	7,127.36	46.78	45.51	93.86	-563.89	-1,391.11	946.08	853.84	92.24	10.257		
8,300.00	7,063.39	8,243.58	7,126.93	48.76	47.59	93.85	-564.67	-1,491.10	945.89	849.56	96.33	9.819		
8,400.00	7,063.16	8,343.58	7,126.49	50.83	49.74	93.84	-565.45	-1,591.10	945.69	845.12	100.58	9.403		
8,500.00	7,062.93	8,443.58	7,126.06	52.97	51.97	93.83	-566.22	-1,691.10	945.50	840.54	104.97	9.008		
8,600.00	7,062.70	8,543.58	7,125.63	55.18	54.25	93.82	-567.00	-1,791.09	945.31	835.84	109.47	8.635		
8,700.00	7,062.47	8,643.58	7,125.19	57.46	56.59	93.81	-567.78	-1,891.09	945.12	831.03	114.09	8.284		
8,800.00	7,062.24	8,743.58	7,124.76	59.78	58.97	93.79	-568.56	-1,991.08	944.93	826.13	118.80	7.954		
8,900.00	7,062.01	8,843.58	7,124.32	62.14	61.39	93.78	-569.33	-2,091.08	944.74	821.14	123.59	7.644		
9,000.00	7,061.78	8,943.58	7,123.89	64.55	63.85	93.77	-570.11	-2,191.07	944.54	816.08	128.46	7.353		
9,100.00	7,061.55	9,043.58	7,123.46	67.00	66.34	93.76	-570.89	-2,291.07	944.35	810.95	133.40	7.079		
9,200.00	7,061.31	9,143.58	7,123.02	69.47	68.86	93.75	-571.67	-2,391.07	944.16	805.77	138.39	6.822		
9,300.00	7,061.08	9,243.58	7,122.59	71.98	71.41	93.74	-572.44	-2,491.06	943.97	800.53	143.44	6.581		
9,400.00	7,060.85	9,343.58	7,122.15	74.51	73.97	93.72	-573.22	-2,591.06	943.78	795.24	148.54	6.354		
9,500.00	7,060.62	9,443.58	7,121.72	77.06	76.56	93.71	-574.00	-2,691.05	943.59	789.91	153.68	6.140		
9,600.00	7,060.39	9,543.58	7,121.29	79.64	79.17	93.70	-574.78	-2,791.05	943.40	784.54	158.85	5.939		
9,700.00	7,060.16	9,643.58	7,120.85	82.23	81.80	93.69	-575.55	-2,891.04	943.20	779.14	164.06	5.749		
9,800.00	7,059.93	9,743.58	7,120.42	84.84	84.43	93.68	-576.33	-2,991.04	943.01	773.70	169.31	5.570		
9,900.00	7,059.70	9,843.58	7,119.98	87.47	87.09	93.67	-577.11	-3,091.04	942.82	768.24	174.58	5.400		
10,000.00	7,059.47	9,943.58	7,119.55	90.11	89.75	93.65	-577.89	-3,191.03	942.63	762.75	179.88	5.240		
10,100.00	7,059.24	10,043.58	7,119.12	92.76	92.43	93.64	-578.66	-3,291.03	942.44	757.23	185.21	5.089		
10,200.00	7,059.01	10,143.58	7,118.68	95.42	95.12	93.63	-579.44	-3,391.02	942.25	751.70	190.55	4.945		
10,300.00	7,058.78	10,243.58	7,118.25	98.10	97.82	93.62	-580.22	-3,491.02	942.06	746.14	195.92	4.808		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,400.00	7,058.55	10,343.58	7,117.81	100.79	100.52	93.61	-580.99	-3,591.01	941.87	740.56	201.31	4.679		
10,500.00	7,058.32	10,443.58	7,117.38	103.48	103.24	93.60	-581.77	-3,691.01	941.68	734.97	206.71	4.556		
10,600.00	7,058.09	10,543.58	7,116.95	106.19	105.96	93.58	-582.55	-3,791.01	941.49	729.36	212.13	4.438		
10,700.00	7,057.86	10,643.58	7,116.51	108.90	108.69	93.57	-583.33	-3,891.00	941.29	723.73	217.56	4.327		
10,800.00	7,057.63	10,743.57	7,116.08	111.62	111.42	93.56	-584.10	-3,991.00	941.10	718.09	223.01	4.220		
10,900.00	7,057.40	10,843.57	7,115.65	114.35	114.17	93.55	-584.88	-4,090.99	940.91	712.44	228.47	4.118		
11,000.00	7,057.17	10,943.57	7,115.21	117.08	116.91	93.54	-585.66	-4,190.99	940.72	706.78	233.94	4.021		
11,100.00	7,056.94	11,043.57	7,114.78	119.82	119.67	93.53	-586.44	-4,290.98	940.53	701.10	239.43	3.928		
11,200.00	7,056.71	11,143.57	7,114.34	122.56	122.42	93.51	-587.21	-4,390.98	940.34	695.42	244.92	3.839		
11,300.00	7,056.48	11,243.57	7,113.91	125.31	125.19	93.50	-587.99	-4,490.97	940.15	689.73	250.42	3.754		
11,400.00	7,056.25	11,343.57	7,113.48	128.06	127.95	93.49	-588.77	-4,590.97	939.96	684.02	255.94	3.673		
11,500.00	7,056.02	11,443.57	7,113.04	130.82	130.72	93.48	-589.55	-4,690.97	939.77	678.31	261.46	3.594		
11,600.00	7,055.79	11,543.57	7,112.61	133.59	133.50	93.47	-590.32	-4,790.96	939.58	672.59	266.99	3.519		
11,700.00	7,055.55	11,643.57	7,112.17	136.35	136.27	93.46	-591.10	-4,890.96	939.39	666.86	272.52	3.447		
11,800.00	7,055.32	11,743.57	7,111.74	139.12	139.05	93.44	-591.88	-4,990.95	939.20	661.13	278.07	3.378		
11,900.00	7,055.09	11,843.57	7,111.31	141.90	141.84	93.43	-592.66	-5,090.95	939.01	655.39	283.62	3.311		
12,000.00	7,054.86	11,943.57	7,110.87	144.67	144.62	93.42	-593.43	-5,190.94	938.82	649.64	289.18	3.247		
12,100.00	7,054.63	12,043.57	7,110.44	147.45	147.41	93.41	-594.21	-5,290.94	938.63	643.89	294.74	3.185		
12,200.00	7,054.40	12,143.57	7,110.00	150.24	150.20	93.40	-594.99	-5,390.94	938.44	638.13	300.31	3.125		
12,300.00	7,054.17	12,243.57	7,109.57	153.02	153.00	93.39	-595.76	-5,490.93	938.25	632.37	305.88	3.067		
12,400.00	7,053.94	12,343.57	7,109.14	155.81	155.80	93.37	-596.54	-5,590.93	938.06	626.60	311.46	3.012		
12,500.00	7,053.71	12,443.57	7,108.70	158.60	158.59	93.36	-597.32	-5,690.92	937.86	620.82	317.04	2.958		
12,600.00	7,053.48	12,543.57	7,108.27	161.40	161.40	93.35	-598.10	-5,790.92	937.67	615.05	322.63	2.906		
12,700.00	7,053.25	12,643.57	7,107.83	164.19	164.20	93.34	-598.87	-5,890.91	937.48	609.26	328.22	2.856		
12,800.00	7,053.02	12,743.57	7,107.40	166.99	167.00	93.33	-599.65	-5,990.91	937.29	603.48	333.82	2.808		
12,900.00	7,052.79	12,843.57	7,106.97	169.79	169.81	93.31	-600.43	-6,090.91	937.10	597.69	339.42	2.761		
13,000.00	7,052.56	12,943.57	7,106.53	172.59	172.62	93.30	-601.21	-6,190.90	936.91	591.89	345.02	2.716		
13,100.00	7,052.33	13,043.57	7,106.10	175.40	175.43	93.29	-601.98	-6,290.90	936.72	586.10	350.63	2.672		
13,200.00	7,052.10	13,143.57	7,105.66	178.20	178.24	93.28	-602.76	-6,390.89	936.53	580.30	356.24	2.629		
13,300.00	7,051.87	13,243.57	7,105.23	181.01	181.05	93.27	-603.54	-6,490.89	936.34	574.49	361.85	2.588		
13,400.00	7,051.64	13,343.57	7,104.80	183.82	183.87	93.26	-604.32	-6,590.88	936.16	568.68	367.47	2.548		
13,500.00	7,051.41	13,443.56	7,104.36	186.63	186.68	93.24	-605.09	-6,690.88	935.97	562.87	373.09	2.509		
13,600.00	7,051.18	13,543.56	7,103.93	189.44	189.50	93.23	-605.87	-6,790.88	935.78	557.06	378.71	2.471		
13,700.00	7,050.95	13,643.56	7,103.50	192.25	192.32	93.22	-606.65	-6,890.87	935.59	551.25	384.34	2.434		
13,800.00	7,050.72	13,743.56	7,103.06	195.07	195.14	93.21	-607.43	-6,990.87	935.40	545.43	389.97	2.399		
13,900.00	7,050.49	13,843.56	7,102.63	197.88	197.96	93.20	-608.20	-7,090.86	935.21	539.61	395.60	2.364		
14,000.00	7,050.26	13,943.56	7,102.19	200.70	200.78	93.18	-608.98	-7,190.86	935.02	533.79	401.23	2.330		
14,100.00	7,050.03	14,043.56	7,101.76	203.52	203.60	93.17	-609.76	-7,290.85	934.83	527.96	406.87	2.298		
14,200.00	7,049.80	14,143.56	7,101.33	206.34	206.42	93.16	-610.53	-7,390.85	934.64	522.14	412.50	2.266		
14,300.00	7,049.56	14,243.56	7,100.89	209.16	209.25	93.15	-611.31	-7,490.84	934.45	516.31	418.14	2.235		
14,400.00	7,049.33	14,343.56	7,100.46	211.98	212.07	93.14	-612.09	-7,590.84	934.26	510.48	423.78	2.205		
14,500.00	7,049.10	14,443.56	7,100.02	214.80	214.90	93.13	-612.87	-7,690.84	934.07	504.64	429.43	2.175		
14,600.00	7,048.87	14,543.56	7,099.59	217.63	217.73	93.11	-613.64	-7,790.83	933.88	498.81	435.07	2.146		
14,700.00	7,048.64	14,643.56	7,099.16	220.45	220.55	93.10	-614.42	-7,890.83	933.69	492.97	440.72	2.119		
14,800.00	7,048.41	14,743.56	7,098.72	223.28	223.38	93.09	-615.20	-7,990.82	933.50	487.13	446.37	2.091		
14,900.00	7,048.18	14,843.56	7,098.29	226.10	226.21	93.08	-615.98	-8,090.82	933.31	481.29	452.02	2.065		
14,973.11	7,048.01	14,916.67	7,097.97	228.17	228.28	93.07	-616.54	-8,163.93	933.17	477.02	456.15	2.046 SF		
14,979.18	7,048.00	14,909.96	7,098.00	228.34	228.09	93.07	-616.49	-8,157.22	933.25	477.27	455.98	2.047		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-179.73	-59.73	-0.28	59.73					
100.00	100.00	100.00	100.00	3.28	3.28	-179.73	-59.73	-0.28	59.73	53.16	6.57	9.092		
200.00	200.00	200.00	200.00	3.34	3.34	-179.73	-59.73	-0.28	59.73	53.06	6.67	8.950		
300.00	299.98	297.96	297.94	3.44	3.44	-5.87	-61.40	-0.41	59.70	52.81	6.89	8.668		
400.00	399.84	395.93	395.78	3.59	3.59	-6.02	-66.41	-0.79	59.61	52.40	7.21	8.271		
500.00	499.45	493.90	493.38	3.79	3.78	-6.28	-74.75	-1.43	59.45	51.83	7.63	7.794		
600.00	598.70	591.87	590.65	4.03	4.01	-6.64	-86.41	-2.33	59.24	51.11	8.13	7.284		
700.00	697.47	689.86	687.48	4.31	4.28	-7.11	-101.39	-3.47	58.97	50.26	8.71	6.771		
800.00	795.62	787.85	783.74	4.64	4.60	-7.68	-119.66	-4.88	58.65	49.30	9.35	6.276		
820.56	815.72	808.00	803.45	4.71	4.66	-7.81	-123.82	-5.20	58.61	49.13	9.48	6.181 CC		
900.00	893.16	885.86	879.33	5.00	4.95	-8.30	-141.20	-6.53	58.72	48.69	10.03	5.856 ES		
1,000.00	990.60	983.77	974.03	5.38	5.33	-8.59	-165.97	-8.43	61.76	51.01	10.75	5.745		
1,100.00	1,088.04	1,081.38	1,067.54	5.79	5.75	-8.50	-193.85	-10.57	68.19	56.69	11.50	5.930		
1,200.00	1,185.48	1,180.71	1,162.08	6.22	6.20	-8.24	-224.23	-12.90	76.71	64.45	12.26	6.257		
1,300.00	1,282.92	1,280.34	1,256.90	6.66	6.67	-8.02	-254.74	-15.24	85.26	72.21	13.05	6.534		
1,400.00	1,380.36	1,379.97	1,351.72	7.10	7.16	-7.85	-285.24	-17.58	93.82	79.95	13.87	6.766		
1,500.00	1,477.80	1,479.61	1,446.54	7.56	7.66	-7.70	-315.74	-19.92	102.37	87.67	14.70	6.963		
1,600.00	1,575.24	1,579.24	1,541.36	8.03	8.17	-7.58	-346.24	-22.26	110.93	95.37	15.56	7.130		
1,700.00	1,672.68	1,678.87	1,636.18	8.50	8.69	-7.47	-376.75	-24.60	119.48	103.05	16.43	7.272		
1,800.00	1,770.12	1,778.51	1,731.00	8.98	9.21	-7.38	-407.25	-26.94	128.04	110.73	17.31	7.395		
1,900.00	1,867.56	1,878.14	1,825.82	9.46	9.74	-7.30	-437.75	-29.28	136.60	118.39	18.21	7.502		
2,000.00	1,965.00	1,977.77	1,920.64	9.95	10.28	-7.23	-468.25	-31.62	145.15	126.04	19.11	7.595		
2,100.00	2,062.44	2,077.41	2,015.46	10.44	10.82	-7.17	-498.76	-33.96	153.71	133.69	20.03	7.676		
2,200.00	2,159.88	2,177.04	2,110.28	10.93	11.36	-7.11	-529.26	-36.31	162.27	141.32	20.95	7.747		
2,300.00	2,257.32	2,276.67	2,205.10	11.42	11.91	-7.06	-559.76	-38.65	170.83	148.95	21.87	7.811		
2,400.00	2,354.76	2,376.31	2,299.92	11.92	12.46	-7.02	-590.26	-40.99	179.38	156.58	22.80	7.867		
2,500.00	2,452.20	2,475.94	2,394.74	12.42	13.01	-6.98	-620.77	-43.33	187.94	164.20	23.74	7.917		
2,600.00	2,549.64	2,575.57	2,489.56	12.92	13.57	-6.94	-651.27	-45.67	196.50	171.82	24.68	7.962		
2,700.00	2,647.08	2,675.20	2,584.38	13.42	14.12	-6.90	-681.77	-48.01	205.06	179.43	25.62	8.002		
2,800.00	2,744.52	2,774.84	2,679.20	13.93	14.68	-6.87	-712.27	-50.35	213.61	187.04	26.57	8.039		
2,900.00	2,841.96	2,874.47	2,774.02	14.43	15.24	-6.84	-742.78	-52.69	222.17	194.65	27.52	8.072		
3,000.00	2,939.40	2,974.10	2,868.84	14.94	15.80	-6.81	-773.28	-55.03	230.73	202.25	28.48	8.102		
3,100.00	3,036.84	3,073.74	2,963.66	15.44	16.36	-6.79	-803.78	-57.37	239.29	209.86	29.43	8.130		
3,200.00	3,134.28	3,173.37	3,058.48	15.95	16.92	-6.77	-834.28	-59.71	247.85	217.46	30.39	8.155		
3,300.00	3,231.72	3,273.00	3,153.30	16.46	17.49	-6.74	-864.79	-62.05	256.40	225.05	31.35	8.178		
3,400.00	3,329.16	3,372.64	3,248.12	16.97	18.05	-6.72	-895.29	-64.39	264.96	232.65	32.31	8.200		
3,500.00	3,426.60	3,472.27	3,342.94	17.48	18.62	-6.70	-925.79	-66.73	273.52	240.24	33.28	8.219		
3,600.00	3,524.04	3,571.90	3,437.77	17.99	19.18	-6.69	-956.29	-69.07	282.08	247.84	34.24	8.238		
3,700.00	3,621.48	3,671.54	3,532.59	18.50	19.75	-6.67	-986.80	-71.41	290.64	255.43	35.21	8.254		
3,800.00	3,718.92	3,771.17	3,627.41	19.01	20.32	-6.65	-1,017.30	-73.75	299.20	263.02	36.18	8.270		
3,900.00	3,816.36	3,870.80	3,722.23	19.52	20.88	-6.64	-1,047.80	-76.09	307.75	270.61	37.15	8.285		
4,000.00	3,913.80	3,970.43	3,817.05	20.03	21.45	-6.62	-1,078.30	-78.43	316.31	278.19	38.12	8.298		
4,100.00	4,011.24	4,070.07	3,911.87	20.55	22.02	-6.61	-1,108.81	-80.77	324.87	285.78	39.09	8.311		
4,200.00	4,108.68	4,169.70	4,006.69	21.06	22.59	-6.60	-1,139.31	-83.11	333.43	293.37	40.06	8.323		
4,300.00	4,206.12	4,269.33	4,101.51	21.57	23.16	-6.58	-1,169.81	-85.45	341.99	300.95	41.04	8.334		
4,400.00	4,303.56	4,368.97	4,196.33	22.09	23.73	-6.57	-1,200.31	-87.79	350.55	308.54	42.01	8.344		
4,500.00	4,401.00	4,468.60	4,291.15	22.60	24.30	-6.56	-1,230.82	-90.14	359.10	316.12	42.99	8.354		
4,600.00	4,498.44	4,568.23	4,385.97	23.11	24.87	-6.55	-1,261.32	-92.48	367.66	323.70	43.96	8.363		
4,700.00	4,595.88	4,667.87	4,480.79	23.63	25.44	-6.54	-1,291.82	-94.82	376.22	331.28	44.94	8.372		
4,800.00	4,693.32	4,767.50	4,575.61	24.14	26.01	-6.53	-1,322.32	-97.16	384.78	338.86	45.91	8.380		
4,900.00	4,790.76	4,867.13	4,670.43	24.66	26.58	-6.52	-1,352.82	-99.50	393.34	346.45	46.89	8.388		
5,000.00	4,888.20	4,966.77	4,765.25	25.17	27.15	-6.51	-1,383.33	-101.84	401.90	354.03	47.87	8.395		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	
5,100.00	4,985.64	5,066.40	4,860.07	25.69	27.72	-6.50	-1,413.83	-104.18	410.45	361.61	48.85	8.402	
5,200.00	5,083.08	5,166.03	4,954.89	26.20	28.30	-6.50	-1,444.33	-106.52	419.01	369.18	49.83	8.409	
5,300.00	5,180.52	5,265.66	5,049.71	26.72	28.87	-6.49	-1,474.83	-108.86	427.57	376.76	50.81	8.415	
5,400.00	5,277.96	5,365.30	5,144.53	27.24	29.44	-6.48	-1,505.34	-111.20	436.13	384.34	51.79	8.421	
5,500.00	5,375.40	5,464.93	5,239.35	27.75	30.01	-6.47	-1,535.84	-113.54	444.69	391.92	52.77	8.427	
5,600.00	5,472.84	5,564.56	5,334.17	28.27	30.59	-6.47	-1,566.34	-115.88	453.25	399.50	53.75	8.432	
5,700.00	5,570.28	5,664.20	5,428.99	28.79	31.16	-6.46	-1,596.84	-118.22	461.81	407.07	54.73	8.438	
5,800.00	5,667.72	5,763.83	5,523.81	29.30	31.73	-6.45	-1,627.35	-120.56	470.36	414.65	55.71	8.443	
5,900.00	5,765.16	5,863.46	5,618.63	29.82	32.30	-6.45	-1,657.85	-122.90	478.92	422.23	56.70	8.447	
6,000.00	5,862.60	5,963.10	5,713.45	30.34	32.88	-6.44	-1,688.35	-125.24	487.48	429.80	57.68	8.452	
6,100.00	5,960.05	6,062.73	5,808.27	30.85	33.45	-6.44	-1,718.85	-127.58	496.04	437.38	58.66	8.456	
6,200.00	6,057.49	6,162.36	5,903.09	31.37	34.02	-6.43	-1,749.36	-129.92	504.60	444.95	59.64	8.460	
6,300.00	6,154.93	6,262.00	5,997.91	31.89	34.60	-6.43	-1,779.86	-132.26	513.16	452.53	60.63	8.464	
6,400.00	6,252.37	6,361.63	6,092.73	32.40	35.17	-6.42	-1,810.36	-134.60	521.72	460.11	61.61	8.468	
6,500.00	6,349.81	6,461.26	6,187.55	32.92	35.75	-6.42	-1,840.86	-136.94	530.27	467.68	62.59	8.472	
6,600.00	6,447.25	6,560.89	6,282.37	33.44	36.32	-6.41	-1,871.37	-139.28	538.83	475.25	63.58	8.475	
6,700.00	6,544.28	6,660.26	6,376.94	33.95	36.89	-35.10	-1,901.79	-141.62	547.41	482.83	64.58	8.477	
6,800.00	6,638.86	6,757.51	6,469.49	34.44	37.45	-55.17	-1,931.56	-143.90	556.44	490.82	65.61	8.481	
6,900.00	6,728.65	6,858.49	6,565.21	34.89	38.03	-67.01	-1,962.40	-151.95	566.79	500.02	66.77	8.488	
7,000.00	6,811.45	6,966.14	6,664.54	35.29	38.61	-74.61	-1,994.53	-177.68	578.09	510.10	68.00	8.502	
7,100.00	6,885.21	7,080.54	6,763.92	35.66	39.15	-79.98	-2,026.84	-223.86	589.77	520.64	69.14	8.530	
7,200.00	6,948.11	7,202.33	6,859.20	35.99	39.66	-83.98	-2,058.00	-292.69	601.13	531.05	70.08	8.578	
7,300.00	6,998.62	7,331.73	6,944.77	36.30	40.12	-86.99	-2,086.22	-385.25	611.35	540.53	70.82	8.632	
7,400.00	7,035.48	7,468.27	7,013.76	36.65	40.53	-89.13	-2,109.29	-500.49	619.56	548.00	71.55	8.659	
7,500.00	7,057.79	7,610.54	7,059.05	37.13	40.95	-90.44	-2,124.89	-634.15	624.98	552.32	72.65	8.602	
7,600.00	7,065.00	7,756.15	7,075.00	37.84	41.48	-90.91	-2,131.13	-778.42	627.03	552.56	74.47	8.420	
7,700.00	7,064.77	7,857.08	7,074.68	38.82	42.03	-90.91	-2,131.80	-879.35	627.10	550.18	76.92	8.152	
7,800.00	7,064.54	7,957.08	7,074.35	40.06	42.84	-90.90	-2,132.47	-979.35	627.17	547.48	79.69	7.870	
7,900.00	7,064.31	8,057.08	7,074.03	41.52	43.94	-90.89	-2,133.14	-1,079.35	627.23	544.47	82.76	7.579	
8,000.00	7,064.08	8,157.08	7,073.70	43.14	45.28	-90.88	-2,133.81	-1,179.34	627.30	541.20	86.10	7.286	
8,100.00	7,063.85	8,257.08	7,073.38	44.90	46.83	-90.87	-2,134.47	-1,279.34	627.37	537.68	89.68	6.995	
8,200.00	7,063.62	8,357.08	7,073.05	46.78	48.54	-90.86	-2,135.14	-1,379.34	627.44	533.96	93.48	6.712	
8,300.00	7,063.39	8,457.08	7,072.73	48.76	50.38	-90.85	-2,135.81	-1,479.33	627.50	530.04	97.46	6.438	
8,400.00	7,063.16	8,557.08	7,072.40	50.83	52.33	-90.84	-2,136.48	-1,579.33	627.57	525.96	101.61	6.176	
8,500.00	7,062.93	8,657.08	7,072.08	52.97	54.38	-90.84	-2,137.14	-1,679.33	627.64	521.73	105.91	5.926	
8,600.00	7,062.70	8,757.08	7,071.76	55.18	56.50	-90.83	-2,137.81	-1,779.33	627.70	517.37	110.33	5.689	
8,700.00	7,062.47	8,857.08	7,071.43	57.46	58.69	-90.82	-2,138.48	-1,879.32	627.77	512.90	114.87	5.465	
8,800.00	7,062.24	8,957.08	7,071.11	59.78	60.94	-90.81	-2,139.15	-1,979.32	627.84	508.33	119.51	5.253	
8,900.00	7,062.01	9,057.08	7,070.78	62.14	63.24	-90.80	-2,139.81	-2,079.32	627.91	503.67	124.24	5.054	
9,000.00	7,061.78	9,157.08	7,070.46	64.55	65.59	-90.79	-2,140.48	-2,179.31	627.97	498.92	129.05	4.866	
9,100.00	7,061.55	9,257.08	7,070.13	67.00	67.98	-90.78	-2,141.15	-2,279.31	628.04	494.11	133.93	4.689	
9,200.00	7,061.31	9,357.08	7,069.81	69.47	70.40	-90.77	-2,141.82	-2,379.31	628.11	489.23	138.88	4.523	
9,300.00	7,061.08	9,457.08	7,069.48	71.98	72.86	-90.77	-2,142.48	-2,479.31	628.18	484.30	143.88	4.366	
9,400.00	7,060.85	9,557.08	7,069.16	74.51	75.35	-90.76	-2,143.15	-2,579.30	628.24	479.31	148.93	4.218	
9,500.00	7,060.62	9,657.08	7,068.83	77.06	77.86	-90.75	-2,143.82	-2,679.30	628.31	474.27	154.04	4.079	
9,600.00	7,060.39	9,757.08	7,068.51	79.64	80.40	-90.74	-2,144.49	-2,779.30	628.38	469.20	159.18	3.948	
9,700.00	7,060.16	9,857.08	7,068.18	82.23	82.96	-90.73	-2,145.15	-2,879.30	628.45	464.09	164.36	3.824	
9,800.00	7,059.93	9,957.08	7,067.86	84.84	85.54	-90.72	-2,145.82	-2,979.29	628.51	458.94	169.58	3.706	
9,900.00	7,059.70	10,057.08	7,067.53	87.47	88.13	-90.71	-2,146.49	-3,079.29	628.58	453.76	174.82	3.596	
10,000.00	7,059.47	10,157.08	7,067.21	90.11	90.74	-90.70	-2,147.16	-3,179.29	628.65	448.55	180.10	3.491	
10,100.00	7,059.24	10,257.08	7,066.88	92.76	93.37	-90.70	-2,147.82	-3,279.28	628.72	443.31	185.40	3.391	
10,200.00	7,059.01	10,357.08	7,066.56	95.42	96.01	-90.69	-2,148.49	-3,379.28	628.78	438.06	190.73	3.297	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,300.00	7,058.78	10,457.08	7,066.23	98.10	98.66	-90.68	-2,149.16	-3,479.28	628.85	432.77	196.08	3.207		
10,400.00	7,058.55	10,557.08	7,065.91	100.79	101.32	-90.67	-2,149.83	-3,579.28	628.92	427.47	201.44	3.122		
10,500.00	7,058.32	10,657.08	7,065.58	103.48	104.00	-90.66	-2,150.49	-3,679.27	628.99	422.15	206.83	3.041		
10,600.00	7,058.09	10,757.08	7,065.26	106.19	106.68	-90.65	-2,151.16	-3,779.27	629.05	416.82	212.24	2.964		
10,700.00	7,057.86	10,857.08	7,064.93	108.90	109.37	-90.64	-2,151.83	-3,879.27	629.12	411.46	217.66	2.890		
10,800.00	7,057.63	10,957.08	7,064.61	111.62	112.07	-90.64	-2,152.50	-3,979.26	629.19	406.09	223.09	2.820		
10,900.00	7,057.40	11,057.08	7,064.28	114.35	114.78	-90.63	-2,153.16	-4,079.26	629.26	400.71	228.54	2.753		
11,000.00	7,057.17	11,157.08	7,063.96	117.08	117.50	-90.62	-2,153.83	-4,179.26	629.32	395.32	234.01	2.689		
11,100.00	7,056.94	11,257.08	7,063.63	119.82	120.22	-90.61	-2,154.50	-4,279.26	629.39	389.91	239.48	2.628		
11,200.00	7,056.71	11,357.08	7,063.31	122.56	122.95	-90.60	-2,155.17	-4,379.25	629.46	384.49	244.97	2.570		
11,300.00	7,056.48	11,457.08	7,062.98	125.31	125.68	-90.59	-2,155.83	-4,479.25	629.53	379.06	250.46	2.513		
11,400.00	7,056.25	11,557.08	7,062.66	128.06	128.42	-90.58	-2,156.50	-4,579.25	629.59	373.63	255.97	2.460		
11,500.00	7,056.02	11,657.08	7,062.33	130.82	131.17	-90.57	-2,157.17	-4,679.24	629.66	368.18	261.48	2.408		
11,600.00	7,055.79	11,757.08	7,062.01	133.59	133.92	-90.57	-2,157.84	-4,779.24	629.73	362.72	267.01	2.358		
11,700.00	7,055.55	11,857.08	7,061.68	136.35	136.67	-90.56	-2,158.50	-4,879.24	629.80	357.26	272.54	2.311		
11,800.00	7,055.32	11,957.08	7,061.36	139.12	139.43	-90.55	-2,159.17	-4,979.24	629.86	351.79	278.08	2.265		
11,900.00	7,055.09	12,057.08	7,061.03	141.90	142.19	-90.54	-2,159.84	-5,079.23	629.93	346.31	283.63	2.221		
12,000.00	7,054.86	12,157.08	7,060.71	144.67	144.96	-90.53	-2,160.51	-5,179.23	630.00	340.82	289.18	2.179		
12,100.00	7,054.63	12,257.08	7,060.38	147.45	147.73	-90.52	-2,161.17	-5,279.23	630.07	335.33	294.74	2.138		
12,200.00	7,054.40	12,357.08	7,060.06	150.24	150.50	-90.51	-2,161.84	-5,379.22	630.14	329.83	300.30	2.098		
12,300.00	7,054.17	12,457.08	7,059.73	153.02	153.28	-90.51	-2,162.51	-5,479.22	630.20	324.33	305.87	2.060		
12,400.00	7,053.94	12,557.08	7,059.41	155.81	156.06	-90.50	-2,163.18	-5,579.22	630.27	318.82	311.45	2.024		
12,500.00	7,053.71	12,657.08	7,059.08	158.60	158.84	-90.49	-2,163.84	-5,679.22	630.34	313.31	317.03	1.988		
12,600.00	7,053.48	12,757.08	7,058.76	161.40	161.62	-90.48	-2,164.51	-5,779.21	630.41	307.79	322.62	1.954		
12,700.00	7,053.25	12,857.08	7,058.43	164.19	164.41	-90.47	-2,165.18	-5,879.21	630.47	302.26	328.21	1.921		
12,800.00	7,053.02	12,957.08	7,058.11	166.99	167.20	-90.46	-2,165.85	-5,979.21	630.54	296.74	333.81	1.889		
12,900.00	7,052.79	13,057.08	7,057.78	169.79	169.99	-90.45	-2,166.51	-6,079.20	630.61	291.20	339.41	1.858		
13,000.00	7,052.56	13,157.08	7,057.46	172.59	172.79	-90.45	-2,167.18	-6,179.20	630.68	285.67	345.01	1.828		
13,100.00	7,052.33	13,257.08	7,057.13	175.40	175.58	-90.44	-2,167.85	-6,279.20	630.75	280.13	350.62	1.799		
13,200.00	7,052.10	13,357.08	7,056.81	178.20	178.38	-90.43	-2,168.52	-6,379.20	630.81	274.59	356.23	1.771		
13,300.00	7,051.87	13,457.08	7,056.48	181.01	181.18	-90.42	-2,169.18	-6,479.19	630.88	269.04	361.84	1.744		
13,400.00	7,051.64	13,557.08	7,056.16	183.82	183.98	-90.41	-2,169.85	-6,579.19	630.95	263.49	367.46	1.717		
13,500.00	7,051.41	13,657.08	7,055.83	186.63	186.79	-90.40	-2,170.52	-6,679.19	631.02	257.94	373.08	1.691		
13,600.00	7,051.18	13,757.08	7,055.51	189.44	189.59	-90.39	-2,171.19	-6,779.19	631.09	252.38	378.70	1.666		
13,700.00	7,050.95	13,857.08	7,055.19	192.25	192.40	-90.38	-2,171.85	-6,879.18	631.15	246.83	384.33	1.642		
13,800.00	7,050.72	13,957.08	7,054.86	195.07	195.21	-90.38	-2,172.52	-6,979.18	631.22	241.26	389.96	1.619		
13,900.00	7,050.49	14,057.08	7,054.54	197.88	198.02	-90.37	-2,173.19	-7,079.18	631.29	235.70	395.59	1.596		
14,000.00	7,050.26	14,157.08	7,054.21	200.70	200.83	-90.36	-2,173.86	-7,179.17	631.36	230.14	401.22	1.574		
14,100.00	7,050.03	14,257.08	7,053.89	203.52	203.64	-90.35	-2,174.52	-7,279.17	631.43	224.57	406.86	1.552		
14,200.00	7,049.80	14,357.08	7,053.56	206.34	206.45	-90.34	-2,175.19	-7,379.17	631.49	219.00	412.50	1.531		
14,300.00	7,049.56	14,457.08	7,053.24	209.16	209.27	-90.33	-2,175.86	-7,479.17	631.56	213.42	418.14	1.510		
14,400.00	7,049.33	14,557.08	7,052.91	211.98	212.08	-90.32	-2,176.53	-7,579.16	631.63	207.85	423.78	1.490 Level 3		
14,500.00	7,049.10	14,657.08	7,052.59	214.80	214.90	-90.32	-2,177.19	-7,679.16	631.70	202.27	429.43	1.471 Level 3		
14,600.00	7,048.87	14,757.08	7,052.26	217.63	217.72	-90.31	-2,177.86	-7,779.16	631.77	196.69	435.07	1.452 Level 3		
14,700.00	7,048.64	14,857.08	7,051.94	220.45	220.54	-90.30	-2,178.53	-7,879.15	631.84	191.11	440.72	1.434 Level 3		
14,800.00	7,048.41	14,957.08	7,051.61	223.28	223.36	-90.29	-2,179.20	-7,979.15	631.90	185.53	446.37	1.416 Level 3		
14,900.00	7,048.18	15,057.08	7,051.29	226.10	226.18	-90.28	-2,179.86	-8,079.15	631.97	179.95	452.03	1.398 Level 3		
14,979.18	7,048.00	15,136.26	7,051.03	228.34	228.42	-90.27	-2,180.39	-8,158.33	632.03	175.52	456.50	1.384 Level 3, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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-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	-179.60	-79.78	-0.56	79.78				
100.00	100.00	101.00	100.00	3.28	3.28	-179.60	-79.78	-0.56	79.78	73.22	6.57	12.145	
200.00	200.00	199.00	200.00	3.34	3.34	-179.60	-79.78	-0.56	79.78	73.11	6.67	11.956	
300.00	299.98	296.32	297.31	3.44	3.44	-5.74	-81.40	-0.67	79.71	72.82	6.88	11.578	
400.00	399.84	393.62	394.48	3.59	3.58	-5.88	-86.31	-1.01	79.55	72.35	7.20	11.045	
500.00	499.45	490.93	491.43	3.79	3.77	-6.12	-94.51	-1.57	79.31	71.69	7.62	10.408	
600.00	598.70	588.25	588.06	4.03	4.00	-6.46	-105.99	-2.37	78.99	70.87	8.12	9.724	
700.00	697.47	685.58	684.25	4.31	4.27	-6.89	-120.74	-3.39	78.59	69.89	8.70	9.037	
800.00	795.62	782.92	779.91	4.64	4.58	-7.43	-138.74	-4.63	78.12	68.79	9.33	8.374	
865.36	859.48	846.56	842.08	4.87	4.80	-7.80	-152.26	-5.57	78.14	68.38	9.76	8.004	
900.00	893.16	880.28	874.90	5.00	4.93	-8.03	-159.98	-6.10	78.01	68.01	10.01	7.797 CC, ES	
1,000.00	990.60	977.56	969.05	5.38	5.31	-8.40	-184.41	-7.79	80.87	70.15	10.73	7.540	
1,100.00	1,088.04	1,074.55	1,062.03	5.79	5.72	-8.50	-211.92	-9.70	87.10	75.63	11.47	7.593	
1,200.00	1,185.48	1,171.20	1,153.70	6.22	6.15	-8.36	-242.44	-11.81	96.66	84.43	12.23	7.901	
1,300.00	1,282.92	1,270.58	1,247.50	6.66	6.63	-8.16	-275.23	-14.08	107.71	94.69	13.02	8.273	
1,400.00	1,380.36	1,369.97	1,341.29	7.10	7.13	-7.99	-308.02	-16.34	118.76	104.93	13.83	8.585	
1,500.00	1,477.80	1,469.36	1,435.09	7.56	7.64	-7.85	-340.81	-18.61	129.82	115.15	14.67	8.849	
1,600.00	1,575.24	1,568.74	1,528.88	8.03	8.16	-7.74	-373.61	-20.88	140.87	125.34	15.53	9.073	
1,700.00	1,672.68	1,668.13	1,622.67	8.50	8.70	-7.64	-406.40	-23.15	151.92	135.52	16.40	9.264	
1,800.00	1,770.12	1,767.52	1,716.47	8.98	9.23	-7.56	-439.19	-25.42	162.97	145.69	17.29	9.428	
1,900.00	1,867.56	1,866.91	1,810.26	9.46	9.78	-7.48	-471.98	-27.69	174.03	155.84	18.18	9.571	
2,000.00	1,965.00	1,966.29	1,904.06	9.95	10.33	-7.42	-504.77	-29.95	185.08	165.99	19.09	9.694	
2,100.00	2,062.44	2,065.68	1,997.85	10.44	10.89	-7.36	-537.56	-32.22	196.13	176.12	20.01	9.803	
2,200.00	2,159.88	2,165.07	2,091.65	10.93	11.45	-7.31	-570.35	-34.49	207.19	186.25	20.93	9.898	
2,300.00	2,257.32	2,264.45	2,185.44	11.42	12.01	-7.26	-603.14	-36.76	218.24	196.38	21.86	9.982	
2,400.00	2,354.76	2,363.84	2,279.23	11.92	12.58	-7.22	-635.93	-39.03	229.29	206.49	22.80	10.056	
2,500.00	2,452.20	2,463.23	2,373.03	12.42	13.14	-7.18	-668.72	-41.29	240.35	216.61	23.74	10.123	
2,600.00	2,549.64	2,562.62	2,466.82	12.92	13.71	-7.14	-701.52	-43.56	251.40	226.71	24.69	10.183	
2,700.00	2,647.08	2,662.00	2,560.62	13.42	14.29	-7.11	-734.31	-45.83	262.46	236.82	25.64	10.236	
2,800.00	2,744.52	2,761.39	2,654.41	13.93	14.86	-7.08	-767.10	-48.10	273.51	246.92	26.59	10.285	
2,900.00	2,841.96	2,860.78	2,748.21	14.43	15.44	-7.05	-799.89	-50.37	284.57	257.01	27.55	10.328	
3,000.00	2,939.40	2,960.16	2,842.00	14.94	16.01	-7.03	-832.68	-52.64	295.62	267.11	28.51	10.368	
3,100.00	3,036.84	3,059.55	2,935.80	15.44	16.59	-7.01	-865.47	-54.90	306.68	277.20	29.48	10.404	
3,200.00	3,134.28	3,158.94	3,029.59	15.95	17.17	-6.98	-898.26	-57.17	317.73	287.29	30.44	10.438	
3,300.00	3,231.72	3,258.32	3,123.38	16.46	17.75	-6.96	-931.05	-59.44	328.78	297.38	31.41	10.468	
3,400.00	3,329.16	3,357.71	3,217.18	16.97	18.33	-6.95	-963.84	-61.71	339.84	307.46	32.38	10.496	
3,500.00	3,426.60	3,457.10	3,310.97	17.48	18.92	-6.93	-996.63	-63.98	350.89	317.55	33.35	10.522	
3,600.00	3,524.04	3,556.49	3,404.77	17.99	19.50	-6.91	-1,029.42	-66.25	361.95	327.63	34.32	10.546	
3,700.00	3,621.48	3,655.87	3,498.56	18.50	20.08	-6.90	-1,062.22	-68.51	373.00	337.71	35.30	10.568	
3,800.00	3,718.92	3,755.26	3,592.36	19.01	20.67	-6.88	-1,095.01	-70.78	384.06	347.79	36.27	10.588	
3,900.00	3,816.36	3,854.65	3,686.15	19.52	21.25	-6.87	-1,127.80	-73.05	395.11	357.86	37.25	10.607	
4,000.00	3,913.80	3,954.03	3,779.95	20.03	21.84	-6.85	-1,160.59	-75.32	406.17	367.94	38.23	10.625	
4,100.00	4,011.24	4,053.42	3,873.74	20.55	22.42	-6.84	-1,193.38	-77.59	417.22	378.02	39.21	10.642	
4,200.00	4,108.68	4,152.81	3,967.53	21.06	23.01	-6.83	-1,226.17	-79.86	428.28	388.09	40.19	10.657	
4,300.00	4,206.12	4,252.19	4,061.33	21.57	23.59	-6.82	-1,258.96	-82.12	439.33	398.17	41.17	10.672	
4,400.00	4,303.56	4,351.58	4,155.12	22.09	24.18	-6.81	-1,291.75	-84.39	450.39	408.24	42.15	10.685	
4,500.00	4,401.00	4,450.97	4,248.92	22.60	24.77	-6.80	-1,324.54	-86.66	461.44	418.31	43.13	10.698	
4,600.00	4,498.44	4,550.36	4,342.71	23.11	25.36	-6.79	-1,357.33	-88.93	472.50	428.38	44.12	10.710	
4,700.00	4,595.88	4,649.74	4,436.51	23.63	25.94	-6.78	-1,390.13	-91.20	483.55	438.45	45.10	10.721	
4,800.00	4,693.32	4,749.13	4,530.30	24.14	26.53	-6.77	-1,422.92	-93.46	494.61	448.52	46.09	10.732	
4,900.00	4,790.76	4,848.52	4,624.09	24.66	27.12	-6.76	-1,455.71	-95.73	505.66	458.59	47.07	10.742	
5,000.00	4,888.20	4,947.90	4,717.89	25.17	27.71	-6.75	-1,488.50	-98.00	516.72	468.66	48.06	10.752	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,985.64	5,047.29	4,811.68	25.69	28.30	-6.75	-1,521.29	-100.27	527.77	478.73	49.05	10.761		
5,200.00	5,083.08	5,146.68	4,905.48	26.20	28.89	-6.74	-1,554.08	-102.54	538.83	488.80	50.03	10.770		
5,300.00	5,180.52	5,246.06	4,999.27	26.72	29.48	-6.73	-1,586.87	-104.81	549.88	498.86	51.02	10.778		
5,400.00	5,277.96	5,345.45	5,093.07	27.24	30.07	-6.72	-1,619.66	-107.07	560.94	508.93	52.01	10.785		
5,500.00	5,375.40	5,444.84	5,186.86	27.75	30.66	-6.72	-1,652.45	-109.34	571.99	519.00	53.00	10.793		
5,600.00	5,472.84	5,544.23	5,280.66	28.27	31.25	-6.71	-1,685.24	-111.61	583.05	529.06	53.99	10.800		
5,700.00	5,570.28	5,643.61	5,374.45	28.79	31.84	-6.71	-1,718.03	-113.88	594.10	539.13	54.98	10.807		
5,800.00	5,667.72	5,743.00	5,468.24	29.30	32.43	-6.70	-1,750.83	-116.15	605.16	549.19	55.97	10.813		
5,900.00	5,765.16	5,842.39	5,562.04	29.82	33.02	-6.69	-1,783.62	-118.42	616.21	559.26	56.96	10.819		
6,000.00	5,862.60	5,941.77	5,655.83	30.34	33.61	-6.69	-1,816.41	-120.68	627.27	569.32	57.95	10.825		
6,100.00	5,960.05	6,041.16	5,749.63	30.85	34.20	-6.68	-1,849.20	-122.95	638.32	579.39	58.94	10.830		
6,200.00	6,057.49	6,140.55	5,843.42	31.37	34.79	-6.68	-1,881.99	-125.22	649.38	589.45	59.93	10.836		
6,300.00	6,154.93	6,239.94	5,937.22	31.89	35.38	-6.67	-1,914.78	-127.49	660.43	599.51	60.92	10.841		
6,400.00	6,252.37	6,339.32	6,031.01	32.40	35.97	-6.67	-1,947.57	-129.76	671.49	609.58	61.91	10.846		
6,500.00	6,349.81	6,438.71	6,124.81	32.92	36.56	-6.66	-1,980.36	-132.02	682.55	619.64	62.90	10.850		
6,600.00	6,447.25	6,538.10	6,218.60	33.44	37.16	-6.66	-2,013.15	-134.29	693.60	629.70	63.90	10.855		
6,700.00	6,544.28	6,637.22	6,312.14	33.95	37.75	-35.02	-2,045.86	-136.55	704.69	639.79	64.90	10.858		
6,800.00	6,638.86	6,734.22	6,403.68	34.44	38.32	-54.39	-2,077.86	-138.77	716.10	650.17	65.93	10.861		
6,900.00	6,728.65	6,826.71	6,490.97	34.89	38.87	-65.49	-2,108.38	-140.88	728.86	661.87	66.99	10.880		
7,000.00	6,811.45	6,915.47	6,574.73	35.29	39.40	-72.90	-2,137.66	-143.11	744.66	676.50	68.15	10.926		
7,100.00	6,885.21	7,023.83	6,675.96	35.66	40.03	-78.91	-2,173.15	-157.53	763.56	693.94	69.62	10.967		
7,200.00	6,948.11	7,147.63	6,786.78	35.99	40.69	-83.83	-2,212.18	-195.93	784.16	713.13	71.03	11.040		
7,300.00	6,998.62	7,292.24	6,904.35	36.30	41.34	-88.10	-2,253.85	-268.46	804.86	732.87	71.98	11.181		
7,400.00	7,035.48	7,463.16	7,019.03	36.65	41.96	-91.75	-2,294.89	-387.63	823.33	751.13	72.20	11.403		
7,500.00	7,057.79	7,662.30	7,109.28	37.13	42.53	-94.41	-2,327.83	-561.14	836.59	764.43	72.16	11.594		
7,600.00	7,065.00	7,881.67	7,145.01	37.84	43.18	-95.45	-2,342.06	-776.02	841.70	768.32	73.38	11.470		
7,700.00	7,064.77	7,984.48	7,144.44	38.82	43.64	-95.43	-2,342.69	-878.82	841.69	765.90	75.79	11.106		
7,800.00	7,064.54	8,084.48	7,143.87	40.06	44.30	-95.41	-2,343.31	-978.82	841.67	763.15	78.52	10.719		
7,900.00	7,064.31	8,184.48	7,143.30	41.52	45.22	-95.39	-2,343.92	-1,078.81	841.65	760.09	81.56	10.319		
8,000.00	7,064.08	8,284.48	7,142.74	43.14	46.42	-95.36	-2,344.53	-1,178.81	841.64	756.76	84.88	9.916		
8,100.00	7,063.85	8,384.48	7,142.17	44.90	47.86	-95.34	-2,345.14	-1,278.81	841.62	753.18	88.44	9.517		
8,200.00	7,063.62	8,484.48	7,141.60	46.78	49.48	-95.32	-2,345.76	-1,378.80	841.60	749.39	92.21	9.127		
8,300.00	7,063.39	8,584.48	7,141.03	48.76	51.25	-95.29	-2,346.37	-1,478.80	841.58	745.41	96.18	8.751		
8,400.00	7,063.16	8,684.48	7,140.46	50.83	53.15	-95.27	-2,346.98	-1,578.79	841.57	741.26	100.31	8.390		
8,500.00	7,062.93	8,784.47	7,139.89	52.97	55.14	-95.25	-2,347.60	-1,678.79	841.55	736.96	104.59	8.046		
8,600.00	7,062.70	8,884.47	7,139.32	55.18	57.22	-95.22	-2,348.21	-1,778.78	841.53	732.53	109.00	7.720		
8,700.00	7,062.47	8,984.47	7,138.76	57.46	59.38	-95.20	-2,348.82	-1,878.78	841.52	727.99	113.53	7.412		
8,800.00	7,062.24	9,084.47	7,138.19	59.78	61.59	-95.18	-2,349.44	-1,978.78	841.50	723.34	118.16	7.122		
8,900.00	7,062.01	9,184.47	7,137.62	62.14	63.87	-95.16	-2,350.05	-2,078.77	841.48	718.61	122.88	6.848		
9,000.00	7,061.78	9,284.47	7,137.05	64.55	66.19	-95.13	-2,350.66	-2,178.77	841.47	713.79	127.68	6.590		
9,100.00	7,061.55	9,384.47	7,136.48	67.00	68.55	-95.11	-2,351.27	-2,278.76	841.45	708.90	132.55	6.348		
9,200.00	7,061.31	9,484.47	7,135.91	69.47	70.95	-95.09	-2,351.89	-2,378.76	841.43	703.95	137.49	6.120		
9,300.00	7,061.08	9,584.47	7,135.35	71.98	73.39	-95.06	-2,352.50	-2,478.76	841.42	698.93	142.48	5.905		
9,400.00	7,060.85	9,684.47	7,134.78	74.51	75.86	-95.04	-2,353.11	-2,578.75	841.40	693.87	147.53	5.703		
9,500.00	7,060.62	9,784.47	7,134.21	77.06	78.35	-95.02	-2,353.73	-2,678.75	841.39	688.76	152.63	5.513		
9,600.00	7,060.39	9,884.47	7,133.64	79.64	80.87	-94.99	-2,354.34	-2,778.74	841.37	683.61	157.76	5.333		
9,700.00	7,060.16	9,984.47	7,133.07	82.23	83.42	-94.97	-2,354.95	-2,878.74	841.36	678.42	162.94	5.164		
9,800.00	7,059.93	10,084.47	7,132.50	84.84	85.98	-94.95	-2,355.56	-2,978.74	841.34	673.20	168.15	5.004		
9,900.00	7,059.70	10,184.47	7,131.93	87.47	88.56	-94.93	-2,356.18	-3,078.73	841.33	667.94	173.39	4.852		
10,000.00	7,059.47	10,284.47	7,131.37	90.11	91.16	-94.90	-2,356.79	-3,178.73	841.31	662.65	178.66	4.709		
10,100.00	7,059.24	10,384.47	7,130.80	92.76	93.77	-94.88	-2,357.40	-3,278.72	841.30	657.34	183.95	4.573		
10,200.00	7,059.01	10,484.47	7,130.23	95.42	96.40	-94.86	-2,358.02	-3,378.72	841.28	652.01	189.27	4.445		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,058.78	10,584.46	7,129.66	98.10	99.04	-94.83	-2,358.63	-3,478.72	841.27	646.65	194.62	4.323		
10,400.00	7,058.55	10,684.46	7,129.09	100.79	101.69	-94.81	-2,359.24	-3,578.71	841.25	641.27	199.98	4.207		
10,500.00	7,058.32	10,784.46	7,128.52	103.48	104.36	-94.79	-2,359.86	-3,678.71	841.24	635.87	205.36	4.096		
10,600.00	7,058.09	10,884.46	7,127.96	106.19	107.03	-94.76	-2,360.47	-3,778.70	841.23	630.46	210.77	3.991		
10,700.00	7,057.86	10,984.46	7,127.39	108.90	109.71	-94.74	-2,361.08	-3,878.70	841.21	625.03	216.18	3.891		
10,800.00	7,057.63	11,084.46	7,126.82	111.62	112.41	-94.72	-2,361.69	-3,978.70	841.20	619.58	221.61	3.796		
10,900.00	7,057.40	11,184.46	7,126.25	114.35	115.11	-94.70	-2,362.31	-4,078.69	841.18	614.12	227.06	3.705		
11,000.00	7,057.17	11,284.46	7,125.68	117.08	117.81	-94.67	-2,362.92	-4,178.69	841.17	608.65	232.52	3.618		
11,100.00	7,056.94	11,384.46	7,125.11	119.82	120.53	-94.65	-2,363.53	-4,278.68	841.16	603.17	237.99	3.534		
11,200.00	7,056.71	11,484.46	7,124.55	122.56	123.25	-94.63	-2,364.15	-4,378.68	841.14	597.67	243.47	3.455		
11,300.00	7,056.48	11,584.46	7,123.98	125.31	125.98	-94.60	-2,364.76	-4,478.68	841.13	592.17	248.96	3.379		
11,400.00	7,056.25	11,684.46	7,123.41	128.06	128.71	-94.58	-2,365.37	-4,578.67	841.12	586.65	254.47	3.305		
11,500.00	7,056.02	11,784.46	7,122.84	130.82	131.45	-94.56	-2,365.99	-4,678.67	841.11	581.13	259.98	3.235		
11,600.00	7,055.79	11,884.46	7,122.27	133.59	134.19	-94.53	-2,366.60	-4,778.66	841.09	575.59	265.50	3.168		
11,700.00	7,055.55	11,984.46	7,121.70	136.35	136.94	-94.51	-2,367.21	-4,878.66	841.08	570.05	271.03	3.103		
11,800.00	7,055.32	12,084.46	7,121.13	139.12	139.70	-94.49	-2,367.82	-4,978.65	841.07	564.50	276.57	3.041		
11,900.00	7,055.09	12,184.46	7,120.57	141.90	142.45	-94.46	-2,368.44	-5,078.65	841.06	558.94	282.11	2.981		
12,000.00	7,054.86	12,284.46	7,120.00	144.67	145.21	-94.44	-2,369.05	-5,178.65	841.04	553.38	287.66	2.924		
12,100.00	7,054.63	12,384.45	7,119.43	147.45	147.98	-94.42	-2,369.66	-5,278.64	841.03	547.81	293.22	2.868		
12,200.00	7,054.40	12,484.45	7,118.86	150.24	150.75	-94.40	-2,370.28	-5,378.64	841.02	542.23	298.79	2.815		
12,300.00	7,054.17	12,584.45	7,118.29	153.02	153.52	-94.37	-2,370.89	-5,478.63	841.01	536.65	304.36	2.763		
12,400.00	7,053.94	12,684.45	7,117.72	155.81	156.29	-94.35	-2,371.50	-5,578.63	841.00	531.06	309.93	2.713		
12,500.00	7,053.71	12,784.45	7,117.16	158.60	159.07	-94.33	-2,372.12	-5,678.63	840.98	525.47	315.51	2.665		
12,600.00	7,053.48	12,884.45	7,116.59	161.40	161.85	-94.30	-2,372.73	-5,778.62	840.97	519.87	321.10	2.619		
12,700.00	7,053.25	12,984.45	7,116.02	164.19	164.64	-94.28	-2,373.34	-5,878.62	840.96	514.27	326.69	2.574		
12,800.00	7,053.02	13,084.45	7,115.45	166.99	167.42	-94.26	-2,373.95	-5,978.61	840.95	508.67	332.28	2.531		
12,900.00	7,052.79	13,184.45	7,114.88	169.79	170.21	-94.23	-2,374.57	-6,078.61	840.94	503.06	337.88	2.489		
13,000.00	7,052.56	13,284.45	7,114.31	172.59	173.00	-94.21	-2,375.18	-6,178.61	840.93	497.44	343.49	2.448		
13,100.00	7,052.33	13,384.45	7,113.74	175.40	175.79	-94.19	-2,375.79	-6,278.60	840.92	491.82	349.10	2.409		
13,200.00	7,052.10	13,484.45	7,113.18	178.20	178.59	-94.17	-2,376.41	-6,378.60	840.91	486.20	354.71	2.371		
13,300.00	7,051.87	13,584.45	7,112.61	181.01	181.39	-94.14	-2,377.02	-6,478.59	840.90	480.58	360.32	2.334		
13,400.00	7,051.64	13,684.45	7,112.04	183.82	184.19	-94.12	-2,377.63	-6,578.59	840.89	474.95	365.94	2.298		
13,500.00	7,051.41	13,784.45	7,111.47	186.63	186.99	-94.10	-2,378.24	-6,678.59	840.88	469.32	371.56	2.263		
13,600.00	7,051.18	13,884.45	7,110.90	189.44	189.79	-94.07	-2,378.86	-6,778.58	840.87	463.68	377.19	2.229		
13,700.00	7,050.95	13,984.45	7,110.33	192.25	192.59	-94.05	-2,379.47	-6,878.58	840.86	458.04	382.81	2.197		
13,800.00	7,050.72	14,084.44	7,109.77	195.07	195.40	-94.03	-2,380.08	-6,978.57	840.85	452.40	388.45	2.165		
13,900.00	7,050.49	14,184.44	7,109.20	197.88	198.21	-94.00	-2,380.70	-7,078.57	840.84	446.76	394.08	2.134		
14,000.00	7,050.26	14,284.44	7,108.63	200.70	201.01	-93.98	-2,381.31	-7,178.57	840.83	441.11	399.71	2.104		
14,100.00	7,050.03	14,384.44	7,108.06	203.52	203.82	-93.96	-2,381.92	-7,278.56	840.82	435.47	405.35	2.074		
14,200.00	7,049.80	14,484.44	7,107.49	206.34	206.64	-93.93	-2,382.54	-7,378.56	840.81	429.82	410.99	2.046		
14,300.00	7,049.56	14,584.44	7,106.92	209.16	209.45	-93.91	-2,383.15	-7,478.55	840.80	424.16	416.64	2.018		
14,400.00	7,049.33	14,684.44	7,106.35	211.98	212.26	-93.89	-2,383.76	-7,578.55	840.79	418.51	422.28	1.991		
14,500.00	7,049.10	14,784.44	7,105.79	214.80	215.08	-93.87	-2,384.37	-7,678.54	840.78	412.85	427.93	1.965		
14,600.00	7,048.87	14,884.44	7,105.22	217.63	217.89	-93.84	-2,384.99	-7,778.54	840.78	407.19	433.58	1.939		
14,700.00	7,048.64	14,984.44	7,104.65	220.45	220.71	-93.82	-2,385.60	-7,878.54	840.77	401.53	439.23	1.914		
14,800.00	7,048.41	15,084.44	7,104.08	223.28	223.53	-93.80	-2,386.21	-7,978.53	840.76	395.87	444.89	1.890		
14,900.00	7,048.18	15,184.44	7,103.51	226.10	226.35	-93.77	-2,386.83	-8,078.53	840.75	390.21	450.54	1.866		
14,979.18	7,048.00	15,263.62	7,103.06	228.34	228.58	-93.76	-2,387.31	-8,157.71	840.74	385.72	455.02	1.848 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 12N-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 12N-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	-179.54	-139.88	-1.11	139.89					
100.00	100.00	101.00	100.00	3.28	3.28	-179.54	-139.88	-1.11	139.89	133.32	6.57	21.293		
200.00	200.00	199.00	200.00	3.34	3.34	-179.54	-139.88	-1.11	139.89	133.21	6.67	20.962		
300.00	299.98	294.40	295.38	3.44	3.43	-5.67	-141.43	-1.20	139.78	132.90	6.88	20.311		
400.00	399.84	389.75	390.61	3.59	3.57	-5.78	-146.15	-1.46	139.52	132.33	7.19	19.392		
500.00	499.45	485.12	485.65	3.79	3.76	-5.96	-154.04	-1.89	139.12	131.51	7.61	18.291		
600.00	598.70	580.50	580.38	4.03	3.98	-6.23	-165.07	-2.49	138.57	130.47	8.10	17.106		
700.00	697.47	675.90	674.71	4.31	4.24	-6.56	-179.26	-3.27	137.88	129.21	8.67	15.912		
800.00	795.62	771.32	768.54	4.64	4.54	-6.98	-196.58	-4.22	137.05	127.76	9.29	14.755		
880.61	874.35	848.26	843.74	4.93	4.81	-7.34	-212.81	-5.11	136.85	127.03	9.82	13.935		
900.00	893.16	866.77	861.77	5.00	4.88	-7.45	-217.01	-5.34	136.53	126.58	9.95	13.715 CC, ES		
1,000.00	990.60	962.17	954.21	5.38	5.24	-7.83	-240.52	-6.62	138.91	128.25	10.67	13.025		
1,100.00	1,088.04	1,057.32	1,045.58	5.79	5.64	-8.09	-267.02	-8.07	144.61	133.21	11.40	12.683		
1,200.00	1,185.48	1,152.01	1,135.59	6.22	6.07	-8.21	-296.38	-9.68	153.60	141.44	12.16	12.635		
1,300.00	1,282.92	1,246.05	1,223.96	6.66	6.52	-8.21	-328.46	-11.44	165.85	152.93	12.92	12.833		
1,400.00	1,380.36	1,339.22	1,310.44	7.10	7.00	-8.12	-363.09	-13.33	181.33	167.63	13.70	13.238		
1,500.00	1,477.80	1,433.15	1,396.47	7.56	7.51	-7.97	-400.70	-15.39	199.85	185.37	14.49	13.796		
1,600.00	1,575.24	1,531.26	1,486.02	8.03	8.07	-7.82	-440.73	-17.58	219.20	203.86	15.33	14.295		
1,700.00	1,672.68	1,629.37	1,575.57	8.50	8.63	-7.69	-480.75	-19.78	238.54	222.34	16.20	14.724		
1,800.00	1,770.12	1,727.48	1,665.11	8.98	9.21	-7.58	-520.77	-21.97	257.89	240.80	17.09	15.093		
1,900.00	1,867.56	1,825.59	1,754.66	9.46	9.80	-7.49	-560.80	-24.16	277.24	259.25	17.99	15.413		
2,000.00	1,965.00	1,923.70	1,844.21	9.95	10.40	-7.41	-600.82	-26.35	296.59	277.69	18.90	15.692		
2,100.00	2,062.44	2,021.80	1,933.76	10.44	11.01	-7.34	-640.85	-28.54	315.94	296.11	19.83	15.936		
2,200.00	2,159.88	2,119.91	2,023.30	10.93	11.61	-7.27	-680.87	-30.73	335.29	314.53	20.76	16.151		
2,300.00	2,257.32	2,218.02	2,112.85	11.42	12.23	-7.22	-720.90	-32.92	354.64	332.94	21.70	16.341		
2,400.00	2,354.76	2,316.13	2,202.40	11.92	12.85	-7.17	-760.92	-35.12	373.99	351.34	22.65	16.510		
2,500.00	2,452.20	2,414.24	2,291.95	12.42	13.47	-7.12	-800.94	-37.31	393.34	369.73	23.61	16.661		
2,600.00	2,549.64	2,512.35	2,381.49	12.92	14.09	-7.08	-840.97	-39.50	412.69	388.12	24.57	16.796		
2,700.00	2,647.08	2,610.46	2,471.04	13.42	14.72	-7.04	-880.99	-41.69	432.04	406.50	25.54	16.918		
2,800.00	2,744.52	2,708.57	2,560.59	13.93	15.35	-7.01	-921.02	-43.88	451.39	424.88	26.51	17.028		
2,900.00	2,841.96	2,806.68	2,650.14	14.43	15.98	-6.98	-961.04	-46.07	470.74	443.26	27.48	17.128		
3,000.00	2,939.40	2,904.79	2,739.68	14.94	16.61	-6.95	-1,001.06	-48.26	490.10	461.63	28.46	17.219		
3,100.00	3,036.84	3,002.90	2,829.23	15.44	17.25	-6.92	-1,041.09	-50.46	509.45	480.00	29.45	17.301		
3,200.00	3,134.28	3,101.01	2,918.78	15.95	17.88	-6.90	-1,081.11	-52.65	528.80	498.37	30.43	17.377		
3,300.00	3,231.72	3,199.12	3,008.32	16.46	18.52	-6.87	-1,121.14	-54.84	548.15	516.73	31.42	17.447		
3,400.00	3,329.16	3,302.77	3,097.87	16.97	19.19	-6.85	-1,161.16	-57.03	567.50	535.06	32.44	17.495		
3,500.00	3,426.60	3,404.66	3,187.42	17.48	19.86	-6.83	-1,201.18	-59.22	586.85	553.40	33.45	17.543		
3,600.00	3,524.04	3,493.45	3,276.97	17.99	20.44	-6.81	-1,241.21	-61.41	606.21	571.81	34.39	17.625		
3,700.00	3,621.48	3,591.56	3,366.51	18.50	21.08	-6.79	-1,281.23	-63.60	625.56	590.17	35.39	17.676		
3,800.00	3,718.92	3,689.66	3,456.06	19.01	21.72	-6.78	-1,321.26	-65.79	644.91	608.52	36.39	17.723		
3,900.00	3,816.36	3,787.77	3,545.61	19.52	22.36	-6.76	-1,361.28	-67.99	664.26	626.88	37.39	17.767		
4,000.00	3,913.80	3,885.88	3,635.16	20.03	23.00	-6.75	-1,401.30	-70.18	683.62	645.23	38.39	17.808		
4,100.00	4,011.24	3,983.99	3,724.70	20.55	23.65	-6.73	-1,441.33	-72.37	702.97	663.58	39.39	17.846		
4,200.00	4,108.68	4,082.10	3,814.25	21.06	24.29	-6.72	-1,481.35	-74.56	722.32	681.93	40.39	17.882		
4,300.00	4,206.12	4,180.21	3,903.80	21.57	24.94	-6.71	-1,521.38	-76.75	741.67	700.27	41.40	17.915		
4,400.00	4,303.56	4,278.32	3,993.35	22.09	25.58	-6.70	-1,561.40	-78.94	761.03	718.62	42.40	17.947		
4,500.00	4,401.00	4,376.43	4,082.89	22.60	26.23	-6.69	-1,601.43	-81.13	780.38	736.97	43.41	17.977		
4,600.00	4,498.44	4,474.54	4,172.44	23.11	26.88	-6.67	-1,641.45	-83.33	799.73	755.31	44.42	18.005		
4,700.00	4,595.88	4,572.65	4,261.99	23.63	27.52	-6.66	-1,681.47	-85.52	819.08	773.66	45.43	18.031		
4,800.00	4,693.32	4,670.76	4,351.54	24.14	28.17	-6.66	-1,721.50	-87.71	838.43	792.00	46.44	18.056		
4,900.00	4,790.76	4,768.87	4,441.08	24.66	28.82	-6.65	-1,761.52	-89.90	857.79	810.34	47.44	18.080		
5,000.00	4,888.20	4,866.98	4,530.63	25.17	29.46	-6.64	-1,801.55	-92.09	877.14	828.68	48.46	18.102		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,100.00	4,985.64	4,965.09	4,620.18	25.69	30.11	-6.63	-1,841.57	-94.28	896.49	847.03	49.47	18.123		
5,200.00	5,083.08	5,063.20	4,709.72	26.20	30.76	-6.62	-1,881.59	-96.47	915.85	865.37	50.48	18.143		
5,300.00	5,180.52	5,161.31	4,799.27	26.72	31.41	-6.61	-1,921.62	-98.67	935.20	883.71	51.49	18.163		
5,400.00	5,277.96	5,259.42	4,888.82	27.24	32.06	-6.61	-1,961.64	-100.86	954.55	902.05	52.50	18.181		
5,500.00	5,375.40	5,357.53	4,978.37	27.75	32.71	-6.60	-2,001.67	-103.05	973.90	920.39	53.52	18.198		
5,600.00	5,472.84	5,455.63	5,067.91	28.27	33.35	-6.59	-2,041.69	-105.24	993.26	938.73	54.53	18.215		
5,700.00	5,570.28	5,553.74	5,157.46	28.79	34.00	-6.58	-2,081.71	-107.43	1,012.61	957.06	55.55	18.230		
5,800.00	5,667.72	5,651.85	5,247.01	29.30	34.65	-6.58	-2,121.74	-109.62	1,031.96	975.40	56.56	18.245		
5,900.00	5,765.16	5,749.96	5,336.56	29.82	35.30	-6.57	-2,161.76	-111.81	1,051.31	993.74	57.58	18.260		
6,000.00	5,862.60	5,848.07	5,426.10	30.34	35.95	-6.57	-2,201.79	-114.01	1,070.67	1,012.08	58.59	18.274		
6,100.00	5,960.05	5,946.18	5,515.65	30.85	36.60	-6.56	-2,241.81	-116.20	1,090.02	1,030.41	59.61	18.287		
6,200.00	6,057.49	6,044.29	5,605.20	31.37	37.25	-6.55	-2,281.83	-118.39	1,109.37	1,048.75	60.62	18.299		
6,300.00	6,154.93	6,142.40	5,694.75	31.89	37.90	-6.55	-2,321.86	-120.58	1,128.72	1,067.08	61.64	18.311		
6,400.00	6,252.37	6,240.51	5,784.29	32.40	38.55	-6.54	-2,361.88	-122.77	1,148.08	1,085.42	62.66	18.323		
6,500.00	6,349.81	6,338.62	5,873.84	32.92	39.20	-6.54	-2,401.91	-124.96	1,167.43	1,103.76	63.68	18.334		
6,600.00	6,447.25	6,436.73	5,963.39	33.44	39.85	-6.53	-2,441.93	-127.15	1,186.78	1,122.09	64.69	18.345		
6,700.00	6,544.28	6,534.58	6,052.70	33.95	40.50	-34.03	-2,481.85	-129.34	1,206.12	1,140.40	65.72	18.353		
6,800.00	6,638.86	6,630.34	6,140.10	34.44	41.14	-51.99	-2,520.91	-131.48	1,225.38	1,158.63	66.75	18.357		
6,900.00	6,728.65	6,721.65	6,223.45	34.89	41.74	-61.38	-2,558.17	-133.52	1,244.85	1,177.06	67.79	18.364		
7,000.00	6,811.45	6,806.28	6,300.69	35.29	42.31	-66.88	-2,592.69	-135.41	1,265.24	1,196.40	68.84	18.379		
7,100.00	6,885.21	6,882.13	6,369.92	35.66	42.81	-70.30	-2,623.63	-137.10	1,287.54	1,217.60	69.94	18.409		
7,200.00	6,948.11	6,947.33	6,429.43	35.99	43.24	-72.26	-2,650.23	-138.56	1,312.79	1,241.67	71.12	18.458		
7,300.00	6,998.62	7,000.29	6,477.76	36.30	43.59	-72.89	-2,671.84	-139.74	1,341.87	1,269.45	72.42	18.529		
7,400.00	7,035.48	7,039.69	6,513.73	36.65	43.85	-72.16	-2,687.91	-140.62	1,375.32	1,301.49	73.83	18.629		
7,500.00	7,057.79	7,064.57	6,536.43	37.13	44.02	-70.02	-2,698.06	-141.18	1,413.21	1,337.90	75.31	18.766		
7,600.00	7,065.00	7,074.31	6,543.33	37.84	44.08	-66.55	-2,702.04	-141.39	1,455.05	1,378.27	76.79	18.949		
7,700.00	7,064.77	8,206.70	7,144.49	38.82	48.56	-93.10	-2,975.80	-875.29	1,473.19	1,394.57	78.62	18.738		
7,800.00	7,064.54	8,306.70	7,143.95	40.06	48.92	-93.09	-2,976.39	-975.28	1,473.16	1,391.86	81.31	18.119		
7,900.00	7,064.31	8,393.30	7,143.41	41.52	49.36	-93.08	-2,976.98	-1,075.28	1,473.13	1,389.04	84.10	17.517		
8,000.00	7,064.08	8,506.70	7,142.87	43.14	50.17	-93.07	-2,977.57	-1,175.28	1,473.11	1,385.55	87.56	16.825		
8,100.00	7,063.85	8,606.70	7,142.33	44.90	51.15	-93.05	-2,978.16	-1,275.27	1,473.08	1,382.02	91.06	16.177		
8,200.00	7,063.62	8,706.70	7,141.78	46.78	52.39	-93.04	-2,978.74	-1,375.27	1,473.05	1,378.28	94.78	15.543		
8,300.00	7,063.39	8,806.70	7,141.24	48.76	53.86	-93.03	-2,979.33	-1,475.27	1,473.02	1,374.34	98.68	14.927		
8,400.00	7,063.16	8,906.70	7,140.70	50.83	55.52	-93.02	-2,979.92	-1,575.26	1,473.00	1,370.24	102.76	14.334		
8,500.00	7,062.93	9,006.70	7,140.16	52.97	57.33	-93.01	-2,980.51	-1,675.26	1,472.97	1,365.98	106.99	13.768		
8,600.00	7,062.70	9,106.70	7,139.62	55.18	59.26	-92.99	-2,981.10	-1,775.25	1,472.94	1,361.60	111.35	13.228		
8,700.00	7,062.47	9,206.70	7,139.08	57.46	61.29	-92.98	-2,981.68	-1,875.25	1,472.92	1,357.09	115.82	12.717		
8,800.00	7,062.24	9,306.70	7,138.54	59.78	63.41	-92.97	-2,982.27	-1,975.25	1,472.89	1,352.48	120.41	12.233		
8,900.00	7,062.01	9,406.71	7,138.00	62.14	65.59	-92.96	-2,982.86	-2,075.24	1,472.86	1,347.78	125.08	11.775		
9,000.00	7,061.78	9,506.71	7,137.46	64.55	67.83	-92.95	-2,983.45	-2,175.24	1,472.83	1,343.00	129.84	11.344		
9,100.00	7,061.55	9,606.71	7,136.91	67.00	70.13	-92.93	-2,984.04	-2,275.24	1,472.81	1,338.14	134.67	10.936		
9,200.00	7,061.31	9,706.71	7,136.37	69.47	72.47	-92.92	-2,984.62	-2,375.23	1,472.78	1,333.21	139.57	10.552		
9,300.00	7,061.08	9,806.71	7,135.83	71.98	74.85	-92.91	-2,985.21	-2,475.23	1,472.75	1,328.22	144.53	10.190		
9,400.00	7,060.85	9,906.71	7,135.29	74.51	77.26	-92.90	-2,985.80	-2,575.22	1,472.73	1,323.18	149.54	9.848		
9,500.00	7,060.62	10,006.71	7,134.75	77.06	79.71	-92.89	-2,986.39	-2,675.22	1,472.70	1,318.10	154.61	9.526		
9,600.00	7,060.39	10,106.71	7,134.21	79.64	82.19	-92.87	-2,986.98	-2,775.22	1,472.68	1,312.96	159.71	9.221		
9,700.00	7,060.16	10,206.71	7,133.67	82.23	84.69	-92.86	-2,987.56	-2,875.21	1,472.65	1,307.79	164.86	8.933		
9,800.00	7,059.93	10,306.71	7,133.13	84.84	87.21	-92.85	-2,988.15	-2,975.21	1,472.62	1,302.58	170.04	8.660		
9,900.00	7,059.70	10,406.71	7,132.59	87.47	89.76	-92.84	-2,988.74	-3,075.21	1,472.60	1,297.34	175.26	8.402		
10,000.00	7,059.47	10,506.71	7,132.04	90.11	92.32	-92.82	-2,989.33	-3,175.20	1,472.57	1,292.07	180.50	8.158		
10,100.00	7,059.24	10,606.71	7,131.50	92.76	94.90	-92.81	-2,989.91	-3,275.20	1,472.54	1,286.77	185.78	7.926		
10,200.00	7,059.01	10,706.71	7,130.96	95.42	97.50	-92.80	-2,990.50	-3,375.20	1,472.52	1,281.44	191.08	7.706		

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 12N-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 12N-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	
10,300.00	7,058.78	10,806.71	7,130.42	98.10	100.11	-92.79	-2,991.09	-3,475.19	1,472.49	1,276.09	196.40	7.497	
10,400.00	7,058.55	10,906.71	7,129.88	100.79	102.74	-92.78	-2,991.68	-3,575.19	1,472.47	1,270.72	201.74	7.299	
10,500.00	7,058.32	11,006.71	7,129.34	103.48	105.38	-92.76	-2,992.27	-3,675.18	1,472.44	1,265.33	207.11	7.110	
10,600.00	7,058.09	11,106.71	7,128.80	106.19	108.03	-92.75	-2,992.85	-3,775.18	1,472.41	1,259.92	212.49	6.929	
10,700.00	7,057.86	11,206.71	7,128.26	108.90	110.69	-92.74	-2,993.44	-3,875.18	1,472.39	1,254.50	217.89	6.757	
10,800.00	7,057.63	11,306.71	7,127.72	111.62	113.36	-92.73	-2,994.03	-3,975.17	1,472.36	1,249.06	223.31	6.593	
10,900.00	7,057.40	11,406.72	7,127.18	114.35	116.04	-92.72	-2,994.62	-4,075.17	1,472.34	1,243.60	228.74	6.437	
11,000.00	7,057.17	11,506.72	7,126.63	117.08	118.73	-92.70	-2,995.21	-4,175.17	1,472.31	1,238.13	234.18	6.287	
11,100.00	7,056.94	11,606.72	7,126.09	119.82	121.43	-92.69	-2,995.79	-4,275.16	1,472.29	1,232.65	239.64	6.144	
11,200.00	7,056.71	11,706.72	7,125.55	122.56	124.13	-92.68	-2,996.38	-4,375.16	1,472.26	1,227.15	245.11	6.007	
11,300.00	7,056.48	11,806.72	7,125.01	125.31	126.84	-92.67	-2,996.97	-4,475.16	1,472.23	1,221.65	250.59	5.875	
11,400.00	7,056.25	11,906.72	7,124.47	128.06	129.56	-92.66	-2,997.56	-4,575.15	1,472.21	1,216.13	256.08	5.749	
11,500.00	7,056.02	12,006.72	7,123.93	130.82	132.28	-92.64	-2,998.15	-4,675.15	1,472.18	1,210.61	261.58	5.628	
11,600.00	7,055.79	12,106.72	7,123.39	133.59	135.01	-92.63	-2,998.73	-4,775.14	1,472.16	1,205.07	267.09	5.512	
11,700.00	7,055.55	12,206.72	7,122.85	136.35	137.75	-92.62	-2,999.32	-4,875.14	1,472.13	1,199.53	272.61	5.400	
11,800.00	7,055.32	12,306.72	7,122.31	139.12	140.49	-92.61	-2,999.91	-4,975.14	1,472.11	1,193.98	278.13	5.293	
11,900.00	7,055.09	12,406.72	7,121.76	141.90	143.23	-92.60	-3,000.50	-5,075.13	1,472.08	1,188.42	283.67	5.189	
12,000.00	7,054.86	12,506.72	7,121.22	144.67	145.98	-92.58	-3,001.09	-5,175.13	1,472.06	1,182.85	289.21	5.090	
12,100.00	7,054.63	12,593.28	7,120.68	147.45	148.36	-92.57	-3,001.67	-5,275.13	1,472.03	1,177.65	294.38	5.000	
12,200.00	7,054.40	12,706.72	7,120.14	150.24	151.49	-92.56	-3,002.26	-5,375.12	1,472.01	1,171.70	300.31	4.902	
12,300.00	7,054.17	12,806.72	7,119.60	153.02	154.25	-92.55	-3,002.85	-5,475.12	1,471.98	1,166.11	305.87	4.812	
12,400.00	7,053.94	12,906.72	7,119.06	155.81	157.02	-92.54	-3,003.44	-5,575.11	1,471.96	1,160.52	311.44	4.726	
12,500.00	7,053.71	13,006.72	7,118.52	158.60	159.78	-92.52	-3,004.03	-5,675.11	1,471.94	1,154.93	317.01	4.643	
12,600.00	7,053.48	13,106.72	7,117.98	161.40	162.55	-92.51	-3,004.61	-5,775.11	1,471.91	1,149.32	322.59	4.563	
12,700.00	7,053.25	13,206.72	7,117.44	164.19	165.33	-92.50	-3,005.20	-5,875.10	1,471.89	1,143.72	328.17	4.485	
12,800.00	7,053.02	13,306.72	7,116.89	166.99	168.10	-92.49	-3,005.79	-5,975.10	1,471.86	1,138.11	333.76	4.410	
12,900.00	7,052.79	13,406.72	7,116.35	169.79	170.88	-92.48	-3,006.38	-6,075.10	1,471.84	1,132.49	339.35	4.337	
13,000.00	7,052.56	13,506.73	7,115.81	172.59	173.67	-92.46	-3,006.96	-6,175.09	1,471.81	1,126.87	344.94	4.267	
13,100.00	7,052.33	13,606.73	7,115.27	175.40	176.45	-92.45	-3,007.55	-6,275.09	1,471.79	1,121.25	350.54	4.199	
13,200.00	7,052.10	13,706.73	7,114.73	178.20	179.24	-92.44	-3,008.14	-6,375.09	1,471.76	1,115.62	356.14	4.132	
13,300.00	7,051.87	13,806.73	7,114.19	181.01	182.03	-92.43	-3,008.73	-6,475.08	1,471.74	1,109.99	361.75	4.068	
13,400.00	7,051.64	13,906.73	7,113.65	183.82	184.82	-92.41	-3,009.32	-6,575.08	1,471.72	1,104.35	367.36	4.006	
13,500.00	7,051.41	14,006.73	7,113.11	186.63	187.61	-92.40	-3,009.90	-6,675.07	1,471.69	1,098.72	372.98	3.946	
13,600.00	7,051.18	14,106.73	7,112.57	189.44	190.41	-92.39	-3,010.49	-6,775.07	1,471.67	1,093.08	378.59	3.887	
13,700.00	7,050.95	14,206.73	7,112.02	192.25	193.20	-92.38	-3,011.08	-6,875.07	1,471.64	1,087.43	384.21	3.830	
13,800.00	7,050.72	14,293.27	7,111.48	195.07	195.63	-92.37	-3,011.67	-6,975.06	1,471.62	1,082.16	389.46	3.779	
13,900.00	7,050.49	14,406.73	7,110.94	197.88	198.80	-92.35	-3,012.26	-7,075.06	1,471.60	1,076.14	395.46	3.721	
14,000.00	7,050.26	14,506.73	7,110.40	200.70	201.61	-92.34	-3,012.84	-7,175.06	1,471.57	1,070.48	401.09	3.669	
14,100.00	7,050.03	14,606.73	7,109.86	203.52	204.41	-92.33	-3,013.43	-7,275.05	1,471.55	1,064.83	406.72	3.618	
14,200.00	7,049.80	14,706.73	7,109.32	206.34	207.21	-92.32	-3,014.02	-7,375.05	1,471.53	1,059.17	412.36	3.569	
14,300.00	7,049.56	14,806.73	7,108.78	209.16	210.02	-92.31	-3,014.61	-7,475.04	1,471.50	1,053.51	417.99	3.520	
14,400.00	7,049.33	14,906.73	7,108.24	211.98	212.83	-92.29	-3,015.20	-7,575.04	1,471.48	1,047.85	423.63	3.474	
14,500.00	7,049.10	15,006.73	7,107.70	214.80	215.64	-92.28	-3,015.78	-7,675.04	1,471.46	1,042.19	429.27	3.428	
14,600.00	7,048.87	15,106.73	7,107.16	217.63	218.45	-92.27	-3,016.37	-7,775.03	1,471.43	1,036.52	434.91	3.383	
14,700.00	7,048.64	15,206.73	7,106.61	220.45	221.26	-92.26	-3,016.96	-7,875.03	1,471.41	1,030.85	440.56	3.340	
14,800.00	7,048.41	15,306.73	7,106.07	223.28	224.08	-92.25	-3,017.55	-7,975.03	1,471.39	1,025.18	446.20	3.298	
14,900.00	7,048.18	15,393.27	7,105.53	226.10	226.51	-92.23	-3,018.14	-8,075.02	1,471.36	1,019.89	451.47	3.259	
14,979.18	7,048.00	15,472.45	7,105.10	228.34	228.74	-92.22	-3,018.60	-8,154.20	1,471.35	1,015.40	455.95	3.227 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	0.50	320.23	2.78	320.24					
100.00	100.00	102.00	100.00	3.28	0.18	0.50	320.23	2.78	320.24	316.77	3.47	92.316		
200.00	200.00	202.00	200.00	3.34	0.62	0.50	320.23	2.78	320.24	316.28	3.96	80.867 CC, ES		
300.00	299.98	301.98	299.98	3.44	1.06	174.44	320.23	2.78	321.98	317.48	4.50	71.522		
400.00	399.84	401.84	399.84	3.59	1.50	174.52	320.23	2.78	327.19	322.09	5.09	64.253		
500.00	499.45	501.45	499.45	3.79	1.94	174.64	320.23	2.78	335.86	330.13	5.73	58.620		
600.00	598.70	598.88	587.86	4.03	2.33	174.75	321.63	2.59	349.56	343.19	6.37	54.850		
700.00	697.47	677.02	674.90	4.31	2.71	174.81	325.65	2.04	369.67	362.62	7.06	52.394		
800.00	795.62	762.22	759.85	4.64	3.09	174.84	332.11	1.16	396.06	388.30	7.76	51.051		
900.00	893.16	845.15	842.32	5.00	3.46	174.85	340.81	-0.02	428.12	419.65	8.47	50.558		
1,000.00	990.60	926.31	922.74	5.38	3.82	174.85	351.60	-1.49	463.25	454.08	9.16	50.562		
1,100.00	1,088.04	1,005.73	1,001.10	5.79	4.18	174.80	364.34	-3.22	500.95	491.10	9.85	50.852		
1,200.00	1,185.48	1,107.17	1,086.73	6.22	4.63	174.72	380.17	-5.37	540.63	529.99	10.64	50.830		
1,300.00	1,282.92	1,184.56	1,176.88	6.66	4.98	174.64	396.97	-7.66	580.45	569.12	11.33	51.239		
1,400.00	1,380.36	1,276.28	1,267.02	7.10	5.39	174.58	413.77	-9.94	620.27	608.17	12.10	51.265		
1,500.00	1,477.80	1,368.01	1,357.17	7.56	5.81	174.52	430.57	-12.23	660.09	647.21	12.88	51.240		
1,600.00	1,575.24	1,459.74	1,447.32	8.03	6.24	174.47	447.36	-14.51	699.91	686.24	13.68	51.180		
1,700.00	1,672.68	1,551.47	1,537.47	8.50	6.67	174.42	464.16	-16.80	739.74	725.26	14.48	51.095		
1,800.00	1,770.12	1,643.19	1,627.61	8.98	7.10	174.38	480.96	-19.08	779.56	764.27	15.29	50.994		
1,900.00	1,867.56	1,734.92	1,717.76	9.46	7.53	174.35	497.75	-21.37	819.38	803.28	16.10	50.884		
2,000.00	1,965.00	1,826.65	1,807.91	9.95	7.96	174.31	514.55	-23.65	859.20	842.28	16.92	50.767		
2,100.00	2,062.44	1,918.38	1,898.06	10.44	8.39	174.28	531.35	-25.94	899.03	881.28	17.75	50.648		
2,200.00	2,159.88	2,010.10	1,988.20	10.93	8.82	174.26	548.15	-28.22	938.85	920.27	18.58	50.528		
2,300.00	2,257.32	2,101.83	2,078.35	11.42	9.25	174.23	564.94	-30.51	978.67	959.26	19.41	50.409		
2,400.00	2,354.76	2,206.44	2,168.50	11.92	9.75	174.21	581.74	-32.80	1,018.50	998.19	20.31	50.145		
2,500.00	2,452.20	2,285.29	2,258.64	12.42	10.12	174.19	598.54	-35.08	1,058.32	1,037.23	21.09	50.178		
2,600.00	2,549.64	2,377.01	2,348.79	12.92	10.56	174.17	615.34	-37.37	1,098.15	1,076.21	21.93	50.066		
2,700.00	2,647.08	2,468.74	2,438.94	13.42	10.99	174.15	632.13	-39.65	1,137.97	1,115.19	22.78	49.958		
2,800.00	2,744.52	2,560.47	2,529.09	13.93	11.42	174.13	648.93	-41.94	1,177.79	1,154.17	23.63	49.853		
2,900.00	2,841.96	2,652.20	2,619.23	14.43	11.86	174.11	665.73	-44.22	1,217.62	1,193.15	24.47	49.752		
3,000.00	2,939.40	2,743.92	2,709.38	14.94	12.29	174.10	682.53	-46.51	1,257.44	1,232.12	25.32	49.654		
3,100.00	3,036.84	2,835.65	2,799.53	15.44	12.73	174.08	699.32	-48.79	1,297.27	1,271.09	26.18	49.560		
3,200.00	3,134.28	2,927.38	2,889.68	15.95	13.17	174.07	716.12	-51.08	1,337.09	1,310.06	27.03	49.469		
3,300.00	3,231.72	3,019.11	2,979.82	16.46	13.60	174.06	732.92	-53.36	1,376.92	1,349.03	27.88	49.382		
3,400.00	3,329.16	3,110.83	3,069.97	16.97	14.04	174.04	749.71	-55.65	1,416.74	1,388.00	28.74	49.298		
3,500.00	3,426.60	3,202.56	3,160.12	17.48	14.47	174.03	766.51	-57.93	1,456.57	1,426.97	29.59	49.217		
3,600.00	3,524.04	3,305.71	3,250.27	17.99	14.96	174.02	783.31	-60.22	1,496.39	1,465.89	30.51	49.054		
3,700.00	3,621.48	3,386.01	3,340.41	18.50	15.35	174.01	800.11	-62.50	1,536.22	1,504.91	31.31	49.064		
3,800.00	3,718.92	3,477.74	3,430.56	19.01	15.78	174.00	816.90	-64.79	1,576.04	1,543.87	32.17	48.992		
3,900.00	3,816.36	3,569.47	3,520.71	19.52	16.22	173.99	833.70	-67.07	1,615.87	1,582.84	33.03	48.923		
4,000.00	3,913.80	3,661.20	3,610.86	20.03	16.66	173.98	850.50	-69.36	1,655.69	1,621.80	33.89	48.856		
4,100.00	4,011.24	3,752.92	3,701.00	20.55	17.09	173.98	867.30	-71.64	1,695.52	1,660.77	34.75	48.791		
4,200.00	4,108.68	3,844.65	3,791.15	21.06	17.53	173.97	884.09	-73.93	1,735.34	1,699.73	35.61	48.729		
4,300.00	4,206.12	3,936.38	3,881.30	21.57	17.97	173.96	900.89	-76.21	1,775.17	1,738.69	36.47	48.668		
4,400.00	4,303.56	4,028.11	3,971.44	22.09	18.40	173.95	917.69	-78.50	1,814.99	1,777.65	37.34	48.610		
4,500.00	4,401.00	4,119.83	4,061.59	22.60	18.84	173.95	934.49	-80.78	1,854.82	1,816.62	38.20	48.554		
4,600.00	4,498.44	4,211.56	4,151.74	23.11	19.28	173.94	951.28	-83.07	1,894.64	1,855.58	39.07	48.500		
4,700.00	4,595.88	4,303.29	4,241.89	23.63	19.72	173.93	968.08	-85.35	1,934.47	1,894.54	39.93	48.447		
4,800.00	4,693.32	4,395.02	4,332.03	24.14	20.15	173.93	984.88	-87.64	1,974.29	1,933.50	40.79	48.396		
4,900.00	4,790.76	4,486.74	4,422.18	24.66	20.59	173.92	1,001.67	-89.92	2,014.12	1,972.46	41.66	48.347		
5,000.00	4,888.20	4,578.47	4,512.33	25.17	21.03	173.92	1,018.47	-92.21	2,053.94	2,011.42	42.53	48.299		
5,100.00	4,985.64	4,670.20	4,602.48	25.69	21.46	173.91	1,035.27	-94.49	2,093.77	2,050.38	43.39	48.253		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	5,083.08	4,761.93	4,692.62	26.20	21.90	173.91	1,052.07	-96.78	2,133.59	2,089.34	44.26	48.208		
5,300.00	5,180.52	4,853.65	4,782.77	26.72	22.34	173.90	1,068.86	-99.06	2,173.42	2,128.29	45.12	48.165		
5,400.00	5,277.96	4,945.38	4,872.92	27.24	22.78	173.90	1,085.66	-101.35	2,213.24	2,167.25	45.99	48.123		
5,500.00	5,375.40	5,037.11	4,963.07	27.75	23.21	173.89	1,102.46	-103.63	2,253.07	2,206.21	46.86	48.082		
5,600.00	5,472.84	5,128.84	5,053.21	28.27	23.65	173.89	1,119.26	-105.92	2,292.89	2,245.17	47.73	48.042		
5,700.00	5,570.28	5,220.56	5,143.36	28.79	24.09	173.88	1,136.05	-108.20	2,332.72	2,284.12	48.59	48.003		
5,800.00	5,667.72	5,312.29	5,233.51	29.30	24.53	173.88	1,152.85	-110.49	2,372.54	2,323.08	49.46	47.966		
5,900.00	5,765.16	5,404.02	5,323.66	29.82	24.96	173.87	1,169.65	-112.77	2,412.37	2,362.04	50.33	47.929		
6,000.00	5,862.60	5,504.25	5,413.80	30.34	25.44	173.87	1,186.45	-115.06	2,452.20	2,400.95	51.24	47.856		
6,100.00	5,960.05	5,587.47	5,503.95	30.85	25.84	173.87	1,203.24	-117.34	2,492.02	2,439.95	52.07	47.859		
6,200.00	6,057.49	5,679.20	5,594.10	31.37	26.28	173.86	1,220.04	-119.63	2,531.85	2,478.91	52.94	47.825		
6,300.00	6,154.93	5,770.93	5,684.24	31.89	26.71	173.86	1,236.84	-121.91	2,571.67	2,517.86	53.81	47.792		
6,400.00	6,252.37	5,862.66	5,774.39	32.40	27.15	173.85	1,253.63	-124.20	2,611.50	2,556.82	54.68	47.760		
6,500.00	6,349.81	5,954.38	5,864.54	32.92	27.59	173.85	1,270.43	-126.49	2,651.32	2,595.77	55.55	47.729		
6,600.00	6,447.25	6,046.11	5,954.69	33.44	28.03	173.85	1,287.23	-128.77	2,691.15	2,634.73	56.42	47.698		
6,700.00	6,544.28	6,137.59	6,044.60	33.95	28.46	141.85	1,303.98	-131.05	2,730.89	2,673.60	57.29	47.668		
6,800.00	6,638.86	6,227.13	6,132.59	34.44	28.89	119.75	1,320.38	-133.28	2,769.93	2,711.80	58.13	47.649		
6,900.00	6,728.65	6,312.52	6,216.51	34.89	29.30	107.24	1,336.02	-135.41	2,807.66	2,748.73	58.93	47.645		
7,000.00	6,811.45	6,408.34	6,294.28	35.29	29.76	99.33	1,350.51	-137.38	2,843.67	2,783.92	59.75	47.591		
7,100.00	6,885.21	6,462.60	6,364.00	35.66	30.02	93.84	1,363.50	-139.15	2,877.76	2,817.38	60.38	47.658		
7,200.00	6,948.11	6,523.59	6,423.94	35.99	30.31	89.75	1,374.67	-140.67	2,909.83	2,848.74	61.08	47.636		
7,300.00	6,998.62	6,573.13	6,472.63	36.30	30.54	86.53	1,383.74	-141.90	2,939.82	2,878.00	61.82	47.558		
7,400.00	7,035.48	6,610.00	6,508.86	36.65	30.72	83.88	1,390.49	-142.82	2,967.66	2,905.06	62.61	47.402		
7,500.00	7,057.79	6,633.29	6,531.75	37.13	30.83	81.63	1,394.76	-143.40	2,993.23	2,929.76	63.47	47.160		
7,600.00	7,065.00	6,642.44	6,540.74	37.84	30.87	79.71	1,396.43	-143.63	3,016.28	2,951.89	64.39	46.842		
7,700.00	7,064.77	7,887.49	7,259.38	38.82	39.42	93.68	1,518.13	-934.47	3,029.61	2,952.82	76.79	39.452		
7,800.00	7,064.54	7,987.49	7,258.96	40.06	40.91	93.68	1,516.47	-1,034.45	3,028.54	2,948.81	79.73	37.987		
7,900.00	7,064.31	8,087.48	7,258.54	41.52	42.55	93.68	1,514.81	-1,134.43	3,027.47	2,944.52	82.95	36.498		
8,000.00	7,064.08	8,187.48	7,258.12	43.14	44.30	93.68	1,513.15	-1,234.41	3,026.40	2,939.97	86.43	35.017		
8,100.00	7,063.85	8,287.47	7,257.70	44.90	46.17	93.68	1,511.49	-1,334.39	3,025.33	2,935.20	90.13	33.565		
8,200.00	7,063.62	8,387.46	7,257.28	46.78	48.14	93.67	1,509.83	-1,434.37	3,024.26	2,930.22	94.04	32.160		
8,300.00	7,063.39	8,487.46	7,256.86	48.76	50.19	93.67	1,508.17	-1,534.35	3,023.19	2,925.07	98.12	30.811		
8,400.00	7,063.16	8,587.45	7,256.44	50.83	52.32	93.67	1,506.52	-1,634.33	3,022.12	2,919.76	102.36	29.525		
8,500.00	7,062.93	8,687.45	7,256.02	52.97	54.52	93.67	1,504.86	-1,734.31	3,021.05	2,914.32	106.73	28.305		
8,600.00	7,062.70	8,787.44	7,255.60	55.18	56.77	93.66	1,503.20	-1,834.29	3,019.98	2,908.76	111.23	27.152		
8,700.00	7,062.47	8,887.44	7,255.18	57.46	59.07	93.66	1,501.54	-1,934.27	3,018.91	2,903.08	115.83	26.064		
8,800.00	7,062.24	8,987.43	7,254.76	59.78	61.43	93.66	1,499.88	-2,034.24	3,017.84	2,897.32	120.52	25.040		
8,900.00	7,062.01	9,087.42	7,254.34	62.14	63.82	93.66	1,498.22	-2,134.22	3,016.77	2,891.47	125.30	24.077		
9,000.00	7,061.78	9,187.42	7,253.92	64.55	66.25	93.65	1,496.56	-2,234.20	3,015.70	2,885.55	130.15	23.171		
9,100.00	7,061.55	9,287.41	7,253.50	67.00	68.71	93.65	1,494.91	-2,334.18	3,014.63	2,879.56	135.07	22.319		
9,200.00	7,061.31	9,387.41	7,253.08	69.47	71.20	93.65	1,493.25	-2,434.16	3,013.56	2,873.51	140.05	21.518		
9,300.00	7,061.08	9,487.40	7,252.66	71.98	73.72	93.65	1,491.59	-2,534.14	3,012.49	2,867.41	145.08	20.764		
9,400.00	7,060.85	9,587.40	7,252.24	74.51	76.26	93.65	1,489.93	-2,634.12	3,011.42	2,861.26	150.16	20.054		
9,500.00	7,060.62	9,687.39	7,251.82	77.06	78.83	93.64	1,488.27	-2,734.10	3,010.35	2,855.07	155.29	19.386		
9,600.00	7,060.39	9,787.38	7,251.40	79.64	81.41	93.64	1,486.61	-2,834.08	3,009.28	2,848.83	160.45	18.755		
9,700.00	7,060.16	9,887.38	7,250.98	82.23	84.01	93.64	1,484.95	-2,934.06	3,008.21	2,842.57	165.65	18.160		
9,800.00	7,059.93	9,987.37	7,250.56	84.84	86.63	93.64	1,483.30	-3,034.04	3,007.14	2,836.27	170.88	17.598		
9,900.00	7,059.70	10,087.37	7,250.14	87.47	89.26	93.63	1,481.64	-3,134.02	3,006.07	2,829.94	176.14	17.067		
10,000.00	7,059.47	10,187.36	7,249.72	90.11	91.90	93.63	1,479.98	-3,234.00	3,005.00	2,823.58	181.42	16.563		
10,100.00	7,059.24	10,287.35	7,249.30	92.76	94.56	93.63	1,478.32	-3,333.98	3,003.93	2,817.20	186.73	16.087		
10,200.00	7,059.01	10,387.35	7,248.88	95.42	97.23	93.63	1,476.66	-3,433.96	3,002.86	2,810.80	192.07	15.634		
10,300.00	7,058.78	10,487.34	7,248.46	98.10	99.91	93.62	1,475.00	-3,533.94	3,001.79	2,804.37	197.42	15.205		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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 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	7,058.55	10,587.34	7,248.04	100.79	102.59	93.62	1,473.35	-3,633.92	3,000.72	2,797.93	202.80	14.797		
10,500.00	7,058.32	10,687.33	7,247.62	103.48	105.29	93.62	1,471.69	-3,733.90	2,999.65	2,791.47	208.19	14.408		
10,600.00	7,058.09	10,787.33	7,247.20	106.19	108.00	93.62	1,470.03	-3,833.88	2,998.58	2,784.99	213.59	14.039		
10,700.00	7,057.86	10,887.32	7,246.77	108.90	110.71	93.62	1,468.37	-3,933.86	2,997.51	2,778.50	219.02	13.686		
10,800.00	7,057.63	10,987.31	7,246.35	111.62	113.43	93.61	1,466.71	-4,033.84	2,996.45	2,771.99	224.45	13.350		
10,900.00	7,057.40	11,087.31	7,245.93	114.35	116.15	93.61	1,465.05	-4,133.82	2,995.38	2,765.47	229.90	13.029		
11,000.00	7,057.17	11,187.30	7,245.51	117.08	118.89	93.61	1,463.39	-4,233.80	2,994.31	2,758.94	235.36	12.722		
11,100.00	7,056.94	11,287.30	7,245.09	119.82	121.62	93.61	1,461.74	-4,333.77	2,993.24	2,752.40	240.83	12.429		
11,200.00	7,056.71	11,387.29	7,244.67	122.56	124.37	93.60	1,460.08	-4,433.75	2,992.17	2,745.85	246.32	12.148		
11,300.00	7,056.48	11,487.29	7,244.25	125.31	127.11	93.60	1,458.42	-4,533.73	2,991.10	2,739.29	251.81	11.878		
11,400.00	7,056.25	11,587.28	7,243.83	128.06	129.87	93.60	1,456.76	-4,633.71	2,990.03	2,732.72	257.31	11.620		
11,500.00	7,056.02	11,687.27	7,243.41	130.82	132.62	93.60	1,455.10	-4,733.69	2,988.96	2,726.13	262.82	11.373		
11,600.00	7,055.79	11,787.27	7,242.99	133.59	135.39	93.59	1,453.44	-4,833.67	2,987.89	2,719.55	268.34	11.135		
11,700.00	7,055.55	11,887.26	7,242.57	136.35	138.15	93.59	1,451.78	-4,933.65	2,986.82	2,712.95	273.87	10.906		
11,800.00	7,055.32	11,987.26	7,242.15	139.12	140.92	93.59	1,450.13	-5,033.63	2,985.75	2,706.35	279.40	10.686		
11,900.00	7,055.09	12,087.25	7,241.73	141.90	143.69	93.59	1,448.47	-5,133.61	2,984.68	2,699.74	284.94	10.475		
12,000.00	7,054.86	12,187.24	7,241.31	144.67	146.47	93.58	1,446.81	-5,233.59	2,983.61	2,693.12	290.49	10.271		
12,100.00	7,054.63	12,287.24	7,240.89	147.45	149.24	93.58	1,445.15	-5,333.57	2,982.54	2,686.50	296.04	10.075		
12,200.00	7,054.40	12,387.23	7,240.47	150.24	152.02	93.58	1,443.49	-5,433.55	2,981.47	2,679.87	301.60	9.886		
12,300.00	7,054.17	12,487.23	7,240.05	153.02	154.81	93.58	1,441.83	-5,533.53	2,980.40	2,673.24	307.16	9.703		
12,400.00	7,053.94	12,587.22	7,239.63	155.81	157.59	93.57	1,440.17	-5,633.51	2,979.33	2,666.60	312.73	9.527		
12,500.00	7,053.71	12,687.22	7,239.21	158.60	160.38	93.57	1,438.52	-5,733.49	2,978.26	2,659.96	318.30	9.357		
12,600.00	7,053.48	12,787.21	7,238.79	161.40	163.17	93.57	1,436.86	-5,833.47	2,977.19	2,653.31	323.88	9.192		
12,700.00	7,053.25	12,887.20	7,238.37	164.19	165.97	93.57	1,435.20	-5,933.45	2,976.12	2,646.66	329.46	9.033		
12,800.00	7,053.02	12,987.20	7,237.95	166.99	168.76	93.57	1,433.54	-6,033.43	2,975.05	2,640.00	335.05	8.879		
12,900.00	7,052.79	13,087.19	7,237.53	169.79	171.56	93.56	1,431.88	-6,133.41	2,973.98	2,633.34	340.64	8.731		
13,000.00	7,052.56	13,187.19	7,237.11	172.59	174.36	93.56	1,430.22	-6,233.39	2,972.91	2,626.68	346.23	8.586		
13,100.00	7,052.33	13,287.18	7,236.69	175.40	177.16	93.56	1,428.56	-6,333.37	2,971.84	2,620.01	351.83	8.447		
13,200.00	7,052.10	13,387.18	7,236.27	178.20	179.96	93.56	1,426.91	-6,433.35	2,970.77	2,613.34	357.43	8.311		
13,300.00	7,051.87	13,487.17	7,235.85	181.01	182.77	93.55	1,425.25	-6,533.33	2,969.70	2,606.67	363.04	8.180		
13,400.00	7,051.64	13,587.16	7,235.43	183.82	185.57	93.55	1,423.59	-6,633.30	2,968.63	2,599.99	368.64	8.053		
13,500.00	7,051.41	13,687.16	7,235.01	186.63	188.38	93.55	1,421.93	-6,733.28	2,967.56	2,593.31	374.25	7.929		
13,600.00	7,051.18	13,787.15	7,234.59	189.44	191.19	93.55	1,420.27	-6,833.26	2,966.50	2,586.63	379.87	7.809		
13,700.00	7,050.95	13,887.15	7,234.17	192.25	194.00	93.54	1,418.61	-6,933.24	2,965.43	2,579.94	385.48	7.693		
13,800.00	7,050.72	13,987.14	7,233.75	195.07	196.81	93.54	1,416.95	-7,033.22	2,964.36	2,573.26	391.10	7.580		
13,900.00	7,050.49	14,087.13	7,233.33	197.88	199.62	93.54	1,415.30	-7,133.20	2,963.29	2,566.57	396.72	7.469		
14,000.00	7,050.26	14,187.13	7,232.91	200.70	202.43	93.54	1,413.64	-7,233.18	2,962.22	2,559.87	402.34	7.362		
14,100.00	7,050.03	14,287.12	7,232.48	203.52	205.25	93.53	1,411.98	-7,333.16	2,961.15	2,553.18	407.97	7.258		
14,200.00	7,049.80	14,387.12	7,232.06	206.34	208.07	93.53	1,410.32	-7,433.14	2,960.08	2,546.48	413.60	7.157		
14,300.00	7,049.56	14,487.11	7,231.64	209.16	210.88	93.53	1,408.66	-7,533.12	2,959.01	2,539.78	419.23	7.058		
14,400.00	7,049.33	14,587.11	7,231.22	211.98	213.70	93.53	1,407.00	-7,633.10	2,957.94	2,533.08	424.86	6.962		
14,500.00	7,049.10	14,687.10	7,230.80	214.80	216.52	93.52	1,405.34	-7,733.08	2,956.87	2,526.38	430.49	6.869		
14,600.00	7,048.87	14,787.09	7,230.38	217.63	219.34	93.52	1,403.69	-7,833.06	2,955.80	2,519.67	436.13	6.777		
14,700.00	7,048.64	14,887.09	7,229.96	220.45	222.16	93.52	1,402.03	-7,933.04	2,954.73	2,512.97	441.76	6.688		
14,800.00	7,048.41	14,987.08	7,229.54	223.28	224.98	93.52	1,400.37	-8,033.02	2,953.66	2,506.26	447.40	6.602		
14,900.00	7,048.18	15,087.08	7,229.12	226.10	227.80	93.52	1,398.71	-8,133.00	2,952.59	2,499.55	453.04	6.517		
14,960.71	7,048.04	15,116.21	7,229.00	227.82	228.63	93.51	1,398.23	-8,162.13	2,952.11	2,496.53	455.58	6.480		
14,979.18	7,048.00	15,116.21	7,229.00	228.34	228.63	93.51	1,398.23	-8,162.13	2,952.17	2,496.09	456.07	6.473 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	280.16	2.50	280.17					
100.00	100.00	101.00	100.00	3.28	3.28	0.51	280.16	2.50	280.17	273.60	6.57	42.646		
200.00	200.00	201.00	200.00	3.34	3.34	0.51	280.16	2.50	280.17	273.50	6.67	41.974	CC, ES	
300.00	299.98	300.98	299.98	3.44	3.45	174.46	280.16	2.50	281.91	275.02	6.89	40.937		
400.00	399.84	400.84	399.84	3.59	3.60	174.55	280.16	2.50	287.12	279.92	7.20	39.893		
500.00	499.45	500.45	499.45	3.79	3.81	174.69	280.16	2.50	295.79	288.19	7.60	38.923		
600.00	598.70	599.70	598.70	4.03	4.05	174.88	280.16	2.50	307.93	299.85	8.08	38.110		
700.00	697.47	698.47	697.47	4.31	4.29	175.01	281.50	2.18	324.99	316.38	8.61	37.767		
800.00	795.62	796.62	795.62	4.64	4.54	175.04	285.42	1.24	348.37	339.19	9.18	37.960		
900.00	893.16	894.16	893.16	5.00	4.81	175.01	291.74	-0.27	377.49	367.71	9.78	38.598		
1,000.00	990.60	991.60	990.60	5.38	5.10	174.92	300.47	-2.36	409.71	399.32	10.39	39.432		
1,100.00	1,088.04	1,089.04	1,088.04	5.79	5.42	174.80	311.12	-4.91	442.92	431.86	11.06	40.063		
1,200.00	1,185.48	1,186.48	1,185.48	6.22	5.76	174.69	321.78	-7.47	476.13	464.38	11.75	40.534		
1,300.00	1,282.92	1,283.92	1,282.92	6.66	6.10	174.60	332.43	-10.02	509.34	496.88	12.46	40.868		
1,400.00	1,380.36	1,381.36	1,380.36	7.10	6.46	174.52	343.08	-12.57	542.55	529.35	13.20	41.104		
1,500.00	1,477.80	1,478.80	1,477.80	7.56	6.83	174.45	353.73	-15.12	575.77	561.81	13.95	41.265		
1,600.00	1,575.24	1,576.24	1,575.24	8.03	7.20	174.38	364.38	-17.67	608.98	594.26	14.72	41.370		
1,700.00	1,672.68	1,673.68	1,672.68	8.50	7.58	174.33	375.04	-20.22	642.20	626.70	15.50	41.433		
1,800.00	1,770.12	1,771.12	1,770.12	8.98	7.96	174.28	385.69	-22.77	675.41	659.12	16.29	41.463		
1,900.00	1,867.56	1,868.56	1,867.56	9.46	8.39	174.23	396.34	-25.33	708.63	691.50	17.13	41.375		
2,000.00	1,965.00	1,966.00	1,965.00	9.95	8.74	174.19	406.99	-27.88	741.84	723.95	17.89	41.456		
2,100.00	2,062.44	2,063.44	2,062.44	10.44	9.13	174.15	417.64	-30.43	775.06	756.35	18.71	41.430		
2,200.00	2,159.88	2,160.88	2,159.88	10.93	9.53	174.11	428.29	-32.98	808.28	788.75	19.53	41.393		
2,300.00	2,257.32	2,258.32	2,257.32	11.42	9.93	174.08	438.95	-35.53	841.49	821.14	20.35	41.349		
2,400.00	2,354.76	2,355.76	2,354.76	11.92	10.33	174.05	449.60	-38.08	874.71	853.53	21.18	41.299		
2,500.00	2,452.20	2,453.20	2,452.20	12.42	10.74	174.02	460.25	-40.63	907.93	885.92	22.01	41.246		
2,600.00	2,549.64	2,550.64	2,549.64	12.92	11.14	173.99	470.90	-43.19	941.15	918.30	22.85	41.190		
2,700.00	2,647.08	2,648.08	2,647.08	13.42	11.55	173.97	481.55	-45.74	974.37	950.68	23.69	41.132		
2,800.00	2,744.52	2,745.52	2,744.52	13.93	11.96	173.95	492.21	-48.29	1,007.58	983.05	24.53	41.074		
2,900.00	2,841.96	2,842.96	2,841.96	14.43	12.37	173.93	502.86	-50.84	1,040.80	1,015.43	25.38	41.015		
3,000.00	2,939.40	2,940.40	2,939.40	14.94	12.78	173.91	513.51	-53.39	1,074.02	1,047.80	26.22	40.956		
3,100.00	3,036.84	3,037.84	3,036.84	15.44	13.19	173.89	524.16	-55.94	1,107.24	1,080.17	27.07	40.898		
3,200.00	3,134.28	3,135.28	3,134.28	15.95	13.61	173.87	534.81	-58.50	1,140.46	1,112.53	27.92	40.841		
3,300.00	3,231.72	3,232.72	3,231.72	16.46	14.02	173.85	545.46	-61.05	1,173.68	1,144.90	28.78	40.784		
3,400.00	3,329.16	3,330.16	3,329.16	16.97	14.43	173.84	556.12	-63.60	1,206.89	1,177.26	29.63	40.728		
3,500.00	3,426.60	3,427.60	3,426.60	17.48	14.85	173.82	566.77	-66.15	1,240.11	1,209.62	30.49	40.674		
3,600.00	3,524.04	3,525.04	3,524.04	17.99	15.28	173.81	577.42	-68.70	1,273.33	1,241.97	31.36	40.606		
3,700.00	3,621.48	3,622.48	3,621.48	18.50	15.74	173.79	588.07	-71.25	1,306.55	1,274.28	32.27	40.492		
3,800.00	3,718.92	3,719.92	3,718.92	19.01	16.10	173.78	598.72	-73.80	1,339.77	1,306.70	33.07	40.518		
3,900.00	3,816.36	3,817.36	3,816.36	19.52	16.52	173.77	609.38	-76.36	1,372.99	1,339.06	33.93	40.468		
4,000.00	3,913.80	3,914.80	3,913.80	20.03	16.94	173.76	620.03	-78.91	1,406.21	1,371.42	34.79	40.420		
4,100.00	4,011.24	4,012.24	4,011.24	20.55	17.35	173.75	630.68	-81.46	1,439.43	1,403.77	35.65	40.373		
4,200.00	4,108.68	4,109.68	4,108.68	21.06	17.77	173.74	641.33	-84.01	1,472.65	1,436.13	36.52	40.328		
4,300.00	4,206.12	4,207.12	4,206.12	21.57	18.19	173.73	651.98	-86.56	1,505.87	1,468.48	37.38	40.283		
4,400.00	4,303.56	4,304.56	4,303.56	22.09	18.61	173.72	662.63	-89.11	1,539.09	1,500.84	38.25	40.240		
4,500.00	4,401.00	4,402.00	4,401.00	22.60	19.03	173.71	673.29	-91.66	1,572.30	1,533.19	39.11	40.198		
4,600.00	4,498.44	4,499.44	4,498.44	23.11	19.45	173.70	683.94	-94.22	1,605.52	1,565.54	39.98	40.157		
4,700.00	4,595.88	4,596.88	4,595.88	23.63	19.87	173.69	694.59	-96.77	1,638.74	1,597.89	40.85	40.117		
4,800.00	4,693.32	4,694.32	4,693.32	24.14	20.29	173.68	705.24	-99.32	1,671.96	1,630.25	41.72	40.079		
4,900.00	4,790.76	4,791.76	4,790.76	24.66	20.72	173.67	715.89	-101.87	1,705.18	1,662.60	42.59	40.041		
5,000.00	4,888.20	4,889.20	4,888.20	25.17	21.14	173.67	726.55	-104.42	1,738.40	1,694.95	43.46	40.004		
5,100.00	4,985.64	4,986.64	4,985.64	25.69	21.56	173.66	737.20	-106.97	1,771.62	1,727.30	44.33	39.969		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	4,907.88	4,879.24	26.20	21.98	173.65	747.85	-109.52	1,804.84	1,759.65	45.20	39.934		
5,300.00	5,180.52	5,002.20	4,972.92	26.72	22.40	173.65	758.50	-112.08	1,838.06	1,791.99	46.07	39.900		
5,400.00	5,277.96	5,103.48	5,066.60	27.24	22.86	173.64	769.15	-114.63	1,871.28	1,824.31	46.97	39.841		
5,500.00	5,375.40	5,190.84	5,160.29	27.75	23.25	173.63	779.80	-117.18	1,904.50	1,856.69	47.81	39.835		
5,600.00	5,472.84	5,285.16	5,253.97	28.27	23.67	173.63	790.46	-119.73	1,937.72	1,889.04	48.68	39.804		
5,700.00	5,570.28	5,379.48	5,347.65	28.79	24.09	173.62	801.11	-122.28	1,970.94	1,921.38	49.55	39.773		
5,800.00	5,667.72	5,473.80	5,441.33	29.30	24.52	173.62	811.76	-124.83	2,004.16	1,953.73	50.43	39.744		
5,900.00	5,765.16	5,568.13	5,535.02	29.82	24.94	173.61	822.41	-127.39	2,037.38	1,986.08	51.30	39.715		
6,000.00	5,862.60	5,662.45	5,628.70	30.34	25.36	173.60	833.06	-129.94	2,070.60	2,018.42	52.17	39.686		
6,100.00	5,960.05	5,756.77	5,722.38	30.85	25.78	173.60	843.72	-132.49	2,103.82	2,050.77	53.05	39.659		
6,200.00	6,057.49	5,851.09	5,816.07	31.37	26.21	173.59	854.37	-135.04	2,137.04	2,083.11	53.92	39.632		
6,300.00	6,154.93	5,945.41	5,909.75	31.89	26.63	173.59	865.02	-137.59	2,170.26	2,115.46	54.80	39.605		
6,400.00	6,252.37	6,039.73	6,003.43	32.40	27.06	173.59	875.67	-140.14	2,203.48	2,147.80	55.67	39.580		
6,500.00	6,349.81	6,134.05	6,097.11	32.92	27.48	173.58	886.32	-142.69	2,236.70	2,180.15	56.55	39.554		
6,600.00	6,447.25	6,228.37	6,190.80	33.44	27.90	173.58	896.97	-145.25	2,269.92	2,212.49	57.42	39.530		
6,700.00	6,544.28	6,322.45	6,284.24	33.95	28.33	142.24	907.60	-147.79	2,303.04	2,244.75	58.30	39.506		
6,800.00	6,638.86	6,417.51	6,378.58	34.44	28.75	120.91	918.31	-151.94	2,335.54	2,276.37	59.17	39.470		
6,900.00	6,728.65	6,518.28	6,477.05	34.89	29.21	108.98	929.41	-169.63	2,366.64	2,306.55	60.09	39.385		
7,000.00	6,811.45	6,624.00	6,576.03	35.29	29.67	101.51	940.43	-204.74	2,395.56	2,334.52	61.05	39.241		
7,100.00	6,885.21	6,735.47	6,672.64	35.66	30.16	96.43	951.05	-259.03	2,421.57	2,359.49	62.08	39.008		
7,200.00	6,948.11	6,853.23	6,762.85	35.99	30.72	92.85	960.80	-333.84	2,443.95	2,380.69	63.26	38.634		
7,300.00	6,998.62	6,977.31	6,841.41	36.30	31.45	90.34	969.08	-429.27	2,462.05	2,397.35	64.70	38.051		
7,400.00	7,035.48	7,107.01	6,902.27	36.65	32.45	88.67	975.20	-543.39	2,475.32	2,408.78	66.54	37.202		
7,500.00	7,057.79	7,240.75	6,939.68	37.13	33.78	87.69	978.56	-671.48	2,483.30	2,414.46	68.84	36.072		
7,600.00	7,065.00	7,371.37	6,949.96	37.84	35.34	87.35	978.82	-801.48	2,485.75	2,414.24	71.50	34.764		
7,700.00	7,064.77	7,471.37	6,949.66	38.82	36.71	87.35	978.08	-901.48	2,485.61	2,411.48	74.13	33.529		
7,800.00	7,064.54	7,571.37	6,949.36	40.06	38.24	87.34	977.34	-1,001.48	2,485.47	2,408.39	77.08	32.244		
7,900.00	7,064.31	7,671.37	6,949.07	41.52	39.92	87.34	976.61	-1,101.47	2,485.34	2,405.01	80.33	30.938		
8,000.00	7,064.08	7,771.37	6,948.77	43.14	41.72	87.34	975.87	-1,201.47	2,485.20	2,401.36	83.84	29.641		
8,100.00	7,063.85	7,871.37	6,948.47	44.90	43.64	87.34	975.13	-1,301.47	2,485.07	2,397.48	87.59	28.372		
8,200.00	7,063.62	7,971.37	6,948.17	46.78	45.66	87.34	974.39	-1,401.46	2,484.93	2,393.40	91.54	27.147		
8,300.00	7,063.39	8,071.37	6,947.87	48.76	47.76	87.34	973.66	-1,501.46	2,484.80	2,389.13	95.66	25.975		
8,400.00	7,063.16	8,171.37	6,947.57	50.83	49.93	87.33	972.92	-1,601.46	2,484.66	2,384.72	99.94	24.860		
8,500.00	7,062.93	8,271.37	6,947.27	52.97	52.18	87.33	972.18	-1,701.45	2,484.52	2,380.16	104.36	23.806		
8,600.00	7,062.70	8,371.37	6,946.98	55.18	54.48	87.33	971.44	-1,801.45	2,484.39	2,375.49	108.90	22.813		
8,700.00	7,062.47	8,471.37	6,946.68	57.46	56.83	87.33	970.70	-1,901.45	2,484.25	2,370.71	113.55	21.878		
8,800.00	7,062.24	8,571.37	6,946.38	59.78	59.22	87.33	969.97	-2,001.44	2,484.12	2,365.83	118.29	21.001		
8,900.00	7,062.01	8,671.37	6,946.08	62.14	61.66	87.33	969.23	-2,101.44	2,483.98	2,360.87	123.11	20.177		
9,000.00	7,061.78	8,771.37	6,945.78	64.55	64.13	87.32	968.49	-2,201.44	2,483.85	2,355.84	128.00	19.404		
9,100.00	7,061.55	8,871.37	6,945.48	67.00	66.63	87.32	967.75	-2,301.43	2,483.71	2,350.75	132.96	18.680		
9,200.00	7,061.31	8,971.37	6,945.19	69.47	69.16	87.32	967.02	-2,401.43	2,483.58	2,345.59	137.98	17.999		
9,300.00	7,061.08	9,071.37	6,944.89	71.98	71.71	87.32	966.28	-2,501.43	2,483.44	2,340.39	143.05	17.360		
9,400.00	7,060.85	9,171.37	6,944.59	74.51	74.29	87.32	965.54	-2,601.42	2,483.30	2,335.13	148.17	16.760		
9,500.00	7,060.62	9,271.37	6,944.29	77.06	76.88	87.31	964.80	-2,701.42	2,483.17	2,329.84	153.33	16.195		
9,600.00	7,060.39	9,371.37	6,943.99	79.64	79.49	87.31	964.06	-2,801.42	2,483.03	2,324.51	158.53	15.663		
9,700.00	7,060.16	9,471.37	6,943.69	82.23	82.12	87.31	963.33	-2,901.41	2,482.90	2,319.14	163.76	15.162		
9,800.00	7,059.93	9,571.37	6,943.40	84.84	84.77	87.31	962.59	-3,001.41	2,482.76	2,313.74	169.02	14.689		
9,900.00	7,059.70	9,671.37	6,943.10	87.47	87.43	87.31	961.85	-3,101.41	2,482.63	2,308.32	174.31	14.242		
10,000.00	7,059.47	9,771.37	6,942.80	90.11	90.10	87.31	961.11	-3,201.40	2,482.49	2,302.86	179.63	13.820		
10,100.00	7,059.24	9,871.37	6,942.50	92.76	92.78	87.30	960.38	-3,301.40	2,482.36	2,297.39	184.97	13.420		
10,200.00	7,059.01	9,971.37	6,942.20	95.42	95.47	87.30	959.64	-3,401.40	2,482.22	2,291.89	190.33	13.042		
10,300.00	7,058.78	10,071.37	6,941.90	98.10	98.17	87.30	958.90	-3,501.39	2,482.08	2,286.37	195.71	12.682		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,400.00	7,058.55	10,171.37	6,941.61	100.79	100.88	87.30	958.16	-3,601.39	2,481.95	2,280.84	201.11	12.341		
10,500.00	7,058.32	10,271.37	6,941.31	103.48	103.60	87.30	957.42	-3,701.39	2,481.81	2,275.29	206.53	12.017		
10,600.00	7,058.09	10,371.37	6,941.01	106.19	106.33	87.30	956.69	-3,801.38	2,481.68	2,269.72	211.96	11.708		
10,700.00	7,057.86	10,471.37	6,940.71	108.90	109.06	87.29	955.95	-3,901.38	2,481.54	2,264.14	217.41	11.414		
10,800.00	7,057.63	10,571.37	6,940.41	111.62	111.80	87.29	955.21	-4,001.38	2,481.41	2,258.54	222.87	11.134		
10,900.00	7,057.40	10,671.37	6,940.11	114.35	114.54	87.29	954.47	-4,101.37	2,481.27	2,252.93	228.34	10.867		
11,000.00	7,057.17	10,771.37	6,939.82	117.08	117.29	87.29	953.74	-4,201.37	2,481.14	2,247.31	233.82	10.611		
11,100.00	7,056.94	10,871.37	6,939.52	119.82	120.05	87.29	953.00	-4,301.37	2,481.00	2,241.68	239.32	10.367		
11,200.00	7,056.71	10,971.37	6,939.22	122.56	122.81	87.29	952.26	-4,401.36	2,480.86	2,236.04	244.82	10.133		
11,300.00	7,056.48	11,071.37	6,938.92	125.31	125.57	87.28	951.52	-4,501.36	2,480.73	2,230.40	250.33	9.910		
11,400.00	7,056.25	11,171.37	6,938.62	128.06	128.34	87.28	950.78	-4,601.36	2,480.59	2,224.74	255.86	9.695		
11,500.00	7,056.02	11,271.37	6,938.32	130.82	131.11	87.28	950.05	-4,701.35	2,480.46	2,219.07	261.39	9.490		
11,600.00	7,055.79	11,371.37	6,938.03	133.59	133.89	87.28	949.31	-4,801.35	2,480.32	2,213.40	266.92	9.292		
11,700.00	7,055.55	11,471.37	6,937.73	136.35	136.67	87.28	948.57	-4,901.35	2,480.19	2,207.72	272.47	9.103		
11,800.00	7,055.32	11,571.37	6,937.43	139.12	139.45	87.28	947.83	-5,001.35	2,480.05	2,202.03	278.02	8.920		
11,900.00	7,055.09	11,671.37	6,937.13	141.90	142.23	87.27	947.10	-5,101.34	2,479.92	2,196.34	283.58	8.745		
12,000.00	7,054.86	11,771.37	6,936.83	144.67	145.02	87.27	946.36	-5,201.34	2,479.78	2,190.64	289.14	8.576		
12,100.00	7,054.63	11,871.37	6,936.53	147.45	147.81	87.27	945.62	-5,301.34	2,479.64	2,184.93	294.71	8.414		
12,200.00	7,054.40	11,971.37	6,936.24	150.24	150.61	87.27	944.88	-5,401.33	2,479.51	2,179.22	300.29	8.257		
12,300.00	7,054.17	12,071.37	6,935.94	153.02	153.40	87.27	944.14	-5,501.33	2,479.37	2,173.51	305.87	8.106		
12,400.00	7,053.94	12,171.37	6,935.64	155.81	156.20	87.27	943.41	-5,601.33	2,479.24	2,167.78	311.45	7.960		
12,500.00	7,053.71	12,271.37	6,935.34	158.60	159.00	87.26	942.67	-5,701.32	2,479.10	2,162.06	317.04	7.819		
12,600.00	7,053.48	12,371.37	6,935.04	161.40	161.80	87.26	941.93	-5,801.32	2,478.97	2,156.33	322.64	7.683		
12,700.00	7,053.25	12,471.37	6,934.74	164.19	164.61	87.26	941.19	-5,901.32	2,478.83	2,150.60	328.23	7.552		
12,800.00	7,053.02	12,571.37	6,934.44	166.99	167.41	87.26	940.46	-6,001.31	2,478.70	2,144.86	333.84	7.425		
12,900.00	7,052.79	12,671.37	6,934.15	169.79	170.22	87.26	939.72	-6,101.31	2,478.56	2,139.12	339.44	7.302		
13,000.00	7,052.56	12,771.37	6,933.85	172.59	173.03	87.25	938.98	-6,201.31	2,478.42	2,133.38	345.05	7.183		
13,100.00	7,052.33	12,871.37	6,933.55	175.40	175.84	87.25	938.24	-6,301.30	2,478.29	2,127.63	350.66	7.067		
13,200.00	7,052.10	12,971.37	6,933.25	178.20	178.65	87.25	937.50	-6,401.30	2,478.15	2,121.88	356.28	6.956		
13,300.00	7,051.87	13,071.37	6,932.95	181.01	181.47	87.25	936.77	-6,501.30	2,478.02	2,116.12	361.89	6.847		
13,400.00	7,051.64	13,171.37	6,932.65	183.82	184.28	87.25	936.03	-6,601.29	2,477.88	2,110.37	367.52	6.742		
13,500.00	7,051.41	13,271.37	6,932.36	186.63	187.10	87.25	935.29	-6,701.29	2,477.75	2,104.61	373.14	6.640		
13,600.00	7,051.18	13,371.37	6,932.06	189.44	189.92	87.24	934.55	-6,801.29	2,477.61	2,098.85	378.77	6.541		
13,700.00	7,050.95	13,471.37	6,931.76	192.25	192.74	87.24	933.82	-6,901.28	2,477.48	2,093.08	384.39	6.445		
13,800.00	7,050.72	13,571.37	6,931.46	195.07	195.56	87.24	933.08	-7,001.28	2,477.34	2,087.31	390.03	6.352		
13,900.00	7,050.49	13,671.37	6,931.16	197.88	198.38	87.24	932.34	-7,101.28	2,477.20	2,081.55	395.66	6.261		
14,000.00	7,050.26	13,771.37	6,930.86	200.70	201.20	87.24	931.60	-7,201.27	2,477.07	2,075.77	401.30	6.173		
14,100.00	7,050.03	13,871.37	6,930.57	203.52	204.02	87.24	930.86	-7,301.27	2,476.93	2,070.00	406.93	6.087		
14,200.00	7,049.80	13,971.37	6,930.27	206.34	206.85	87.23	930.13	-7,401.27	2,476.80	2,064.23	412.57	6.003		
14,300.00	7,049.56	14,071.37	6,929.97	209.16	209.67	87.23	929.39	-7,501.26	2,476.66	2,058.45	418.21	5.922		
14,400.00	7,049.33	14,171.37	6,929.67	211.98	212.50	87.23	928.65	-7,601.26	2,476.53	2,052.67	423.86	5.843		
14,500.00	7,049.10	14,271.37	6,929.37	214.80	215.33	87.23	927.91	-7,701.26	2,476.39	2,046.89	429.50	5.766		
14,600.00	7,048.87	14,371.37	6,929.07	217.63	218.15	87.23	927.18	-7,801.25	2,476.26	2,041.11	435.15	5.691		
14,700.00	7,048.64	14,471.37	6,928.78	220.45	220.98	87.23	926.44	-7,901.25	2,476.12	2,035.32	440.80	5.617		
14,800.00	7,048.41	14,571.37	6,928.48	223.28	223.81	87.22	925.70	-8,001.25	2,475.99	2,029.54	446.45	5.546		
14,900.00	7,048.18	14,671.37	6,928.18	226.10	226.64	87.22	924.96	-8,101.24	2,475.85	2,023.75	452.10	5.476		
14,963.00	7,048.04	14,734.36	6,927.99	227.88	228.42	87.22	924.50	-8,164.24	2,475.76	2,020.10	455.66	5.433		
14,979.18	7,048.00	14,732.12	6,928.00	228.34	228.36	87.22	924.51	-8,162.00	2,475.81	2,019.79	456.03	5.429 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 12N-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 12N-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	0.48	300.20	2.50	300.21					
100.00	100.00	101.00	100.00	3.28	3.28	0.48	300.20	2.50	300.21	293.64	6.57	45.697		
200.00	200.00	201.00	200.00	3.34	3.34	0.48	300.20	2.50	300.21	293.54	6.67	44.977	CC, ES	
300.00	299.98	300.98	299.98	3.44	3.45	174.42	300.20	2.50	301.95	295.06	6.89	43.848		
400.00	399.84	400.84	399.84	3.59	3.60	174.50	300.20	2.50	307.16	299.96	7.20	42.678		
500.00	499.45	500.45	499.45	3.79	3.81	174.64	300.20	2.50	315.84	308.24	7.60	41.560		
600.00	598.70	599.70	598.70	4.03	4.05	174.82	300.20	2.50	327.97	319.89	8.08	40.590		
700.00	697.47	698.47	697.47	4.31	4.28	174.96	301.54	2.29	345.04	336.44	8.60	40.106		
800.00	795.62	796.62	795.62	4.64	4.54	175.04	305.46	1.66	368.46	359.29	9.17	40.165		
900.00	893.16	894.16	893.16	5.00	4.81	175.08	311.77	0.64	397.65	387.87	9.77	40.685		
1,000.00	990.60	991.60	990.60	5.38	5.08	175.08	320.34	-0.74	429.97	419.60	10.38	41.435		
1,100.00	1,088.04	1,089.04	1,088.04	5.79	5.36	175.03	331.02	-2.46	464.95	453.96	10.99	42.307		
1,200.00	1,185.48	1,186.48	1,185.48	6.22	5.67	174.93	344.44	-4.62	502.22	490.59	11.64	43.164		
1,300.00	1,282.92	1,283.92	1,282.92	6.66	6.01	174.83	359.23	-7.00	539.85	527.52	12.33	43.779		
1,400.00	1,380.36	1,381.36	1,380.36	7.10	6.40	174.75	374.03	-9.39	577.48	564.38	13.09	44.111		
1,500.00	1,477.80	1,478.80	1,477.80	7.56	6.72	174.67	388.83	-11.77	615.10	601.32	13.78	44.622		
1,600.00	1,575.24	1,576.24	1,575.24	8.03	7.09	174.60	403.62	-14.15	652.73	638.20	14.54	44.903		
1,700.00	1,672.68	1,673.68	1,672.68	8.50	7.47	174.54	418.42	-16.54	690.36	675.06	15.30	45.118		
1,800.00	1,770.12	1,771.12	1,770.12	8.98	7.85	174.49	433.22	-18.92	727.99	711.92	16.08	45.281		
1,900.00	1,867.56	1,868.56	1,867.56	9.46	8.24	174.44	448.02	-21.30	765.63	748.76	16.86	45.402		
2,000.00	1,965.00	1,966.00	1,965.00	9.95	8.63	174.40	462.81	-23.69	803.26	785.60	17.66	45.491		
2,100.00	2,062.44	2,063.44	2,062.44	10.44	9.03	174.36	477.61	-26.07	840.89	822.43	18.46	45.555		
2,200.00	2,159.88	2,160.88	2,159.88	10.93	9.43	174.32	492.41	-28.46	878.52	859.25	19.27	45.597		
2,300.00	2,257.32	2,258.32	2,257.32	11.42	9.83	174.29	507.21	-30.84	916.15	896.07	20.08	45.624		
2,400.00	2,354.76	2,355.76	2,354.76	11.92	10.24	174.26	522.00	-33.22	953.79	932.89	20.90	45.637		
2,500.00	2,452.20	2,453.20	2,452.20	12.42	10.65	174.23	536.80	-35.61	991.42	969.70	21.72	45.641		
2,600.00	2,549.64	2,550.64	2,549.64	12.92	11.05	174.20	551.60	-37.99	1,029.05	1,006.50	22.55	45.636		
2,700.00	2,647.08	2,648.08	2,647.08	13.42	11.48	174.18	566.40	-40.37	1,066.69	1,043.30	23.39	45.605		
2,800.00	2,744.52	2,745.52	2,744.52	13.93	11.95	174.16	581.19	-42.76	1,104.32	1,080.03	24.29	45.467		
2,900.00	2,841.96	2,842.96	2,841.96	14.43	12.29	174.14	595.99	-45.14	1,141.95	1,116.90	25.05	45.587		
3,000.00	2,939.40	2,940.40	2,939.40	14.94	12.71	174.12	610.79	-47.52	1,179.59	1,153.70	25.89	45.563		
3,100.00	3,036.84	3,037.84	3,036.84	15.44	13.13	174.10	625.59	-49.91	1,217.22	1,190.49	26.73	45.536		
3,200.00	3,134.28	3,135.28	3,134.28	15.95	13.54	174.08	640.38	-52.29	1,254.86	1,227.28	27.57	45.508		
3,300.00	3,231.72	3,232.72	3,231.72	16.46	13.96	174.06	655.18	-54.67	1,292.49	1,264.07	28.42	45.478		
3,400.00	3,329.16	3,330.16	3,329.16	16.97	14.38	174.05	669.98	-57.06	1,330.12	1,300.86	29.27	45.447		
3,500.00	3,426.60	3,427.60	3,426.60	17.48	14.80	174.03	684.78	-59.44	1,367.76	1,337.64	30.12	45.416		
3,600.00	3,524.04	3,525.04	3,524.04	17.99	15.22	174.02	699.57	-61.82	1,405.39	1,374.43	30.97	45.384		
3,700.00	3,621.48	3,622.48	3,621.48	18.50	15.65	174.01	714.37	-64.21	1,443.03	1,411.21	31.82	45.352		
3,800.00	3,718.92	3,719.92	3,718.92	19.01	16.07	173.99	729.17	-66.59	1,480.66	1,447.99	32.67	45.320		
3,900.00	3,816.36	3,817.36	3,816.36	19.52	16.49	173.98	743.97	-68.97	1,518.30	1,484.77	33.53	45.287		
4,000.00	3,913.80	3,914.80	3,913.80	20.03	16.92	173.97	758.76	-71.36	1,555.93	1,521.55	34.38	45.255		
4,100.00	4,011.24	4,012.24	4,011.24	20.55	17.38	173.96	773.56	-73.74	1,593.56	1,558.29	35.27	45.176		
4,200.00	4,108.68	4,109.68	4,108.68	21.06	17.77	173.95	788.36	-76.12	1,631.20	1,595.10	36.09	45.192		
4,300.00	4,206.12	4,207.12	4,206.12	21.57	18.19	173.94	803.16	-78.51	1,668.83	1,631.88	36.95	45.161		
4,400.00	4,303.56	4,304.56	4,303.56	22.09	18.62	173.93	817.95	-80.89	1,706.47	1,668.66	37.81	45.130		
4,500.00	4,401.00	4,402.00	4,401.00	22.60	19.04	173.92	832.75	-83.27	1,744.10	1,705.43	38.67	45.100		
4,600.00	4,498.44	4,499.44	4,498.44	23.11	19.47	173.91	847.55	-85.66	1,781.74	1,742.21	39.53	45.070		
4,700.00	4,595.88	4,596.88	4,595.88	23.63	19.89	173.90	862.35	-88.04	1,819.37	1,778.98	40.39	45.040		
4,800.00	4,693.32	4,694.32	4,693.32	24.14	20.32	173.90	877.14	-90.42	1,857.01	1,815.75	41.26	45.012		
4,900.00	4,790.76	4,791.76	4,790.76	24.66	20.75	173.89	891.94	-92.81	1,894.64	1,852.52	42.12	44.983		
5,000.00	4,888.20	4,889.20	4,888.20	25.17	21.18	173.88	906.74	-95.19	1,932.28	1,889.30	42.98	44.956		
5,100.00	4,985.64	4,986.64	4,985.64	25.69	21.60	173.87	921.53	-97.57	1,969.91	1,926.07	43.85	44.928		

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 12N-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 12N-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	5,083.08	4,815.07	4,762.64	26.20	22.03	173.87	936.33	-99.96	2,007.55	1,962.84	44.71	44.901		
5,300.00	5,180.52	4,907.72	4,854.06	26.72	22.46	173.86	951.13	-102.34	2,045.18	1,999.61	45.57	44.875		
5,400.00	5,277.96	5,000.37	4,945.49	27.24	22.89	173.86	965.93	-104.72	2,082.82	2,036.38	46.44	44.849		
5,500.00	5,375.40	5,106.99	5,036.92	27.75	23.38	173.85	980.72	-107.11	2,120.45	2,073.08	47.37	44.764		
5,600.00	5,472.84	5,185.66	5,128.34	28.27	23.75	173.84	995.52	-109.49	2,158.09	2,109.92	48.17	44.799		
5,700.00	5,570.28	5,278.31	5,219.77	28.79	24.17	173.84	1,010.32	-111.87	2,195.72	2,146.68	49.04	44.775		
5,800.00	5,667.72	5,370.96	5,311.20	29.30	24.60	173.83	1,025.12	-114.26	2,233.36	2,183.45	49.91	44.751		
5,900.00	5,765.16	5,463.60	5,402.62	29.82	25.03	173.83	1,039.91	-116.64	2,270.99	2,220.22	50.77	44.728		
6,000.00	5,862.60	5,556.25	5,494.05	30.34	25.46	173.82	1,054.71	-119.02	2,308.63	2,256.99	51.64	44.705		
6,100.00	5,960.05	5,648.90	5,585.48	30.85	25.89	173.82	1,069.51	-121.41	2,346.26	2,293.75	52.51	44.682		
6,200.00	6,057.49	5,741.55	5,676.91	31.37	26.32	173.81	1,084.31	-123.79	2,383.90	2,330.52	53.38	44.660		
6,300.00	6,154.93	5,834.19	5,768.33	31.89	26.75	173.81	1,099.10	-126.18	2,421.53	2,367.29	54.25	44.638		
6,400.00	6,252.37	5,926.84	5,859.76	32.40	27.18	173.80	1,113.90	-128.56	2,459.17	2,404.05	55.12	44.617		
6,500.00	6,349.81	6,019.49	5,951.19	32.92	27.61	173.80	1,128.70	-130.94	2,496.81	2,440.82	55.99	44.596		
6,600.00	6,447.25	6,112.14	6,042.61	33.44	28.04	173.79	1,143.50	-133.33	2,534.44	2,477.58	56.86	44.576		
6,700.00	6,544.28	6,204.54	6,133.80	33.95	28.47	142.02	1,158.26	-135.70	2,571.99	2,514.26	57.73	44.556		
6,800.00	6,638.86	6,305.00	6,223.06	34.44	28.94	120.19	1,172.70	-138.03	2,608.89	2,550.27	58.61	44.510		
6,900.00	6,728.65	6,381.27	6,308.20	34.89	29.29	107.94	1,186.48	-140.25	2,644.58	2,585.21	59.36	44.548		
7,000.00	6,811.45	6,461.24	6,387.12	35.29	29.66	100.26	1,199.25	-142.31	2,678.76	2,618.64	60.11	44.563		
7,100.00	6,885.21	6,532.93	6,457.87	35.66	30.00	94.98	1,210.70	-144.15	2,711.29	2,650.47	60.82	44.577		
7,200.00	6,948.11	6,594.59	6,518.71	35.99	30.28	91.06	1,220.55	-145.74	2,742.16	2,680.63	61.53	44.568		
7,300.00	6,998.62	6,740.98	6,661.74	36.30	30.96	89.62	1,243.18	-164.93	2,770.62	2,707.49	63.13	43.888		
7,400.00	7,035.48	7,400.00	6,878.28	36.65	33.92	90.18	1,274.93	-267.76	2,793.79	2,726.17	67.63	41.313		
7,500.00	7,057.79	7,548.41	7,138.83	37.13	36.08	91.80	1,301.09	-746.43	2,804.86	2,733.49	71.36	39.304		
7,600.00	7,065.00	7,682.90	7,139.60	37.84	37.76	91.53	1,296.66	-880.81	2,803.54	2,729.38	74.16	37.805		
7,700.00	7,064.77	7,782.86	7,139.17	38.82	39.20	91.53	1,293.20	-980.71	2,800.67	2,723.81	76.86	36.436		
7,800.00	7,064.54	7,882.81	7,138.73	40.06	40.78	91.52	1,289.74	-1,080.61	2,797.81	2,717.92	79.89	35.022		
7,900.00	7,064.31	7,982.77	7,138.30	41.52	42.50	91.52	1,286.28	-1,180.50	2,794.94	2,711.75	83.19	33.596		
8,000.00	7,064.08	8,082.73	7,137.87	43.14	44.33	91.52	1,282.82	-1,280.40	2,792.07	2,705.33	86.75	32.187		
8,100.00	7,063.85	8,182.69	7,137.43	44.90	46.27	91.52	1,279.37	-1,380.30	2,789.21	2,698.69	90.52	30.813		
8,200.00	7,063.62	8,282.65	7,137.00	46.78	48.29	91.51	1,275.91	-1,480.20	2,786.34	2,691.86	94.49	29.489		
8,300.00	7,063.39	8,382.61	7,136.57	48.76	50.40	91.51	1,272.45	-1,580.10	2,783.48	2,684.85	98.62	28.223		
8,400.00	7,063.16	8,482.57	7,136.13	50.83	52.57	91.51	1,268.99	-1,679.99	2,780.61	2,677.70	102.91	27.019		
8,500.00	7,062.93	8,582.53	7,135.70	52.97	54.81	91.51	1,265.53	-1,779.89	2,777.74	2,670.41	107.33	25.880		
8,600.00	7,062.70	8,682.49	7,135.27	55.18	57.10	91.50	1,262.07	-1,879.79	2,774.88	2,663.01	111.87	24.805		
8,700.00	7,062.47	8,782.44	7,134.83	57.46	59.44	91.50	1,258.61	-1,979.69	2,772.01	2,655.50	116.51	23.793		
8,800.00	7,062.24	8,882.40	7,134.40	59.78	61.82	91.50	1,255.15	-2,079.59	2,769.15	2,647.91	121.24	22.841		
8,900.00	7,062.01	8,982.36	7,133.97	62.14	64.24	91.50	1,251.69	-2,179.48	2,766.28	2,640.23	126.05	21.947		
9,000.00	7,061.78	9,082.32	7,133.53	64.55	66.70	91.49	1,248.23	-2,279.38	2,763.41	2,632.48	130.93	21.106		
9,100.00	7,061.55	9,182.28	7,133.10	67.00	69.18	91.49	1,244.78	-2,379.28	2,760.55	2,624.67	135.87	20.317		
9,200.00	7,061.31	9,282.24	7,132.66	69.47	71.69	91.49	1,241.32	-2,479.18	2,757.68	2,616.80	140.88	19.575		
9,300.00	7,061.08	9,382.20	7,132.23	71.98	74.23	91.48	1,237.86	-2,579.08	2,754.81	2,608.88	145.93	18.877		
9,400.00	7,060.85	9,482.16	7,131.80	74.51	76.79	91.48	1,234.40	-2,678.97	2,751.95	2,600.91	151.03	18.221		
9,500.00	7,060.62	9,582.12	7,131.36	77.06	79.36	91.48	1,230.94	-2,778.87	2,749.08	2,592.91	156.18	17.602		
9,600.00	7,060.39	9,682.07	7,130.93	79.64	81.96	91.48	1,227.48	-2,878.77	2,746.22	2,584.86	161.36	17.019		
9,700.00	7,060.16	9,782.03	7,130.50	82.23	84.57	91.47	1,224.02	-2,978.67	2,743.35	2,576.78	166.57	16.469		
9,800.00	7,059.93	9,881.99	7,130.06	84.84	87.20	91.47	1,220.56	-3,078.57	2,740.48	2,568.67	171.82	15.950		
9,900.00	7,059.70	9,981.95	7,129.63	87.47	89.84	91.47	1,217.10	-3,178.46	2,737.62	2,560.53	177.09	15.459		
10,000.00	7,059.47	10,081.91	7,129.20	90.11	92.49	91.47	1,213.65	-3,278.36	2,734.75	2,552.36	182.39	14.994		
10,100.00	7,059.24	10,181.87	7,128.76	92.76	95.15	91.46	1,210.19	-3,378.26	2,731.89	2,544.17	187.72	14.553		
10,200.00	7,059.01	10,281.83	7,128.33	95.42	97.82	91.46	1,206.73	-3,478.16	2,729.02	2,535.96	193.06	14.136		
10,300.00	7,058.78	10,381.79	7,127.89	98.10	100.51	91.46	1,203.27	-3,578.06	2,726.15	2,527.73	198.43	13.739		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	10,481.74	7,127.46	100.79	103.20	91.45	1,199.81	-3,677.95	2,723.29	2,519.48	203.81	13.362		
10,500.00	7,058.32	10,581.70	7,127.03	103.48	105.90	91.45	1,196.35	-3,777.85	2,720.42	2,511.21	209.21	13.003		
10,600.00	7,058.09	10,681.66	7,126.59	106.19	108.61	91.45	1,192.89	-3,877.75	2,717.56	2,502.93	214.63	12.662		
10,700.00	7,057.86	10,781.62	7,126.16	108.90	111.32	91.45	1,189.43	-3,977.65	2,714.69	2,494.63	220.06	12.336		
10,800.00	7,057.63	10,881.58	7,125.73	111.62	114.04	91.44	1,185.97	-4,077.55	2,711.82	2,486.32	225.50	12.026		
10,900.00	7,057.40	10,981.54	7,125.29	114.35	116.77	91.44	1,182.51	-4,177.44	2,708.96	2,478.00	230.96	11.729		
11,000.00	7,057.17	11,081.50	7,124.86	117.08	119.50	91.44	1,179.06	-4,277.34	2,706.09	2,469.66	236.43	11.446		
11,100.00	7,056.94	11,181.46	7,124.43	119.82	122.24	91.43	1,175.60	-4,377.24	2,703.22	2,461.32	241.91	11.175		
11,200.00	7,056.71	11,281.42	7,123.99	122.56	124.98	91.43	1,172.14	-4,477.14	2,700.36	2,452.96	247.40	10.915		
11,300.00	7,056.48	11,381.37	7,123.56	125.31	127.73	91.43	1,168.68	-4,577.04	2,697.49	2,444.60	252.89	10.666		
11,400.00	7,056.25	11,481.33	7,123.13	128.06	130.48	91.43	1,165.22	-4,676.93	2,694.63	2,436.22	258.40	10.428		
11,500.00	7,056.02	11,581.29	7,122.69	130.82	133.24	91.42	1,161.76	-4,776.83	2,691.76	2,427.84	263.92	10.199		
11,600.00	7,055.79	11,681.25	7,122.26	133.59	136.00	91.42	1,158.30	-4,876.73	2,688.89	2,419.45	269.44	9.979		
11,700.00	7,055.55	11,781.21	7,121.82	136.35	138.76	91.42	1,154.84	-4,976.63	2,686.03	2,411.06	274.97	9.768		
11,800.00	7,055.32	11,881.17	7,121.39	139.12	141.53	91.42	1,151.38	-5,076.53	2,683.16	2,402.65	280.51	9.565		
11,900.00	7,055.09	11,981.13	7,120.96	141.90	144.30	91.41	1,147.93	-5,176.42	2,680.30	2,394.24	286.06	9.370		
12,000.00	7,054.86	12,081.09	7,120.52	144.67	147.07	91.41	1,144.47	-5,276.32	2,677.43	2,385.82	291.61	9.182		
12,100.00	7,054.63	12,181.04	7,120.09	147.45	149.85	91.41	1,141.01	-5,376.22	2,674.57	2,377.40	297.16	9.000		
12,200.00	7,054.40	12,281.00	7,119.66	150.24	152.62	91.40	1,137.55	-5,476.12	2,671.70	2,368.97	302.73	8.825		
12,300.00	7,054.17	12,380.96	7,119.22	153.02	155.40	91.40	1,134.09	-5,576.02	2,668.83	2,360.54	308.29	8.657		
12,400.00	7,053.94	12,480.92	7,118.79	155.81	158.19	91.40	1,130.63	-5,675.91	2,665.97	2,352.10	313.87	8.494		
12,500.00	7,053.71	12,580.88	7,118.36	158.60	160.97	91.40	1,127.17	-5,775.81	2,663.10	2,343.66	319.44	8.337		
12,600.00	7,053.48	12,680.84	7,117.92	161.40	163.76	91.39	1,123.71	-5,875.71	2,660.24	2,335.21	325.02	8.185		
12,700.00	7,053.25	12,780.80	7,117.49	164.19	166.55	91.39	1,120.25	-5,975.61	2,657.37	2,326.76	330.61	8.038		
12,800.00	7,053.02	12,880.76	7,117.05	166.99	169.34	91.39	1,116.79	-6,075.51	2,654.50	2,318.31	336.20	7.896		
12,900.00	7,052.79	12,980.72	7,116.62	169.79	172.13	91.38	1,113.34	-6,175.41	2,651.64	2,309.85	341.79	7.758		
13,000.00	7,052.56	13,080.67	7,116.19	172.59	174.93	91.38	1,109.88	-6,275.30	2,648.77	2,301.38	347.39	7.625		
13,100.00	7,052.33	13,180.63	7,115.75	175.40	177.72	91.38	1,106.42	-6,375.20	2,645.91	2,292.92	352.99	7.496		
13,200.00	7,052.10	13,280.59	7,115.32	178.20	180.52	91.37	1,102.96	-6,475.10	2,643.04	2,284.45	358.59	7.371		
13,300.00	7,051.87	13,380.55	7,114.89	181.01	183.32	91.37	1,099.50	-6,575.00	2,640.17	2,275.98	364.20	7.249		
13,400.00	7,051.64	13,480.51	7,114.45	183.82	186.12	91.37	1,096.04	-6,674.90	2,637.31	2,267.50	369.81	7.132		
13,500.00	7,051.41	13,580.47	7,114.02	186.63	188.93	91.37	1,092.58	-6,774.79	2,634.44	2,259.02	375.42	7.017		
13,600.00	7,051.18	13,680.43	7,113.59	189.44	191.73	91.36	1,089.12	-6,874.69	2,631.58	2,250.54	381.04	6.906		
13,700.00	7,050.95	13,780.39	7,113.15	192.25	194.53	91.36	1,085.66	-6,974.59	2,628.71	2,242.06	386.65	6.799		
13,800.00	7,050.72	13,880.35	7,112.72	195.07	197.34	91.36	1,082.21	-7,074.49	2,625.84	2,233.57	392.27	6.694		
13,900.00	7,050.49	13,980.30	7,112.29	197.88	200.15	91.35	1,078.75	-7,174.39	2,622.98	2,225.08	397.90	6.592		
14,000.00	7,050.26	14,080.26	7,111.85	200.70	202.96	91.35	1,075.29	-7,274.28	2,620.11	2,216.59	403.52	6.493		
14,100.00	7,050.03	14,180.22	7,111.42	203.52	205.77	91.35	1,071.83	-7,374.18	2,617.25	2,208.10	409.15	6.397		
14,200.00	7,049.80	14,280.18	7,110.98	206.34	208.58	91.35	1,068.37	-7,474.08	2,614.38	2,199.60	414.78	6.303		
14,300.00	7,049.56	14,380.14	7,110.55	209.16	211.39	91.34	1,064.91	-7,573.98	2,611.52	2,191.11	420.41	6.212		
14,400.00	7,049.33	14,480.10	7,110.12	211.98	214.20	91.34	1,061.45	-7,673.88	2,608.65	2,182.61	426.04	6.123		
14,500.00	7,049.10	14,580.06	7,109.68	214.80	217.02	91.34	1,057.99	-7,773.77	2,605.78	2,174.11	431.68	6.036		
14,600.00	7,048.87	14,680.02	7,109.25	217.63	219.83	91.33	1,054.53	-7,873.67	2,602.92	2,165.60	437.31	5.952		
14,700.00	7,048.64	14,779.97	7,108.82	220.45	222.64	91.33	1,051.08	-7,973.57	2,600.05	2,157.10	442.95	5.870		
14,800.00	7,048.41	14,879.93	7,108.38	223.28	225.46	91.33	1,047.62	-8,073.47	2,597.19	2,148.59	448.59	5.790		
14,900.00	7,048.18	14,969.89	7,107.95	226.10	227.97	91.32	1,044.16	-8,173.37	2,594.32	2,140.09	454.23	5.715		
14,963.62	7,048.04	14,969.16	7,108.00	227.90	227.97	91.32	1,044.53	-8,162.64	2,593.56	2,137.87	455.70	5.691		
14,979.18	7,048.00	14,969.16	7,108.00	228.34	227.97	91.32	1,044.53	-8,162.64	2,593.61	2,137.53	456.08	5.687 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	179.98	1.67	179.99					
100.00	100.00	101.00	100.00	3.28	3.28	0.53	179.98	1.67	179.99	173.42	6.57	27.397		
200.00	200.00	201.00	200.00	3.34	3.34	0.53	179.98	1.67	179.99	173.32	6.67	26.965	CC, ES	
300.00	299.98	300.98	299.98	3.44	3.45	174.49	179.98	1.67	181.73	174.84	6.89	26.390		
400.00	399.84	400.88	399.88	3.59	3.60	174.64	179.98	1.67	186.94	179.74	7.20	25.974		
500.00	499.45	506.18	505.15	3.79	3.81	174.52	178.44	0.45	194.14	186.53	7.61	25.527		
600.00	598.70	606.24	605.13	4.03	4.04	174.15	175.29	-2.02	203.12	195.05	8.07	25.158		
700.00	697.47	705.45	704.27	4.31	4.30	173.89	172.16	-4.49	215.55	206.94	8.61	25.037		
800.00	795.62	804.18	802.92	4.64	4.58	173.74	169.05	-6.94	231.41	222.21	9.20	25.148		
900.00	893.16	902.39	901.04	5.00	4.88	173.71	165.95	-9.37	250.26	240.42	9.84	25.426		
1,000.00	990.60	1,000.51	999.09	5.38	5.21	173.70	162.86	-11.81	269.53	259.02	10.51	25.638		
1,100.00	1,088.04	1,101.36	1,097.14	5.79	5.56	173.70	159.76	-14.24	288.80	277.58	11.23	25.727		
1,200.00	1,185.48	1,203.24	1,195.18	6.22	5.92	173.70	156.67	-16.68	308.07	296.10	11.97	25.737		
1,300.00	1,282.92	1,305.11	1,293.23	6.66	6.30	173.69	153.57	-19.11	327.34	314.61	12.74	25.699		
1,400.00	1,380.36	1,406.99	1,391.28	7.10	6.68	173.69	150.48	-21.55	346.61	333.09	13.52	25.629		
1,500.00	1,477.80	1,508.86	1,489.32	7.56	7.08	173.69	147.38	-23.98	365.88	351.56	14.33	25.538		
1,600.00	1,575.24	1,589.27	1,587.37	8.03	7.39	173.69	144.29	-26.42	385.15	370.09	15.06	25.576		
1,700.00	1,672.68	1,687.39	1,685.42	8.50	7.78	173.68	141.19	-28.85	404.42	388.55	15.87	25.482		
1,800.00	1,770.12	1,785.52	1,783.46	8.98	8.18	173.68	138.10	-31.29	423.69	407.00	16.69	25.382		
1,900.00	1,867.56	1,883.64	1,881.51	9.46	8.57	173.68	135.01	-33.73	442.96	425.44	17.52	25.280		
2,000.00	1,965.00	1,981.77	1,979.56	9.95	8.98	173.68	131.91	-36.16	462.23	443.87	18.36	25.178		
2,100.00	2,062.44	2,079.90	2,077.60	10.44	9.38	173.68	128.82	-38.60	481.50	462.30	19.20	25.076		
2,200.00	2,159.88	2,178.02	2,175.65	10.93	9.79	173.68	125.72	-41.03	500.77	480.72	20.05	24.976		
2,300.00	2,257.32	2,276.15	2,273.70	11.42	10.20	173.67	122.63	-43.47	520.04	499.14	20.90	24.878		
2,400.00	2,354.76	2,374.27	2,371.74	11.92	10.61	173.67	119.53	-45.90	539.31	517.55	21.76	24.784		
2,500.00	2,452.20	2,472.40	2,469.79	12.42	11.02	173.67	116.44	-48.34	558.58	535.96	22.62	24.692		
2,600.00	2,549.64	2,570.52	2,567.84	12.92	11.44	173.67	113.34	-50.77	577.85	554.36	23.49	24.604		
2,700.00	2,647.08	2,668.65	2,665.88	13.42	11.85	173.67	110.25	-53.21	597.12	572.77	24.35	24.519		
2,800.00	2,744.52	2,766.78	2,763.93	13.93	12.27	173.67	107.15	-55.64	616.39	591.17	25.22	24.437		
2,900.00	2,841.96	2,864.90	2,861.98	14.43	12.69	173.67	104.06	-58.08	635.66	609.56	26.10	24.359		
3,000.00	2,939.40	2,963.03	2,960.03	14.94	13.11	173.67	100.96	-60.51	654.93	627.96	26.97	24.284		
3,100.00	3,036.84	3,061.15	3,058.07	15.44	13.53	173.67	97.87	-62.95	674.20	646.35	27.85	24.211		
3,200.00	3,134.28	3,159.28	3,156.12	15.95	13.95	173.67	94.77	-65.38	693.47	664.74	28.72	24.142		
3,300.00	3,231.72	3,257.41	3,254.17	16.46	14.37	173.67	91.68	-67.82	712.74	683.13	29.60	24.075		
3,400.00	3,329.16	3,355.53	3,352.21	16.97	14.79	173.67	88.59	-70.25	732.01	701.52	30.49	24.012		
3,500.00	3,426.60	3,453.66	3,450.26	17.48	15.22	173.66	85.49	-72.69	751.28	719.91	31.37	23.950		
3,600.00	3,524.04	3,551.78	3,548.31	17.99	15.64	173.66	82.40	-75.12	770.55	738.29	32.25	23.891		
3,700.00	3,621.48	3,649.91	3,646.35	18.50	16.07	173.66	79.30	-77.56	789.82	756.68	33.14	23.835		
3,800.00	3,718.92	3,748.03	3,744.40	19.01	16.49	173.66	76.21	-80.00	809.09	775.06	34.02	23.780		
3,900.00	3,816.36	3,846.16	3,842.45	19.52	16.92	173.66	73.11	-82.43	828.36	793.44	34.91	23.728		
4,000.00	3,913.80	3,944.29	3,940.49	20.03	17.35	173.66	70.02	-84.87	847.62	811.83	35.80	23.678		
4,100.00	4,011.24	4,042.41	4,038.54	20.55	17.77	173.66	66.92	-87.30	866.89	830.21	36.69	23.630		
4,200.00	4,108.68	4,140.54	4,136.59	21.06	18.20	173.66	63.83	-89.74	886.16	848.59	37.58	23.583		
4,300.00	4,206.12	4,238.66	4,234.63	21.57	18.63	173.66	60.73	-92.17	905.43	866.97	38.47	23.538		
4,400.00	4,303.56	4,336.79	4,332.68	22.09	19.05	173.66	57.64	-94.61	924.70	885.35	39.36	23.495		
4,500.00	4,401.00	4,434.92	4,430.73	22.60	19.48	173.66	54.54	-97.04	943.97	903.72	40.25	23.453		
4,600.00	4,498.44	4,533.04	4,528.77	23.11	19.91	173.66	51.45	-99.48	963.24	922.10	41.14	23.413		
4,700.00	4,595.88	4,631.17	4,626.82	23.63	20.34	173.66	48.35	-101.91	982.51	940.48	42.03	23.374		
4,800.00	4,693.32	4,729.29	4,724.87	24.14	20.77	173.66	45.26	-104.35	1,001.78	958.85	42.93	23.336		
4,900.00	4,790.76	4,827.42	4,822.91	24.66	21.20	173.66	42.16	-106.78	1,021.05	977.23	43.82	23.300		
5,000.00	4,888.20	4,925.55	4,920.96	25.17	21.63	173.66	39.07	-109.22	1,040.32	995.61	44.72	23.265		
5,100.00	4,985.64	5,023.67	5,019.01	25.69	22.06	173.66	35.98	-111.65	1,059.59	1,013.98	45.61	23.231		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,200.00	5,083.08	5,121.80	5,117.05	26.20	22.49	173.66	32.88	-114.09	1,078.86	1,032.36	46.51	23.198		
5,300.00	5,180.52	5,219.92	5,215.10	26.72	22.92	173.66	29.79	-116.52	1,098.13	1,050.73	47.40	23.167		
5,400.00	5,277.96	5,318.05	5,313.15	27.24	23.35	173.66	26.69	-118.96	1,117.40	1,069.10	48.30	23.136		
5,500.00	5,375.40	5,416.17	5,411.19	27.75	23.78	173.66	23.60	-121.39	1,136.67	1,087.48	49.19	23.106		
5,600.00	5,472.84	5,514.30	5,509.24	28.27	24.21	173.66	20.50	-123.83	1,155.94	1,105.85	50.09	23.077		
5,700.00	5,570.28	5,612.43	5,607.29	28.79	24.64	173.66	17.41	-126.27	1,175.21	1,124.22	50.99	23.049		
5,800.00	5,667.72	5,710.55	5,705.34	29.30	25.07	173.66	14.31	-128.70	1,194.48	1,142.60	51.88	23.022		
5,900.00	5,765.16	5,808.68	5,803.38	29.82	25.50	173.66	11.22	-131.14	1,213.75	1,160.97	52.78	22.996		
6,000.00	5,862.60	5,906.80	5,901.43	30.34	25.93	173.66	8.12	-133.57	1,233.02	1,179.34	53.68	22.970		
6,100.00	5,960.05	6,004.93	5,999.48	30.85	26.36	173.66	5.03	-136.01	1,252.29	1,197.71	54.58	22.945		
6,200.00	6,057.49	6,103.06	6,097.52	31.37	26.79	173.66	1.93	-138.44	1,271.56	1,216.08	55.48	22.921		
6,300.00	6,154.93	6,201.18	6,195.57	31.89	27.22	173.66	-1.16	-140.88	1,290.83	1,234.45	56.37	22.897		
6,400.00	6,252.37	6,300.69	6,293.62	32.40	27.66	173.66	-4.26	-143.31	1,310.10	1,252.82	57.28	22.872		
6,500.00	6,349.81	6,402.57	6,391.66	32.92	28.11	173.66	-7.35	-145.75	1,329.37	1,271.17	58.19	22.843		
6,600.00	6,447.25	6,495.84	6,489.89	33.44	28.52	173.57	-10.46	-150.18	1,348.63	1,289.56	59.07	22.829		
6,700.00	6,544.28	6,593.28	6,585.60	33.95	28.95	142.89	-13.58	-167.66	1,367.83	1,307.87	59.97	22.810		
6,800.00	6,638.86	6,689.50	6,676.41	34.44	29.36	122.07	-16.62	-199.05	1,386.61	1,325.79	60.83	22.796		
6,900.00	6,728.65	6,784.75	6,760.63	34.89	29.76	110.53	-19.54	-243.25	1,404.49	1,342.83	61.66	22.779		
7,000.00	6,811.45	6,879.24	6,836.75	35.29	30.17	103.37	-22.27	-299.02	1,421.01	1,358.52	62.49	22.741		
7,100.00	6,885.21	6,973.15	6,903.41	35.66	30.62	98.53	-24.77	-365.01	1,435.75	1,372.38	63.37	22.655		
7,200.00	6,948.11	7,066.64	6,959.41	35.99	31.16	95.11	-26.98	-439.73	1,448.35	1,383.95	64.40	22.490		
7,300.00	6,998.62	7,159.81	7,003.76	36.30	31.83	92.70	-28.88	-521.55	1,458.48	1,392.83	65.65	22.215		
7,400.00	7,035.48	7,252.74	7,035.63	36.65	32.65	91.08	-30.41	-608.74	1,465.90	1,398.70	67.20	21.815		
7,500.00	7,057.79	7,345.49	7,054.47	37.13	33.63	90.13	-31.56	-699.47	1,470.42	1,401.35	69.07	21.289		
7,600.00	7,065.00	7,438.57	7,059.97	37.84	34.75	89.80	-32.30	-792.30	1,471.93	1,400.68	71.25	20.659		
7,700.00	7,064.77	7,538.57	7,059.53	38.82	36.12	89.80	-32.90	-892.30	1,471.93	1,398.05	73.88	19.924		
7,800.00	7,064.54	7,638.57	7,059.10	40.06	37.65	89.79	-33.50	-992.29	1,471.93	1,395.11	76.82	19.160		
7,900.00	7,064.31	7,738.56	7,058.67	41.52	39.32	89.78	-34.10	-1,092.29	1,471.93	1,391.86	80.07	18.383		
8,000.00	7,064.08	7,838.56	7,058.23	43.14	41.13	89.77	-34.70	-1,192.29	1,471.93	1,388.35	83.59	17.610		
8,100.00	7,063.85	7,938.56	7,057.80	44.90	43.05	89.76	-35.30	-1,292.28	1,471.93	1,384.60	87.33	16.855		
8,200.00	7,063.62	8,038.56	7,057.36	46.78	45.07	89.76	-35.89	-1,392.28	1,471.94	1,380.65	91.28	16.125		
8,300.00	7,063.39	8,138.56	7,056.93	48.76	47.18	89.75	-36.49	-1,492.28	1,471.94	1,376.53	95.41	15.427		
8,400.00	7,063.16	8,238.56	7,056.50	50.83	49.36	89.74	-37.09	-1,592.27	1,471.94	1,372.24	99.70	14.764		
8,500.00	7,062.93	8,338.56	7,056.06	52.97	51.61	89.73	-37.69	-1,692.27	1,471.94	1,367.82	104.12	14.137		
8,600.00	7,062.70	8,438.56	7,055.63	55.18	53.92	89.72	-38.29	-1,792.27	1,471.94	1,363.27	108.67	13.546		
8,700.00	7,062.47	8,538.56	7,055.19	57.46	56.28	89.72	-38.89	-1,892.27	1,471.94	1,358.62	113.32	12.990		
8,800.00	7,062.24	8,638.56	7,054.76	59.78	58.68	89.71	-39.49	-1,992.26	1,471.94	1,353.88	118.06	12.468		
8,900.00	7,062.01	8,738.56	7,054.33	62.14	61.12	89.70	-40.09	-2,092.26	1,471.94	1,349.05	122.89	11.978		
9,000.00	7,061.78	8,838.56	7,053.89	64.55	63.60	89.69	-40.68	-2,192.26	1,471.94	1,344.15	127.79	11.519		
9,100.00	7,061.55	8,938.56	7,053.46	67.00	66.11	89.69	-41.28	-2,292.25	1,471.95	1,339.19	132.76	11.088		
9,200.00	7,061.31	9,038.56	7,053.02	69.47	68.64	89.68	-41.88	-2,392.25	1,471.95	1,334.17	137.78	10.683		
9,300.00	7,061.08	9,138.56	7,052.59	71.98	71.20	89.67	-42.48	-2,492.25	1,471.95	1,329.09	142.86	10.304		
9,400.00	7,060.85	9,238.56	7,052.16	74.51	73.78	89.66	-43.08	-2,592.25	1,471.95	1,323.97	147.98	9.947		
9,500.00	7,060.62	9,338.56	7,051.72	77.06	76.38	89.65	-43.68	-2,692.24	1,471.95	1,318.81	153.14	9.612		
9,600.00	7,060.39	9,438.56	7,051.29	79.64	79.00	89.65	-44.28	-2,792.24	1,471.95	1,313.61	158.35	9.296		
9,700.00	7,060.16	9,538.56	7,050.85	82.23	81.64	89.64	-44.88	-2,892.24	1,471.95	1,308.37	163.58	8.998		
9,800.00	7,059.93	9,638.56	7,050.42	84.84	84.29	89.63	-45.47	-2,992.23	1,471.95	1,303.10	168.85	8.717		
9,900.00	7,059.70	9,738.56	7,049.99	87.47	86.95	89.62	-46.07	-3,092.23	1,471.96	1,297.81	174.15	8.452		
10,000.00	7,059.47	9,838.56	7,049.55	90.11	89.63	89.61	-46.67	-3,192.23	1,471.96	1,292.49	179.47	8.202		
10,100.00	7,059.24	9,938.56	7,049.12	92.76	92.31	89.61	-47.27	-3,292.22	1,471.96	1,287.14	184.82	7.964		
10,200.00	7,059.01	10,038.56	7,048.68	95.42	95.01	89.60	-47.87	-3,392.22	1,471.96	1,281.78	190.18	7.740		
10,300.00	7,058.78	10,138.56	7,048.25	98.10	97.72	89.59	-48.47	-3,492.22	1,471.96	1,276.39	195.57	7.526		

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 12N-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 12N-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		
10,400.00	7,058.55	10,238.56	7,047.82	100.79	100.43	89.58	-49.07	-3,592.22	1,471.96	1,270.99	200.98	7.324		
10,500.00	7,058.32	10,338.56	7,047.38	103.48	103.15	89.57	-49.67	-3,692.21	1,471.96	1,265.57	206.40	7.132		
10,600.00	7,058.09	10,438.56	7,046.95	106.19	105.88	89.57	-50.26	-3,792.21	1,471.97	1,260.13	211.84	6.949		
10,700.00	7,057.86	10,538.56	7,046.51	108.90	108.62	89.56	-50.86	-3,892.21	1,471.97	1,254.68	217.29	6.774		
10,800.00	7,057.63	10,638.56	7,046.08	111.62	111.36	89.55	-51.46	-3,992.20	1,471.97	1,249.22	222.75	6.608		
10,900.00	7,057.40	10,738.56	7,045.65	114.35	114.11	89.54	-52.06	-4,092.20	1,471.97	1,243.74	228.23	6.449		
11,000.00	7,057.17	10,838.56	7,045.21	117.08	116.86	89.53	-52.66	-4,192.20	1,471.97	1,238.25	233.72	6.298		
11,100.00	7,056.94	10,938.56	7,044.78	119.82	119.62	89.53	-53.26	-4,292.20	1,471.97	1,232.75	239.22	6.153		
11,200.00	7,056.71	11,038.56	7,044.34	122.56	122.38	89.52	-53.86	-4,392.19	1,471.98	1,227.25	244.73	6.015		
11,300.00	7,056.48	11,138.56	7,043.91	125.31	125.15	89.51	-54.46	-4,492.19	1,471.98	1,221.73	250.25	5.882		
11,400.00	7,056.25	11,238.56	7,043.48	128.06	127.92	89.50	-55.05	-4,592.19	1,471.98	1,216.20	255.78	5.755		
11,500.00	7,056.02	11,338.56	7,043.04	130.82	130.69	89.50	-55.65	-4,692.18	1,471.98	1,210.67	261.31	5.633		
11,600.00	7,055.79	11,438.56	7,042.61	133.59	133.47	89.49	-56.25	-4,792.18	1,471.98	1,205.13	266.86	5.516		
11,700.00	7,055.55	11,538.56	7,042.17	136.35	136.25	89.48	-56.85	-4,892.18	1,471.99	1,199.58	272.41	5.404		
11,800.00	7,055.32	11,638.56	7,041.74	139.12	139.04	89.47	-57.45	-4,992.17	1,471.99	1,194.02	277.96	5.296		
11,900.00	7,055.09	11,738.56	7,041.31	141.90	141.83	89.46	-58.05	-5,092.17	1,471.99	1,188.46	283.53	5.192		
12,000.00	7,054.86	11,838.56	7,040.87	144.67	144.62	89.46	-58.65	-5,192.17	1,471.99	1,182.90	289.10	5.092		
12,100.00	7,054.63	11,938.56	7,040.44	147.45	147.41	89.45	-59.25	-5,292.17	1,471.99	1,177.32	294.67	4.995		
12,200.00	7,054.40	12,038.56	7,040.00	150.24	150.21	89.44	-59.85	-5,392.16	1,472.00	1,171.74	300.25	4.903		
12,300.00	7,054.17	12,138.56	7,039.57	153.02	153.00	89.43	-60.44	-5,492.16	1,472.00	1,166.16	305.84	4.813		
12,400.00	7,053.94	12,238.56	7,039.14	155.81	155.80	89.42	-61.04	-5,592.16	1,472.00	1,160.57	311.43	4.727		
12,500.00	7,053.71	12,338.56	7,038.70	158.60	158.61	89.42	-61.64	-5,692.15	1,472.00	1,154.98	317.02	4.643		
12,600.00	7,053.48	12,438.56	7,038.27	161.40	161.41	89.41	-62.24	-5,792.15	1,472.00	1,149.38	322.62	4.563		
12,700.00	7,053.25	12,538.56	7,037.83	164.19	164.22	89.40	-62.84	-5,892.15	1,472.01	1,143.78	328.22	4.485		
12,800.00	7,053.02	12,638.56	7,037.40	166.99	167.02	89.39	-63.44	-5,992.15	1,472.01	1,138.18	333.83	4.409		
12,900.00	7,052.79	12,738.55	7,036.97	169.79	169.83	89.38	-64.04	-6,092.14	1,472.01	1,132.57	339.44	4.337		
13,000.00	7,052.56	12,838.55	7,036.53	172.59	172.64	89.38	-64.64	-6,192.14	1,472.01	1,126.96	345.05	4.266		
13,100.00	7,052.33	12,938.55	7,036.10	175.40	175.46	89.37	-65.23	-6,292.14	1,472.02	1,121.34	350.67	4.198		
13,200.00	7,052.10	13,038.55	7,035.66	178.20	178.27	89.36	-65.83	-6,392.13	1,472.02	1,115.73	356.29	4.131		
13,300.00	7,051.87	13,138.55	7,035.23	181.01	181.09	89.35	-66.43	-6,492.13	1,472.02	1,110.10	361.92	4.067		
13,400.00	7,051.64	13,238.55	7,034.80	183.82	183.90	89.34	-67.03	-6,592.13	1,472.02	1,104.48	367.54	4.005		
13,500.00	7,051.41	13,338.55	7,034.36	186.63	186.72	89.34	-67.63	-6,692.12	1,472.02	1,098.85	373.17	3.945		
13,600.00	7,051.18	13,438.55	7,033.93	189.44	189.54	89.33	-68.23	-6,792.12	1,472.03	1,093.22	378.80	3.886		
13,700.00	7,050.95	13,538.55	7,033.49	192.25	192.36	89.32	-68.83	-6,892.12	1,472.03	1,087.59	384.44	3.829		
13,800.00	7,050.72	13,638.55	7,033.06	195.07	195.18	89.31	-69.43	-6,992.12	1,472.03	1,081.96	390.07	3.774		
13,900.00	7,050.49	13,738.55	7,032.63	197.88	198.01	89.30	-70.02	-7,092.11	1,472.03	1,076.32	395.71	3.720		
14,000.00	7,050.26	13,838.55	7,032.19	200.70	200.83	89.30	-70.62	-7,192.11	1,472.04	1,070.69	401.35	3.668		
14,100.00	7,050.03	13,938.55	7,031.76	203.52	203.66	89.29	-71.22	-7,292.11	1,472.04	1,065.04	407.00	3.617		
14,200.00	7,049.80	14,038.55	7,031.32	206.34	206.48	89.28	-71.82	-7,392.10	1,472.04	1,059.40	412.64	3.567		
14,300.00	7,049.56	14,138.55	7,030.89	209.16	209.31	89.27	-72.42	-7,492.10	1,472.05	1,053.76	418.29	3.519		
14,400.00	7,049.33	14,238.55	7,030.46	211.98	212.14	89.27	-73.02	-7,592.10	1,472.05	1,048.11	423.94	3.472		
14,500.00	7,049.10	14,338.55	7,030.02	214.80	214.96	89.26	-73.62	-7,692.10	1,472.05	1,042.46	429.59	3.427		
14,600.00	7,048.87	14,438.55	7,029.59	217.63	217.79	89.25	-74.22	-7,792.09	1,472.05	1,036.82	435.24	3.382		
14,700.00	7,048.64	14,538.55	7,029.16	220.45	220.62	89.24	-74.81	-7,892.09	1,472.06	1,031.16	440.89	3.339		
14,800.00	7,048.41	14,638.55	7,028.72	223.28	223.45	89.23	-75.41	-7,992.09	1,472.06	1,025.51	446.55	3.297		
14,900.00	7,048.18	14,738.55	7,028.29	226.10	226.29	89.23	-76.01	-8,092.08	1,472.06	1,019.86	452.20	3.255		
14,903.59	7,048.17	14,742.14	7,028.27	226.20	226.39	89.23	-76.03	-8,095.67	1,472.06	1,019.65	452.41	3.254		
14,979.18	7,048.00	14,805.04	7,028.00	228.34	228.17	89.22	-76.41	-8,158.57	1,472.12	1,015.87	456.25	3.227 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	0.48	200.02	1.67	200.02					
100.00	100.00	101.00	100.00	3.28	3.28	0.48	200.02	1.67	200.02	193.45	6.57	30.447		
200.00	200.00	201.00	200.00	3.34	3.34	0.48	200.02	1.67	200.02	193.35	6.67	29.967	CC, ES	
300.00	299.98	300.98	299.98	3.44	3.45	174.44	200.02	1.67	201.76	194.87	6.89	29.299		
400.00	399.84	400.84	399.84	3.59	3.60	174.57	200.02	1.67	206.97	199.77	7.20	28.757		
500.00	499.45	500.45	499.45	3.79	3.81	174.77	200.02	1.67	215.65	208.05	7.60	28.376		
600.00	598.70	600.21	598.78	4.03	4.04	174.62	200.02	0.07	227.76	219.68	8.07	28.208		
700.00	697.47	701.43	697.52	4.31	4.30	174.35	200.02	-2.40	243.30	234.69	8.62	28.234		
800.00	795.62	803.25	795.67	4.64	4.60	174.18	200.02	-4.85	262.27	253.05	9.22	28.442		
900.00	893.16	905.69	893.20	5.00	4.92	174.10	200.02	-7.29	284.21	274.33	9.88	28.778		
1,000.00	990.60	1,008.22	990.64	5.38	5.26	174.07	200.02	-9.72	306.56	296.00	10.56	29.031		
1,100.00	1,088.04	1,089.25	1,088.08	5.79	5.54	174.04	200.02	-12.16	328.92	317.72	11.20	29.363		
1,200.00	1,185.48	1,186.72	1,185.52	6.22	5.89	174.01	200.02	-14.60	351.27	339.34	11.93	29.453		
1,300.00	1,282.92	1,284.18	1,282.96	6.66	6.25	173.99	200.02	-17.03	373.63	360.95	12.67	29.482		
1,400.00	1,380.36	1,381.65	1,380.39	7.10	6.61	173.97	200.02	-19.47	395.98	382.54	13.44	29.466		
1,500.00	1,477.80	1,479.12	1,477.83	7.56	6.99	173.95	200.02	-21.90	418.33	404.11	14.22	29.420		
1,600.00	1,575.24	1,576.59	1,575.27	8.03	7.36	173.93	200.02	-24.34	440.69	425.68	15.01	29.352		
1,700.00	1,672.68	1,674.06	1,672.71	8.50	7.75	173.92	200.02	-26.77	463.04	447.22	15.82	29.271		
1,800.00	1,770.12	1,771.53	1,770.15	8.98	8.14	173.90	200.02	-29.21	485.40	468.76	16.63	29.181		
1,900.00	1,867.56	1,869.00	1,867.59	9.46	8.53	173.89	200.02	-31.64	507.75	490.30	17.46	29.086		
2,000.00	1,965.00	1,966.47	1,965.03	9.95	8.93	173.88	200.02	-34.08	530.11	511.82	18.29	28.988		
2,100.00	2,062.44	2,063.94	2,062.47	10.44	9.33	173.87	200.02	-36.51	552.46	533.34	19.12	28.889		
2,200.00	2,159.88	2,161.41	2,159.90	10.93	9.73	173.86	200.02	-38.95	574.82	554.85	19.97	28.791		
2,300.00	2,257.32	2,258.88	2,257.34	11.42	10.13	173.85	200.02	-41.39	597.17	576.36	20.81	28.694		
2,400.00	2,354.76	2,356.35	2,354.78	11.92	10.54	173.84	200.02	-43.82	619.53	597.86	21.66	28.599		
2,500.00	2,452.20	2,453.82	2,452.22	12.42	10.95	173.83	200.02	-46.26	641.88	619.36	22.52	28.507		
2,600.00	2,549.64	2,551.29	2,549.66	12.92	11.36	173.83	200.02	-48.69	664.23	640.86	23.37	28.418		
2,700.00	2,647.08	2,648.76	2,647.10	13.42	11.77	173.82	200.02	-51.13	686.59	662.35	24.23	28.331		
2,800.00	2,744.52	2,746.22	2,744.54	13.93	12.18	173.81	200.02	-53.56	708.94	683.85	25.10	28.247		
2,900.00	2,841.96	2,843.69	2,841.98	14.43	12.59	173.81	200.02	-56.00	731.30	705.34	25.96	28.167		
3,000.00	2,939.40	2,941.16	2,939.42	14.94	13.01	173.80	200.02	-58.43	753.65	726.82	26.83	28.089		
3,100.00	3,036.84	3,038.63	3,036.85	15.44	13.42	173.80	200.02	-60.87	776.01	748.31	27.70	28.014		
3,200.00	3,134.28	3,136.10	3,134.29	15.95	13.84	173.79	200.02	-63.31	798.36	769.79	28.57	27.942		
3,300.00	3,231.72	3,233.57	3,231.73	16.46	14.25	173.79	200.02	-65.74	820.72	791.27	29.45	27.873		
3,400.00	3,329.16	3,331.04	3,329.17	16.97	14.67	173.78	200.02	-68.18	843.07	812.75	30.32	27.806		
3,500.00	3,426.60	3,428.51	3,426.61	17.48	15.09	173.78	200.02	-70.61	865.43	834.23	31.20	27.742		
3,600.00	3,524.04	3,525.98	3,524.05	17.99	15.51	173.77	200.02	-73.05	887.78	855.71	32.07	27.680		
3,700.00	3,621.48	3,623.45	3,621.49	18.50	15.93	173.77	200.02	-75.48	910.14	877.19	32.95	27.621		
3,800.00	3,718.92	3,720.92	3,718.93	19.01	16.35	173.77	200.02	-77.92	932.49	898.66	33.83	27.563		
3,900.00	3,816.36	3,818.39	3,816.37	19.52	16.77	173.76	200.02	-80.35	954.85	920.13	34.71	27.508		
4,000.00	3,913.80	3,915.86	3,913.80	20.03	17.19	173.76	200.02	-82.79	977.20	941.61	35.59	27.455		
4,100.00	4,011.24	4,013.33	4,011.24	20.55	17.61	173.76	200.02	-85.22	999.56	963.08	36.47	27.404		
4,200.00	4,108.68	4,110.79	4,108.68	21.06	18.03	173.75	200.02	-87.66	1,021.91	984.55	37.36	27.355		
4,300.00	4,206.12	4,208.26	4,206.12	21.57	18.45	173.75	200.02	-90.10	1,044.27	1,006.02	38.24	27.307		
4,400.00	4,303.56	4,305.73	4,303.56	22.09	18.87	173.75	200.02	-92.53	1,066.62	1,027.49	39.13	27.262		
4,500.00	4,401.00	4,403.20	4,401.00	22.60	19.30	173.75	200.02	-94.97	1,088.97	1,048.96	40.01	27.217		
4,600.00	4,498.44	4,500.67	4,498.44	23.11	19.72	173.74	200.02	-97.40	1,111.33	1,070.43	40.90	27.175		
4,700.00	4,595.88	4,601.86	4,595.88	23.63	20.16	173.74	200.02	-99.84	1,133.68	1,091.89	41.80	27.123		
4,800.00	4,693.32	4,704.39	4,693.32	24.14	20.60	173.74	200.02	-102.27	1,156.04	1,113.33	42.71	27.069		
4,900.00	4,790.76	4,806.92	4,790.75	24.66	21.05	173.74	200.02	-104.71	1,178.39	1,134.78	43.62	27.018		
5,000.00	4,888.20	4,909.45	4,888.19	25.17	21.50	173.73	200.02	-107.14	1,200.75	1,156.22	44.53	26.968		
5,100.00	4,985.64	4,988.02	4,985.63	25.69	21.84	173.73	200.02	-109.58	1,223.10	1,177.77	45.33	26.981		

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 12N-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 12N-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	5,083.08	5,085.49	5,083.07	26.20	22.26	173.73	200.02	-112.01	1,245.46	1,199.24	46.22	26.946		
5,300.00	5,180.52	5,182.96	5,180.51	26.72	22.69	173.73	200.02	-114.45	1,267.81	1,220.70	47.11	26.912		
5,400.00	5,277.96	5,280.43	5,277.95	27.24	23.11	173.73	200.02	-116.89	1,290.17	1,242.17	48.00	26.879		
5,500.00	5,375.40	5,377.90	5,375.39	27.75	23.53	173.72	200.02	-119.32	1,312.52	1,263.63	48.89	26.848		
5,600.00	5,472.84	5,475.36	5,472.83	28.27	23.96	173.72	200.02	-121.76	1,334.88	1,285.10	49.78	26.817		
5,700.00	5,570.28	5,572.83	5,570.26	28.79	24.38	173.72	200.02	-124.19	1,357.23	1,306.56	50.67	26.787		
5,800.00	5,667.72	5,670.30	5,667.70	29.30	24.81	173.72	200.02	-126.63	1,379.59	1,328.03	51.56	26.758		
5,900.00	5,765.16	5,767.77	5,765.14	29.82	25.23	173.72	200.02	-129.06	1,401.94	1,349.49	52.45	26.729		
6,000.00	5,862.60	5,865.24	5,862.58	30.34	25.66	173.72	200.02	-131.50	1,424.30	1,370.96	53.34	26.702		
6,100.00	5,960.05	5,962.71	5,960.02	30.85	26.09	173.71	200.02	-133.93	1,446.65	1,392.42	54.23	26.675		
6,200.00	6,057.49	6,060.18	6,057.46	31.37	26.51	173.71	200.02	-136.37	1,469.01	1,413.88	55.12	26.649		
6,300.00	6,154.93	6,157.65	6,154.90	31.89	26.94	173.71	200.02	-138.80	1,491.36	1,435.34	56.02	26.624		
6,400.00	6,252.37	6,255.12	6,252.34	32.40	27.36	173.71	200.02	-141.24	1,513.72	1,456.81	56.91	26.599		
6,500.00	6,349.81	6,352.59	6,349.78	32.92	27.79	173.71	200.02	-143.68	1,536.07	1,478.27	57.80	26.575		
6,600.00	6,447.25	6,450.06	6,447.21	33.44	28.22	173.71	200.02	-146.11	1,558.42	1,499.73	58.69	26.552		
6,700.00	6,544.28	6,549.30	6,546.38	33.95	28.65	143.36	199.99	-149.67	1,580.71	1,521.11	59.60	26.521		
6,800.00	6,638.86	6,652.92	6,648.48	34.44	29.11	122.92	199.71	-166.64	1,602.32	1,541.78	60.54	26.466		
6,900.00	6,728.65	6,758.29	6,748.09	34.89	29.58	111.73	199.10	-200.63	1,622.66	1,561.18	61.48	26.392		
7,000.00	6,811.45	6,865.46	6,842.25	35.29	30.07	104.89	198.15	-251.54	1,641.22	1,578.78	62.44	26.286		
7,100.00	6,885.21	6,974.37	6,927.81	35.66	30.60	100.32	196.88	-318.69	1,657.52	1,594.07	63.45	26.123		
7,200.00	6,948.11	7,084.80	7,001.61	35.99	31.23	97.13	195.31	-400.64	1,671.14	1,606.53	64.61	25.864		
7,300.00	6,998.62	7,196.38	7,060.68	36.30	32.00	94.89	193.49	-495.13	1,681.73	1,615.70	66.03	25.471		
7,400.00	7,035.48	7,308.62	7,102.56	36.65	32.98	93.38	191.48	-599.08	1,689.00	1,621.22	67.79	24.917		
7,500.00	7,057.79	7,420.90	7,125.55	37.13	34.16	92.49	189.34	-708.82	1,692.78	1,622.86	69.92	24.211		
7,600.00	7,065.00	7,529.11	7,129.89	37.84	35.49	92.20	187.23	-816.83	1,693.00	1,620.66	72.34	23.403		
7,700.00	7,064.77	7,629.10	7,129.52	38.82	36.87	92.20	185.28	-916.80	1,691.64	1,616.66	74.98	22.560		
7,800.00	7,064.54	7,729.09	7,129.16	40.06	38.42	92.19	183.32	-1,016.77	1,690.28	1,612.33	77.95	21.683		
7,900.00	7,064.31	7,829.09	7,128.79	41.52	40.11	92.19	181.37	-1,116.74	1,688.92	1,607.70	81.22	20.796		
8,000.00	7,064.08	7,929.08	7,128.43	43.14	41.93	92.19	179.41	-1,216.71	1,687.56	1,602.82	84.74	19.915		
8,100.00	7,063.85	8,029.07	7,128.06	44.90	43.85	92.18	177.45	-1,316.68	1,686.20	1,597.71	88.49	19.056		
8,200.00	7,063.62	8,129.06	7,127.69	46.78	45.88	92.18	175.50	-1,416.65	1,684.84	1,592.40	92.44	18.227		
8,300.00	7,063.39	8,229.05	7,127.33	48.76	47.99	92.18	173.54	-1,516.62	1,683.47	1,586.91	96.56	17.434		
8,400.00	7,063.16	8,329.04	7,126.96	50.83	50.17	92.18	171.59	-1,616.60	1,682.11	1,581.27	100.84	16.680		
8,500.00	7,062.93	8,429.03	7,126.59	52.97	52.42	92.17	169.63	-1,716.57	1,680.75	1,575.49	105.26	15.968		
8,600.00	7,062.70	8,529.02	7,126.23	55.18	54.72	92.17	167.68	-1,816.54	1,679.39	1,569.60	109.80	15.296		
8,700.00	7,062.47	8,629.01	7,125.86	57.46	57.07	92.17	165.72	-1,916.51	1,678.03	1,563.59	114.44	14.663		
8,800.00	7,062.24	8,729.00	7,125.50	59.78	59.47	92.16	163.77	-2,016.48	1,676.67	1,557.50	119.17	14.070		
8,900.00	7,062.01	8,828.99	7,125.13	62.14	61.91	92.16	161.81	-2,116.45	1,675.31	1,551.32	123.99	13.512		
9,000.00	7,061.78	8,928.98	7,124.76	64.55	64.38	92.16	159.86	-2,216.42	1,673.95	1,545.07	128.87	12.989		
9,100.00	7,061.55	9,028.97	7,124.40	67.00	66.88	92.16	157.90	-2,316.39	1,672.59	1,538.76	133.83	12.498		
9,200.00	7,061.31	9,128.96	7,124.03	69.47	69.41	92.15	155.95	-2,416.36	1,671.23	1,532.39	138.84	12.037		
9,300.00	7,061.08	9,228.96	7,123.67	71.98	71.96	92.15	153.99	-2,516.33	1,669.86	1,525.96	143.90	11.604		
9,400.00	7,060.85	9,328.95	7,123.30	74.51	74.53	92.15	152.03	-2,616.30	1,668.50	1,519.49	149.01	11.197		
9,500.00	7,060.62	9,428.94	7,122.93	77.06	77.13	92.14	150.08	-2,716.28	1,667.14	1,512.98	154.16	10.814		
9,600.00	7,060.39	9,528.93	7,122.57	79.64	79.74	92.14	148.12	-2,816.25	1,665.78	1,506.43	159.35	10.453		
9,700.00	7,060.16	9,628.92	7,122.20	82.23	82.37	92.14	146.17	-2,916.22	1,664.42	1,499.84	164.58	10.113		
9,800.00	7,059.93	9,728.91	7,121.83	84.84	85.01	92.14	144.21	-3,016.19	1,663.06	1,493.23	169.83	9.792		
9,900.00	7,059.70	9,828.90	7,121.47	87.47	87.67	92.13	142.26	-3,116.16	1,661.70	1,486.58	175.12	9.489		
10,000.00	7,059.47	9,928.89	7,121.10	90.11	90.33	92.13	140.30	-3,216.13	1,660.34	1,479.91	180.43	9.202		
10,100.00	7,059.24	10,028.88	7,120.74	92.76	93.01	92.13	138.35	-3,316.10	1,658.98	1,473.22	185.76	8.931		
10,200.00	7,059.01	10,128.87	7,120.37	95.42	95.70	92.12	136.39	-3,416.07	1,657.62	1,466.50	191.11	8.673		
10,300.00	7,058.78	10,228.86	7,120.00	98.10	98.40	92.12	134.44	-3,516.04	1,656.26	1,459.77	196.49	8.429		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	10,328.85	7,119.64	100.79	101.11	92.12	132.48	-3,616.01	1,654.89	1,453.01	201.88	8.197		
10,500.00	7,058.32	10,428.84	7,119.27	103.48	103.82	92.11	130.53	-3,715.98	1,653.53	1,446.24	207.29	7.977		
10,600.00	7,058.09	10,528.83	7,118.91	106.19	106.54	92.11	128.57	-3,815.96	1,652.17	1,439.45	212.72	7.767		
10,700.00	7,057.86	10,628.82	7,118.54	108.90	109.27	92.11	126.62	-3,915.93	1,650.81	1,432.65	218.16	7.567		
10,800.00	7,057.63	10,728.82	7,118.17	111.62	112.01	92.11	124.66	-4,015.90	1,649.45	1,425.84	223.61	7.376		
10,900.00	7,057.40	10,828.81	7,117.81	114.35	114.75	92.10	122.70	-4,115.87	1,648.09	1,419.01	229.08	7.194		
11,000.00	7,057.17	10,928.80	7,117.44	117.08	117.49	92.10	120.75	-4,215.84	1,646.73	1,412.17	234.56	7.021		
11,100.00	7,056.94	11,028.79	7,117.07	119.82	120.25	92.10	118.79	-4,315.81	1,645.37	1,405.32	240.04	6.854		
11,200.00	7,056.71	11,128.78	7,116.71	122.56	123.00	92.09	116.84	-4,415.78	1,644.01	1,398.46	245.54	6.695		
11,300.00	7,056.48	11,228.77	7,116.34	125.31	125.76	92.09	114.88	-4,515.75	1,642.65	1,391.60	251.05	6.543		
11,400.00	7,056.25	11,328.76	7,115.98	128.06	128.53	92.09	112.93	-4,615.72	1,641.29	1,384.72	256.57	6.397		
11,500.00	7,056.02	11,428.75	7,115.61	130.82	131.29	92.08	110.97	-4,715.69	1,639.93	1,377.83	262.09	6.257		
11,600.00	7,055.79	11,528.74	7,115.24	133.59	134.07	92.08	109.02	-4,815.66	1,638.56	1,370.94	267.63	6.123		
11,700.00	7,055.55	11,628.73	7,114.88	136.35	136.84	92.08	107.06	-4,915.64	1,637.20	1,364.04	273.17	5.993		
11,800.00	7,055.32	11,728.72	7,114.51	139.12	139.62	92.08	105.11	-5,015.61	1,635.84	1,357.13	278.71	5.869		
11,900.00	7,055.09	11,828.71	7,114.15	141.90	142.40	92.07	103.15	-5,115.58	1,634.48	1,350.22	284.27	5.750		
12,000.00	7,054.86	11,928.70	7,113.78	144.67	145.19	92.07	101.20	-5,215.55	1,633.12	1,343.30	289.82	5.635		
12,100.00	7,054.63	12,028.69	7,113.41	147.45	147.97	92.07	99.24	-5,315.52	1,631.76	1,336.37	295.39	5.524		
12,200.00	7,054.40	12,128.69	7,113.05	150.24	150.76	92.06	97.28	-5,415.49	1,630.40	1,329.44	300.96	5.417		
12,300.00	7,054.17	12,228.68	7,112.68	153.02	153.55	92.06	95.33	-5,515.46	1,629.04	1,322.50	306.54	5.314		
12,400.00	7,053.94	12,328.67	7,112.31	155.81	156.35	92.06	93.37	-5,615.43	1,627.68	1,315.56	312.12	5.215		
12,500.00	7,053.71	12,428.66	7,111.95	158.60	159.14	92.05	91.42	-5,715.40	1,626.32	1,308.62	317.70	5.119		
12,600.00	7,053.48	12,528.65	7,111.58	161.40	161.94	92.05	89.46	-5,815.37	1,624.96	1,301.67	323.29	5.026		
12,700.00	7,053.25	12,628.64	7,111.22	164.19	164.74	92.05	87.51	-5,915.34	1,623.60	1,294.71	328.88	4.937		
12,800.00	7,053.02	12,728.63	7,110.85	166.99	167.54	92.04	85.55	-6,015.32	1,622.23	1,287.75	334.48	4.850		
12,900.00	7,052.79	12,828.62	7,110.48	169.79	170.35	92.04	83.60	-6,115.29	1,620.87	1,280.79	340.08	4.766		
13,000.00	7,052.56	12,928.61	7,110.12	172.59	173.15	92.04	81.64	-6,215.26	1,619.51	1,273.83	345.69	4.685		
13,100.00	7,052.33	13,028.60	7,109.75	175.40	175.96	92.04	79.69	-6,315.23	1,618.15	1,266.86	351.29	4.606		
13,200.00	7,052.10	13,128.59	7,109.39	178.20	178.77	92.03	77.73	-6,415.20	1,616.79	1,259.89	356.91	4.530		
13,300.00	7,051.87	13,228.58	7,109.02	181.01	181.58	92.03	75.78	-6,515.17	1,615.43	1,252.91	362.52	4.456		
13,400.00	7,051.64	13,328.57	7,108.65	183.82	184.39	92.03	73.82	-6,615.14	1,614.07	1,245.93	368.14	4.384		
13,500.00	7,051.41	13,428.56	7,108.29	186.63	187.20	92.02	71.86	-6,715.11	1,612.71	1,238.95	373.76	4.315		
13,600.00	7,051.18	13,528.56	7,107.92	189.44	190.01	92.02	69.91	-6,815.08	1,611.35	1,231.97	379.38	4.247		
13,700.00	7,050.95	13,628.55	7,107.55	192.25	192.83	92.02	67.95	-6,915.05	1,609.99	1,224.98	385.01	4.182		
13,800.00	7,050.72	13,728.54	7,107.19	195.07	195.65	92.01	66.00	-7,015.02	1,608.63	1,217.99	390.63	4.118		
13,900.00	7,050.49	13,828.53	7,106.82	197.88	198.46	92.01	64.04	-7,115.00	1,607.27	1,211.00	396.26	4.056		
14,000.00	7,050.26	13,928.52	7,106.46	200.70	201.28	92.01	62.09	-7,214.97	1,605.91	1,204.01	401.90	3.996		
14,100.00	7,050.03	14,028.51	7,106.09	203.52	204.10	92.00	60.13	-7,314.94	1,604.54	1,197.01	407.53	3.937		
14,200.00	7,049.80	14,128.50	7,105.72	206.34	206.92	92.00	58.18	-7,414.91	1,603.18	1,190.02	413.17	3.880		
14,300.00	7,049.56	14,228.49	7,105.36	209.16	209.74	92.00	56.22	-7,514.88	1,601.82	1,183.02	418.81	3.825		
14,400.00	7,049.33	14,328.48	7,104.99	211.98	212.56	91.99	54.27	-7,614.85	1,600.46	1,176.02	424.45	3.771		
14,500.00	7,049.10	14,428.47	7,104.63	214.80	215.38	91.99	52.31	-7,714.82	1,599.10	1,169.01	430.09	3.718		
14,600.00	7,048.87	14,528.46	7,104.26	217.63	218.21	91.99	50.36	-7,814.79	1,597.74	1,162.01	435.73	3.667		
14,700.00	7,048.64	14,628.45	7,103.89	220.45	221.03	91.99	48.40	-7,914.76	1,596.38	1,155.00	441.38	3.617		
14,800.00	7,048.41	14,728.44	7,103.53	223.28	223.86	91.98	46.44	-8,014.73	1,595.02	1,147.99	447.03	3.568		
14,900.00	7,048.18	14,828.43	7,103.16	226.10	226.68	91.98	44.49	-8,114.70	1,593.66	1,140.98	452.68	3.521		
14,965.66	7,048.03	14,872.41	7,103.00	227.96	227.93	91.98	43.63	-8,158.67	1,592.91	1,137.22	455.69	3.496		
14,979.18	7,048.00	14,872.41	7,103.00	228.34	227.93	91.98	43.63	-8,158.67	1,592.97	1,136.98	455.99	3.493 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-114.38	-4,075.65	-8,993.20	9,873.81					
100.00	100.00	40.00	100.00	3.28	3.35	-114.38	-4,075.65	-8,993.20	9,873.63	9,866.99	6.64	1,487.393		
200.00	200.00	140.00	200.00	3.34	4.54	-114.38	-4,075.65	-8,993.20	9,873.63	9,865.75	7.88	1,253.150		
300.00	299.98	239.98	299.98	3.44	7.40	59.56	-4,075.65	-8,993.20	9,872.75	9,861.91	10.84	910.901		
400.00	399.84	339.84	399.84	3.59	10.64	59.63	-4,075.65	-8,993.20	9,870.10	9,855.87	14.23	693.812		
500.00	499.45	439.45	499.45	3.79	13.99	59.75	-4,075.65	-8,993.20	9,865.68	9,847.91	17.77	555.078		
600.00	598.70	538.70	598.70	4.03	17.37	59.92	-4,075.65	-8,993.20	9,859.53	9,838.12	21.40	460.654		
700.00	697.47	637.47	697.47	4.31	20.77	60.13	-4,075.65	-8,993.20	9,851.64	9,826.55	25.08	392.773		
800.00	795.62	735.62	795.62	4.64	24.16	60.39	-4,075.65	-8,993.20	9,842.04	9,813.25	28.79	341.833		
900.00	893.16	833.16	893.16	5.00	27.54	60.60	-4,075.65	-8,993.20	9,830.97	9,798.45	32.52	302.289		
1,000.00	990.60	930.60	990.60	5.38	30.92	60.71	-4,075.65	-8,993.20	9,819.74	9,783.46	36.28	270.679		
1,100.00	1,088.04	1,028.04	1,088.04	5.79	34.30	60.82	-4,075.65	-8,993.20	9,808.54	9,768.48	40.06	244.851		
1,200.00	1,185.48	1,125.48	1,185.48	6.22	37.69	60.94	-4,075.65	-8,993.20	9,797.38	9,753.52	43.86	223.379		
1,300.00	1,282.92	1,222.92	1,282.92	6.66	41.08	61.05	-4,075.65	-8,993.20	9,786.27	9,738.59	47.68	205.264		
1,400.00	1,380.36	1,320.36	1,380.36	7.10	44.47	61.16	-4,075.65	-8,993.20	9,775.19	9,723.68	51.51	189.788		
1,500.00	1,477.80	1,417.80	1,477.80	7.56	47.86	61.27	-4,075.65	-8,993.20	9,764.14	9,708.80	55.35	176.421		
1,600.00	1,575.24	1,515.24	1,575.24	8.03	51.26	61.39	-4,075.65	-8,993.20	9,753.14	9,693.95	59.19	164.765		
1,700.00	1,672.68	1,612.68	1,672.68	8.50	54.65	61.50	-4,075.65	-8,993.20	9,742.18	9,679.13	63.05	154.515		
1,800.00	1,770.12	1,710.12	1,770.12	8.98	58.05	61.62	-4,075.65	-8,993.20	9,731.26	9,664.35	66.91	145.433		
1,900.00	1,867.56	1,807.56	1,867.56	9.46	61.44	61.73	-4,075.65	-8,993.20	9,720.38	9,649.60	70.78	137.333		
2,000.00	1,965.00	1,905.00	1,965.00	9.95	64.84	61.84	-4,075.65	-8,993.20	9,709.53	9,634.88	74.65	130.064		
2,100.00	2,062.44	2,002.44	2,062.44	10.44	68.24	61.96	-4,075.65	-8,993.20	9,698.73	9,620.20	78.53	123.507		
2,200.00	2,159.88	2,100.12	2,159.88	10.93	71.64	62.07	-4,075.65	-8,993.20	9,687.97	9,605.55	82.42	117.550		
2,300.00	2,257.32	2,202.68	2,257.32	11.42	75.22	62.19	-4,075.65	-8,993.20	9,677.24	9,590.77	86.48	111.906		
2,400.00	2,354.76	2,305.24	2,354.76	11.92	78.80	62.31	-4,075.65	-8,993.20	9,666.56	9,576.02	90.54	106.765		
2,500.00	2,452.20	2,407.80	2,452.20	12.42	82.38	62.42	-4,075.65	-8,993.20	9,655.92	9,561.31	94.61	102.064		
2,600.00	2,549.64	2,489.64	2,549.64	12.92	85.23	62.54	-4,075.65	-8,993.20	9,645.32	9,547.37	97.95	98.470		
2,700.00	2,647.08	2,587.08	2,647.08	13.42	88.63	62.65	-4,075.65	-8,993.20	9,634.76	9,532.92	101.84	94.604		
2,800.00	2,744.52	2,684.52	2,744.52	13.93	92.03	62.77	-4,075.65	-8,993.20	9,624.24	9,518.50	105.74	91.021		
2,900.00	2,841.96	2,781.96	2,841.96	14.43	95.43	62.89	-4,075.65	-8,993.20	9,613.76	9,504.13	109.63	87.692		
3,000.00	2,939.40	2,879.40	2,939.40	14.94	98.83	63.00	-4,075.65	-8,993.20	9,603.32	9,489.80	113.53	84.591		
3,100.00	3,036.84	2,976.84	3,036.84	15.44	102.23	63.12	-4,075.65	-8,993.20	9,592.93	9,475.50	117.42	81.694		
3,200.00	3,134.28	3,074.28	3,134.28	15.95	105.63	63.24	-4,075.65	-8,993.20	9,582.57	9,461.25	121.32	78.984		
3,300.00	3,231.72	3,171.72	3,231.72	16.46	109.03	63.36	-4,075.65	-8,993.20	9,572.26	9,447.04	125.22	76.442		
3,400.00	3,329.16	3,269.16	3,329.16	16.97	112.43	63.47	-4,075.65	-8,993.20	9,561.99	9,432.87	129.12	74.053		
3,500.00	3,426.60	3,366.60	3,426.60	17.48	115.83	63.59	-4,075.65	-8,993.20	9,551.76	9,418.74	133.03	71.804		
3,600.00	3,524.04	3,464.04	3,524.04	17.99	119.23	63.71	-4,075.65	-8,993.20	9,541.57	9,404.65	136.93	69.683		
3,700.00	3,621.48	3,561.48	3,621.48	18.50	122.63	63.83	-4,075.65	-8,993.20	9,531.43	9,390.60	140.83	67.680		
3,800.00	3,718.92	3,658.92	3,718.92	19.01	126.03	63.95	-4,075.65	-8,993.20	9,521.33	9,376.59	144.73	65.785		
3,900.00	3,816.36	3,756.36	3,816.36	19.52	129.43	64.07	-4,075.65	-8,993.20	9,511.27	9,362.63	148.64	63.989		
4,000.00	3,913.80	3,853.80	3,913.80	20.03	132.83	64.19	-4,075.65	-8,993.20	9,501.25	9,348.70	152.55	62.285		
4,100.00	4,011.24	3,951.24	4,011.24	20.55	136.23	64.31	-4,075.65	-8,993.20	9,491.27	9,334.82	156.45	60.666		
4,200.00	4,108.68	4,048.68	4,108.68	21.06	139.63	64.43	-4,075.65	-8,993.20	9,481.34	9,320.98	160.36	59.126		
4,300.00	4,206.12	4,146.12	4,206.12	21.57	143.03	64.55	-4,075.65	-8,993.20	9,471.45	9,307.19	164.26	57.660		
4,400.00	4,303.56	4,243.56	4,303.56	22.09	146.43	64.67	-4,075.65	-8,993.20	9,461.61	9,293.43	168.17	56.261		
4,500.00	4,401.00	4,341.00	4,401.00	22.60	149.84	64.79	-4,075.65	-8,993.20	9,451.80	9,279.72	172.08	54.926		
4,600.00	4,498.44	4,438.44	4,498.44	23.11	153.24	64.91	-4,075.65	-8,993.20	9,442.04	9,266.05	175.99	53.651		
4,700.00	4,595.88	4,535.88	4,595.88	23.63	156.64	65.03	-4,075.65	-8,993.20	9,432.33	9,252.43	179.90	52.431		
4,800.00	4,693.32	4,633.32	4,693.32	24.14	160.04	65.15	-4,075.65	-8,993.20	9,422.66	9,238.85	183.81	51.263		
4,900.00	4,790.76	4,730.76	4,790.76	24.66	163.44	65.27	-4,075.65	-8,993.20	9,413.03	9,225.31	187.72	50.144		
5,000.00	4,888.20	4,828.20	4,888.20	25.17	166.84	65.39	-4,075.65	-8,993.20	9,403.44	9,211.81	191.63	49.071		
5,100.00	4,985.64	4,925.64	4,985.64	25.69	170.24	65.52	-4,075.65	-8,993.20	9,393.90	9,198.36	195.54	48.041		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,023.08	5,083.08	26.20	173.64	65.64	-4,075.65	-8,993.20	9,384.40	9,184.95	199.45	47.051		
5,300.00	5,180.52	5,120.52	5,180.52	26.72	177.04	65.76	-4,075.65	-8,993.20	9,374.95	9,171.59	203.36	46.100		
5,400.00	5,277.96	5,217.96	5,277.96	27.24	180.44	65.88	-4,075.65	-8,993.20	9,365.54	9,158.27	207.28	45.184		
5,500.00	5,375.40	5,315.40	5,375.40	27.75	183.84	66.01	-4,075.65	-8,993.20	9,356.18	9,144.99	211.19	44.303		
5,600.00	5,472.84	5,412.84	5,472.84	28.27	187.25	66.13	-4,075.65	-8,993.20	9,346.86	9,131.76	215.10	43.454		
5,700.00	5,570.28	5,510.28	5,570.28	28.79	190.65	66.25	-4,075.65	-8,993.20	9,337.59	9,118.58	219.01	42.635		
5,800.00	5,667.72	5,607.72	5,667.72	29.30	194.05	66.38	-4,075.65	-8,993.20	9,328.36	9,105.43	222.93	41.845		
5,900.00	5,765.16	5,705.16	5,765.16	29.82	197.45	66.50	-4,075.65	-8,993.20	9,319.18	9,092.34	226.84	41.083		
6,000.00	5,862.60	5,802.60	5,862.60	30.34	200.85	66.62	-4,075.65	-8,993.20	9,310.04	9,079.28	230.75	40.346		
6,100.00	5,960.05	5,900.05	5,960.05	30.85	204.25	66.75	-4,075.65	-8,993.20	9,300.94	9,066.28	234.67	39.634		
6,200.00	6,057.49	6,002.51	6,057.49	31.37	207.83	66.87	-4,075.65	-8,993.20	9,291.90	9,053.14	238.76	38.918		
6,300.00	6,154.93	6,105.07	6,154.93	31.89	211.41	67.00	-4,075.65	-8,993.20	9,282.89	9,040.04	242.85	38.224		
6,400.00	6,252.37	6,207.63	6,252.37	32.40	214.99	67.12	-4,075.65	-8,993.20	9,273.94	9,026.99	246.95	37.555		
6,500.00	6,349.81	6,289.81	6,349.81	32.92	217.86	67.25	-4,075.65	-8,993.20	9,265.03	9,014.70	250.33	37.011		
6,600.00	6,447.25	6,387.25	6,447.25	33.44	221.26	67.37	-4,075.65	-8,993.20	9,256.16	9,001.92	254.24	36.407		
6,700.00	6,544.28	6,484.28	6,544.28	33.95	224.65	67.50	-4,075.65	-8,993.20	9,247.33	8,989.35	258.14	35.802		
6,800.00	6,638.86	6,578.86	6,638.86	34.44	227.95	67.62	-4,075.65	-8,993.20	9,238.54	8,977.60	262.04	35.197		
6,900.00	6,728.65	6,668.65	6,728.65	34.89	231.08	67.75	-4,075.65	-8,993.20	9,229.79	8,965.89	265.94	34.592		
7,000.00	6,811.45	6,751.45	6,811.45	35.29	233.97	67.87	-4,075.65	-8,993.20	9,221.08	8,954.22	269.84	33.987		
7,100.00	6,885.21	6,825.21	6,885.21	35.66	236.55	-5.74	-4,075.65	-8,993.20	9,212.41	8,942.59	273.74	33.382		
7,200.00	6,948.11	6,888.11	6,948.11	35.99	238.74	-12.75	-4,075.65	-8,993.20	9,203.78	8,931.00	277.64	32.777		
7,300.00	6,998.62	6,938.62	6,998.62	36.30	240.50	-22.18	-4,075.65	-8,993.20	8,884.38	8,608.46	275.91	32.200		
7,400.00	7,035.48	6,975.48	7,035.48	36.65	241.79	-36.95	-4,075.65	-8,993.20	8,793.36	8,516.08	277.29	31.712		
7,500.00	7,057.79	7,002.21	7,057.79	37.13	242.72	-60.83	-4,075.65	-8,993.20	8,698.78	8,420.54	278.24	31.263		
7,600.00	7,065.00	7,005.00	7,065.00	37.84	242.82	-90.43	-4,075.65	-8,993.20	8,602.99	8,324.67	278.33	30.910		
7,700.00	7,064.77	7,004.77	7,064.77	38.82	242.81	-90.43	-4,075.65	-8,993.20	8,507.44	8,229.14	278.30	30.569		
7,800.00	7,064.54	7,004.54	7,064.54	40.06	242.81	-90.42	-4,075.65	-8,993.20	8,411.99	8,133.68	278.30	30.226		
7,900.00	7,064.31	7,004.31	7,064.31	41.52	242.80	-90.41	-4,075.65	-8,993.20	8,316.64	8,038.31	278.33	29.881		
8,000.00	7,064.08	7,004.08	7,064.08	43.14	242.79	-90.41	-4,075.65	-8,993.20	8,221.41	7,943.03	278.38	29.533		
8,100.00	7,063.85	7,003.85	7,063.85	44.90	242.78	-90.40	-4,075.65	-8,993.20	8,126.29	7,847.83	278.46	29.183		
8,200.00	7,063.62	7,003.62	7,063.62	46.78	242.77	-90.40	-4,075.65	-8,993.20	8,031.29	7,752.71	278.57	28.830		
8,300.00	7,063.39	7,003.39	7,063.39	48.76	242.77	-90.39	-4,075.65	-8,993.20	7,936.41	7,657.69	278.72	28.475		
8,400.00	7,063.16	7,003.16	7,063.16	50.83	242.76	-90.39	-4,075.65	-8,993.20	7,841.66	7,562.76	278.90	28.117		
8,500.00	7,062.93	7,002.93	7,062.93	52.97	242.75	-90.38	-4,075.65	-8,993.20	7,747.04	7,467.92	279.11	27.756		
8,600.00	7,062.70	7,002.70	7,062.70	55.18	242.74	-90.38	-4,075.65	-8,993.20	7,652.56	7,373.19	279.37	27.392		
8,700.00	7,062.47	7,002.47	7,062.47	57.46	242.73	-90.37	-4,075.65	-8,993.20	7,558.22	7,278.56	279.66	27.026		
8,800.00	7,062.24	7,002.24	7,062.24	59.78	242.73	-90.37	-4,075.65	-8,993.20	7,464.02	7,184.03	280.00	26.658		
8,900.00	7,062.01	7,002.01	7,062.01	62.14	242.72	-90.36	-4,075.65	-8,993.20	7,369.98	7,089.61	280.37	26.286		
9,000.00	7,061.78	7,001.78	7,061.78	64.55	242.71	-90.36	-4,075.65	-8,993.20	7,276.10	6,995.31	280.80	25.912		
9,100.00	7,061.55	7,001.55	7,061.55	67.00	242.70	-90.35	-4,075.65	-8,993.20	7,182.39	6,901.12	281.27	25.536		
9,200.00	7,061.31	7,001.31	7,061.31	69.47	242.69	-90.35	-4,075.65	-8,993.20	7,088.84	6,807.06	281.79	25.157		
9,300.00	7,061.08	7,001.08	7,061.08	71.98	242.68	-90.34	-4,075.65	-8,993.20	6,995.48	6,713.12	282.36	24.775		
9,400.00	7,060.85	7,000.85	7,060.85	74.51	242.68	-90.34	-4,075.65	-8,993.20	6,902.30	6,619.32	282.98	24.391		
9,500.00	7,060.62	7,000.62	7,060.62	77.06	242.67	-90.33	-4,075.65	-8,993.20	6,809.31	6,525.66	283.66	24.005		
9,600.00	7,060.39	7,000.39	7,060.39	79.64	242.66	-90.33	-4,075.65	-8,993.20	6,716.53	6,432.14	284.39	23.617		
9,700.00	7,060.16	7,000.16	7,060.16	82.23	242.65	-90.32	-4,075.65	-8,993.20	6,623.95	6,338.77	285.18	23.227		
9,800.00	7,059.93	7,000.07	7,059.93	84.84	242.65	-90.32	-4,075.65	-8,993.20	6,531.60	6,245.56	286.03	22.835		
9,900.00	7,059.70	7,000.30	7,059.70	87.47	242.66	-90.31	-4,075.65	-8,993.20	6,439.47	6,152.51	286.96	22.440		
10,000.00	7,059.47	7,000.53	7,059.47	90.11	242.67	-90.30	-4,075.65	-8,993.20	6,347.58	6,059.63	287.95	22.044		
10,100.00	7,059.24	7,000.76	7,059.24	92.76	242.67	-90.30	-4,075.65	-8,993.20	6,255.94	5,966.94	289.00	21.647		
10,200.00	7,059.01	7,000.99	7,059.01	95.42	242.68	-90.29	-4,075.65	-8,993.20	6,164.56	5,874.44	290.12	21.248		
10,300.00	7,058.78	7,001.22	7,058.78	98.10	242.69	-90.29	-4,075.65	-8,993.20	6,073.45	5,782.14	291.31	20.849		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,400.00	7,058.55	7,001.45	7,058.55	100.79	242.70	-90.28	-4,075.65	-8,993.20	5,982.63	5,690.06	292.57	20.449		
10,500.00	7,058.32	7,001.68	7,058.32	103.48	242.71	-90.28	-4,075.65	-8,993.20	5,892.10	5,598.21	293.90	20.048		
10,600.00	7,058.09	7,001.91	7,058.09	106.19	242.71	-90.27	-4,075.65	-8,993.20	5,801.89	5,506.59	295.30	19.648		
10,700.00	7,057.86	7,002.14	7,057.86	108.90	242.72	-90.27	-4,075.65	-8,993.20	5,711.99	5,415.22	296.77	19.247		
10,800.00	7,057.63	7,002.37	7,057.63	111.62	242.73	-90.26	-4,075.65	-8,993.20	5,622.45	5,324.12	298.33	18.847		
10,900.00	7,057.40	7,002.60	7,057.40	114.35	242.74	-90.26	-4,075.65	-8,993.20	5,533.25	5,233.30	299.96	18.447		
11,000.00	7,057.17	7,002.83	7,057.17	117.08	242.75	-90.25	-4,075.65	-8,993.20	5,444.44	5,142.77	301.67	18.048		
11,100.00	7,056.94	7,003.06	7,056.94	119.82	242.75	-90.25	-4,075.65	-8,993.20	5,356.02	5,052.55	303.47	17.649		
11,200.00	7,056.71	7,003.29	7,056.71	122.56	242.76	-90.24	-4,075.65	-8,993.20	5,268.01	4,962.66	305.35	17.252		
11,300.00	7,056.48	7,003.52	7,056.48	125.31	242.77	-90.24	-4,075.65	-8,993.20	5,180.44	4,873.12	307.32	16.857		
11,400.00	7,056.25	7,003.75	7,056.25	128.06	242.78	-90.23	-4,075.65	-8,993.20	5,093.33	4,783.94	309.38	16.463		
11,500.00	7,056.02	7,003.98	7,056.02	130.82	242.79	-90.23	-4,075.65	-8,993.20	5,006.69	4,695.16	311.54	16.071		
11,600.00	7,055.79	7,004.21	7,055.79	133.59	242.79	-90.22	-4,075.65	-8,993.20	4,920.57	4,606.78	313.79	15.681		
11,700.00	7,055.55	7,004.45	7,055.55	136.35	242.80	-90.22	-4,075.65	-8,993.20	4,834.98	4,518.84	316.13	15.294		
11,800.00	7,055.32	7,004.68	7,055.32	139.12	242.81	-90.21	-4,075.65	-8,993.20	4,749.95	4,431.37	318.58	14.910		
11,900.00	7,055.09	7,004.91	7,055.09	141.90	242.82	-90.21	-4,075.65	-8,993.20	4,665.51	4,344.38	321.14	14.528		
12,000.00	7,054.86	7,005.14	7,054.86	144.67	242.83	-90.20	-4,075.65	-8,993.20	4,581.71	4,257.91	323.80	14.150		
12,100.00	7,054.63	7,005.37	7,054.63	147.45	242.83	-90.19	-4,075.65	-8,993.20	4,498.56	4,171.99	326.57	13.775		
12,200.00	7,054.40	7,005.60	7,054.40	150.24	242.84	-90.19	-4,075.65	-8,993.20	4,416.11	4,086.66	329.46	13.404		
12,300.00	7,054.17	7,005.83	7,054.17	153.02	242.85	-90.18	-4,075.65	-8,993.20	4,334.40	4,001.95	332.46	13.037		
12,400.00	7,053.94	7,006.06	7,053.94	155.81	242.86	-90.18	-4,075.65	-8,993.20	4,253.48	3,917.90	335.58	12.675		
12,500.00	7,053.71	7,006.29	7,053.71	158.60	242.87	-90.17	-4,075.65	-8,993.20	4,173.38	3,834.55	338.83	12.317		
12,600.00	7,053.48	7,006.52	7,053.48	161.40	242.87	-90.17	-4,075.65	-8,993.20	4,094.15	3,751.95	342.20	11.964		
12,700.00	7,053.25	7,006.75	7,053.25	164.19	242.88	-90.16	-4,075.65	-8,993.20	4,015.86	3,670.15	345.70	11.616		
12,800.00	7,053.02	7,006.98	7,053.02	166.99	242.89	-90.16	-4,075.65	-8,993.20	3,938.54	3,589.20	349.34	11.274		
12,900.00	7,052.79	7,007.21	7,052.79	169.79	242.90	-90.15	-4,075.65	-8,993.20	3,862.27	3,509.16	353.11	10.938		
13,000.00	7,052.56	7,007.44	7,052.56	172.59	242.91	-90.15	-4,075.65	-8,993.20	3,787.10	3,430.08	357.02	10.608		
13,100.00	7,052.33	7,007.67	7,052.33	175.40	242.91	-90.14	-4,075.65	-8,993.20	3,713.10	3,352.04	361.07	10.284		
13,200.00	7,052.10	7,007.90	7,052.10	178.20	242.92	-90.14	-4,075.65	-8,993.20	3,640.35	3,275.09	365.26	9.967		
13,300.00	7,051.87	7,008.13	7,051.87	181.01	242.93	-90.13	-4,075.65	-8,993.20	3,568.91	3,199.33	369.59	9.657		
13,400.00	7,051.64	7,008.36	7,051.64	183.82	242.94	-90.13	-4,075.65	-8,993.20	3,498.88	3,124.82	374.06	9.354		
13,500.00	7,051.41	7,008.59	7,051.41	186.63	242.95	-90.12	-4,075.65	-8,993.20	3,430.33	3,051.66	378.67	9.059		
13,600.00	7,051.18	7,008.82	7,051.18	189.44	242.96	-90.12	-4,075.65	-8,993.20	3,363.36	2,979.94	383.42	8.772		
13,700.00	7,050.95	7,009.05	7,050.95	192.25	242.96	-90.11	-4,075.65	-8,993.20	3,298.06	2,909.75	388.31	8.493		
13,800.00	7,050.72	7,009.28	7,050.72	195.07	242.97	-90.11	-4,075.65	-8,993.20	3,234.53	2,841.21	393.32	8.224		
13,900.00	7,050.49	7,009.51	7,050.49	197.88	242.98	-90.10	-4,075.65	-8,993.20	3,172.89	2,774.42	398.46	7.963		
14,000.00	7,050.26	7,009.74	7,050.26	200.70	242.99	-90.10	-4,075.65	-8,993.20	3,113.23	2,709.51	403.72	7.711		
14,100.00	7,050.03	7,009.97	7,050.03	203.52	243.00	-90.09	-4,075.65	-8,993.20	3,055.69	2,646.60	409.09	7.470		
14,200.00	7,049.80	6,989.80	7,049.80	206.34	242.29	-90.09	-4,075.65	-8,993.20	3,000.37	2,586.54	413.83	7.250		
14,300.00	7,049.56	6,989.56	7,049.56	209.16	242.28	-90.08	-4,075.65	-8,993.20	2,947.41	2,528.07	419.35	7.029		
14,400.00	7,049.33	6,989.33	7,049.33	211.98	242.27	-90.07	-4,075.65	-8,993.20	2,896.94	2,472.01	424.92	6.818		
14,500.00	7,049.10	6,989.10	7,049.10	214.80	242.27	-90.07	-4,075.65	-8,993.20	2,849.08	2,418.54	430.54	6.617		
14,600.00	7,048.87	6,988.87	7,048.87	217.63	242.26	-90.06	-4,075.65	-8,993.20	2,803.97	2,367.80	436.17	6.429		
14,700.00	7,048.64	6,988.64	7,048.64	220.45	242.25	-90.06	-4,075.65	-8,993.20	2,761.75	2,319.96	441.79	6.251		
14,800.00	7,048.41	6,988.41	7,048.41	223.28	242.24	-90.05	-4,075.65	-8,993.20	2,722.55	2,275.17	447.37	6.086		
14,900.00	7,048.18	6,988.18	7,048.18	226.10	242.23	-90.05	-4,075.65	-8,993.20	2,686.50	2,233.62	452.88	5.932		
14,979.18	7,048.00	6,988.00	7,048.00	228.34	242.23	-90.04	-4,075.65	-8,993.20	2,660.28	2,203.10	457.18	5.819 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	680.04	712.82	3.28	4.35	-107.11	-2,749.54	-8,934.26	9,374.92					
100.00	100.00	724.00	756.32	3.28	4.49	-107.14	-2,753.85	-8,929.61	9,367.63	9,359.88	7.75	1,209.043		
200.00	200.00	724.00	756.32	3.34	4.49	-107.14	-2,753.85	-8,929.61	9,361.15	9,353.36	7.79	1,201.887		
300.00	299.98	724.00	756.32	3.44	4.49	66.89	-2,753.85	-8,929.61	9,355.05	9,347.17	7.88	1,186.795		
400.00	399.84	767.69	799.50	3.59	4.64	66.98	-2,759.07	-8,925.46	9,347.97	9,339.80	8.17	1,144.329		
500.00	499.45	818.00	849.05	3.79	4.81	67.09	-2,766.86	-8,921.65	9,341.18	9,332.65	8.53	1,094.512		
600.00	598.70	818.00	849.05	4.03	4.81	67.24	-2,766.86	-8,921.65	9,333.20	9,324.42	8.77	1,063.929		
700.00	697.47	818.00	849.05	4.31	4.81	67.39	-2,766.86	-8,921.65	9,324.93	9,315.88	9.05	1,030.068		
800.00	795.62	818.00	849.05	4.64	4.81	67.55	-2,766.86	-8,921.65	9,316.39	9,307.02	9.37	994.016		
900.00	893.16	818.00	849.05	5.00	4.81	67.63	-2,766.86	-8,921.65	9,307.76	9,298.03	9.73	956.887		
1,000.00	990.60	857.48	887.83	5.38	4.95	67.64	-2,773.91	-8,919.49	9,299.47	9,289.22	10.25	907.160		
1,100.00	1,088.04	872.56	902.64	5.79	5.01	67.64	-2,776.71	-8,918.89	9,292.31	9,281.60	10.71	867.685		
1,200.00	1,185.48	912.00	941.33	6.22	5.15	67.64	-2,784.29	-8,917.94	9,286.26	9,274.99	11.28	823.521		
1,300.00	1,282.92	912.00	941.33	6.66	5.15	67.64	-2,784.29	-8,917.94	9,280.74	9,269.03	11.71	792.578		
1,400.00	1,380.36	912.00	941.33	7.10	5.15	67.64	-2,784.29	-8,917.94	9,276.29	9,264.13	12.15	763.218		
1,500.00	1,477.80	912.00	941.33	7.56	5.15	67.64	-2,784.29	-8,917.94	9,272.91	9,260.30	12.61	735.482		
1,600.00	1,575.24	912.00	941.33	8.03	5.15	67.64	-2,784.29	-8,917.94	9,270.62	9,257.55	13.07	709.357		
1,700.00	1,672.68	960.79	989.18	8.50	5.33	67.65	-2,793.84	-8,918.10	9,268.51	9,254.78	13.72	675.417		
1,800.00	1,770.12	1,006.00	1,033.51	8.98	5.50	67.66	-2,802.54	-8,919.72	9,268.12	9,253.75	14.37	644.923		
1,856.86	1,825.53	1,006.00	1,033.51	9.25	5.50	67.66	-2,802.54	-8,919.72	9,267.94	9,253.30	14.64	633.045		
1,900.00	1,867.56	1,006.00	1,033.51	9.46	5.50	67.66	-2,802.54	-8,919.72	9,268.04	9,253.20	14.85	624.312		
2,000.00	1,965.00	1,006.00	1,033.51	9.95	5.50	67.66	-2,802.54	-8,919.72	9,269.05	9,253.73	15.32	604.936		
2,100.00	2,062.44	1,006.00	1,033.51	10.44	5.50	67.66	-2,802.54	-8,919.72	9,271.13	9,255.33	15.80	586.721		
2,200.00	2,159.88	1,006.00	1,033.51	10.93	5.50	67.66	-2,802.54	-8,919.72	9,274.29	9,258.01	16.28	569.594		
2,300.00	2,257.32	1,060.02	1,086.48	11.42	5.70	67.68	-2,812.47	-8,923.29	9,277.70	9,260.73	16.97	546.552		
2,400.00	2,354.76	1,101.00	1,126.68	11.92	5.85	67.69	-2,819.50	-8,927.09	9,282.47	9,264.85	17.62	526.798		
2,500.00	2,452.20	1,101.00	1,126.68	12.42	5.85	67.69	-2,819.50	-8,927.09	9,287.84	9,269.74	18.10	513.072		
2,600.00	2,549.64	1,101.00	1,126.68	12.92	5.85	67.69	-2,819.50	-8,927.09	9,294.28	9,275.70	18.58	500.126		
2,700.00	2,647.08	1,101.00	1,126.68	13.42	5.85	67.69	-2,819.50	-8,927.09	9,301.79	9,282.73	19.06	487.910		
2,800.00	2,744.52	1,152.68	1,177.21	13.93	6.05	67.72	-2,828.58	-8,932.97	9,309.59	9,289.83	19.76	471.211		
2,900.00	2,841.96	1,197.00	1,220.30	14.43	6.23	67.73	-2,837.13	-8,938.83	9,318.79	9,298.36	20.42	456.324		
3,000.00	2,939.40	1,197.00	1,220.30	14.94	6.23	67.73	-2,837.13	-8,938.83	9,328.47	9,307.57	20.90	446.368		
3,100.00	3,036.84	1,197.00	1,220.30	15.44	6.23	67.73	-2,837.13	-8,938.83	9,339.21	9,317.84	21.37	436.946		
3,200.00	3,134.28	1,197.00	1,220.30	15.95	6.23	67.73	-2,837.13	-8,938.83	9,351.02	9,329.17	21.85	428.024		
3,300.00	3,231.72	1,249.25	1,270.80	16.46	6.45	67.75	-2,848.04	-8,946.65	9,363.16	9,340.60	22.55	415.132		
3,400.00	3,329.16	1,292.00	1,311.86	16.97	6.64	67.76	-2,857.58	-8,953.72	9,376.54	9,353.32	23.22	403.781		
3,500.00	3,426.60	1,292.00	1,311.86	17.48	6.64	67.76	-2,857.58	-8,953.72	9,390.49	9,366.80	23.69	396.418		
3,600.00	3,524.04	1,292.00	1,311.86	17.99	6.64	67.76	-2,857.58	-8,953.72	9,405.48	9,381.32	24.15	389.431		
3,700.00	3,621.48	1,330.10	1,348.25	18.50	6.83	67.76	-2,866.55	-8,960.54	9,421.13	9,396.33	24.80	379.944		
3,800.00	3,718.92	1,350.24	1,367.42	19.01	6.93	67.77	-2,871.47	-8,964.34	9,437.68	9,412.32	25.36	372.162		
3,900.00	3,816.36	1,387.00	1,402.23	19.52	7.12	67.77	-2,880.76	-8,971.61	9,455.13	9,429.13	26.00	363.603		
4,000.00	3,913.80	1,401.34	1,415.77	20.03	7.20	67.77	-2,884.47	-8,974.53	9,473.24	9,446.71	26.54	356.998		
4,100.00	4,011.24	1,481.00	1,490.84	20.55	7.66	67.77	-2,905.69	-8,990.65	9,491.80	9,464.38	27.42	346.160		
4,200.00	4,108.68	1,522.23	1,529.55	21.06	7.92	67.77	-2,917.16	-8,999.01	9,510.75	9,482.64	28.11	338.283		
4,300.00	4,206.12	4,300.00	1,606.27	21.57	30.21	67.76	-2,941.56	-9,015.75	9,530.29	9,477.21	53.08	179.539		
4,400.00	4,303.56	1,720.80	1,714.34	22.09	9.30	67.72	-2,978.17	-9,038.38	9,549.51	9,519.25	30.26	315.623		
4,500.00	4,401.00	1,760.00	1,750.48	22.60	9.60	67.71	-2,991.42	-9,045.78	9,569.00	9,538.03	30.96	309.034		
4,600.00	4,498.44	2,468.65	2,388.26	23.11	16.00	67.02	-3,283.19	-9,140.76	9,584.62	9,547.32	37.31	256.921		
4,700.00	4,595.88	2,513.00	2,428.24	23.63	16.42	66.97	-3,301.81	-9,145.44	9,598.68	9,560.52	38.16	251.566		
4,800.00	4,693.32	2,513.00	2,428.24	24.14	16.42	66.97	-3,301.81	-9,145.44	9,613.43	9,574.82	38.61	248.989		
4,900.00	4,790.76	2,576.22	2,485.23	24.66	17.02	66.91	-3,328.14	-9,152.82	9,628.70	9,589.08	39.62	243.023		
5,000.00	4,888.20	2,608.00	2,513.91	25.17	17.33	66.88	-3,341.24	-9,156.80	9,644.65	9,604.30	40.35	239.023		

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 12N-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 12N-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	4,985.64	2,665.73	2,565.94	25.69	17.88	66.82	-3,365.10	-9,164.34	9,661.12	9,619.81	41.31	233.866		
5,200.00	5,083.08	2,703.00	2,599.44	26.20	18.24	66.79	-3,380.64	-9,169.35	9,678.15	9,636.06	42.09	229.966		
5,300.00	5,180.52	2,736.69	2,629.62	26.72	18.58	66.75	-3,394.87	-9,174.04	9,695.82	9,652.99	42.83	226.369		
5,400.00	5,277.96	2,764.34	2,654.27	27.24	18.86	66.72	-3,406.74	-9,178.03	9,714.23	9,670.71	43.52	223.215		
5,500.00	5,375.40	2,798.00	2,684.12	27.75	19.20	66.69	-3,421.44	-9,183.07	9,733.36	9,689.10	44.26	219.916		
5,600.00	5,472.84	3,082.00	2,935.59	28.27	22.12	66.37	-3,546.95	-9,223.55	9,752.53	9,705.14	47.40	205.769		
5,700.00	5,570.28	3,133.71	2,982.11	28.79	22.64	66.32	-3,568.30	-9,230.87	9,770.26	9,721.95	48.30	202.263		
5,800.00	5,667.72	3,423.05	3,240.29	29.30	25.58	66.02	-3,693.31	-9,268.58	9,787.84	9,736.37	51.47	190.150		
5,900.00	5,765.16	3,503.66	3,312.29	29.82	26.40	65.93	-3,728.31	-9,278.06	9,804.06	9,751.38	52.68	186.115		
6,000.00	5,862.60	3,550.00	3,353.63	30.34	26.88	65.88	-3,748.48	-9,283.64	9,820.66	9,767.11	53.55	183.384		
6,100.00	5,960.05	3,796.27	3,575.02	30.85	29.35	65.64	-3,851.97	-9,313.76	9,836.84	9,780.55	56.29	174.748		
6,200.00	6,057.49	3,831.00	3,606.48	31.37	29.69	65.61	-3,866.04	-9,318.06	9,852.65	9,795.60	57.04	172.724		
6,300.00	6,154.93	3,883.03	3,653.50	31.89	30.21	65.56	-3,887.31	-9,324.72	9,869.01	9,811.06	57.95	170.289		
6,400.00	6,252.37	3,925.00	3,691.33	32.40	30.62	65.52	-3,904.64	-9,330.21	9,885.85	9,827.08	58.77	168.212		
6,500.00	6,349.81	3,925.00	3,691.33	32.92	30.62	65.52	-3,904.64	-9,330.21	9,903.51	9,844.32	59.19	167.317		
6,600.00	6,447.25	3,970.22	3,731.76	33.44	31.10	65.47	-3,923.94	-9,336.35	9,921.66	9,861.61	60.05	165.231		
6,700.00	6,544.28	4,020.00	3,775.58	33.95	31.62	36.97	-3,946.43	-9,343.52	9,935.38	9,874.45	60.93	163.049		
6,800.00	6,638.86	6,894.77	6,482.79	34.44	52.19	16.13	-4,702.30	-9,544.09	9,932.77	9,852.58	80.19	123.868		
6,900.00	6,728.65	6,947.84	6,535.85	34.89	52.34	5.08	-4,703.36	-9,544.71	9,891.12	9,810.33	80.79	122.428		
7,000.00	6,811.45	7,037.00	6,624.97	35.29	52.59	-2.57	-4,705.44	-9,546.12	9,837.14	9,755.73	81.41	120.840		
7,100.00	6,885.21	7,045.13	6,633.10	35.66	52.61	-9.24	-4,705.64	-9,546.27	9,771.67	9,689.91	81.76	119.517		
7,200.00	6,948.11	7,115.50	6,703.43	35.99	52.81	-16.58	-4,707.31	-9,547.59	9,696.52	9,614.35	82.17	118.006		
7,300.00	6,998.62	7,172.49	6,760.40	36.30	52.98	-26.19	-4,708.51	-9,548.67	9,613.33	9,530.87	82.46	116.581		
7,400.00	7,035.48	7,214.72	6,802.62	36.65	53.10	-40.33	-4,709.32	-9,549.49	9,524.20	9,441.57	82.63	115.257		
7,500.00	7,057.79	7,241.18	6,829.06	37.13	53.18	-61.27	-4,709.79	-9,550.00	9,431.37	9,348.67	82.70	114.044		
7,600.00	7,065.00	7,251.19	6,839.08	37.84	53.20	-86.27	-4,709.96	-9,550.20	9,337.18	9,254.50	82.67	112.941		
7,700.00	7,064.77	7,253.09	6,840.97	38.82	53.21	-86.30	-4,709.99	-9,550.24	9,243.14	9,160.51	82.62	111.869		
7,800.00	7,064.54	7,254.99	6,842.87	40.06	53.22	-86.34	-4,710.02	-9,550.28	9,149.23	9,066.62	82.61	110.756		
7,900.00	7,064.31	7,256.90	6,844.78	41.52	53.22	-86.37	-4,710.05	-9,550.31	9,055.44	8,972.82	82.62	109.601		
8,000.00	7,064.08	7,258.80	6,846.68	43.14	53.23	-86.41	-4,710.08	-9,550.35	8,961.80	8,879.13	82.67	108.405		
8,100.00	7,063.85	7,260.71	6,848.59	44.90	53.23	-86.44	-4,710.11	-9,550.39	8,868.29	8,785.53	82.75	107.165		
8,200.00	7,063.62	7,262.62	6,850.50	46.78	53.24	-86.47	-4,710.15	-9,550.43	8,774.92	8,692.05	82.87	105.882		
8,300.00	7,063.39	7,264.53	6,852.41	48.76	53.24	-86.51	-4,710.18	-9,550.46	8,681.70	8,598.67	83.03	104.555		
8,400.00	7,063.16	7,266.45	6,854.32	50.83	53.25	-86.54	-4,710.21	-9,550.50	8,588.64	8,505.40	83.24	103.185		
8,500.00	7,062.93	7,268.36	6,856.24	52.97	53.25	-86.58	-4,710.24	-9,550.54	8,495.73	8,412.25	83.48	101.772		
8,600.00	7,062.70	7,270.28	6,858.16	55.18	53.26	-86.61	-4,710.27	-9,550.58	8,402.98	8,319.21	83.77	100.316		
8,700.00	7,062.47	7,272.20	6,860.08	57.46	53.26	-86.65	-4,710.30	-9,550.61	8,310.40	8,226.30	84.10	98.818		
8,800.00	7,062.24	7,274.13	6,862.00	59.78	53.27	-86.68	-4,710.33	-9,550.65	8,217.99	8,133.52	84.48	97.281		
8,900.00	7,062.01	7,276.05	6,863.93	62.14	53.28	-86.72	-4,710.36	-9,550.69	8,125.77	8,040.86	84.90	95.704		
9,000.00	7,061.78	7,277.98	6,865.85	64.55	53.28	-86.75	-4,710.39	-9,550.73	8,033.73	7,948.34	85.38	94.091		
9,100.00	7,061.55	7,279.91	6,867.78	67.00	53.29	-86.79	-4,710.42	-9,550.77	7,941.88	7,855.97	85.91	92.444		
9,200.00	7,061.31	7,281.84	6,869.71	69.47	53.29	-86.82	-4,710.45	-9,550.80	7,850.23	7,763.74	86.49	90.764		
9,300.00	7,061.08	7,283.77	6,871.65	71.98	53.30	-86.86	-4,710.48	-9,550.84	7,758.78	7,671.66	87.12	89.055		
9,400.00	7,060.85	7,285.71	6,873.58	74.51	53.30	-86.89	-4,710.51	-9,550.88	7,667.55	7,579.74	87.81	87.318		
9,500.00	7,060.62	7,287.65	6,875.52	77.06	53.31	-86.93	-4,710.54	-9,550.92	7,576.54	7,487.99	88.55	85.559		
9,600.00	7,060.39	7,289.59	6,877.46	79.64	53.32	-86.96	-4,710.57	-9,550.96	7,485.76	7,396.41	89.35	83.778		
9,700.00	7,060.16	7,291.53	6,879.40	82.23	53.32	-87.00	-4,710.60	-9,551.00	7,395.21	7,305.01	90.21	81.980		
9,800.00	7,059.93	7,293.48	6,881.34	84.84	53.33	-87.03	-4,710.63	-9,551.04	7,304.92	7,213.80	91.12	80.167		
9,900.00	7,059.70	7,295.42	6,883.29	87.47	53.33	-87.07	-4,710.66	-9,551.07	7,214.87	7,122.78	92.09	78.343		
10,000.00	7,059.47	7,297.37	6,885.24	90.11	53.34	-87.10	-4,710.69	-9,551.11	7,125.10	7,031.97	93.12	76.512		
10,100.00	7,059.24	7,299.32	6,887.19	92.76	53.34	-87.14	-4,710.72	-9,551.15	7,035.59	6,941.38	94.21	74.676		
10,200.00	7,059.01	7,301.28	6,889.14	95.42	53.35	-87.18	-4,710.75	-9,551.19	6,946.38	6,851.01	95.37	72.838		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,300.00	7,058.78	7,303.23	6,891.10	98.10	53.35	-87.21	-4,710.77	-9,551.23	6,857.46	6,760.88	96.58	71.003		
10,400.00	7,058.55	7,305.19	6,893.06	100.79	53.36	-87.25	-4,710.80	-9,551.27	6,768.85	6,670.99	97.86	69.171		
10,500.00	7,058.32	7,307.15	6,895.02	103.48	53.37	-87.28	-4,710.83	-9,551.31	6,680.56	6,581.36	99.20	67.347		
10,600.00	7,058.09	7,309.12	6,896.98	106.19	53.37	-87.32	-4,710.86	-9,551.35	6,592.60	6,492.01	100.60	65.533		
10,700.00	7,057.86	7,311.08	6,898.94	108.90	53.38	-87.35	-4,710.89	-9,551.39	6,505.00	6,402.93	102.07	63.732		
10,800.00	7,057.63	7,313.05	6,900.91	111.62	53.38	-87.39	-4,710.92	-9,551.42	6,417.75	6,314.15	103.60	61.946		
10,900.00	7,057.40	7,315.02	6,902.88	114.35	53.39	-87.42	-4,710.94	-9,551.46	6,330.88	6,225.68	105.20	60.178		
11,000.00	7,057.17	7,316.99	6,904.85	117.08	53.39	-87.46	-4,710.97	-9,551.50	6,244.40	6,137.53	106.87	58.429		
11,100.00	7,056.94	7,318.96	6,906.82	119.82	53.40	-87.50	-4,711.00	-9,551.54	6,158.34	6,049.73	108.61	56.702		
11,200.00	7,056.71	7,320.94	6,908.80	122.56	53.41	-87.53	-4,711.03	-9,551.58	6,072.69	5,962.28	110.42	54.997		
11,300.00	7,056.48	7,322.92	6,910.78	125.31	53.41	-87.57	-4,711.06	-9,551.62	5,987.50	5,875.20	112.30	53.318		
11,400.00	7,056.25	7,324.90	6,912.76	128.06	53.42	-87.60	-4,711.08	-9,551.66	5,902.76	5,788.51	114.25	51.666		
11,500.00	7,056.02	7,326.88	6,914.74	130.82	53.42	-87.64	-4,711.11	-9,551.70	5,818.51	5,702.24	116.28	50.041		
11,600.00	7,055.79	7,328.87	6,916.72	133.59	53.43	-87.68	-4,711.14	-9,551.74	5,734.77	5,616.39	118.38	48.445		
11,700.00	7,055.55	7,330.85	6,918.71	136.35	53.43	-87.71	-4,711.16	-9,551.78	5,651.55	5,531.00	120.56	46.879		
11,800.00	7,055.32	7,332.84	6,920.70	139.12	53.44	-87.75	-4,711.19	-9,551.82	5,568.89	5,446.08	122.81	45.345		
11,900.00	7,055.09	7,334.84	6,922.69	141.90	53.45	-87.78	-4,711.22	-9,551.86	5,486.80	5,361.65	125.15	43.843		
12,000.00	7,054.86	7,336.83	6,924.69	144.67	53.45	-87.82	-4,711.24	-9,551.90	5,405.32	5,277.75	127.56	42.373		
12,100.00	7,054.63	7,338.83	6,926.68	147.45	53.46	-87.86	-4,711.27	-9,551.94	5,324.46	5,194.40	130.06	40.937		
12,200.00	7,054.40	7,340.83	6,928.68	150.24	53.46	-87.89	-4,711.30	-9,551.98	5,244.27	5,111.62	132.65	39.535		
12,300.00	7,054.17	7,342.83	6,930.68	153.02	53.47	-87.93	-4,711.32	-9,552.02	5,164.76	5,029.44	135.32	38.167		
12,400.00	7,053.94	7,344.83	6,932.68	155.81	53.47	-87.97	-4,711.35	-9,552.06	5,085.98	4,947.90	138.08	36.834		
12,500.00	7,053.71	7,346.84	6,934.69	158.60	53.48	-88.00	-4,711.38	-9,552.10	5,007.96	4,867.03	140.93	35.536		
12,600.00	7,053.48	7,348.85	6,936.70	161.40	53.49	-88.04	-4,711.40	-9,552.14	4,930.72	4,786.86	143.86	34.273		
12,700.00	7,053.25	7,350.86	6,938.71	164.19	53.49	-88.07	-4,711.43	-9,552.18	4,854.32	4,707.43	146.90	33.046		
12,800.00	7,053.02	7,352.87	6,940.72	166.99	53.50	-88.11	-4,711.45	-9,552.22	4,778.79	4,628.77	150.02	31.854		
12,900.00	7,052.79	7,354.88	6,942.73	169.79	53.50	-88.15	-4,711.48	-9,552.26	4,704.17	4,550.93	153.24	30.698		
13,000.00	7,052.56	7,356.90	6,944.75	172.59	53.51	-88.18	-4,711.50	-9,552.31	4,630.51	4,473.95	156.56	29.577		
13,100.00	7,052.33	7,358.92	6,946.77	175.40	53.51	-88.22	-4,711.53	-9,552.35	4,557.85	4,397.88	159.97	28.492		
13,200.00	7,052.10	7,360.94	6,948.79	178.20	53.52	-88.26	-4,711.55	-9,552.39	4,486.24	4,322.76	163.48	27.441		
13,300.00	7,051.87	7,362.97	6,950.82	181.01	53.53	-88.29	-4,711.58	-9,552.43	4,415.73	4,248.64	167.10	26.426		
13,400.00	7,051.64	7,365.00	6,952.84	183.82	53.53	-88.33	-4,711.60	-9,552.47	4,346.39	4,175.58	170.81	25.446		
13,500.00	7,051.41	7,367.02	6,954.87	186.63	53.54	-88.37	-4,711.63	-9,552.51	4,278.25	4,103.63	174.62	24.501		
13,600.00	7,051.18	7,365.58	6,953.42	189.44	53.53	-88.34	-4,711.62	-9,552.50	4,211.40	4,032.88	178.52	23.590		
13,700.00	7,050.95	7,367.54	6,955.39	192.25	53.53	-88.38	-4,711.64	-9,552.54	4,145.87	3,963.34	182.53	22.713		
13,800.00	7,050.72	7,369.52	6,957.36	195.07	53.54	-88.41	-4,711.67	-9,552.58	4,081.74	3,895.10	186.64	21.870		
13,900.00	7,050.49	7,371.50	6,959.35	197.88	53.54	-88.45	-4,711.69	-9,552.62	4,019.07	3,828.23	190.84	21.060		
14,000.00	7,050.26	7,373.49	6,961.34	200.70	53.55	-88.49	-4,711.72	-9,552.66	3,957.93	3,762.80	195.13	20.283		
14,100.00	7,050.03	7,375.49	6,963.34	203.52	53.55	-88.52	-4,711.74	-9,552.71	3,898.40	3,698.88	199.52	19.539		
14,200.00	7,049.80	7,377.50	6,965.35	206.34	53.56	-88.56	-4,711.77	-9,552.75	3,840.55	3,636.56	203.99	18.827		
14,300.00	7,049.56	7,379.52	6,967.36	209.16	53.57	-88.59	-4,711.79	-9,552.79	3,784.46	3,575.91	208.55	18.147		
14,400.00	7,049.33	7,381.55	6,969.39	211.98	53.57	-88.63	-4,711.82	-9,552.83	3,730.20	3,517.02	213.18	17.498		
14,500.00	7,049.10	7,383.58	6,971.42	214.80	53.58	-88.67	-4,711.84	-9,552.88	3,677.87	3,459.98	217.89	16.880		
14,600.00	7,048.87	7,385.63	6,973.47	217.63	53.58	-88.71	-4,711.86	-9,552.92	3,627.53	3,404.88	222.65	16.292		
14,700.00	7,048.64	7,387.68	6,975.52	220.45	53.59	-88.74	-4,711.89	-9,552.96	3,579.28	3,351.80	227.48	15.735		
14,800.00	7,048.41	7,389.74	6,977.58	223.28	53.59	-88.78	-4,711.91	-9,553.01	3,533.20	3,300.85	232.35	15.207		
14,900.00	7,048.18	7,391.81	6,979.65	226.10	53.60	-88.82	-4,711.94	-9,553.05	3,489.38	3,252.13	237.25	14.707		
14,979.18	7,048.00	7,393.46	6,981.29	228.34	53.60	-88.85	-4,711.96	-9,553.09	3,456.34	3,215.18	241.15	14.333	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 12N-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 12N-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	-129.16	-4,002.85	-4,914.98	6,339.07					
100.00	100.00	47.84	110.84	3.28	3.28	-129.16	-4,002.69	-4,915.05	6,338.72	6,332.16	6.57	965.319		
200.00	200.00	178.03	241.01	3.34	3.33	-129.14	-4,000.90	-4,915.83	6,338.32	6,331.65	6.67	950.832		
300.00	299.98	274.98	337.94	3.44	3.43	44.83	-3,999.03	-4,916.51	6,336.41	6,329.54	6.87	922.909		
400.00	399.84	372.79	435.74	3.59	3.57	44.93	-3,997.46	-4,917.08	6,332.13	6,324.97	7.16	884.424		
500.00	499.45	476.02	538.96	3.79	3.76	45.10	-3,996.01	-4,917.46	6,325.37	6,317.82	7.55	837.400		
600.00	598.70	592.99	655.92	4.03	4.03	45.34	-3,994.43	-4,917.62	6,316.01	6,307.95	8.06	783.241		
700.00	697.47	682.02	744.94	4.31	4.26	45.61	-3,993.30	-4,917.57	6,304.13	6,295.55	8.58	735.066		
800.00	795.62	781.14	844.06	4.64	4.54	45.94	-3,992.25	-4,917.47	6,289.95	6,280.78	9.17	685.663		
900.00	893.16	869.23	932.14	5.00	4.81	46.19	-3,991.33	-4,917.39	6,273.74	6,263.95	9.79	641.005		
1,000.00	990.60	959.75	1,022.66	5.38	5.10	46.34	-3,990.46	-4,917.45	6,257.44	6,247.00	10.44	599.250		
1,100.00	1,088.04	1,062.75	1,125.65	5.79	5.45	46.50	-3,989.47	-4,917.54	6,241.20	6,230.03	11.17	558.686		
1,200.00	1,185.48	1,156.77	1,219.67	6.22	5.77	46.65	-3,988.50	-4,917.55	6,224.92	6,213.02	11.90	523.179		
1,300.00	1,282.92	1,241.58	1,304.47	6.66	6.08	46.79	-3,987.67	-4,917.72	6,208.85	6,196.23	12.62	492.172		
1,400.00	1,380.36	1,326.58	1,389.47	7.10	6.39	46.92	-3,987.07	-4,917.93	6,193.02	6,179.67	13.35	463.898		
1,500.00	1,477.80	1,417.97	1,480.86	7.56	6.73	47.07	-3,986.68	-4,918.15	6,177.40	6,163.28	14.12	437.413		
1,600.00	1,575.24	1,523.67	1,586.55	8.03	7.13	47.24	-3,986.19	-4,918.33	6,161.76	6,146.80	14.96	411.848		
1,700.00	1,672.68	1,618.87	1,681.76	8.50	7.49	47.39	-3,985.91	-4,918.37	6,146.15	6,130.38	15.77	389.648		
1,800.00	1,770.12	1,719.98	1,782.86	8.98	7.88	47.55	-3,985.56	-4,918.39	6,130.54	6,113.93	16.62	368.908		
1,900.00	1,867.56	1,809.44	1,872.33	9.46	8.23	47.69	-3,985.30	-4,918.40	6,115.02	6,097.59	17.43	350.888		
2,000.00	1,965.00	1,884.18	1,947.07	9.95	8.53	47.81	-3,985.25	-4,918.54	6,099.80	6,081.61	18.19	335.393		
2,100.00	2,062.44	1,968.41	2,031.30	10.44	8.86	47.95	-3,985.34	-4,918.92	6,084.92	6,065.94	18.99	320.463		
2,200.00	2,159.88	2,059.70	2,122.59	10.93	9.22	48.09	-3,985.51	-4,919.45	6,070.25	6,050.43	19.82	306.250		
2,300.00	2,257.32	2,155.27	2,218.15	11.42	9.60	48.25	-3,985.79	-4,920.00	6,055.68	6,035.00	20.68	292.883		
2,400.00	2,354.76	2,247.74	2,310.62	11.92	9.97	48.40	-3,985.96	-4,920.64	6,041.19	6,019.67	21.52	280.672		
2,500.00	2,452.20	2,341.24	2,404.11	12.42	10.35	48.55	-3,986.14	-4,921.42	6,026.86	6,004.48	22.38	269.295		
2,600.00	2,549.64	2,437.82	2,500.69	12.92	10.74	48.71	-3,986.29	-4,922.25	6,012.58	5,989.32	23.25	258.583		
2,700.00	2,647.08	2,528.79	2,591.65	13.42	11.11	48.86	-3,986.49	-4,923.08	5,998.42	5,974.31	24.11	248.838		
2,800.00	2,744.52	2,617.17	2,680.03	13.93	11.48	49.01	-3,986.57	-4,924.10	5,984.43	5,959.47	24.95	239.832		
2,900.00	2,841.96	2,699.63	2,762.49	14.43	11.82	49.15	-3,986.69	-4,925.23	5,970.70	5,944.92	25.78	231.609		
3,000.00	2,939.40	2,788.99	2,851.83	14.94	12.18	49.31	-3,986.96	-4,926.58	5,957.20	5,930.57	26.64	223.659		
3,100.00	3,036.84	2,879.87	2,942.70	15.44	12.56	49.46	-3,987.41	-4,927.96	5,943.89	5,916.39	27.50	216.146		
3,200.00	3,134.28	2,970.20	3,033.02	15.95	12.93	49.61	-3,988.04	-4,929.33	5,930.73	5,902.37	28.36	209.096		
3,300.00	3,231.72	3,073.78	3,136.58	16.46	13.36	49.79	-3,988.72	-4,930.99	5,917.67	5,888.39	29.28	202.093		
3,400.00	3,329.16	3,235.23	3,298.02	16.97	14.03	50.07	-3,989.36	-4,932.47	5,903.91	5,873.48	30.43	194.036		
3,500.00	3,426.60	3,327.12	3,389.91	17.48	14.41	50.22	-3,989.53	-4,933.05	5,889.91	5,858.61	31.30	188.156		
3,600.00	3,524.04	3,435.10	3,497.89	17.99	14.86	50.41	-3,989.57	-4,933.66	5,875.82	5,843.57	32.24	182.233		
3,700.00	3,621.48	3,521.63	3,584.42	18.50	15.23	50.56	-3,989.73	-4,934.08	5,861.81	5,828.71	33.10	177.082		
3,800.00	3,718.92	3,600.01	3,662.79	19.01	15.55	50.70	-3,989.92	-4,934.73	5,848.15	5,814.22	33.93	172.354		
3,900.00	3,816.36	3,675.39	3,738.17	19.52	15.87	50.83	-3,990.08	-4,935.69	5,834.88	5,800.13	34.75	167.913		
4,000.00	3,913.80	3,759.90	3,822.67	20.03	16.22	50.98	-3,990.29	-4,937.05	5,821.96	5,786.36	35.60	163.517		
4,100.00	4,011.24	3,848.91	3,911.66	20.55	16.60	51.14	-3,990.66	-4,938.55	5,809.27	5,772.79	36.48	159.252		
4,200.00	4,108.68	3,929.78	3,992.52	21.06	16.94	51.28	-3,991.26	-4,939.91	5,796.79	5,759.47	37.32	155.320		
4,300.00	4,206.12	4,000.01	4,062.73	21.57	17.23	51.41	-3,992.05	-4,941.29	5,784.80	5,746.67	38.12	151.738		
4,400.00	4,303.56	4,073.03	4,135.73	22.09	17.54	51.54	-3,993.20	-4,942.90	5,773.30	5,734.36	38.94	148.272		
4,500.00	4,401.00	4,145.57	4,208.23	22.60	17.85	51.66	-3,994.69	-4,944.63	5,762.26	5,722.51	39.75	144.965		
4,600.00	4,498.44	4,234.21	4,296.81	23.11	18.22	51.81	-3,996.84	-4,946.99	5,751.68	5,711.05	40.63	141.576		
4,700.00	4,595.88	4,361.67	4,424.21	23.63	18.76	52.03	-3,999.45	-4,950.17	5,740.80	5,699.14	41.66	137.805		
4,800.00	4,693.32	4,469.21	4,531.70	24.14	19.21	52.23	-4,001.03	-4,952.84	5,729.69	5,687.08	42.61	134.459		
4,900.00	4,790.76	4,616.13	4,678.57	24.66	19.83	52.49	-4,002.61	-4,956.13	5,718.25	5,674.53	43.72	130.788		
5,000.00	4,888.20	4,746.84	4,809.27	25.17	20.39	52.73	-4,003.49	-4,958.17	5,706.08	5,661.32	44.77	127.466		
5,100.00	4,985.64	4,855.59	4,918.01	25.69	20.85	52.93	-4,004.20	-4,959.29	5,693.50	5,647.77	45.72	124.516		

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 12N-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 12N-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	5,083.08	4,955.38	5,017.79	26.20	21.27	53.11	-4,004.75	-4,960.34	5,680.95	5,634.30	46.65	121.776		
5,300.00	5,180.52	5,064.74	5,127.14	26.72	21.73	53.32	-4,005.03	-4,961.53	5,668.33	5,620.72	47.61	119.049		
5,400.00	5,277.96	5,165.25	5,227.64	27.24	22.16	53.51	-4,004.94	-4,962.62	5,655.60	5,607.06	48.54	116.506		
5,500.00	5,375.40	5,267.82	5,330.20	27.75	22.59	53.71	-4,004.45	-4,963.96	5,642.92	5,593.43	49.48	114.041		
5,600.00	5,472.84	5,354.15	5,416.53	28.27	22.96	53.88	-4,004.02	-4,965.05	5,630.27	5,579.91	50.36	111.802		
5,700.00	5,570.28	5,461.21	5,523.58	28.79	23.41	54.09	-4,003.80	-4,966.50	5,617.90	5,566.58	51.32	109.478		
5,800.00	5,667.72	5,554.87	5,617.24	29.30	23.81	54.27	-4,003.42	-4,967.51	5,605.26	5,553.04	52.22	107.335		
5,900.00	5,765.16	5,631.96	5,694.32	29.82	24.14	54.42	-4,003.57	-4,968.41	5,593.04	5,539.98	53.07	105.396		
6,000.00	5,862.60	5,716.26	5,778.61	30.34	24.49	54.58	-4,003.81	-4,969.64	5,581.18	5,527.24	53.94	103.471		
6,100.00	5,960.05	5,811.37	5,873.71	30.85	24.90	54.77	-4,004.23	-4,971.05	5,569.48	5,514.62	54.85	101.533		
6,200.00	6,057.49	5,887.31	5,949.64	31.37	25.22	54.92	-4,004.50	-4,972.42	5,558.07	5,502.37	55.70	99.794		
6,300.00	6,154.93	5,979.61	6,041.91	31.89	25.61	55.10	-4,004.61	-4,974.49	5,546.99	5,490.39	56.60	98.002		
6,400.00	6,252.37	6,091.81	6,154.09	32.40	26.09	55.33	-4,004.75	-4,976.90	5,535.89	5,478.31	57.58	96.139		
6,500.00	6,349.81	6,170.76	6,233.02	32.92	26.43	55.49	-4,004.84	-4,978.58	5,524.85	5,466.41	58.44	94.543		
6,600.00	6,447.25	6,250.60	6,312.83	33.44	26.77	55.66	-4,004.75	-4,980.71	5,514.23	5,454.93	59.30	92.995		
6,700.00	6,544.28	6,341.99	6,404.19	33.95	27.16	55.84	-4,005.17	-4,983.14	5,498.76	5,438.57	60.19	91.359		
6,800.00	6,638.86	6,440.04	6,502.19	34.44	27.57	56.02	-4,005.27	-4,985.87	5,469.97	5,408.90	61.06	89.578		
6,900.00	6,728.65	6,527.82	6,589.94	34.89	27.95	56.20	-4,005.34	-4,988.35	5,428.47	5,366.62	61.85	87.773		
7,000.00	6,811.45	6,607.47	6,669.57	35.29	28.29	56.38	-4,005.80	-4,990.44	5,375.30	5,312.77	62.54	85.953		
7,100.00	6,885.21	6,664.92	6,726.99	35.66	28.53	56.56	-4,006.14	-4,992.09	5,311.94	5,248.86	63.08	84.212		
7,200.00	6,948.11	6,714.44	6,776.48	35.99	28.74	56.74	-4,006.27	-4,993.79	5,240.01	5,176.49	63.52	82.493		
7,300.00	6,998.62	6,754.52	6,816.53	36.30	28.91	56.92	-4,006.27	-4,995.35	5,161.29	5,097.43	63.86	80.818		
7,400.00	7,035.48	6,785.08	6,847.06	36.65	29.04	57.10	-4,006.21	-4,996.65	5,077.76	5,013.64	64.12	79.193		
7,500.00	7,057.79	6,800.01	6,861.98	37.13	29.11	57.28	-4,006.16	-4,997.33	4,991.53	4,927.24	64.28	77.647		
7,600.00	7,065.00	6,813.20	6,875.15	37.84	29.16	57.46	-4,006.11	-4,997.94	4,904.80	4,840.36	64.44	76.119		
7,700.00	7,064.77	6,816.36	6,878.30	38.82	29.18	57.64	-4,006.10	-4,998.09	4,818.83	4,754.23	64.60	74.597		
7,800.00	7,064.54	6,819.54	6,881.48	40.06	29.19	57.82	-4,006.10	-4,998.24	4,733.40	4,668.56	64.85	72.996		
7,900.00	7,064.31	6,822.75	6,884.69	41.52	29.20	58.00	-4,006.09	-4,998.39	4,648.56	4,583.37	65.18	71.316		
8,000.00	7,064.08	6,826.00	6,887.93	43.14	29.22	58.18	-4,006.08	-4,998.54	4,564.32	4,498.70	65.62	69.559		
8,100.00	7,063.85	6,829.27	6,891.20	44.90	29.23	58.36	-4,006.07	-4,998.70	4,480.73	4,414.57	66.16	67.728		
8,200.00	7,063.62	6,832.57	6,894.50	46.78	29.25	58.54	-4,006.07	-4,998.86	4,397.82	4,331.01	66.81	65.828		
8,300.00	7,063.39	6,835.91	6,897.83	48.76	29.26	58.72	-4,006.06	-4,999.02	4,315.63	4,248.06	67.58	63.863		
8,400.00	7,063.16	6,839.27	6,901.19	50.83	29.28	58.90	-4,006.06	-4,999.18	4,234.21	4,165.74	68.47	61.842		
8,500.00	7,062.93	6,842.67	6,904.58	52.97	29.29	59.08	-4,006.05	-4,999.34	4,153.59	4,084.10	69.49	59.775		
8,600.00	7,062.70	6,846.09	6,908.01	55.18	29.30	59.26	-4,006.05	-4,999.51	4,073.83	4,003.19	70.64	57.671		
8,700.00	7,062.47	6,849.55	6,911.46	57.46	29.32	59.44	-4,006.04	-4,999.68	3,994.97	3,923.04	71.93	55.541		
8,800.00	7,062.24	6,853.05	6,914.95	59.78	29.33	59.62	-4,006.04	-4,999.85	3,917.08	3,843.72	73.36	53.397		
8,900.00	7,062.01	6,856.58	6,918.48	62.14	29.35	59.80	-4,006.04	-5,000.02	3,840.20	3,765.27	74.93	51.251		
9,000.00	7,061.78	6,860.14	6,922.03	64.55	29.36	59.98	-4,006.04	-5,000.20	3,764.41	3,687.76	76.65	49.113		
9,100.00	7,061.55	6,863.73	6,925.62	67.00	29.38	60.16	-4,006.04	-5,000.38	3,689.77	3,611.26	78.51	46.996		
9,200.00	7,061.31	6,867.36	6,929.25	69.47	29.40	60.34	-4,006.04	-5,000.56	3,616.35	3,535.82	80.53	44.909		
9,300.00	7,061.08	6,871.03	6,932.91	71.98	29.41	60.52	-4,006.04	-5,000.75	3,544.22	3,461.53	82.69	42.862		
9,400.00	7,060.85	6,874.73	6,936.61	74.51	29.43	60.70	-4,006.04	-5,000.93	3,473.47	3,388.47	85.00	40.863		
9,500.00	7,060.62	6,878.47	6,940.34	77.06	29.44	60.88	-4,006.05	-5,001.12	3,404.18	3,316.72	87.46	38.921		
9,600.00	7,060.39	6,882.24	6,944.11	79.64	29.46	61.06	-4,006.05	-5,001.32	3,336.44	3,246.37	90.07	37.041		
9,700.00	7,060.16	6,886.05	6,947.92	82.23	29.47	61.24	-4,006.05	-5,001.51	3,270.36	3,177.53	92.83	35.229		
9,800.00	7,059.93	6,889.90	6,951.76	84.84	29.49	61.42	-4,006.06	-5,001.71	3,206.02	3,110.29	95.73	33.489		
9,900.00	7,059.70	6,893.79	6,955.64	87.47	29.51	61.60	-4,006.07	-5,001.91	3,143.55	3,044.77	98.78	31.825		
10,000.00	7,059.47	6,900.01	6,961.86	90.11	29.53	61.78	-4,006.08	-5,002.23	3,083.05	2,981.09	101.96	30.237		
10,100.00	7,059.24	6,900.01	6,961.86	92.76	29.53	61.96	-4,006.08	-5,002.23	3,024.63	2,919.37	105.27	28.733		
10,200.00	7,059.01	6,900.01	6,961.86	95.42	29.53	62.14	-4,006.08	-5,002.23	2,968.44	2,859.74	108.70	27.309		
10,300.00	7,058.78	6,908.85	6,970.68	98.10	29.57	62.32	-4,006.10	-5,002.70	2,914.58	2,802.32	112.26	25.963		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	6,912.59	6,974.42	100.79	29.59	-88.13	-4,006.11	-5,002.90	2,863.19	2,747.27	115.92	24.699		
10,500.00	7,058.32	6,916.40	6,978.22	103.48	29.60	-88.22	-4,006.12	-5,003.11	2,814.42	2,694.74	119.68	23.516		
10,600.00	7,058.09	6,920.27	6,982.09	106.19	29.62	-88.31	-4,006.14	-5,003.32	2,768.39	2,644.87	123.52	22.413		
10,700.00	7,057.86	6,924.21	6,986.02	108.90	29.64	-88.40	-4,006.15	-5,003.53	2,725.25	2,597.83	127.42	21.387		
10,800.00	7,057.63	6,928.21	6,990.01	111.62	29.65	-88.49	-4,006.17	-5,003.75	2,685.14	2,553.76	131.38	20.438		
10,900.00	7,057.40	6,932.28	6,994.07	114.35	29.67	-88.59	-4,006.19	-5,003.98	2,648.18	2,512.82	135.36	19.563		
11,000.00	7,057.17	6,936.41	6,998.20	117.08	29.69	-88.68	-4,006.21	-5,004.21	2,614.53	2,475.17	139.36	18.761		
11,100.00	7,056.94	6,940.62	7,002.40	119.82	29.71	-88.78	-4,006.23	-5,004.44	2,584.29	2,440.96	143.34	18.029		
11,200.00	7,056.71	6,944.89	7,006.67	122.56	29.73	-88.88	-4,006.26	-5,004.69	2,557.61	2,410.33	147.28	17.366		
11,300.00	7,056.48	6,949.24	7,011.01	125.31	29.74	-88.98	-4,006.28	-5,004.94	2,534.58	2,383.42	151.16	16.768		
11,400.00	7,056.25	6,953.67	7,015.43	128.06	29.76	-89.08	-4,006.31	-5,005.19	2,515.31	2,360.36	154.94	16.234		
11,500.00	7,056.02	6,958.18	7,019.93	130.82	29.78	-89.18	-4,006.34	-5,005.46	2,499.88	2,341.26	158.62	15.760		
11,600.00	7,055.79	6,962.76	7,024.51	133.59	29.80	-89.29	-4,006.38	-5,005.73	2,488.37	2,326.22	162.16	15.346		
11,700.00	7,055.55	6,967.43	7,029.17	136.35	29.82	-89.40	-4,006.41	-5,006.00	2,480.83	2,315.30	165.53	14.987		
11,800.00	7,055.32	6,972.18	7,033.91	139.12	29.84	-89.51	-4,006.45	-5,006.29	2,477.30	2,308.57	168.72	14.683		
11,837.85	7,055.24	6,974.00	7,035.73	140.17	29.85	-89.55	-4,006.46	-5,006.40	2,477.01	2,307.13	169.88	14.581 CC		
11,900.00	7,055.09	6,977.02	7,038.74	141.90	29.86	-89.62	-4,006.49	-5,006.58	2,477.79	2,306.07	171.71	14.430 ES		
12,000.00	7,054.86	6,981.95	7,043.66	144.67	29.88	-89.73	-4,006.53	-5,006.88	2,482.29	2,307.81	174.49	14.226		
12,100.00	7,054.63	6,986.96	7,048.66	147.45	29.91	-89.85	-4,006.58	-5,007.19	2,490.80	2,313.76	177.04	14.069		
12,200.00	7,054.40	6,992.08	7,053.77	150.24	29.93	-89.97	-4,006.62	-5,007.50	2,503.27	2,323.92	179.35	13.957		
12,300.00	7,054.17	6,997.28	7,058.96	153.02	29.95	-90.09	-4,006.68	-5,007.83	2,519.63	2,338.21	181.42	13.888		
12,400.00	7,053.94	7,002.61	7,064.28	155.81	29.97	-90.21	-4,006.73	-5,008.16	2,539.81	2,356.56	183.25	13.860 SF		
12,500.00	7,053.71	7,008.00	7,069.65	158.60	30.00	-90.33	-4,006.79	-5,008.50	2,563.73	2,378.89	184.84	13.870		
12,600.00	7,053.48	7,013.38	7,075.03	161.40	30.02	-90.46	-4,006.85	-5,008.84	2,591.27	2,405.08	186.20	13.917		
12,700.00	7,053.25	7,018.77	7,080.41	164.19	30.04	-90.58	-4,006.91	-5,009.18	2,622.33	2,435.00	187.33	13.999		
12,800.00	7,053.02	7,024.17	7,085.79	166.99	30.06	-90.71	-4,006.97	-5,009.53	2,656.78	2,468.54	188.24	14.114		
12,900.00	7,052.79	7,029.57	7,091.18	169.79	30.09	-90.83	-4,007.03	-5,009.87	2,694.49	2,505.54	188.95	14.260		
13,000.00	7,052.56	7,034.98	7,096.58	172.59	30.11	-90.96	-4,007.10	-5,010.21	2,735.32	2,545.85	189.47	14.437		
13,100.00	7,052.33	7,040.39	7,101.98	175.40	30.13	-91.08	-4,007.17	-5,010.55	2,779.15	2,589.33	189.82	14.641		
13,200.00	7,052.10	7,045.80	7,107.38	178.20	30.16	-91.21	-4,007.24	-5,010.89	2,825.82	2,635.82	190.00	14.873		
13,300.00	7,051.87	7,051.22	7,112.79	181.01	30.18	-91.33	-4,007.31	-5,011.24	2,875.20	2,685.17	190.04	15.130		
13,400.00	7,051.64	7,056.65	7,118.20	183.82	30.20	-91.46	-4,007.38	-5,011.58	2,927.16	2,737.22	189.94	15.411		
13,500.00	7,051.41	7,062.08	7,123.62	186.63	30.23	-91.58	-4,007.45	-5,011.92	2,981.55	2,791.82	189.73	15.715		
13,600.00	7,051.18	7,067.51	7,129.05	189.44	30.25	-91.71	-4,007.53	-5,012.27	3,038.25	2,848.84	189.41	16.041		
13,700.00	7,050.95	7,072.95	7,134.47	192.25	30.27	-91.83	-4,007.60	-5,012.61	3,097.13	2,908.13	189.00	16.387		
13,800.00	7,050.72	7,078.40	7,139.91	195.07	30.30	-91.96	-4,007.68	-5,012.96	3,158.07	2,969.57	188.51	16.753		
13,900.00	7,050.49	7,083.84	7,145.34	197.88	30.32	-92.08	-4,007.76	-5,013.30	3,220.96	3,033.01	187.95	17.137		
14,000.00	7,050.26	7,089.30	7,150.79	200.70	30.34	-92.21	-4,007.84	-5,013.65	3,285.67	3,098.34	187.33	17.539		
14,100.00	7,050.03	7,094.76	7,156.23	203.52	30.37	-92.33	-4,007.93	-5,014.00	3,352.11	3,165.44	186.67	17.958		
14,200.00	7,049.80	7,100.25	7,161.71	206.34	30.39	-92.46	-4,008.01	-5,014.35	3,420.17	3,234.21	185.96	18.392		
14,300.00	7,049.56	7,106.38	7,167.83	209.16	30.42	-92.60	-4,008.11	-5,014.74	3,489.76	3,304.54	185.22	18.841		
14,400.00	7,049.33	7,112.51	7,173.94	211.98	30.44	-92.74	-4,008.21	-5,015.13	3,560.78	3,376.33	184.46	19.304		
14,500.00	7,049.10	7,118.64	7,180.06	214.80	30.47	-92.88	-4,008.30	-5,015.51	3,633.17	3,449.49	183.67	19.781		
14,600.00	7,048.87	7,124.77	7,186.18	217.63	30.49	-93.02	-4,008.40	-5,015.90	3,706.82	3,523.95	182.87	20.270		
14,700.00	7,048.64	7,130.90	7,192.29	220.45	30.52	-93.17	-4,008.50	-5,016.29	3,781.68	3,599.62	182.06	20.772		
14,800.00	7,048.41	7,137.02	7,198.41	223.28	30.55	-93.31	-4,008.59	-5,016.68	3,857.66	3,676.42	181.24	21.285		
14,900.00	7,048.18	7,143.15	7,204.53	226.10	30.57	-93.45	-4,008.69	-5,017.07	3,934.71	3,754.30	180.42	21.809		
14,979.18	7,048.00	7,148.01	7,209.37	228.34	30.59	-93.56	-4,008.77	-5,017.38	3,996.44	3,816.67	179.77	22.231		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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: 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	-147.33	-5,133.14	-3,291.92	6,098.44					
100.00	100.00	90.23	137.23	3.28	3.28	-147.33	-5,132.98	-3,291.79	6,097.93	6,091.36	6.57	928.429		
200.00	200.00	192.13	239.12	3.34	3.33	-147.33	-5,132.23	-3,291.60	6,097.21	6,090.54	6.67	914.715		
300.00	299.98	263.40	310.39	3.44	3.39	26.61	-5,131.72	-3,291.81	6,095.22	6,088.39	6.83	891.992		
400.00	399.84	354.18	401.18	3.59	3.51	26.68	-5,131.63	-3,291.93	6,090.52	6,083.42	7.10	857.258		
500.00	499.45	1,500.00	1,533.17	3.79	7.65	28.29	-4,987.03	-3,323.46	6,067.78	6,056.44	11.34	535.161		
600.00	598.70	1,560.23	1,591.83	4.03	7.97	28.68	-4,973.56	-3,325.69	6,040.55	6,028.71	11.84	510.026		
700.00	697.47	1,643.42	1,672.85	4.31	8.43	29.18	-4,955.00	-3,329.23	6,010.78	5,998.27	12.51	480.667		
800.00	795.62	1,700.00	1,727.95	4.64	8.74	29.66	-4,942.44	-3,331.90	5,978.54	5,965.47	13.07	457.346		
900.00	893.16	1,820.08	1,844.92	5.00	9.41	30.18	-4,915.92	-3,337.74	5,944.09	5,930.10	13.99	424.795		
1,000.00	990.60	1,909.97	1,932.39	5.38	9.93	30.44	-4,895.67	-3,342.14	5,909.04	5,894.26	14.78	399.835		
1,100.00	1,088.04	2,000.14	2,019.86	5.79	10.46	30.70	-4,875.41	-3,346.53	5,874.11	5,858.51	15.59	376.720		
1,200.00	1,185.48	2,089.76	2,107.33	6.22	10.98	30.97	-4,855.15	-3,350.92	5,839.29	5,822.87	16.43	355.471		
1,300.00	1,282.92	2,179.65	2,194.80	6.66	11.52	31.23	-4,834.90	-3,355.31	5,804.60	5,787.32	17.28	335.874		
1,400.00	1,380.36	2,269.54	2,282.28	7.10	12.05	31.51	-4,814.64	-3,359.71	5,770.03	5,751.88	18.15	317.836		
1,500.00	1,477.80	2,359.44	2,369.75	7.56	12.59	31.78	-4,794.38	-3,364.10	5,735.59	5,716.55	19.04	301.225		
1,600.00	1,575.24	2,454.68	2,457.22	8.03	13.17	32.06	-4,774.13	-3,368.49	5,701.28	5,681.31	19.97	285.498		
1,700.00	1,672.68	2,539.23	2,544.69	8.50	13.68	32.34	-4,753.87	-3,372.88	5,667.10	5,646.25	20.85	271.781		
1,800.00	1,770.12	2,629.12	2,632.16	8.98	14.23	32.63	-4,733.61	-3,377.28	5,633.05	5,611.28	21.77	258.716		
1,900.00	1,867.56	2,719.01	2,719.63	9.46	14.78	32.91	-4,713.36	-3,381.67	5,599.14	5,576.43	22.70	246.619		
2,000.00	1,965.00	2,808.91	2,807.10	9.95	15.33	33.20	-4,693.10	-3,386.06	5,565.36	5,541.72	23.64	235.396		
2,100.00	2,062.44	2,901.20	2,894.58	10.44	15.90	33.50	-4,672.84	-3,390.45	5,531.73	5,507.13	24.60	224.844		
2,200.00	2,159.88	2,988.69	2,982.05	10.93	16.44	33.79	-4,652.59	-3,394.85	5,498.24	5,472.70	25.54	215.255		
2,300.00	2,257.32	3,078.59	3,069.52	11.42	17.00	34.09	-4,632.33	-3,399.24	5,464.90	5,438.39	26.50	206.198		
2,400.00	2,354.76	3,168.48	3,156.99	11.92	17.55	34.40	-4,612.07	-3,403.63	5,431.70	5,404.23	27.47	197.735		
2,500.00	2,452.20	3,258.38	3,244.46	12.42	18.11	34.71	-4,591.82	-3,408.03	5,398.66	5,370.21	28.44	189.813		
2,600.00	2,549.64	3,355.74	3,331.93	12.92	18.72	35.02	-4,571.56	-3,412.42	5,365.77	5,336.30	29.46	182.124		
2,700.00	2,647.08	3,438.16	3,419.40	13.42	19.23	35.33	-4,551.31	-3,416.81	5,333.03	5,302.63	30.40	175.413		
2,800.00	2,744.52	3,528.06	3,506.88	13.93	19.79	35.65	-4,531.05	-3,421.20	5,300.46	5,269.07	31.39	168.854		
2,900.00	2,841.96	3,617.95	3,594.35	14.43	20.36	35.97	-4,510.79	-3,425.60	5,268.05	5,235.67	32.38	162.675		
3,000.00	2,939.40	3,707.84	3,681.82	14.94	20.92	36.29	-4,490.54	-3,429.99	5,235.80	5,202.42	33.38	156.848		
3,100.00	3,036.84	3,802.26	3,769.29	15.44	21.51	36.62	-4,470.28	-3,434.38	5,203.73	5,169.32	34.41	151.229		
3,200.00	3,134.28	10,701.94	7,244.66	15.95	120.26	-11.33	-3,651.96	18.71	5,121.19	5,032.31	88.88	57.621		
3,300.00	3,231.72	10,693.89	7,244.73	16.46	120.01	-11.21	-3,651.97	14.54	5,029.85	4,940.28	89.57	56.155		
3,400.00	3,329.16	10,689.72	7,244.81	16.97	119.87	-11.10	-3,651.99	10.37	4,938.84	4,848.46	90.38	54.647		
3,500.00	3,426.60	10,685.55	7,244.88	17.48	119.74	-10.98	-3,652.00	6.20	4,848.19	4,756.97	91.22	53.148		
3,600.00	3,524.04	10,681.37	7,244.95	17.99	119.61	-10.87	-3,652.01	2.03	4,757.90	4,665.80	92.10	51.661		
3,700.00	3,621.48	10,677.20	7,245.03	18.50	119.48	-10.75	-3,652.03	-2.15	4,668.01	4,574.99	93.02	50.185		
3,800.00	3,718.92	10,673.03	7,245.10	19.01	119.34	-10.64	-3,652.04	-6.32	4,578.53	4,484.56	93.97	48.723		
3,900.00	3,816.36	10,668.86	7,245.17	19.52	119.21	-10.52	-3,652.06	-10.49	4,489.49	4,394.53	94.96	47.276		
4,000.00	3,913.80	10,664.68	7,245.25	20.03	119.08	-10.41	-3,652.07	-14.66	4,400.92	4,304.93	96.00	45.844		
4,100.00	4,011.24	10,660.51	7,245.32	20.55	118.95	-10.29	-3,652.08	-18.83	4,312.85	4,215.78	97.07	44.429		
4,200.00	4,108.68	10,656.34	7,245.39	21.06	118.82	-10.17	-3,652.10	-23.00	4,225.30	4,127.11	98.19	43.032		
4,300.00	4,206.12	10,652.17	7,245.47	21.57	118.68	-10.06	-3,652.11	-27.18	4,138.31	4,038.96	99.35	41.653		
4,400.00	4,303.56	10,648.00	7,245.54	22.09	118.55	-9.94	-3,652.13	-31.35	4,051.92	3,951.37	100.56	40.295		
4,500.00	4,401.00	10,643.82	7,245.61	22.60	118.42	-9.83	-3,652.14	-35.52	3,966.17	3,864.36	101.81	38.957		
4,600.00	4,498.44	10,639.65	7,245.69	23.11	118.29	-9.71	-3,652.15	-39.69	3,881.09	3,777.98	103.11	37.642		
4,700.00	4,595.88	10,635.48	7,245.76	23.63	118.16	-9.60	-3,652.17	-43.86	3,796.73	3,692.28	104.45	36.349		
4,800.00	4,693.32	10,631.31	7,245.83	24.14	118.02	-9.48	-3,652.18	-48.03	3,713.15	3,607.30	105.85	35.081		
4,900.00	4,790.76	10,627.13	7,245.91	24.66	117.89	-9.37	-3,652.20	-52.21	3,630.39	3,523.10	107.29	33.838		
5,000.00	4,888.20	10,622.96	7,245.98	25.17	117.76	-9.25	-3,652.21	-56.38	3,548.52	3,439.74	108.78	32.621		
5,100.00	4,985.64	10,618.79	7,246.05	25.69	117.63	-9.13	-3,652.22	-60.55	3,467.59	3,357.27	110.32	31.431		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	
5,200.00	5,083.08	10,614.62	7,246.13	26.20	117.50	-9.02	-3,652.24	-64.72	3,387.67	3,275.76	111.91	30.270	
5,300.00	5,180.52	10,610.44	7,246.20	26.72	117.37	-8.90	-3,652.25	-68.89	3,308.84	3,195.29	113.55	29.139	
5,400.00	5,277.96	10,606.27	7,246.27	27.24	117.23	-8.79	-3,652.27	-73.06	3,231.18	3,115.94	115.24	28.038	
5,500.00	5,375.40	10,602.10	7,246.35	27.75	117.10	-8.67	-3,652.28	-77.24	3,154.77	3,037.79	116.98	26.968	
5,600.00	5,472.84	10,602.07	7,246.42	28.27	117.10	-8.56	-3,652.29	-81.41	3,079.71	2,960.84	118.87	25.908	
5,700.00	5,570.28	10,593.76	7,246.49	28.79	116.84	-8.44	-3,652.31	-85.58	3,006.09	2,885.51	120.58	24.929	
5,800.00	5,667.72	10,589.58	7,246.57	29.30	116.71	-8.32	-3,652.32	-89.75	2,934.03	2,811.58	122.45	23.962	
5,900.00	5,765.16	10,585.41	7,246.64	29.82	116.57	-8.21	-3,652.33	-93.92	2,863.64	2,739.30	124.34	23.031	
6,000.00	5,862.60	10,581.24	7,246.71	30.34	116.44	-8.09	-3,652.35	-98.09	2,795.05	2,668.80	126.26	22.138	
6,100.00	5,960.05	10,577.07	7,246.79	30.85	116.31	-7.98	-3,652.36	-102.27	2,728.40	2,600.20	128.20	21.283	
6,200.00	6,057.49	10,572.89	7,246.86	31.37	116.18	-7.86	-3,652.38	-106.44	2,663.83	2,533.68	130.14	20.468	
6,300.00	6,154.93	10,568.72	7,246.93	31.89	116.05	-7.74	-3,652.39	-110.61	2,601.49	2,469.40	132.09	19.695	
6,400.00	6,252.37	10,564.55	7,247.01	32.40	115.92	-7.63	-3,652.40	-114.78	2,541.55	2,407.54	134.01	18.965	
6,500.00	6,349.81	10,560.38	7,247.08	32.92	115.78	-7.51	-3,652.42	-118.95	2,484.19	2,348.28	135.91	18.278	
6,600.00	6,447.25	10,556.20	7,247.15	33.44	115.65	-7.40	-3,652.43	-123.12	2,429.58	2,291.83	137.75	17.637	
6,700.00	6,544.28	10,546.15	7,247.33	33.95	115.33	-40.52	-3,652.47	-133.18	2,378.14	2,238.80	139.34	17.067	
6,800.00	6,638.86	10,520.81	7,247.78	34.44	114.54	-63.37	-3,652.55	-158.52	2,331.02	2,190.71	140.31	16.614	
6,900.00	6,728.65	10,480.66	7,248.48	34.89	113.27	-76.07	-3,652.68	-198.66	2,289.17	2,148.56	140.61	16.280	
7,000.00	6,811.45	10,426.70	7,249.43	35.29	111.57	-83.66	-3,652.86	-252.61	2,253.19	2,112.93	140.26	16.064	
7,100.00	6,885.21	10,356.74	7,250.53	35.66	109.38	-88.33	-3,653.10	-322.56	2,223.30	2,084.11	139.19	15.973	
7,200.00	6,948.11	10,277.62	7,250.62	35.99	106.90	-91.27	-3,653.36	-401.68	2,199.32	2,061.61	137.71	15.971	
7,300.00	6,998.62	10,192.25	7,250.62	36.30	104.24	-93.11	-3,653.65	-487.05	2,181.17	2,045.18	136.00	16.039	
7,400.00	7,035.48	10,099.81	7,250.62	36.65	101.37	-94.19	-3,653.96	-579.49	2,168.52	2,034.44	134.08	16.174	
7,500.00	7,057.79	10,002.59	7,250.62	37.13	98.36	-94.75	-3,654.28	-676.71	2,161.02	2,028.93	132.09	16.361	
7,600.00	7,065.00	9,902.97	7,250.62	37.84	95.30	-94.93	-3,654.61	-776.32	2,158.42	2,028.31	130.11	16.589 ES	
7,700.00	7,064.77	9,802.97	7,250.62	38.82	92.24	-94.94	-3,654.95	-876.32	2,158.18	2,029.91	128.27	16.826	
7,800.00	7,064.54	9,702.97	7,250.62	40.06	89.20	-94.95	-3,655.28	-976.32	2,157.94	2,031.32	126.61	17.043	
7,900.00	7,064.31	9,602.97	7,250.62	41.52	86.19	-94.95	-3,655.62	-1,076.32	2,157.69	2,032.56	125.13	17.243	
8,000.00	7,064.08	9,502.97	7,250.62	43.14	83.20	-94.96	-3,655.95	-1,176.32	2,157.45	2,033.64	123.81	17.425	
8,100.00	7,063.85	9,402.97	7,250.62	44.90	80.23	-94.97	-3,656.28	-1,276.32	2,157.20	2,034.57	122.64	17.590	
8,200.00	7,063.62	9,302.97	7,250.62	46.78	77.30	-94.97	-3,656.62	-1,376.32	2,156.96	2,035.37	121.59	17.740	
8,300.00	7,063.39	9,202.98	7,250.62	48.76	74.40	-94.98	-3,656.95	-1,476.32	2,156.72	2,036.05	120.67	17.873	
8,400.00	7,063.16	9,102.98	7,250.62	50.83	71.54	-94.99	-3,657.29	-1,576.32	2,156.47	2,036.61	119.86	17.991	
8,500.00	7,062.93	9,002.98	7,250.62	52.97	68.73	-94.99	-3,657.62	-1,676.31	2,156.23	2,037.06	119.17	18.094	
8,600.00	7,062.70	8,902.98	7,250.62	55.18	65.96	-95.00	-3,657.95	-1,776.31	2,155.99	2,037.41	118.58	18.182	
8,700.00	7,062.47	8,802.98	7,250.62	57.46	63.26	-95.01	-3,658.29	-1,876.31	2,155.74	2,037.65	118.09	18.255	
8,800.00	7,062.24	8,702.98	7,250.62	59.78	60.62	-95.01	-3,658.62	-1,976.31	2,155.50	2,037.79	117.71	18.312	
8,900.00	7,062.01	8,602.98	7,250.62	62.14	58.07	-95.02	-3,658.96	-2,076.31	2,155.25	2,037.81	117.44	18.352	
9,000.00	7,061.78	8,502.98	7,250.62	64.55	55.61	-95.03	-3,659.29	-2,176.31	2,155.01	2,037.73	117.28	18.375	
9,100.00	7,061.55	8,402.98	7,250.62	67.00	53.26	-95.03	-3,659.62	-2,276.31	2,154.77	2,037.53	117.24	18.379	
9,200.00	7,061.31	8,302.98	7,250.62	69.47	51.06	-95.04	-3,659.96	-2,376.31	2,154.52	2,037.20	117.33	18.363	
9,300.00	7,061.08	8,202.98	7,250.62	71.98	49.04	-95.05	-3,660.29	-2,476.30	2,154.28	2,036.72	117.56	18.325	
9,400.00	7,060.85	8,102.98	7,250.62	74.51	47.26	-95.05	-3,660.63	-2,576.30	2,154.04	2,036.10	117.94	18.264	
9,500.00	7,060.62	8,002.98	7,250.62	77.06	45.77	-95.06	-3,660.96	-2,676.30	2,153.79	2,035.30	118.49	18.176	
9,600.00	7,060.39	7,902.98	7,250.62	79.64	44.63	-95.07	-3,661.29	-2,776.30	2,153.55	2,034.30	119.25	18.060	
9,700.00	7,060.16	7,802.98	7,250.62	82.23	43.84	-95.07	-3,661.63	-2,876.30	2,153.31	2,033.10	120.21	17.913	
9,781.31	7,059.98	7,726.92	7,250.53	84.35	43.45	-95.08	-3,661.90	-2,952.37	2,153.13	2,031.86	121.26	17.756 CC	
9,800.00	7,059.93	7,714.20	7,250.19	84.84	43.40	-95.07	-3,662.02	-2,965.08	2,153.15	2,031.55	121.61	17.706	
9,900.00	7,059.70	7,646.70	7,244.24	87.47	43.16	-94.91	-3,663.63	-3,032.26	2,154.19	2,030.67	123.52	17.440	
10,000.00	7,059.47	7,581.18	7,231.88	90.11	42.98	-94.58	-3,666.71	-3,096.51	2,156.80	2,031.25	125.55	17.179	
10,100.00	7,059.24	7,518.83	7,214.20	92.76	42.85	-94.11	-3,671.00	-3,156.11	2,161.16	2,033.46	127.70	16.924	
10,200.00	7,059.01	7,460.53	7,192.60	95.42	42.73	-93.53	-3,676.19	-3,210.00	2,167.51	2,037.57	129.94	16.681	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.78	7,400.00	7,165.20	98.10	42.61	-92.80	-3,682.72	-3,263.55	2,176.11	2,043.92	132.18	16.463		
10,400.00	7,058.55	7,352.01	7,140.03	100.79	42.51	-92.13	-3,688.69	-3,303.95	2,187.18	2,052.69	134.50	16.262		
10,500.00	7,058.32	7,313.28	7,117.59	103.48	42.42	-91.54	-3,693.99	-3,335.07	2,200.98	2,064.19	136.79	16.091		
10,600.00	7,058.09	7,273.22	7,092.49	106.19	42.32	-90.88	-3,699.91	-3,365.71	2,217.71	2,078.74	138.98	15.957		
10,700.00	7,057.86	7,237.19	7,068.36	108.90	42.23	-90.25	-3,705.59	-3,391.84	2,237.52	2,096.46	141.06	15.862		
10,800.00	7,057.63	7,204.82	7,045.47	111.62	42.15	-89.65	-3,710.97	-3,414.09	2,260.52	2,117.49	143.02	15.805		
10,900.00	7,057.40	7,175.71	7,023.97	114.35	42.06	-89.09	-3,716.01	-3,433.05	2,286.75	2,141.90	144.85	15.787 SF		
11,000.00	7,057.17	7,152.01	7,005.86	117.08	41.99	-88.62	-3,720.26	-3,447.73	2,316.25	2,169.71	146.53	15.807		
11,100.00	7,056.94	7,125.85	6,985.26	119.82	41.90	-88.09	-3,725.08	-3,463.12	2,348.99	2,200.92	148.06	15.865		
11,200.00	7,056.71	7,100.00	6,964.32	122.56	41.82	-87.55	-3,729.99	-3,477.46	2,384.94	2,235.51	149.43	15.960		
11,300.00	7,056.48	7,085.08	6,951.98	125.31	41.76	-87.24	-3,732.87	-3,485.33	2,424.01	2,273.35	150.66	16.089		
11,400.00	7,056.25	7,067.46	6,937.17	128.06	41.70	-86.86	-3,736.33	-3,494.25	2,466.14	2,314.40	151.74	16.252		
11,500.00	7,056.02	7,052.01	6,924.01	130.82	41.65	-86.53	-3,739.41	-3,501.71	2,511.21	2,358.53	152.68	16.448		
11,600.00	7,055.79	7,036.68	6,910.77	133.59	41.59	-86.19	-3,742.50	-3,508.80	2,559.11	2,405.63	153.48	16.673		
11,700.00	7,055.55	7,010.76	6,888.02	136.35	41.48	-85.62	-3,747.81	-3,520.02	2,609.82	2,455.65	154.16	16.929		
11,800.00	7,055.32	7,010.76	6,888.02	139.12	41.48	-85.62	-3,747.81	-3,520.02	2,662.91	2,508.19	154.72	17.211		
11,900.00	7,055.09	7,000.00	6,878.45	141.90	41.44	-85.38	-3,750.04	-3,524.40	2,718.56	2,563.39	155.17	17.520		
12,000.00	7,054.86	7,000.00	6,878.45	144.67	41.44	-85.38	-3,750.04	-3,524.40	2,776.62	2,621.11	155.51	17.854		
12,100.00	7,054.63	6,979.03	6,859.59	147.45	41.35	-84.91	-3,754.44	-3,532.46	2,836.71	2,680.92	155.79	18.209		
12,200.00	7,054.40	6,969.93	6,851.34	150.24	41.31	-84.70	-3,756.36	-3,535.75	2,898.97	2,743.00	155.97	18.587		
12,300.00	7,054.17	6,952.01	6,834.94	153.02	41.23	-84.30	-3,760.18	-3,541.88	2,963.25	2,807.17	156.08	18.985		
12,400.00	7,053.94	6,952.01	6,834.94	155.81	41.23	-84.30	-3,760.18	-3,541.88	3,029.26	2,873.14	156.12	19.404		
12,500.00	7,053.71	6,952.01	6,834.94	158.60	41.23	-84.30	-3,760.18	-3,541.88	3,097.08	2,941.00	156.09	19.842		
12,600.00	7,053.48	6,952.01	6,834.94	161.40	41.23	-84.30	-3,760.18	-3,541.88	3,166.62	3,010.61	156.01	20.298		
12,700.00	7,053.25	6,952.01	6,834.94	164.19	41.23	-84.30	-3,760.18	-3,541.88	3,237.74	3,081.87	155.88	20.771		
12,800.00	7,053.02	6,926.71	6,811.51	166.99	41.11	-83.72	-3,765.64	-3,549.73	3,309.88	3,154.12	155.76	21.250		
12,900.00	7,052.79	6,920.97	6,806.16	169.79	41.08	-83.59	-3,766.89	-3,551.38	3,383.65	3,228.08	155.57	21.750		
13,000.00	7,052.56	6,900.00	6,786.47	172.59	40.98	-83.11	-3,771.47	-3,556.97	3,458.88	3,303.50	155.38	22.261		
13,100.00	7,052.33	6,900.00	6,786.47	175.40	40.98	-83.11	-3,771.47	-3,556.97	3,535.01	3,379.89	155.13	22.788		
13,200.00	7,052.10	6,900.00	6,786.47	178.20	40.98	-83.11	-3,771.47	-3,556.97	3,612.31	3,457.46	154.85	23.327		
13,300.00	7,051.87	6,900.00	6,786.47	181.01	40.98	-83.11	-3,771.47	-3,556.97	3,690.70	3,536.14	154.56	23.878		
13,400.00	7,051.64	6,900.00	6,786.47	183.82	40.98	-83.11	-3,771.47	-3,556.97	3,770.11	3,615.85	154.26	24.440		
13,500.00	7,051.41	6,900.00	6,786.47	186.63	40.98	-83.11	-3,771.47	-3,556.97	3,850.48	3,696.54	153.94	25.013		
13,600.00	7,051.18	6,900.00	6,786.47	189.44	40.98	-83.11	-3,771.47	-3,556.97	3,931.75	3,778.14	153.61	25.596		
13,700.00	7,050.95	6,900.00	6,786.47	192.25	40.98	-83.11	-3,771.47	-3,556.97	4,013.87	3,860.60	153.27	26.188		
13,800.00	7,050.72	6,900.00	6,786.47	195.07	40.98	-83.11	-3,771.47	-3,556.97	4,096.78	3,943.85	152.93	26.789		
13,900.00	7,050.49	6,877.96	6,765.60	197.88	40.87	-82.60	-3,776.32	-3,562.13	4,180.06	4,027.42	152.64	27.386		
14,000.00	7,050.26	6,874.72	6,762.52	200.70	40.85	-82.52	-3,777.04	-3,562.83	4,264.30	4,112.00	152.30	28.000		
14,100.00	7,050.03	6,852.01	6,740.83	203.52	40.74	-82.00	-3,782.08	-3,567.25	4,349.50	4,197.51	151.99	28.617		
14,200.00	7,049.80	6,852.01	6,740.83	206.34	40.74	-82.00	-3,782.08	-3,567.25	4,434.92	4,283.28	151.64	29.246		
14,300.00	7,049.56	6,852.01	6,740.83	209.16	40.74	-82.00	-3,782.08	-3,567.25	4,520.94	4,369.64	151.30	29.881		
14,400.00	7,049.33	6,852.01	6,740.83	211.98	40.74	-82.00	-3,782.08	-3,567.25	4,607.52	4,456.57	150.95	30.523		
14,500.00	7,049.10	6,852.01	6,740.83	214.80	40.74	-82.00	-3,782.08	-3,567.25	4,694.64	4,544.03	150.61	31.171		
14,600.00	7,048.87	6,852.01	6,740.83	217.63	40.74	-82.00	-3,782.08	-3,567.25	4,782.26	4,631.99	150.27	31.824		
14,700.00	7,048.64	6,852.01	6,740.83	220.45	40.74	-82.00	-3,782.08	-3,567.25	4,870.36	4,720.43	149.93	32.483		
14,800.00	7,048.41	6,852.01	6,740.83	223.28	40.74	-82.00	-3,782.08	-3,567.25	4,958.91	4,809.31	149.60	33.147		
14,900.00	7,048.18	6,852.01	6,740.83	226.10	40.74	-82.00	-3,782.08	-3,567.25	5,047.89	4,898.62	149.27	33.816		
14,979.18	7,048.00	6,852.01	6,740.83	228.34	40.74	-82.00	-3,782.08	-3,567.25	5,118.63	4,969.62	149.02	34.349		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-147.23	-5,113.10	-3,291.92	6,081.59					
100.00	100.00	1,193.89	1,225.04	3.28	6.71	-146.18	-4,958.95	-3,322.08	6,073.98	6,064.06	9.92	612.264		
200.00	200.00	1,300.47	1,327.74	3.34	7.33	-145.98	-4,931.20	-3,328.69	6,055.47	6,044.97	10.50	576.717		
300.00	299.98	1,418.80	1,441.82	3.44	8.04	28.36	-4,900.37	-3,334.91	6,034.97	6,023.76	11.21	538.399		
400.00	399.84	1,521.78	1,541.30	3.59	8.67	28.79	-4,874.17	-3,339.46	6,011.65	5,999.76	11.89	505.633		
500.00	499.45	1,600.00	1,616.92	3.79	9.15	29.23	-4,854.40	-3,342.47	5,985.29	5,972.81	12.48	479.541		
600.00	598.70	1,662.67	1,677.64	4.03	9.54	29.66	-4,839.07	-3,344.81	5,956.61	5,943.58	13.03	457.192		
700.00	697.47	1,817.89	1,827.73	4.31	10.51	30.41	-4,800.01	-3,351.26	5,924.87	5,910.73	14.13	419.209		
800.00	795.62	1,907.65	1,914.25	4.64	11.09	31.05	-4,776.52	-3,355.43	5,889.83	5,874.91	14.92	394.726		
900.00	893.16	1,996.04	1,999.46	5.00	11.67	31.54	-4,753.39	-3,359.53	5,852.48	5,836.75	15.73	371.985		
1,000.00	990.60	2,084.23	2,084.48	5.38	12.25	31.83	-4,730.30	-3,363.63	5,814.93	5,798.37	16.56	351.214		
1,100.00	1,088.04	2,172.43	2,169.50	5.79	12.83	32.12	-4,707.22	-3,367.72	5,777.52	5,760.12	17.41	331.928		
1,200.00	1,185.48	2,260.62	2,254.53	6.22	13.42	32.41	-4,684.13	-3,371.82	5,740.26	5,721.98	18.28	314.065		
1,300.00	1,282.92	2,348.82	2,339.55	6.66	14.01	32.71	-4,661.05	-3,375.92	5,703.14	5,683.97	19.17	297.538		
1,400.00	1,380.36	2,437.01	2,424.57	7.10	14.60	33.01	-4,637.97	-3,380.01	5,666.17	5,646.09	20.07	282.252		
1,500.00	1,477.80	2,525.20	2,509.59	7.56	15.19	33.32	-4,614.88	-3,384.11	5,629.35	5,608.35	21.00	268.108		
1,600.00	1,575.24	2,613.40	2,594.61	8.03	15.78	33.62	-4,591.80	-3,388.20	5,592.68	5,570.75	21.93	255.010		
1,700.00	1,672.68	2,701.59	2,679.63	8.50	16.37	33.94	-4,568.72	-3,392.30	5,556.18	5,533.30	22.88	242.867		
1,800.00	1,770.12	2,789.79	2,764.65	8.98	16.97	34.25	-4,545.63	-3,396.39	5,519.83	5,496.00	23.83	231.593		
1,900.00	1,867.56	2,877.98	2,849.67	9.46	17.57	34.57	-4,522.55	-3,400.49	5,483.65	5,458.85	24.80	221.111		
2,000.00	1,965.00	2,966.17	2,934.69	9.95	18.16	34.89	-4,499.47	-3,404.59	5,447.64	5,421.86	25.78	211.350		
2,100.00	2,062.44	3,054.37	3,019.71	10.44	18.76	35.22	-4,476.38	-3,408.68	5,411.79	5,385.04	26.76	202.245		
2,200.00	2,159.88	3,142.56	3,104.73	10.93	19.36	35.55	-4,453.30	-3,412.78	5,376.13	5,348.38	27.75	193.739		
2,300.00	2,257.32	3,230.76	3,189.76	11.42	20.02	35.89	-4,430.21	-3,416.87	5,340.64	5,311.84	28.80	185.447		
2,400.00	2,354.76	3,318.95	3,274.78	11.92	20.56	36.22	-4,407.13	-3,420.97	5,305.33	5,275.58	29.75	178.318		
2,500.00	2,452.20	3,407.14	3,359.80	12.42	21.17	36.57	-4,384.05	-3,425.06	5,270.20	5,239.44	30.76	171.315		
2,600.00	2,549.64	3,495.34	3,444.82	12.92	21.77	36.91	-4,360.96	-3,429.16	5,235.27	5,203.49	31.78	164.731		
2,700.00	2,647.08	3,583.53	3,529.84	13.42	22.37	37.27	-4,337.88	-3,433.26	5,200.53	5,167.72	32.80	158.533		
2,800.00	2,744.52	3,671.73	3,614.86	13.93	22.97	37.62	-4,314.80	-3,437.35	5,165.98	5,132.15	33.83	152.689		
2,900.00	2,841.96	3,759.92	3,699.95	14.43	23.57	37.97	-4,291.72	-3,441.44	5,131.44	5,096.62	34.86	147.000		
3,000.00	2,939.40	3,848.11	3,787.07	14.94	24.17	38.32	-4,268.63	-3,445.53	5,096.91	5,061.11	35.89	141.500		
3,100.00	3,036.84	3,936.30	3,874.22	15.44	24.77	38.67	-4,245.53	-3,449.62	5,062.40	5,025.60	36.92	136.100		
3,200.00	3,134.28	4,024.49	3,961.36	15.95	25.37	39.02	-4,222.43	-3,453.71	5,027.89	5,000.09	37.95	130.700		
3,300.00	3,231.72	4,112.68	4,048.42	16.46	25.97	39.37	-4,199.32	-3,457.80	4,993.38	4,973.58	38.98	125.300		
3,400.00	3,329.16	4,200.87	4,135.48	16.97	26.57	39.72	-4,176.22	-3,461.89	4,958.87	4,938.07	39.99	119.900		
3,500.00	3,426.60	4,289.06	4,222.54	17.48	27.17	40.07	-4,153.11	-3,465.98	4,924.36	4,902.56	40.99	114.500		
3,600.00	3,524.04	4,377.25	4,309.60	17.99	27.77	40.42	-4,130.00	-3,470.07	4,889.85	4,867.05	41.99	109.100		
3,700.00	3,621.48	4,465.44	4,396.66	18.50	28.37	40.77	-4,106.89	-3,474.16	4,855.34	4,833.14	42.99	103.700		
3,800.00	3,718.92	4,553.63	4,483.71	19.01	28.97	41.12	-4,083.78	-3,478.25	4,820.83	4,800.63	43.99	98.300		
3,900.00	3,816.36	4,641.82	4,570.76	19.52	29.57	41.47	-4,060.67	-3,482.34	4,786.32	4,765.12	44.99	92.900		
4,000.00	3,913.80	4,730.01	4,657.81	20.03	30.17	41.82	-4,037.56	-3,486.43	4,751.81	4,730.61	45.99	87.500		
4,100.00	4,011.24	4,818.20	4,744.86	20.55	30.77	42.17	-4,014.45	-3,490.52	4,717.30	4,694.10	46.99	82.100		
4,200.00	4,108.68	4,906.39	4,831.91	21.06	31.37	42.52	-3,991.34	-3,494.61	4,682.79	4,659.59	47.99	76.700		
4,300.00	4,206.12	4,994.58	4,918.96	21.57	31.97	42.87	-3,968.23	-3,498.70	4,648.28	4,624.08	48.99	71.300		
4,400.00	4,303.56	5,082.77	5,006.01	22.09	32.57	43.22	-3,945.12	-3,502.79	4,613.77	4,588.57	49.99	65.900		
4,500.00	4,401.00	5,170.96	5,093.06	22.60	33.17	43.57	-3,922.01	-3,506.88	4,579.26	4,553.06	50.99	60.500		
4,600.00	4,498.44	5,259.15	5,179.11	23.11	33.77	43.92	-3,898.90	-3,510.97	4,544.75	4,517.55	51.99	55.100		
4,700.00	4,595.88	5,347.34	5,267.16	23.63	34.37	44.27	-3,875.79	-3,515.06	4,510.24	4,481.04	52.99	49.700		
4,800.00	4,693.32	5,435.53	5,355.21	24.14	34.97	44.62	-3,852.68	-3,519.15	4,475.73	4,445.53	53.99	44.300		
4,900.00	4,790.76	5,523.72	5,443.26	24.66	35.57	44.97	-3,829.57	-3,523.24	4,441.22	4,410.02	54.99	38.900		
5,000.00	4,888.20	5,611.91	5,531.31	25.17	36.17	45.32	-3,806.46	-3,527.33	4,406.71	4,374.51	55.99	33.500		
5,100.00	4,985.64	5,700.10	5,619.36	25.69	36.77	45.67	-3,783.35	-3,531.42	4,372.20	4,340.00	56.99	28.100		

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 12N-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 12N-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		
5,200.00	5,083.08	10,427.05	7,076.90	26.20	116.07	-7.52	-3,388.89	-119.26	3,076.87	2,966.68	110.18	27.926		
5,300.00	5,180.52	10,424.82	7,076.90	26.72	116.00	-7.45	-3,388.88	-121.49	2,997.29	2,885.31	111.97	26.768		
5,400.00	5,277.96	10,422.58	7,076.89	27.24	115.93	-7.38	-3,388.88	-123.73	2,918.96	2,805.14	113.83	25.644		
5,500.00	5,375.40	10,420.35	7,076.89	27.75	115.86	-7.31	-3,388.87	-125.96	2,842.00	2,726.26	115.73	24.556		
5,600.00	5,472.84	10,418.12	7,076.89	28.27	115.79	-7.24	-3,388.87	-128.19	2,766.51	2,648.81	117.70	23.505		
5,700.00	5,570.28	10,415.89	7,076.89	28.79	115.72	-7.18	-3,388.86	-130.42	2,692.61	2,572.89	119.72	22.492		
5,800.00	5,667.72	10,413.66	7,076.89	29.30	115.64	-7.11	-3,388.85	-132.65	2,620.44	2,498.66	121.78	21.518		
5,900.00	5,765.16	10,411.42	7,076.88	29.82	115.57	-7.04	-3,388.85	-134.88	2,550.15	2,426.27	123.88	20.586		
6,000.00	5,862.60	10,409.19	7,076.88	30.34	115.50	-6.97	-3,388.84	-137.12	2,481.90	2,355.89	126.01	19.696		
6,100.00	5,960.05	10,406.96	7,076.88	30.85	115.43	-6.90	-3,388.84	-139.35	2,415.86	2,287.70	128.16	18.850		
6,200.00	6,057.49	10,404.73	7,076.88	31.37	115.36	-6.83	-3,388.83	-141.58	2,352.22	2,221.91	130.31	18.050		
6,300.00	6,154.93	10,402.50	7,076.87	31.89	115.29	-6.76	-3,388.83	-143.81	2,291.17	2,158.72	132.45	17.298		
6,400.00	6,252.37	10,400.27	7,076.87	32.40	115.22	-6.69	-3,388.82	-146.04	2,232.93	2,098.37	134.56	16.594		
6,500.00	6,349.81	10,398.03	7,076.87	32.92	115.15	-6.62	-3,388.82	-148.27	2,177.73	2,041.12	136.61	15.942		
6,600.00	6,447.25	10,395.80	7,076.87	33.44	115.08	-6.55	-3,388.81	-150.51	2,125.79	1,987.22	138.57	15.341		
6,700.00	6,544.28	10,387.68	7,076.86	33.95	114.83	-39.32	-3,388.79	-158.63	2,077.51	1,937.29	140.22	14.816		
6,800.00	6,638.86	10,364.22	7,076.84	34.44	114.09	-61.71	-3,388.73	-182.09	2,033.91	1,892.71	141.20	14.404		
6,900.00	6,728.65	10,325.86	7,076.80	34.89	112.89	-73.90	-3,388.64	-220.45	1,995.86	1,854.41	141.46	14.109		
7,000.00	6,811.45	10,273.54	7,076.75	35.29	111.25	-80.97	-3,388.51	-272.77	1,963.81	1,822.81	141.00	13.928		
7,100.00	6,885.21	10,208.55	7,076.68	35.66	109.22	-85.18	-3,388.35	-337.76	1,937.80	1,797.88	139.92	13.850		
7,200.00	6,948.11	10,137.55	7,076.61	35.99	107.01	-87.66	-3,388.16	-413.81	1,917.52	1,779.02	138.49	13.846 SF		
7,300.00	6,998.62	10,047.24	7,076.52	36.30	104.21	-89.07	-3,387.95	-499.06	1,902.46	1,766.04	136.42	13.945		
7,400.00	7,035.48	9,954.90	7,076.43	36.65	101.36	-89.82	-3,387.72	-591.41	1,892.02	1,757.68	134.35	14.083		
7,500.00	7,057.79	9,857.73	7,076.33	37.13	98.37	-90.19	-3,387.48	-688.58	1,885.68	1,753.43	132.25	14.258		
7,600.00	7,065.00	9,758.13	7,076.23	37.84	95.33	-90.34	-3,387.23	-788.17	1,883.08	1,752.83	130.24	14.458		
7,700.00	7,064.77	9,658.14	7,076.13	38.82	92.29	-90.35	-3,386.99	-888.17	1,882.23	1,753.83	128.40	14.659		
7,800.00	7,064.54	9,558.14	7,076.03	40.06	89.28	-90.35	-3,386.74	-988.17	1,881.39	1,754.65	126.74	14.844		
7,900.00	7,064.31	9,458.14	7,075.94	41.52	86.29	-90.36	-3,386.49	-1,088.16	1,880.54	1,755.29	125.25	15.014		
8,000.00	7,064.08	9,358.15	7,075.84	43.14	83.33	-90.36	-3,386.25	-1,188.16	1,879.70	1,755.77	123.93	15.168		
8,100.00	7,063.85	9,258.15	7,075.74	44.90	80.39	-90.36	-3,386.00	-1,288.15	1,878.85	1,756.11	122.74	15.308		
8,200.00	7,063.62	9,158.07	7,075.20	46.78	77.50	-90.35	-3,385.75	-1,388.23	1,878.00	1,756.32	121.68	15.434		
8,300.00	7,063.39	9,058.08	7,074.37	48.76	74.64	-90.34	-3,385.50	-1,488.22	1,877.15	1,756.40	120.75	15.546		
8,400.00	7,063.16	8,958.08	7,073.54	50.83	71.83	-90.32	-3,385.26	-1,588.21	1,876.30	1,756.37	119.93	15.644		
8,500.00	7,062.93	8,858.09	7,072.72	52.97	69.07	-90.30	-3,385.01	-1,688.21	1,875.45	1,756.23	119.23	15.730		
8,600.00	7,062.70	8,758.09	7,071.89	55.18	66.38	-90.28	-3,384.76	-1,788.20	1,874.60	1,755.97	118.63	15.802		
8,700.00	7,062.47	8,658.10	7,071.06	57.46	63.75	-90.26	-3,384.51	-1,888.19	1,873.76	1,755.62	118.14	15.861		
8,800.00	7,062.24	8,558.10	7,070.23	59.78	61.21	-90.25	-3,384.27	-1,988.18	1,872.91	1,755.16	117.75	15.906		
8,900.00	7,062.01	8,458.11	7,069.41	62.14	58.78	-90.23	-3,384.02	-2,088.17	1,872.06	1,754.58	117.48	15.936		
9,000.00	7,061.78	8,358.11	7,068.58	64.55	56.48	-90.21	-3,383.77	-2,188.16	1,871.21	1,753.90	117.31	15.950		
9,100.00	7,061.55	8,258.12	7,067.75	67.00	54.34	-90.19	-3,383.53	-2,288.15	1,870.36	1,753.09	117.28	15.948		
9,200.00	7,061.31	8,158.12	7,066.93	69.47	52.40	-90.17	-3,383.28	-2,388.14	1,869.51	1,752.15	117.37	15.929		
9,300.00	7,061.08	8,058.13	7,066.10	71.98	50.71	-90.15	-3,383.03	-2,488.13	1,868.67	1,751.06	117.61	15.889		
9,400.00	7,060.85	7,958.13	7,065.27	74.51	49.33	-90.14	-3,382.78	-2,588.12	1,867.82	1,749.81	118.00	15.828		
9,500.00	7,060.62	7,858.14	7,064.44	77.06	48.27	-90.12	-3,382.54	-2,688.11	1,866.97	1,748.39	118.58	15.744		
9,600.00	7,060.39	7,758.15	7,063.62	79.64	47.51	-90.10	-3,382.29	-2,788.11	1,866.12	1,746.77	119.36	15.635		
9,700.00	7,060.16	7,658.15	7,062.79	82.23	46.99	-90.08	-3,382.04	-2,888.10	1,865.28	1,744.92	120.36	15.498		
9,789.52	7,059.96	7,584.42	7,061.86	84.57	46.74	-90.06	-3,381.95	-2,961.82	1,864.67	1,742.93	121.74	15.316 CC		
9,800.00	7,059.93	7,578.49	7,061.59	84.84	46.72	-90.05	-3,381.99	-2,967.75	1,864.69	1,742.72	121.96	15.289		
9,900.00	7,059.70	7,522.26	7,056.48	87.47	46.57	-89.90	-3,383.12	-3,023.71	1,866.10	1,742.04	124.06	15.042 ES		
10,000.00	7,059.47	7,467.35	7,046.90	90.11	46.44	-89.61	-3,385.46	-3,077.71	1,869.92	1,743.74	126.19	14.819		
10,100.00	7,059.24	7,414.47	7,033.46	92.76	46.32	-89.20	-3,388.86	-3,128.72	1,876.26	1,747.93	128.34	14.620		
10,200.00	7,059.01	7,364.20	7,016.95	95.42	46.22	-88.70	-3,393.12	-3,176.00	1,885.27	1,754.78	130.49	14.448		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.78	7,316.92	6,998.17	98.10	46.12	-88.14	-3,398.01	-3,219.11	1,897.13	1,764.52	132.61	14.306		
10,400.00	7,058.55	7,272.84	6,977.94	100.79	46.02	-87.53	-3,403.31	-3,257.89	1,911.99	1,777.25	134.74	14.190		
10,500.00	7,058.32	7,235.01	6,958.54	103.48	45.94	-86.95	-3,408.42	-3,289.96	1,930.03	1,793.28	136.76	14.113		
10,600.00	7,058.09	7,194.45	6,935.75	106.19	45.84	-86.27	-3,414.45	-3,322.96	1,951.35	1,812.70	138.66	14.073		
10,700.00	7,057.86	7,159.95	6,914.80	108.90	45.75	-85.66	-3,420.01	-3,349.79	1,976.06	1,835.59	140.46	14.068		
10,800.00	7,057.63	7,128.35	6,894.40	111.62	45.66	-85.06	-3,425.43	-3,373.30	2,004.19	1,862.06	142.13	14.101		
10,900.00	7,057.40	7,100.00	6,875.16	114.35	45.57	-84.51	-3,430.55	-3,393.49	2,035.77	1,892.11	143.66	14.171		
11,000.00	7,057.17	7,072.98	6,856.04	117.08	45.49	-83.95	-3,435.65	-3,411.88	2,070.76	1,925.72	145.04	14.277		
11,100.00	7,056.94	7,050.00	6,839.20	119.82	45.42	-83.47	-3,440.15	-3,426.85	2,109.11	1,962.85	146.26	14.420		
11,200.00	7,056.71	7,035.01	6,827.94	122.56	45.36	-83.15	-3,443.16	-3,436.27	2,150.79	2,003.43	147.36	14.596		
11,300.00	7,056.48	7,000.00	6,800.83	125.31	45.24	-82.39	-3,450.42	-3,457.20	2,195.57	2,047.33	148.24	14.811		
11,400.00	7,056.25	7,000.00	6,800.83	128.06	45.24	-82.39	-3,450.42	-3,457.20	2,243.52	2,094.45	149.07	15.050		
11,500.00	7,056.02	6,970.31	6,777.00	130.82	45.12	-81.72	-3,456.81	-3,473.70	2,294.19	2,144.49	149.70	15.325		
11,600.00	7,055.79	6,950.00	6,760.27	133.59	45.05	-81.26	-3,461.29	-3,484.33	2,347.77	2,197.55	150.22	15.629		
11,700.00	7,055.55	6,935.01	6,747.73	136.35	44.98	-80.91	-3,464.66	-3,491.81	2,403.97	2,253.34	150.63	15.959		
11,800.00	7,055.32	6,935.01	6,747.73	139.12	44.98	-80.91	-3,464.66	-3,491.81	2,462.71	2,311.76	150.95	16.315		
11,900.00	7,055.09	6,913.59	6,729.52	141.90	44.89	-80.41	-3,469.55	-3,501.97	2,523.70	2,372.54	151.16	16.696		
12,000.00	7,054.86	6,900.00	6,717.80	144.67	44.83	-80.09	-3,472.70	-3,508.08	2,586.95	2,435.67	151.28	17.100		
12,100.00	7,054.63	6,900.00	6,717.80	147.45	44.83	-80.09	-3,472.70	-3,508.08	2,652.34	2,501.01	151.33	17.527		
12,200.00	7,054.40	6,880.79	6,701.02	150.24	44.74	-79.64	-3,477.22	-3,516.28	2,719.55	2,568.23	151.31	17.973		
12,300.00	7,054.17	6,871.28	6,692.63	153.02	44.70	-79.42	-3,479.47	-3,520.14	2,788.63	2,637.40	151.23	18.439		
12,400.00	7,053.94	6,850.00	6,673.66	155.81	44.60	-78.91	-3,484.58	-3,528.31	2,859.54	2,708.43	151.11	18.924		
12,500.00	7,053.71	6,850.00	6,673.66	158.60	44.60	-78.91	-3,484.58	-3,528.31	2,931.80	2,780.87	150.93	19.425		
12,600.00	7,053.48	6,850.00	6,673.66	161.40	44.60	-78.91	-3,484.58	-3,528.31	3,005.65	2,854.94	150.71	19.943		
12,700.00	7,053.25	6,835.01	6,660.14	164.19	44.53	-78.55	-3,488.22	-3,533.67	3,080.89	2,930.42	150.47	20.475		
12,800.00	7,053.02	6,835.01	6,660.14	166.99	44.53	-78.55	-3,488.22	-3,533.67	3,157.42	3,007.23	150.19	21.023		
12,900.00	7,052.79	6,835.01	6,660.14	169.79	44.53	-78.55	-3,488.22	-3,533.67	3,235.23	3,085.35	149.88	21.585		
13,000.00	7,052.56	6,819.03	6,645.60	172.59	44.45	-78.17	-3,492.14	-3,539.02	3,314.02	3,164.44	149.59	22.155		
13,100.00	7,052.33	6,800.00	6,628.13	175.40	44.35	-77.71	-3,496.86	-3,544.89	3,394.09	3,244.81	149.28	22.737		
13,200.00	7,052.10	6,800.00	6,628.13	178.20	44.35	-77.71	-3,496.86	-3,544.89	3,474.91	3,325.98	148.93	23.333		
13,300.00	7,051.87	6,800.00	6,628.13	181.01	44.35	-77.71	-3,496.86	-3,544.89	3,556.70	3,408.14	148.57	23.940		
13,400.00	7,051.64	6,800.00	6,628.13	183.82	44.35	-77.71	-3,496.86	-3,544.89	3,639.41	3,491.21	148.20	24.557		
13,500.00	7,051.41	6,800.00	6,628.13	186.63	44.35	-77.71	-3,496.86	-3,544.89	3,722.96	3,575.13	147.83	25.185		
13,600.00	7,051.18	6,800.00	6,628.13	189.44	44.35	-77.71	-3,496.86	-3,544.89	3,807.31	3,659.86	147.45	25.821		
13,700.00	7,050.95	6,800.00	6,628.13	192.25	44.35	-77.71	-3,496.86	-3,544.89	3,892.39	3,745.32	147.07	26.466		
13,800.00	7,050.72	6,779.45	6,609.08	195.07	44.24	-77.22	-3,502.00	-3,550.62	3,977.82	3,831.08	146.75	27.106		
13,900.00	7,050.49	6,775.50	6,605.39	197.88	44.22	-77.12	-3,502.99	-3,551.65	4,064.11	3,917.72	146.38	27.763		
14,000.00	7,050.26	6,771.72	6,601.86	200.70	44.20	-77.03	-3,503.94	-3,552.61	4,150.98	4,004.96	146.02	28.427		
14,100.00	7,050.03	6,750.56	6,582.01	203.52	44.08	-76.52	-3,509.30	-3,557.60	4,238.67	4,092.97	145.70	29.092		
14,200.00	7,049.80	6,750.56	6,582.01	206.34	44.08	-76.52	-3,509.30	-3,557.60	4,326.53	4,181.19	145.34	29.769		
14,300.00	7,049.56	6,750.56	6,582.01	209.16	44.08	-76.52	-3,509.30	-3,557.60	4,414.91	4,269.93	144.98	30.452		
14,400.00	7,049.33	6,750.56	6,582.01	211.98	44.08	-76.52	-3,509.30	-3,557.60	4,503.78	4,359.15	144.63	31.140		
14,500.00	7,049.10	6,750.56	6,582.01	214.80	44.08	-76.52	-3,509.30	-3,557.60	4,593.10	4,448.82	144.28	31.835		
14,600.00	7,048.87	6,750.56	6,582.01	217.63	44.08	-76.52	-3,509.30	-3,557.60	4,682.86	4,538.92	143.94	32.534		
14,700.00	7,048.64	6,750.56	6,582.01	220.45	44.08	-76.52	-3,509.30	-3,557.60	4,773.02	4,629.42	143.60	33.238		
14,800.00	7,048.41	6,750.56	6,582.01	223.28	44.08	-76.52	-3,509.30	-3,557.60	4,863.57	4,720.30	143.27	33.946		
14,900.00	7,048.18	6,750.56	6,582.01	226.10	44.08	-76.52	-3,509.30	-3,557.60	4,954.48	4,811.53	142.95	34.659		
14,979.18	7,048.00	6,741.95	6,573.89	228.34	44.03	-76.32	-3,511.50	-3,559.43	5,026.65	4,883.93	142.72	35.220		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-123.70	-4,230.57	-6,343.24	7,624.87				
100.00	100.00	35.00	100.00	3.28	3.34	-123.70	-4,230.57	-6,343.24	7,624.59	7,617.97	6.62	1,151.555	
200.00	200.00	135.00	200.00	3.34	4.42	-123.70	-4,230.57	-6,343.24	7,624.59	7,616.83	7.76	982.538	
300.00	299.98	234.98	299.98	3.44	7.24	50.24	-4,230.57	-6,343.24	7,623.48	7,612.80	10.68	713.641	
400.00	399.84	334.84	399.84	3.59	10.47	50.32	-4,230.57	-6,343.24	7,620.13	7,606.07	14.06	541.949	
500.00	499.45	434.45	499.45	3.79	13.82	50.46	-4,230.57	-6,343.24	7,614.56	7,596.96	17.60	432.526	
600.00	598.70	533.70	598.70	4.03	17.20	50.65	-4,230.57	-6,343.24	7,606.78	7,585.55	21.23	358.257	
700.00	697.47	632.47	697.47	4.31	20.60	50.89	-4,230.57	-6,343.24	7,596.82	7,571.91	24.91	304.975	
800.00	795.62	730.62	795.62	4.64	23.99	51.20	-4,230.57	-6,343.24	7,584.68	7,556.07	28.62	265.047	
900.00	893.16	828.16	893.16	5.00	27.36	51.43	-4,230.57	-6,343.24	7,570.69	7,538.35	32.34	234.082	
1,000.00	990.60	925.60	990.60	5.38	30.74	51.56	-4,230.57	-6,343.24	7,556.47	7,520.38	36.09	209.368	
1,100.00	1,088.04	1,023.04	1,088.04	5.79	34.13	51.69	-4,230.57	-6,343.24	7,542.30	7,502.43	39.87	189.192	
1,200.00	1,185.48	1,120.48	1,185.48	6.22	37.51	51.83	-4,230.57	-6,343.24	7,528.16	7,484.50	43.66	172.430	
1,300.00	1,282.92	1,217.92	1,282.92	6.66	40.90	51.96	-4,230.57	-6,343.24	7,514.06	7,466.59	47.47	158.296	
1,400.00	1,380.36	1,315.36	1,380.36	7.10	44.30	52.09	-4,230.57	-6,343.24	7,500.01	7,448.72	51.29	146.227	
1,500.00	1,477.80	1,412.80	1,477.80	7.56	47.69	52.23	-4,230.57	-6,343.24	7,485.99	7,430.87	55.12	135.806	
1,600.00	1,575.24	1,510.24	1,575.24	8.03	51.08	52.36	-4,230.57	-6,343.24	7,472.02	7,413.05	58.96	126.722	
1,700.00	1,672.68	1,607.68	1,672.68	8.50	54.48	52.49	-4,230.57	-6,343.24	7,458.09	7,395.27	62.81	118.735	
1,800.00	1,770.12	1,705.12	1,770.12	8.98	57.87	52.63	-4,230.57	-6,343.24	7,444.20	7,377.53	66.67	111.661	
1,900.00	1,867.56	1,802.56	1,867.56	9.46	61.27	52.76	-4,230.57	-6,343.24	7,430.35	7,359.82	70.53	105.353	
2,000.00	1,965.00	1,900.00	1,965.00	9.95	64.67	52.90	-4,230.57	-6,343.24	7,416.54	7,342.15	74.39	99.694	
2,100.00	2,062.44	2,002.56	2,062.44	10.44	68.24	53.04	-4,230.57	-6,343.24	7,402.78	7,324.34	78.44	94.375	
2,200.00	2,159.88	2,105.12	2,159.88	10.93	71.82	53.17	-4,230.57	-6,343.24	7,389.06	7,306.57	82.49	89.574	
2,300.00	2,257.32	2,207.68	2,257.32	11.42	75.40	53.31	-4,230.57	-6,343.24	7,375.38	7,288.84	86.55	85.220	
2,400.00	2,354.76	2,289.76	2,354.76	11.92	78.26	53.45	-4,230.57	-6,343.24	7,361.75	7,271.86	89.89	81.899	
2,500.00	2,452.20	2,387.20	2,452.20	12.42	81.66	53.59	-4,230.57	-6,343.24	7,348.16	7,254.39	93.77	78.365	
2,600.00	2,549.64	2,484.64	2,549.64	12.92	85.06	53.73	-4,230.57	-6,343.24	7,334.61	7,236.96	97.65	75.110	
2,700.00	2,647.08	2,582.08	2,647.08	13.42	88.46	53.87	-4,230.57	-6,343.24	7,321.11	7,219.57	101.54	72.104	
2,800.00	2,744.52	2,679.52	2,744.52	13.93	91.86	54.01	-4,230.57	-6,343.24	7,307.65	7,202.23	105.42	69.318	
2,900.00	2,841.96	2,776.96	2,841.96	14.43	95.25	54.15	-4,230.57	-6,343.24	7,294.24	7,184.93	109.31	66.729	
3,000.00	2,939.40	2,874.40	2,939.40	14.94	98.65	54.29	-4,230.57	-6,343.24	7,280.87	7,167.67	113.20	64.318	
3,100.00	3,036.84	2,971.84	3,036.84	15.44	102.05	54.43	-4,230.57	-6,343.24	7,267.54	7,150.45	117.09	62.067	
3,200.00	3,134.28	3,069.28	3,134.28	15.95	105.45	54.57	-4,230.57	-6,343.24	7,254.26	7,133.28	120.98	59.961	
3,300.00	3,231.72	3,166.72	3,231.72	16.46	108.85	54.71	-4,230.57	-6,343.24	7,241.03	7,116.15	124.88	57.985	
3,400.00	3,329.16	3,264.16	3,329.16	16.97	112.25	54.86	-4,230.57	-6,343.24	7,227.84	7,099.07	128.77	56.129	
3,500.00	3,426.60	3,361.60	3,426.60	17.48	115.65	55.00	-4,230.57	-6,343.24	7,214.70	7,082.03	132.67	54.382	
3,600.00	3,524.04	3,459.04	3,524.04	17.99	119.06	55.14	-4,230.57	-6,343.24	7,201.60	7,065.04	136.56	52.734	
3,700.00	3,621.48	3,556.48	3,621.48	18.50	122.46	55.29	-4,230.57	-6,343.24	7,188.55	7,048.09	140.46	51.178	
3,800.00	3,718.92	3,653.92	3,718.92	19.01	125.86	55.43	-4,230.57	-6,343.24	7,175.55	7,031.19	144.36	49.706	
3,900.00	3,816.36	3,751.36	3,816.36	19.52	129.26	55.58	-4,230.57	-6,343.24	7,162.59	7,014.34	148.26	48.311	
4,000.00	3,913.80	3,848.80	3,913.80	20.03	132.66	55.73	-4,230.57	-6,343.24	7,149.69	6,997.53	152.16	46.988	
4,100.00	4,011.24	3,946.24	4,011.24	20.55	136.06	55.87	-4,230.57	-6,343.24	7,136.82	6,980.76	156.06	45.731	
4,200.00	4,108.68	4,043.68	4,108.68	21.06	139.46	56.02	-4,230.57	-6,343.24	7,124.01	6,964.05	159.96	44.536	
4,300.00	4,206.12	4,141.12	4,206.12	21.57	142.86	56.17	-4,230.57	-6,343.24	7,111.25	6,947.38	163.86	43.397	
4,400.00	4,303.56	4,238.56	4,303.56	22.09	146.26	56.31	-4,230.57	-6,343.24	7,098.53	6,930.76	167.77	42.312	
4,500.00	4,401.00	4,336.00	4,401.00	22.60	149.66	56.46	-4,230.57	-6,343.24	7,085.86	6,914.19	171.67	41.276	
4,600.00	4,498.44	4,433.44	4,498.44	23.11	153.06	56.61	-4,230.57	-6,343.24	7,073.24	6,897.67	175.57	40.287	
4,700.00	4,595.88	4,530.88	4,595.88	23.63	156.46	56.76	-4,230.57	-6,343.24	7,060.67	6,881.19	179.48	39.340	
4,800.00	4,693.32	4,628.32	4,693.32	24.14	159.86	56.91	-4,230.57	-6,343.24	7,048.15	6,864.76	183.38	38.434	
4,900.00	4,790.76	4,725.76	4,790.76	24.66	163.26	57.06	-4,230.57	-6,343.24	7,035.67	6,848.39	187.29	37.566	
5,000.00	4,888.20	4,823.20	4,888.20	25.17	166.67	57.21	-4,230.57	-6,343.24	7,023.25	6,832.06	191.19	36.734	
5,100.00	4,985.64	4,920.64	4,985.64	25.69	170.07	57.37	-4,230.57	-6,343.24	7,010.88	6,815.78	195.10	35.935	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,018.08	5,083.08	26.20	173.47	57.52	-4,230.57	-6,343.24	6,998.56	6,799.55	199.01	35.167		
5,300.00	5,180.52	5,115.52	5,180.52	26.72	176.87	57.67	-4,230.57	-6,343.24	6,986.29	6,783.37	202.91	34.430		
5,400.00	5,277.96	5,212.96	5,277.96	27.24	180.27	57.82	-4,230.57	-6,343.24	6,974.07	6,767.24	206.82	33.720		
5,500.00	5,375.40	5,310.40	5,375.40	27.75	183.67	57.98	-4,230.57	-6,343.24	6,961.90	6,751.17	210.73	33.037		
5,600.00	5,472.84	5,407.84	5,472.84	28.27	187.07	58.13	-4,230.57	-6,343.24	6,949.78	6,735.14	214.64	32.379		
5,700.00	5,570.28	5,505.28	5,570.28	28.79	190.47	58.29	-4,230.57	-6,343.24	6,937.71	6,719.16	218.55	31.744		
5,800.00	5,667.72	5,602.72	5,667.72	29.30	193.87	58.44	-4,230.57	-6,343.24	6,925.70	6,703.24	222.46	31.133		
5,900.00	5,765.16	5,700.16	5,765.16	29.82	197.27	58.60	-4,230.57	-6,343.24	6,913.74	6,687.37	226.37	30.542		
6,000.00	5,862.60	5,802.40	5,862.60	30.34	200.84	58.75	-4,230.57	-6,343.24	6,901.83	6,671.38	230.45	29.950		
6,100.00	5,960.05	5,904.96	5,960.05	30.85	204.42	58.91	-4,230.57	-6,343.24	6,889.97	6,655.44	234.54	29.377		
6,200.00	6,057.49	6,007.51	6,057.49	31.37	208.00	59.07	-4,230.57	-6,343.24	6,878.17	6,639.54	238.63	28.824		
6,300.00	6,154.93	6,089.93	6,154.93	31.89	210.88	59.23	-4,230.57	-6,343.24	6,866.42	6,624.41	242.01	28.372		
6,400.00	6,252.37	6,187.37	6,252.37	32.40	214.28	59.38	-4,230.57	-6,343.24	6,854.72	6,608.80	245.92	27.873		
6,500.00	6,349.81	6,284.81	6,349.81	32.92	217.68	59.54	-4,230.57	-6,343.24	6,843.08	6,593.24	249.84	27.390		
6,600.00	6,447.25	6,382.25	6,447.25	33.44	221.08	59.70	-4,230.57	-6,343.24	6,831.49	6,577.74	253.75	26.922		
6,700.00	6,544.28	6,479.28	6,544.28	33.95	224.47	30.51	-4,230.57	-6,343.24	6,814.63	6,556.99	257.64	26.450		
6,800.00	6,638.86	6,573.86	6,638.86	34.44	227.77	10.63	-4,230.57	-6,343.24	6,784.06	6,522.66	261.40	25.953		
6,900.00	6,728.65	6,663.65	6,728.65	34.89	230.91	-0.91	-4,230.57	-6,343.24	6,740.37	6,475.43	264.94	25.441		
7,000.00	6,811.45	6,746.45	6,811.45	35.29	233.80	-9.29	-4,230.57	-6,343.24	6,684.64	6,416.46	268.18	24.926		
7,100.00	6,885.21	6,820.21	6,885.21	35.66	236.37	-17.05	-4,230.57	-6,343.24	6,618.25	6,347.21	271.04	24.418		
7,200.00	6,948.11	6,883.11	6,948.11	35.99	238.57	-25.81	-4,230.57	-6,343.24	6,542.87	6,269.42	273.45	23.927		
7,300.00	6,998.62	6,933.62	6,998.62	36.30	240.33	-37.06	-4,230.57	-6,343.24	6,460.41	6,185.06	275.36	23.462		
7,400.00	7,035.48	6,970.48	7,035.48	36.65	241.62	-52.18	-4,230.57	-6,343.24	6,372.98	6,096.25	276.73	23.029		
7,500.00	7,057.79	7,007.21	7,057.79	37.13	242.90	-71.09	-4,230.57	-6,343.24	6,282.82	6,004.75	278.07	22.595		
7,600.00	7,065.00	7,000.00	7,065.00	37.84	242.65	-90.27	-4,230.57	-6,343.24	6,192.23	5,914.38	277.85	22.286		
7,700.00	7,064.77	7,000.23	7,064.77	38.82	242.66	-90.27	-4,230.57	-6,343.24	6,102.34	5,824.41	277.93	21.957		
7,800.00	7,064.54	7,000.46	7,064.54	40.06	242.66	-90.26	-4,230.57	-6,343.24	6,012.77	5,734.71	278.06	21.624		
7,900.00	7,064.31	7,000.69	7,064.31	41.52	242.67	-90.26	-4,230.57	-6,343.24	5,923.53	5,645.27	278.26	21.288		
8,000.00	7,064.08	7,000.92	7,064.08	43.14	242.68	-90.25	-4,230.57	-6,343.24	5,834.64	5,556.11	278.52	20.948		
8,100.00	7,063.85	7,001.15	7,063.85	44.90	242.69	-90.25	-4,230.57	-6,343.24	5,746.11	5,467.25	278.86	20.606		
8,200.00	7,063.62	7,001.38	7,063.62	46.78	242.70	-90.24	-4,230.57	-6,343.24	5,657.97	5,378.70	279.27	20.260		
8,300.00	7,063.39	7,001.61	7,063.39	48.76	242.70	-90.24	-4,230.57	-6,343.24	5,570.23	5,290.47	279.76	19.911		
8,400.00	7,063.16	7,001.84	7,063.16	50.83	242.71	-90.23	-4,230.57	-6,343.24	5,482.90	5,202.57	280.34	19.558		
8,500.00	7,062.93	7,002.07	7,062.93	52.97	242.72	-90.23	-4,230.57	-6,343.24	5,396.02	5,115.02	281.00	19.203		
8,600.00	7,062.70	7,002.30	7,062.70	55.18	242.73	-90.22	-4,230.57	-6,343.24	5,309.60	5,027.84	281.76	18.845		
8,700.00	7,062.47	7,002.53	7,062.47	57.46	242.74	-90.22	-4,230.57	-6,343.24	5,223.66	4,941.06	282.61	18.484		
8,800.00	7,062.24	7,002.76	7,062.24	59.78	242.74	-90.21	-4,230.57	-6,343.24	5,138.24	4,854.68	283.56	18.121		
8,900.00	7,062.01	7,002.99	7,062.01	62.14	242.75	-90.21	-4,230.57	-6,343.24	5,053.34	4,768.74	284.61	17.756		
9,000.00	7,061.78	7,003.22	7,061.78	64.55	242.76	-90.20	-4,230.57	-6,343.24	4,969.01	4,683.25	285.76	17.389		
9,100.00	7,061.55	7,003.46	7,061.55	67.00	242.77	-90.20	-4,230.57	-6,343.24	4,885.27	4,598.26	287.02	17.021		
9,200.00	7,061.31	7,003.69	7,061.31	69.47	242.78	-90.19	-4,230.57	-6,343.24	4,802.16	4,513.77	288.39	16.652		
9,300.00	7,061.08	7,003.92	7,061.08	71.98	242.78	-90.19	-4,230.57	-6,343.24	4,719.70	4,429.83	289.87	16.282		
9,400.00	7,060.85	7,004.15	7,060.85	74.51	242.79	-90.19	-4,230.57	-6,343.24	4,637.92	4,346.46	291.46	15.913		
9,500.00	7,060.62	7,004.38	7,060.62	77.06	242.80	-90.18	-4,230.57	-6,343.24	4,556.88	4,263.71	293.17	15.544		
9,600.00	7,060.39	7,004.61	7,060.39	79.64	242.81	-90.18	-4,230.57	-6,343.24	4,476.60	4,181.61	294.99	15.176		
9,700.00	7,060.16	7,004.84	7,060.16	82.23	242.82	-90.17	-4,230.57	-6,343.24	4,397.13	4,100.20	296.93	14.809		
9,800.00	7,059.93	7,005.07	7,059.93	84.84	242.82	-90.17	-4,230.57	-6,343.24	4,318.51	4,019.53	298.99	14.444		
9,900.00	7,059.70	7,005.30	7,059.70	87.47	242.83	-90.16	-4,230.57	-6,343.24	4,240.80	3,939.64	301.16	14.081		
10,000.00	7,059.47	7,005.53	7,059.47	90.11	242.84	-90.16	-4,230.57	-6,343.24	4,164.03	3,860.57	303.46	13.722		
10,100.00	7,059.24	7,005.76	7,059.24	92.76	242.85	-90.15	-4,230.57	-6,343.24	4,088.28	3,782.39	305.89	13.365		
10,200.00	7,059.01	7,005.99	7,059.01	95.42	242.86	-90.15	-4,230.57	-6,343.24	4,013.58	3,705.14	308.43	13.013		
10,300.00	7,058.78	7,006.22	7,058.78	98.10	242.86	-90.14	-4,230.57	-6,343.24	3,940.00	3,628.90	311.11	12.665		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,006.45	7,058.55	100.79	242.87	-90.14	-4,230.57	-6,343.24	3,867.61	3,553.71	313.90	12.321		
10,500.00	7,058.32	7,006.68	7,058.32	103.48	242.88	-90.13	-4,230.57	-6,343.24	3,796.48	3,479.65	316.82	11.983		
10,600.00	7,058.09	7,006.91	7,058.09	106.19	242.89	-90.13	-4,230.57	-6,343.24	3,726.67	3,406.79	319.87	11.651		
10,700.00	7,057.86	7,007.14	7,057.86	108.90	242.90	-90.12	-4,230.57	-6,343.24	3,658.26	3,335.21	323.04	11.324		
10,800.00	7,057.63	7,007.37	7,057.63	111.62	242.90	-90.12	-4,230.57	-6,343.24	3,591.33	3,264.99	326.34	11.005		
10,900.00	7,057.40	7,007.60	7,057.40	114.35	242.91	-90.11	-4,230.57	-6,343.24	3,525.97	3,196.21	329.76	10.693		
11,000.00	7,057.17	7,007.83	7,057.17	117.08	242.92	-90.11	-4,230.57	-6,343.24	3,462.26	3,128.96	333.30	10.388		
11,100.00	7,056.94	7,008.06	7,056.94	119.82	242.93	-90.10	-4,230.57	-6,343.24	3,400.30	3,063.35	336.96	10.091		
11,200.00	7,056.71	7,008.29	7,056.71	122.56	242.94	-90.10	-4,230.57	-6,343.24	3,340.19	2,999.47	340.73	9.803		
11,300.00	7,056.48	7,008.52	7,056.48	125.31	242.94	-90.09	-4,230.57	-6,343.24	3,282.02	2,937.42	344.60	9.524		
11,400.00	7,056.25	7,008.75	7,056.25	128.06	242.95	-90.09	-4,230.57	-6,343.24	3,225.91	2,877.33	348.58	9.254		
11,500.00	7,056.02	7,008.98	7,056.02	130.82	242.96	-90.08	-4,230.57	-6,343.24	3,171.95	2,819.30	352.65	8.995		
11,600.00	7,055.79	7,009.21	7,055.79	133.59	242.97	-90.08	-4,230.57	-6,343.24	3,120.27	2,763.46	356.81	8.745		
11,700.00	7,055.55	7,009.45	7,055.55	136.35	242.98	-90.07	-4,230.57	-6,343.24	3,070.98	2,709.94	361.04	8.506		
11,800.00	7,055.32	7,009.68	7,055.32	139.12	242.98	-90.07	-4,230.57	-6,343.24	3,024.19	2,658.86	365.33	8.278		
11,900.00	7,055.09	7,009.91	7,055.09	141.90	242.99	-90.06	-4,230.57	-6,343.24	2,980.02	2,610.35	369.67	8.061		
12,000.00	7,054.86	6,989.86	7,054.86	144.67	242.29	-90.06	-4,230.57	-6,343.24	2,938.59	2,565.27	373.32	7.871		
12,100.00	7,054.63	6,989.63	7,054.63	147.45	242.29	-90.05	-4,230.57	-6,343.24	2,900.02	2,522.34	377.69	7.678		
12,200.00	7,054.40	6,989.40	7,054.40	150.24	242.28	-90.05	-4,230.57	-6,343.24	2,864.43	2,482.38	382.04	7.498		
12,300.00	7,054.17	6,989.17	7,054.17	153.02	242.27	-90.04	-4,230.57	-6,343.24	2,831.92	2,445.54	386.37	7.330		
12,400.00	7,053.94	6,988.94	7,053.94	155.81	242.26	-90.04	-4,230.57	-6,343.24	2,802.60	2,411.95	390.65	7.174		
12,500.00	7,053.71	6,988.71	7,053.71	158.60	242.25	-90.03	-4,230.57	-6,343.24	2,776.57	2,381.72	394.86	7.032		
12,600.00	7,053.48	6,988.48	7,053.48	161.40	242.25	-90.03	-4,230.57	-6,343.24	2,753.94	2,354.97	398.96	6.903		
12,700.00	7,053.25	6,988.25	7,053.25	164.19	242.24	-90.02	-4,230.57	-6,343.24	2,734.77	2,331.82	402.95	6.787		
12,800.00	7,053.02	6,988.02	7,053.02	166.99	242.23	-90.02	-4,230.57	-6,343.24	2,719.15	2,312.35	406.80	6.684		
12,900.00	7,052.79	6,987.79	7,052.79	169.79	242.22	-90.01	-4,230.57	-6,343.24	2,707.14	2,296.65	410.48	6.595		
13,000.00	7,052.56	6,987.56	7,052.56	172.59	242.21	-90.01	-4,230.57	-6,343.24	2,698.77	2,284.79	413.98	6.519		
13,100.00	7,052.33	6,987.33	7,052.33	175.40	242.20	-90.00	-4,230.57	-6,343.24	2,694.10	2,276.83	417.28	6.456		
13,175.98	7,052.15	6,987.15	7,052.15	177.53	242.20	-90.00	-4,230.57	-6,343.24	2,693.03	2,273.40	419.63	6.418 CC		
13,200.00	7,052.10	6,987.10	7,052.10	178.20	242.20	-90.00	-4,230.57	-6,343.24	2,693.14	2,272.79	420.35	6.407		
13,300.00	7,051.87	6,986.87	7,051.87	181.01	242.19	-89.99	-4,230.57	-6,343.24	2,695.89	2,272.70	423.18	6.370 ES		
13,400.00	7,051.64	6,986.64	7,051.64	183.82	242.18	-89.99	-4,230.57	-6,343.24	2,702.33	2,276.56	425.78	6.347		
13,500.00	7,051.41	6,986.41	7,051.41	186.63	242.17	-89.98	-4,230.57	-6,343.24	2,712.45	2,284.34	428.12	6.336 SF		
13,600.00	7,051.18	6,986.18	7,051.18	189.44	242.16	-89.98	-4,230.57	-6,343.24	2,726.21	2,296.01	430.20	6.337		
13,700.00	7,050.95	6,985.95	7,050.95	192.25	242.16	-89.97	-4,230.57	-6,343.24	2,743.54	2,311.52	432.02	6.350		
13,800.00	7,050.72	6,985.72	7,050.72	195.07	242.15	-89.97	-4,230.57	-6,343.24	2,764.38	2,330.80	433.59	6.376		
13,900.00	7,050.49	6,985.49	7,050.49	197.88	242.14	-89.96	-4,230.57	-6,343.24	2,788.66	2,353.76	434.90	6.412		
14,000.00	7,050.26	6,985.26	7,050.26	200.70	242.13	-89.96	-4,230.57	-6,343.24	2,816.28	2,380.30	435.98	6.460		
14,100.00	7,050.03	6,985.03	7,050.03	203.52	242.12	-89.95	-4,230.57	-6,343.24	2,847.15	2,410.33	436.81	6.518		
14,200.00	7,049.80	6,984.80	7,049.80	206.34	242.12	-89.95	-4,230.57	-6,343.24	2,881.15	2,443.72	437.43	6.587		
14,300.00	7,049.56	6,984.56	7,049.56	209.16	242.11	-89.94	-4,230.57	-6,343.24	2,918.19	2,480.36	437.83	6.665		
14,400.00	7,049.33	6,984.33	7,049.33	211.98	242.10	-89.94	-4,230.57	-6,343.24	2,958.15	2,520.11	438.04	6.753		
14,500.00	7,049.10	6,984.10	7,049.10	214.80	242.09	-89.94	-4,230.57	-6,343.24	3,000.91	2,562.84	438.07	6.850		
14,600.00	7,048.87	6,983.87	7,048.87	217.63	242.08	-89.93	-4,230.57	-6,343.24	3,046.35	2,608.42	437.93	6.956		
14,700.00	7,048.64	6,983.64	7,048.64	220.45	242.08	-89.93	-4,230.57	-6,343.24	3,094.36	2,656.72	437.64	7.071		
14,800.00	7,048.41	6,983.41	7,048.41	223.28	242.07	-89.92	-4,230.57	-6,343.24	3,144.82	2,707.60	437.21	7.193		
14,900.00	7,048.18	6,983.18	7,048.18	226.10	242.06	-89.92	-4,230.57	-6,343.24	3,197.60	2,760.94	436.66	7.323		
14,979.18	7,048.00	6,983.00	7,048.00	228.34	242.05	-89.91	-4,230.57	-6,343.24	3,240.98	2,804.83	436.15	7.431		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-68.00	2,568.46	-6,355.68	6,855.06					
100.00	100.00	82.00	100.00	3.28	3.58	-68.00	2,568.46	-6,355.68	6,855.04	6,848.18	6.86	998.781		
200.00	200.00	182.00	200.00	3.34	5.66	-68.00	2,568.46	-6,355.68	6,855.04	6,846.05	8.99	762.240		
300.00	299.98	281.98	299.98	3.44	8.74	105.92	2,568.46	-6,355.68	6,855.52	6,843.34	12.18	562.998		
400.00	399.84	381.84	399.84	3.59	12.04	105.94	2,568.46	-6,355.68	6,856.96	6,841.33	15.63	438.747		
500.00	499.45	481.45	499.45	3.79	15.42	105.96	2,568.46	-6,355.68	6,859.36	6,840.16	19.20	357.227		
600.00	598.70	580.70	598.70	4.03	18.81	105.99	2,568.46	-6,355.68	6,862.74	6,839.89	22.84	300.411		
700.00	697.47	679.47	697.47	4.31	22.22	106.03	2,568.46	-6,355.68	6,867.10	6,840.57	26.53	258.823		
800.00	795.62	777.62	795.62	4.64	25.61	106.08	2,568.46	-6,355.68	6,872.47	6,842.22	30.25	227.196		
900.00	893.16	875.16	893.16	5.00	28.99	106.19	2,568.46	-6,355.68	6,878.74	6,844.76	33.99	202.399		
1,000.00	990.60	972.60	990.60	5.38	32.37	106.37	2,568.46	-6,355.68	6,885.20	6,847.45	37.75	182.380		
1,100.00	1,088.04	1,070.04	1,088.04	5.79	35.76	106.54	2,568.46	-6,355.68	6,891.72	6,850.18	41.54	165.898		
1,200.00	1,185.48	1,167.48	1,185.48	6.22	39.15	106.72	2,568.46	-6,355.68	6,898.31	6,852.96	45.35	152.109		
1,300.00	1,282.92	1,264.92	1,282.92	6.66	42.54	106.89	2,568.46	-6,355.68	6,904.96	6,855.79	49.18	140.414		
1,400.00	1,380.36	1,362.36	1,380.36	7.10	45.93	107.07	2,568.46	-6,355.68	6,911.69	6,858.67	53.01	130.378		
1,500.00	1,477.80	1,459.80	1,477.80	7.56	49.33	107.24	2,568.46	-6,355.68	6,918.48	6,861.62	56.86	121.676		
1,600.00	1,575.24	1,557.24	1,575.24	8.03	52.72	107.41	2,568.46	-6,355.68	6,925.33	6,864.62	60.72	114.062		
1,700.00	1,672.68	1,654.68	1,672.68	8.50	56.12	107.59	2,568.46	-6,355.68	6,932.25	6,867.68	64.58	107.347		
1,800.00	1,770.12	1,752.12	1,770.12	8.98	59.51	107.76	2,568.46	-6,355.68	6,939.24	6,870.80	68.45	101.382		
1,900.00	1,867.56	1,849.56	1,867.56	9.46	62.91	107.93	2,568.46	-6,355.68	6,946.30	6,873.98	72.32	96.050		
2,000.00	1,965.00	1,947.00	1,965.00	9.95	66.31	108.11	2,568.46	-6,355.68	6,953.41	6,877.22	76.20	91.256		
2,100.00	2,062.44	2,044.44	2,062.44	10.44	69.70	108.28	2,568.46	-6,355.68	6,960.60	6,880.52	80.08	86.923		
2,200.00	2,159.88	2,141.88	2,159.88	10.93	73.10	108.45	2,568.46	-6,355.68	6,967.85	6,883.89	83.96	82.988		
2,300.00	2,257.32	2,239.32	2,257.32	11.42	76.50	108.62	2,568.46	-6,355.68	6,975.16	6,887.32	87.85	79.400		
2,400.00	2,354.76	2,336.76	2,354.76	11.92	79.90	108.79	2,568.46	-6,355.68	6,982.54	6,890.81	91.74	76.115		
2,500.00	2,452.20	2,434.20	2,452.20	12.42	83.30	108.96	2,568.46	-6,355.68	6,989.99	6,894.36	95.63	73.096		
2,600.00	2,549.64	2,531.64	2,549.64	12.92	86.70	109.13	2,568.46	-6,355.68	6,997.49	6,897.97	99.52	70.312		
2,700.00	2,647.08	2,629.08	2,647.08	13.42	90.10	109.30	2,568.46	-6,355.68	7,005.07	6,901.65	103.41	67.738		
2,800.00	2,744.52	2,726.52	2,744.52	13.93	93.50	109.47	2,568.46	-6,355.68	7,012.70	6,905.39	107.31	65.350		
2,900.00	2,841.96	2,823.96	2,841.96	14.43	96.89	109.64	2,568.46	-6,355.68	7,020.40	6,909.20	111.21	63.130		
3,000.00	2,939.40	2,921.40	2,939.40	14.94	100.29	109.81	2,568.46	-6,355.68	7,028.16	6,913.06	115.10	61.060		
3,100.00	3,036.84	3,018.84	3,036.84	15.44	103.69	109.98	2,568.46	-6,355.68	7,035.99	6,916.99	119.00	59.125		
3,200.00	3,134.28	3,116.28	3,134.28	15.95	107.09	110.14	2,568.46	-6,355.68	7,043.88	6,920.98	122.90	57.313		
3,300.00	3,231.72	3,213.72	3,231.72	16.46	110.49	110.31	2,568.46	-6,355.68	7,051.83	6,925.03	126.80	55.613		
3,400.00	3,329.16	3,311.16	3,329.16	16.97	113.89	110.48	2,568.46	-6,355.68	7,059.85	6,929.15	130.70	54.015		
3,500.00	3,426.60	3,408.60	3,426.60	17.48	117.29	110.65	2,568.46	-6,355.68	7,067.93	6,933.32	134.60	52.510		
3,600.00	3,524.04	3,506.04	3,524.04	17.99	120.70	110.81	2,568.46	-6,355.68	7,076.06	6,937.56	138.50	51.089		
3,700.00	3,621.48	3,603.48	3,621.48	18.50	124.10	110.98	2,568.46	-6,355.68	7,084.27	6,941.86	142.41	49.747		
3,800.00	3,718.92	3,700.92	3,718.92	19.01	127.50	111.15	2,568.46	-6,355.68	7,092.53	6,946.22	146.31	48.477		
3,900.00	3,816.36	3,801.64	3,816.36	19.52	131.01	111.31	2,568.46	-6,355.68	7,100.85	6,950.53	150.33	47.237		
4,000.00	3,913.80	3,904.20	3,913.80	20.03	134.59	111.48	2,568.46	-6,355.68	7,109.24	6,954.83	154.41	46.042		
4,100.00	4,011.24	4,006.76	4,011.24	20.55	138.17	111.64	2,568.46	-6,355.68	7,117.69	6,959.20	158.49	44.910		
4,200.00	4,108.68	4,109.32	4,108.68	21.06	141.75	111.80	2,568.46	-6,355.68	7,126.20	6,963.63	162.57	43.834		
4,300.00	4,206.12	4,188.12	4,206.12	21.57	144.50	111.97	2,568.46	-6,355.68	7,134.77	6,968.94	166.82	43.026		
4,400.00	4,303.56	4,285.56	4,303.56	22.09	147.90	112.13	2,568.46	-6,355.68	7,143.39	6,973.67	169.73	42.087		
4,500.00	4,401.00	4,383.00	4,401.00	22.60	151.30	112.30	2,568.46	-6,355.68	7,152.08	6,978.45	173.63	41.191		
4,600.00	4,498.44	4,480.44	4,498.44	23.11	154.70	112.46	2,568.46	-6,355.68	7,160.83	6,983.30	177.54	40.335		
4,700.00	4,595.88	4,577.88	4,595.88	23.63	158.10	112.62	2,568.46	-6,355.68	7,169.64	6,988.20	181.44	39.515		
4,800.00	4,693.32	4,675.32	4,693.32	24.14	161.50	112.78	2,568.46	-6,355.68	7,178.51	6,993.17	185.34	38.731		
4,900.00	4,790.76	4,772.76	4,790.76	24.66	164.90	112.94	2,568.46	-6,355.68	7,187.44	6,998.19	189.25	37.979		
5,000.00	4,888.20	4,870.20	4,888.20	25.17	168.31	113.11	2,568.46	-6,355.68	7,196.43	7,003.28	193.15	37.258		
5,100.00	4,985.64	4,967.64	4,985.64	25.69	171.71	113.27	2,568.46	-6,355.68	7,205.48	7,008.42	197.06	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 12N-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 12N-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	5,083.08	5,065.08	5,083.08	26.20	175.11	113.43	2,568.46	-6,355.68	7,214.58	7,013.62	200.96	35.901		
5,300.00	5,180.52	5,162.52	5,180.52	26.72	178.51	113.59	2,568.46	-6,355.68	7,223.74	7,018.88	204.86	35.261		
5,400.00	5,277.96	5,259.96	5,277.96	27.24	181.91	113.75	2,568.46	-6,355.68	7,232.97	7,024.20	208.77	34.646		
5,500.00	5,375.40	5,357.40	5,375.40	27.75	185.31	113.91	2,568.46	-6,355.68	7,242.25	7,029.57	212.67	34.054		
5,600.00	5,472.84	5,454.84	5,472.84	28.27	188.71	114.06	2,568.46	-6,355.68	7,251.58	7,035.01	216.58	33.483		
5,700.00	5,570.28	5,552.28	5,570.28	28.79	192.11	114.22	2,568.46	-6,355.68	7,260.98	7,040.50	220.48	32.933		
5,800.00	5,667.72	5,649.72	5,667.72	29.30	195.51	114.38	2,568.46	-6,355.68	7,270.43	7,046.05	224.38	32.402		
5,900.00	5,765.16	5,747.16	5,765.16	29.82	198.92	114.54	2,568.46	-6,355.68	7,279.94	7,051.65	228.29	31.889		
6,000.00	5,862.60	5,844.60	5,862.60	30.34	202.32	114.70	2,568.46	-6,355.68	7,289.51	7,057.32	232.19	31.394		
6,100.00	5,960.05	5,942.05	5,960.05	30.85	205.72	114.85	2,568.46	-6,355.68	7,299.13	7,063.04	236.10	30.916		
6,200.00	6,057.49	6,039.49	6,057.49	31.37	209.12	115.01	2,568.46	-6,355.68	7,308.81	7,068.81	240.00	30.453		
6,300.00	6,154.93	6,136.93	6,154.93	31.89	212.52	115.17	2,568.46	-6,355.68	7,318.55	7,074.65	243.90	30.006		
6,400.00	6,252.37	6,234.37	6,252.37	32.40	215.92	115.32	2,568.46	-6,355.68	7,328.34	7,080.54	247.81	29.573		
6,500.00	6,349.81	6,331.81	6,349.81	32.92	219.32	115.48	2,568.46	-6,355.68	7,338.19	7,086.48	251.71	29.153		
6,600.00	6,447.25	6,429.25	6,447.25	33.44	222.72	115.63	2,568.46	-6,355.68	7,348.10	7,092.48	255.61	28.747		
6,700.00	6,544.28	6,526.28	6,544.28	33.95	226.11	86.88	2,568.46	-6,355.68	7,353.06	7,093.55	259.50	28.335		
6,800.00	6,638.86	6,620.86	6,638.86	34.44	229.41	68.75	2,568.46	-6,355.68	7,344.93	7,081.64	263.29	27.896		
6,900.00	6,728.65	6,710.65	6,728.65	34.89	232.55	60.49	2,568.46	-6,355.68	7,323.91	7,057.02	266.89	27.442		
7,000.00	6,811.45	6,806.55	6,811.45	35.29	235.89	57.24	2,568.46	-6,355.68	7,290.60	7,019.93	270.67	26.935		
7,100.00	6,885.21	6,867.21	6,885.21	35.66	238.01	57.06	2,568.46	-6,355.68	7,245.95	6,972.74	273.21	26.521		
7,200.00	6,948.11	6,930.11	6,948.11	35.99	240.21	59.23	2,568.46	-6,355.68	7,191.15	6,915.31	275.84	26.070		
7,300.00	6,998.62	6,980.62	6,998.62	36.30	241.97	63.61	2,568.46	-6,355.68	7,127.65	6,849.59	278.06	25.634		
7,400.00	7,035.48	7,017.48	7,035.48	36.65	243.26	70.27	2,568.46	-6,355.68	7,057.07	6,777.23	279.84	25.218		
7,500.00	7,057.79	7,039.79	7,057.79	37.13	244.04	79.26	2,568.46	-6,355.68	6,981.18	6,700.01	281.17	24.829		
7,600.00	7,065.00	7,047.00	7,065.00	37.84	244.29	90.18	2,568.46	-6,355.68	6,901.85	6,619.83	282.02	24.473		
7,700.00	7,064.77	7,046.77	7,064.77	38.82	244.28	90.18	2,568.46	-6,355.68	6,821.73	6,539.06	282.68	24.133		
7,800.00	7,064.54	7,046.54	7,064.54	40.06	244.27	90.17	2,568.46	-6,355.68	6,742.14	6,458.72	283.42	23.788		
7,900.00	7,064.31	7,046.31	7,064.31	41.52	244.26	90.17	2,568.46	-6,355.68	6,663.11	6,378.85	284.26	23.440		
8,000.00	7,064.08	7,046.08	7,064.08	43.14	244.26	90.17	2,568.46	-6,355.68	6,584.64	6,299.46	285.18	23.089		
8,100.00	7,063.85	7,045.85	7,063.85	44.90	244.25	90.16	2,568.46	-6,355.68	6,506.76	6,220.56	286.20	22.735		
8,200.00	7,063.62	7,045.62	7,063.62	46.78	244.24	90.16	2,568.46	-6,355.68	6,429.49	6,142.19	287.31	22.378		
8,300.00	7,063.39	7,045.39	7,063.39	48.76	244.23	90.16	2,568.46	-6,355.68	6,352.86	6,064.35	288.51	22.020		
8,400.00	7,063.16	7,045.16	7,063.16	50.83	244.22	90.15	2,568.46	-6,355.68	6,276.89	5,987.09	289.80	21.660		
8,500.00	7,062.93	7,044.93	7,062.93	52.97	244.22	90.15	2,568.46	-6,355.68	6,201.59	5,910.42	291.18	21.298		
8,600.00	7,062.70	7,044.70	7,062.70	55.18	244.21	90.15	2,568.46	-6,355.68	6,127.01	5,834.36	292.65	20.937		
8,700.00	7,062.47	7,044.47	7,062.47	57.46	244.20	90.14	2,568.46	-6,355.68	6,053.16	5,758.95	294.20	20.575		
8,800.00	7,062.24	7,044.24	7,062.24	59.78	244.19	90.14	2,568.46	-6,355.68	5,980.06	5,684.22	295.85	20.213		
8,900.00	7,062.01	7,044.01	7,062.01	62.14	244.18	90.14	2,568.46	-6,355.68	5,907.76	5,610.18	297.58	19.853		
9,000.00	7,061.78	7,043.78	7,061.78	64.55	244.18	90.13	2,568.46	-6,355.68	5,836.28	5,536.88	299.40	19.493		
9,100.00	7,061.55	7,043.55	7,061.55	67.00	244.17	90.13	2,568.46	-6,355.68	5,765.64	5,464.34	301.30	19.136		
9,200.00	7,061.31	7,043.31	7,061.31	69.47	244.16	90.13	2,568.46	-6,355.68	5,695.88	5,392.60	303.28	18.781		
9,300.00	7,061.08	7,043.08	7,061.08	71.98	244.15	90.12	2,568.46	-6,355.68	5,627.03	5,321.68	305.35	18.428		
9,400.00	7,060.85	7,042.85	7,060.85	74.51	244.14	90.12	2,568.46	-6,355.68	5,559.13	5,251.63	307.50	18.079		
9,500.00	7,060.62	7,042.62	7,060.62	77.06	244.14	90.12	2,568.46	-6,355.68	5,492.22	5,182.49	309.73	17.732		
9,600.00	7,060.39	7,042.39	7,060.39	79.64	244.13	90.11	2,568.46	-6,355.68	5,426.32	5,114.28	312.03	17.390		
9,700.00	7,060.16	7,042.16	7,060.16	82.23	244.12	90.11	2,568.46	-6,355.68	5,361.47	5,047.05	314.42	17.052		
9,800.00	7,059.93	7,041.93	7,059.93	84.84	244.11	90.11	2,568.46	-6,355.68	5,297.72	4,980.84	316.88	16.719		
9,900.00	7,059.70	7,041.70	7,059.70	87.47	244.10	90.10	2,568.46	-6,355.68	5,235.10	4,915.69	319.41	16.390		
10,000.00	7,059.47	7,041.47	7,059.47	90.11	244.09	90.10	2,568.46	-6,355.68	5,173.66	4,851.64	322.02	16.066		
10,100.00	7,059.24	7,041.24	7,059.24	92.76	244.09	90.10	2,568.46	-6,355.68	5,113.44	4,788.74	324.69	15.749		
10,200.00	7,059.01	7,041.01	7,059.01	95.42	244.08	90.09	2,568.46	-6,355.68	5,054.47	4,727.03	327.44	15.436		
10,300.00	7,058.78	7,040.78	7,058.78	98.10	244.07	90.09	2,568.46	-6,355.68	4,996.81	4,666.56	330.25	15.130		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,040.55	7,058.55	100.79	244.06	90.09	2,568.46	-6,355.68	4,940.51	4,607.38	333.13	14.831		
10,500.00	7,058.32	7,040.32	7,058.32	103.48	244.05	90.09	2,568.46	-6,355.68	4,885.60	4,549.53	336.07	14.537		
10,600.00	7,058.09	7,040.09	7,058.09	106.19	244.05	90.08	2,568.46	-6,355.68	4,832.14	4,493.07	339.07	14.251		
10,700.00	7,057.86	7,039.86	7,057.86	108.90	244.04	90.08	2,568.46	-6,355.68	4,780.17	4,438.04	342.13	13.972		
10,800.00	7,057.63	7,039.63	7,057.63	111.62	244.03	90.08	2,568.46	-6,355.68	4,729.74	4,384.51	345.24	13.700		
10,900.00	7,057.40	7,039.40	7,057.40	114.35	244.02	90.07	2,568.46	-6,355.68	4,680.91	4,332.52	348.39	13.436		
11,000.00	7,057.17	7,039.17	7,057.17	117.08	244.01	90.07	2,568.46	-6,355.68	4,633.72	4,282.12	351.60	13.179		
11,100.00	7,056.94	7,038.94	7,056.94	119.82	244.01	90.07	2,568.46	-6,355.68	4,588.23	4,233.39	354.84	12.930		
11,200.00	7,056.71	7,038.71	7,056.71	122.56	244.00	90.06	2,568.46	-6,355.68	4,544.48	4,186.36	358.13	12.690		
11,300.00	7,056.48	7,038.48	7,056.48	125.31	243.99	90.06	2,568.46	-6,355.68	4,502.53	4,141.09	361.44	12.457		
11,400.00	7,056.25	7,038.25	7,056.25	128.06	243.98	90.06	2,568.46	-6,355.68	4,462.43	4,097.64	364.78	12.233		
11,500.00	7,056.02	7,038.02	7,056.02	130.82	243.97	90.05	2,568.46	-6,355.68	4,424.22	4,056.07	368.14	12.018		
11,600.00	7,055.79	7,037.79	7,055.79	133.59	243.97	90.05	2,568.46	-6,355.68	4,387.96	4,016.44	371.52	11.811		
11,700.00	7,055.55	7,037.55	7,055.55	136.35	243.96	90.05	2,568.46	-6,355.68	4,353.69	3,978.79	374.90	11.613		
11,800.00	7,055.32	7,037.32	7,055.32	139.12	243.95	90.04	2,568.46	-6,355.68	4,321.47	3,943.18	378.29	11.424		
11,900.00	7,055.09	7,037.09	7,055.09	141.90	243.94	90.04	2,568.46	-6,355.68	4,291.34	3,909.66	381.67	11.243		
12,000.00	7,054.86	7,036.86	7,054.86	144.67	243.93	90.04	2,568.46	-6,355.68	4,263.33	3,878.29	385.04	11.072		
12,100.00	7,054.63	7,036.63	7,054.63	147.45	243.93	90.03	2,568.46	-6,355.68	4,237.51	3,849.12	388.39	10.910		
12,200.00	7,054.40	7,036.40	7,054.40	150.24	243.92	90.03	2,568.46	-6,355.68	4,213.90	3,822.18	391.72	10.757		
12,300.00	7,054.17	7,036.17	7,054.17	153.02	243.91	90.03	2,568.46	-6,355.68	4,192.54	3,797.53	395.01	10.614		
12,400.00	7,053.94	7,035.94	7,053.94	155.81	243.90	90.02	2,568.46	-6,355.68	4,173.47	3,775.22	398.25	10.479		
12,500.00	7,053.71	7,035.71	7,053.71	158.60	243.89	90.02	2,568.46	-6,355.68	4,156.72	3,755.27	401.45	10.354		
12,600.00	7,053.48	7,035.48	7,053.48	161.40	243.89	90.02	2,568.46	-6,355.68	4,142.32	3,737.72	404.59	10.238		
12,700.00	7,053.25	7,035.25	7,053.25	164.19	243.88	90.01	2,568.46	-6,355.68	4,130.28	3,722.61	407.67	10.131		
12,800.00	7,053.02	7,035.02	7,053.02	166.99	243.87	90.01	2,568.46	-6,355.68	4,120.65	3,709.97	410.68	10.034		
12,900.00	7,052.79	7,034.79	7,052.79	169.79	243.86	90.01	2,568.46	-6,355.68	4,113.41	3,699.81	413.60	9.945		
13,000.00	7,052.56	7,034.56	7,052.56	172.59	243.85	90.00	2,568.46	-6,355.68	4,108.61	3,692.16	416.45	9.866		
13,100.00	7,052.33	7,034.33	7,052.33	175.40	243.85	90.00	2,568.46	-6,355.68	4,106.23	3,687.03	419.20	9.795		
13,147.70	7,052.22	7,034.22	7,052.22	176.74	243.84	90.00	2,568.46	-6,355.68	4,105.95	3,685.47	420.48	9.765 CC		
13,200.00	7,052.10	7,034.10	7,052.10	178.20	243.84	90.00	2,568.46	-6,355.68	4,106.28	3,684.43	421.86	9.734		
13,300.00	7,051.87	7,033.87	7,051.87	181.01	243.83	90.00	2,568.46	-6,355.68	4,108.77	3,684.36	424.41	9.681 ES		
13,400.00	7,051.64	7,033.64	7,051.64	183.82	243.82	89.99	2,568.46	-6,355.68	4,113.69	3,686.83	426.86	9.637		
13,500.00	7,051.41	7,033.41	7,051.41	186.63	243.81	89.99	2,568.46	-6,355.68	4,121.04	3,691.83	429.20	9.602		
13,600.00	7,051.18	7,033.18	7,051.18	189.44	243.81	89.99	2,568.46	-6,355.68	4,130.79	3,699.35	431.43	9.575		
13,700.00	7,050.95	7,032.95	7,050.95	192.25	243.80	89.98	2,568.46	-6,355.68	4,142.93	3,709.38	433.55	9.556		
13,800.00	7,050.72	7,032.72	7,050.72	195.07	243.79	89.98	2,568.46	-6,355.68	4,157.44	3,721.90	435.55	9.545		
13,900.00	7,050.49	7,032.49	7,050.49	197.88	243.78	89.98	2,568.46	-6,355.68	4,174.30	3,736.87	437.43	9.543 SF		
14,000.00	7,050.26	7,032.26	7,050.26	200.70	243.77	89.97	2,568.46	-6,355.68	4,193.48	3,754.29	439.19	9.548		
14,100.00	7,050.03	7,032.03	7,050.03	203.52	243.77	89.97	2,568.46	-6,355.68	4,214.94	3,774.11	440.83	9.561		
14,200.00	7,049.80	7,031.80	7,049.80	206.34	243.76	89.97	2,568.46	-6,355.68	4,238.65	3,796.30	442.36	9.582		
14,300.00	7,049.56	7,031.56	7,049.56	209.16	243.75	89.96	2,568.46	-6,355.68	4,264.58	3,820.81	443.76	9.610		
14,400.00	7,049.33	7,031.33	7,049.33	211.98	243.74	89.96	2,568.46	-6,355.68	4,292.68	3,847.62	445.06	9.645		
14,500.00	7,049.10	7,031.10	7,049.10	214.80	243.73	89.96	2,568.46	-6,355.68	4,322.91	3,876.67	446.24	9.687		
14,600.00	7,048.87	7,030.87	7,048.87	217.63	243.72	89.95	2,568.46	-6,355.68	4,355.23	3,907.92	447.31	9.736		
14,700.00	7,048.64	7,030.64	7,048.64	220.45	243.72	89.95	2,568.46	-6,355.68	4,389.59	3,941.31	448.27	9.792		
14,800.00	7,048.41	7,030.41	7,048.41	223.28	243.71	89.95	2,568.46	-6,355.68	4,425.94	3,976.80	449.13	9.854		
14,900.00	7,048.18	7,030.18	7,048.18	226.10	243.70	89.94	2,568.46	-6,355.68	4,464.23	4,014.34	449.89	9.923		
14,979.18	7,048.00	7,030.00	7,048.00	228.34	243.69	89.94	2,568.46	-6,355.68	4,495.90	4,045.48	450.42	9.981		

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 12N-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 12N-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	-72.32	2,503.31	-7,851.93	8,241.34				
100.00	100.00	85.00	100.00	3.28	3.60	-72.32	2,503.31	-7,851.93	8,241.33	8,234.44	6.88	1,197.055	
200.00	200.00	185.00	200.00	3.34	5.74	-72.32	2,503.31	-7,851.93	8,241.33	8,232.25	9.08	907.742	
300.00	299.98	284.98	299.98	3.44	8.83	101.60	2,503.31	-7,851.93	8,241.68	8,229.40	12.27	671.478	
400.00	399.84	384.84	399.84	3.59	12.14	101.62	2,503.31	-7,851.93	8,242.73	8,227.00	15.73	524.041	
500.00	499.45	484.45	499.45	3.79	15.52	101.64	2,503.31	-7,851.93	8,244.50	8,225.19	19.30	427.092	
600.00	598.70	583.70	598.70	4.03	18.92	101.67	2,503.31	-7,851.93	8,246.98	8,224.03	22.95	359.386	
700.00	697.47	682.47	697.47	4.31	22.32	101.72	2,503.31	-7,851.93	8,250.18	8,223.55	26.64	309.742	
800.00	795.62	780.62	795.62	4.64	25.72	101.77	2,503.31	-7,851.93	8,254.14	8,223.78	30.35	271.934	
900.00	893.16	878.16	893.16	5.00	29.10	101.87	2,503.31	-7,851.93	8,258.76	8,224.67	34.09	242.252	
1,000.00	990.60	975.60	990.60	5.38	32.48	102.02	2,503.31	-7,851.93	8,263.53	8,225.67	37.86	218.270	
1,100.00	1,088.04	1,073.04	1,088.04	5.79	35.86	102.17	2,503.31	-7,851.93	8,268.36	8,226.71	41.65	198.515	
1,200.00	1,185.48	1,170.48	1,185.48	6.22	39.25	102.31	2,503.31	-7,851.93	8,273.24	8,227.78	45.46	181.981	
1,300.00	1,282.92	1,267.92	1,282.92	6.66	42.64	102.46	2,503.31	-7,851.93	8,278.19	8,228.90	49.29	167.953	
1,400.00	1,380.36	1,365.36	1,380.36	7.10	46.04	102.61	2,503.31	-7,851.93	8,283.19	8,230.06	53.13	155.910	
1,500.00	1,477.80	1,462.80	1,477.80	7.56	49.43	102.76	2,503.31	-7,851.93	8,288.25	8,231.27	56.98	145.465	
1,600.00	1,575.24	1,560.24	1,575.24	8.03	52.82	102.91	2,503.31	-7,851.93	8,293.37	8,232.53	60.84	136.325	
1,700.00	1,672.68	1,657.68	1,672.68	8.50	56.22	103.05	2,503.31	-7,851.93	8,298.54	8,233.84	64.70	128.262	
1,800.00	1,770.12	1,755.12	1,770.12	8.98	59.62	103.20	2,503.31	-7,851.93	8,303.78	8,235.21	68.57	121.098	
1,900.00	1,867.56	1,852.56	1,867.56	9.46	63.01	103.35	2,503.31	-7,851.93	8,309.07	8,236.62	72.45	114.692	
2,000.00	1,965.00	1,950.00	1,965.00	9.95	66.41	103.50	2,503.31	-7,851.93	8,314.42	8,238.09	76.33	108.932	
2,100.00	2,062.44	2,047.44	2,062.44	10.44	69.81	103.64	2,503.31	-7,851.93	8,319.82	8,239.61	80.21	103.726	
2,200.00	2,159.88	2,144.88	2,159.88	10.93	73.21	103.79	2,503.31	-7,851.93	8,325.28	8,241.19	84.10	98.997	
2,300.00	2,257.32	2,242.32	2,257.32	11.42	76.60	103.94	2,503.31	-7,851.93	8,330.80	8,242.82	87.99	94.684	
2,400.00	2,354.76	2,339.76	2,354.76	11.92	80.00	104.08	2,503.31	-7,851.93	8,336.38	8,244.50	91.88	90.734	
2,500.00	2,452.20	2,437.20	2,452.20	12.42	83.40	104.23	2,503.31	-7,851.93	8,342.01	8,246.24	95.77	87.104	
2,600.00	2,549.64	2,534.64	2,549.64	12.92	86.80	104.38	2,503.31	-7,851.93	8,347.70	8,248.04	99.67	83.757	
2,700.00	2,647.08	2,632.08	2,647.08	13.42	90.20	104.52	2,503.31	-7,851.93	8,353.45	8,249.89	103.56	80.660	
2,800.00	2,744.52	2,729.52	2,744.52	13.93	93.60	104.67	2,503.31	-7,851.93	8,359.25	8,251.79	107.46	77.788	
2,900.00	2,841.96	2,826.96	2,841.96	14.43	97.00	104.81	2,503.31	-7,851.93	8,365.11	8,253.75	111.36	75.117	
3,000.00	2,939.40	2,924.40	2,939.40	14.94	100.40	104.96	2,503.31	-7,851.93	8,371.03	8,255.77	115.26	72.626	
3,100.00	3,036.84	3,021.84	3,036.84	15.44	103.80	105.10	2,503.31	-7,851.93	8,377.00	8,257.84	119.16	70.298	
3,200.00	3,134.28	3,119.28	3,134.28	15.95	107.20	105.25	2,503.31	-7,851.93	8,383.03	8,259.97	123.07	68.118	
3,300.00	3,231.72	3,216.72	3,231.72	16.46	110.60	105.39	2,503.31	-7,851.93	8,389.12	8,262.15	126.97	66.072	
3,400.00	3,329.16	3,314.16	3,329.16	16.97	114.00	105.54	2,503.31	-7,851.93	8,395.26	8,264.38	130.87	64.148	
3,500.00	3,426.60	3,411.60	3,426.60	17.48	117.40	105.68	2,503.31	-7,851.93	8,401.45	8,266.67	134.78	62.336	
3,600.00	3,524.04	3,509.04	3,524.04	17.99	120.80	105.82	2,503.31	-7,851.93	8,407.70	8,269.02	138.68	60.626	
3,700.00	3,621.48	3,606.48	3,621.48	18.50	124.20	105.97	2,503.31	-7,851.93	8,414.01	8,271.42	142.59	59.009	
3,800.00	3,718.92	3,703.92	3,718.92	19.01	127.60	106.11	2,503.31	-7,851.93	8,420.37	8,273.88	146.49	57.479	
3,900.00	3,816.36	3,801.36	3,816.36	19.52	131.00	106.26	2,503.31	-7,851.93	8,426.79	8,276.39	150.40	56.029	
4,000.00	3,913.80	3,901.20	3,913.80	20.03	134.49	106.40	2,503.31	-7,851.93	8,433.26	8,278.87	154.39	54.623	
4,100.00	4,011.24	4,003.76	4,011.24	20.55	138.06	106.54	2,503.31	-7,851.93	8,439.79	8,281.31	158.48	53.256	
4,200.00	4,108.68	4,106.32	4,108.68	21.06	141.64	106.68	2,503.31	-7,851.93	8,446.37	8,283.81	162.56	51.958	
4,300.00	4,206.12	4,208.88	4,206.12	21.57	145.22	106.83	2,503.31	-7,851.93	8,453.01	8,286.36	166.65	50.724	
4,400.00	4,303.56	4,288.56	4,303.56	22.09	148.00	106.97	2,503.31	-7,851.93	8,459.70	8,289.76	169.94	49.781	
4,500.00	4,401.00	4,386.00	4,401.00	22.60	151.41	107.11	2,503.31	-7,851.93	8,466.44	8,292.60	173.84	48.701	
4,600.00	4,498.44	4,483.44	4,498.44	23.11	154.81	107.25	2,503.31	-7,851.93	8,473.24	8,295.49	177.75	47.669	
4,700.00	4,595.88	4,580.88	4,595.88	23.63	158.21	107.39	2,503.31	-7,851.93	8,480.10	8,298.44	181.66	46.681	
4,800.00	4,693.32	4,678.32	4,693.32	24.14	161.61	107.54	2,503.31	-7,851.93	8,487.01	8,301.44	185.57	45.735	
4,900.00	4,790.76	4,775.76	4,790.76	24.66	165.01	107.68	2,503.31	-7,851.93	8,493.97	8,304.49	189.48	44.828	
5,000.00	4,888.20	4,873.20	4,888.20	25.17	168.41	107.82	2,503.31	-7,851.93	8,500.98	8,307.60	193.39	43.959	
5,100.00	4,985.64	4,970.64	4,985.64	25.69	171.81	107.96	2,503.31	-7,851.93	8,508.05	8,310.76	197.29	43.124	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,068.08	5,083.08	26.20	175.21	108.10	2,503.31	-7,851.93	8,515.18	8,313.97	201.20	42.321		
5,300.00	5,180.52	5,165.52	5,180.52	26.72	178.61	108.24	2,503.31	-7,851.93	8,522.35	8,317.24	205.11	41.550		
5,400.00	5,277.96	5,262.96	5,277.96	27.24	182.01	108.38	2,503.31	-7,851.93	8,529.58	8,320.56	209.02	40.807		
5,500.00	5,375.40	5,360.40	5,375.40	27.75	185.42	108.52	2,503.31	-7,851.93	8,536.86	8,323.93	212.93	40.092		
5,600.00	5,472.84	5,457.84	5,472.84	28.27	188.82	108.66	2,503.31	-7,851.93	8,544.20	8,327.36	216.84	39.404		
5,700.00	5,570.28	5,555.28	5,570.28	28.79	192.22	108.80	2,503.31	-7,851.93	8,551.59	8,330.84	220.75	38.739		
5,800.00	5,667.72	5,652.72	5,667.72	29.30	195.62	108.94	2,503.31	-7,851.93	8,559.03	8,334.37	224.66	38.098		
5,900.00	5,765.16	5,750.16	5,765.16	29.82	199.02	109.08	2,503.31	-7,851.93	8,566.52	8,337.96	228.56	37.480		
6,000.00	5,862.60	5,847.60	5,862.60	30.34	202.42	109.22	2,503.31	-7,851.93	8,574.07	8,341.59	232.47	36.882		
6,100.00	5,960.05	5,945.05	5,960.05	30.85	205.82	109.35	2,503.31	-7,851.93	8,581.67	8,345.28	236.38	36.304		
6,200.00	6,057.49	6,042.49	6,057.49	31.37	209.22	109.49	2,503.31	-7,851.93	8,589.32	8,349.03	240.29	35.746		
6,300.00	6,154.93	6,139.93	6,154.93	31.89	212.63	109.63	2,503.31	-7,851.93	8,597.02	8,352.82	244.20	35.205		
6,400.00	6,252.37	6,237.37	6,252.37	32.40	216.03	109.77	2,503.31	-7,851.93	8,604.77	8,356.66	248.11	34.682		
6,500.00	6,349.81	6,334.81	6,349.81	32.92	219.43	109.91	2,503.31	-7,851.93	8,612.58	8,360.56	252.02	34.175		
6,600.00	6,447.25	6,432.25	6,447.25	33.44	222.83	110.04	2,503.31	-7,851.93	8,620.43	8,364.51	255.92	33.684		
6,700.00	6,544.68	6,529.68	6,544.68	33.95	226.22	81.38	2,503.31	-7,851.93	8,628.06	8,368.24	259.82	33.189		
6,800.00	6,638.86	6,623.86	6,638.86	34.44	229.52	63.28	2,503.31	-7,851.93	8,611.87	8,348.26	263.61	32.669		
6,900.00	6,728.65	6,713.65	6,728.65	34.89	232.65	54.98	2,503.31	-7,851.93	8,587.08	8,319.87	267.21	32.136		
7,000.00	6,811.45	6,803.55	6,811.45	35.29	235.79	51.65	2,503.31	-7,851.93	8,549.37	8,278.59	270.78	31.573		
7,100.00	6,885.21	6,870.21	6,885.21	35.66	238.12	51.38	2,503.31	-7,851.93	8,499.74	8,226.22	273.52	31.076		
7,200.00	6,948.11	6,933.11	6,948.11	35.99	240.31	53.56	2,503.31	-7,851.93	8,439.47	8,163.35	276.12	30.565		
7,300.00	6,998.62	6,983.62	6,998.62	36.30	242.08	58.19	2,503.31	-7,851.93	8,370.09	8,091.79	278.29	30.077		
7,400.00	7,035.48	7,020.48	7,035.48	36.65	243.36	65.66	2,503.31	-7,851.93	8,293.34	8,013.33	280.01	29.618		
7,500.00	7,057.79	7,042.79	7,057.79	37.13	244.14	76.42	2,503.31	-7,851.93	8,211.12	7,929.88	281.24	29.196		
7,600.00	7,065.00	7,050.00	7,065.00	37.84	244.39	90.23	2,503.31	-7,851.93	8,125.44	7,843.47	281.97	28.817		
7,700.00	7,064.77	7,049.77	7,064.77	38.82	244.38	90.23	2,503.31	-7,851.93	8,038.90	7,756.42	282.48	28.458		
7,800.00	7,064.54	7,049.54	7,064.54	40.06	244.38	90.22	2,503.31	-7,851.93	7,952.68	7,669.63	283.05	28.096		
7,900.00	7,064.31	7,049.31	7,064.31	41.52	244.37	90.22	2,503.31	-7,851.93	7,866.78	7,583.09	283.69	27.730		
8,000.00	7,064.08	7,049.08	7,064.08	43.14	244.36	90.22	2,503.31	-7,851.93	7,781.22	7,496.82	284.40	27.361		
8,100.00	7,063.85	7,048.85	7,063.85	44.90	244.35	90.21	2,503.31	-7,851.93	7,696.01	7,410.84	285.17	26.988		
8,200.00	7,063.62	7,048.62	7,063.62	46.78	244.34	90.21	2,503.31	-7,851.93	7,611.15	7,325.14	286.01	26.611		
8,300.00	7,063.39	7,048.39	7,063.39	48.76	244.34	90.21	2,503.31	-7,851.93	7,526.67	7,239.75	286.92	26.233		
8,400.00	7,063.16	7,048.16	7,063.16	50.83	244.33	90.20	2,503.31	-7,851.93	7,442.58	7,154.68	287.90	25.851		
8,500.00	7,062.93	7,047.93	7,062.93	52.97	244.32	90.20	2,503.31	-7,851.93	7,358.88	7,069.93	288.95	25.468		
8,600.00	7,062.70	7,047.70	7,062.70	55.18	244.31	90.20	2,503.31	-7,851.93	7,275.59	6,985.52	290.07	25.082		
8,700.00	7,062.47	7,047.47	7,062.47	57.46	244.30	90.19	2,503.31	-7,851.93	7,192.73	6,901.47	291.26	24.695		
8,800.00	7,062.24	7,047.24	7,062.24	59.78	244.30	90.19	2,503.31	-7,851.93	7,110.31	6,817.79	292.52	24.307		
8,900.00	7,062.01	7,047.01	7,062.01	62.14	244.29	90.19	2,503.31	-7,851.93	7,028.35	6,734.50	293.85	23.918		
9,000.00	7,061.78	7,046.78	7,061.78	64.55	244.28	90.18	2,503.31	-7,851.93	6,946.86	6,651.60	295.25	23.528		
9,100.00	7,061.55	7,046.55	7,061.55	67.00	244.27	90.18	2,503.31	-7,851.93	6,865.85	6,569.13	296.72	23.139		
9,200.00	7,061.31	7,046.31	7,061.31	69.47	244.26	90.18	2,503.31	-7,851.93	6,785.36	6,487.09	298.27	22.749		
9,300.00	7,061.08	7,046.08	7,061.08	71.98	244.26	90.17	2,503.31	-7,851.93	6,705.39	6,405.51	299.88	22.360		
9,400.00	7,060.85	7,045.85	7,060.85	74.51	244.25	90.17	2,503.31	-7,851.93	6,625.96	6,324.40	301.56	21.972		
9,500.00	7,060.62	7,045.62	7,060.62	77.06	244.24	90.17	2,503.31	-7,851.93	6,547.10	6,243.79	303.31	21.585		
9,600.00	7,060.39	7,045.39	7,060.39	79.64	244.23	90.16	2,503.31	-7,851.93	6,468.82	6,163.69	305.14	21.200		
9,700.00	7,060.16	7,045.16	7,060.16	82.23	244.22	90.16	2,503.31	-7,851.93	6,391.15	6,084.12	307.03	20.816		
9,800.00	7,059.93	7,044.93	7,059.93	84.84	244.22	90.16	2,503.31	-7,851.93	6,314.11	6,005.11	308.99	20.434		
9,900.00	7,059.70	7,044.70	7,059.70	87.47	244.21	90.15	2,503.31	-7,851.93	6,237.71	5,926.69	311.03	20.055		
10,000.00	7,059.47	7,044.47	7,059.47	90.11	244.20	90.15	2,503.31	-7,851.93	6,162.00	5,848.86	313.13	19.679		
10,100.00	7,059.24	7,044.24	7,059.24	92.76	244.19	90.15	2,503.31	-7,851.93	6,086.98	5,771.67	315.31	19.305		
10,200.00	7,059.01	7,044.01	7,059.01	95.42	244.18	90.14	2,503.31	-7,851.93	6,012.70	5,695.14	317.56	18.934		
10,300.00	7,058.78	7,043.78	7,058.78	98.10	244.18	90.14	2,503.31	-7,851.93	5,939.16	5,619.29	319.87	18.567		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,043.55	7,058.55	100.79	244.17	90.14	2,503.31	-7,851.93	5,866.41	5,544.15	322.26	18.204		
10,500.00	7,058.32	7,043.32	7,058.32	103.48	244.16	90.14	2,503.31	-7,851.93	5,794.47	5,469.75	324.72	17.844		
10,600.00	7,058.09	7,043.09	7,058.09	106.19	244.15	90.13	2,503.31	-7,851.93	5,723.38	5,396.13	327.25	17.489		
10,700.00	7,057.86	7,042.86	7,057.86	108.90	244.14	90.13	2,503.31	-7,851.93	5,653.16	5,323.30	329.85	17.138		
10,800.00	7,057.63	7,042.63	7,057.63	111.62	244.14	90.13	2,503.31	-7,851.93	5,583.85	5,251.32	332.53	16.792		
10,900.00	7,057.40	7,042.40	7,057.40	114.35	244.13	90.12	2,503.31	-7,851.93	5,515.48	5,180.21	335.27	16.451		
11,000.00	7,057.17	7,042.17	7,057.17	117.08	244.12	90.12	2,503.31	-7,851.93	5,448.08	5,110.00	338.08	16.115		
11,100.00	7,056.94	7,041.94	7,056.94	119.82	244.11	90.12	2,503.31	-7,851.93	5,381.71	5,040.74	340.96	15.784		
11,200.00	7,056.71	7,041.71	7,056.71	122.56	244.10	90.11	2,503.31	-7,851.93	5,316.38	4,972.47	343.91	15.458		
11,300.00	7,056.48	7,041.48	7,056.48	125.31	244.09	90.11	2,503.31	-7,851.93	5,252.15	4,905.21	346.93	15.139		
11,400.00	7,056.25	7,041.25	7,056.25	128.06	244.09	90.11	2,503.31	-7,851.93	5,189.04	4,839.03	350.02	14.825		
11,500.00	7,056.02	7,041.02	7,056.02	130.82	244.08	90.10	2,503.31	-7,851.93	5,127.12	4,773.95	353.17	14.517		
11,600.00	7,055.79	7,040.79	7,055.79	133.59	244.07	90.10	2,503.31	-7,851.93	5,066.40	4,710.02	356.38	14.216		
11,700.00	7,055.55	7,040.55	7,055.55	136.35	244.06	90.10	2,503.31	-7,851.93	5,006.95	4,647.29	359.66	13.921		
11,800.00	7,055.32	7,040.32	7,055.32	139.12	244.05	90.09	2,503.31	-7,851.93	4,948.81	4,585.81	363.00	13.633		
11,900.00	7,055.09	7,040.09	7,055.09	141.90	244.05	90.09	2,503.31	-7,851.93	4,892.02	4,525.63	366.40	13.352		
12,000.00	7,054.86	7,039.86	7,054.86	144.67	244.04	90.09	2,503.31	-7,851.93	4,836.63	4,466.79	369.85	13.077		
12,100.00	7,054.63	7,039.63	7,054.63	147.45	244.03	90.08	2,503.31	-7,851.93	4,782.69	4,409.34	373.35	12.810		
12,200.00	7,054.40	7,039.40	7,054.40	150.24	244.02	90.08	2,503.31	-7,851.93	4,730.25	4,353.35	376.90	12.550		
12,300.00	7,054.17	7,039.17	7,054.17	153.02	244.01	90.08	2,503.31	-7,851.93	4,679.36	4,298.86	380.50	12.298		
12,400.00	7,053.94	7,038.94	7,053.94	155.81	244.01	90.07	2,503.31	-7,851.93	4,630.07	4,245.93	384.14	12.053		
12,500.00	7,053.71	7,038.71	7,053.71	158.60	244.00	90.07	2,503.31	-7,851.93	4,582.43	4,194.62	387.82	11.816		
12,600.00	7,053.48	7,038.48	7,053.48	161.40	243.99	90.07	2,503.31	-7,851.93	4,536.50	4,144.98	391.53	11.587		
12,700.00	7,053.25	7,038.25	7,053.25	164.19	243.98	90.06	2,503.31	-7,851.93	4,492.32	4,097.06	395.26	11.365		
12,800.00	7,053.02	7,038.02	7,053.02	166.99	243.97	90.06	2,503.31	-7,851.93	4,449.96	4,050.94	399.01	11.152		
12,900.00	7,052.79	7,037.79	7,052.79	169.79	243.97	90.06	2,503.31	-7,851.93	4,409.45	4,006.67	402.78	10.947		
13,000.00	7,052.56	7,037.56	7,052.56	172.59	243.96	90.05	2,503.31	-7,851.93	4,370.86	3,964.30	406.56	10.751		
13,100.00	7,052.33	7,037.33	7,052.33	175.40	243.95	90.05	2,503.31	-7,851.93	4,334.23	3,923.89	410.33	10.563		
13,200.00	7,052.10	7,037.10	7,052.10	178.20	243.94	90.05	2,503.31	-7,851.93	4,299.61	3,885.51	414.10	10.383		
13,300.00	7,051.87	7,036.87	7,051.87	181.01	243.93	90.04	2,503.31	-7,851.93	4,267.06	3,849.21	417.86	10.212		
13,400.00	7,051.64	7,036.64	7,051.64	183.82	243.93	90.04	2,503.31	-7,851.93	4,236.62	3,815.03	421.59	10.049		
13,500.00	7,051.41	7,036.41	7,051.41	186.63	243.92	90.04	2,503.31	-7,851.93	4,208.33	3,783.05	425.28	9.895		
13,600.00	7,051.18	7,036.18	7,051.18	189.44	243.91	90.03	2,503.31	-7,851.93	4,182.25	3,753.31	428.94	9.750		
13,700.00	7,050.95	7,035.95	7,050.95	192.25	243.90	90.03	2,503.31	-7,851.93	4,158.41	3,725.86	432.55	9.614		
13,800.00	7,050.72	7,035.72	7,050.72	195.07	243.89	90.03	2,503.31	-7,851.93	4,136.85	3,700.74	436.10	9.486		
13,900.00	7,050.49	7,035.49	7,050.49	197.88	243.89	90.02	2,503.31	-7,851.93	4,117.60	3,678.01	439.59	9.367		
14,000.00	7,050.26	7,035.26	7,050.26	200.70	243.88	90.02	2,503.31	-7,851.93	4,100.70	3,657.71	443.00	9.257		
14,100.00	7,050.03	7,035.03	7,050.03	203.52	243.87	90.02	2,503.31	-7,851.93	4,086.18	3,639.86	446.32	9.155		
14,200.00	7,049.80	7,034.80	7,049.80	206.34	243.86	90.01	2,503.31	-7,851.93	4,074.07	3,624.51	449.56	9.062		
14,300.00	7,049.56	7,034.56	7,049.56	209.16	243.85	90.01	2,503.31	-7,851.93	4,064.38	3,611.69	452.69	8.978		
14,400.00	7,049.33	7,034.33	7,049.33	211.98	243.85	90.01	2,503.31	-7,851.93	4,057.13	3,601.41	455.72	8.903		
14,500.00	7,049.10	7,034.10	7,049.10	214.80	243.84	90.00	2,503.31	-7,851.93	4,052.34	3,593.70	458.63	8.836		
14,600.00	7,048.87	7,033.87	7,048.87	217.63	243.83	90.00	2,503.31	-7,851.93	4,050.01	3,588.58	461.43	8.777		
14,644.32	7,048.77	7,033.77	7,048.77	218.88	243.83	90.00	2,503.31	-7,851.93	4,049.77	3,587.14	462.63	8.754 CC		
14,700.00	7,048.64	7,033.64	7,048.64	220.45	243.82	90.00	2,503.31	-7,851.93	4,050.15	3,586.05	464.10	8.727 ES		
14,800.00	7,048.41	7,033.41	7,048.41	223.28	243.81	89.99	2,503.31	-7,851.93	4,052.76	3,586.13	466.63	8.685		
14,900.00	7,048.18	7,033.18	7,048.18	226.10	243.81	89.99	2,503.31	-7,851.93	4,057.83	3,588.80	469.03	8.651		
14,979.18	7,048.00	7,033.00	7,048.00	228.34	243.80	89.99	2,503.31	-7,851.93	4,063.59	3,592.75	470.84	8.631 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-54.17	2,618.91	-3,627.40	4,474.00				
100.00	100.00	102.00	100.00	3.28	3.75	-54.17	2,618.91	-3,627.40	4,474.00	4,466.97	7.03	636.096	
200.00	200.00	202.00	200.00	3.34	6.24	-54.17	2,618.91	-3,627.40	4,474.00	4,464.43	9.58	467.246	
300.00	299.98	301.98	299.98	3.44	9.39	119.75	2,618.91	-3,627.40	4,474.87	4,462.04	12.83	348.843	
400.00	399.84	401.84	399.84	3.59	12.71	119.76	2,618.91	-3,627.40	4,477.47	4,461.16	16.30	274.650	
500.00	499.45	501.45	499.45	3.79	16.10	119.78	2,618.91	-3,627.40	4,481.81	4,461.92	19.89	225.378	
600.00	598.70	600.70	598.70	4.03	19.50	119.81	2,618.91	-3,627.40	4,487.90	4,464.36	23.53	190.703	
700.00	697.47	700.53	697.47	4.31	22.95	119.84	2,618.91	-3,627.40	4,495.75	4,468.49	27.26	164.923	
800.00	795.62	802.38	795.62	4.64	26.47	119.88	2,618.91	-3,627.40	4,505.39	4,474.28	31.10	144.851	
900.00	893.16	904.84	893.16	5.00	30.02	120.03	2,618.91	-3,627.40	4,516.60	4,481.59	35.01	129.013	
1,000.00	990.60	1,007.40	990.60	5.38	33.58	120.27	2,618.91	-3,627.40	4,528.11	4,489.17	38.95	116.267	
1,100.00	1,088.04	1,109.96	1,088.04	5.79	37.15	120.51	2,618.91	-3,627.40	4,539.70	4,496.80	42.91	105.804	
1,200.00	1,185.48	1,187.48	1,185.48	6.22	39.84	120.75	2,618.91	-3,627.40	4,551.38	4,505.36	46.01	98.912	
1,300.00	1,282.92	1,284.92	1,282.92	6.66	43.24	120.99	2,618.91	-3,627.40	4,563.13	4,513.30	49.83	91.574	
1,400.00	1,380.36	1,382.36	1,380.36	7.10	46.63	121.22	2,618.91	-3,627.40	4,574.97	4,521.31	53.66	85.262	
1,500.00	1,477.80	1,479.80	1,477.80	7.56	50.02	121.46	2,618.91	-3,627.40	4,586.88	4,529.39	57.50	79.779	
1,600.00	1,575.24	1,577.24	1,575.24	8.03	53.42	121.69	2,618.91	-3,627.40	4,598.88	4,537.54	61.34	74.973	
1,700.00	1,672.68	1,674.68	1,672.68	8.50	56.81	121.93	2,618.91	-3,627.40	4,610.95	4,545.76	65.19	70.728	
1,800.00	1,770.12	1,772.12	1,770.12	8.98	60.21	122.16	2,618.91	-3,627.40	4,623.10	4,554.05	69.05	66.953	
1,900.00	1,867.56	1,869.56	1,867.56	9.46	63.61	122.39	2,618.91	-3,627.40	4,635.33	4,562.41	72.91	63.574	
2,000.00	1,965.00	1,967.00	1,965.00	9.95	67.00	122.62	2,618.91	-3,627.40	4,647.63	4,570.85	76.78	60.533	
2,100.00	2,062.44	2,064.44	2,062.44	10.44	70.40	122.85	2,618.91	-3,627.40	4,660.01	4,579.36	80.65	57.782	
2,200.00	2,159.88	2,161.88	2,159.88	10.93	73.80	123.08	2,618.91	-3,627.40	4,672.46	4,587.94	84.52	55.282	
2,300.00	2,257.32	2,259.32	2,257.32	11.42	77.20	123.30	2,618.91	-3,627.40	4,684.99	4,596.60	88.40	53.000	
2,400.00	2,354.76	2,356.76	2,354.76	11.92	80.60	123.53	2,618.91	-3,627.40	4,697.60	4,605.33	92.27	50.910	
2,500.00	2,452.20	2,454.20	2,452.20	12.42	83.99	123.75	2,618.91	-3,627.40	4,710.28	4,614.13	96.15	48.988	
2,600.00	2,549.64	2,551.64	2,549.64	12.92	87.39	123.97	2,618.91	-3,627.40	4,723.03	4,623.00	100.03	47.215	
2,700.00	2,647.08	2,649.08	2,647.08	13.42	90.79	124.19	2,618.91	-3,627.40	4,735.85	4,631.94	103.91	45.575	
2,800.00	2,744.52	2,746.52	2,744.52	13.93	94.19	124.42	2,618.91	-3,627.40	4,748.75	4,640.95	107.80	44.053	
2,900.00	2,841.96	2,843.96	2,841.96	14.43	97.59	124.63	2,618.91	-3,627.40	4,761.71	4,650.03	111.68	42.637	
3,000.00	2,939.40	2,941.40	2,939.40	14.94	100.99	124.85	2,618.91	-3,627.40	4,774.75	4,659.18	115.56	41.317	
3,100.00	3,036.84	3,038.84	3,036.84	15.44	104.39	125.07	2,618.91	-3,627.40	4,787.85	4,668.40	119.45	40.082	
3,200.00	3,134.28	3,136.28	3,134.28	15.95	107.79	125.29	2,618.91	-3,627.40	4,801.03	4,677.69	123.34	38.926	
3,300.00	3,231.72	3,233.72	3,231.72	16.46	111.19	125.50	2,618.91	-3,627.40	4,814.28	4,687.05	127.22	37.841	
3,400.00	3,329.16	3,331.16	3,329.16	16.97	114.59	125.71	2,618.91	-3,627.40	4,827.59	4,696.48	131.11	36.821	
3,500.00	3,426.60	3,428.60	3,426.60	17.48	117.99	125.93	2,618.91	-3,627.40	4,840.97	4,705.97	135.00	35.860	
3,600.00	3,524.04	3,526.04	3,524.04	17.99	121.39	126.14	2,618.91	-3,627.40	4,854.42	4,715.53	138.89	34.953	
3,700.00	3,621.48	3,623.48	3,621.48	18.50	124.79	126.35	2,618.91	-3,627.40	4,867.93	4,725.16	142.77	34.096	
3,800.00	3,718.92	3,720.92	3,718.92	19.01	128.19	126.56	2,618.91	-3,627.40	4,881.52	4,734.85	146.66	33.284	
3,900.00	3,816.36	3,818.36	3,816.36	19.52	131.59	126.76	2,618.91	-3,627.40	4,895.16	4,744.61	150.55	32.515	
4,000.00	3,913.80	3,915.80	3,913.80	20.03	135.00	126.97	2,618.91	-3,627.40	4,908.88	4,754.44	154.44	31.785	
4,100.00	4,011.24	4,013.24	4,011.24	20.55	138.40	127.18	2,618.91	-3,627.40	4,922.65	4,764.32	158.33	31.091	
4,200.00	4,108.68	4,110.68	4,108.68	21.06	141.80	127.38	2,618.91	-3,627.40	4,936.49	4,774.28	162.22	30.431	
4,300.00	4,206.12	4,208.12	4,206.12	21.57	145.20	127.59	2,618.91	-3,627.40	4,950.40	4,784.29	166.11	29.803	
4,400.00	4,303.56	4,305.56	4,303.56	22.09	148.60	127.79	2,618.91	-3,627.40	4,964.36	4,794.37	170.00	29.203	
4,500.00	4,401.00	4,403.00	4,401.00	22.60	152.00	127.99	2,618.91	-3,627.40	4,978.39	4,804.51	173.88	28.630	
4,600.00	4,498.44	4,500.44	4,498.44	23.11	155.40	128.19	2,618.91	-3,627.40	4,992.48	4,814.71	177.77	28.083	
4,700.00	4,595.88	4,602.12	4,595.88	23.63	158.95	128.39	2,618.91	-3,627.40	5,006.63	4,824.82	181.81	27.538	
4,800.00	4,693.32	4,704.68	4,693.32	24.14	162.53	128.59	2,618.91	-3,627.40	5,020.85	4,834.97	185.88	27.012	
4,900.00	4,790.76	4,807.24	4,790.76	24.66	166.11	128.78	2,618.91	-3,627.40	5,035.12	4,845.17	189.95	26.508	
5,000.00	4,888.20	4,909.80	4,888.20	25.17	169.69	128.98	2,618.91	-3,627.40	5,049.45	4,855.44	194.01	26.026	
5,100.00	4,985.64	4,987.64	4,985.64	25.69	172.40	129.17	2,618.91	-3,627.40	5,063.85	4,866.63	197.22	25.676	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,085.08	5,083.08	26.20	175.81	129.37	2,618.91	-3,627.40	5,078.30	4,877.19	201.11	25.252		
5,300.00	5,180.52	5,182.52	5,180.52	26.72	179.21	129.56	2,618.91	-3,627.40	5,092.81	4,887.81	205.00	24.843		
5,400.00	5,277.96	5,279.96	5,277.96	27.24	182.61	129.75	2,618.91	-3,627.40	5,107.37	4,898.49	208.88	24.451		
5,500.00	5,375.40	5,377.40	5,375.40	27.75	186.01	129.94	2,618.91	-3,627.40	5,122.00	4,909.22	212.77	24.073		
5,600.00	5,472.84	5,474.84	5,472.84	28.27	189.41	130.13	2,618.91	-3,627.40	5,136.68	4,920.02	216.66	23.708		
5,700.00	5,570.28	5,572.28	5,570.28	28.79	192.81	130.32	2,618.91	-3,627.40	5,151.41	4,930.86	220.55	23.357		
5,800.00	5,667.72	5,669.72	5,667.72	29.30	196.21	130.51	2,618.91	-3,627.40	5,166.21	4,941.77	224.44	23.018		
5,900.00	5,765.16	5,767.16	5,765.16	29.82	199.61	130.69	2,618.91	-3,627.40	5,181.06	4,952.73	228.33	22.691		
6,000.00	5,862.60	5,864.60	5,862.60	30.34	203.01	130.88	2,618.91	-3,627.40	5,195.96	4,963.74	232.21	22.376		
6,100.00	5,960.05	5,962.05	5,960.05	30.85	206.42	131.06	2,618.91	-3,627.40	5,210.92	4,974.81	236.10	22.071		
6,200.00	6,057.49	6,059.49	6,057.49	31.37	209.82	131.25	2,618.91	-3,627.40	5,225.93	4,985.94	239.99	21.776		
6,300.00	6,154.93	6,156.93	6,154.93	31.89	213.22	131.43	2,618.91	-3,627.40	5,240.99	4,997.12	243.88	21.490		
6,400.00	6,252.37	6,254.37	6,252.37	32.40	216.62	131.61	2,618.91	-3,627.40	5,256.11	5,008.35	247.76	21.214		
6,500.00	6,349.81	6,351.81	6,349.81	32.92	220.02	131.79	2,618.91	-3,627.40	5,271.28	5,019.63	251.65	20.947		
6,600.00	6,447.25	6,449.25	6,447.25	33.44	223.42	131.97	2,618.91	-3,627.40	5,286.50	5,030.96	255.54	20.688		
6,700.00	6,544.28	6,546.28	6,544.28	33.95	226.81	102.81	2,618.91	-3,627.40	5,297.87	5,038.46	259.41	20.423		
6,800.00	6,638.86	6,640.86	6,638.86	34.44	230.11	84.31	2,618.91	-3,627.40	5,298.97	5,035.78	263.19	20.134		
6,900.00	6,728.65	6,730.65	6,728.65	34.89	233.25	75.74	2,618.91	-3,627.40	5,289.88	5,023.11	266.78	19.829		
7,000.00	6,811.45	6,813.45	6,811.45	35.29	236.14	72.15	2,618.91	-3,627.40	5,271.08	5,000.98	270.10	19.515		
7,100.00	6,885.21	6,887.21	6,885.21	35.66	238.71	71.45	2,618.91	-3,627.40	5,243.30	4,970.18	273.12	19.198		
7,200.00	6,948.11	6,950.11	6,948.11	35.99	240.91	72.71	2,618.91	-3,627.40	5,207.50	4,931.72	275.79	18.882		
7,300.00	6,998.62	7,000.62	6,998.62	36.30	242.67	75.49	2,618.91	-3,627.40	5,164.85	4,886.74	278.10	18.572		
7,400.00	7,035.48	7,037.48	7,035.48	36.65	243.96	79.48	2,618.91	-3,627.40	5,116.60	4,836.55	280.05	18.270		
7,500.00	7,057.79	7,059.79	7,057.79	37.13	244.73	84.46	2,618.91	-3,627.40	5,064.11	4,782.50	281.61	17.983		
7,600.00	7,065.00	7,067.00	7,065.00	37.84	244.99	90.09	2,618.91	-3,627.40	5,008.76	4,725.99	282.77	17.713		
7,700.00	7,064.77	7,066.77	7,064.77	38.82	244.98	90.09	2,618.91	-3,627.40	4,953.17	4,669.37	283.80	17.453		
7,800.00	7,064.54	7,066.54	7,064.54	40.06	244.97	90.08	2,618.91	-3,627.40	4,898.98	4,614.01	284.97	17.191		
7,900.00	7,064.31	7,066.31	7,064.31	41.52	244.96	90.08	2,618.91	-3,627.40	4,846.26	4,559.97	286.29	16.928		
8,000.00	7,064.08	7,066.08	7,064.08	43.14	244.95	90.08	2,618.91	-3,627.40	4,795.04	4,507.29	287.75	16.664		
8,100.00	7,063.85	7,065.85	7,063.85	44.90	244.95	90.07	2,618.91	-3,627.40	4,745.37	4,456.04	289.34	16.401		
8,200.00	7,063.62	7,065.62	7,063.62	46.78	244.94	90.07	2,618.91	-3,627.40	4,697.31	4,406.26	291.05	16.139		
8,300.00	7,063.39	7,065.39	7,063.39	48.76	244.93	90.07	2,618.91	-3,627.40	4,650.90	4,358.02	292.89	15.879		
8,400.00	7,063.16	7,065.16	7,063.16	50.83	244.92	90.06	2,618.91	-3,627.40	4,606.20	4,311.37	294.84	15.623		
8,500.00	7,062.93	7,064.93	7,062.93	52.97	244.91	90.06	2,618.91	-3,627.40	4,563.25	4,266.36	296.89	15.370		
8,600.00	7,062.70	7,064.70	7,062.70	55.18	244.91	90.06	2,618.91	-3,627.40	4,522.10	4,223.07	299.03	15.122		
8,700.00	7,062.47	7,064.47	7,062.47	57.46	244.90	90.05	2,618.91	-3,627.40	4,482.81	4,181.54	301.27	14.880		
8,800.00	7,062.24	7,064.24	7,062.24	59.78	244.89	90.05	2,618.91	-3,627.40	4,445.42	4,141.84	303.58	14.643		
8,900.00	7,062.01	7,064.01	7,062.01	62.14	244.88	90.05	2,618.91	-3,627.40	4,409.98	4,104.01	305.97	14.413		
9,000.00	7,061.78	7,063.78	7,061.78	64.55	244.87	90.05	2,618.91	-3,627.40	4,376.54	4,068.12	308.42	14.190		
9,100.00	7,061.55	7,063.55	7,061.55	67.00	244.87	90.04	2,618.91	-3,627.40	4,345.14	4,034.21	310.93	13.974		
9,200.00	7,061.31	7,063.31	7,061.31	69.47	244.86	90.04	2,618.91	-3,627.40	4,315.84	4,002.34	313.49	13.767		
9,300.00	7,061.08	7,063.08	7,061.08	71.98	244.85	90.04	2,618.91	-3,627.40	4,288.66	3,972.56	316.10	13.568		
9,400.00	7,060.85	7,062.85	7,060.85	74.51	244.84	90.03	2,618.91	-3,627.40	4,263.66	3,944.92	318.74	13.377		
9,500.00	7,060.62	7,062.62	7,060.62	77.06	244.83	90.03	2,618.91	-3,627.40	4,240.87	3,919.47	321.40	13.195		
9,600.00	7,060.39	7,062.39	7,060.39	79.64	244.83	90.03	2,618.91	-3,627.40	4,220.32	3,896.24	324.09	13.022		
9,700.00	7,060.16	7,062.16	7,060.16	82.23	244.82	90.02	2,618.91	-3,627.40	4,202.06	3,875.28	326.78	12.859		
9,800.00	7,059.93	7,061.93	7,059.93	84.84	244.81	90.02	2,618.91	-3,627.40	4,186.10	3,856.62	329.48	12.705		
9,900.00	7,059.70	7,061.70	7,059.70	87.47	244.80	90.02	2,618.91	-3,627.40	4,172.48	3,840.30	332.18	12.561		
10,000.00	7,059.47	7,061.47	7,059.47	90.11	244.79	90.01	2,618.91	-3,627.40	4,161.23	3,826.36	334.87	12.426		
10,100.00	7,059.24	7,061.24	7,059.24	92.76	244.78	90.01	2,618.91	-3,627.40	4,152.35	3,814.80	337.54	12.302		
10,200.00	7,059.01	7,061.01	7,059.01	95.42	244.78	90.01	2,618.91	-3,627.40	4,145.86	3,805.67	340.19	12.187		
10,300.00	7,058.78	7,060.78	7,058.78	98.10	244.77	90.00	2,618.91	-3,627.40	4,141.78	3,798.96	342.81	12.082		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,400.00	7,058.55	7,060.55	7,058.55	100.79	244.76	90.00	2,618.91	-3,627.40	4,140.11	3,794.71	345.39	11.987		
10,419.16	7,058.51	7,060.51	7,058.51	101.30	244.76	90.00	2,618.91	-3,627.40	4,140.06	3,794.18	345.88	11.969	CC	
10,500.00	7,058.32	7,060.32	7,058.32	103.48	244.75	90.00	2,618.91	-3,627.40	4,140.85	3,792.92	347.94	11.901	ES	
10,600.00	7,058.09	7,060.09	7,058.09	106.19	244.74	89.99	2,618.91	-3,627.40	4,144.01	3,793.58	350.43	11.826		
10,700.00	7,057.86	7,059.86	7,057.86	108.90	244.74	89.99	2,618.91	-3,627.40	4,149.58	3,796.71	352.87	11.760		
10,800.00	7,057.63	7,059.63	7,057.63	111.62	244.73	89.99	2,618.91	-3,627.40	4,157.54	3,802.29	355.25	11.703		
10,900.00	7,057.40	7,059.40	7,057.40	114.35	244.72	89.98	2,618.91	-3,627.40	4,167.89	3,810.32	357.57	11.656		
11,000.00	7,057.17	7,059.17	7,057.17	117.08	244.71	89.98	2,618.91	-3,627.40	4,180.61	3,820.78	359.83	11.618		
11,100.00	7,056.94	7,058.94	7,056.94	119.82	244.70	89.98	2,618.91	-3,627.40	4,195.67	3,833.65	362.02	11.590		
11,200.00	7,056.71	7,058.71	7,056.71	122.56	244.70	89.98	2,618.91	-3,627.40	4,213.05	3,848.92	364.13	11.570		
11,300.00	7,056.48	7,058.48	7,056.48	125.31	244.69	89.97	2,618.91	-3,627.40	4,232.73	3,866.55	366.18	11.559		
11,400.00	7,056.25	7,058.25	7,056.25	128.06	244.68	89.97	2,618.91	-3,627.40	4,254.66	3,886.52	368.14	11.557	SF	
11,500.00	7,056.02	7,058.02	7,056.02	130.82	244.67	89.97	2,618.91	-3,627.40	4,278.82	3,908.79	370.03	11.563		
11,600.00	7,055.79	7,057.79	7,055.79	133.59	244.66	89.96	2,618.91	-3,627.40	4,305.17	3,933.33	371.84	11.578		
11,700.00	7,055.55	7,057.55	7,055.55	136.35	244.66	89.96	2,618.91	-3,627.40	4,333.67	3,960.09	373.57	11.601		
11,800.00	7,055.32	7,057.32	7,055.32	139.12	244.65	89.96	2,618.91	-3,627.40	4,364.27	3,989.04	375.22	11.631		
11,900.00	7,055.09	7,057.09	7,055.09	141.90	244.64	89.95	2,618.91	-3,627.40	4,396.93	4,020.13	376.80	11.669		
12,000.00	7,054.86	7,056.86	7,054.86	144.67	244.63	89.95	2,618.91	-3,627.40	4,431.61	4,053.32	378.29	11.715		
12,100.00	7,054.63	7,056.63	7,054.63	147.45	244.62	89.95	2,618.91	-3,627.40	4,468.26	4,088.55	379.71	11.767		
12,200.00	7,054.40	7,056.40	7,054.40	150.24	244.62	89.94	2,618.91	-3,627.40	4,506.83	4,125.77	381.05	11.827		
12,300.00	7,054.17	7,056.17	7,054.17	153.02	244.61	89.94	2,618.91	-3,627.40	4,547.27	4,164.95	382.32	11.894		
12,400.00	7,053.94	7,055.94	7,053.94	155.81	244.60	89.94	2,618.91	-3,627.40	4,589.54	4,206.02	383.52	11.967		
12,500.00	7,053.71	7,055.71	7,053.71	158.60	244.59	89.93	2,618.91	-3,627.40	4,633.57	4,248.93	384.64	12.046		
12,600.00	7,053.48	7,055.48	7,053.48	161.40	244.58	89.93	2,618.91	-3,627.40	4,679.33	4,293.64	385.70	12.132		
12,700.00	7,053.25	7,055.25	7,053.25	164.19	244.58	89.93	2,618.91	-3,627.40	4,726.77	4,340.08	386.69	12.224		
12,800.00	7,053.02	7,055.02	7,053.02	166.99	244.57	89.92	2,618.91	-3,627.40	4,775.82	4,388.22	387.61	12.321		
12,900.00	7,052.79	7,054.79	7,052.79	169.79	244.56	89.92	2,618.91	-3,627.40	4,826.45	4,437.98	388.47	12.424		
13,000.00	7,052.56	7,054.56	7,052.56	172.59	244.55	89.92	2,618.91	-3,627.40	4,878.61	4,489.34	389.27	12.533		
13,100.00	7,052.33	7,054.33	7,052.33	175.40	244.54	89.91	2,618.91	-3,627.40	4,932.24	4,542.22	390.02	12.646		
13,200.00	7,052.10	7,054.10	7,052.10	178.20	244.54	89.91	2,618.91	-3,627.40	4,987.30	4,596.59	390.71	12.765		
13,300.00	7,051.87	7,053.87	7,051.87	181.01	244.53	89.91	2,618.91	-3,627.40	5,043.74	4,652.40	391.35	12.888		
13,400.00	7,051.64	7,053.64	7,051.64	183.82	244.52	89.90	2,618.91	-3,627.40	5,101.52	4,709.58	391.93	13.016		
13,500.00	7,051.41	7,053.41	7,051.41	186.63	244.51	89.90	2,618.91	-3,627.40	5,160.59	4,768.11	392.47	13.149		
13,600.00	7,051.18	7,053.18	7,051.18	189.44	244.50	89.90	2,618.91	-3,627.40	5,220.90	4,827.93	392.97	13.286		
13,700.00	7,050.95	7,052.95	7,050.95	192.25	244.50	89.90	2,618.91	-3,627.40	5,282.42	4,889.00	393.42	13.427		
13,800.00	7,050.72	7,052.72	7,050.72	195.07	244.49	89.89	2,618.91	-3,627.40	5,345.11	4,951.27	393.83	13.572		
13,900.00	7,050.49	7,052.49	7,050.49	197.88	244.48	89.89	2,618.91	-3,627.40	5,408.91	5,014.70	394.21	13.721		
14,000.00	7,050.26	7,052.26	7,050.26	200.70	244.47	89.89	2,618.91	-3,627.40	5,473.80	5,079.25	394.55	13.874		
14,100.00	7,050.03	7,052.03	7,050.03	203.52	244.46	89.88	2,618.91	-3,627.40	5,539.73	5,144.88	394.85	14.030		
14,200.00	7,049.80	7,051.80	7,049.80	206.34	244.46	89.88	2,618.91	-3,627.40	5,606.68	5,211.55	395.12	14.190		
14,300.00	7,049.56	7,051.56	7,049.56	209.16	244.45	89.88	2,618.91	-3,627.40	5,674.59	5,279.23	395.36	14.353		
14,400.00	7,049.33	7,051.33	7,049.33	211.98	244.44	89.87	2,618.91	-3,627.40	5,743.44	5,347.87	395.58	14.519		
14,500.00	7,049.10	7,051.10	7,049.10	214.80	244.43	89.87	2,618.91	-3,627.40	5,813.20	5,417.44	395.76	14.689		
14,600.00	7,048.87	7,050.87	7,048.87	217.63	244.42	89.87	2,618.91	-3,627.40	5,883.83	5,487.91	395.92	14.861		
14,700.00	7,048.64	7,050.64	7,048.64	220.45	244.41	89.86	2,618.91	-3,627.40	5,955.30	5,559.24	396.06	15.036		
14,800.00	7,048.41	7,050.41	7,048.41	223.28	244.41	89.86	2,618.91	-3,627.40	6,027.59	5,631.41	396.18	15.214		
14,900.00	7,048.18	7,050.18	7,048.18	226.10	244.40	89.86	2,618.91	-3,627.40	6,100.65	5,704.38	396.27	15.395		
14,979.18	7,048.00	7,050.00	7,048.00	228.34	244.39	89.85	2,618.91	-3,627.40	6,159.04	5,762.71	396.33	15.540		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-61.86	2,589.97	-4,842.75	5,491.96				
100.00	100.00	62.00	100.00	3.28	3.45	-61.86	2,589.97	-4,842.75	5,491.83	5,485.09	6.74	814.975	
200.00	200.00	162.00	200.00	3.34	5.10	-61.86	2,589.97	-4,842.75	5,491.83	5,483.38	8.44	650.648	
300.00	299.98	261.98	299.98	3.44	8.09	112.06	2,589.97	-4,842.75	5,492.48	5,480.95	11.53	476.201	
400.00	399.84	361.84	399.84	3.59	11.37	112.07	2,589.97	-4,842.75	5,494.45	5,479.49	14.96	367.311	
500.00	499.45	461.45	499.45	3.79	14.73	112.09	2,589.97	-4,842.75	5,497.74	5,479.22	18.52	296.843	
600.00	598.70	560.70	598.70	4.03	18.13	112.12	2,589.97	-4,842.75	5,502.35	5,480.20	22.16	248.326	
700.00	697.47	659.47	697.47	4.31	21.53	112.16	2,589.97	-4,842.75	5,508.31	5,482.47	25.84	213.156	
800.00	795.62	757.62	795.62	4.64	24.92	112.21	2,589.97	-4,842.75	5,515.63	5,486.08	29.56	186.618	
900.00	893.16	855.16	893.16	5.00	28.30	112.34	2,589.97	-4,842.75	5,524.17	5,490.88	33.29	165.942	
1,000.00	990.60	952.60	990.60	5.38	31.68	112.55	2,589.97	-4,842.75	5,532.94	5,495.89	37.05	149.331	
1,100.00	1,088.04	1,050.04	1,088.04	5.79	35.07	112.76	2,589.97	-4,842.75	5,541.80	5,500.96	40.84	135.703	
1,200.00	1,185.48	1,147.48	1,185.48	6.22	38.45	112.97	2,589.97	-4,842.75	5,550.72	5,506.08	44.64	124.336	
1,300.00	1,282.92	1,244.92	1,282.92	6.66	41.84	113.18	2,589.97	-4,842.75	5,559.73	5,511.27	48.46	114.720	
1,400.00	1,380.36	1,342.36	1,380.36	7.10	45.24	113.39	2,589.97	-4,842.75	5,568.81	5,516.51	52.30	106.486	
1,500.00	1,477.80	1,439.80	1,477.80	7.56	48.63	113.59	2,589.97	-4,842.75	5,577.97	5,521.83	56.14	99.360	
1,600.00	1,575.24	1,537.24	1,575.24	8.03	52.02	113.80	2,589.97	-4,842.75	5,587.20	5,527.21	59.99	93.135	
1,700.00	1,672.68	1,634.68	1,672.68	8.50	55.42	114.01	2,589.97	-4,842.75	5,596.51	5,532.66	63.85	87.653	
1,800.00	1,770.12	1,732.12	1,770.12	8.98	58.81	114.21	2,589.97	-4,842.75	5,605.89	5,538.18	67.71	82.790	
1,900.00	1,867.56	1,829.56	1,867.56	9.46	62.21	114.42	2,589.97	-4,842.75	5,615.35	5,543.77	71.58	78.447	
2,000.00	1,965.00	1,927.00	1,965.00	9.95	65.61	114.62	2,589.97	-4,842.75	5,624.88	5,549.42	75.45	74.547	
2,100.00	2,062.44	2,024.44	2,062.44	10.44	69.01	114.82	2,589.97	-4,842.75	5,634.48	5,555.15	79.33	71.026	
2,200.00	2,159.88	2,121.88	2,159.88	10.93	72.40	115.03	2,589.97	-4,842.75	5,644.16	5,560.95	83.21	67.831	
2,300.00	2,257.32	2,219.32	2,257.32	11.42	75.80	115.23	2,589.97	-4,842.75	5,653.91	5,566.82	87.09	64.920	
2,400.00	2,354.76	2,316.76	2,354.76	11.92	79.20	115.43	2,589.97	-4,842.75	5,663.73	5,572.76	90.97	62.256	
2,500.00	2,452.20	2,414.20	2,452.20	12.42	82.60	115.63	2,589.97	-4,842.75	5,673.63	5,578.77	94.86	59.810	
2,600.00	2,549.64	2,511.64	2,549.64	12.92	86.00	115.83	2,589.97	-4,842.75	5,683.59	5,584.85	98.75	57.557	
2,700.00	2,647.08	2,609.08	2,647.08	13.42	89.40	116.03	2,589.97	-4,842.75	5,693.63	5,591.00	102.64	55.474	
2,800.00	2,744.52	2,706.52	2,744.52	13.93	92.80	116.23	2,589.97	-4,842.75	5,703.74	5,597.22	106.53	53.543	
2,900.00	2,841.96	2,803.96	2,841.96	14.43	96.20	116.43	2,589.97	-4,842.75	5,713.92	5,603.50	110.42	51.748	
3,000.00	2,939.40	2,901.40	2,939.40	14.94	99.60	116.62	2,589.97	-4,842.75	5,724.17	5,609.86	114.31	50.076	
3,100.00	3,036.84	3,001.16	3,036.84	15.44	103.08	116.82	2,589.97	-4,842.75	5,734.49	5,616.21	118.28	48.481	
3,200.00	3,134.28	3,103.72	3,134.28	15.95	106.66	117.02	2,589.97	-4,842.75	5,744.88	5,622.52	122.36	46.952	
3,300.00	3,231.72	3,206.28	3,231.72	16.46	110.23	117.21	2,589.97	-4,842.75	5,755.34	5,628.91	126.43	45.522	
3,400.00	3,329.16	3,308.84	3,329.16	16.97	113.81	117.41	2,589.97	-4,842.75	5,765.86	5,635.36	130.50	44.182	
3,500.00	3,426.60	3,388.60	3,426.60	17.48	116.60	117.60	2,589.97	-4,842.75	5,776.46	5,642.68	133.78	43.179	
3,600.00	3,524.04	3,486.04	3,524.04	17.99	120.00	117.79	2,589.97	-4,842.75	5,787.12	5,649.45	137.68	42.034	
3,700.00	3,621.48	3,583.48	3,621.48	18.50	123.40	117.99	2,589.97	-4,842.75	5,797.85	5,656.28	141.57	40.953	
3,800.00	3,718.92	3,680.92	3,718.92	19.01	126.80	118.18	2,589.97	-4,842.75	5,808.65	5,663.18	145.47	39.931	
3,900.00	3,816.36	3,778.36	3,816.36	19.52	130.20	118.37	2,589.97	-4,842.75	5,819.51	5,670.15	149.36	38.962	
4,000.00	3,913.80	3,875.80	3,913.80	20.03	133.60	118.56	2,589.97	-4,842.75	5,830.44	5,677.18	153.26	38.043	
4,100.00	4,011.24	3,973.24	4,011.24	20.55	137.00	118.75	2,589.97	-4,842.75	5,841.44	5,684.28	157.16	37.169	
4,200.00	4,108.68	4,070.68	4,108.68	21.06	140.40	118.94	2,589.97	-4,842.75	5,852.50	5,691.45	161.06	36.339	
4,300.00	4,206.12	4,168.12	4,206.12	21.57	143.80	119.13	2,589.97	-4,842.75	5,863.63	5,698.68	164.95	35.547	
4,400.00	4,303.56	4,265.56	4,303.56	22.09	147.20	119.32	2,589.97	-4,842.75	5,874.83	5,705.98	168.85	34.793	
4,500.00	4,401.00	4,363.00	4,401.00	22.60	150.60	119.50	2,589.97	-4,842.75	5,886.08	5,713.34	172.75	34.073	
4,600.00	4,498.44	4,460.44	4,498.44	23.11	154.00	119.69	2,589.97	-4,842.75	5,897.40	5,720.76	176.64	33.386	
4,700.00	4,595.88	4,557.88	4,595.88	23.63	157.40	119.88	2,589.97	-4,842.75	5,908.79	5,728.25	180.54	32.728	
4,800.00	4,693.32	4,655.32	4,693.32	24.14	160.81	120.06	2,589.97	-4,842.75	5,920.24	5,735.80	184.44	32.099	
4,900.00	4,790.76	4,752.76	4,790.76	24.66	164.21	120.24	2,589.97	-4,842.75	5,931.75	5,743.42	188.34	31.496	
5,000.00	4,888.20	4,850.20	4,888.20	25.17	167.61	120.43	2,589.97	-4,842.75	5,943.33	5,751.09	192.23	30.917	
5,100.00	4,985.64	4,947.64	4,985.64	25.69	171.01	120.61	2,589.97	-4,842.75	5,954.96	5,758.83	196.13	30.362	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,045.08	5,083.08	26.20	174.41	120.79	2,589.97	-4,842.75	5,966.66	5,766.64	200.03	29.829		
5,300.00	5,180.52	5,142.52	5,180.52	26.72	177.81	120.98	2,589.97	-4,842.75	5,978.42	5,774.50	203.92	29.317		
5,400.00	5,277.96	5,239.96	5,277.96	27.24	181.21	121.16	2,589.97	-4,842.75	5,990.25	5,782.42	207.82	28.824		
5,500.00	5,375.40	5,337.40	5,375.40	27.75	184.61	121.34	2,589.97	-4,842.75	6,002.13	5,790.41	211.72	28.350		
5,600.00	5,472.84	5,434.84	5,472.84	28.27	188.01	121.52	2,589.97	-4,842.75	6,014.07	5,798.46	215.62	27.893		
5,700.00	5,570.28	5,532.28	5,570.28	28.79	191.42	121.69	2,589.97	-4,842.75	6,026.08	5,806.56	219.51	27.452		
5,800.00	5,667.72	5,629.72	5,667.72	29.30	194.82	121.87	2,589.97	-4,842.75	6,038.14	5,814.73	223.41	27.027		
5,900.00	5,765.16	5,727.16	5,765.16	29.82	198.22	122.05	2,589.97	-4,842.75	6,050.26	5,822.96	227.31	26.617		
6,000.00	5,862.60	5,824.60	5,862.60	30.34	201.62	122.23	2,589.97	-4,842.75	6,062.45	5,831.24	231.20	26.221		
6,100.00	5,960.05	5,922.05	5,960.05	30.85	205.02	122.40	2,589.97	-4,842.75	6,074.69	5,839.59	235.10	25.839		
6,200.00	6,057.49	6,019.49	6,057.49	31.37	208.42	122.58	2,589.97	-4,842.75	6,086.99	5,847.99	238.99	25.469		
6,300.00	6,154.93	6,116.93	6,154.93	31.89	211.82	122.75	2,589.97	-4,842.75	6,099.34	5,856.45	242.89	25.112		
6,400.00	6,252.37	6,214.37	6,252.37	32.40	215.22	122.93	2,589.97	-4,842.75	6,111.76	5,864.97	246.79	24.765		
6,500.00	6,349.81	6,311.81	6,349.81	32.92	218.62	123.10	2,589.97	-4,842.75	6,124.23	5,873.55	250.68	24.430		
6,600.00	6,447.25	6,409.25	6,447.25	33.44	222.03	123.27	2,589.97	-4,842.75	6,136.76	5,882.18	254.58	24.106		
6,700.00	6,544.28	6,506.28	6,544.28	33.95	225.41	94.36	2,589.97	-4,842.75	6,144.82	5,886.36	258.46	23.775		
6,800.00	6,638.86	6,600.86	6,638.86	34.44	228.71	76.11	2,589.97	-4,842.75	6,140.99	5,878.75	262.25	23.417		
6,900.00	6,728.65	6,709.35	6,728.65	34.89	232.50	67.78	2,589.97	-4,842.75	6,125.42	5,858.93	266.49	22.986		
7,000.00	6,811.45	6,773.45	6,811.45	35.29	234.74	64.47	2,589.97	-4,842.75	6,098.65	5,829.49	269.16	22.658		
7,100.00	6,885.21	6,847.21	6,885.21	35.66	237.31	64.16	2,589.97	-4,842.75	6,061.53	5,789.36	272.17	22.271		
7,200.00	6,948.11	6,910.11	6,948.11	35.99	239.51	66.04	2,589.97	-4,842.75	6,015.16	5,740.34	274.82	21.887		
7,300.00	6,998.62	6,960.62	6,998.62	36.30	241.27	69.76	2,589.97	-4,842.75	5,960.84	5,683.74	277.09	21.512		
7,400.00	7,035.48	7,002.52	7,035.48	36.65	242.74	75.17	2,589.97	-4,842.75	5,900.03	5,620.89	279.14	21.137		
7,500.00	7,057.79	7,019.79	7,057.79	37.13	243.34	82.10	2,589.97	-4,842.75	5,834.33	5,553.92	280.41	20.806		
7,600.00	7,065.00	7,027.00	7,065.00	37.84	243.59	90.13	2,589.97	-4,842.75	5,765.38	5,483.96	281.42	20.487		
7,700.00	7,064.77	7,026.77	7,064.77	38.82	243.58	90.13	2,589.97	-4,842.75	5,695.85	5,413.58	282.27	20.179		
7,800.00	7,064.54	7,026.54	7,064.54	40.06	243.57	90.12	2,589.97	-4,842.75	5,627.24	5,344.00	283.24	19.867		
7,900.00	7,064.31	7,026.31	7,064.31	41.52	243.57	90.12	2,589.97	-4,842.75	5,559.57	5,275.24	284.33	19.553		
8,000.00	7,064.08	7,026.08	7,064.08	43.14	243.56	90.12	2,589.97	-4,842.75	5,492.90	5,207.36	285.54	19.237		
8,100.00	7,063.85	7,025.85	7,063.85	44.90	243.55	90.11	2,589.97	-4,842.75	5,427.25	5,140.38	286.87	18.919		
8,200.00	7,063.62	7,025.62	7,063.62	46.78	243.54	90.11	2,589.97	-4,842.75	5,362.66	5,074.35	288.31	18.600		
8,300.00	7,063.39	7,025.39	7,063.39	48.76	243.53	90.11	2,589.97	-4,842.75	5,299.17	5,009.30	289.86	18.282		
8,400.00	7,063.16	7,025.16	7,063.16	50.83	243.53	90.10	2,589.97	-4,842.75	5,236.81	4,945.29	291.53	17.963		
8,500.00	7,062.93	7,024.93	7,062.93	52.97	243.52	90.10	2,589.97	-4,842.75	5,175.64	4,882.34	293.30	17.646		
8,600.00	7,062.70	7,024.70	7,062.70	55.18	243.51	90.10	2,589.97	-4,842.75	5,115.70	4,820.52	295.18	17.331		
8,700.00	7,062.47	7,024.47	7,062.47	57.46	243.50	90.09	2,589.97	-4,842.75	5,057.02	4,759.87	297.15	17.018		
8,800.00	7,062.24	7,024.24	7,062.24	59.78	243.49	90.09	2,589.97	-4,842.75	4,999.65	4,700.43	299.22	16.709		
8,900.00	7,062.01	7,024.01	7,062.01	62.14	243.49	90.09	2,589.97	-4,842.75	4,943.64	4,642.26	301.38	16.403		
9,000.00	7,061.78	7,023.78	7,061.78	64.55	243.48	90.08	2,589.97	-4,842.75	4,889.03	4,585.40	303.63	16.102		
9,100.00	7,061.55	7,023.55	7,061.55	67.00	243.47	90.08	2,589.97	-4,842.75	4,835.88	4,529.91	305.97	15.805		
9,200.00	7,061.31	7,023.31	7,061.31	69.47	243.46	90.08	2,589.97	-4,842.75	4,784.22	4,475.84	308.38	15.514		
9,300.00	7,061.08	7,023.08	7,061.08	71.98	243.45	90.07	2,589.97	-4,842.75	4,734.12	4,423.24	310.87	15.228		
9,400.00	7,060.85	7,022.85	7,060.85	74.51	243.44	90.07	2,589.97	-4,842.75	4,685.61	4,372.17	313.44	14.949		
9,500.00	7,060.62	7,022.62	7,060.62	77.06	243.44	90.07	2,589.97	-4,842.75	4,638.75	4,322.68	316.07	14.677		
9,600.00	7,060.39	7,022.39	7,060.39	79.64	243.43	90.07	2,589.97	-4,842.75	4,593.59	4,274.83	318.76	14.411		
9,700.00	7,060.16	7,022.16	7,060.16	82.23	243.42	90.06	2,589.97	-4,842.75	4,550.18	4,228.68	321.51	14.153		
9,800.00	7,059.93	7,021.93	7,059.93	84.84	243.41	90.06	2,589.97	-4,842.75	4,508.57	4,184.26	324.31	13.902		
9,900.00	7,059.70	7,021.70	7,059.70	87.47	243.40	90.06	2,589.97	-4,842.75	4,468.81	4,141.66	327.15	13.660		
10,000.00	7,059.47	7,021.47	7,059.47	90.11	243.40	90.05	2,589.97	-4,842.75	4,430.95	4,100.91	330.04	13.425		
10,100.00	7,059.24	7,021.24	7,059.24	92.76	243.39	90.05	2,589.97	-4,842.75	4,395.05	4,062.08	332.97	13.200		
10,200.00	7,059.01	7,021.01	7,059.01	95.42	243.38	90.05	2,589.97	-4,842.75	4,361.13	4,025.21	335.93	12.982		
10,300.00	7,058.78	7,020.78	7,058.78	98.10	243.37	90.04	2,589.97	-4,842.75	4,329.27	3,990.36	338.90	12.774		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,020.55	7,058.55	100.79	243.36	90.04	2,589.97	-4,842.75	4,299.49	3,957.59	341.90	12.575		
10,500.00	7,058.32	7,020.32	7,058.32	103.48	243.36	90.04	2,589.97	-4,842.75	4,271.85	3,926.94	344.91	12.385		
10,600.00	7,058.09	7,020.09	7,058.09	106.19	243.35	90.03	2,589.97	-4,842.75	4,246.38	3,898.46	347.92	12.205		
10,700.00	7,057.86	7,019.86	7,057.86	108.90	243.34	90.03	2,589.97	-4,842.75	4,223.13	3,872.20	350.93	12.034		
10,800.00	7,057.63	7,019.63	7,057.63	111.62	243.33	90.03	2,589.97	-4,842.75	4,202.13	3,848.20	353.93	11.873		
10,900.00	7,057.40	7,019.40	7,057.40	114.35	243.32	90.02	2,589.97	-4,842.75	4,183.42	3,826.50	356.91	11.721		
11,000.00	7,057.17	7,019.17	7,057.17	117.08	243.32	90.02	2,589.97	-4,842.75	4,167.02	3,807.14	359.87	11.579		
11,100.00	7,056.94	7,018.94	7,056.94	119.82	243.31	90.02	2,589.97	-4,842.75	4,152.96	3,790.16	362.80	11.447		
11,200.00	7,056.71	7,018.71	7,056.71	122.56	243.30	90.01	2,589.97	-4,842.75	4,141.28	3,775.58	365.70	11.324		
11,300.00	7,056.48	7,018.48	7,056.48	125.31	243.29	90.01	2,589.97	-4,842.75	4,131.98	3,763.43	368.55	11.212		
11,400.00	7,056.25	7,018.25	7,056.25	128.06	243.28	90.01	2,589.97	-4,842.75	4,125.08	3,753.74	371.34	11.109		
11,500.00	7,056.02	7,018.02	7,056.02	130.82	243.28	90.00	2,589.97	-4,842.75	4,120.61	3,746.52	374.09	11.015		
11,600.00	7,055.79	7,017.79	7,055.79	133.59	243.27	90.00	2,589.97	-4,842.75	4,118.55	3,741.78	376.77	10.931		
11,634.66	7,055.71	7,017.71	7,055.71	134.54	243.27	90.00	2,589.97	-4,842.75	4,118.40	3,740.73	377.68	10.905 CC		
11,700.00	7,055.55	7,017.55	7,055.55	136.35	243.26	90.00	2,589.97	-4,842.75	4,118.92	3,739.55	379.38	10.857 ES		
11,800.00	7,055.32	7,017.32	7,055.32	139.12	243.25	89.99	2,589.97	-4,842.75	4,121.72	3,739.81	381.92	10.792		
11,900.00	7,055.09	7,017.09	7,055.09	141.90	243.24	89.99	2,589.97	-4,842.75	4,126.94	3,742.57	384.38	10.737		
12,000.00	7,054.86	7,016.86	7,054.86	144.67	243.24	89.99	2,589.97	-4,842.75	4,134.58	3,747.82	386.76	10.690		
12,100.00	7,054.63	7,016.63	7,054.63	147.45	243.23	89.99	2,589.97	-4,842.75	4,144.61	3,755.56	389.05	10.653		
12,200.00	7,054.40	7,016.40	7,054.40	150.24	243.22	89.98	2,589.97	-4,842.75	4,157.03	3,765.77	391.25	10.625		
12,300.00	7,054.17	7,016.17	7,054.17	153.02	243.21	89.98	2,589.97	-4,842.75	4,171.80	3,778.43	393.37	10.605		
12,400.00	7,053.94	7,015.94	7,053.94	155.81	243.20	89.98	2,589.97	-4,842.75	4,188.91	3,793.52	395.39	10.594		
12,500.00	7,053.71	7,015.71	7,053.71	158.60	243.20	89.97	2,589.97	-4,842.75	4,208.33	3,811.02	397.32	10.592 SF		
12,600.00	7,053.48	7,015.48	7,053.48	161.40	243.19	89.97	2,589.97	-4,842.75	4,230.03	3,830.88	399.15	10.598		
12,700.00	7,053.25	7,015.25	7,053.25	164.19	243.18	89.97	2,589.97	-4,842.75	4,253.96	3,853.08	400.88	10.612		
12,800.00	7,053.02	7,015.02	7,053.02	166.99	243.17	89.96	2,589.97	-4,842.75	4,280.10	3,877.58	402.52	10.633		
12,900.00	7,052.79	7,014.79	7,052.79	169.79	243.16	89.96	2,589.97	-4,842.75	4,308.40	3,904.34	404.06	10.663		
13,000.00	7,052.56	7,014.56	7,052.56	172.59	243.16	89.96	2,589.97	-4,842.75	4,338.82	3,933.31	405.51	10.700		
13,100.00	7,052.33	7,014.33	7,052.33	175.40	243.15	89.95	2,589.97	-4,842.75	4,371.32	3,964.46	406.87	10.744		
13,200.00	7,052.10	7,014.10	7,052.10	178.20	243.14	89.95	2,589.97	-4,842.75	4,405.85	3,997.72	408.13	10.795		
13,300.00	7,051.87	7,013.87	7,051.87	181.01	243.13	89.95	2,589.97	-4,842.75	4,442.36	4,033.06	409.31	10.853		
13,400.00	7,051.64	7,013.64	7,051.64	183.82	243.12	89.94	2,589.97	-4,842.75	4,480.81	4,070.42	410.39	10.918		
13,500.00	7,051.41	7,013.41	7,051.41	186.63	243.12	89.94	2,589.97	-4,842.75	4,521.14	4,109.75	411.39	10.990		
13,600.00	7,051.18	7,013.18	7,051.18	189.44	243.11	89.94	2,589.97	-4,842.75	4,563.31	4,151.00	412.31	11.068		
13,700.00	7,050.95	7,012.95	7,050.95	192.25	243.10	89.93	2,589.97	-4,842.75	4,607.26	4,194.11	413.16	11.151		
13,800.00	7,050.72	7,012.72	7,050.72	195.07	243.09	89.93	2,589.97	-4,842.75	4,652.95	4,239.03	413.92	11.241		
13,900.00	7,050.49	7,012.49	7,050.49	197.88	243.08	89.93	2,589.97	-4,842.75	4,700.32	4,285.71	414.61	11.337		
14,000.00	7,050.26	7,012.26	7,050.26	200.70	243.07	89.92	2,589.97	-4,842.75	4,749.32	4,334.09	415.23	11.438		
14,100.00	7,050.03	7,012.03	7,050.03	203.52	243.07	89.92	2,589.97	-4,842.75	4,799.91	4,384.12	415.79	11.544		
14,200.00	7,049.80	7,011.80	7,049.80	206.34	243.06	89.92	2,589.97	-4,842.75	4,852.03	4,435.75	416.28	11.656		
14,300.00	7,049.56	7,011.56	7,049.56	209.16	243.05	89.91	2,589.97	-4,842.75	4,905.63	4,488.92	416.71	11.772		
14,400.00	7,049.33	7,011.33	7,049.33	211.98	243.04	89.91	2,589.97	-4,842.75	4,960.68	4,543.59	417.09	11.894		
14,500.00	7,049.10	7,011.10	7,049.10	214.80	243.03	89.91	2,589.97	-4,842.75	5,017.11	4,599.70	417.41	12.020		
14,600.00	7,048.87	7,010.87	7,048.87	217.63	243.03	89.90	2,589.97	-4,842.75	5,074.88	4,657.21	417.68	12.150		
14,700.00	7,048.64	7,010.64	7,048.64	220.45	243.02	89.90	2,589.97	-4,842.75	5,133.96	4,716.06	417.90	12.285		
14,800.00	7,048.41	7,010.41	7,048.41	223.28	243.01	89.90	2,589.97	-4,842.75	5,194.28	4,776.21	418.08	12.424		
14,900.00	7,048.18	7,010.18	7,048.18	226.10	243.00	89.90	2,589.97	-4,842.75	5,255.82	4,837.61	418.21	12.567		
14,979.18	7,048.00	7,010.00	7,048.00	228.34	243.00	89.89	2,589.97	-4,842.75	5,305.38	4,887.08	418.29	12.683		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	
0.00	0.00	0.00	65.00	3.28	3.28	-122.41	-4,031.66	-6,349.87	7,521.92				
100.00	100.00	35.00	100.00	3.28	3.34	-122.41	-4,031.66	-6,349.87	7,521.64	7,515.02	6.62	1,136.005	
200.00	200.00	135.00	200.00	3.34	4.42	-122.41	-4,031.66	-6,349.87	7,521.64	7,513.88	7.76	969.271	
300.00	299.98	234.98	299.98	3.44	7.24	51.53	-4,031.66	-6,349.87	7,520.55	7,509.87	10.68	704.007	
400.00	399.84	334.84	399.84	3.59	10.47	51.61	-4,031.66	-6,349.87	7,517.30	7,503.24	14.06	534.639	
500.00	499.45	434.45	499.45	3.79	13.82	51.75	-4,031.66	-6,349.87	7,511.88	7,494.28	17.60	426.697	
600.00	598.70	533.70	598.70	4.03	17.20	51.94	-4,031.66	-6,349.87	7,504.32	7,483.08	21.23	353.433	
700.00	697.47	632.47	697.47	4.31	20.60	52.19	-4,031.66	-6,349.87	7,494.62	7,469.72	24.91	300.872	
800.00	795.62	730.62	795.62	4.64	23.99	52.49	-4,031.66	-6,349.87	7,482.83	7,454.21	28.62	261.484	
900.00	893.16	828.16	893.16	5.00	27.36	52.73	-4,031.66	-6,349.87	7,469.23	7,436.89	32.34	230.938	
1,000.00	990.60	925.60	990.60	5.38	30.74	52.86	-4,031.66	-6,349.87	7,455.41	7,419.32	36.09	206.557	
1,100.00	1,088.04	1,023.04	1,088.04	5.79	34.13	53.00	-4,031.66	-6,349.87	7,441.64	7,401.77	39.87	186.654	
1,200.00	1,185.48	1,120.48	1,185.48	6.22	37.51	53.13	-4,031.66	-6,349.87	7,427.91	7,384.24	43.66	170.118	
1,300.00	1,282.92	1,217.92	1,282.92	6.66	40.90	53.27	-4,031.66	-6,349.87	7,414.22	7,366.74	47.47	156.176	
1,400.00	1,380.36	1,315.36	1,380.36	7.10	44.30	53.41	-4,031.66	-6,349.87	7,400.57	7,349.27	51.30	144.270	
1,500.00	1,477.80	1,412.80	1,477.80	7.56	47.69	53.55	-4,031.66	-6,349.87	7,386.97	7,331.84	55.13	133.991	
1,600.00	1,575.24	1,510.24	1,575.24	8.03	51.08	53.68	-4,031.66	-6,349.87	7,373.41	7,314.43	58.97	125.031	
1,700.00	1,672.68	1,607.68	1,672.68	8.50	54.48	53.82	-4,031.66	-6,349.87	7,359.89	7,297.07	62.82	117.154	
1,800.00	1,770.12	1,705.12	1,770.12	8.98	57.87	53.96	-4,031.66	-6,349.87	7,346.42	7,279.74	66.68	110.177	
1,900.00	1,867.56	1,802.56	1,867.56	9.46	61.27	54.10	-4,031.66	-6,349.87	7,332.99	7,262.45	70.54	103.955	
2,000.00	1,965.00	1,900.00	1,965.00	9.95	64.67	54.24	-4,031.66	-6,349.87	7,319.60	7,245.20	74.41	98.374	
2,100.00	2,062.44	2,002.56	2,062.44	10.44	68.24	54.38	-4,031.66	-6,349.87	7,306.27	7,227.81	78.45	93.127	
2,200.00	2,159.88	2,105.12	2,159.88	10.93	71.82	54.52	-4,031.66	-6,349.87	7,292.97	7,210.46	82.51	88.392	
2,300.00	2,257.32	2,207.68	2,257.32	11.42	75.40	54.67	-4,031.66	-6,349.87	7,279.72	7,193.16	86.56	84.098	
2,400.00	2,354.76	2,289.76	2,354.76	11.92	78.26	54.81	-4,031.66	-6,349.87	7,266.52	7,176.61	89.91	80.824	
2,500.00	2,452.20	2,387.20	2,452.20	12.42	81.66	54.95	-4,031.66	-6,349.87	7,253.36	7,159.57	93.79	77.338	
2,600.00	2,549.64	2,484.64	2,549.64	12.92	85.06	55.09	-4,031.66	-6,349.87	7,240.25	7,142.58	97.67	74.128	
2,700.00	2,647.08	2,582.08	2,647.08	13.42	88.46	55.24	-4,031.66	-6,349.87	7,227.18	7,125.62	101.56	71.163	
2,800.00	2,744.52	2,679.52	2,744.52	13.93	91.86	55.38	-4,031.66	-6,349.87	7,214.16	7,108.72	105.45	68.416	
2,900.00	2,841.96	2,776.96	2,841.96	14.43	95.25	55.53	-4,031.66	-6,349.87	7,201.19	7,091.85	109.34	65.863	
3,000.00	2,939.40	2,874.40	2,939.40	14.94	98.65	55.67	-4,031.66	-6,349.87	7,188.26	7,075.04	113.23	63.486	
3,100.00	3,036.84	2,971.84	3,036.84	15.44	102.05	55.82	-4,031.66	-6,349.87	7,175.38	7,058.27	117.12	61.266	
3,200.00	3,134.28	3,069.28	3,134.28	15.95	105.45	55.96	-4,031.66	-6,349.87	7,162.55	7,041.54	121.01	59.189	
3,300.00	3,231.72	3,166.72	3,231.72	16.46	108.85	56.11	-4,031.66	-6,349.87	7,149.77	7,024.86	124.91	57.241	
3,400.00	3,329.16	3,264.16	3,329.16	16.97	112.25	56.26	-4,031.66	-6,349.87	7,137.03	7,008.23	128.80	55.411	
3,500.00	3,426.60	3,361.60	3,426.60	17.48	115.65	56.40	-4,031.66	-6,349.87	7,124.35	6,991.65	132.70	53.688	
3,600.00	3,524.04	3,459.04	3,524.04	17.99	119.06	56.55	-4,031.66	-6,349.87	7,111.71	6,975.11	136.60	52.063	
3,700.00	3,621.48	3,556.48	3,621.48	18.50	122.46	56.70	-4,031.66	-6,349.87	7,099.12	6,958.62	140.50	50.529	
3,800.00	3,718.92	3,653.92	3,718.92	19.01	125.86	56.85	-4,031.66	-6,349.87	7,086.57	6,942.18	144.40	49.077	
3,900.00	3,816.36	3,751.36	3,816.36	19.52	129.26	57.00	-4,031.66	-6,349.87	7,074.08	6,925.79	148.30	47.702	
4,000.00	3,913.80	3,848.80	3,913.80	20.03	132.66	57.15	-4,031.66	-6,349.87	7,061.64	6,909.44	152.20	46.398	
4,100.00	4,011.24	3,946.24	4,011.24	20.55	136.06	57.30	-4,031.66	-6,349.87	7,049.24	6,893.15	156.10	45.159	
4,200.00	4,108.68	4,043.68	4,108.68	21.06	139.46	57.45	-4,031.66	-6,349.87	7,036.90	6,876.90	160.00	43.980	
4,300.00	4,206.12	4,141.12	4,206.12	21.57	142.86	57.60	-4,031.66	-6,349.87	7,024.61	6,860.70	163.90	42.858	
4,400.00	4,303.56	4,238.56	4,303.56	22.09	146.26	57.76	-4,031.66	-6,349.87	7,012.37	6,844.56	167.81	41.788	
4,500.00	4,401.00	4,336.00	4,401.00	22.60	149.66	57.91	-4,031.66	-6,349.87	7,000.17	6,828.46	171.71	40.767	
4,600.00	4,498.44	4,433.44	4,498.44	23.11	153.06	58.06	-4,031.66	-6,349.87	6,988.03	6,812.42	175.62	39.791	
4,700.00	4,595.88	4,452.00	4,517.00	23.63	153.71	58.09	-4,031.66	-6,349.87	6,976.39	6,799.61	176.78	39.463	
4,800.00	4,693.32	4,452.00	4,517.00	24.14	153.71	58.09	-4,031.66	-6,349.87	6,966.14	6,788.86	177.28	39.295	
4,900.00	4,790.76	4,452.00	4,517.00	24.66	153.71	58.09	-4,031.66	-6,349.87	6,957.31	6,779.57	177.73	39.144	
5,000.00	4,888.20	4,452.00	4,517.00	25.17	153.71	58.09	-4,031.66	-6,349.87	6,949.91	6,771.75	178.16	39.010	
5,100.00	4,985.64	4,452.00	4,517.00	25.69	153.71	58.09	-4,031.66	-6,349.87	6,943.94	6,765.39	178.55	38.891	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	4,452.00	4,517.00	26.20	153.71	58.09	-4,031.66	-6,349.87	6,939.40	6,760.50	178.90	38.789		
5,300.00	5,180.52	4,452.00	4,517.00	26.72	153.71	58.09	-4,031.66	-6,349.87	6,936.31	6,757.09	179.22	38.702		
5,400.00	5,277.96	4,452.00	4,517.00	27.24	153.71	58.09	-4,031.66	-6,349.87	6,934.66	6,755.15	179.51	38.632		
5,464.69	5,340.99	4,452.00	4,517.00	27.57	153.71	58.09	-4,031.66	-6,349.87	6,934.35	6,754.68	179.67	38.595		
5,500.00	5,375.40	4,452.00	4,517.00	27.75	153.71	58.09	-4,031.66	-6,349.87	6,934.44	6,754.69	179.75	38.578		
5,600.00	5,472.84	4,452.00	4,517.00	28.27	153.71	58.09	-4,031.66	-6,349.87	6,935.67	6,755.71	179.97	38.539		
5,700.00	5,570.28	4,452.00	4,517.00	28.79	153.71	58.09	-4,031.66	-6,349.87	6,938.35	6,758.21	180.14	38.516		
5,800.00	5,667.72	4,452.00	4,517.00	29.30	153.71	58.09	-4,031.66	-6,349.87	6,942.46	6,762.18	180.28	38.509		
5,900.00	5,765.16	4,452.00	4,517.00	29.82	153.71	58.09	-4,031.66	-6,349.87	6,948.01	6,767.62	180.38	38.518		
6,000.00	5,862.60	4,452.00	4,517.00	30.34	153.71	58.09	-4,031.66	-6,349.87	6,954.99	6,774.54	180.45	38.542		
6,100.00	5,960.05	4,452.00	4,517.00	30.85	153.71	58.09	-4,031.66	-6,349.87	6,963.40	6,782.91	180.48	38.582		
6,200.00	6,057.49	4,452.00	4,517.00	31.37	153.71	58.09	-4,031.66	-6,349.87	6,973.23	6,792.75	180.48	38.637		
6,300.00	6,154.93	4,452.00	4,517.00	31.89	153.71	58.09	-4,031.66	-6,349.87	6,984.48	6,804.04	180.44	38.708		
6,400.00	6,252.37	4,452.00	4,517.00	32.40	153.71	58.09	-4,031.66	-6,349.87	6,997.15	6,816.78	180.37	38.794		
6,500.00	6,349.81	4,452.00	4,517.00	32.92	153.71	58.09	-4,031.66	-6,349.87	7,011.22	6,830.96	180.26	38.895		
6,600.00	6,447.25	4,452.00	4,517.00	33.44	153.71	58.09	-4,031.66	-6,349.87	7,026.68	6,846.56	180.12	39.012		
6,700.00	6,544.28	4,452.00	4,517.00	33.95	153.71	29.70	-4,031.66	-6,349.87	7,038.24	6,858.32	179.93	39.118		
6,800.00	6,638.86	4,452.00	4,517.00	34.44	153.71	10.91	-4,031.66	-6,349.87	7,037.18	6,857.52	179.66	39.168		
6,900.00	6,728.65	4,452.00	4,517.00	34.89	153.71	0.77	-4,031.66	-6,349.87	7,023.39	6,844.05	179.34	39.162		
7,000.00	6,811.45	4,452.00	4,517.00	35.29	153.71	-5.73	-4,031.66	-6,349.87	6,997.14	6,818.16	178.98	39.095		
7,100.00	6,885.21	4,452.00	4,517.00	35.66	153.71	-10.77	-4,031.66	-6,349.87	6,958.93	6,780.35	178.58	38.969		
7,200.00	6,948.11	4,452.00	4,517.00	35.99	153.71	-15.44	-4,031.66	-6,349.87	6,909.52	6,731.36	178.16	38.783		
7,300.00	6,998.62	4,452.00	4,517.00	36.30	153.71	-20.47	-4,031.66	-6,349.87	6,849.89	6,672.15	177.75	38.537		
7,400.00	7,035.48	4,452.00	4,517.00	36.65	153.71	-26.50	-4,031.66	-6,349.87	6,781.28	6,603.92	177.36	38.235		
7,500.00	7,057.79	4,452.00	4,517.00	37.13	153.71	-34.29	-4,031.66	-6,349.87	6,705.11	6,528.08	177.03	37.875		
7,600.00	7,065.00	4,452.00	4,517.00	37.84	153.71	-44.53	-4,031.66	-6,349.87	6,623.05	6,446.25	176.79	37.463		
7,700.00	7,064.77	4,452.00	4,517.00	38.82	153.71	-44.53	-4,031.66	-6,349.87	6,538.90	6,362.29	176.61	37.024		
7,800.00	7,064.54	4,452.00	4,517.00	40.06	153.71	-44.53	-4,031.66	-6,349.87	6,455.22	6,278.75	176.47	36.580		
7,900.00	7,064.31	4,452.00	4,517.00	41.52	153.71	-44.53	-4,031.66	-6,349.87	6,372.00	6,195.63	176.37	36.128		
8,000.00	7,064.08	4,452.00	4,517.00	43.14	153.71	-44.53	-4,031.66	-6,349.87	6,289.27	6,112.95	176.32	35.670		
8,100.00	7,063.85	4,452.00	4,517.00	44.90	153.71	-44.53	-4,031.66	-6,349.87	6,207.05	6,030.74	176.31	35.206		
8,200.00	7,063.62	4,452.00	4,517.00	46.78	153.71	-44.53	-4,031.66	-6,349.87	6,125.36	5,949.01	176.35	34.735		
8,300.00	7,063.39	4,452.00	4,517.00	48.76	153.71	-44.53	-4,031.66	-6,349.87	6,044.22	5,867.78	176.44	34.257		
8,400.00	7,063.16	4,452.00	4,517.00	50.83	153.71	-44.53	-4,031.66	-6,349.87	5,963.65	5,787.07	176.58	33.773		
8,500.00	7,062.93	4,452.00	4,517.00	52.97	153.71	-44.53	-4,031.66	-6,349.87	5,883.68	5,706.91	176.77	33.284		
8,600.00	7,062.70	4,452.00	4,517.00	55.18	153.71	-44.53	-4,031.66	-6,349.87	5,804.33	5,627.30	177.02	32.788		
8,700.00	7,062.47	4,452.00	4,517.00	57.46	153.71	-44.53	-4,031.66	-6,349.87	5,725.62	5,548.29	177.33	32.288		
8,800.00	7,062.24	4,452.00	4,517.00	59.78	153.71	-44.53	-4,031.66	-6,349.87	5,647.59	5,469.90	177.69	31.783		
8,900.00	7,062.01	4,452.00	4,517.00	62.14	153.71	-44.53	-4,031.66	-6,349.87	5,570.27	5,392.15	178.12	31.273		
9,000.00	7,061.78	4,452.00	4,517.00	64.55	153.71	-44.53	-4,031.66	-6,349.87	5,493.67	5,315.07	178.60	30.760		
9,100.00	7,061.55	4,452.00	4,517.00	67.00	153.71	-44.53	-4,031.66	-6,349.87	5,417.84	5,238.70	179.14	30.244		
9,200.00	7,061.31	4,452.00	4,517.00	69.47	153.71	-44.53	-4,031.66	-6,349.87	5,342.80	5,163.06	179.74	29.726		
9,300.00	7,061.08	4,452.00	4,517.00	71.98	153.71	-44.53	-4,031.66	-6,349.87	5,268.59	5,088.20	180.39	29.206		
9,400.00	7,060.85	4,452.00	4,517.00	74.51	153.71	-44.53	-4,031.66	-6,349.87	5,195.25	5,014.14	181.11	28.685		
9,500.00	7,060.62	4,452.00	4,517.00	77.06	153.71	-44.53	-4,031.66	-6,349.87	5,122.81	4,940.92	181.89	28.165		
9,600.00	7,060.39	4,452.00	4,517.00	79.64	153.71	-44.53	-4,031.66	-6,349.87	5,051.31	4,868.59	182.72	27.644		
9,700.00	7,060.16	4,452.00	4,517.00	82.23	153.71	-44.53	-4,031.66	-6,349.87	4,980.79	4,797.17	183.62	27.126		
9,800.00	7,059.93	4,452.00	4,517.00	84.84	153.71	-44.53	-4,031.66	-6,349.87	4,911.30	4,726.73	184.57	26.610		
9,900.00	7,059.70	4,452.00	4,517.00	87.47	153.71	-44.53	-4,031.66	-6,349.87	4,842.87	4,657.29	185.58	26.096		
10,000.00	7,059.47	4,452.00	4,517.00	90.11	153.71	-44.53	-4,031.66	-6,349.87	4,775.56	4,588.92	186.64	25.587		
10,100.00	7,059.24	4,452.00	4,517.00	92.76	153.71	-44.53	-4,031.66	-6,349.87	4,709.40	4,521.64	187.76	25.082		
10,200.00	7,059.01	4,452.00	4,517.00	95.42	153.71	-44.53	-4,031.66	-6,349.87	4,644.46	4,455.53	188.93	24.582		

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 12N-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 12N-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	7,058.78	4,452.00	4,517.00	98.10	153.71	-44.53	-4,031.66	-6,349.87	4,580.78	4,390.62	190.16	24.089	
10,400.00	7,058.55	4,452.00	4,517.00	100.79	153.71	-44.53	-4,031.66	-6,349.87	4,518.42	4,326.98	191.44	23.602	
10,500.00	7,058.32	4,452.00	4,517.00	103.48	153.71	-44.53	-4,031.66	-6,349.87	4,457.43	4,264.65	192.78	23.122	
10,600.00	7,058.09	4,452.00	4,517.00	106.19	153.71	-44.53	-4,031.66	-6,349.87	4,397.87	4,203.70	194.16	22.650	
10,700.00	7,057.86	4,452.00	4,517.00	108.90	153.71	-44.53	-4,031.66	-6,349.87	4,339.79	4,144.19	195.60	22.187	
10,800.00	7,057.63	4,452.00	4,517.00	111.62	153.71	-44.53	-4,031.66	-6,349.87	4,283.26	4,086.18	197.08	21.733	
10,900.00	7,057.40	4,452.00	4,517.00	114.35	153.71	-44.53	-4,031.66	-6,349.87	4,228.34	4,029.73	198.62	21.289	
11,000.00	7,057.17	4,452.00	4,517.00	117.08	153.71	-44.53	-4,031.66	-6,349.87	4,175.10	3,974.90	200.20	20.855	
11,100.00	7,056.94	4,452.00	4,517.00	119.82	153.71	-44.53	-4,031.66	-6,349.87	4,123.59	3,921.77	201.82	20.432	
11,200.00	7,056.71	4,452.00	4,517.00	122.56	153.71	-44.53	-4,031.66	-6,349.87	4,073.88	3,870.39	203.49	20.020	
11,300.00	7,056.48	4,452.00	4,517.00	125.31	153.71	-44.53	-4,031.66	-6,349.87	4,026.05	3,820.84	205.20	19.620	
11,400.00	7,056.25	4,452.00	4,517.00	128.06	153.71	-44.53	-4,031.66	-6,349.87	3,980.15	3,773.19	206.96	19.231	
11,500.00	7,056.02	4,452.00	4,517.00	130.82	153.71	-44.53	-4,031.66	-6,349.87	3,936.26	3,727.51	208.76	18.856	
11,600.00	7,055.79	4,452.00	4,517.00	133.59	153.71	-44.53	-4,031.66	-6,349.87	3,894.45	3,683.85	210.60	18.493	
11,700.00	7,055.55	4,452.00	4,517.00	136.35	153.71	-44.53	-4,031.66	-6,349.87	3,854.77	3,642.30	212.47	18.143	
11,800.00	7,055.32	4,452.00	4,517.00	139.12	153.71	-44.53	-4,031.66	-6,349.87	3,817.31	3,602.92	214.38	17.806	
11,900.00	7,055.09	4,452.00	4,517.00	141.90	153.71	-44.53	-4,031.66	-6,349.87	3,782.11	3,565.78	216.33	17.483	
12,000.00	7,054.86	4,452.00	4,517.00	144.67	153.71	-44.53	-4,031.66	-6,349.87	3,749.26	3,530.94	218.31	17.174	
12,100.00	7,054.63	4,452.00	4,517.00	147.45	153.71	-44.53	-4,031.66	-6,349.87	3,718.80	3,498.47	220.33	16.878	
12,200.00	7,054.40	4,452.00	4,517.00	150.24	153.71	-44.53	-4,031.66	-6,349.87	3,690.80	3,468.43	222.37	16.597	
12,300.00	7,054.17	4,452.00	4,517.00	153.02	153.71	-44.53	-4,031.66	-6,349.87	3,665.32	3,440.88	224.45	16.331	
12,400.00	7,053.94	4,452.00	4,517.00	155.81	153.71	-44.53	-4,031.66	-6,349.87	3,642.41	3,415.86	226.54	16.078	
12,500.00	7,053.71	4,452.00	4,517.00	158.60	153.71	-44.53	-4,031.66	-6,349.87	3,622.11	3,393.44	228.67	15.840	
12,600.00	7,053.48	4,452.00	4,517.00	161.40	153.71	-44.53	-4,031.66	-6,349.87	3,604.47	3,373.66	230.81	15.617	
12,700.00	7,053.25	4,452.00	4,517.00	164.19	153.71	-44.53	-4,031.66	-6,349.87	3,589.54	3,356.57	232.97	15.408	
12,800.00	7,053.02	4,452.00	4,517.00	166.99	153.71	-44.53	-4,031.66	-6,349.87	3,577.34	3,342.19	235.14	15.213	
12,900.00	7,052.79	4,452.00	4,517.00	169.79	153.71	-44.53	-4,031.66	-6,349.87	3,567.90	3,330.57	237.33	15.034	
13,000.00	7,052.56	4,452.00	4,517.00	172.59	153.71	-44.53	-4,031.66	-6,349.87	3,561.24	3,321.72	239.52	14.868	
13,100.00	7,052.33	4,452.00	4,517.00	175.40	153.71	-44.53	-4,031.66	-6,349.87	3,557.38	3,315.67	241.71	14.718	
13,187.25	7,052.13	4,452.00	4,517.00	177.85	153.71	-44.53	-4,031.66	-6,349.87	3,556.31	3,312.69	243.62	14.598 CC	
13,200.00	7,052.10	4,452.00	4,517.00	178.20	153.71	-44.53	-4,031.66	-6,349.87	3,556.34	3,312.44	243.90	14.581	
13,300.00	7,051.87	4,452.00	4,517.00	181.01	153.71	-44.53	-4,031.66	-6,349.87	3,558.10	3,312.03	246.07	14.459 ES	
13,400.00	7,051.64	4,452.00	4,517.00	183.82	153.71	-44.53	-4,031.66	-6,349.87	3,562.67	3,314.44	248.24	14.352	
13,500.00	7,051.41	4,452.00	4,517.00	186.63	153.71	-44.53	-4,031.66	-6,349.87	3,570.04	3,319.66	250.38	14.259	
13,600.00	7,051.18	4,452.00	4,517.00	189.44	153.71	-44.53	-4,031.66	-6,349.87	3,580.19	3,327.70	252.49	14.180	
13,700.00	7,050.95	4,452.00	4,517.00	192.25	153.71	-44.53	-4,031.66	-6,349.87	3,593.09	3,338.52	254.57	14.115	
13,800.00	7,050.72	4,452.00	4,517.00	195.07	153.71	-44.53	-4,031.66	-6,349.87	3,608.72	3,352.11	256.60	14.063	
13,900.00	7,050.49	4,452.00	4,517.00	197.88	153.71	-44.53	-4,031.66	-6,349.87	3,627.03	3,368.44	258.59	14.026	
14,000.00	7,050.26	4,452.00	4,517.00	200.70	153.71	-44.53	-4,031.66	-6,349.87	3,648.00	3,387.47	260.53	14.002	
14,100.00	7,050.03	4,452.00	4,517.00	203.52	153.71	-44.53	-4,031.66	-6,349.87	3,671.58	3,409.16	262.42	13.991 SF	
14,200.00	7,049.80	4,452.00	4,517.00	206.34	153.71	-44.53	-4,031.66	-6,349.87	3,697.71	3,433.47	264.24	13.994	
14,300.00	7,049.56	4,452.00	4,517.00	209.16	153.71	-44.53	-4,031.66	-6,349.87	3,726.34	3,460.34	265.99	14.009	
14,400.00	7,049.33	4,452.00	4,517.00	211.98	153.71	-44.53	-4,031.66	-6,349.87	3,757.41	3,489.73	267.68	14.037	
14,500.00	7,049.10	4,452.00	4,517.00	214.80	153.71	-44.53	-4,031.66	-6,349.87	3,790.87	3,521.58	269.29	14.077	
14,600.00	7,048.87	4,452.00	4,517.00	217.63	153.71	-44.53	-4,031.66	-6,349.87	3,826.65	3,555.82	270.83	14.129	
14,700.00	7,048.64	4,452.00	4,517.00	220.45	153.71	-44.53	-4,031.66	-6,349.87	3,864.68	3,592.39	272.29	14.193	
14,800.00	7,048.41	4,452.00	4,517.00	223.28	153.71	-44.53	-4,031.66	-6,349.87	3,904.91	3,631.24	273.67	14.268	
14,900.00	7,048.18	4,452.00	4,517.00	226.10	153.71	-44.53	-4,031.66	-6,349.87	3,947.26	3,672.28	274.98	14.355	
14,979.18	7,048.00	4,452.00	4,517.00	228.34	153.71	-44.53	-4,031.66	-6,349.87	3,982.26	3,706.30	275.95	14.431	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-106.49	-2,609.01	-8,813.50	9,283.91					
100.00	100.00	1,377.00	1,306.28	3.28	7.39	-106.49	-2,609.01	-8,813.50	9,270.37	9,260.23	10.14	914.088		
200.00	200.00	1,439.50	1,368.02	3.34	7.69	-106.46	-2,601.67	-8,807.13	9,257.35	9,246.91	10.45	886.238		
300.00	299.98	1,488.68	1,416.61	3.44	7.93	67.73	-2,595.50	-8,802.70	9,244.39	9,233.64	10.74	860.347		
400.00	399.84	1,660.00	1,585.91	3.59	8.77	68.15	-2,575.19	-8,786.16	9,229.64	9,218.00	11.64	792.733		
500.00	499.45	1,701.71	1,627.14	3.79	8.97	68.49	-2,570.69	-8,781.74	9,213.57	9,201.57	12.01	767.434		
600.00	598.70	1,755.00	1,679.96	4.03	9.23	68.86	-2,565.27	-8,777.24	9,197.63	9,185.16	12.47	737.805		
700.00	697.47	700.00	1,716.78	4.31	4.60	69.24	-2,561.34	-8,774.09	9,180.60	9,171.95	8.64	1,062.267		
800.00	795.62	1,999.86	1,922.04	4.64	10.45	69.95	-2,535.70	-8,755.71	9,161.50	9,147.34	14.16	647.086		
900.00	893.16	2,299.39	2,217.26	5.00	12.03	70.74	-2,495.67	-8,724.78	9,139.68	9,123.77	15.91	574.422		
1,000.00	990.60	1,000.00	2,411.21	5.38	5.28	71.14	-2,468.37	-8,701.79	9,117.01	9,106.49	10.52	866.254		
1,100.00	1,088.04	2,550.01	2,463.71	5.79	13.41	71.24	-2,461.23	-8,695.10	9,093.85	9,075.99	17.86	509.225		
1,200.00	1,185.48	1,200.00	2,528.41	6.22	6.37	71.37	-2,453.17	-8,687.46	9,071.62	9,059.41	12.21	743.139		
1,300.00	1,282.92	2,766.70	2,677.05	6.66	14.60	71.67	-2,433.80	-8,668.92	9,048.84	9,029.13	19.71	459.106		
1,400.00	1,380.36	2,792.00	2,701.94	7.10	14.74	71.72	-2,430.49	-8,665.80	9,026.29	9,006.02	20.27	445.300		
1,500.00	1,477.80	2,792.00	2,701.94	7.56	14.74	71.72	-2,430.49	-8,665.80	9,004.74	8,984.01	20.72	434.520		
1,600.00	1,575.24	2,834.13	2,743.47	8.03	14.96	71.80	-2,425.31	-8,661.02	8,983.69	8,962.31	21.38	420.207		
1,700.00	1,672.68	2,887.00	2,795.81	8.50	15.23	71.91	-2,419.67	-8,656.10	8,964.14	8,942.05	22.09	405.754		
1,800.00	1,770.12	1,800.00	2,794.03	8.98	9.77	71.90	-2,419.87	-8,656.27	8,944.80	8,927.19	17.61	507.847		
1,900.00	1,867.56	3,044.62	2,951.69	9.46	16.05	72.22	-2,401.46	-8,641.48	8,925.70	8,901.92	23.78	375.350		
2,000.00	1,965.00	3,184.73	3,090.02	9.95	16.79	72.50	-2,383.75	-8,628.08	8,906.22	8,881.30	24.92	357.332		
2,100.00	2,062.44	3,244.26	3,148.80	10.44	17.10	72.63	-2,376.35	-8,622.27	8,886.69	8,860.99	25.70	345.810		
2,200.00	2,159.88	3,374.53	3,277.48	10.93	17.79	72.89	-2,360.70	-8,609.37	8,867.21	8,840.41	26.80	330.849		
2,300.00	2,257.32	3,429.62	3,331.89	11.42	18.09	73.00	-2,354.00	-8,603.95	8,847.87	8,820.31	27.56	321.011		
2,400.00	2,354.76	3,562.22	3,462.87	11.92	18.79	73.27	-2,337.88	-8,591.03	8,828.77	8,800.09	28.68	307.784		
2,500.00	2,452.20	4,109.00	3,999.00	12.42	21.92	74.50	-2,255.56	-8,526.98	8,808.53	8,776.71	31.81	276.878		
2,600.00	2,549.64	4,488.00	4,367.51	12.92	24.30	75.38	-2,191.88	-8,466.45	8,782.62	8,748.45	34.17	257.022		
2,700.00	2,647.08	4,541.62	4,419.53	13.42	24.64	75.51	-2,183.12	-8,456.82	8,755.72	8,720.76	34.96	250.415		
2,800.00	2,744.52	4,583.00	4,459.81	13.93	24.90	75.60	-2,176.65	-8,449.89	8,729.83	8,694.12	35.70	244.500		
2,900.00	2,841.96	4,583.00	4,459.81	14.43	24.90	75.60	-2,176.65	-8,449.89	8,704.65	8,668.40	36.25	240.115		
3,000.00	2,939.40	4,583.00	4,459.81	14.94	24.90	75.60	-2,176.65	-8,449.89	8,680.56	8,643.76	36.80	235.885		
3,100.00	3,036.84	4,622.49	4,498.40	15.44	25.14	75.69	-2,170.88	-8,443.83	8,657.05	8,619.52	37.53	230.676		
3,200.00	3,134.28	4,639.10	4,514.68	15.95	25.23	75.73	-2,168.61	-8,441.50	8,634.64	8,596.48	38.15	226.305		
3,300.00	3,231.72	4,678.00	4,552.95	16.46	25.46	75.81	-2,163.70	-8,436.52	8,613.30	8,574.42	38.88	221.512		
3,400.00	3,329.16	4,678.00	4,552.95	16.97	25.46	75.81	-2,163.70	-8,436.52	8,592.59	8,553.15	39.43	217.896		
3,500.00	3,426.60	4,704.70	4,579.29	17.48	25.60	75.87	-2,160.58	-8,433.39	8,572.89	8,532.79	40.10	213.776		
3,600.00	3,524.04	4,743.89	4,617.98	17.99	25.81	75.95	-2,156.23	-8,428.96	8,553.92	8,513.09	40.83	209.522		
3,700.00	3,621.48	4,772.00	4,645.77	18.50	25.96	76.01	-2,153.29	-8,425.91	8,535.66	8,494.16	41.50	205.676		
3,800.00	3,718.92	4,838.45	4,711.54	19.01	26.31	76.14	-2,146.74	-8,418.98	8,517.95	8,475.61	42.34	201.184		
3,900.00	3,816.36	4,867.00	4,739.81	19.52	26.45	76.20	-2,144.06	-8,416.11	8,500.89	8,457.88	43.01	197.636		
4,000.00	3,913.80	4,918.26	4,790.63	20.03	26.71	76.30	-2,139.46	-8,411.24	8,484.47	8,440.69	43.78	193.791		
4,100.00	4,011.24	4,961.00	4,833.06	20.55	26.92	76.39	-2,135.84	-8,407.55	8,468.86	8,424.35	44.51	190.252		
4,200.00	4,108.68	5,009.10	4,880.84	21.06	27.15	76.48	-2,131.96	-8,403.65	8,453.90	8,408.63	45.27	186.762		
4,300.00	4,206.12	5,056.00	4,927.46	21.57	27.37	76.57	-2,128.34	-8,399.97	8,439.44	8,393.43	46.01	183.417		
4,400.00	4,303.56	5,088.73	4,960.01	22.09	27.52	76.63	-2,125.94	-8,397.59	8,425.72	8,379.03	46.69	180.445		
4,500.00	4,401.00	5,115.57	4,986.73	22.60	27.65	76.68	-2,124.09	-8,395.87	8,412.87	8,365.52	47.35	177.676		
4,600.00	4,498.44	5,150.00	5,021.04	23.11	27.80	76.75	-2,121.86	-8,393.96	8,400.90	8,352.86	48.04	174.887		
4,700.00	4,595.88	5,201.59	5,072.47	23.63	28.03	76.84	-2,118.82	-8,391.39	8,389.64	8,340.85	48.79	171.957		
4,800.00	4,693.32	5,243.00	5,113.77	24.14	28.20	76.92	-2,116.63	-8,389.36	8,378.84	8,329.34	49.50	169.274		
4,900.00	4,790.76	5,288.86	5,159.54	24.66	28.39	77.00	-2,114.46	-8,387.37	8,368.71	8,318.49	50.22	166.639		
5,000.00	4,888.20	5,336.00	5,206.61	25.17	28.59	77.08	-2,112.53	-8,385.80	8,359.47	8,308.52	50.95	164.083		
5,100.00	4,985.64	5,367.35	5,237.93	25.69	28.71	77.14	-2,111.45	-8,384.95	8,350.92	8,299.32	51.60	161.837		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,200.00	5,083.08	5,430.00	5,300.54	26.20	28.95	77.24	-2,109.87	-8,383.41	8,342.96	8,290.58	52.38	159.277		
5,300.00	5,180.52	5,487.34	5,357.86	26.72	29.17	77.33	-2,108.69	-8,382.22	8,335.50	8,282.36	53.14	156.872		
5,400.00	5,277.96	5,549.83	5,420.33	27.24	29.40	77.44	-2,107.19	-8,381.20	8,328.50	8,274.59	53.91	154.484		
5,500.00	5,375.40	5,612.23	5,482.70	27.75	29.64	77.54	-2,105.48	-8,380.47	8,321.98	8,267.29	54.69	152.175		
5,600.00	5,472.84	5,674.54	5,544.97	28.27	29.87	77.65	-2,103.55	-8,380.02	8,315.92	8,260.46	55.46	149.941		
5,700.00	5,570.28	5,739.57	5,609.96	28.79	30.12	77.76	-2,101.33	-8,379.84	8,310.34	8,254.09	56.25	147.748		
5,800.00	5,667.72	5,808.61	5,678.96	29.30	30.37	77.88	-2,099.01	-8,379.89	8,305.16	8,248.11	57.05	145.580		
5,900.00	5,765.16	5,877.70	5,748.02	29.82	30.63	78.00	-2,096.77	-8,380.16	8,300.39	8,242.54	57.85	143.479		
6,000.00	5,862.60	5,946.86	5,817.14	30.34	30.89	78.12	-2,094.63	-8,380.66	8,296.01	8,237.35	58.65	141.444		
6,100.00	5,960.05	6,028.25	5,898.50	30.85	31.19	78.26	-2,092.22	-8,381.48	8,292.00	8,232.50	59.50	139.351		
6,200.00	6,057.49	6,137.58	6,007.78	31.37	31.59	78.45	-2,089.14	-8,382.53	8,288.04	8,227.56	60.47	137.055		
6,300.00	6,154.93	6,246.99	6,117.15	31.89	31.99	78.64	-2,086.23	-8,383.40	8,284.00	8,222.56	61.44	134.830		
6,400.00	6,252.37	6,340.31	6,210.43	32.40	32.35	78.80	-2,083.70	-8,384.06	8,279.96	8,217.61	62.35	132.801		
6,500.00	6,349.81	6,426.97	6,297.04	32.92	32.67	78.95	-2,080.74	-8,384.83	8,276.09	8,212.86	63.23	130.886		
6,600.00	6,447.25	6,513.30	6,383.29	33.44	33.00	79.11	-2,077.18	-8,385.76	8,272.43	8,208.32	64.11	129.028		
6,700.00	6,544.28	6,620.18	6,490.03	33.95	33.42	80.49	-2,071.89	-8,387.05	8,263.05	8,197.96	65.09	126.943		
6,800.00	6,638.86	6,752.08	6,621.67	34.44	33.96	81.81	-2,063.85	-8,388.28	8,238.14	8,171.97	66.16	124.510		
6,900.00	6,728.65	6,876.23	6,745.48	34.89	34.46	82.15	-2,054.73	-8,389.00	8,198.11	8,130.96	67.15	122.079		
7,000.00	6,811.45	6,918.90	6,788.02	35.29	34.64	82.37	-2,051.43	-8,389.36	8,144.48	8,076.74	67.74	120.238		
7,100.00	6,885.21	6,970.54	6,839.50	35.66	34.86	82.49	-2,047.32	-8,389.88	8,078.59	8,010.29	68.30	118.282		
7,200.00	6,948.11	7,014.93	6,883.74	35.99	35.05	82.58	-2,043.73	-8,390.45	8,001.99	7,933.22	68.77	116.366		
7,300.00	6,998.62	7,050.99	6,919.68	36.30	35.20	82.64	-2,040.78	-8,390.98	7,916.47	7,847.35	69.13	114.522		
7,400.00	7,035.48	7,077.80	6,946.39	36.65	35.31	82.68	-2,038.55	-8,391.42	7,824.06	7,754.69	69.37	112.779		
7,500.00	7,057.79	7,094.63	6,963.15	37.13	35.38	82.71	-2,037.14	-8,391.72	7,726.96	7,657.45	69.51	111.160		
7,600.00	7,065.00	7,100.96	6,969.47	37.84	35.41	82.74	-2,036.61	-8,391.83	7,627.53	7,557.99	69.55	109.677		
7,700.00	7,064.77	7,102.09	6,970.59	38.82	35.41	82.75	-2,036.52	-8,391.85	7,527.74	7,458.21	69.53	108.266		
7,800.00	7,064.54	7,103.23	6,971.73	40.06	35.42	82.76	-2,036.42	-8,391.88	7,427.96	7,358.44	69.52	106.852		
7,900.00	7,064.31	7,104.38	6,972.87	41.52	35.42	82.77	-2,036.33	-8,391.90	7,328.18	7,258.68	69.50	105.436		
8,000.00	7,064.08	7,105.53	6,974.02	43.14	35.42	82.78	-2,036.23	-8,391.92	7,228.41	7,158.92	69.49	104.017		
8,100.00	7,063.85	7,106.70	6,975.18	44.90	35.43	82.79	-2,036.13	-8,391.94	7,128.65	7,059.16	69.48	102.595		
8,200.00	7,063.62	7,107.87	6,976.35	46.78	35.43	82.80	-2,036.03	-8,391.96	7,028.89	6,959.41	69.48	101.170		
8,300.00	7,063.39	7,109.05	6,977.52	48.76	35.44	82.81	-2,035.93	-8,391.98	6,929.14	6,859.67	69.47	99.743		
8,400.00	7,063.16	7,110.24	6,978.71	50.83	35.44	82.82	-2,035.83	-8,392.01	6,829.39	6,759.93	69.47	98.313		
8,500.00	7,062.93	7,111.44	6,979.91	52.97	35.45	82.83	-2,035.73	-8,392.03	6,729.65	6,660.19	69.46	96.880		
8,600.00	7,062.70	7,112.65	6,981.11	55.18	35.45	82.84	-2,035.63	-8,392.05	6,629.92	6,560.46	69.46	95.445		
8,700.00	7,062.47	7,113.87	6,982.33	57.46	35.46	82.85	-2,035.53	-8,392.08	6,530.20	6,460.74	69.47	94.007		
8,800.00	7,062.24	7,115.10	6,983.55	59.78	35.47	82.86	-2,035.42	-8,392.10	6,430.49	6,361.02	69.47	92.565		
8,900.00	7,062.01	7,116.33	6,984.77	62.14	35.52	82.87	-2,034.24	-8,392.37	6,330.80	6,261.27	69.53	91.050		
9,000.00	7,061.78	7,117.56	6,985.99	64.55	35.52	82.88	-2,034.24	-8,392.37	6,231.10	6,161.57	69.53	89.611		
9,100.00	7,061.55	7,118.79	6,987.21	67.00	35.52	82.89	-2,034.24	-8,392.37	6,131.41	6,061.87	69.54	88.170		
9,200.00	7,061.31	7,119.99	6,988.40	69.47	35.52	82.90	-2,034.24	-8,392.37	6,031.73	5,962.18	69.55	86.724		
9,300.00	7,061.08	7,121.19	6,989.59	71.98	35.52	82.91	-2,034.24	-8,392.37	5,932.07	5,862.50	69.56	85.276		
9,400.00	7,060.85	7,122.39	6,990.78	74.51	35.52	82.92	-2,034.24	-8,392.37	5,832.41	5,762.83	69.58	83.824		
9,500.00	7,060.62	7,123.59	6,991.97	77.06	35.52	82.93	-2,034.24	-8,392.37	5,732.76	5,663.17	69.60	82.368		
9,600.00	7,060.39	7,124.79	6,993.16	79.64	35.52	82.94	-2,034.24	-8,392.37	5,633.13	5,563.51	69.62	80.909		
9,700.00	7,060.16	7,125.99	6,994.35	82.23	35.52	82.95	-2,034.24	-8,392.37	5,533.51	5,463.86	69.65	79.446		
9,800.00	7,059.93	7,127.19	6,995.54	84.84	35.52	82.96	-2,034.24	-8,392.37	5,433.91	5,364.22	69.68	77.979		
9,900.00	7,059.70	7,128.39	6,996.73	87.47	35.52	82.97	-2,034.21	-8,392.38	5,334.32	5,264.59	69.72	76.506		
10,000.00	7,059.47	7,130.00	6,997.92	90.11	35.53	82.98	-2,034.08	-8,392.41	5,234.74	5,164.97	69.77	75.024		
10,100.00	7,059.24	7,132.63	7,001.02	92.76	35.54	82.99	-2,033.94	-8,392.44	5,135.19	5,065.35	69.83	73.538		
10,200.00	7,059.01	7,135.26	7,004.64	95.42	35.54	83.00	-2,033.80	-8,392.47	5,035.64	4,965.75	69.89	72.048		
10,300.00	7,058.78	7,138.89	7,008.26	98.10	35.55	83.01	-2,033.66	-8,392.51	4,936.12	4,866.16	69.96	70.554		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,137.52	7,005.89	100.79	35.56	-85.09	-2,033.53	-8,392.54	4,836.61	4,766.57	70.04	69.055		
10,500.00	7,058.32	7,139.15	7,007.51	103.48	35.56	-85.28	-2,033.39	-8,392.57	4,737.13	4,667.00	70.13	67.552		
10,600.00	7,058.09	7,140.78	7,009.13	106.19	35.57	-85.47	-2,033.25	-8,392.60	4,637.67	4,567.45	70.22	66.043		
10,700.00	7,057.86	7,142.40	7,010.75	108.90	35.58	-85.66	-2,033.12	-8,392.64	4,538.23	4,467.90	70.33	64.530		
10,800.00	7,057.63	7,144.03	7,012.37	111.62	35.58	-85.85	-2,032.98	-8,392.67	4,438.81	4,368.37	70.44	63.012		
10,900.00	7,057.40	7,145.65	7,013.99	114.35	35.59	-86.04	-2,032.85	-8,392.70	4,339.42	4,268.85	70.57	61.487		
11,000.00	7,057.17	7,147.27	7,015.61	117.08	35.60	-86.23	-2,032.72	-8,392.73	4,240.06	4,169.34	70.72	59.958		
11,100.00	7,056.94	7,148.90	7,017.22	119.82	35.60	-86.42	-2,032.58	-8,392.77	4,140.73	4,069.85	70.88	58.422		
11,200.00	7,056.71	7,150.52	7,018.84	122.56	35.61	-86.61	-2,032.45	-8,392.80	4,041.43	3,970.38	71.05	56.880		
11,300.00	7,056.48	7,152.14	7,020.45	125.31	35.62	-86.80	-2,032.32	-8,392.83	3,942.17	3,870.92	71.25	55.331		
11,400.00	7,056.25	7,153.76	7,022.07	128.06	35.62	-86.99	-2,032.18	-8,392.86	3,842.94	3,771.48	71.46	53.775		
11,500.00	7,056.02	7,155.38	7,023.68	130.82	35.63	-87.18	-2,032.05	-8,392.89	3,743.76	3,672.05	71.70	52.212		
11,600.00	7,055.79	7,156.99	7,025.29	133.59	35.64	-87.37	-2,031.92	-8,392.93	3,644.61	3,572.65	71.97	50.642		
11,700.00	7,055.55	7,158.61	7,026.90	136.35	35.64	-87.56	-2,031.79	-8,392.96	3,545.52	3,473.26	72.26	49.065		
11,800.00	7,055.32	7,160.23	7,028.51	139.12	35.65	-87.75	-2,031.66	-8,392.99	3,446.48	3,373.89	72.59	47.479		
11,900.00	7,055.09	7,161.84	7,030.12	141.90	35.66	-87.94	-2,031.53	-8,393.02	3,347.49	3,274.53	72.95	45.885		
12,000.00	7,054.86	7,163.45	7,031.73	144.67	35.66	-88.13	-2,031.40	-8,393.05	3,248.56	3,175.20	73.36	44.284		
12,100.00	7,054.63	7,165.07	7,033.34	147.45	35.67	-88.32	-2,031.27	-8,393.08	3,149.70	3,075.89	73.81	42.674		
12,200.00	7,054.40	7,166.68	7,034.94	150.24	35.68	-88.51	-2,031.14	-8,393.12	3,050.92	2,976.60	74.31	41.055		
12,300.00	7,054.17	7,168.29	7,036.55	153.02	35.68	-88.70	-2,031.01	-8,393.15	2,952.21	2,877.34	74.87	39.429		
12,400.00	7,053.94	7,169.90	7,038.15	155.81	35.69	-88.89	-2,030.88	-8,393.18	2,853.60	2,778.09	75.50	37.794		
12,500.00	7,053.71	7,171.51	7,039.76	158.60	35.70	-89.08	-2,030.75	-8,393.21	2,755.08	2,678.87	76.21	36.152		
12,600.00	7,053.48	7,173.12	7,041.36	161.40	35.70	-89.27	-2,030.63	-8,393.24	2,656.67	2,579.68	77.00	34.504		
12,700.00	7,053.25	7,174.72	7,042.96	164.19	35.71	-89.46	-2,030.50	-8,393.28	2,558.39	2,480.50	77.88	32.849		
12,800.00	7,053.02	7,176.33	7,044.56	166.99	35.72	-89.65	-2,030.37	-8,393.31	2,460.24	2,381.36	78.88	31.189		
12,900.00	7,052.79	7,177.94	7,046.16	169.79	35.72	-89.84	-2,030.25	-8,393.34	2,362.25	2,282.24	80.01	29.525		
13,000.00	7,052.56	7,179.54	7,047.76	172.59	35.73	-90.04	-2,030.12	-8,393.37	2,264.43	2,183.15	81.28	27.860		
13,100.00	7,052.33	7,181.14	7,049.36	175.40	35.74	-90.23	-2,029.99	-8,393.40	2,166.81	2,084.09	82.72	26.195		
13,200.00	7,052.10	7,182.75	7,050.95	178.20	35.74	-90.42	-2,029.87	-8,393.43	2,069.41	1,985.06	84.35	24.534		
13,300.00	7,051.87	7,184.35	7,052.55	181.01	35.75	-90.61	-2,029.74	-8,393.46	1,972.28	1,886.07	86.20	22.879		
13,400.00	7,051.64	7,185.95	7,054.15	183.82	35.75	-90.80	-2,029.62	-8,393.50	1,875.44	1,787.12	88.32	21.235		
13,500.00	7,051.41	7,187.55	7,055.74	186.63	35.76	-90.99	-2,029.50	-8,393.53	1,778.95	1,688.22	90.74	19.606		
13,600.00	7,051.18	7,189.14	7,057.33	189.44	35.77	-91.18	-2,029.37	-8,393.56	1,682.87	1,589.37	93.51	17.997		
13,700.00	7,050.95	7,190.74	7,058.93	192.25	35.77	-91.37	-2,029.25	-8,393.59	1,587.28	1,490.58	96.69	16.416		
13,800.00	7,050.72	7,192.34	7,060.52	195.07	35.78	-91.56	-2,029.13	-8,393.62	1,492.26	1,391.88	100.37	14.867		
13,900.00	7,050.49	7,193.93	7,062.11	197.88	35.79	-91.75	-2,029.00	-8,393.65	1,397.93	1,293.29	104.64	13.360		
14,000.00	7,050.26	7,195.53	7,063.70	200.70	35.79	-91.94	-2,028.88	-8,393.68	1,304.44	1,194.84	109.60	11.902		
14,100.00	7,050.03	7,197.12	7,065.29	203.52	35.80	-92.13	-2,028.76	-8,393.72	1,212.00	1,096.60	115.40	10.502		
14,200.00	7,049.80	7,198.72	7,066.88	206.34	35.81	-92.32	-2,028.64	-8,393.75	1,120.85	998.63	122.22	9.171		
14,300.00	7,049.56	7,200.31	7,068.46	209.16	35.81	-92.51	-2,028.52	-8,393.78	1,031.33	901.08	130.26	7.918		
14,400.00	7,049.33	7,201.90	7,070.05	211.98	35.82	-92.70	-2,028.40	-8,393.81	943.93	804.14	139.78	6.753		
14,500.00	7,049.10	7,203.49	7,071.63	214.80	35.83	-92.89	-2,028.28	-8,393.84	859.27	708.18	151.09	5.687		
14,600.00	7,048.87	7,205.08	7,073.22	217.63	35.83	-93.08	-2,028.16	-8,393.87	778.25	613.76	164.49	4.731		
14,700.00	7,048.64	7,206.67	7,074.80	220.45	35.84	-93.27	-2,028.04	-8,393.90	702.15	521.89	180.26	3.895		
14,800.00	7,048.41	7,208.25	7,076.38	223.28	35.85	-93.46	-2,027.92	-8,393.93	632.72	434.30	198.42	3.189		
14,900.00	7,048.18	7,209.84	7,077.97	226.10	35.85	-93.65	-2,027.80	-8,393.96	572.41	353.95	218.46	2.620		
14,979.18	7,048.00	7,211.10	7,079.22	228.34	35.86	-93.80	-2,027.71	-8,393.99	533.19	298.55	234.64	2.272 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-81.43	1,378.05	-9,142.79	9,246.11					
100.00	100.00	71.00	100.00	3.28	3.51	-81.43	1,378.05	-9,142.79	9,246.06	9,239.27	6.79	1,361.509		
200.00	200.00	171.00	200.00	3.34	5.35	-81.43	1,378.05	-9,142.79	9,246.06	9,237.38	8.69	1,064.593		
300.00	299.98	270.98	299.98	3.44	8.38	92.49	1,378.05	-9,142.79	9,246.14	9,234.32	11.82	782.109		
400.00	399.84	370.84	399.84	3.59	11.67	92.52	1,378.05	-9,142.79	9,246.37	9,231.11	15.26	605.954		
500.00	499.45	470.45	499.45	3.79	15.04	92.57	1,378.05	-9,142.79	9,246.76	9,227.93	18.83	491.165		
600.00	598.70	569.70	598.70	4.03	18.44	92.63	1,378.05	-9,142.79	9,247.31	9,224.85	22.47	411.614		
700.00	697.47	668.47	697.47	4.31	21.84	92.71	1,378.05	-9,142.79	9,248.05	9,221.90	26.15	353.623		
800.00	795.62	766.62	795.62	4.64	25.23	92.81	1,378.05	-9,142.79	9,248.99	9,219.12	29.87	309.649		
900.00	893.16	864.16	893.16	5.00	28.61	92.93	1,378.05	-9,142.79	9,250.12	9,216.51	33.61	275.240		
1,000.00	990.60	961.60	990.60	5.38	31.99	93.07	1,378.05	-9,142.79	9,251.33	9,213.95	37.38	247.519		
1,100.00	1,088.04	1,059.04	1,088.04	5.79	35.38	93.20	1,378.05	-9,142.79	9,252.59	9,211.42	41.17	224.743		
1,200.00	1,185.48	1,156.48	1,185.48	6.22	38.77	93.34	1,378.05	-9,142.79	9,253.90	9,208.92	44.98	205.722		
1,300.00	1,282.92	1,253.92	1,282.92	6.66	42.16	93.47	1,378.05	-9,142.79	9,255.27	9,206.46	48.81	189.614		
1,400.00	1,380.36	1,351.36	1,380.36	7.10	45.55	93.61	1,378.05	-9,142.79	9,256.70	9,204.05	52.65	175.807		
1,500.00	1,477.80	1,448.80	1,477.80	7.56	48.94	93.74	1,378.05	-9,142.79	9,258.18	9,201.67	56.50	163.849		
1,600.00	1,575.24	1,546.24	1,575.24	8.03	52.34	93.88	1,378.05	-9,142.79	9,259.71	9,199.35	60.36	153.396		
1,700.00	1,672.68	1,643.68	1,672.68	8.50	55.73	94.01	1,378.05	-9,142.79	9,261.30	9,197.07	64.23	144.185		
1,800.00	1,770.12	1,741.12	1,770.12	8.98	59.13	94.15	1,378.05	-9,142.79	9,262.94	9,194.84	68.11	136.009		
1,900.00	1,867.56	1,838.56	1,867.56	9.46	62.52	94.28	1,378.05	-9,142.79	9,264.64	9,192.65	71.98	128.704		
2,000.00	1,965.00	1,936.00	1,965.00	9.95	65.92	94.42	1,378.05	-9,142.79	9,266.39	9,190.52	75.87	122.141		
2,100.00	2,062.44	2,033.44	2,062.44	10.44	69.32	94.55	1,378.05	-9,142.79	9,268.19	9,188.44	79.75	116.211		
2,200.00	2,159.88	2,130.88	2,159.88	10.93	72.72	94.69	1,378.05	-9,142.79	9,270.05	9,186.41	83.64	110.829		
2,300.00	2,257.32	2,228.32	2,257.32	11.42	76.12	94.82	1,378.05	-9,142.79	9,271.97	9,184.43	87.54	105.923		
2,400.00	2,354.76	2,325.76	2,354.76	11.92	79.51	94.96	1,378.05	-9,142.79	9,273.93	9,182.50	91.43	101.432		
2,500.00	2,452.20	2,423.20	2,452.20	12.42	82.91	95.09	1,378.05	-9,142.79	9,275.95	9,180.63	95.33	97.307		
2,600.00	2,549.64	2,520.64	2,549.64	12.92	86.31	95.23	1,378.05	-9,142.79	9,278.03	9,178.80	99.23	93.504		
2,700.00	2,647.08	2,618.08	2,647.08	13.42	89.71	95.36	1,378.05	-9,142.79	9,280.16	9,177.03	103.13	89.988		
2,800.00	2,744.52	2,715.52	2,744.52	13.93	93.11	95.50	1,378.05	-9,142.79	9,282.34	9,175.31	107.03	86.728		
2,900.00	2,841.96	2,812.96	2,841.96	14.43	96.51	95.63	1,378.05	-9,142.79	9,284.58	9,173.65	110.93	83.697		
3,000.00	2,939.40	2,910.40	2,939.40	14.94	99.91	95.77	1,378.05	-9,142.79	9,286.87	9,172.04	114.84	80.871		
3,100.00	3,036.84	3,007.84	3,036.84	15.44	103.31	95.90	1,378.05	-9,142.79	9,289.22	9,170.48	118.74	78.231		
3,200.00	3,134.28	3,105.28	3,134.28	15.95	106.71	96.04	1,378.05	-9,142.79	9,291.61	9,168.97	122.65	75.759		
3,300.00	3,231.72	3,202.72	3,231.72	16.46	110.11	96.17	1,378.05	-9,142.79	9,294.07	9,167.51	126.55	73.439		
3,400.00	3,329.16	3,300.16	3,329.16	16.97	113.51	96.31	1,378.05	-9,142.79	9,296.57	9,166.11	130.46	71.259		
3,500.00	3,426.60	3,402.40	3,426.60	17.48	117.08	96.44	1,378.05	-9,142.79	9,299.13	9,164.60	134.54	69.119		
3,600.00	3,524.04	3,504.96	3,524.04	17.99	120.66	96.57	1,378.05	-9,142.79	9,301.75	9,163.12	138.63	67.099		
3,700.00	3,621.48	3,607.52	3,621.48	18.50	124.24	96.71	1,378.05	-9,142.79	9,304.41	9,161.70	142.72	65.196		
3,800.00	3,718.92	3,689.92	3,718.92	19.01	127.11	96.84	1,378.05	-9,142.79	9,307.14	9,161.03	146.10	63.704		
3,900.00	3,816.36	3,787.36	3,816.36	19.52	130.51	96.98	1,378.05	-9,142.79	9,309.91	9,159.90	150.01	62.061		
4,000.00	3,913.80	3,884.80	3,913.80	20.03	133.91	97.11	1,378.05	-9,142.79	9,312.74	9,158.81	153.92	60.503		
4,100.00	4,011.24	3,982.24	4,011.24	20.55	137.31	97.24	1,378.05	-9,142.79	9,315.62	9,157.78	157.83	59.021		
4,200.00	4,108.68	4,079.68	4,108.68	21.06	140.71	97.38	1,378.05	-9,142.79	9,318.55	9,156.81	161.75	57.612		
4,300.00	4,206.12	4,177.12	4,206.12	21.57	144.12	97.51	1,378.05	-9,142.79	9,321.54	9,155.88	165.66	56.270		
4,400.00	4,303.56	4,274.56	4,303.56	22.09	147.52	97.64	1,378.05	-9,142.79	9,324.58	9,155.01	169.57	54.989		
4,500.00	4,401.00	4,372.00	4,401.00	22.60	150.92	97.78	1,378.05	-9,142.79	9,327.68	9,154.19	173.48	53.767		
4,600.00	4,498.44	4,469.44	4,498.44	23.11	154.32	97.91	1,378.05	-9,142.79	9,330.82	9,153.43	177.40	52.599		
4,700.00	4,595.88	4,566.88	4,595.88	23.63	157.72	98.04	1,378.05	-9,142.79	9,334.02	9,152.71	181.31	51.481		
4,800.00	4,693.32	4,664.32	4,693.32	24.14	161.12	98.18	1,378.05	-9,142.79	9,337.28	9,152.05	185.22	50.411		
4,900.00	4,790.76	4,761.76	4,790.76	24.66	164.52	98.31	1,378.05	-9,142.79	9,340.58	9,151.45	189.14	49.385		
5,000.00	4,888.20	4,859.20	4,888.20	25.17	167.92	98.44	1,378.05	-9,142.79	9,343.94	9,150.89	193.05	48.401		
5,100.00	4,985.64	4,956.64	4,985.64	25.69	171.32	98.58	1,378.05	-9,142.79	9,347.35	9,150.39	196.97	47.457		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,054.08	5,083.08	26.20	174.72	98.71	1,378.05	-9,142.79	9,350.82	9,149.94	200.88	46.549		
5,300.00	5,180.52	5,151.52	5,180.52	26.72	178.12	98.84	1,378.05	-9,142.79	9,354.34	9,149.54	204.79	45.677		
5,400.00	5,277.96	5,248.96	5,277.96	27.24	181.53	98.97	1,378.05	-9,142.79	9,357.91	9,149.20	208.71	44.837		
5,500.00	5,375.40	5,346.40	5,375.40	27.75	184.93	99.11	1,378.05	-9,142.79	9,361.53	9,148.91	212.62	44.029		
5,600.00	5,472.84	5,443.84	5,472.84	28.27	188.33	99.24	1,378.05	-9,142.79	9,365.21	9,148.67	216.54	43.250		
5,700.00	5,570.28	5,541.28	5,570.28	28.79	191.73	99.37	1,378.05	-9,142.79	9,368.93	9,148.48	220.45	42.499		
5,800.00	5,667.72	5,638.72	5,667.72	29.30	195.13	99.50	1,378.05	-9,142.79	9,372.71	9,148.35	224.37	41.774		
5,900.00	5,765.16	5,736.16	5,765.16	29.82	198.53	99.64	1,378.05	-9,142.79	9,376.55	9,148.27	228.28	41.075		
6,000.00	5,862.60	5,833.60	5,862.60	30.34	201.93	99.77	1,378.05	-9,142.79	9,380.43	9,148.24	232.19	40.399		
6,100.00	5,960.05	5,931.05	5,960.05	30.85	205.33	99.90	1,378.05	-9,142.79	9,384.37	9,148.26	236.11	39.746		
6,200.00	6,057.49	6,028.49	6,057.49	31.37	208.74	100.03	1,378.05	-9,142.79	9,388.36	9,148.34	240.02	39.114		
6,300.00	6,154.93	6,125.93	6,154.93	31.89	212.14	100.16	1,378.05	-9,142.79	9,392.40	9,148.46	243.94	38.503		
6,400.00	6,252.37	6,223.37	6,252.37	32.40	215.54	100.29	1,378.05	-9,142.79	9,396.50	9,148.64	247.85	37.912		
6,500.00	6,349.81	6,320.81	6,349.81	32.92	218.94	100.43	1,378.05	-9,142.79	9,400.64	9,148.87	251.77	37.338		
6,600.00	6,447.25	6,418.25	6,447.25	33.44	222.34	100.56	1,378.05	-9,142.79	9,404.84	9,149.16	255.68	36.783		
6,700.00	6,544.68	6,515.68	6,544.68	33.95	225.73	72.00	1,378.05	-9,142.79	9,409.04	9,149.46	259.58	36.225		
6,800.00	6,638.86	6,609.86	6,638.86	34.44	229.03	53.85	1,378.05	-9,142.79	9,387.32	9,123.94	263.38	35.642		
6,900.00	6,728.65	6,700.35	6,728.65	34.89	232.19	45.34	1,378.05	-9,142.79	9,356.77	9,089.78	266.99	35.045		
7,000.00	6,811.45	6,782.45	6,811.45	35.29	235.05	41.64	1,378.05	-9,142.79	9,312.57	9,042.29	270.28	34.456		
7,100.00	6,885.21	6,856.21	6,885.21	35.66	237.63	40.89	1,378.05	-9,142.79	9,255.85	8,982.61	273.24	33.875		
7,200.00	6,948.11	6,919.11	6,948.11	35.99	239.82	42.56	1,378.05	-9,142.79	9,188.01	8,912.22	275.79	33.315		
7,300.00	6,998.62	6,969.62	6,998.62	36.30	241.59	46.92	1,378.05	-9,142.79	9,110.75	8,832.86	277.89	32.785		
7,400.00	7,035.48	7,006.48	7,035.48	36.65	242.87	55.05	1,378.05	-9,142.79	9,025.96	8,746.46	279.49	32.294		
7,500.00	7,057.79	7,028.79	7,057.79	37.13	243.65	69.03	1,378.05	-9,142.79	8,935.72	8,655.14	280.57	31.848		
7,600.00	7,065.00	7,036.00	7,065.00	37.84	243.90	90.38	1,378.05	-9,142.79	8,842.23	8,561.12	281.11	31.454		
7,700.00	7,064.77	7,035.77	7,064.77	38.82	243.90	90.37	1,378.05	-9,142.79	8,747.95	8,466.55	281.40	31.087		
7,800.00	7,064.54	7,035.54	7,064.54	40.06	243.89	90.37	1,378.05	-9,142.79	8,653.80	8,372.08	281.72	30.718		
7,900.00	7,064.31	7,035.31	7,064.31	41.52	243.88	90.36	1,378.05	-9,142.79	8,559.78	8,277.71	282.07	30.346		
8,000.00	7,064.08	7,035.08	7,064.08	43.14	243.87	90.36	1,378.05	-9,142.79	8,465.90	8,183.45	282.46	29.973		
8,100.00	7,063.85	7,034.85	7,063.85	44.90	243.86	90.35	1,378.05	-9,142.79	8,372.17	8,089.29	282.88	29.596		
8,200.00	7,063.62	7,034.62	7,063.62	46.78	243.86	90.35	1,378.05	-9,142.79	8,278.57	7,995.24	283.34	29.218		
8,300.00	7,063.39	7,034.39	7,063.39	48.76	243.85	90.34	1,378.05	-9,142.79	8,185.13	7,901.30	283.83	28.838		
8,400.00	7,063.16	7,034.16	7,063.16	50.83	243.84	90.34	1,378.05	-9,142.79	8,091.85	7,807.48	284.37	28.456		
8,500.00	7,062.93	7,033.93	7,062.93	52.97	243.83	90.34	1,378.05	-9,142.79	7,998.73	7,713.79	284.94	28.072		
8,600.00	7,062.70	7,033.70	7,062.70	55.18	243.82	90.33	1,378.05	-9,142.79	7,905.78	7,620.22	285.56	27.685		
8,700.00	7,062.47	7,033.47	7,062.47	57.46	243.82	90.33	1,378.05	-9,142.79	7,813.00	7,526.78	286.21	27.298		
8,800.00	7,062.24	7,033.24	7,062.24	59.78	243.81	90.32	1,378.05	-9,142.79	7,720.40	7,433.48	286.92	26.908		
8,900.00	7,062.01	7,033.01	7,062.01	62.14	243.80	90.32	1,378.05	-9,142.79	7,627.99	7,340.33	287.66	26.517		
9,000.00	7,061.78	7,032.78	7,061.78	64.55	243.79	90.31	1,378.05	-9,142.79	7,535.77	7,247.32	288.45	26.125		
9,100.00	7,061.55	7,032.55	7,061.55	67.00	243.78	90.31	1,378.05	-9,142.79	7,443.75	7,154.46	289.29	25.731		
9,200.00	7,061.31	7,032.31	7,061.31	69.47	243.78	90.30	1,378.05	-9,142.79	7,351.94	7,061.77	290.17	25.337		
9,300.00	7,061.08	7,032.08	7,061.08	71.98	243.77	90.30	1,378.05	-9,142.79	7,260.35	6,969.25	291.10	24.941		
9,400.00	7,060.85	7,031.85	7,060.85	74.51	243.76	90.29	1,378.05	-9,142.79	7,168.98	6,876.90	292.08	24.544		
9,500.00	7,060.62	7,031.62	7,060.62	77.06	243.75	90.29	1,378.05	-9,142.79	7,077.85	6,784.73	293.12	24.147		
9,600.00	7,060.39	7,031.39	7,060.39	79.64	243.74	90.29	1,378.05	-9,142.79	6,986.96	6,692.76	294.20	23.749		
9,700.00	7,060.16	7,031.16	7,060.16	82.23	243.73	90.28	1,378.05	-9,142.79	6,896.32	6,600.98	295.33	23.351		
9,800.00	7,059.93	7,030.93	7,059.93	84.84	243.73	90.28	1,378.05	-9,142.79	6,805.94	6,509.42	296.52	22.952		
9,900.00	7,059.70	7,030.70	7,059.70	87.47	243.72	90.27	1,378.05	-9,142.79	6,715.84	6,418.07	297.77	22.554		
10,000.00	7,059.47	7,030.47	7,059.47	90.11	243.71	90.27	1,378.05	-9,142.79	6,626.02	6,326.95	299.07	22.156		
10,100.00	7,059.24	7,030.24	7,059.24	92.76	243.70	90.26	1,378.05	-9,142.79	6,536.49	6,236.06	300.43	21.757		
10,200.00	7,059.01	7,030.01	7,059.01	95.42	243.69	90.26	1,378.05	-9,142.79	6,447.27	6,145.43	301.84	21.360		
10,300.00	7,058.78	7,029.78	7,058.78	98.10	243.69	90.25	1,378.05	-9,142.79	6,358.38	6,055.06	303.32	20.963		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,400.00	7,058.55	7,029.55	7,058.55	100.79	243.68	90.25	1,378.05	-9,142.79	6,269.82	5,964.96	304.86	20.566		
10,500.00	7,058.32	7,029.32	7,058.32	103.48	243.67	90.24	1,378.05	-9,142.79	6,181.60	5,875.14	306.46	20.171		
10,600.00	7,058.09	7,029.09	7,058.09	106.19	243.66	90.24	1,378.05	-9,142.79	6,093.75	5,785.63	308.12	19.777		
10,700.00	7,057.86	7,028.86	7,057.86	108.90	243.65	90.24	1,378.05	-9,142.79	6,006.29	5,696.43	309.86	19.384		
10,800.00	7,057.63	7,028.63	7,057.63	111.62	243.65	90.23	1,378.05	-9,142.79	5,919.21	5,607.56	311.65	18.993		
10,900.00	7,057.40	7,028.40	7,057.40	114.35	243.64	90.23	1,378.05	-9,142.79	5,832.56	5,519.03	313.52	18.603		
11,000.00	7,057.17	7,028.17	7,057.17	117.08	243.63	90.22	1,378.05	-9,142.79	5,746.33	5,430.87	315.46	18.216		
11,100.00	7,056.94	7,027.94	7,056.94	119.82	243.62	90.22	1,378.05	-9,142.79	5,660.56	5,343.09	317.47	17.830		
11,200.00	7,056.71	7,027.71	7,056.71	122.56	243.61	90.21	1,378.05	-9,142.79	5,575.27	5,255.71	319.56	17.447		
11,300.00	7,056.48	7,027.48	7,056.48	125.31	243.61	90.21	1,378.05	-9,142.79	5,490.47	5,168.74	321.72	17.066		
11,400.00	7,056.25	7,027.25	7,056.25	128.06	243.60	90.20	1,378.05	-9,142.79	5,406.19	5,082.22	323.96	16.688		
11,500.00	7,056.02	7,027.02	7,056.02	130.82	243.59	90.20	1,378.05	-9,142.79	5,322.45	4,996.17	326.28	16.312		
11,600.00	7,055.79	7,026.79	7,055.79	133.59	243.58	90.20	1,378.05	-9,142.79	5,239.28	4,910.60	328.69	15.940		
11,700.00	7,055.55	7,026.55	7,055.55	136.35	243.57	90.19	1,378.05	-9,142.79	5,156.72	4,825.54	331.18	15.571		
11,800.00	7,055.32	7,026.32	7,055.32	139.12	243.57	90.19	1,378.05	-9,142.79	5,074.78	4,741.02	333.75	15.205		
11,900.00	7,055.09	7,026.09	7,055.09	141.90	243.56	90.18	1,378.05	-9,142.79	4,993.49	4,657.08	336.42	14.843		
12,000.00	7,054.86	7,025.86	7,054.86	144.67	243.55	90.18	1,378.05	-9,142.79	4,912.90	4,573.73	339.17	14.485		
12,100.00	7,054.63	7,025.63	7,054.63	147.45	243.54	90.17	1,378.05	-9,142.79	4,833.04	4,491.02	342.02	14.131		
12,200.00	7,054.40	7,025.40	7,054.40	150.24	243.53	90.17	1,378.05	-9,142.79	4,753.93	4,408.97	344.96	13.781		
12,300.00	7,054.17	7,025.17	7,054.17	153.02	243.53	90.16	1,378.05	-9,142.79	4,675.63	4,327.63	348.00	13.436		
12,400.00	7,053.94	7,024.94	7,053.94	155.81	243.52	90.16	1,378.05	-9,142.79	4,598.16	4,247.03	351.13	13.095		
12,500.00	7,053.71	7,024.71	7,053.71	158.60	243.51	90.15	1,378.05	-9,142.79	4,521.58	4,167.21	354.37	12.760		
12,600.00	7,053.48	7,024.48	7,053.48	161.40	243.50	90.15	1,378.05	-9,142.79	4,445.94	4,088.23	357.71	12.429		
12,700.00	7,053.25	7,024.25	7,053.25	164.19	243.49	90.15	1,378.05	-9,142.79	4,371.27	4,010.12	361.15	12.104		
12,800.00	7,053.02	7,024.02	7,053.02	166.99	243.49	90.14	1,378.05	-9,142.79	4,297.63	3,932.93	364.70	11.784		
12,900.00	7,052.79	7,023.79	7,052.79	169.79	243.48	90.14	1,378.05	-9,142.79	4,225.07	3,856.72	368.35	11.470		
13,000.00	7,052.56	7,023.56	7,052.56	172.59	243.47	90.13	1,378.05	-9,142.79	4,153.65	3,781.55	372.10	11.163		
13,100.00	7,052.33	7,023.33	7,052.33	175.40	243.46	90.13	1,378.05	-9,142.79	4,083.44	3,707.47	375.96	10.861		
13,200.00	7,052.10	7,023.10	7,052.10	178.20	243.45	90.12	1,378.05	-9,142.79	4,014.49	3,634.55	379.93	10.566		
13,300.00	7,051.87	7,022.87	7,051.87	181.01	243.45	90.12	1,378.05	-9,142.79	3,946.86	3,562.86	384.00	10.278		
13,400.00	7,051.64	7,022.64	7,051.64	183.82	243.44	90.11	1,378.05	-9,142.79	3,880.64	3,492.46	388.17	9.997		
13,500.00	7,051.41	7,022.41	7,051.41	186.63	243.43	90.11	1,378.05	-9,142.79	3,815.88	3,423.44	392.44	9.723		
13,600.00	7,051.18	7,022.18	7,051.18	189.44	243.42	90.11	1,378.05	-9,142.79	3,752.68	3,355.87	396.81	9.457		
13,700.00	7,050.95	7,021.95	7,050.95	192.25	243.41	90.10	1,378.05	-9,142.79	3,691.10	3,289.83	401.27	9.199		
13,800.00	7,050.72	7,021.72	7,050.72	195.07	243.41	90.10	1,378.05	-9,142.79	3,631.23	3,225.42	405.81	8.948		
13,900.00	7,050.49	7,021.49	7,050.49	197.88	243.40	90.09	1,378.05	-9,142.79	3,573.16	3,162.72	410.44	8.706		
14,000.00	7,050.26	7,021.26	7,050.26	200.70	243.39	90.09	1,378.05	-9,142.79	3,516.97	3,101.83	415.13	8.472		
14,100.00	7,050.03	7,021.03	7,050.03	203.52	243.38	90.08	1,378.05	-9,142.79	3,462.76	3,042.87	419.89	8.247		
14,200.00	7,049.80	7,020.80	7,049.80	206.34	243.37	90.08	1,378.05	-9,142.79	3,410.62	2,985.91	424.70	8.031		
14,300.00	7,049.56	7,020.56	7,049.56	209.16	243.37	90.07	1,378.05	-9,142.79	3,360.65	2,931.09	429.56	7.824		
14,400.00	7,049.33	7,020.33	7,049.33	211.98	243.36	90.07	1,378.05	-9,142.79	3,312.94	2,878.51	434.43	7.626		
14,500.00	7,049.10	7,020.10	7,049.10	214.80	243.35	90.06	1,378.05	-9,142.79	3,267.60	2,828.28	439.32	7.438		
14,600.00	7,048.87	7,019.87	7,048.87	217.63	243.34	90.06	1,378.05	-9,142.79	3,224.72	2,780.52	444.20	7.260		
14,700.00	7,048.64	7,019.64	7,048.64	220.45	243.33	90.06	1,378.05	-9,142.79	3,184.40	2,735.35	449.06	7.091		
14,800.00	7,048.41	7,019.41	7,048.41	223.28	243.32	90.05	1,378.05	-9,142.79	3,146.75	2,692.88	453.87	6.933		
14,900.00	7,048.18	7,019.18	7,048.18	226.10	243.32	90.05	1,378.05	-9,142.79	3,111.86	2,653.24	458.62	6.785		
14,979.18	7,048.00	7,019.00	7,048.00	228.34	243.31	90.04	1,378.05	-9,142.79	3,086.25	2,623.93	462.32	6.676 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	15.40	1.40	3.28	3.28	2.82	2,424.45	119.30	2,427.39					
100.00	100.00	126.27	112.27	3.28	3.30	2.81	2,424.17	118.92	2,427.12	2,420.54	6.58	368.795		
200.00	200.00	235.46	221.46	3.34	3.38	2.81	2,423.36	118.79	2,426.36	2,419.65	6.71	361.459		
225.56	225.56	261.18	247.18	3.36	3.40	176.72	2,423.13	118.80	2,426.25	2,419.49	6.76	358.810 CC, ES		
300.00	299.98	332.48	318.47	3.44	3.50	176.72	2,422.51	118.76	2,427.24	2,420.30	6.94	349.909		
400.00	399.84	422.53	408.51	3.59	3.65	176.71	2,422.03	118.22	2,431.89	2,424.65	7.24	335.886		
500.00	499.45	511.32	497.31	3.79	3.83	176.69	2,421.95	117.44	2,440.47	2,432.84	7.62	320.162		
600.00	598.70	602.07	588.05	4.03	4.05	176.67	2,422.23	116.57	2,452.89	2,444.81	8.08	303.614		
700.00	697.47	690.70	676.68	4.31	4.28	176.66	2,422.82	116.13	2,469.14	2,460.55	8.59	287.482		
800.00	795.62	810.07	796.05	4.64	4.62	176.67	2,423.38	116.17	2,488.66	2,479.42	9.24	269.372		
900.00	893.16	890.08	876.05	5.00	4.87	176.68	2,423.70	116.32	2,511.08	2,501.26	9.82	255.729		
1,000.00	990.60	1,007.66	993.63	5.38	5.25	176.73	2,424.10	116.65	2,533.88	2,523.33	10.55	240.287		
1,100.00	1,088.04	1,102.51	1,088.48	5.79	5.57	176.76	2,424.04	117.08	2,556.29	2,545.06	11.23	227.652		
1,200.00	1,185.48	1,193.28	1,179.25	6.22	5.89	176.81	2,424.11	117.78	2,578.85	2,566.93	11.92	216.302		
1,300.00	1,282.92	1,306.01	1,291.98	6.66	6.29	176.85	2,424.04	118.52	2,601.28	2,588.56	12.72	204.500		
1,400.00	1,380.36	1,393.88	1,379.85	7.10	6.61	176.88	2,423.92	118.65	2,623.59	2,610.15	13.44	195.206		
1,500.00	1,477.80	1,504.95	1,490.92	7.56	7.03	176.92	2,423.67	118.82	2,645.84	2,631.57	14.27	185.444		
1,600.00	1,575.24	1,611.42	1,597.39	8.03	7.44	176.95	2,422.96	119.03	2,667.65	2,652.56	15.09	176.769		
1,700.00	1,672.68	1,707.71	1,693.67	8.50	7.81	176.97	2,422.23	118.74	2,689.35	2,673.46	15.88	169.315		
1,800.00	1,770.12	1,812.12	1,798.08	8.98	8.22	176.98	2,421.33	117.95	2,710.91	2,694.19	16.72	162.132		
1,900.00	1,867.56	1,893.34	1,879.29	9.46	8.53	176.99	2,420.82	117.25	2,732.70	2,715.24	17.46	156.479		
2,000.00	1,965.00	2,006.96	1,992.90	9.95	8.99	177.00	2,420.09	116.39	2,754.49	2,736.14	18.36	150.055		
2,100.00	2,062.44	2,089.71	2,075.64	10.44	9.32	177.00	2,419.55	115.53	2,776.26	2,757.14	19.12	145.222		
2,200.00	2,159.88	2,178.86	2,164.79	10.93	9.67	177.00	2,419.34	114.40	2,798.40	2,778.49	19.91	140.548		
2,300.00	2,257.32	2,258.80	2,244.72	11.42	10.00	177.00	2,419.45	113.65	2,820.95	2,800.28	20.66	136.517		
2,400.00	2,354.76	2,339.53	2,325.45	11.92	10.32	177.01	2,420.12	113.01	2,844.15	2,822.73	21.42	132.769		
2,500.00	2,452.20	2,423.40	2,409.31	12.42	10.66	177.01	2,421.22	111.89	2,867.82	2,845.62	22.20	129.200		
2,600.00	2,549.64	2,503.86	2,489.74	12.92	10.99	177.00	2,422.73	110.70	2,892.01	2,869.05	22.96	125.978		
2,700.00	2,647.08	2,587.37	2,573.22	13.42	11.34	176.99	2,424.72	109.42	2,916.70	2,892.97	23.73	122.899		
2,800.00	2,744.52	2,709.85	2,695.65	13.93	11.84	176.98	2,427.50	107.52	2,941.29	2,916.58	24.71	119.044		
2,900.00	2,841.96	2,794.34	2,780.11	14.43	12.19	176.97	2,429.22	106.10	2,965.62	2,940.12	25.49	116.328		
3,000.00	2,939.40	2,907.81	2,893.53	14.94	12.66	176.94	2,431.44	103.65	2,989.86	2,963.43	26.43	113.123		
3,100.00	3,036.84	3,008.90	2,994.58	15.44	13.08	176.92	2,433.06	101.43	3,013.75	2,986.45	27.31	110.370		
3,200.00	3,134.28	3,088.33	3,073.99	15.95	13.41	176.91	2,434.52	99.86	3,037.88	3,009.81	28.07	108.222		
3,300.00	3,231.72	3,196.40	3,182.02	16.46	13.86	176.90	2,436.64	97.94	3,062.15	3,033.16	28.99	105.643		
3,400.00	3,329.16	3,271.18	3,256.77	16.97	14.17	176.89	2,438.17	96.76	3,086.51	3,056.78	29.73	103.829		
3,500.00	3,426.60	3,345.95	3,331.50	17.48	14.48	176.88	2,440.26	95.62	3,111.59	3,081.13	30.47	102.133		
3,600.00	3,524.04	3,444.38	3,429.87	17.99	14.89	176.88	2,443.56	94.58	3,137.24	3,105.90	31.33	100.125		
3,700.00	3,621.48	3,553.33	3,538.79	18.50	15.35	176.90	2,446.38	94.28	3,162.15	3,129.89	32.26	98.023		
3,800.00	3,718.92	3,692.52	3,677.94	19.01	15.93	176.91	2,449.63	93.34	3,186.99	3,153.64	33.35	95.560		
3,900.00	3,816.36	3,784.60	3,770.00	19.52	16.32	176.91	2,450.87	92.47	3,210.70	3,176.51	34.19	93.912		
4,000.00	3,913.80	3,896.29	3,881.66	20.03	16.79	176.91	2,452.39	90.83	3,234.40	3,199.27	35.13	92.060		
4,100.00	4,011.24	4,022.49	4,007.82	20.55	17.32	176.88	2,453.17	87.74	3,257.31	3,221.15	36.16	90.085		
4,200.00	4,108.68	4,118.60	4,103.90	21.06	17.72	176.85	2,453.38	85.06	3,279.83	3,242.80	37.02	88.590		
4,300.00	4,206.12	4,199.68	4,184.96	21.57	18.06	176.83	2,453.80	83.14	3,302.66	3,264.85	37.81	87.358		
4,400.00	4,303.56	4,293.49	4,278.74	22.09	18.46	176.82	2,454.54	81.41	3,325.78	3,287.13	38.66	86.032		
4,500.00	4,401.00	4,372.31	4,357.55	22.60	18.79	176.82	2,455.39	80.30	3,349.21	3,309.79	39.43	84.948		
4,600.00	4,498.44	4,458.69	4,443.91	23.11	19.15	176.82	2,456.74	79.54	3,373.12	3,332.89	40.24	83.831		
4,700.00	4,595.88	4,541.46	4,526.67	23.63	19.50	176.82	2,458.25	78.54	3,397.30	3,356.27	41.03	82.807		
4,800.00	4,693.32	4,631.12	4,616.29	24.14	19.88	176.82	2,460.41	77.07	3,421.98	3,380.13	41.86	81.758		
4,900.00	4,790.76	4,756.69	4,741.81	24.66	20.41	176.80	2,462.74	74.77	3,446.13	3,403.24	42.89	80.348		
5,000.00	4,888.20	4,882.91	4,867.99	25.17	20.94	176.78	2,464.23	71.82	3,469.62	3,425.69	43.93	78.985		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	4,985.64	4,968.61	4,953.66	25.69	21.31	176.75	2,464.91	69.52	3,492.71	3,447.97	44.74	78.071		
5,200.00	5,083.08	5,071.93	5,056.94	26.20	21.75	176.73	2,466.05	66.61	3,516.10	3,470.46	45.65	77.028		
5,300.00	5,180.52	5,163.69	5,148.67	26.72	22.13	176.72	2,466.81	64.78	3,539.26	3,492.77	46.49	76.127		
5,400.00	5,277.96	5,250.24	5,235.21	27.24	22.50	176.72	2,467.79	63.71	3,562.75	3,515.44	47.31	75.314		
5,500.00	5,375.40	5,343.50	5,328.45	27.75	22.90	176.72	2,469.05	62.52	3,586.45	3,538.29	48.16	74.473		
5,600.00	5,472.84	5,439.92	5,424.86	28.27	23.30	176.73	2,470.34	62.02	3,610.16	3,561.13	49.03	73.634		
5,700.00	5,570.28	5,527.94	5,512.87	28.79	23.68	176.74	2,471.58	61.79	3,633.97	3,584.12	49.85	72.898		
5,800.00	5,667.72	5,608.74	5,593.66	29.30	24.02	176.76	2,473.07	61.93	3,658.21	3,607.58	50.63	72.255		
5,900.00	5,765.16	5,736.58	5,721.48	29.82	24.56	176.80	2,475.12	62.98	3,682.27	3,630.58	51.69	71.243		
6,000.00	5,862.60	5,863.12	5,848.01	30.34	25.09	176.83	2,476.01	63.48	3,705.40	3,652.67	52.73	70.266		
6,100.00	5,960.05	6,000.76	5,985.65	30.85	25.68	176.85	2,475.91	63.19	3,727.80	3,673.96	53.84	69.237		
6,200.00	6,057.49	6,110.99	6,095.87	31.37	26.14	176.87	2,475.00	62.66	3,749.42	3,694.63	54.79	68.432		
6,300.00	6,154.93	6,211.73	6,196.61	31.89	26.57	176.88	2,473.97	62.15	3,770.84	3,715.15	55.69	67.715		
6,400.00	6,252.37	6,299.93	6,284.80	32.40	26.94	176.89	2,473.15	61.53	3,792.35	3,735.84	56.51	67.105		
6,500.00	6,349.81	6,387.55	6,372.42	32.92	27.32	176.89	2,472.57	60.57	3,814.10	3,756.76	57.34	66.521		
6,600.00	6,447.25	6,460.79	6,445.65	33.44	27.63	176.89	2,472.39	59.55	3,836.25	3,778.18	58.08	66.054		
6,700.00	6,544.28	6,556.78	6,541.63	33.95	28.04	146.39	2,472.70	58.23	3,859.20	3,800.25	58.95	65.468		
6,800.00	6,638.86	6,667.35	6,652.19	34.44	28.51	125.88	2,472.56	56.87	3,882.17	3,822.27	59.89	64.819		
6,900.00	6,728.65	6,765.24	6,750.07	34.89	28.92	114.70	2,472.23	55.24	3,905.05	3,844.30	60.75	64.285		
7,000.00	6,811.45	6,850.99	6,835.81	35.29	29.29	107.85	2,471.81	53.89	3,927.78	3,866.26	61.52	63.842		
7,100.00	6,885.21	6,924.16	6,908.96	35.66	29.60	103.15	2,471.46	52.75	3,950.43	3,888.18	62.25	63.465		
7,200.00	6,948.11	6,984.73	6,969.54	35.99	29.86	99.63	2,471.18	52.07	3,973.04	3,910.09	62.95	63.112		
7,300.00	6,998.62	7,039.06	7,023.86	36.30	30.09	96.87	2,470.92	51.71	3,995.58	3,931.85	63.72	62.700		
7,400.00	7,035.48	7,080.47	7,065.26	36.65	30.27	94.53	2,470.65	51.56	4,017.93	3,953.37	64.56	62.235		
7,500.00	7,057.79	7,108.76	7,093.56	37.13	30.39	92.45	2,470.43	51.52	4,039.99	3,974.51	65.48	61.700		
7,600.00	7,065.00	7,122.08	7,106.87	37.84	30.44	90.58	2,470.31	51.50	4,061.49	3,995.03	66.45	61.117		
7,700.00	7,064.77	7,121.85	7,106.65	38.82	30.44	90.57	2,470.31	51.50	4,083.80	4,016.31	67.49	60.506		
7,800.00	7,064.54	7,121.62	7,106.42	40.06	30.44	90.57	2,470.31	51.50	4,108.44	4,039.77	68.66	59.837		
7,900.00	7,064.31	7,121.40	7,106.19	41.52	30.44	90.57	2,470.31	51.50	4,135.34	4,065.40	69.94	59.131		
8,000.00	7,064.08	7,121.17	7,105.97	43.14	30.44	90.56	2,470.32	51.50	4,164.47	4,093.17	71.30	58.410		
8,100.00	7,063.85	7,120.95	7,105.74	44.90	30.44	90.56	2,470.32	51.50	4,195.78	4,123.05	72.73	57.689		
8,200.00	7,063.62	7,120.72	7,105.52	46.78	30.44	90.56	2,470.32	51.50	4,229.23	4,155.01	74.22	56.985		
8,300.00	7,063.39	7,120.50	7,105.29	48.76	30.44	90.55	2,470.32	51.50	4,264.75	4,189.01	75.74	56.306		
8,400.00	7,063.16	7,120.27	7,105.07	50.83	30.43	90.55	2,470.33	51.50	4,302.31	4,225.02	77.30	55.660		
8,500.00	7,062.93	7,120.05	7,104.84	52.97	30.43	90.55	2,470.33	51.50	4,341.85	4,262.99	78.86	55.054		
8,600.00	7,062.70	7,119.82	7,104.62	55.18	30.43	90.54	2,470.33	51.51	4,383.32	4,302.88	80.44	54.492		
8,700.00	7,062.47	7,119.60	7,104.40	57.46	30.43	90.54	2,470.33	51.51	4,426.65	4,344.64	82.01	53.975		
8,800.00	7,062.24	7,119.37	7,104.17	59.78	30.43	90.54	2,470.33	51.51	4,471.80	4,388.22	83.58	53.504		
8,900.00	7,062.01	7,119.15	7,103.95	62.14	30.43	90.53	2,470.34	51.51	4,518.72	4,433.59	85.13	53.081		
9,000.00	7,061.78	7,118.93	7,103.73	64.55	30.43	90.53	2,470.34	51.51	4,567.34	4,480.68	86.66	52.704		
9,100.00	7,061.55	7,118.71	7,103.50	67.00	30.43	90.53	2,470.34	51.51	4,617.61	4,529.44	88.17	52.373		
9,200.00	7,061.31	7,118.48	7,103.28	69.47	30.43	90.52	2,470.34	51.51	4,669.49	4,579.84	89.65	52.086		
9,300.00	7,061.08	7,118.26	7,103.06	71.98	30.43	90.52	2,470.35	51.51	4,722.91	4,631.81	91.10	51.842		
9,400.00	7,060.85	7,118.04	7,102.84	74.51	30.42	90.52	2,470.35	51.51	4,777.83	4,685.31	92.52	51.639		
9,500.00	7,060.62	7,117.82	7,102.62	77.06	30.42	90.51	2,470.35	51.51	4,834.20	4,740.28	93.91	51.475		
9,600.00	7,060.39	7,117.60	7,102.39	79.64	30.42	90.51	2,470.35	51.51	4,891.96	4,796.69	95.27	51.349		
9,700.00	7,060.16	7,117.38	7,102.17	82.23	30.42	90.51	2,470.35	51.51	4,951.06	4,854.47	96.59	51.259		
9,800.00	7,059.93	7,117.16	7,101.95	84.84	30.42	90.50	2,470.36	51.51	5,011.47	4,913.59	97.88	51.202		
9,900.00	7,059.70	7,116.94	7,101.73	87.47	30.42	90.50	2,470.36	51.51	5,073.12	4,974.00	99.13	51.178 SF		
10,000.00	7,059.47	7,116.72	7,101.51	90.11	30.42	90.50	2,470.36	51.51	5,135.98	5,035.64	100.34	51.185		
10,100.00	7,059.24	7,116.50	7,101.29	92.76	30.42	90.50	2,470.36	51.51	5,200.01	5,098.49	101.52	51.221		
10,200.00	7,059.01	7,116.28	7,101.07	95.42	30.42	90.49	2,470.37	51.51	5,265.16	5,162.49	102.67	51.284		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.78	7,116.06	7,100.86	98.10	30.42	90.49	2,470.37	51.51	5,331.39	5,227.61	103.78	51.373		
10,400.00	7,058.55	7,115.84	7,100.64	100.79	30.42	90.49	2,470.37	51.51	5,398.65	5,293.80	104.85	51.487		
10,500.00	7,058.32	7,115.62	7,100.42	103.48	30.41	90.48	2,470.37	51.51	5,466.92	5,361.02	105.90	51.624		
10,600.00	7,058.09	7,115.40	7,100.20	106.19	30.41	90.48	2,470.37	51.51	5,536.15	5,429.24	106.91	51.783		
10,700.00	7,057.86	7,115.19	7,099.98	108.90	30.41	90.48	2,470.38	51.51	5,606.32	5,498.43	107.89	51.964		
10,800.00	7,057.63	7,114.97	7,099.76	111.62	30.41	90.47	2,470.38	51.51	5,677.37	5,568.53	108.84	52.164		
10,900.00	7,057.40	7,114.75	7,099.55	114.35	30.41	90.47	2,470.38	51.51	5,749.29	5,639.53	109.76	52.382		
11,000.00	7,057.17	7,114.53	7,099.33	117.08	30.41	90.47	2,470.38	51.51	5,822.04	5,711.39	110.65	52.619		
11,100.00	7,056.94	7,114.32	7,099.11	119.82	30.41	90.46	2,470.38	51.51	5,895.58	5,784.08	111.51	52.872		
11,200.00	7,056.71	7,114.10	7,098.90	122.56	30.41	90.46	2,470.39	51.51	5,969.90	5,857.56	112.34	53.142		
11,300.00	7,056.48	7,113.88	7,098.68	125.31	30.41	90.46	2,470.39	51.51	6,044.95	5,931.81	113.15	53.426		
11,400.00	7,056.25	7,113.67	7,098.47	128.06	30.41	90.45	2,470.39	51.51	6,120.72	6,006.79	113.93	53.725		
11,500.00	7,056.02	7,113.45	7,098.25	130.82	30.41	90.45	2,470.39	51.51	6,197.18	6,082.49	114.68	54.038		
11,600.00	7,055.79	7,113.24	7,098.03	133.59	30.40	90.45	2,470.39	51.51	6,274.29	6,158.88	115.41	54.364		
11,700.00	7,055.55	7,113.02	7,097.82	136.35	30.40	90.45	2,470.40	51.51	6,352.05	6,235.93	116.12	54.702		
11,800.00	7,055.32	7,112.81	7,097.61	139.12	30.40	90.44	2,470.40	51.51	6,430.42	6,313.61	116.81	55.051		
11,900.00	7,055.09	7,112.59	7,097.39	141.90	30.40	90.44	2,470.40	51.51	6,509.38	6,391.91	117.47	55.412		
12,000.00	7,054.86	7,112.38	7,097.18	144.67	30.40	90.44	2,470.40	51.51	6,588.92	6,470.80	118.12	55.784		
12,100.00	7,054.63	7,112.17	7,096.96	147.45	30.40	90.43	2,470.40	51.51	6,669.01	6,550.27	118.74	56.166		
12,200.00	7,054.40	7,111.95	7,096.75	150.24	30.40	90.43	2,470.41	51.51	6,749.62	6,630.28	119.34	56.557		
12,300.00	7,054.17	7,111.74	7,096.54	153.02	30.40	90.43	2,470.41	51.51	6,830.75	6,710.83	119.93	56.957		
12,400.00	7,053.94	7,111.53	7,096.32	155.81	30.40	90.42	2,470.41	51.51	6,912.38	6,791.88	120.49	57.367		
12,500.00	7,053.71	7,111.31	7,096.11	158.60	30.40	90.42	2,470.41	51.51	6,994.48	6,873.43	121.04	57.784		
12,600.00	7,053.48	7,111.10	7,095.90	161.40	30.40	90.42	2,470.41	51.51	7,077.04	6,955.46	121.58	58.210		
12,700.00	7,053.25	7,110.89	7,095.69	164.19	30.39	90.41	2,470.42	51.51	7,160.05	7,037.95	122.10	58.643		
12,800.00	7,053.02	7,110.68	7,095.47	166.99	30.39	90.41	2,470.42	51.51	7,243.48	7,120.89	122.60	59.084		
12,900.00	7,052.79	7,110.46	7,095.26	169.79	30.39	90.41	2,470.42	51.51	7,327.34	7,204.25	123.08	59.531		
13,000.00	7,052.56	7,110.25	7,095.05	172.59	30.39	90.41	2,470.42	51.51	7,411.59	7,288.03	123.56	59.985		
13,100.00	7,052.33	7,110.04	7,094.84	175.40	30.39	90.40	2,470.42	51.52	7,496.23	7,372.21	124.02	60.446		
13,200.00	7,052.10	7,109.83	7,094.63	178.20	30.39	90.40	2,470.43	51.52	7,581.24	7,456.78	124.46	60.912		
13,300.00	7,051.87	7,109.62	7,094.42	181.01	30.39	90.40	2,470.43	51.52	7,666.61	7,541.72	124.89	61.385		
13,400.00	7,051.64	7,109.41	7,094.21	183.82	30.39	90.39	2,470.43	51.52	7,752.34	7,627.02	125.32	61.863		
13,500.00	7,051.41	7,109.20	7,094.00	186.63	30.39	90.39	2,470.43	51.52	7,838.40	7,712.67	125.72	62.346		
13,600.00	7,051.18	7,108.99	7,093.79	189.44	30.39	90.39	2,470.43	51.52	7,924.79	7,798.67	126.12	62.835		
13,700.00	7,050.95	7,108.78	7,093.58	192.25	30.39	90.38	2,470.43	51.52	8,011.49	7,884.99	126.51	63.328		
13,800.00	7,050.72	7,108.57	7,093.37	195.07	30.38	90.38	2,470.44	51.52	8,098.51	7,971.62	126.88	63.826		
13,900.00	7,050.49	7,108.36	7,093.16	197.88	30.38	90.38	2,470.44	51.52	8,185.82	8,058.57	127.25	64.328		
14,000.00	7,050.26	7,108.16	7,092.95	200.70	30.38	90.37	2,470.44	51.52	8,273.41	8,145.81	127.61	64.835		
14,100.00	7,050.03	7,107.95	7,092.74	203.52	30.38	90.37	2,470.44	51.52	8,361.29	8,233.33	127.95	65.346		
14,200.00	7,049.80	7,107.74	7,092.54	206.34	30.38	90.37	2,470.44	51.52	8,449.43	8,321.14	128.29	65.861		
14,300.00	7,049.56	7,107.53	7,092.33	209.16	30.38	90.37	2,470.45	51.52	8,537.84	8,409.22	128.62	66.380		
14,400.00	7,049.33	7,107.32	7,092.12	211.98	30.38	90.36	2,470.45	51.52	8,626.50	8,497.56	128.94	66.902		
14,500.00	7,049.10	7,107.12	7,091.91	214.80	30.38	90.36	2,470.45	51.52	8,715.40	8,586.15	129.25	67.428		
14,600.00	7,048.87	7,106.91	7,091.71	217.63	30.38	90.36	2,470.45	51.52	8,804.54	8,674.99	129.56	67.957		
14,700.00	7,048.64	7,106.70	7,091.50	220.45	30.38	90.35	2,470.45	51.52	8,893.92	8,764.06	129.86	68.490		
14,800.00	7,048.41	7,106.50	7,091.29	223.28	30.38	90.35	2,470.45	51.52	8,983.52	8,853.37	130.15	69.026		
14,900.00	7,048.18	7,106.29	7,091.09	226.10	30.37	90.35	2,470.46	51.52	9,073.33	8,942.90	130.43	69.564		
14,979.18	7,048.00	7,106.13	7,090.93	228.34	30.37	90.35	2,470.46	51.52	9,144.60	9,013.95	130.65	69.993		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-165.36	-3,999.67	-1,044.59	4,134.25					
100.00	100.00	41.00	100.00	3.28	3.36	-165.36	-3,999.67	-1,044.59	4,133.82	4,127.18	6.64	622.387		
200.00	200.00	141.00	200.00	3.34	4.57	-165.36	-3,999.67	-1,044.59	4,133.82	4,125.92	7.90	523.053		
300.00	299.98	240.98	299.98	3.44	7.43	8.56	-3,999.67	-1,044.59	4,132.10	4,121.23	10.87	380.127		
400.00	399.84	340.84	399.84	3.59	10.67	8.58	-3,999.67	-1,044.59	4,126.92	4,112.66	14.26	289.365		
500.00	499.45	440.45	499.45	3.79	14.02	8.63	-3,999.67	-1,044.59	4,118.31	4,100.49	17.81	231.207		
600.00	598.70	539.70	598.70	4.03	17.41	8.69	-3,999.67	-1,044.59	4,106.26	4,084.81	21.44	191.508		
700.00	697.47	638.47	697.47	4.31	20.80	8.77	-3,999.67	-1,044.59	4,090.79	4,065.67	25.12	162.877		
800.00	795.62	736.62	795.62	4.64	24.19	8.87	-3,999.67	-1,044.59	4,071.93	4,043.11	28.81	141.315		
900.00	893.16	834.16	893.16	5.00	27.57	8.95	-3,999.67	-1,044.59	4,050.12	4,017.59	32.53	124.517		
1,000.00	990.60	931.60	990.60	5.38	30.95	9.00	-3,999.67	-1,044.59	4,027.90	3,991.65	36.25	111.110		
1,100.00	1,088.04	1,029.04	1,088.04	5.79	34.34	9.05	-3,999.67	-1,044.59	4,005.68	3,965.68	40.00	100.146		
1,200.00	1,185.48	1,126.48	1,185.48	6.22	37.72	9.10	-3,999.67	-1,044.59	3,983.47	3,939.71	43.76	91.022		
1,300.00	1,282.92	1,223.92	1,282.92	6.66	41.11	9.16	-3,999.67	-1,044.59	3,961.26	3,913.72	47.54	83.319		
1,400.00	1,380.36	1,321.36	1,380.36	7.10	44.50	9.21	-3,999.67	-1,044.59	3,939.05	3,887.72	51.34	76.732		
1,500.00	1,477.80	1,418.80	1,477.80	7.56	47.90	9.26	-3,999.67	-1,044.59	3,916.85	3,861.71	55.14	71.039		
1,600.00	1,575.24	1,516.24	1,575.24	8.03	51.29	9.31	-3,999.67	-1,044.59	3,894.64	3,835.70	58.95	66.071		
1,700.00	1,672.68	1,613.68	1,672.68	8.50	54.69	9.37	-3,999.67	-1,044.59	3,872.45	3,809.68	62.76	61.699		
1,800.00	1,770.12	1,711.12	1,770.12	8.98	58.08	9.42	-3,999.67	-1,044.59	3,850.25	3,783.67	66.59	57.824		
1,900.00	1,867.56	1,808.56	1,867.56	9.46	61.48	9.48	-3,999.67	-1,044.59	3,828.06	3,757.65	70.41	54.365		
2,000.00	1,965.00	1,906.00	1,965.00	9.95	64.88	9.53	-3,999.67	-1,044.59	3,805.87	3,731.63	74.25	51.260		
2,100.00	2,062.44	2,003.44	2,062.44	10.44	68.27	9.59	-3,999.67	-1,044.59	3,783.69	3,705.61	78.08	48.458		
2,200.00	2,159.88	2,100.88	2,159.88	10.93	71.67	9.65	-3,999.67	-1,044.59	3,761.51	3,679.59	81.92	45.916		
2,300.00	2,257.32	2,201.68	2,257.32	11.42	75.19	9.70	-3,999.67	-1,044.59	3,739.33	3,653.45	85.88	43.541		
2,400.00	2,354.76	2,304.24	2,354.76	11.92	78.76	9.76	-3,999.67	-1,044.59	3,717.15	3,627.25	89.90	41.346		
2,500.00	2,452.20	2,406.80	2,452.20	12.42	82.34	9.82	-3,999.67	-1,044.59	3,694.98	3,601.06	93.93	39.338		
2,600.00	2,549.64	2,509.36	2,549.64	12.92	85.92	9.88	-3,999.67	-1,044.59	3,672.82	3,574.86	97.96	37.495		
2,700.00	2,647.08	2,588.08	2,647.08	13.42	88.67	9.94	-3,999.67	-1,044.59	3,650.66	3,549.50	101.15	36.090		
2,800.00	2,744.52	2,685.52	2,744.52	13.93	92.06	10.00	-3,999.67	-1,044.59	3,628.50	3,523.49	105.01	34.555		
2,900.00	2,841.96	2,782.96	2,841.96	14.43	95.46	10.06	-3,999.67	-1,044.59	3,606.34	3,497.48	108.86	33.129		
3,000.00	2,939.40	2,880.40	2,939.40	14.94	98.86	10.13	-3,999.67	-1,044.59	3,584.19	3,471.48	112.71	31.799		
3,100.00	3,036.84	2,977.84	3,036.84	15.44	102.26	10.19	-3,999.67	-1,044.59	3,562.04	3,445.47	116.57	30.557		
3,200.00	3,134.28	3,075.28	3,134.28	15.95	105.66	10.26	-3,999.67	-1,044.59	3,539.90	3,419.48	120.43	29.395		
3,300.00	3,231.72	3,172.72	3,231.72	16.46	109.06	10.32	-3,999.67	-1,044.59	3,517.76	3,393.48	124.29	28.304		
3,400.00	3,329.16	3,270.16	3,329.16	16.97	112.46	10.39	-3,999.67	-1,044.59	3,495.63	3,367.49	128.14	27.279		
3,500.00	3,426.60	3,367.60	3,426.60	17.48	115.86	10.45	-3,999.67	-1,044.59	3,473.50	3,341.50	132.00	26.314		
3,600.00	3,524.04	3,465.04	3,524.04	17.99	119.26	10.52	-3,999.67	-1,044.59	3,451.38	3,315.51	135.86	25.403		
3,700.00	3,621.48	3,562.48	3,621.48	18.50	122.66	10.59	-3,999.67	-1,044.59	3,429.26	3,289.53	139.73	24.543		
3,800.00	3,718.92	3,659.92	3,718.92	19.01	126.07	10.66	-3,999.67	-1,044.59	3,407.14	3,263.55	143.59	23.729		
3,900.00	3,816.36	3,757.36	3,816.36	19.52	129.47	10.73	-3,999.67	-1,044.59	3,385.03	3,237.58	147.45	22.957		
4,000.00	3,913.80	3,854.80	3,913.80	20.03	132.87	10.80	-3,999.67	-1,044.59	3,362.93	3,211.61	151.31	22.225		
4,100.00	4,011.24	3,952.24	4,011.24	20.55	136.27	10.87	-3,999.67	-1,044.59	3,340.83	3,185.65	155.18	21.529		
4,200.00	4,108.68	4,049.68	4,108.68	21.06	139.67	10.95	-3,999.67	-1,044.59	3,318.73	3,159.69	159.04	20.867		
4,300.00	4,206.12	4,147.12	4,206.12	21.57	143.07	11.02	-3,999.67	-1,044.59	3,296.64	3,133.73	162.91	20.236		
4,400.00	4,303.56	4,244.56	4,303.56	22.09	146.47	11.09	-3,999.67	-1,044.59	3,274.56	3,107.78	166.77	19.635		
4,500.00	4,401.00	4,342.00	4,401.00	22.60	149.87	11.17	-3,999.67	-1,044.59	3,252.48	3,081.84	170.64	19.061		
4,600.00	4,498.44	4,439.44	4,498.44	23.11	153.27	11.25	-3,999.67	-1,044.59	3,230.40	3,055.90	174.50	18.512		
4,700.00	4,595.88	4,536.88	4,595.88	23.63	156.67	11.33	-3,999.67	-1,044.59	3,208.34	3,029.96	178.37	17.987		
4,800.00	4,693.32	4,634.32	4,693.32	24.14	160.07	11.41	-3,999.67	-1,044.59	3,186.27	3,004.04	182.24	17.484		
4,900.00	4,790.76	4,731.76	4,790.76	24.66	163.47	11.49	-3,999.67	-1,044.59	3,164.22	2,978.11	186.11	17.002		
5,000.00	4,888.20	4,829.20	4,888.20	25.17	166.87	11.57	-3,999.67	-1,044.59	3,142.17	2,952.19	189.97	16.540		
5,100.00	4,985.64	4,926.64	4,985.64	25.69	170.28	11.65	-3,999.67	-1,044.59	3,120.12	2,926.28	193.84	16.096		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,024.08	5,083.08	26.20	173.68	11.73	-3,999.67	-1,044.59	3,098.08	2,900.37	197.71	15.670	
5,300.00	5,180.52	5,121.52	5,180.52	26.72	177.08	11.82	-3,999.67	-1,044.59	3,076.05	2,874.47	201.58	15.260	
5,400.00	5,277.96	5,218.96	5,277.96	27.24	180.48	11.91	-3,999.67	-1,044.59	3,054.03	2,848.58	205.45	14.865	
5,500.00	5,375.40	5,316.40	5,375.40	27.75	183.88	11.99	-3,999.67	-1,044.59	3,032.01	2,822.69	209.32	14.485	
5,600.00	5,472.84	5,413.84	5,472.84	28.27	187.28	12.08	-3,999.67	-1,044.59	3,010.00	2,796.81	213.19	14.119	
5,700.00	5,570.28	5,511.28	5,570.28	28.79	190.68	12.17	-3,999.67	-1,044.59	2,987.99	2,770.94	217.06	13.766	
5,800.00	5,667.72	5,608.72	5,667.72	29.30	194.08	12.26	-3,999.67	-1,044.59	2,966.00	2,745.07	220.93	13.425	
5,900.00	5,765.16	5,706.16	5,765.16	29.82	197.48	12.36	-3,999.67	-1,044.59	2,944.01	2,719.21	224.80	13.096	
6,000.00	5,862.60	5,803.60	5,862.60	30.34	200.89	12.45	-3,999.67	-1,044.59	2,922.02	2,693.36	228.67	12.778	
6,100.00	5,960.05	5,901.05	5,960.05	30.85	204.29	12.55	-3,999.67	-1,044.59	2,900.05	2,667.51	232.54	12.471	
6,200.00	6,057.49	6,001.51	6,057.49	31.37	207.79	12.64	-3,999.67	-1,044.59	2,878.08	2,641.57	236.52	12.169	
6,300.00	6,154.93	6,104.07	6,154.93	31.89	211.37	12.74	-3,999.67	-1,044.59	2,856.12	2,615.56	240.57	11.873	
6,400.00	6,252.37	6,206.63	6,252.37	32.40	214.95	12.84	-3,999.67	-1,044.59	2,834.17	2,589.56	244.62	11.586	
6,500.00	6,349.81	6,309.19	6,349.81	32.92	218.53	12.94	-3,999.67	-1,044.59	2,812.23	2,563.56	248.67	11.309	
6,600.00	6,447.25	6,388.25	6,447.25	33.44	221.29	13.05	-3,999.67	-1,044.59	2,790.30	2,538.40	251.90	11.077	
6,700.00	6,544.28	6,485.28	6,544.28	33.95	224.68	-17.56	-3,999.67	-1,044.59	2,766.52	2,510.77	255.75	10.817	
6,800.00	6,638.86	6,579.86	6,638.86	34.44	227.98	-39.18	-3,999.67	-1,044.59	2,738.28	2,478.80	259.48	10.553	
6,900.00	6,728.65	6,669.65	6,728.65	34.89	231.12	-52.36	-3,999.67	-1,044.59	2,706.48	2,443.47	263.01	10.290	
7,000.00	6,811.45	6,752.45	6,811.45	35.29	234.01	-61.87	-3,999.67	-1,044.59	2,672.38	2,406.11	266.27	10.036	
7,100.00	6,885.21	6,826.21	6,885.21	35.66	236.58	-69.55	-3,999.67	-1,044.59	2,637.49	2,368.28	269.21	9.797	
7,200.00	6,948.11	6,889.11	6,948.11	35.99	238.78	-76.00	-3,999.67	-1,044.59	2,603.49	2,331.68	271.82	9.578	
7,300.00	6,998.62	6,939.62	6,998.62	36.30	240.54	-81.34	-3,999.67	-1,044.59	2,572.13	2,298.04	274.10	9.384	
7,400.00	7,035.48	6,976.48	7,035.48	36.65	241.83	-85.50	-3,999.67	-1,044.59	2,545.05	2,268.98	276.07	9.219	
7,500.00	7,057.79	7,001.21	7,057.79	37.13	242.69	-88.42	-3,999.67	-1,044.59	2,523.68	2,245.86	277.83	9.084	
7,600.00	7,065.00	7,006.00	7,065.00	37.84	242.86	-90.01	-3,999.67	-1,044.59	2,509.09	2,229.98	279.11	8.990	
7,700.00	7,064.77	7,005.77	7,064.77	38.82	242.85	-90.01	-3,999.67	-1,044.59	2,500.07	2,219.63	280.43	8.915	
7,800.00	7,064.54	7,005.54	7,064.54	40.06	242.84	-90.00	-3,999.67	-1,044.59	2,495.02	2,213.05	281.97	8.849	
7,876.02	7,064.36	7,005.36	7,064.36	41.16	242.83	-90.00	-3,999.67	-1,044.59	2,493.86	2,210.60	283.27	8.804 CC	
7,900.00	7,064.31	7,005.31	7,064.31	41.52	242.83	-90.00	-3,999.67	-1,044.59	2,493.98	2,210.30	283.68	8.792 ES	
8,000.00	7,064.08	7,005.08	7,064.08	43.14	242.82	-89.99	-3,999.67	-1,044.59	2,496.94	2,211.42	285.52	8.745	
8,100.00	7,063.85	7,004.85	7,063.85	44.90	242.82	-89.99	-3,999.67	-1,044.59	2,503.90	2,216.43	287.47	8.710	
8,200.00	7,063.62	7,004.62	7,063.62	46.78	242.81	-89.98	-3,999.67	-1,044.59	2,514.82	2,225.33	289.49	8.687	
8,300.00	7,063.39	7,004.39	7,063.39	48.76	242.80	-89.98	-3,999.67	-1,044.59	2,529.65	2,238.10	291.54	8.677 SF	
8,400.00	7,063.16	7,004.16	7,063.16	50.83	242.79	-89.97	-3,999.67	-1,044.59	2,548.31	2,254.70	293.61	8.679	
8,500.00	7,062.93	7,003.93	7,062.93	52.97	242.78	-89.97	-3,999.67	-1,044.59	2,570.74	2,275.07	295.67	8.695	
8,600.00	7,062.70	7,003.70	7,062.70	55.18	242.78	-89.96	-3,999.67	-1,044.59	2,596.82	2,299.12	297.70	8.723	
8,700.00	7,062.47	7,003.47	7,062.47	57.46	242.77	-89.96	-3,999.67	-1,044.59	2,626.46	2,326.78	299.68	8.764	
8,800.00	7,062.24	7,003.24	7,062.24	59.78	242.76	-89.95	-3,999.67	-1,044.59	2,659.53	2,357.92	301.61	8.818	
8,900.00	7,062.01	7,003.01	7,062.01	62.14	242.75	-89.95	-3,999.67	-1,044.59	2,695.90	2,392.44	303.46	8.884	
9,000.00	7,061.78	7,002.78	7,061.78	64.55	242.74	-89.94	-3,999.67	-1,044.59	2,735.45	2,430.21	305.24	8.962	
9,100.00	7,061.55	7,002.55	7,061.55	67.00	242.74	-89.94	-3,999.67	-1,044.59	2,778.03	2,471.10	306.94	9.051	
9,200.00	7,061.31	7,002.31	7,061.31	69.47	242.73	-89.93	-3,999.67	-1,044.59	2,823.52	2,514.97	308.55	9.151	
9,300.00	7,061.08	7,002.08	7,061.08	71.98	242.72	-89.92	-3,999.67	-1,044.59	2,871.77	2,561.69	310.08	9.262	
9,400.00	7,060.85	7,001.85	7,060.85	74.51	242.71	-89.92	-3,999.67	-1,044.59	2,922.65	2,611.13	311.51	9.382	
9,500.00	7,060.62	7,001.62	7,060.62	77.06	242.70	-89.91	-3,999.67	-1,044.59	2,976.01	2,663.14	312.87	9.512	
9,600.00	7,060.39	7,001.39	7,060.39	79.64	242.70	-89.91	-3,999.67	-1,044.59	3,031.74	2,717.60	314.14	9.651	
9,700.00	7,060.16	7,001.16	7,060.16	82.23	242.69	-89.90	-3,999.67	-1,044.59	3,089.70	2,774.37	315.33	9.798	
9,800.00	7,059.93	7,000.93	7,059.93	84.84	242.68	-89.90	-3,999.67	-1,044.59	3,149.77	2,833.32	316.44	9.954	
9,900.00	7,059.70	7,000.70	7,059.70	87.47	242.67	-89.89	-3,999.67	-1,044.59	3,211.83	2,894.34	317.48	10.116	
10,000.00	7,059.47	7,000.47	7,059.47	90.11	242.66	-89.89	-3,999.67	-1,044.59	3,275.76	2,957.31	318.45	10.286	
10,100.00	7,059.24	7,000.24	7,059.24	92.76	242.66	-89.88	-3,999.67	-1,044.59	3,341.47	3,022.11	319.36	10.463	
10,200.00	7,059.01	7,000.01	7,059.01	95.42	242.65	-89.88	-3,999.67	-1,044.59	3,408.84	3,088.65	320.20	10.646	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.78	7,000.22	7,058.78	98.10	242.65	-89.87	-3,999.67	-1,044.59	3,477.79	3,156.79	320.99	10.834		
10,400.00	7,058.55	7,000.45	7,058.55	100.79	242.66	-89.87	-3,999.67	-1,044.59	3,548.21	3,226.48	321.73	11.028		
10,500.00	7,058.32	7,000.68	7,058.32	103.48	242.67	-89.86	-3,999.67	-1,044.59	3,620.03	3,297.60	322.43	11.227		
10,600.00	7,058.09	7,000.91	7,058.09	106.19	242.68	-89.86	-3,999.67	-1,044.59	3,693.15	3,370.09	323.07	11.432		
10,700.00	7,057.86	7,001.14	7,057.86	108.90	242.69	-89.85	-3,999.67	-1,044.59	3,767.52	3,443.85	323.67	11.640		
10,800.00	7,057.63	7,001.37	7,057.63	111.62	242.70	-89.85	-3,999.67	-1,044.59	3,843.04	3,518.82	324.22	11.853		
10,900.00	7,057.40	7,001.60	7,057.40	114.35	242.70	-89.84	-3,999.67	-1,044.59	3,919.66	3,594.92	324.74	12.070		
11,000.00	7,057.17	7,001.83	7,057.17	117.08	242.71	-89.83	-3,999.67	-1,044.59	3,997.32	3,672.10	325.22	12.291		
11,100.00	7,056.94	7,002.06	7,056.94	119.82	242.72	-89.83	-3,999.67	-1,044.59	4,075.95	3,750.27	325.67	12.515		
11,200.00	7,056.71	7,002.29	7,056.71	122.56	242.73	-89.82	-3,999.67	-1,044.59	4,155.50	3,829.40	326.09	12.743		
11,300.00	7,056.48	7,002.52	7,056.48	125.31	242.74	-89.82	-3,999.67	-1,044.59	4,235.91	3,909.43	326.48	12.974		
11,400.00	7,056.25	7,002.75	7,056.25	128.06	242.74	-89.81	-3,999.67	-1,044.59	4,317.14	3,990.30	326.85	13.208		
11,500.00	7,056.02	7,002.98	7,056.02	130.82	242.75	-89.81	-3,999.67	-1,044.59	4,399.15	4,071.96	327.19	13.445		
11,600.00	7,055.79	7,003.21	7,055.79	133.59	242.76	-89.80	-3,999.67	-1,044.59	4,481.89	4,154.38	327.50	13.685		
11,700.00	7,055.55	7,003.45	7,055.55	136.35	242.77	-89.80	-3,999.67	-1,044.59	4,565.32	4,237.51	327.80	13.927		
11,800.00	7,055.32	7,003.68	7,055.32	139.12	242.78	-89.79	-3,999.67	-1,044.59	4,649.40	4,321.32	328.08	14.172		
11,900.00	7,055.09	7,003.91	7,055.09	141.90	242.78	-89.79	-3,999.67	-1,044.59	4,734.10	4,405.76	328.34	14.418		
12,000.00	7,054.86	7,004.14	7,054.86	144.67	242.79	-89.78	-3,999.67	-1,044.59	4,819.39	4,490.80	328.58	14.667		
12,100.00	7,054.63	7,004.37	7,054.63	147.45	242.80	-89.78	-3,999.67	-1,044.59	4,905.23	4,576.42	328.81	14.918		
12,200.00	7,054.40	7,004.60	7,054.40	150.24	242.81	-89.77	-3,999.67	-1,044.59	4,991.60	4,662.58	329.02	15.171		
12,300.00	7,054.17	7,004.83	7,054.17	153.02	242.82	-89.77	-3,999.67	-1,044.59	5,078.47	4,749.24	329.22	15.426		
12,400.00	7,053.94	7,005.06	7,053.94	155.81	242.82	-89.76	-3,999.67	-1,044.59	5,165.82	4,836.40	329.41	15.682		
12,500.00	7,053.71	7,005.29	7,053.71	158.60	242.83	-89.76	-3,999.67	-1,044.59	5,253.61	4,924.02	329.59	15.940		
12,600.00	7,053.48	7,005.52	7,053.48	161.40	242.84	-89.75	-3,999.67	-1,044.59	5,341.84	5,012.08	329.76	16.199		
12,700.00	7,053.25	7,005.75	7,053.25	164.19	242.85	-89.74	-3,999.67	-1,044.59	5,430.47	5,100.55	329.92	16.460		
12,800.00	7,053.02	7,005.98	7,053.02	166.99	242.86	-89.74	-3,999.67	-1,044.59	5,519.49	5,189.43	330.07	16.722		
12,900.00	7,052.79	7,006.21	7,052.79	169.79	242.86	-89.73	-3,999.67	-1,044.59	5,608.89	5,278.68	330.21	16.986		
13,000.00	7,052.56	7,006.44	7,052.56	172.59	242.87	-89.73	-3,999.67	-1,044.59	5,698.63	5,368.29	330.34	17.251		
13,100.00	7,052.33	7,006.67	7,052.33	175.40	242.88	-89.72	-3,999.67	-1,044.59	5,788.71	5,458.24	330.47	17.517		
13,200.00	7,052.10	7,006.90	7,052.10	178.20	242.89	-89.72	-3,999.67	-1,044.59	5,879.11	5,548.52	330.59	17.784		
13,300.00	7,051.87	7,007.13	7,051.87	181.01	242.90	-89.71	-3,999.67	-1,044.59	5,969.82	5,639.12	330.70	18.052		
13,400.00	7,051.64	7,007.36	7,051.64	183.82	242.90	-89.71	-3,999.67	-1,044.59	6,060.82	5,730.01	330.81	18.321		
13,500.00	7,051.41	7,007.59	7,051.41	186.63	242.91	-89.70	-3,999.67	-1,044.59	6,152.10	5,821.18	330.92	18.591		
13,600.00	7,051.18	7,007.82	7,051.18	189.44	242.92	-89.70	-3,999.67	-1,044.59	6,243.65	5,912.63	331.01	18.862		
13,700.00	7,050.95	7,008.05	7,050.95	192.25	242.93	-89.69	-3,999.67	-1,044.59	6,335.45	6,004.34	331.11	19.134		
13,800.00	7,050.72	7,008.28	7,050.72	195.07	242.94	-89.69	-3,999.67	-1,044.59	6,427.50	6,096.30	331.20	19.407		
13,900.00	7,050.49	7,008.51	7,050.49	197.88	242.94	-89.68	-3,999.67	-1,044.59	6,519.78	6,188.49	331.29	19.680		
14,000.00	7,050.26	7,008.74	7,050.26	200.70	242.95	-89.68	-3,999.67	-1,044.59	6,612.28	6,280.92	331.37	19.954		
14,100.00	7,050.03	7,008.97	7,050.03	203.52	242.96	-89.67	-3,999.67	-1,044.59	6,705.00	6,373.56	331.45	20.229		
14,200.00	7,049.80	7,009.21	7,049.80	206.34	242.97	-89.67	-3,999.67	-1,044.59	6,797.93	6,466.41	331.52	20.505		
14,300.00	7,049.56	7,009.44	7,049.56	209.16	242.98	-89.66	-3,999.67	-1,044.59	6,891.06	6,559.46	331.60	20.781		
14,400.00	7,049.33	7,009.67	7,049.33	211.98	242.98	-89.65	-3,999.67	-1,044.59	6,984.37	6,652.70	331.67	21.058		
14,500.00	7,049.10	7,009.90	7,049.10	214.80	242.99	-89.65	-3,999.67	-1,044.59	7,077.87	6,746.13	331.74	21.336		
14,600.00	7,048.87	6,989.87	7,048.87	217.63	242.29	-89.64	-3,999.67	-1,044.59	7,171.54	6,840.45	331.10	21.660		
14,700.00	7,048.64	6,989.64	7,048.64	220.45	242.29	-89.64	-3,999.67	-1,044.59	7,265.39	6,934.24	331.15	21.940		
14,800.00	7,048.41	6,989.41	7,048.41	223.28	242.28	-89.63	-3,999.67	-1,044.59	7,359.39	7,028.20	331.19	22.221		
14,900.00	7,048.18	6,989.18	7,048.18	226.10	242.27	-89.63	-3,999.67	-1,044.59	7,453.55	7,122.31	331.24	22.502		
14,979.18	7,048.00	6,989.00	7,048.00	228.34	242.26	-89.62	-3,999.67	-1,044.59	7,528.21	7,196.94	331.27	22.725		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-39.84	1,390.96	-1,160.61	1,811.57					
100.00	100.00	104.00	100.00	3.28	3.78	-39.84	1,390.96	-1,160.61	1,811.57	1,804.50	7.07	256.312		
200.00	200.00	204.00	200.00	3.34	6.30	-39.84	1,390.96	-1,160.61	1,811.57	1,801.94	9.63	188.025 CC		
300.00	299.98	304.02	299.98	3.44	9.46	134.09	1,390.96	-1,160.61	1,812.78	1,799.89	12.89	140.584 ES		
400.00	399.84	404.16	399.84	3.59	12.79	134.16	1,390.96	-1,160.61	1,816.43	1,800.05	16.38	110.881		
500.00	499.45	504.55	499.45	3.79	16.20	134.27	1,390.96	-1,160.61	1,822.52	1,802.53	19.99	91.157		
600.00	598.70	605.30	598.70	4.03	19.66	134.42	1,390.96	-1,160.61	1,831.07	1,807.38	23.69	77.283		
700.00	697.47	706.53	697.47	4.31	23.15	134.61	1,390.96	-1,160.61	1,842.11	1,814.64	27.47	67.067		
800.00	795.62	808.38	795.62	4.64	26.68	134.83	1,390.96	-1,160.61	1,855.66	1,824.35	31.31	59.273		
900.00	893.16	899.84	893.16	5.00	29.48	135.19	1,390.96	-1,160.61	1,871.45	1,836.99	34.45	54.317		
1,000.00	990.60	996.40	990.60	5.38	32.86	135.67	1,390.96	-1,160.61	1,887.67	1,849.47	38.20	49.414		
1,100.00	1,088.04	1,094.04	1,088.04	5.79	36.25	136.13	1,390.96	-1,160.61	1,904.01	1,862.04	41.97	45.365		
1,200.00	1,185.48	1,191.48	1,185.48	6.22	39.64	136.59	1,390.96	-1,160.61	1,920.48	1,874.73	45.76	41.971		
1,300.00	1,282.92	1,288.92	1,282.92	6.66	43.03	137.04	1,390.96	-1,160.61	1,937.07	1,887.51	49.56	39.086		
1,400.00	1,380.36	1,386.36	1,380.36	7.10	46.42	137.49	1,390.96	-1,160.61	1,953.78	1,900.41	53.37	36.607		
1,500.00	1,477.80	1,483.80	1,477.80	7.56	49.81	137.92	1,390.96	-1,160.61	1,970.61	1,913.41	57.19	34.455		
1,600.00	1,575.24	1,581.24	1,575.24	8.03	53.21	138.35	1,390.96	-1,160.61	1,987.54	1,926.52	61.02	32.570		
1,700.00	1,672.68	1,678.68	1,672.68	8.50	56.60	138.78	1,390.96	-1,160.61	2,004.59	1,939.73	64.86	30.907		
1,800.00	1,770.12	1,776.12	1,770.12	8.98	60.00	139.19	1,390.96	-1,160.61	2,021.74	1,953.04	68.70	29.429		
1,900.00	1,867.56	1,873.56	1,867.56	9.46	63.40	139.60	1,390.96	-1,160.61	2,038.99	1,966.45	72.54	28.107		
2,000.00	1,965.00	1,971.00	1,965.00	9.95	66.79	140.00	1,390.96	-1,160.61	2,056.35	1,979.95	76.39	26.918		
2,100.00	2,062.44	2,068.44	2,062.44	10.44	70.19	140.40	1,390.96	-1,160.61	2,073.80	1,993.55	80.25	25.843		
2,200.00	2,159.88	2,165.88	2,159.88	10.93	73.59	140.79	1,390.96	-1,160.61	2,091.35	2,007.25	84.10	24.867		
2,300.00	2,257.32	2,263.32	2,257.32	11.42	76.99	141.17	1,390.96	-1,160.61	2,108.99	2,021.04	87.96	23.977		
2,400.00	2,354.76	2,360.76	2,354.76	11.92	80.39	141.54	1,390.96	-1,160.61	2,126.73	2,034.91	91.82	23.163		
2,500.00	2,452.20	2,458.20	2,452.20	12.42	83.79	141.91	1,390.96	-1,160.61	2,144.55	2,048.88	95.68	22.415		
2,600.00	2,549.64	2,555.64	2,549.64	12.92	87.18	142.28	1,390.96	-1,160.61	2,162.46	2,062.92	99.54	21.725		
2,700.00	2,647.08	2,653.08	2,647.08	13.42	90.58	142.64	1,390.96	-1,160.61	2,180.46	2,077.06	103.40	21.087		
2,800.00	2,744.52	2,750.52	2,744.52	13.93	93.98	142.99	1,390.96	-1,160.61	2,198.54	2,091.27	107.26	20.496		
2,900.00	2,841.96	2,847.96	2,841.96	14.43	97.38	143.33	1,390.96	-1,160.61	2,216.69	2,105.56	111.13	19.947		
3,000.00	2,939.40	2,945.40	2,939.40	14.94	100.78	143.68	1,390.96	-1,160.61	2,234.93	2,119.94	114.99	19.435		
3,100.00	3,036.84	3,042.84	3,036.84	15.44	104.18	144.01	1,390.96	-1,160.61	2,253.24	2,134.38	118.86	18.957		
3,200.00	3,134.28	3,140.28	3,134.28	15.95	107.58	144.34	1,390.96	-1,160.61	2,271.63	2,148.91	122.73	18.510		
3,300.00	3,231.72	3,237.72	3,231.72	16.46	110.98	144.67	1,390.96	-1,160.61	2,290.09	2,163.50	126.60	18.090		
3,400.00	3,329.16	3,335.16	3,329.16	16.97	114.38	144.99	1,390.96	-1,160.61	2,308.63	2,178.16	130.46	17.696		
3,500.00	3,426.60	3,432.60	3,426.60	17.48	117.78	145.30	1,390.96	-1,160.61	2,327.23	2,192.90	134.33	17.325		
3,600.00	3,524.04	3,530.04	3,524.04	17.99	121.18	145.61	1,390.96	-1,160.61	2,345.90	2,207.70	138.20	16.975		
3,700.00	3,621.48	3,627.48	3,621.48	18.50	124.58	145.92	1,390.96	-1,160.61	2,364.64	2,222.57	142.07	16.644		
3,800.00	3,718.92	3,724.92	3,718.92	19.01	127.98	146.22	1,390.96	-1,160.61	2,383.44	2,237.50	145.94	16.332		
3,900.00	3,816.36	3,822.36	3,816.36	19.52	131.39	146.51	1,390.96	-1,160.61	2,402.30	2,252.50	149.81	16.036		
4,000.00	3,913.80	3,919.80	3,913.80	20.03	134.79	146.80	1,390.96	-1,160.61	2,421.23	2,267.55	153.68	15.756		
4,100.00	4,011.24	4,017.24	4,011.24	20.55	138.19	147.09	1,390.96	-1,160.61	2,440.22	2,282.67	157.54	15.489		
4,200.00	4,108.68	4,114.68	4,108.68	21.06	141.59	147.37	1,390.96	-1,160.61	2,459.26	2,297.85	161.41	15.236		
4,300.00	4,206.12	4,212.12	4,206.12	21.57	144.99	147.65	1,390.96	-1,160.61	2,478.37	2,313.08	165.28	14.995		
4,400.00	4,303.56	4,309.56	4,303.56	22.09	148.42	147.93	1,390.96	-1,160.61	2,497.53	2,328.34	169.18	14.762		
4,500.00	4,401.00	4,407.00	4,401.00	22.60	151.82	148.20	1,390.96	-1,160.61	2,516.74	2,343.51	173.23	14.528		
4,600.00	4,498.44	4,504.44	4,498.44	23.11	155.22	148.46	1,390.96	-1,160.61	2,536.01	2,358.73	177.28	14.305		
4,700.00	4,595.88	4,601.88	4,595.88	23.63	158.62	148.72	1,390.96	-1,160.61	2,555.33	2,374.00	181.33	14.092		
4,800.00	4,693.32	4,699.32	4,693.32	24.14	162.02	148.98	1,390.96	-1,160.61	2,574.70	2,390.07	185.33	13.945		
4,900.00	4,790.76	4,796.76	4,790.76	24.66	165.42	149.24	1,390.96	-1,160.61	2,594.12	2,405.62	189.33	13.762		
5,000.00	4,888.20	4,894.20	4,888.20	25.17	168.82	149.49	1,390.96	-1,160.61	2,613.59	2,421.22	193.33	13.586		
5,100.00	4,985.64	4,991.64	4,985.64	25.69	172.22	149.73	1,390.96	-1,160.61	2,633.11	2,436.87	197.33	13.418		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	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	5,083.08	5,079.08	5,083.08	26.20	175.60	149.98	1,390.96	-1,160.61	2,652.68	2,452.57	200.11	13.256		
5,300.00	5,180.52	5,176.52	5,180.52	26.72	179.00	150.22	1,390.96	-1,160.61	2,672.29	2,468.31	203.98	13.101		
5,400.00	5,277.96	5,273.96	5,277.96	27.24	182.40	150.45	1,390.96	-1,160.61	2,691.95	2,484.10	207.85	12.951		
5,500.00	5,375.40	5,371.40	5,375.40	27.75	185.80	150.69	1,390.96	-1,160.61	2,711.65	2,499.93	211.72	12.808		
5,600.00	5,472.84	5,468.84	5,472.84	28.27	189.20	150.91	1,390.96	-1,160.61	2,731.39	2,515.80	215.59	12.669		
5,700.00	5,570.28	5,566.28	5,570.28	28.79	192.60	151.14	1,390.96	-1,160.61	2,751.18	2,531.72	219.46	12.536		
5,800.00	5,667.72	5,663.72	5,667.72	29.30	196.00	151.36	1,390.96	-1,160.61	2,771.01	2,547.67	223.33	12.408		
5,900.00	5,765.16	5,761.16	5,765.16	29.82	199.40	151.58	1,390.96	-1,160.61	2,790.87	2,563.67	227.20	12.284		
6,000.00	5,862.60	5,858.60	5,862.60	30.34	202.81	151.80	1,390.96	-1,160.61	2,810.78	2,579.71	231.07	12.164		
6,100.00	5,960.05	5,956.05	5,960.05	30.85	206.21	152.01	1,390.96	-1,160.61	2,830.73	2,595.78	234.94	12.049		
6,200.00	6,057.49	6,053.49	6,057.49	31.37	209.61	152.23	1,390.96	-1,160.61	2,850.71	2,611.89	238.81	11.937		
6,300.00	6,154.93	6,150.93	6,154.93	31.89	213.01	152.43	1,390.96	-1,160.61	2,870.73	2,628.04	242.68	11.829		
6,400.00	6,252.37	6,248.37	6,252.37	32.40	216.41	152.64	1,390.96	-1,160.61	2,890.78	2,644.23	246.55	11.725		
6,500.00	6,349.81	6,345.81	6,349.81	32.92	219.81	152.84	1,390.96	-1,160.61	2,910.88	2,660.45	250.42	11.624		
6,600.00	6,447.25	6,443.25	6,447.25	33.44	223.21	153.04	1,390.96	-1,160.61	2,931.00	2,676.71	254.29	11.526		
6,700.00	6,544.28	6,540.28	6,544.28	33.95	226.60	123.27	1,390.96	-1,160.61	2,949.09	2,690.94	258.15	11.424		
6,800.00	6,638.86	6,634.86	6,638.86	34.44	229.90	104.01	1,390.96	-1,160.61	2,961.70	2,699.80	261.90	11.308		
6,900.00	6,728.65	6,724.65	6,728.65	34.89	233.04	94.56	1,390.96	-1,160.61	2,968.88	2,703.41	265.46	11.184		
7,000.00	6,811.45	6,807.45	6,811.45	35.29	235.93	89.87	1,390.96	-1,160.61	2,971.02	2,702.26	268.76	11.055		
7,100.00	6,885.21	6,881.21	6,885.21	35.66	238.50	87.71	1,390.96	-1,160.61	2,968.75	2,697.00	271.75	10.925		
7,200.00	6,948.11	6,944.11	6,948.11	35.99	240.70	87.04	1,390.96	-1,160.61	2,962.85	2,688.43	274.42	10.797		
7,300.00	6,998.62	7,005.38	6,998.62	36.30	242.83	87.26	1,390.96	-1,160.61	2,954.18	2,677.05	277.13	10.660		
7,400.00	7,035.48	7,031.48	7,035.48	36.65	243.75	87.98	1,390.96	-1,160.61	2,943.60	2,664.84	278.75	10.560		
7,500.00	7,057.79	7,053.79	7,057.79	37.13	244.52	88.96	1,390.96	-1,160.61	2,931.87	2,651.46	280.41	10.456		
7,600.00	7,065.00	7,061.00	7,065.00	37.84	244.78	90.02	1,390.96	-1,160.61	2,919.61	2,637.93	281.69	10.365		
7,700.00	7,064.77	7,060.77	7,064.77	38.82	244.77	90.01	1,390.96	-1,160.61	2,908.98	2,626.13	282.86	10.284		
7,800.00	7,064.54	7,060.54	7,064.54	40.06	244.76	90.01	1,390.96	-1,160.61	2,901.76	2,617.58	284.18	10.211		
7,900.00	7,064.31	7,060.31	7,064.31	41.52	244.75	90.00	1,390.96	-1,160.61	2,897.98	2,612.34	285.64	10.146		
7,959.76	7,064.17	7,060.17	7,064.17	42.48	244.75	90.00	1,390.96	-1,160.61	2,897.36	2,610.79	286.58	10.110		
8,000.00	7,064.08	7,060.08	7,064.08	43.14	244.74	90.00	1,390.96	-1,160.61	2,897.64	2,610.44	287.20	10.089		
8,100.00	7,063.85	7,059.85	7,063.85	44.90	244.74	89.99	1,390.96	-1,160.61	2,900.75	2,611.90	288.86	10.042		
8,200.00	7,063.62	7,059.62	7,063.62	46.78	244.73	89.99	1,390.96	-1,160.61	2,907.30	2,616.73	290.57	10.005		
8,300.00	7,063.39	7,059.39	7,063.39	48.76	244.72	89.98	1,390.96	-1,160.61	2,917.27	2,624.93	292.34	9.979		
8,400.00	7,063.16	7,059.16	7,063.16	50.83	244.71	89.98	1,390.96	-1,160.61	2,930.62	2,636.49	294.13	9.964		
8,500.00	7,062.93	7,058.93	7,062.93	52.97	244.70	89.98	1,390.96	-1,160.61	2,947.30	2,651.37	295.93	9.959 SF		
8,600.00	7,062.70	7,058.70	7,062.70	55.18	244.70	89.97	1,390.96	-1,160.61	2,967.26	2,669.53	297.73	9.966		
8,700.00	7,062.47	7,058.47	7,062.47	57.46	244.69	89.97	1,390.96	-1,160.61	2,990.43	2,690.92	299.51	9.984		
8,800.00	7,062.24	7,058.24	7,062.24	59.78	244.68	89.96	1,390.96	-1,160.61	3,016.74	2,715.48	301.26	10.014		
8,900.00	7,062.01	7,058.01	7,062.01	62.14	244.67	89.96	1,390.96	-1,160.61	3,046.10	2,743.14	302.97	10.054		
9,000.00	7,061.78	7,057.78	7,061.78	64.55	244.66	89.95	1,390.96	-1,160.61	3,078.44	2,773.81	304.63	10.105		
9,100.00	7,061.55	7,057.55	7,061.55	67.00	244.66	89.95	1,390.96	-1,160.61	3,113.65	2,807.41	306.24	10.167		
9,200.00	7,061.31	7,057.31	7,061.31	69.47	244.65	89.94	1,390.96	-1,160.61	3,151.65	2,843.85	307.80	10.239		
9,300.00	7,061.08	7,057.08	7,061.08	71.98	244.64	89.94	1,390.96	-1,160.61	3,192.32	2,883.03	309.29	10.321		
9,400.00	7,060.85	7,056.85	7,060.85	74.51	244.63	89.93	1,390.96	-1,160.61	3,235.58	2,924.86	310.72	10.413		
9,500.00	7,060.62	7,056.62	7,060.62	77.06	244.62	89.93	1,390.96	-1,160.61	3,281.31	2,969.23	312.09	10.514		
9,600.00	7,060.39	7,056.39	7,060.39	79.64	244.62	89.93	1,390.96	-1,160.61	3,329.42	3,016.04	313.39	10.624		
9,700.00	7,060.16	7,056.16	7,060.16	82.23	244.61	89.92	1,390.96	-1,160.61	3,379.81	3,065.19	314.62	10.742		
9,800.00	7,059.93	7,055.93	7,059.93	84.84	244.60	89.92	1,390.96	-1,160.61	3,432.37	3,116.58	315.79	10.869		
9,900.00	7,059.70	7,055.70	7,059.70	87.47	244.59	89.91	1,390.96	-1,160.61	3,487.00	3,170.10	316.90	11.003		
10,000.00	7,059.47	7,055.47	7,059.47	90.11	244.58	89.91	1,390.96	-1,160.61	3,543.62	3,225.67	317.95	11.145		
10,100.00	7,059.24	7,055.24	7,059.24	92.76	244.58	89.90	1,390.96	-1,160.61	3,602.12	3,283.19	318.93	11.294		
10,200.00	7,059.01	7,055.01	7,059.01	95.42	244.57	89.90	1,390.96	-1,160.61	3,662.42	3,342.56	319.86	11.450		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.78	7,054.78	7,058.78	98.10	244.56	89.89	1,390.96	-1,160.61	3,724.43	3,403.69	320.74	11.612		
10,400.00	7,058.55	7,054.55	7,058.55	100.79	244.55	89.89	1,390.96	-1,160.61	3,788.06	3,466.50	321.56	11.780		
10,500.00	7,058.32	7,054.32	7,058.32	103.48	244.54	89.88	1,390.96	-1,160.61	3,853.24	3,530.91	322.34	11.954		
10,600.00	7,058.09	7,054.09	7,058.09	106.19	244.54	89.88	1,390.96	-1,160.61	3,919.89	3,596.82	323.06	12.134		
10,700.00	7,057.86	7,053.86	7,057.86	108.90	244.53	89.88	1,390.96	-1,160.61	3,987.93	3,664.18	323.74	12.318		
10,800.00	7,057.63	7,053.63	7,057.63	111.62	244.52	89.87	1,390.96	-1,160.61	4,057.29	3,732.91	324.38	12.508		
10,900.00	7,057.40	7,053.40	7,057.40	114.35	244.51	89.87	1,390.96	-1,160.61	4,127.91	3,802.93	324.98	12.702		
11,000.00	7,057.17	7,053.17	7,057.17	117.08	244.50	89.86	1,390.96	-1,160.61	4,199.73	3,874.18	325.54	12.901		
11,100.00	7,056.94	7,052.94	7,056.94	119.82	244.50	89.86	1,390.96	-1,160.61	4,272.67	3,946.60	326.07	13.104		
11,200.00	7,056.71	7,052.71	7,056.71	122.56	244.49	89.85	1,390.96	-1,160.61	4,346.70	4,020.13	326.56	13.310		
11,300.00	7,056.48	7,052.48	7,056.48	125.31	244.48	89.85	1,390.96	-1,160.61	4,421.74	4,094.72	327.03	13.521		
11,400.00	7,056.25	7,052.25	7,056.25	128.06	244.47	89.84	1,390.96	-1,160.61	4,497.76	4,170.30	327.46	13.735		
11,500.00	7,056.02	7,052.02	7,056.02	130.82	244.46	89.84	1,390.96	-1,160.61	4,574.70	4,246.84	327.86	13.953		
11,600.00	7,055.79	7,051.79	7,055.79	133.59	244.45	89.83	1,390.96	-1,160.61	4,652.52	4,324.28	328.25	14.174		
11,700.00	7,055.55	7,051.55	7,055.55	136.35	244.45	89.83	1,390.96	-1,160.61	4,731.17	4,402.57	328.60	14.398		
11,800.00	7,055.32	7,051.32	7,055.32	139.12	244.44	89.83	1,390.96	-1,160.61	4,810.62	4,481.68	328.94	14.625		
11,900.00	7,055.09	7,051.09	7,055.09	141.90	244.43	89.82	1,390.96	-1,160.61	4,890.82	4,561.57	329.25	14.854		
12,000.00	7,054.86	7,050.86	7,054.86	144.67	244.42	89.82	1,390.96	-1,160.61	4,971.73	4,642.19	329.54	15.087		
12,100.00	7,054.63	7,050.63	7,054.63	147.45	244.41	89.81	1,390.96	-1,160.61	5,053.33	4,723.51	329.82	15.321		
12,200.00	7,054.40	7,050.40	7,054.40	150.24	244.41	89.81	1,390.96	-1,160.61	5,135.58	4,805.50	330.08	15.559		
12,300.00	7,054.17	7,050.17	7,054.17	153.02	244.40	89.80	1,390.96	-1,160.61	5,218.45	4,888.13	330.32	15.798		
12,400.00	7,053.94	7,049.94	7,053.94	155.81	244.39	89.80	1,390.96	-1,160.61	5,301.91	4,971.36	330.55	16.040		
12,500.00	7,053.71	7,049.71	7,053.71	158.60	244.38	89.79	1,390.96	-1,160.61	5,385.94	5,055.17	330.77	16.283		
12,600.00	7,053.48	7,049.48	7,053.48	161.40	244.37	89.79	1,390.96	-1,160.61	5,470.50	5,139.53	330.97	16.529		
12,700.00	7,053.25	7,049.25	7,053.25	164.19	244.37	89.78	1,390.96	-1,160.61	5,555.58	5,224.42	331.16	16.776		
12,800.00	7,053.02	7,049.02	7,053.02	166.99	244.36	89.78	1,390.96	-1,160.61	5,641.14	5,309.80	331.34	17.025		
12,900.00	7,052.79	7,048.79	7,052.79	169.79	244.35	89.77	1,390.96	-1,160.61	5,727.17	5,395.67	331.51	17.276		
13,000.00	7,052.56	7,048.56	7,052.56	172.59	244.34	89.77	1,390.96	-1,160.61	5,813.65	5,481.99	331.67	17.529		
13,100.00	7,052.33	7,048.33	7,052.33	175.40	244.33	89.77	1,390.96	-1,160.61	5,900.56	5,568.74	331.82	17.783		
13,200.00	7,052.10	7,048.10	7,052.10	178.20	244.33	89.76	1,390.96	-1,160.61	5,987.87	5,655.92	331.96	18.038		
13,300.00	7,051.87	7,047.87	7,051.87	181.01	244.32	89.76	1,390.96	-1,160.61	6,075.58	5,743.49	332.09	18.295		
13,400.00	7,051.64	7,047.64	7,051.64	183.82	244.31	89.75	1,390.96	-1,160.61	6,163.66	5,831.44	332.22	18.553		
13,500.00	7,051.41	7,047.41	7,051.41	186.63	244.30	89.75	1,390.96	-1,160.61	6,252.10	5,919.76	332.34	18.813		
13,600.00	7,051.18	7,047.18	7,051.18	189.44	244.29	89.74	1,390.96	-1,160.61	6,340.88	6,008.43	332.45	19.073		
13,700.00	7,050.95	7,046.95	7,050.95	192.25	244.29	89.74	1,390.96	-1,160.61	6,430.00	6,097.44	332.56	19.335		
13,800.00	7,050.72	7,046.72	7,050.72	195.07	244.28	89.73	1,390.96	-1,160.61	6,519.42	6,186.77	332.66	19.598		
13,900.00	7,050.49	7,046.49	7,050.49	197.88	244.27	89.73	1,390.96	-1,160.61	6,609.15	6,276.40	332.75	19.862		
14,000.00	7,050.26	7,046.26	7,050.26	200.70	244.26	89.72	1,390.96	-1,160.61	6,699.18	6,366.33	332.84	20.127		
14,100.00	7,050.03	7,046.03	7,050.03	203.52	244.25	89.72	1,390.96	-1,160.61	6,789.48	6,456.55	332.93	20.393		
14,200.00	7,049.80	7,045.80	7,049.80	206.34	244.25	89.72	1,390.96	-1,160.61	6,880.05	6,547.03	333.01	20.660		
14,300.00	7,049.56	7,045.56	7,049.56	209.16	244.24	89.71	1,390.96	-1,160.61	6,970.87	6,637.78	333.09	20.928		
14,400.00	7,049.33	7,045.33	7,049.33	211.98	244.23	89.71	1,390.96	-1,160.61	7,061.95	6,728.78	333.17	21.196		
14,500.00	7,049.10	7,045.10	7,049.10	214.80	244.22	89.70	1,390.96	-1,160.61	7,153.26	6,820.02	333.24	21.466		
14,600.00	7,048.87	7,044.87	7,048.87	217.63	244.21	89.70	1,390.96	-1,160.61	7,244.81	6,911.50	333.31	21.736		
14,700.00	7,048.64	7,044.64	7,048.64	220.45	244.21	89.69	1,390.96	-1,160.61	7,336.57	7,003.20	333.37	22.007		
14,800.00	7,048.41	7,044.41	7,048.41	223.28	244.20	89.69	1,390.96	-1,160.61	7,428.55	7,095.11	333.43	22.279		
14,900.00	7,048.18	7,044.18	7,048.18	226.10	244.19	89.68	1,390.96	-1,160.61	7,520.73	7,187.23	333.49	22.551		
14,979.18	7,048.00	7,044.00	7,048.00	228.34	244.18	89.68	1,390.96	-1,160.61	7,593.86	7,260.32	333.54	22.767		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-85.50	86.74	-1,102.27	1,105.82					
100.00	100.00	82.00	100.00	3.28	3.58	-85.50	86.74	-1,102.27	1,105.67	1,098.81	6.86	161.097		
200.00	200.00	182.00	200.00	3.34	5.66	-85.50	86.74	-1,102.27	1,105.67	1,096.68	8.99	122.944		
300.00	299.98	281.98	299.98	3.44	8.74	-88.50	86.74	-1,102.27	1,105.63	1,093.45	12.18	90.798		
400.00	399.84	381.84	399.84	3.59	12.04	-88.78	86.74	-1,102.27	1,105.50	1,089.87	15.63	70.738		
500.00	499.45	481.45	499.45	3.79	15.42	-89.23	86.74	-1,102.27	1,105.35	1,086.15	19.20	57.567		
600.00	598.70	580.70	598.70	4.03	18.81	-89.86	86.74	-1,102.27	1,105.25	1,082.41	22.84	48.383		
619.30	617.80	600.20	617.80	4.09	19.49	-90.00	86.74	-1,102.27	1,105.25	1,081.68	23.57	46.898 CC		
700.00	697.47	679.47	697.47	4.31	22.22	-90.66	86.74	-1,102.27	1,105.32	1,078.79	26.53	41.660		
800.00	795.62	777.62	795.62	4.64	25.61	-91.62	86.74	-1,102.27	1,105.71	1,075.46	30.25	36.552		
900.00	893.16	875.16	893.16	5.00	28.99	-92.73	86.74	-1,102.27	1,106.57	1,072.58	33.99	32.557		
1,000.00	990.60	972.60	990.60	5.38	32.37	-93.86	86.74	-1,102.27	1,107.89	1,070.14	37.76	29.342		
1,100.00	1,088.04	1,070.04	1,088.04	5.79	35.76	-94.99	86.74	-1,102.27	1,109.67	1,068.12	41.55	26.706		
1,200.00	1,185.48	1,167.48	1,185.48	6.22	39.15	-96.11	86.74	-1,102.27	1,111.90	1,066.54	45.36	24.511		
1,300.00	1,282.92	1,264.92	1,282.92	6.66	42.54	-97.23	86.74	-1,102.27	1,114.59	1,065.39	49.19	22.658		
1,400.00	1,380.36	1,362.36	1,380.36	7.10	45.93	-98.35	86.74	-1,102.27	1,117.71	1,064.68	53.03	21.077		
1,500.00	1,477.80	1,459.80	1,477.80	7.56	49.33	-99.46	86.74	-1,102.27	1,121.28	1,064.40	56.88	19.713 ES		
1,600.00	1,575.24	1,557.24	1,575.24	8.03	52.72	-100.56	86.74	-1,102.27	1,125.29	1,064.55	60.74	18.527		
1,700.00	1,672.68	1,654.68	1,672.68	8.50	56.12	-101.65	86.74	-1,102.27	1,129.72	1,065.12	64.60	17.488		
1,800.00	1,770.12	1,752.12	1,770.12	8.98	59.51	-102.74	86.74	-1,102.27	1,134.59	1,066.12	68.47	16.571		
1,900.00	1,867.56	1,849.56	1,867.56	9.46	62.91	-103.81	86.74	-1,102.27	1,139.88	1,067.54	72.34	15.757		
2,000.00	1,965.00	1,947.00	1,965.00	9.95	66.31	-104.88	86.74	-1,102.27	1,145.59	1,069.37	76.22	15.031		
2,100.00	2,062.44	2,044.44	2,062.44	10.44	69.70	-105.93	86.74	-1,102.27	1,151.71	1,071.61	80.09	14.380		
2,200.00	2,159.88	2,141.88	2,159.88	10.93	73.10	-106.98	86.74	-1,102.27	1,158.23	1,074.26	83.97	13.793		
2,300.00	2,257.32	2,239.32	2,257.32	11.42	76.50	-108.01	86.74	-1,102.27	1,165.15	1,077.30	87.85	13.262		
2,400.00	2,354.76	2,336.76	2,354.76	11.92	79.90	-109.03	86.74	-1,102.27	1,172.46	1,080.72	91.73	12.781		
2,500.00	2,452.20	2,434.20	2,452.20	12.42	83.30	-110.04	86.74	-1,102.27	1,180.15	1,084.53	95.62	12.342		
2,600.00	2,549.64	2,531.64	2,549.64	12.92	86.70	-111.04	86.74	-1,102.27	1,188.22	1,088.72	99.50	11.942		
2,700.00	2,647.08	2,629.08	2,647.08	13.42	90.10	-112.02	86.74	-1,102.27	1,196.65	1,093.27	103.38	11.575		
2,800.00	2,744.52	2,726.52	2,744.52	13.93	93.50	-112.99	86.74	-1,102.27	1,205.45	1,098.18	107.27	11.238		
2,900.00	2,841.96	2,823.96	2,841.96	14.43	96.89	-113.94	86.74	-1,102.27	1,214.60	1,103.45	111.15	10.927		
3,000.00	2,939.40	2,921.40	2,939.40	14.94	100.29	-114.88	86.74	-1,102.27	1,224.09	1,109.06	115.03	10.641		
3,100.00	3,036.84	3,018.84	3,036.84	15.44	103.69	-115.81	86.74	-1,102.27	1,233.92	1,115.01	118.92	10.376		
3,200.00	3,134.28	3,116.28	3,134.28	15.95	107.09	-116.73	86.74	-1,102.27	1,244.08	1,121.28	122.80	10.131		
3,300.00	3,231.72	3,213.72	3,231.72	16.46	110.49	-117.62	86.74	-1,102.27	1,254.56	1,127.88	126.68	9.903		
3,400.00	3,329.16	3,311.16	3,329.16	16.97	113.89	-118.51	86.74	-1,102.27	1,265.35	1,134.79	130.56	9.692		
3,500.00	3,426.60	3,408.60	3,426.60	17.48	117.29	-119.38	86.74	-1,102.27	1,276.45	1,142.01	134.44	9.494		
3,600.00	3,524.04	3,506.04	3,524.04	17.99	120.70	-120.23	86.74	-1,102.27	1,287.84	1,149.52	138.32	9.310		
3,700.00	3,621.48	3,603.48	3,621.48	18.50	124.10	-121.07	86.74	-1,102.27	1,299.53	1,157.33	142.20	9.139		
3,800.00	3,718.92	3,700.92	3,718.92	19.01	127.50	-121.90	86.74	-1,102.27	1,311.49	1,165.41	146.08	8.978		
3,900.00	3,816.36	3,801.64	3,816.36	19.52	131.01	-122.71	86.74	-1,102.27	1,323.73	1,173.66	150.07	8.821		
4,000.00	3,913.80	3,904.20	3,913.80	20.03	134.59	-123.51	86.74	-1,102.27	1,336.23	1,182.11	154.13	8.670		
4,100.00	4,011.24	4,006.76	4,011.24	20.55	138.17	-124.29	86.74	-1,102.27	1,349.00	1,190.81	158.18	8.528		
4,200.00	4,108.68	4,109.32	4,108.68	21.06	141.75	-125.06	86.74	-1,102.27	1,362.01	1,199.77	162.24	8.395		
4,300.00	4,206.12	4,188.12	4,206.12	21.57	144.50	-125.81	86.74	-1,102.27	1,375.27	1,209.81	165.46	8.312		
4,400.00	4,303.56	4,285.56	4,303.56	22.09	147.90	-126.55	86.74	-1,102.27	1,388.76	1,219.43	169.34	8.201		
4,500.00	4,401.00	4,383.00	4,401.00	22.60	151.30	-127.28	86.74	-1,102.27	1,402.49	1,229.28	173.21	8.097		
4,600.00	4,498.44	4,480.44	4,498.44	23.11	154.70	-127.99	86.74	-1,102.27	1,416.44	1,239.36	177.08	7.999		
4,700.00	4,595.88	4,577.88	4,595.88	23.63	158.10	-128.69	86.74	-1,102.27	1,430.61	1,249.65	180.95	7.906		
4,800.00	4,693.32	4,675.32	4,693.32	24.14	161.50	-129.37	86.74	-1,102.27	1,444.99	1,260.16	184.83	7.818		
4,900.00	4,790.76	4,772.76	4,790.76	24.66	164.90	-130.04	86.74	-1,102.27	1,459.57	1,270.87	188.70	7.735		
5,000.00	4,888.20	4,870.20	4,888.20	25.17	168.31	-130.70	86.74	-1,102.27	1,474.35	1,281.78	192.57	7.656		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	4,985.64	4,967.64	4,985.64	25.69	171.71	131.35	86.74	-1,102.27	1,489.33	1,292.89	196.44	7.582		
5,200.00	5,083.08	5,065.08	5,083.08	26.20	175.11	131.98	86.74	-1,102.27	1,504.49	1,304.18	200.31	7.511		
5,300.00	5,180.52	5,162.52	5,180.52	26.72	178.51	132.61	86.74	-1,102.27	1,519.83	1,315.65	204.18	7.444		
5,400.00	5,277.96	5,259.96	5,277.96	27.24	181.91	133.21	86.74	-1,102.27	1,535.35	1,327.30	208.04	7.380		
5,500.00	5,375.40	5,357.40	5,375.40	27.75	185.31	133.81	86.74	-1,102.27	1,551.04	1,339.13	211.91	7.319		
5,600.00	5,472.84	5,454.84	5,472.84	28.27	188.71	134.40	86.74	-1,102.27	1,566.89	1,351.11	215.78	7.261		
5,700.00	5,570.28	5,552.28	5,570.28	28.79	192.11	134.97	86.74	-1,102.27	1,582.91	1,363.26	219.65	7.207		
5,800.00	5,667.72	5,649.72	5,667.72	29.30	195.51	135.53	86.74	-1,102.27	1,599.08	1,375.56	223.52	7.154		
5,900.00	5,765.16	5,747.16	5,765.16	29.82	198.92	136.09	86.74	-1,102.27	1,615.40	1,388.02	227.38	7.104		
6,000.00	5,862.60	5,844.60	5,862.60	30.34	202.32	136.63	86.74	-1,102.27	1,631.87	1,400.62	231.25	7.057		
6,100.00	5,960.05	5,942.05	5,960.05	30.85	205.72	137.16	86.74	-1,102.27	1,648.48	1,413.36	235.11	7.011		
6,200.00	6,057.49	6,039.49	6,057.49	31.37	209.12	137.68	86.74	-1,102.27	1,665.23	1,426.25	238.98	6.968		
6,300.00	6,154.93	6,136.93	6,154.93	31.89	212.52	138.19	86.74	-1,102.27	1,682.11	1,439.26	242.85	6.927		
6,400.00	6,252.37	6,234.37	6,252.37	32.40	215.92	138.69	86.74	-1,102.27	1,699.12	1,452.41	246.71	6.887		
6,500.00	6,349.81	6,331.81	6,349.81	32.92	219.32	139.18	86.74	-1,102.27	1,716.26	1,465.68	250.58	6.849		
6,600.00	6,447.25	6,429.25	6,447.25	33.44	222.72	139.66	86.74	-1,102.27	1,733.52	1,479.08	254.44	6.813		
6,700.00	6,544.28	6,526.28	6,544.28	33.95	226.11	140.14	86.74	-1,102.27	1,750.87	1,492.56	258.29	6.776		
6,800.00	6,638.86	6,620.86	6,638.86	34.44	229.41	140.61	86.74	-1,102.27	1,768.31	1,506.11	262.03	6.739		
6,900.00	6,728.65	6,710.65	6,728.65	34.89	232.55	141.07	86.74	-1,102.27	1,785.83	1,519.73	265.56	6.699		
7,000.00	6,811.45	6,806.55	6,811.45	35.29	235.89	141.52	86.74	-1,102.27	1,742.33	1,473.06	269.27	6.670		
7,100.00	6,885.21	6,867.21	6,885.21	35.66	238.01	141.96	86.74	-1,102.27	1,727.60	1,455.84	271.76	6.357		
7,200.00	6,948.11	6,930.11	6,948.11	35.99	240.21	142.39	86.74	-1,102.27	1,708.68	1,434.31	274.37	6.228		
7,300.00	6,998.62	6,980.62	6,998.62	36.30	241.97	142.81	86.74	-1,102.27	1,687.19	1,410.55	276.64	6.099		
7,400.00	7,035.48	7,017.48	7,035.48	36.65	243.26	143.22	86.74	-1,102.27	1,664.74	1,386.17	278.57	5.976		
7,500.00	7,057.79	7,039.79	7,057.79	37.13	244.04	143.61	86.74	-1,102.27	1,642.80	1,362.65	280.16	5.864		
7,600.00	7,065.00	7,047.00	7,065.00	37.84	244.29	143.99	86.74	-1,102.27	1,622.56	1,341.18	281.37	5.767		
7,700.00	7,064.77	7,046.77	7,064.77	38.82	244.28	144.36	86.74	-1,102.27	1,606.50	1,324.02	282.48	5.687		
7,800.00	7,064.54	7,046.54	7,064.54	40.06	244.27	144.71	86.74	-1,102.27	1,596.56	1,312.83	283.73	5.627		
7,900.00	7,064.31	7,046.31	7,064.31	41.52	244.26	145.04	86.74	-1,102.27	1,592.85	1,307.75	285.09	5.587		
7,909.23	7,064.29	7,046.29	7,064.29	41.66	244.26	145.16	86.74	-1,102.27	1,592.82	1,307.59	285.23	5.584		
8,000.00	7,064.08	7,046.08	7,064.08	43.14	244.26	145.46	86.74	-1,102.27	1,595.40	1,308.88	286.52	5.568 SF		
8,100.00	7,063.85	7,045.85	7,063.85	44.90	244.25	145.74	86.74	-1,102.27	1,604.20	1,316.22	287.98	5.570		
8,200.00	7,063.62	7,045.62	7,063.62	46.78	244.24	146.00	86.74	-1,102.27	1,619.14	1,329.71	289.44	5.594		
8,300.00	7,063.39	7,045.39	7,063.39	48.76	244.23	146.24	86.74	-1,102.27	1,640.05	1,349.20	290.85	5.639		
8,400.00	7,063.16	7,045.16	7,063.16	50.83	244.22	146.46	86.74	-1,102.27	1,666.71	1,374.51	292.20	5.704		
8,500.00	7,062.93	7,044.93	7,062.93	52.97	244.22	146.66	86.74	-1,102.27	1,698.85	1,405.39	293.46	5.789		
8,600.00	7,062.70	7,044.70	7,062.70	55.18	244.21	146.84	86.74	-1,102.27	1,736.16	1,441.53	294.63	5.893		
8,700.00	7,062.47	7,044.47	7,062.47	57.46	244.20	147.00	86.74	-1,102.27	1,778.31	1,482.62	295.69	6.014		
8,800.00	7,062.24	7,044.24	7,062.24	59.78	244.19	147.14	86.74	-1,102.27	1,824.98	1,528.33	296.64	6.152		
8,900.00	7,062.01	7,044.01	7,062.01	62.14	244.18	147.26	86.74	-1,102.27	1,875.82	1,578.32	297.50	6.305		
9,000.00	7,061.78	7,043.78	7,061.78	64.55	244.18	147.36	86.74	-1,102.27	1,930.51	1,632.26	298.25	6.473		
9,100.00	7,061.55	7,043.55	7,061.55	67.00	244.17	147.44	86.74	-1,102.27	1,988.72	1,689.81	298.91	6.653		
9,200.00	7,061.31	7,043.31	7,061.31	69.47	244.16	147.50	86.74	-1,102.27	2,050.16	1,750.68	299.48	6.846		
9,300.00	7,061.08	7,043.08	7,061.08	71.98	244.15	147.54	86.74	-1,102.27	2,114.55	1,814.57	299.98	7.049		
9,400.00	7,060.85	7,042.85	7,060.85	74.51	244.14	147.56	86.74	-1,102.27	2,181.62	1,881.21	300.41	7.262		
9,500.00	7,060.62	7,042.62	7,060.62	77.06	244.14	147.57	86.74	-1,102.27	2,251.14	1,950.37	300.77	7.485		
9,600.00	7,060.39	7,042.39	7,060.39	79.64	244.13	147.57	86.74	-1,102.27	2,322.88	2,021.80	301.08	7.715		
9,700.00	7,060.16	7,042.16	7,060.16	82.23	244.12	147.56	86.74	-1,102.27	2,396.65	2,095.30	301.35	7.953		
9,800.00	7,059.93	7,041.93	7,059.93	84.84	244.11	147.54	86.74	-1,102.27	2,472.26	2,170.69	301.57	8.198		
9,900.00	7,059.70	7,041.70	7,059.70	87.47	244.10	147.51	86.74	-1,102.27	2,549.55	2,247.80	301.76	8.449		
10,000.00	7,059.47	7,041.47	7,059.47	90.11	244.09	147.46	86.74	-1,102.27	2,628.38	2,326.47	301.91	8.706		
10,100.00	7,059.24	7,041.24	7,059.24	92.76	244.09	147.39	86.74	-1,102.27	2,708.60	2,406.56	302.04	8.968		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,200.00	7,059.01	7,041.01	7,059.01	95.42	244.08	89.81	86.74	-1,102.27	2,790.11	2,487.96	302.15	9.234		
10,300.00	7,058.78	7,040.78	7,058.78	98.10	244.07	89.80	86.74	-1,102.27	2,872.78	2,570.54	302.23	9.505		
10,400.00	7,058.55	7,040.55	7,058.55	100.79	244.06	89.79	86.74	-1,102.27	2,956.52	2,654.21	302.30	9.780		
10,500.00	7,058.32	7,040.32	7,058.32	103.48	244.05	89.79	86.74	-1,102.27	3,041.24	2,738.88	302.36	10.058		
10,600.00	7,058.09	7,040.09	7,058.09	106.19	244.05	89.78	86.74	-1,102.27	3,126.87	2,824.47	302.40	10.340		
10,700.00	7,057.86	7,039.86	7,057.86	108.90	244.04	89.77	86.74	-1,102.27	3,213.32	2,910.89	302.43	10.625		
10,800.00	7,057.63	7,039.63	7,057.63	111.62	244.03	89.76	86.74	-1,102.27	3,300.55	2,998.09	302.45	10.913		
10,900.00	7,057.40	7,039.40	7,057.40	114.35	244.02	89.75	86.74	-1,102.27	3,388.47	3,086.00	302.47	11.203		
11,000.00	7,057.17	7,039.17	7,057.17	117.08	244.01	89.74	86.74	-1,102.27	3,477.05	3,174.57	302.48	11.495		
11,100.00	7,056.94	7,038.94	7,056.94	119.82	244.01	89.74	86.74	-1,102.27	3,566.24	3,263.76	302.48	11.790		
11,200.00	7,056.71	7,038.71	7,056.71	122.56	244.00	89.73	86.74	-1,102.27	3,655.98	3,353.50	302.48	12.087		
11,300.00	7,056.48	7,038.48	7,056.48	125.31	243.99	89.72	86.74	-1,102.27	3,746.25	3,443.77	302.48	12.385		
11,400.00	7,056.25	7,038.25	7,056.25	128.06	243.98	89.71	86.74	-1,102.27	3,836.99	3,534.52	302.47	12.686		
11,500.00	7,056.02	7,038.02	7,056.02	130.82	243.97	89.70	86.74	-1,102.27	3,928.19	3,625.73	302.46	12.987		
11,600.00	7,055.79	7,037.79	7,055.79	133.59	243.97	89.69	86.74	-1,102.27	4,019.80	3,717.35	302.45	13.291		
11,700.00	7,055.55	7,037.55	7,055.55	136.35	243.96	89.69	86.74	-1,102.27	4,111.81	3,809.37	302.44	13.596		
11,800.00	7,055.32	7,037.32	7,055.32	139.12	243.95	89.68	86.74	-1,102.27	4,204.18	3,901.76	302.42	13.902		
11,900.00	7,055.09	7,037.09	7,055.09	141.90	243.94	89.67	86.74	-1,102.27	4,296.89	3,994.48	302.41	14.209		
12,000.00	7,054.86	7,036.86	7,054.86	144.67	243.93	89.66	86.74	-1,102.27	4,389.92	4,087.53	302.39	14.517		
12,100.00	7,054.63	7,036.63	7,054.63	147.45	243.93	89.65	86.74	-1,102.27	4,483.25	4,180.88	302.38	14.827		
12,200.00	7,054.40	7,036.40	7,054.40	150.24	243.92	89.64	86.74	-1,102.27	4,576.87	4,274.51	302.36	15.137		
12,300.00	7,054.17	7,036.17	7,054.17	153.02	243.91	89.64	86.74	-1,102.27	4,670.75	4,368.40	302.35	15.448		
12,400.00	7,053.94	7,035.94	7,053.94	155.81	243.90	89.63	86.74	-1,102.27	4,764.87	4,462.54	302.33	15.760		
12,500.00	7,053.71	7,035.71	7,053.71	158.60	243.89	89.62	86.74	-1,102.27	4,859.23	4,556.92	302.32	16.073		
12,600.00	7,053.48	7,035.48	7,053.48	161.40	243.89	89.61	86.74	-1,102.27	4,953.82	4,651.52	302.30	16.387		
12,700.00	7,053.25	7,035.25	7,053.25	164.19	243.88	89.60	86.74	-1,102.27	5,048.61	4,746.32	302.29	16.701		
12,800.00	7,053.02	7,035.02	7,053.02	166.99	243.87	89.59	86.74	-1,102.27	5,143.60	4,841.32	302.28	17.016		
12,900.00	7,052.79	7,034.79	7,052.79	169.79	243.86	89.59	86.74	-1,102.27	5,238.77	4,936.51	302.27	17.332		
13,000.00	7,052.56	7,034.56	7,052.56	172.59	243.85	89.58	86.74	-1,102.27	5,334.13	5,031.87	302.25	17.648		
13,100.00	7,052.33	7,034.33	7,052.33	175.40	243.85	89.57	86.74	-1,102.27	5,429.65	5,127.40	302.25	17.964		
13,200.00	7,052.10	7,034.10	7,052.10	178.20	243.84	89.56	86.74	-1,102.27	5,525.32	5,223.09	302.24	18.281		
13,300.00	7,051.87	7,033.87	7,051.87	181.01	243.83	89.55	86.74	-1,102.27	5,621.15	5,318.92	302.23	18.599		
13,400.00	7,051.64	7,033.64	7,051.64	183.82	243.82	89.54	86.74	-1,102.27	5,717.12	5,414.90	302.22	18.917		
13,500.00	7,051.41	7,033.41	7,051.41	186.63	243.81	89.54	86.74	-1,102.27	5,813.23	5,511.01	302.22	19.235		
13,600.00	7,051.18	7,033.18	7,051.18	189.44	243.81	89.53	86.74	-1,102.27	5,909.47	5,607.25	302.21	19.554		
13,700.00	7,050.95	7,032.95	7,050.95	192.25	243.80	89.52	86.74	-1,102.27	6,005.83	5,703.62	302.21	19.873		
13,800.00	7,050.72	7,032.72	7,050.72	195.07	243.79	89.51	86.74	-1,102.27	6,102.30	5,800.10	302.21	20.192		
13,900.00	7,050.49	7,032.49	7,050.49	197.88	243.78	89.50	86.74	-1,102.27	6,198.89	5,896.68	302.21	20.512		
14,000.00	7,050.26	7,032.26	7,050.26	200.70	243.77	89.50	86.74	-1,102.27	6,295.59	5,993.38	302.21	20.832		
14,100.00	7,050.03	7,032.03	7,050.03	203.52	243.77	89.49	86.74	-1,102.27	6,392.38	6,090.17	302.21	21.152		
14,200.00	7,049.80	7,031.80	7,049.80	206.34	243.76	89.48	86.74	-1,102.27	6,489.28	6,187.06	302.21	21.473		
14,300.00	7,049.56	7,031.56	7,049.56	209.16	243.75	89.47	86.74	-1,102.27	6,586.26	6,284.05	302.21	21.793		
14,400.00	7,049.33	7,031.33	7,049.33	211.98	243.74	89.46	86.74	-1,102.27	6,683.34	6,381.12	302.22	22.114		
14,500.00	7,049.10	7,031.10	7,049.10	214.80	243.73	89.45	86.74	-1,102.27	6,780.50	6,478.27	302.23	22.435		
14,600.00	7,048.87	7,030.87	7,048.87	217.63	243.72	89.45	86.74	-1,102.27	6,877.74	6,575.51	302.23	22.756		
14,700.00	7,048.64	7,030.64	7,048.64	220.45	243.72	89.44	86.74	-1,102.27	6,975.06	6,672.82	302.24	23.078		
14,800.00	7,048.41	7,030.41	7,048.41	223.28	243.71	89.43	86.74	-1,102.27	7,072.45	6,770.20	302.25	23.399		
14,900.00	7,048.18	7,030.18	7,048.18	226.10	243.70	89.42	86.74	-1,102.27	7,169.92	6,867.66	302.26	23.721		
14,979.18	7,048.00	7,030.00	7,048.00	228.34	243.69	89.41	86.74	-1,102.27	7,247.14	6,944.87	302.27	23.976		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-62.58	768.01	-1,480.49	1,667.88					
100.00	100.00	89.00	100.00	3.28	3.63	-62.58	768.01	-1,480.49	1,667.84	1,660.93	6.91	241.227		
200.00	200.00	189.00	200.00	3.34	5.86	-62.58	768.01	-1,480.49	1,667.84	1,658.65	9.19	181.404	CC	
300.00	299.98	288.98	299.98	3.44	8.96	111.38	768.01	-1,480.49	1,668.48	1,656.08	12.40	134.513		
400.00	399.84	388.84	399.84	3.59	12.28	111.51	768.01	-1,480.49	1,670.40	1,654.53	15.86	105.294		
500.00	499.45	488.45	499.45	3.79	15.65	111.72	768.01	-1,480.49	1,673.62	1,654.18	19.44	86.087	ES	
600.00	598.70	587.70	598.70	4.03	19.06	112.02	768.01	-1,480.49	1,678.19	1,655.10	23.09	72.694		
700.00	697.47	686.47	697.47	4.31	22.46	112.40	768.01	-1,480.49	1,684.16	1,657.39	26.77	62.904		
800.00	795.62	784.62	795.62	4.64	25.85	112.85	768.01	-1,480.49	1,691.62	1,661.13	30.49	55.481		
900.00	893.16	882.16	893.16	5.00	29.24	113.44	768.01	-1,480.49	1,700.47	1,666.25	34.23	49.684		
1,000.00	990.60	979.60	990.60	5.38	32.62	114.12	768.01	-1,480.49	1,709.74	1,671.75	37.99	45.008		
1,100.00	1,088.04	1,077.04	1,088.04	5.79	36.00	114.79	768.01	-1,480.49	1,719.24	1,677.47	41.77	41.157		
1,200.00	1,185.48	1,174.48	1,185.48	6.22	39.39	115.45	768.01	-1,480.49	1,728.99	1,683.42	45.58	37.936		
1,300.00	1,282.92	1,271.92	1,282.92	6.66	42.78	116.11	768.01	-1,480.49	1,738.97	1,689.58	49.39	35.206		
1,400.00	1,380.36	1,369.36	1,380.36	7.10	46.18	116.75	768.01	-1,480.49	1,749.19	1,695.97	53.22	32.865		
1,500.00	1,477.80	1,466.80	1,477.80	7.56	49.57	117.39	768.01	-1,480.49	1,759.63	1,702.57	57.06	30.837		
1,600.00	1,575.24	1,564.24	1,575.24	8.03	52.96	118.03	768.01	-1,480.49	1,770.30	1,709.39	60.91	29.065		
1,700.00	1,672.68	1,661.68	1,672.68	8.50	56.36	118.65	768.01	-1,480.49	1,781.19	1,716.43	64.76	27.504		
1,800.00	1,770.12	1,759.12	1,770.12	8.98	59.76	119.27	768.01	-1,480.49	1,792.29	1,723.67	68.62	26.120		
1,900.00	1,867.56	1,856.56	1,867.56	9.46	63.15	119.88	768.01	-1,480.49	1,803.61	1,731.13	72.48	24.884		
2,000.00	1,965.00	1,954.00	1,965.00	9.95	66.55	120.49	768.01	-1,480.49	1,815.13	1,738.79	76.35	23.775		
2,100.00	2,062.44	2,051.44	2,062.44	10.44	69.95	121.08	768.01	-1,480.49	1,826.86	1,746.65	80.21	22.775		
2,200.00	2,159.88	2,148.88	2,159.88	10.93	73.35	121.67	768.01	-1,480.49	1,838.79	1,754.70	84.08	21.869		
2,300.00	2,257.32	2,246.32	2,257.32	11.42	76.74	122.25	768.01	-1,480.49	1,850.91	1,762.95	87.95	21.044		
2,400.00	2,354.76	2,343.76	2,354.76	11.92	80.14	122.83	768.01	-1,480.49	1,863.22	1,771.40	91.83	20.290		
2,500.00	2,452.20	2,441.20	2,452.20	12.42	83.54	123.39	768.01	-1,480.49	1,875.73	1,780.03	95.70	19.600		
2,600.00	2,549.64	2,538.64	2,549.64	12.92	86.94	123.95	768.01	-1,480.49	1,888.42	1,788.84	99.58	18.964		
2,700.00	2,647.08	2,636.08	2,647.08	13.42	90.34	124.51	768.01	-1,480.49	1,901.29	1,797.83	103.45	18.378		
2,800.00	2,744.52	2,733.52	2,744.52	13.93	93.74	125.05	768.01	-1,480.49	1,914.34	1,807.00	107.33	17.836		
2,900.00	2,841.96	2,830.96	2,841.96	14.43	97.14	125.59	768.01	-1,480.49	1,927.56	1,816.35	111.21	17.333		
3,000.00	2,939.40	2,928.40	2,939.40	14.94	100.54	126.12	768.01	-1,480.49	1,940.95	1,825.86	115.09	16.865		
3,100.00	3,036.84	3,025.84	3,036.84	15.44	103.94	126.64	768.01	-1,480.49	1,954.51	1,835.54	118.97	16.429		
3,200.00	3,134.28	3,123.28	3,134.28	15.95	107.34	127.16	768.01	-1,480.49	1,968.23	1,845.39	122.84	16.022		
3,300.00	3,231.72	3,220.72	3,231.72	16.46	110.74	127.67	768.01	-1,480.49	1,982.11	1,855.39	126.72	15.641		
3,400.00	3,329.16	3,318.16	3,329.16	16.97	114.14	128.17	768.01	-1,480.49	1,996.15	1,865.55	130.60	15.284		
3,500.00	3,426.60	3,415.60	3,426.60	17.48	117.54	128.67	768.01	-1,480.49	2,010.35	1,875.87	134.48	14.949		
3,600.00	3,524.04	3,513.04	3,524.04	17.99	120.94	129.16	768.01	-1,480.49	2,024.69	1,886.33	138.36	14.634		
3,700.00	3,621.48	3,610.48	3,621.48	18.50	124.34	129.64	768.01	-1,480.49	2,039.18	1,896.94	142.24	14.336		
3,800.00	3,718.92	3,707.92	3,718.92	19.01	127.74	130.11	768.01	-1,480.49	2,053.81	1,907.70	146.12	14.056		
3,900.00	3,816.36	3,805.36	3,816.36	19.52	131.14	130.58	768.01	-1,480.49	2,068.59	1,918.59	149.99	13.791		
4,000.00	3,913.80	3,902.80	3,913.80	20.03	134.54	131.05	768.01	-1,480.49	2,083.50	1,929.63	153.87	13.541		
4,100.00	4,011.24	4,000.24	4,011.24	20.55	137.94	131.50	768.01	-1,480.49	2,098.54	1,940.80	157.75	13.303		
4,200.00	4,108.68	4,102.32	4,108.68	21.06	141.50	131.95	768.01	-1,480.49	2,113.72	1,951.94	161.79	13.065		
4,300.00	4,206.12	4,204.88	4,206.12	21.57	145.08	132.40	768.01	-1,480.49	2,129.03	1,963.19	165.84	12.838		
4,400.00	4,303.56	4,307.44	4,303.56	22.09	148.66	132.83	768.01	-1,480.49	2,144.47	1,974.57	169.90	12.622		
4,500.00	4,401.00	4,410.00	4,401.00	22.60	152.24	133.27	768.01	-1,480.49	2,160.02	1,986.07	173.96	12.417		
4,600.00	4,498.44	4,487.44	4,498.44	23.11	154.95	133.69	768.01	-1,480.49	2,175.70	1,998.57	177.13	12.283		
4,700.00	4,595.88	4,584.88	4,595.88	23.63	158.35	134.11	768.01	-1,480.49	2,191.50	2,010.49	181.01	12.107		
4,800.00	4,693.32	4,682.32	4,693.32	24.14	161.75	134.52	768.01	-1,480.49	2,207.42	2,022.53	184.89	11.939		
4,900.00	4,790.76	4,779.76	4,790.76	24.66	165.15	134.93	768.01	-1,480.49	2,223.44	2,034.68	188.76	11.779		
5,000.00	4,888.20	4,877.20	4,888.20	25.17	168.55	135.33	768.01	-1,480.49	2,239.58	2,046.94	192.64	11.626		
5,100.00	4,985.64	4,974.64	4,985.64	25.69	171.95	135.73	768.01	-1,480.49	2,255.83	2,059.31	196.51	11.479		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,072.08	5,083.08	26.20	175.35	136.12	768.01	-1,480.49	2,272.18	2,071.79	200.39	11.339		
5,300.00	5,180.52	5,169.52	5,180.52	26.72	178.75	136.51	768.01	-1,480.49	2,288.64	2,084.37	204.26	11.204		
5,400.00	5,277.96	5,266.96	5,277.96	27.24	182.15	136.89	768.01	-1,480.49	2,305.20	2,097.06	208.14	11.075		
5,500.00	5,375.40	5,364.40	5,375.40	27.75	185.56	137.26	768.01	-1,480.49	2,321.85	2,109.84	212.01	10.952		
5,600.00	5,472.84	5,461.84	5,472.84	28.27	188.96	137.63	768.01	-1,480.49	2,338.61	2,122.72	215.89	10.833		
5,700.00	5,570.28	5,559.28	5,570.28	28.79	192.36	138.00	768.01	-1,480.49	2,355.46	2,135.70	219.76	10.718		
5,800.00	5,667.72	5,656.72	5,667.72	29.30	195.76	138.35	768.01	-1,480.49	2,372.40	2,148.77	223.63	10.608		
5,900.00	5,765.16	5,754.16	5,765.16	29.82	199.16	138.71	768.01	-1,480.49	2,389.44	2,161.93	227.51	10.503		
6,000.00	5,862.60	5,851.60	5,862.60	30.34	202.56	139.06	768.01	-1,480.49	2,406.57	2,175.19	231.38	10.401		
6,100.00	5,960.05	5,949.05	5,960.05	30.85	205.96	139.40	768.01	-1,480.49	2,423.78	2,188.53	235.25	10.303		
6,200.00	6,057.49	6,046.49	6,057.49	31.37	209.36	139.74	768.01	-1,480.49	2,441.08	2,201.95	239.13	10.208		
6,300.00	6,154.93	6,143.93	6,154.93	31.89	212.76	140.08	768.01	-1,480.49	2,458.46	2,215.46	243.00	10.117		
6,400.00	6,252.37	6,241.37	6,252.37	32.40	216.17	140.41	768.01	-1,480.49	2,475.92	2,229.05	246.87	10.029		
6,500.00	6,349.81	6,338.81	6,349.81	32.92	219.57	140.73	768.01	-1,480.49	2,493.47	2,242.73	250.74	9.944		
6,600.00	6,447.25	6,436.25	6,447.25	33.44	222.97	141.06	768.01	-1,480.49	2,511.09	2,256.48	254.61	9.862		
6,700.00	6,544.28	6,533.28	6,544.28	33.95	226.36	111.79	768.01	-1,480.49	2,525.65	2,267.17	258.47	9.771		
6,800.00	6,638.86	6,627.86	6,638.86	34.44	229.66	93.24	768.01	-1,480.49	2,532.01	2,269.79	262.22	9.656		
6,900.00	6,728.65	6,717.65	6,728.65	34.89	232.79	84.64	768.01	-1,480.49	2,530.43	2,264.65	265.78	9.521		
7,000.00	6,811.45	6,800.45	6,811.45	35.29	235.68	80.97	768.01	-1,480.49	2,521.54	2,252.47	269.07	9.371		
7,100.00	6,885.21	6,874.21	6,885.21	35.66	238.26	80.01	768.01	-1,480.49	2,506.28	2,234.23	272.04	9.213		
7,200.00	6,948.11	6,937.11	6,948.11	35.99	240.45	80.71	768.01	-1,480.49	2,485.78	2,211.09	274.69	9.049		
7,300.00	6,998.62	6,987.62	6,998.62	36.30	242.22	82.45	768.01	-1,480.49	2,461.32	2,184.32	277.00	8.886		
7,400.00	7,035.48	7,024.48	7,035.48	36.65	243.50	84.78	768.01	-1,480.49	2,434.19	2,155.22	278.97	8.726		
7,500.00	7,057.79	7,046.79	7,057.79	37.13	244.28	87.41	768.01	-1,480.49	2,405.63	2,125.03	280.60	8.573		
7,600.00	7,065.00	7,054.00	7,065.00	37.84	244.53	90.04	768.01	-1,480.49	2,376.71	2,094.85	281.85	8.432		
7,700.00	7,064.77	7,053.77	7,064.77	38.82	244.52	90.03	768.01	-1,480.49	2,349.91	2,066.89	283.01	8.303		
7,800.00	7,064.54	7,053.54	7,064.54	40.06	244.52	90.03	768.01	-1,480.49	2,327.10	2,042.76	284.34	8.184		
7,900.00	7,064.31	7,053.31	7,064.31	41.52	244.51	90.02	768.01	-1,480.49	2,308.40	2,022.59	285.81	8.077		
8,000.00	7,064.08	7,053.08	7,064.08	43.14	244.50	90.02	768.01	-1,480.49	2,293.91	2,006.50	287.42	7.981		
8,100.00	7,063.85	7,052.85	7,063.85	44.90	244.49	90.01	768.01	-1,480.49	2,283.72	1,994.60	289.12	7.899		
8,200.00	7,063.62	7,052.62	7,063.62	46.78	244.48	90.00	768.01	-1,480.49	2,277.87	1,986.97	290.90	7.830		
8,283.37	7,063.43	7,052.43	7,063.43	48.43	244.48	90.00	768.01	-1,480.49	2,276.34	1,983.91	292.43	7.784		
8,300.00	7,063.39	7,052.39	7,063.39	48.76	244.48	90.00	768.01	-1,480.49	2,276.40	1,983.67	292.73	7.776		
8,400.00	7,063.16	7,052.16	7,063.16	50.83	244.47	89.99	768.01	-1,480.49	2,279.33	1,984.74	294.59	7.737		
8,500.00	7,062.93	7,051.93	7,062.93	52.97	244.46	89.99	768.01	-1,480.49	2,286.63	1,990.18	296.45	7.713		
8,600.00	7,062.70	7,051.70	7,062.70	55.18	244.45	89.98	768.01	-1,480.49	2,298.26	1,999.97	298.29	7.705 SF		
8,700.00	7,062.47	7,051.47	7,062.47	57.46	244.44	89.98	768.01	-1,480.49	2,314.16	2,014.06	300.09	7.712		
8,800.00	7,062.24	7,051.24	7,062.24	59.78	244.44	89.97	768.01	-1,480.49	2,334.23	2,032.39	301.84	7.733		
8,900.00	7,062.01	7,051.01	7,062.01	62.14	244.43	89.96	768.01	-1,480.49	2,358.38	2,054.87	303.52	7.770		
9,000.00	7,061.78	7,050.78	7,061.78	64.55	244.42	89.96	768.01	-1,480.49	2,386.48	2,081.36	305.12	7.821		
9,100.00	7,061.55	7,050.55	7,061.55	67.00	244.41	89.95	768.01	-1,480.49	2,418.39	2,111.76	306.63	7.887		
9,200.00	7,061.31	7,050.31	7,061.31	69.47	244.40	89.95	768.01	-1,480.49	2,453.96	2,145.91	308.06	7.966		
9,300.00	7,061.08	7,050.08	7,061.08	71.98	244.40	89.94	768.01	-1,480.49	2,493.04	2,183.65	309.39	8.058		
9,400.00	7,060.85	7,049.85	7,060.85	74.51	244.39	89.94	768.01	-1,480.49	2,535.47	2,224.84	310.63	8.162		
9,500.00	7,060.62	7,049.62	7,060.62	77.06	244.38	89.93	768.01	-1,480.49	2,581.07	2,269.30	311.77	8.279		
9,600.00	7,060.39	7,049.39	7,060.39	79.64	244.37	89.92	768.01	-1,480.49	2,629.69	2,316.86	312.82	8.406		
9,700.00	7,060.16	7,049.16	7,060.16	82.23	244.36	89.92	768.01	-1,480.49	2,681.15	2,367.36	313.79	8.544		
9,800.00	7,059.93	7,048.93	7,059.93	84.84	244.36	89.91	768.01	-1,480.49	2,735.30	2,420.64	314.67	8.693		
9,900.00	7,059.70	7,048.70	7,059.70	87.47	244.35	89.91	768.01	-1,480.49	2,791.99	2,476.52	315.47	8.850		
10,000.00	7,059.47	7,048.47	7,059.47	90.11	244.34	89.90	768.01	-1,480.49	2,851.06	2,534.86	316.20	9.017		
10,100.00	7,059.24	7,048.24	7,059.24	92.76	244.33	89.89	768.01	-1,480.49	2,912.36	2,595.51	316.85	9.192		
10,200.00	7,059.01	7,048.01	7,059.01	95.42	244.32	89.89	768.01	-1,480.49	2,975.77	2,658.32	317.44	9.374		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.78	7,047.78	7,058.78	98.10	244.32	89.88	768.01	-1,480.49	3,041.14	2,723.16	317.97	9.564	
10,400.00	7,058.55	7,047.55	7,058.55	100.79	244.31	89.88	768.01	-1,480.49	3,108.35	2,789.90	318.45	9.761	
10,500.00	7,058.32	7,047.32	7,058.32	103.48	244.30	89.87	768.01	-1,480.49	3,177.29	2,858.41	318.88	9.964	
10,600.00	7,058.09	7,047.09	7,058.09	106.19	244.29	89.87	768.01	-1,480.49	3,247.84	2,928.59	319.26	10.173	
10,700.00	7,057.86	7,046.86	7,057.86	108.90	244.28	89.86	768.01	-1,480.49	3,319.91	3,000.32	319.60	10.388	
10,800.00	7,057.63	7,046.63	7,057.63	111.62	244.27	89.85	768.01	-1,480.49	3,393.40	3,073.50	319.90	10.608	
10,900.00	7,057.40	7,046.40	7,057.40	114.35	244.27	89.85	768.01	-1,480.49	3,468.21	3,148.04	320.16	10.833	
11,000.00	7,057.17	7,046.17	7,057.17	117.08	244.26	89.84	768.01	-1,480.49	3,544.26	3,223.86	320.40	11.062	
11,100.00	7,056.94	7,045.94	7,056.94	119.82	244.25	89.84	768.01	-1,480.49	3,621.48	3,300.88	320.60	11.296	
11,200.00	7,056.71	7,045.71	7,056.71	122.56	244.24	89.83	768.01	-1,480.49	3,699.79	3,379.00	320.78	11.534	
11,300.00	7,056.48	7,045.48	7,056.48	125.31	244.23	89.83	768.01	-1,480.49	3,779.12	3,458.18	320.94	11.775	
11,400.00	7,056.25	7,045.25	7,056.25	128.06	244.23	89.82	768.01	-1,480.49	3,859.41	3,538.33	321.08	12.020	
11,500.00	7,056.02	7,045.02	7,056.02	130.82	244.22	89.81	768.01	-1,480.49	3,940.61	3,619.41	321.20	12.268	
11,600.00	7,055.79	7,044.79	7,055.79	133.59	244.21	89.81	768.01	-1,480.49	4,022.65	3,701.35	321.30	12.520	
11,700.00	7,055.55	7,044.55	7,055.55	136.35	244.20	89.80	768.01	-1,480.49	4,105.49	3,784.10	321.39	12.774	
11,800.00	7,055.32	7,044.32	7,055.32	139.12	244.19	89.80	768.01	-1,480.49	4,189.08	3,867.62	321.46	13.031	
11,900.00	7,055.09	7,044.09	7,055.09	141.90	244.19	89.79	768.01	-1,480.49	4,273.37	3,951.85	321.52	13.291	
12,000.00	7,054.86	7,043.86	7,054.86	144.67	244.18	89.78	768.01	-1,480.49	4,358.33	4,036.75	321.57	13.553	
12,100.00	7,054.63	7,043.63	7,054.63	147.45	244.17	89.78	768.01	-1,480.49	4,443.91	4,122.29	321.62	13.817	
12,200.00	7,054.40	7,043.40	7,054.40	150.24	244.16	89.77	768.01	-1,480.49	4,530.08	4,208.43	321.65	14.084	
12,300.00	7,054.17	7,043.17	7,054.17	153.02	244.15	89.77	768.01	-1,480.49	4,616.81	4,295.14	321.68	14.352	
12,400.00	7,053.94	7,042.94	7,053.94	155.81	244.15	89.76	768.01	-1,480.49	4,704.07	4,382.38	321.69	14.623	
12,500.00	7,053.71	7,042.71	7,053.71	158.60	244.14	89.76	768.01	-1,480.49	4,791.83	4,470.12	321.71	14.895	
12,600.00	7,053.48	7,042.48	7,053.48	161.40	244.13	89.75	768.01	-1,480.49	4,880.05	4,558.34	321.72	15.169	
12,700.00	7,053.25	7,042.25	7,053.25	164.19	244.12	89.74	768.01	-1,480.49	4,968.73	4,647.01	321.72	15.444	
12,800.00	7,053.02	7,042.02	7,053.02	166.99	244.11	89.74	768.01	-1,480.49	5,057.82	4,736.11	321.72	15.721	
12,900.00	7,052.79	7,041.79	7,052.79	169.79	244.11	89.73	768.01	-1,480.49	5,147.32	4,825.61	321.71	16.000	
13,000.00	7,052.56	7,041.56	7,052.56	172.59	244.10	89.73	768.01	-1,480.49	5,237.20	4,915.49	321.71	16.279	
13,100.00	7,052.33	7,041.33	7,052.33	175.40	244.09	89.72	768.01	-1,480.49	5,327.43	5,005.74	321.70	16.560	
13,200.00	7,052.10	7,041.10	7,052.10	178.20	244.08	89.71	768.01	-1,480.49	5,418.01	5,096.33	321.68	16.843	
13,300.00	7,051.87	7,040.87	7,051.87	181.01	244.07	89.71	768.01	-1,480.49	5,508.92	5,187.25	321.67	17.126	
13,400.00	7,051.64	7,040.64	7,051.64	183.82	244.07	89.70	768.01	-1,480.49	5,600.13	5,278.48	321.65	17.410	
13,500.00	7,051.41	7,040.41	7,051.41	186.63	244.06	89.70	768.01	-1,480.49	5,691.65	5,370.01	321.64	17.696	
13,600.00	7,051.18	7,040.18	7,051.18	189.44	244.05	89.69	768.01	-1,480.49	5,783.44	5,461.82	321.62	17.982	
13,700.00	7,050.95	7,039.95	7,050.95	192.25	244.04	89.69	768.01	-1,480.49	5,875.50	5,553.90	321.60	18.270	
13,800.00	7,050.72	7,039.72	7,050.72	195.07	244.03	89.68	768.01	-1,480.49	5,967.81	5,646.24	321.58	18.558	
13,900.00	7,050.49	7,039.49	7,050.49	197.88	244.03	89.67	768.01	-1,480.49	6,060.37	5,738.82	321.56	18.847	
14,000.00	7,050.26	7,039.26	7,050.26	200.70	244.02	89.67	768.01	-1,480.49	6,153.16	5,831.63	321.53	19.137	
14,100.00	7,050.03	7,039.03	7,050.03	203.52	244.01	89.66	768.01	-1,480.49	6,246.18	5,924.67	321.51	19.427	
14,200.00	7,049.80	7,038.80	7,049.80	206.34	244.00	89.66	768.01	-1,480.49	6,339.41	6,017.92	321.49	19.719	
14,300.00	7,049.56	7,038.56	7,049.56	209.16	243.99	89.65	768.01	-1,480.49	6,432.84	6,111.37	321.47	20.011	
14,400.00	7,049.33	7,038.33	7,049.33	211.98	243.99	89.65	768.01	-1,480.49	6,526.46	6,205.01	321.45	20.303	
14,500.00	7,049.10	7,038.10	7,049.10	214.80	243.98	89.64	768.01	-1,480.49	6,620.27	6,298.85	321.43	20.597	
14,600.00	7,048.87	7,037.87	7,048.87	217.63	243.97	89.63	768.01	-1,480.49	6,714.26	6,392.86	321.40	20.890	
14,700.00	7,048.64	7,037.64	7,048.64	220.45	243.96	89.63	768.01	-1,480.49	6,808.43	6,487.04	321.38	21.185	
14,800.00	7,048.41	7,037.41	7,048.41	223.28	243.95	89.62	768.01	-1,480.49	6,902.75	6,581.39	321.36	21.480	
14,900.00	7,048.18	7,037.18	7,048.18	226.10	243.95	89.62	768.01	-1,480.49	6,997.24	6,675.89	321.34	21.775	
14,979.18	7,048.00	7,037.00	7,048.00	228.34	243.94	89.61	768.01	-1,480.49	7,072.16	6,750.83	321.33	22.009	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-75.65	1,275.95	-4,988.46	5,149.28				
100.00	100.00	52.00	100.00	3.28	3.40	-75.65	1,275.95	-4,988.46	5,149.06	5,142.37	6.69	769.896	
200.00	200.00	152.00	200.00	3.34	4.84	-75.65	1,275.95	-4,988.46	5,149.06	5,140.88	8.18	629.601	
300.00	299.98	251.98	299.98	3.44	7.78	98.27	1,275.95	-4,988.46	5,149.31	5,138.10	11.22	459.104	
400.00	399.84	351.84	399.84	3.59	11.04	98.32	1,275.95	-4,988.46	5,150.07	5,135.44	14.62	352.159	
500.00	499.45	451.45	499.45	3.79	14.39	98.39	1,275.95	-4,988.46	5,151.34	5,133.16	18.18	283.356	
600.00	598.70	550.70	598.70	4.03	17.78	98.49	1,275.95	-4,988.46	5,153.14	5,131.33	21.81	236.233	
700.00	697.47	649.47	697.47	4.31	21.18	98.61	1,275.95	-4,988.46	5,155.49	5,130.00	25.50	202.202	
800.00	795.62	747.62	795.62	4.64	24.57	98.76	1,275.95	-4,988.46	5,158.43	5,129.22	29.21	176.589	
900.00	893.16	845.16	893.16	5.00	27.95	98.96	1,275.95	-4,988.46	5,161.90	5,128.96	32.95	156.669	
1,000.00	990.60	942.60	990.60	5.38	31.33	99.20	1,275.95	-4,988.46	5,165.54	5,128.83	36.71	140.694	
1,100.00	1,088.04	1,040.04	1,088.04	5.79	34.72	99.44	1,275.95	-4,988.46	5,169.28	5,128.77	40.51	127.617	
1,200.00	1,185.48	1,137.48	1,185.48	6.22	38.11	99.68	1,275.95	-4,988.46	5,173.11	5,128.79	44.32	116.729	
1,300.00	1,282.92	1,234.92	1,282.92	6.66	41.50	99.92	1,275.95	-4,988.46	5,177.03	5,128.88	48.14	107.532	
1,400.00	1,380.36	1,332.36	1,380.36	7.10	44.89	100.16	1,275.95	-4,988.46	5,181.05	5,129.06	51.98	99.667	
1,500.00	1,477.80	1,429.80	1,477.80	7.56	48.28	100.40	1,275.95	-4,988.46	5,185.16	5,129.33	55.83	92.868	
1,600.00	1,575.24	1,527.24	1,575.24	8.03	51.67	100.63	1,275.95	-4,988.46	5,189.37	5,129.67	59.69	86.936	
1,700.00	1,672.68	1,624.68	1,672.68	8.50	55.07	100.87	1,275.95	-4,988.46	5,193.67	5,130.11	63.56	81.717	
1,800.00	1,770.12	1,722.12	1,770.12	8.98	58.47	101.11	1,275.95	-4,988.46	5,198.06	5,130.63	67.43	77.091	
1,900.00	1,867.56	1,819.56	1,867.56	9.46	61.86	101.35	1,275.95	-4,988.46	5,202.55	5,131.24	71.30	72.963	
2,000.00	1,965.00	1,917.00	1,965.00	9.95	65.26	101.58	1,275.95	-4,988.46	5,207.13	5,131.94	75.18	69.258	
2,100.00	2,062.44	2,014.44	2,062.44	10.44	68.66	101.82	1,275.95	-4,988.46	5,211.80	5,132.73	79.07	65.916	
2,200.00	2,159.88	2,111.88	2,159.88	10.93	72.06	102.05	1,275.95	-4,988.46	5,216.57	5,133.61	82.95	62.884	
2,300.00	2,257.32	2,209.32	2,257.32	11.42	75.45	102.29	1,275.95	-4,988.46	5,221.43	5,134.58	86.84	60.124	
2,400.00	2,354.76	2,306.76	2,354.76	11.92	78.85	102.52	1,275.95	-4,988.46	5,226.38	5,135.64	90.74	57.600	
2,500.00	2,452.20	2,404.20	2,452.20	12.42	82.25	102.76	1,275.95	-4,988.46	5,231.42	5,136.79	94.63	55.283	
2,600.00	2,549.64	2,501.64	2,549.64	12.92	85.65	102.99	1,275.95	-4,988.46	5,236.56	5,138.03	98.53	53.149	
2,700.00	2,647.08	2,600.08	2,647.08	13.42	89.11	103.23	1,275.95	-4,988.46	5,241.78	5,139.30	102.49	51.146	
2,800.00	2,744.52	2,703.48	2,744.52	13.93	92.69	103.46	1,275.95	-4,988.46	5,247.10	5,140.54	106.56	49.239	
2,900.00	2,841.96	2,806.04	2,841.96	14.43	96.27	103.69	1,275.95	-4,988.46	5,252.51	5,141.87	110.64	47.473	
3,000.00	2,939.40	2,908.60	2,939.40	14.94	99.85	103.92	1,275.95	-4,988.46	5,258.00	5,143.28	114.72	45.833	
3,100.00	3,036.84	2,988.84	3,036.84	15.44	102.65	104.16	1,275.95	-4,988.46	5,263.59	5,145.57	118.02	44.599	
3,200.00	3,134.28	3,086.28	3,134.28	15.95	106.05	104.39	1,275.95	-4,988.46	5,269.27	5,147.35	121.92	43.218	
3,300.00	3,231.72	3,183.72	3,231.72	16.46	109.45	104.62	1,275.95	-4,988.46	5,275.04	5,149.21	125.83	41.923	
3,400.00	3,329.16	3,281.16	3,329.16	16.97	112.85	104.85	1,275.95	-4,988.46	5,280.90	5,151.17	129.73	40.707	
3,500.00	3,426.60	3,378.60	3,426.60	17.48	116.25	105.08	1,275.95	-4,988.46	5,286.85	5,153.21	133.63	39.562	
3,600.00	3,524.04	3,476.04	3,524.04	17.99	119.65	105.31	1,275.95	-4,988.46	5,292.88	5,155.34	137.54	38.483	
3,700.00	3,621.48	3,573.48	3,621.48	18.50	123.05	105.54	1,275.95	-4,988.46	5,299.01	5,157.56	141.44	37.464	
3,800.00	3,718.92	3,670.92	3,718.92	19.01	126.45	105.77	1,275.95	-4,988.46	5,305.22	5,159.87	145.35	36.500	
3,900.00	3,816.36	3,768.36	3,816.36	19.52	129.85	105.99	1,275.95	-4,988.46	5,311.52	5,162.27	149.25	35.587	
4,000.00	3,913.80	3,865.80	3,913.80	20.03	133.25	106.22	1,275.95	-4,988.46	5,317.91	5,164.75	153.16	34.722	
4,100.00	4,011.24	3,963.24	4,011.24	20.55	136.65	106.45	1,275.95	-4,988.46	5,324.38	5,167.32	157.06	33.899	
4,200.00	4,108.68	4,060.68	4,108.68	21.06	140.05	106.67	1,275.95	-4,988.46	5,330.94	5,169.97	160.97	33.118	
4,300.00	4,206.12	4,158.12	4,206.12	21.57	143.45	106.90	1,275.95	-4,988.46	5,337.59	5,172.72	164.88	32.373	
4,400.00	4,303.56	4,255.56	4,303.56	22.09	146.85	107.13	1,275.95	-4,988.46	5,344.33	5,175.55	168.78	31.664	
4,500.00	4,401.00	4,353.00	4,401.00	22.60	150.25	107.35	1,275.95	-4,988.46	5,351.15	5,178.46	172.69	30.987	
4,600.00	4,498.44	4,450.44	4,498.44	23.11	153.65	107.57	1,275.95	-4,988.46	5,358.06	5,181.46	176.59	30.341	
4,700.00	4,595.88	4,547.88	4,595.88	23.63	157.06	107.80	1,275.95	-4,988.46	5,365.05	5,184.55	180.50	29.723	
4,800.00	4,693.32	4,645.32	4,693.32	24.14	160.46	108.02	1,275.95	-4,988.46	5,372.12	5,187.72	184.41	29.123	
4,900.00	4,790.76	4,742.76	4,790.76	24.66	163.86	108.24	1,275.95	-4,988.46	5,379.29	5,190.97	188.31	28.566	
5,000.00	4,888.20	4,840.20	4,888.20	25.17	167.26	108.46	1,275.95	-4,988.46	5,386.53	5,194.31	192.22	28.023	
5,100.00	4,985.64	4,937.64	4,985.64	25.69	170.66	108.69	1,275.95	-4,988.46	5,393.86	5,197.74	196.13	27.502	

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 12N-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 12N-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	5,083.08	5,035.08	5,083.08	26.20	174.06	108.91	1,275.95	-4,988.46	5,401.28	5,201.24	200.03	27.002		
5,300.00	5,180.52	5,132.52	5,180.52	26.72	177.46	109.13	1,275.95	-4,988.46	5,408.77	5,204.83	203.94	26.522		
5,400.00	5,277.96	5,229.96	5,277.96	27.24	180.86	109.35	1,275.95	-4,988.46	5,416.35	5,208.51	207.84	26.060		
5,500.00	5,375.40	5,327.40	5,375.40	27.75	184.26	109.57	1,275.95	-4,988.46	5,424.01	5,212.26	211.75	25.615		
5,600.00	5,472.84	5,424.84	5,472.84	28.27	187.66	109.78	1,275.95	-4,988.46	5,431.76	5,216.10	215.66	25.187		
5,700.00	5,570.28	5,522.28	5,570.28	28.79	191.07	110.00	1,275.95	-4,988.46	5,439.59	5,220.02	219.56	24.775		
5,800.00	5,667.72	5,619.72	5,667.72	29.30	194.47	110.22	1,275.95	-4,988.46	5,447.49	5,224.03	223.47	24.377		
5,900.00	5,765.16	5,717.16	5,765.16	29.82	197.87	110.44	1,275.95	-4,988.46	5,455.48	5,228.11	227.37	23.994		
6,000.00	5,862.60	5,814.60	5,862.60	30.34	201.27	110.65	1,275.95	-4,988.46	5,463.55	5,232.27	231.28	23.623		
6,100.00	5,960.05	5,912.05	5,960.05	30.85	204.67	110.87	1,275.95	-4,988.46	5,471.70	5,236.52	235.18	23.266		
6,200.00	6,057.49	6,009.49	6,057.49	31.37	208.07	111.08	1,275.95	-4,988.46	5,479.93	5,240.85	239.09	22.920		
6,300.00	6,154.93	6,106.93	6,154.93	31.89	211.47	111.30	1,275.95	-4,988.46	5,488.24	5,245.25	242.99	22.586		
6,400.00	6,252.37	6,204.37	6,252.37	32.40	214.87	111.51	1,275.95	-4,988.46	5,496.63	5,249.74	246.90	22.263		
6,500.00	6,349.81	6,301.81	6,349.81	32.92	218.28	111.72	1,275.95	-4,988.46	5,505.10	5,254.30	250.80	21.950		
6,600.00	6,447.25	6,400.75	6,447.25	33.44	221.73	111.93	1,275.95	-4,988.46	5,513.65	5,258.89	254.76	21.643		
6,700.00	6,544.28	6,503.72	6,544.28	33.95	225.32	83.32	1,275.95	-4,988.46	5,517.09	5,258.23	258.86	21.313		
6,800.00	6,638.86	6,609.14	6,638.86	34.44	229.00	65.31	1,275.95	-4,988.46	5,506.99	5,243.97	263.02	20.937		
6,900.00	6,728.65	6,680.65	6,728.65	34.89	231.50	57.15	1,275.95	-4,988.46	5,483.61	5,217.63	265.98	20.617		
7,000.00	6,811.45	6,763.45	6,811.45	35.29	234.39	54.01	1,275.95	-4,988.46	5,447.63	5,178.34	269.30	20.229		
7,100.00	6,885.21	6,837.21	6,885.21	35.66	236.96	53.94	1,275.95	-4,988.46	5,400.08	5,127.79	272.28	19.833		
7,200.00	6,948.11	6,900.11	6,948.11	35.99	239.16	56.31	1,275.95	-4,988.46	5,342.23	5,067.34	274.89	19.434		
7,300.00	6,998.62	6,950.62	6,998.62	36.30	240.92	61.02	1,275.95	-4,988.46	5,275.61	4,998.53	277.08	19.040		
7,400.00	7,035.48	6,987.48	7,035.48	36.65	242.21	68.24	1,275.95	-4,988.46	5,201.93	4,923.10	278.83	18.656		
7,500.00	7,057.79	7,009.79	7,057.79	37.13	242.99	78.13	1,275.95	-4,988.46	5,123.06	4,842.94	280.11	18.289		
7,600.00	7,065.00	7,017.00	7,065.00	37.84	243.24	90.20	1,275.95	-4,988.46	5,040.92	4,760.00	280.92	17.944		
7,700.00	7,064.77	7,016.77	7,064.77	38.82	243.23	90.19	1,275.95	-4,988.46	4,958.15	4,676.63	281.52	17.612		
7,800.00	7,064.54	7,016.54	7,064.54	40.06	243.22	90.19	1,275.95	-4,988.46	4,876.02	4,593.81	282.22	17.278		
7,900.00	7,064.31	7,016.31	7,064.31	41.52	243.22	90.18	1,275.95	-4,988.46	4,794.58	4,511.57	283.01	16.942		
8,000.00	7,064.08	7,016.08	7,064.08	43.14	243.21	90.18	1,275.95	-4,988.46	4,713.84	4,429.95	283.89	16.605		
8,100.00	7,063.85	7,015.85	7,063.85	44.90	243.20	90.17	1,275.95	-4,988.46	4,633.86	4,348.99	284.87	16.266		
8,200.00	7,063.62	7,015.62	7,063.62	46.78	243.19	90.17	1,275.95	-4,988.46	4,554.67	4,268.71	285.96	15.928		
8,300.00	7,063.39	7,015.39	7,063.39	48.76	243.18	90.16	1,275.95	-4,988.46	4,476.31	4,189.16	287.15	15.589		
8,400.00	7,063.16	7,015.16	7,063.16	50.83	243.18	90.16	1,275.95	-4,988.46	4,398.83	4,110.39	288.45	15.250		
8,500.00	7,062.93	7,014.93	7,062.93	52.97	243.17	90.15	1,275.95	-4,988.46	4,322.28	4,032.42	289.85	14.912		
8,600.00	7,062.70	7,014.70	7,062.70	55.18	243.16	90.15	1,275.95	-4,988.46	4,246.70	3,955.33	291.37	14.575		
8,700.00	7,062.47	7,014.47	7,062.47	57.46	243.15	90.15	1,275.95	-4,988.46	4,172.14	3,879.15	293.00	14.240		
8,800.00	7,062.24	7,014.24	7,062.24	59.78	243.14	90.14	1,275.95	-4,988.46	4,098.68	3,803.94	294.74	13.906		
8,900.00	7,062.01	7,014.01	7,062.01	62.14	243.14	90.14	1,275.95	-4,988.46	4,026.35	3,729.76	296.59	13.576		
9,000.00	7,061.78	7,013.78	7,061.78	64.55	243.13	90.13	1,275.95	-4,988.46	3,955.23	3,656.68	298.55	13.248		
9,100.00	7,061.55	7,013.55	7,061.55	67.00	243.12	90.13	1,275.95	-4,988.46	3,885.38	3,584.75	300.63	12.924		
9,200.00	7,061.31	7,013.31	7,061.31	69.47	243.11	90.12	1,275.95	-4,988.46	3,816.88	3,514.05	302.83	12.604		
9,300.00	7,061.08	7,013.08	7,061.08	71.98	243.10	90.12	1,275.95	-4,988.46	3,749.79	3,444.66	305.13	12.289		
9,400.00	7,060.85	7,012.85	7,060.85	74.51	243.10	90.11	1,275.95	-4,988.46	3,684.19	3,376.65	307.54	11.979		
9,500.00	7,060.62	7,012.62	7,060.62	77.06	243.09	90.11	1,275.95	-4,988.46	3,620.17	3,310.10	310.07	11.675		
9,600.00	7,060.39	7,012.39	7,060.39	79.64	243.08	90.10	1,275.95	-4,988.46	3,557.81	3,245.11	312.70	11.378		
9,700.00	7,060.16	7,012.16	7,060.16	82.23	243.07	90.10	1,275.95	-4,988.46	3,497.19	3,181.76	315.43	11.087		
9,800.00	7,059.93	7,011.93	7,059.93	84.84	243.06	90.09	1,275.95	-4,988.46	3,438.41	3,120.15	318.27	10.804		
9,900.00	7,059.70	7,011.70	7,059.70	87.47	243.06	90.09	1,275.95	-4,988.46	3,381.57	3,060.37	321.20	10.528		
10,000.00	7,059.47	7,011.47	7,059.47	90.11	243.05	90.08	1,275.95	-4,988.46	3,326.77	3,002.55	324.22	10.261		
10,100.00	7,059.24	7,011.24	7,059.24	92.76	243.04	90.08	1,275.95	-4,988.46	3,274.10	2,946.78	327.33	10.003		
10,200.00	7,059.01	7,011.01	7,059.01	95.42	243.03	90.07	1,275.95	-4,988.46	3,223.68	2,893.17	330.51	9.754		
10,300.00	7,058.78	7,010.78	7,058.78	98.10	243.02	90.07	1,275.95	-4,988.46	3,175.60	2,841.84	333.76	9.515		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,010.55	7,058.55	100.79	243.02	90.07	1,275.95	-4,988.46	3,129.98	2,792.91	337.07	9.286		
10,500.00	7,058.32	7,010.32	7,058.32	103.48	243.01	90.06	1,275.95	-4,988.46	3,086.93	2,746.50	340.43	9.068		
10,600.00	7,058.09	7,010.09	7,058.09	106.19	243.00	90.06	1,275.95	-4,988.46	3,046.56	2,702.73	343.83	8.861		
10,700.00	7,057.86	7,009.86	7,057.86	108.90	242.99	90.05	1,275.95	-4,988.46	3,008.96	2,661.72	347.25	8.665		
10,800.00	7,057.63	7,009.63	7,057.63	111.62	242.98	90.05	1,275.95	-4,988.46	2,974.26	2,623.58	350.67	8.482		
10,900.00	7,057.40	7,009.40	7,057.40	114.35	242.98	90.04	1,275.95	-4,988.46	2,942.54	2,588.45	354.10	8.310		
11,000.00	7,057.17	7,009.17	7,057.17	117.08	242.97	90.04	1,275.95	-4,988.46	2,913.92	2,556.42	357.50	8.151		
11,100.00	7,056.94	7,008.94	7,056.94	119.82	242.96	90.03	1,275.95	-4,988.46	2,888.47	2,527.61	360.86	8.004		
11,200.00	7,056.71	7,008.71	7,056.71	122.56	242.95	90.03	1,275.95	-4,988.46	2,866.29	2,502.13	364.16	7.871		
11,300.00	7,056.48	7,008.48	7,056.48	125.31	242.94	90.02	1,275.95	-4,988.46	2,847.45	2,480.06	367.39	7.750		
11,400.00	7,056.25	7,008.25	7,056.25	128.06	242.93	90.02	1,275.95	-4,988.46	2,832.02	2,461.48	370.53	7.643		
11,500.00	7,056.02	7,008.02	7,056.02	130.82	242.93	90.01	1,275.95	-4,988.46	2,820.05	2,446.48	373.57	7.549		
11,600.00	7,055.79	7,007.79	7,055.79	133.59	242.92	90.01	1,275.95	-4,988.46	2,811.59	2,435.11	376.48	7.468		
11,700.00	7,055.55	7,007.55	7,055.55	136.35	242.91	90.00	1,275.95	-4,988.46	2,806.67	2,427.42	379.25	7.401		
11,788.24	7,055.35	7,007.35	7,055.35	138.80	242.90	90.00	1,275.95	-4,988.46	2,805.28	2,423.70	381.57	7.352 CC		
11,800.00	7,055.32	7,007.32	7,055.32	139.12	242.90	90.00	1,275.95	-4,988.46	2,805.30	2,423.43	381.87	7.346		
11,900.00	7,055.09	7,007.09	7,055.09	141.90	242.89	89.99	1,275.95	-4,988.46	2,807.50	2,423.17	384.34	7.305 ES		
12,000.00	7,054.86	7,006.86	7,054.86	144.67	242.89	89.99	1,275.95	-4,988.46	2,813.26	2,426.63	386.63	7.276		
12,100.00	7,054.63	7,006.63	7,054.63	147.45	242.88	89.99	1,275.95	-4,988.46	2,822.55	2,433.81	388.74	7.261		
12,200.00	7,054.40	7,006.40	7,054.40	150.24	242.87	89.98	1,275.95	-4,988.46	2,835.34	2,444.67	390.67	7.258 SF		
12,300.00	7,054.17	7,006.17	7,054.17	153.02	242.86	89.98	1,275.95	-4,988.46	2,851.58	2,459.16	392.41	7.267		
12,400.00	7,053.94	7,005.94	7,053.94	155.81	242.85	89.97	1,275.95	-4,988.46	2,871.21	2,477.24	393.97	7.288		
12,500.00	7,053.71	7,005.71	7,053.71	158.60	242.85	89.97	1,275.95	-4,988.46	2,894.16	2,498.82	395.34	7.321		
12,600.00	7,053.48	7,005.48	7,053.48	161.40	242.84	89.96	1,275.95	-4,988.46	2,920.37	2,523.83	396.53	7.365		
12,700.00	7,053.25	7,005.25	7,053.25	164.19	242.83	89.96	1,275.95	-4,988.46	2,949.73	2,552.18	397.54	7.420		
12,800.00	7,053.02	7,005.02	7,053.02	166.99	242.82	89.95	1,275.95	-4,988.46	2,982.15	2,583.76	398.39	7.486		
12,900.00	7,052.79	7,004.79	7,052.79	169.79	242.81	89.95	1,275.95	-4,988.46	3,017.55	2,618.48	399.07	7.561		
13,000.00	7,052.56	7,004.56	7,052.56	172.59	242.81	89.94	1,275.95	-4,988.46	3,055.80	2,656.21	399.59	7.647		
13,100.00	7,052.33	7,004.33	7,052.33	175.40	242.80	89.94	1,275.95	-4,988.46	3,096.82	2,696.84	399.98	7.743		
13,200.00	7,052.10	7,004.10	7,052.10	178.20	242.79	89.93	1,275.95	-4,988.46	3,140.48	2,740.26	400.22	7.847		
13,300.00	7,051.87	7,003.87	7,051.87	181.01	242.78	89.93	1,275.95	-4,988.46	3,186.69	2,786.34	400.34	7.960		
13,400.00	7,051.64	7,003.64	7,051.64	183.82	242.77	89.92	1,275.95	-4,988.46	3,235.33	2,834.97	400.35	8.081		
13,500.00	7,051.41	7,003.41	7,051.41	186.63	242.77	89.92	1,275.95	-4,988.46	3,286.29	2,886.03	400.25	8.211		
13,600.00	7,051.18	7,003.18	7,051.18	189.44	242.76	89.91	1,275.95	-4,988.46	3,339.47	2,939.41	400.06	8.347		
13,700.00	7,050.95	7,002.95	7,050.95	192.25	242.75	89.91	1,275.95	-4,988.46	3,394.76	2,994.98	399.78	8.492		
13,800.00	7,050.72	7,002.72	7,050.72	195.07	242.74	89.91	1,275.95	-4,988.46	3,452.06	3,052.64	399.42	8.643		
13,900.00	7,050.49	7,002.49	7,050.49	197.88	242.73	89.90	1,275.95	-4,988.46	3,511.28	3,112.28	399.00	8.800		
14,000.00	7,050.26	7,002.26	7,050.26	200.70	242.73	89.90	1,275.95	-4,988.46	3,572.31	3,173.80	398.52	8.964		
14,100.00	7,050.03	7,002.03	7,050.03	203.52	242.72	89.89	1,275.95	-4,988.46	3,635.08	3,237.09	397.98	9.134		
14,200.00	7,049.80	7,001.80	7,049.80	206.34	242.71	89.89	1,275.95	-4,988.46	3,699.48	3,302.07	397.40	9.309		
14,300.00	7,049.56	7,001.56	7,049.56	209.16	242.70	89.88	1,275.95	-4,988.46	3,765.43	3,368.65	396.78	9.490		
14,400.00	7,049.33	7,001.33	7,049.33	211.98	242.69	89.88	1,275.95	-4,988.46	3,832.86	3,436.73	396.13	9.676		
14,500.00	7,049.10	7,001.10	7,049.10	214.80	242.69	89.87	1,275.95	-4,988.46	3,901.69	3,506.24	395.45	9.867		
14,600.00	7,048.87	7,000.87	7,048.87	217.63	242.68	89.87	1,275.95	-4,988.46	3,971.84	3,577.10	394.74	10.062		
14,700.00	7,048.64	7,000.64	7,048.64	220.45	242.67	89.86	1,275.95	-4,988.46	4,043.25	3,649.23	394.02	10.262		
14,800.00	7,048.41	7,000.41	7,048.41	223.28	242.66	89.86	1,275.95	-4,988.46	4,115.85	3,722.57	393.28	10.465		
14,900.00	7,048.18	7,000.18	7,048.18	226.10	242.65	89.85	1,275.95	-4,988.46	4,189.58	3,797.04	392.53	10.673		
14,979.18	7,048.00	7,000.00	7,048.00	228.34	242.65	89.85	1,275.95	-4,988.46	4,248.72	3,856.78	391.94	10.840		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	
0.00	0.00	0.00	46.00	3.28	3.28	-75.78	1,296.74	-5,118.34	5,280.26				
100.00	100.00	54.00	100.00	3.28	3.41	-75.78	1,296.74	-5,118.34	5,280.06	5,273.36	6.70	788.366	
200.00	200.00	154.00	200.00	3.34	4.89	-75.78	1,296.74	-5,118.34	5,280.06	5,271.83	8.23	641.572	
300.00	299.98	253.98	299.98	3.44	7.84	98.14	1,296.74	-5,118.34	5,280.30	5,269.02	11.28	468.139	
400.00	399.84	353.84	399.84	3.59	11.10	98.19	1,296.74	-5,118.34	5,281.05	5,266.36	14.69	359.476	
500.00	499.45	453.45	499.45	3.79	14.46	98.25	1,296.74	-5,118.34	5,282.30	5,264.05	18.25	289.477	
600.00	598.70	552.70	598.70	4.03	17.85	98.35	1,296.74	-5,118.34	5,284.07	5,262.19	21.88	241.475	
700.00	697.47	651.47	697.47	4.31	21.25	98.47	1,296.74	-5,118.34	5,286.39	5,260.82	25.57	206.776	
800.00	795.62	749.62	795.62	4.64	24.64	98.61	1,296.74	-5,118.34	5,289.27	5,259.99	29.28	180.640	
900.00	893.16	847.16	893.16	5.00	28.02	98.81	1,296.74	-5,118.34	5,292.69	5,259.67	33.02	160.301	
1,000.00	990.60	944.60	990.60	5.38	31.40	99.04	1,296.74	-5,118.34	5,296.27	5,259.49	36.78	143.982	
1,100.00	1,088.04	1,042.04	1,088.04	5.79	34.79	99.28	1,296.74	-5,118.34	5,299.94	5,259.36	40.58	130.618	
1,200.00	1,185.48	1,139.48	1,185.48	6.22	38.17	99.51	1,296.74	-5,118.34	5,303.70	5,259.32	44.39	119.487	
1,300.00	1,282.92	1,236.92	1,282.92	6.66	41.57	99.75	1,296.74	-5,118.34	5,307.56	5,259.35	48.21	110.083	
1,400.00	1,380.36	1,334.36	1,380.36	7.10	44.96	99.98	1,296.74	-5,118.34	5,311.51	5,259.45	52.05	102.039	
1,500.00	1,477.80	1,431.80	1,477.80	7.56	48.35	100.21	1,296.74	-5,118.34	5,315.55	5,259.65	55.90	95.085	
1,600.00	1,575.24	1,529.24	1,575.24	8.03	51.74	100.44	1,296.74	-5,118.34	5,319.68	5,259.92	59.76	89.015	
1,700.00	1,672.68	1,626.68	1,672.68	8.50	55.14	100.68	1,296.74	-5,118.34	5,323.91	5,260.28	63.63	83.674	
1,800.00	1,770.12	1,724.12	1,770.12	8.98	58.54	100.91	1,296.74	-5,118.34	5,328.22	5,260.72	67.50	78.939	
1,900.00	1,867.56	1,821.56	1,867.56	9.46	61.93	101.14	1,296.74	-5,118.34	5,332.63	5,261.25	71.37	74.713	
2,000.00	1,965.00	1,919.00	1,965.00	9.95	65.33	101.37	1,296.74	-5,118.34	5,337.13	5,261.87	75.25	70.921	
2,100.00	2,062.44	2,016.44	2,062.44	10.44	68.73	101.60	1,296.74	-5,118.34	5,341.72	5,262.58	79.14	67.498	
2,200.00	2,159.88	2,113.88	2,159.88	10.93	72.12	101.83	1,296.74	-5,118.34	5,346.40	5,263.37	83.03	64.395	
2,300.00	2,257.32	2,211.32	2,257.32	11.42	75.52	102.06	1,296.74	-5,118.34	5,351.17	5,264.25	86.92	61.568	
2,400.00	2,354.76	2,308.76	2,354.76	11.92	78.92	102.29	1,296.74	-5,118.34	5,356.03	5,265.22	90.81	58.982	
2,500.00	2,452.20	2,406.20	2,452.20	12.42	82.32	102.52	1,296.74	-5,118.34	5,360.98	5,266.27	94.70	56.609	
2,600.00	2,549.64	2,503.64	2,549.64	12.92	85.72	102.75	1,296.74	-5,118.34	5,366.01	5,267.42	98.60	54.424	
2,700.00	2,647.08	2,601.08	2,647.08	13.42	89.12	102.98	1,296.74	-5,118.34	5,371.14	5,268.65	102.49	52.405	
2,800.00	2,744.52	2,701.48	2,744.52	13.93	92.62	103.20	1,296.74	-5,118.34	5,376.36	5,269.87	106.50	50.484	
2,900.00	2,841.96	2,804.04	2,841.96	14.43	96.20	103.43	1,296.74	-5,118.34	5,381.67	5,271.09	110.57	48.670	
3,000.00	2,939.40	2,906.60	2,939.40	14.94	99.78	103.66	1,296.74	-5,118.34	5,387.06	5,272.41	114.65	46.986	
3,100.00	3,036.84	3,009.16	3,036.84	15.44	103.36	103.88	1,296.74	-5,118.34	5,392.55	5,273.81	118.73	45.417	
3,200.00	3,134.28	3,088.28	3,134.28	15.95	106.12	104.11	1,296.74	-5,118.34	5,398.12	5,276.12	122.00	44.248	
3,300.00	3,231.72	3,185.72	3,231.72	16.46	109.52	104.34	1,296.74	-5,118.34	5,403.78	5,277.88	125.90	42.922	
3,400.00	3,329.16	3,283.16	3,329.16	16.97	112.92	104.56	1,296.74	-5,118.34	5,409.53	5,279.72	129.80	41.675	
3,500.00	3,426.60	3,380.60	3,426.60	17.48	116.32	104.79	1,296.74	-5,118.34	5,415.36	5,281.65	133.71	40.502	
3,600.00	3,524.04	3,478.04	3,524.04	17.99	119.72	105.01	1,296.74	-5,118.34	5,421.28	5,283.67	137.61	39.396	
3,700.00	3,621.48	3,575.48	3,621.48	18.50	123.12	105.23	1,296.74	-5,118.34	5,427.29	5,285.77	141.52	38.351	
3,800.00	3,718.92	3,672.92	3,718.92	19.01	126.52	105.46	1,296.74	-5,118.34	5,433.38	5,287.96	145.42	37.363	
3,900.00	3,816.36	3,770.36	3,816.36	19.52	129.92	105.68	1,296.74	-5,118.34	5,439.56	5,290.24	149.33	36.427	
4,000.00	3,913.80	3,867.80	3,913.80	20.03	133.32	105.90	1,296.74	-5,118.34	5,445.83	5,292.60	153.23	35.540	
4,100.00	4,011.24	3,965.24	4,011.24	20.55	136.72	106.12	1,296.74	-5,118.34	5,452.18	5,295.04	157.14	34.697	
4,200.00	4,108.68	4,062.68	4,108.68	21.06	140.12	106.35	1,296.74	-5,118.34	5,458.62	5,297.57	161.05	33.895	
4,300.00	4,206.12	4,160.12	4,206.12	21.57	143.52	106.57	1,296.74	-5,118.34	5,465.14	5,300.19	164.95	33.132	
4,400.00	4,303.56	4,257.56	4,303.56	22.09	146.92	106.79	1,296.74	-5,118.34	5,471.75	5,302.89	168.86	32.404	
4,500.00	4,401.00	4,355.00	4,401.00	22.60	150.32	107.01	1,296.74	-5,118.34	5,478.44	5,305.67	172.76	31.710	
4,600.00	4,498.44	4,452.44	4,498.44	23.11	153.72	107.23	1,296.74	-5,118.34	5,485.21	5,308.54	176.67	31.048	
4,700.00	4,595.88	4,549.88	4,595.88	23.63	157.13	107.44	1,296.74	-5,118.34	5,492.07	5,311.49	180.58	30.414	
4,800.00	4,693.32	4,647.32	4,693.32	24.14	160.53	107.66	1,296.74	-5,118.34	5,499.01	5,314.53	184.48	29.807	
4,900.00	4,790.76	4,744.76	4,790.76	24.66	163.93	107.88	1,296.74	-5,118.34	5,506.04	5,317.65	188.39	29.227	
5,000.00	4,888.20	4,842.20	4,888.20	25.17	167.33	108.10	1,296.74	-5,118.34	5,513.15	5,320.85	192.30	28.670	
5,100.00	4,985.64	4,939.64	4,985.64	25.69	170.73	108.31	1,296.74	-5,118.34	5,520.34	5,324.13	196.20	28.136	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,200.00	5,083.08	5,037.08	5,083.08	26.20	174.13	108.53	1,296.74	-5,118.34	5,527.61	5,327.50	200.11	27.623		
5,300.00	5,180.52	5,134.52	5,180.52	26.72	177.53	108.75	1,296.74	-5,118.34	5,534.96	5,330.94	204.02	27.130		
5,400.00	5,277.96	5,231.96	5,277.96	27.24	180.93	108.96	1,296.74	-5,118.34	5,542.40	5,334.47	207.92	26.656		
5,500.00	5,375.40	5,329.40	5,375.40	27.75	184.33	109.18	1,296.74	-5,118.34	5,549.91	5,338.08	211.83	26.200		
5,600.00	5,472.84	5,426.84	5,472.84	28.27	187.73	109.39	1,296.74	-5,118.34	5,557.51	5,341.77	215.74	25.761		
5,700.00	5,570.28	5,524.28	5,570.28	28.79	191.14	109.60	1,296.74	-5,118.34	5,565.19	5,345.54	219.64	25.337		
5,800.00	5,667.72	5,621.72	5,667.72	29.30	194.54	109.82	1,296.74	-5,118.34	5,572.94	5,349.40	223.55	24.929		
5,900.00	5,765.16	5,719.16	5,765.16	29.82	197.94	110.03	1,296.74	-5,118.34	5,580.78	5,353.33	227.45	24.536		
6,000.00	5,862.60	5,816.60	5,862.60	30.34	201.34	110.24	1,296.74	-5,118.34	5,588.70	5,357.34	231.36	24.156		
6,100.00	5,960.05	5,914.05	5,960.05	30.85	204.74	110.45	1,296.74	-5,118.34	5,596.70	5,361.43	235.27	23.789		
6,200.00	6,057.49	6,011.49	6,057.49	31.37	208.14	110.66	1,296.74	-5,118.34	5,604.77	5,365.60	239.17	23.434		
6,300.00	6,154.93	6,108.93	6,154.93	31.89	211.54	110.87	1,296.74	-5,118.34	5,612.92	5,369.85	243.08	23.091		
6,400.00	6,252.37	6,206.37	6,252.37	32.40	214.94	111.08	1,296.74	-5,118.34	5,621.15	5,374.17	246.98	22.759		
6,500.00	6,349.81	6,303.81	6,349.81	32.92	218.35	111.29	1,296.74	-5,118.34	5,629.46	5,378.58	250.89	22.438		
6,600.00	6,447.25	6,401.25	6,447.25	33.44	221.75	111.50	1,296.74	-5,118.34	5,637.85	5,383.06	254.79	22.127		
6,700.00	6,544.28	6,501.72	6,544.28	33.95	225.25	82.89	1,296.74	-5,118.34	5,641.10	5,382.30	258.80	21.797		
6,800.00	6,638.86	6,607.14	6,638.86	34.44	228.93	64.88	1,296.74	-5,118.34	5,630.77	5,367.80	262.97	21.412		
6,900.00	6,728.65	6,682.65	6,728.65	34.89	231.57	56.71	1,296.74	-5,118.34	5,607.09	5,341.02	266.06	21.074		
7,000.00	6,811.45	6,765.45	6,811.45	35.29	234.46	53.55	1,296.74	-5,118.34	5,570.76	5,301.37	269.38	20.680		
7,100.00	6,885.21	6,839.21	6,885.21	35.66	237.03	53.47	1,296.74	-5,118.34	5,522.79	5,250.42	272.37	20.277		
7,200.00	6,948.11	6,902.11	6,948.11	35.99	239.23	55.83	1,296.74	-5,118.34	5,464.49	5,189.51	274.97	19.873		
7,300.00	6,998.62	6,952.62	6,998.62	36.30	240.99	60.55	1,296.74	-5,118.34	5,397.37	5,120.21	277.16	19.474		
7,400.00	7,035.48	6,989.48	7,035.48	36.65	242.28	67.84	1,296.74	-5,118.34	5,323.16	5,044.26	278.91	19.086		
7,500.00	7,057.79	7,011.79	7,057.79	37.13	243.06	77.88	1,296.74	-5,118.34	5,243.73	4,963.55	280.18	18.715		
7,600.00	7,065.00	7,019.00	7,065.00	37.84	243.31	90.20	1,296.74	-5,118.34	5,161.01	4,880.04	280.97	18.368		
7,700.00	7,064.77	7,018.77	7,064.77	38.82	243.30	90.20	1,296.74	-5,118.34	5,077.64	4,796.08	281.56	18.034		
7,800.00	7,064.54	7,018.54	7,064.54	40.06	243.29	90.19	1,296.74	-5,118.34	4,994.88	4,712.64	282.24	17.697		
7,900.00	7,064.31	7,018.31	7,064.31	41.52	243.29	90.19	1,296.74	-5,118.34	4,912.77	4,629.76	283.01	17.359		
8,000.00	7,064.08	7,018.08	7,064.08	43.14	243.28	90.18	1,296.74	-5,118.34	4,831.32	4,547.45	283.87	17.019		
8,100.00	7,063.85	7,017.85	7,063.85	44.90	243.27	90.18	1,296.74	-5,118.34	4,750.59	4,465.76	284.83	16.679		
8,200.00	7,063.62	7,017.62	7,063.62	46.78	243.26	90.17	1,296.74	-5,118.34	4,670.60	4,384.71	285.89	16.337		
8,300.00	7,063.39	7,017.39	7,063.39	48.76	243.25	90.17	1,296.74	-5,118.34	4,591.39	4,304.35	287.05	15.995		
8,400.00	7,063.16	7,017.16	7,063.16	50.83	243.25	90.16	1,296.74	-5,118.34	4,513.01	4,224.71	288.31	15.653		
8,500.00	7,062.93	7,016.93	7,062.93	52.97	243.24	90.16	1,296.74	-5,118.34	4,435.50	4,145.83	289.68	15.312		
8,600.00	7,062.70	7,016.70	7,062.70	55.18	243.23	90.15	1,296.74	-5,118.34	4,358.91	4,067.76	291.15	14.971		
8,700.00	7,062.47	7,016.47	7,062.47	57.46	243.22	90.15	1,296.74	-5,118.34	4,283.28	3,990.55	292.73	14.632		
8,800.00	7,062.24	7,016.24	7,062.24	59.78	243.21	90.15	1,296.74	-5,118.34	4,208.67	3,914.24	294.43	14.294		
8,900.00	7,062.01	7,016.01	7,062.01	62.14	243.21	90.14	1,296.74	-5,118.34	4,135.13	3,838.90	296.23	13.959		
9,000.00	7,061.78	7,015.78	7,061.78	64.55	243.20	90.14	1,296.74	-5,118.34	4,062.72	3,764.58	298.14	13.627		
9,100.00	7,061.55	7,015.55	7,061.55	67.00	243.19	90.13	1,296.74	-5,118.34	3,991.51	3,691.34	300.17	13.298		
9,200.00	7,061.31	7,015.31	7,061.31	69.47	243.18	90.13	1,296.74	-5,118.34	3,921.55	3,619.24	302.31	12.972		
9,300.00	7,061.08	7,015.08	7,061.08	71.98	243.17	90.12	1,296.74	-5,118.34	3,852.91	3,548.36	304.55	12.651		
9,400.00	7,060.85	7,014.85	7,060.85	74.51	243.17	90.12	1,296.74	-5,118.34	3,785.67	3,478.76	306.91	12.335		
9,500.00	7,060.62	7,014.62	7,060.62	77.06	243.16	90.11	1,296.74	-5,118.34	3,719.91	3,410.53	309.38	12.024		
9,600.00	7,060.39	7,014.39	7,060.39	79.64	243.15	90.11	1,296.74	-5,118.34	3,655.70	3,343.75	311.95	11.719		
9,700.00	7,060.16	7,014.16	7,060.16	82.23	243.14	90.10	1,296.74	-5,118.34	3,593.12	3,278.50	314.63	11.420		
9,800.00	7,059.93	7,013.93	7,059.93	84.84	243.13	90.10	1,296.74	-5,118.34	3,532.27	3,214.86	317.41	11.128		
9,900.00	7,059.70	7,013.70	7,059.70	87.47	243.13	90.09	1,296.74	-5,118.34	3,473.23	3,152.94	320.29	10.844		
10,000.00	7,059.47	7,013.47	7,059.47	90.11	243.12	90.09	1,296.74	-5,118.34	3,416.10	3,092.84	323.26	10.568		
10,100.00	7,059.24	7,013.24	7,059.24	92.76	243.11	90.08	1,296.74	-5,118.34	3,360.97	3,034.65	326.33	10.299		
10,200.00	7,059.01	7,013.01	7,059.01	95.42	243.10	90.08	1,296.74	-5,118.34	3,307.95	2,978.48	329.47	10.040		
10,300.00	7,058.78	7,012.78	7,058.78	98.10	243.09	90.08	1,296.74	-5,118.34	3,257.14	2,924.44	332.70	9.790		

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 12N-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 12N-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	7,058.55	7,012.55	7,058.55	100.79	243.09	90.07	1,296.74	-5,118.34	3,208.64	2,872.65	335.99	9.550		
10,500.00	7,058.32	7,012.32	7,058.32	103.48	243.08	90.07	1,296.74	-5,118.34	3,162.56	2,823.22	339.34	9.320		
10,600.00	7,058.09	7,012.09	7,058.09	106.19	243.07	90.06	1,296.74	-5,118.34	3,119.00	2,776.26	342.74	9.100		
10,700.00	7,057.86	7,011.86	7,057.86	108.90	243.06	90.06	1,296.74	-5,118.34	3,078.08	2,731.91	346.17	8.892		
10,800.00	7,057.63	7,011.63	7,057.63	111.62	243.05	90.05	1,296.74	-5,118.34	3,039.89	2,690.26	349.63	8.695		
10,900.00	7,057.40	7,011.40	7,057.40	114.35	243.05	90.05	1,296.74	-5,118.34	3,004.56	2,651.46	353.10	8.509		
11,000.00	7,057.17	7,011.17	7,057.17	117.08	243.04	90.04	1,296.74	-5,118.34	2,972.16	2,615.60	356.56	8.336		
11,100.00	7,056.94	7,010.94	7,056.94	119.82	243.03	90.04	1,296.74	-5,118.34	2,942.82	2,582.81	360.00	8.174		
11,200.00	7,056.71	7,010.71	7,056.71	122.56	243.02	90.03	1,296.74	-5,118.34	2,916.60	2,553.19	363.41	8.026		
11,300.00	7,056.48	7,010.48	7,056.48	125.31	243.01	90.03	1,296.74	-5,118.34	2,893.61	2,526.85	366.76	7.890		
11,400.00	7,056.25	7,010.25	7,056.25	128.06	243.00	90.02	1,296.74	-5,118.34	2,873.91	2,503.88	370.03	7.767		
11,500.00	7,056.02	7,010.02	7,056.02	130.82	243.00	90.02	1,296.74	-5,118.34	2,857.58	2,484.36	373.22	7.656		
11,600.00	7,055.79	7,009.79	7,055.79	133.59	242.99	90.01	1,296.74	-5,118.34	2,844.67	2,468.37	376.31	7.559		
11,700.00	7,055.55	7,009.55	7,055.55	136.35	242.98	90.01	1,296.74	-5,118.34	2,835.24	2,455.97	379.27	7.476		
11,800.00	7,055.32	7,009.32	7,055.32	139.12	242.97	90.01	1,296.74	-5,118.34	2,829.31	2,447.21	382.09	7.405		
11,900.00	7,055.09	7,009.09	7,055.09	141.90	242.96	90.00	1,296.74	-5,118.34	2,826.90	2,442.13	384.77	7.347		
11,918.00	7,055.05	7,009.05	7,055.05	142.40	242.96	90.00	1,296.74	-5,118.34	2,826.84	2,441.61	385.24	7.338 CC		
12,000.00	7,054.86	7,008.86	7,054.86	144.67	242.96	90.00	1,296.74	-5,118.34	2,828.03	2,440.75	387.29	7.302 ES		
12,100.00	7,054.63	7,008.63	7,054.63	147.45	242.95	89.99	1,296.74	-5,118.34	2,832.70	2,443.06	389.63	7.270		
12,200.00	7,054.40	7,008.40	7,054.40	150.24	242.94	89.99	1,296.74	-5,118.34	2,840.88	2,449.08	391.80	7.251		
12,300.00	7,054.17	7,008.17	7,054.17	153.02	242.93	89.98	1,296.74	-5,118.34	2,852.54	2,458.76	393.78	7.244 SF		
12,400.00	7,053.94	7,007.94	7,053.94	155.81	242.92	89.98	1,296.74	-5,118.34	2,867.64	2,472.07	395.58	7.249		
12,500.00	7,053.71	7,007.71	7,053.71	158.60	242.92	89.97	1,296.74	-5,118.34	2,886.13	2,488.95	397.18	7.267		
12,600.00	7,053.48	7,007.48	7,053.48	161.40	242.91	89.97	1,296.74	-5,118.34	2,907.95	2,509.35	398.60	7.295		
12,700.00	7,053.25	7,007.25	7,053.25	164.19	242.90	89.96	1,296.74	-5,118.34	2,933.01	2,533.18	399.84	7.336		
12,800.00	7,053.02	7,007.02	7,053.02	166.99	242.89	89.96	1,296.74	-5,118.34	2,961.24	2,560.35	400.89	7.387		
12,900.00	7,052.79	7,006.79	7,052.79	169.79	242.88	89.95	1,296.74	-5,118.34	2,992.55	2,590.78	401.77	7.448		
13,000.00	7,052.56	7,006.56	7,052.56	172.59	242.88	89.95	1,296.74	-5,118.34	3,026.84	2,624.35	402.49	7.520		
13,100.00	7,052.33	7,006.33	7,052.33	175.40	242.87	89.94	1,296.74	-5,118.34	3,064.01	2,660.97	403.04	7.602		
13,200.00	7,052.10	7,006.10	7,052.10	178.20	242.86	89.94	1,296.74	-5,118.34	3,103.96	2,700.51	403.45	7.693		
13,300.00	7,051.87	7,005.87	7,051.87	181.01	242.85	89.94	1,296.74	-5,118.34	3,146.58	2,742.86	403.72	7.794		
13,400.00	7,051.64	7,005.64	7,051.64	183.82	242.84	89.93	1,296.74	-5,118.34	3,191.77	2,787.91	403.86	7.903		
13,500.00	7,051.41	7,005.41	7,051.41	186.63	242.84	89.93	1,296.74	-5,118.34	3,239.41	2,835.53	403.88	8.021		
13,600.00	7,051.18	7,005.18	7,051.18	189.44	242.83	89.92	1,296.74	-5,118.34	3,289.40	2,885.61	403.79	8.146		
13,700.00	7,050.95	7,004.95	7,050.95	192.25	242.82	89.92	1,296.74	-5,118.34	3,341.64	2,938.04	403.60	8.280		
13,800.00	7,050.72	7,004.72	7,050.72	195.07	242.81	89.91	1,296.74	-5,118.34	3,396.02	2,992.70	403.32	8.420		
13,900.00	7,050.49	7,004.49	7,050.49	197.88	242.80	89.91	1,296.74	-5,118.34	3,452.44	3,049.47	402.97	8.568		
14,000.00	7,050.26	7,004.26	7,050.26	200.70	242.80	89.90	1,296.74	-5,118.34	3,510.81	3,108.27	402.54	8.722		
14,100.00	7,050.03	7,004.03	7,050.03	203.52	242.79	89.90	1,296.74	-5,118.34	3,571.02	3,168.97	402.05	8.882		
14,200.00	7,049.80	7,003.80	7,049.80	206.34	242.78	89.89	1,296.74	-5,118.34	3,632.98	3,231.48	401.50	9.049		
14,300.00	7,049.56	7,003.56	7,049.56	209.16	242.77	89.89	1,296.74	-5,118.34	3,696.61	3,295.71	400.90	9.221		
14,400.00	7,049.33	7,003.33	7,049.33	211.98	242.76	89.88	1,296.74	-5,118.34	3,761.83	3,361.56	400.27	9.398		
14,500.00	7,049.10	7,003.10	7,049.10	214.80	242.76	89.88	1,296.74	-5,118.34	3,828.54	3,428.95	399.60	9.581		
14,600.00	7,048.87	7,002.87	7,048.87	217.63	242.75	89.87	1,296.74	-5,118.34	3,896.68	3,497.79	398.89	9.769		
14,700.00	7,048.64	7,002.64	7,048.64	220.45	242.74	89.87	1,296.74	-5,118.34	3,966.17	3,568.01	398.17	9.961		
14,800.00	7,048.41	7,002.41	7,048.41	223.28	242.73	89.87	1,296.74	-5,118.34	4,036.95	3,639.53	397.42	10.158		
14,900.00	7,048.18	7,002.18	7,048.18	226.10	242.72	89.86	1,296.74	-5,118.34	4,108.93	3,712.28	396.66	10.359		
14,979.18	7,048.00	7,002.00	7,048.00	228.34	242.72	89.86	1,296.74	-5,118.34	4,166.75	3,770.71	396.05	10.521		

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 12N-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 12N-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	-92.04	-175.09	-4,915.61	4,919.01				
100.00	100.00	47.00	100.00	3.28	3.38	-92.04	-175.09	-4,915.61	4,918.72	4,912.06	6.67	737.908	
200.00	200.00	147.00	200.00	3.34	4.71	-92.04	-175.09	-4,915.61	4,918.72	4,910.67	8.05	610.916	
300.00	299.98	246.98	299.98	3.44	7.62	81.90	-175.09	-4,915.61	4,918.48	4,907.42	11.06	444.786	
400.00	399.84	346.84	399.84	3.59	10.87	81.97	-175.09	-4,915.61	4,917.74	4,903.28	14.46	340.147	
500.00	499.45	446.45	499.45	3.79	14.22	82.10	-175.09	-4,915.61	4,916.53	4,898.52	18.01	272.993	
600.00	598.70	545.70	598.70	4.03	17.61	82.27	-175.09	-4,915.61	4,914.86	4,893.22	21.64	227.097	
700.00	697.47	644.47	697.47	4.31	21.01	82.49	-175.09	-4,915.61	4,912.76	4,887.44	25.32	193.995	
800.00	795.62	742.62	795.62	4.64	24.40	82.76	-175.09	-4,915.61	4,910.26	4,881.23	29.04	169.096	
900.00	893.16	840.16	893.16	5.00	27.78	83.03	-175.09	-4,915.61	4,907.47	4,874.70	32.77	149.734	
1,000.00	990.60	937.60	990.60	5.38	31.16	83.29	-175.09	-4,915.61	4,904.72	4,868.18	36.54	134.223	
1,100.00	1,088.04	1,035.04	1,088.04	5.79	34.54	83.54	-175.09	-4,915.61	4,902.08	4,861.74	40.33	121.538	
1,200.00	1,185.48	1,132.48	1,185.48	6.22	37.93	83.80	-175.09	-4,915.61	4,899.53	4,855.39	44.15	110.985	
1,300.00	1,282.92	1,229.92	1,282.92	6.66	41.32	84.05	-175.09	-4,915.61	4,897.09	4,849.12	47.97	102.079	
1,400.00	1,380.36	1,327.36	1,380.36	7.10	44.71	84.31	-175.09	-4,915.61	4,894.75	4,842.94	51.81	94.467	
1,500.00	1,477.80	1,424.80	1,477.80	7.56	48.11	84.56	-175.09	-4,915.61	4,892.52	4,836.85	55.67	87.890	
1,600.00	1,575.24	1,522.24	1,575.24	8.03	51.50	84.82	-175.09	-4,915.61	4,890.38	4,830.85	59.53	82.155	
1,700.00	1,672.68	1,619.68	1,672.68	8.50	54.90	85.07	-175.09	-4,915.61	4,888.35	4,824.95	63.39	77.111	
1,800.00	1,770.12	1,717.12	1,770.12	8.98	58.29	85.33	-175.09	-4,915.61	4,886.42	4,819.15	67.27	72.642	
1,900.00	1,867.56	1,814.56	1,867.56	9.46	61.69	85.58	-175.09	-4,915.61	4,884.59	4,813.44	71.15	68.656	
2,000.00	1,965.00	1,912.00	1,965.00	9.95	65.09	85.84	-175.09	-4,915.61	4,882.87	4,807.84	75.03	65.080	
2,100.00	2,062.44	2,009.44	2,062.44	10.44	68.48	86.10	-175.09	-4,915.61	4,881.24	4,802.33	78.92	61.854	
2,200.00	2,159.88	2,106.88	2,159.88	10.93	71.88	86.35	-175.09	-4,915.61	4,879.73	4,796.92	82.81	58.929	
2,300.00	2,257.32	2,204.32	2,257.32	11.42	75.28	86.61	-175.09	-4,915.61	4,878.31	4,791.61	86.70	56.267	
2,400.00	2,354.76	2,301.76	2,354.76	11.92	78.68	86.87	-175.09	-4,915.61	4,877.00	4,786.40	90.60	53.833	
2,500.00	2,452.20	2,400.80	2,452.20	12.42	82.13	87.12	-175.09	-4,915.61	4,875.79	4,781.24	94.55	51.569	
2,600.00	2,549.64	2,503.36	2,549.64	12.92	85.71	87.38	-175.09	-4,915.61	4,874.68	4,776.06	98.63	49.425	
2,700.00	2,647.08	2,605.92	2,647.08	13.42	89.29	87.64	-175.09	-4,915.61	4,873.68	4,770.97	102.71	47.452	
2,800.00	2,744.52	2,708.48	2,744.52	13.93	92.87	87.90	-175.09	-4,915.61	4,872.78	4,765.99	106.79	45.630	
2,900.00	2,841.96	2,788.96	2,841.96	14.43	95.67	88.15	-175.09	-4,915.61	4,871.99	4,761.89	110.10	44.250	
3,000.00	2,939.40	2,886.40	2,939.40	14.94	99.07	88.41	-175.09	-4,915.61	4,871.30	4,757.29	114.01	42.728	
3,100.00	3,036.84	2,983.84	3,036.84	15.44	102.47	88.67	-175.09	-4,915.61	4,870.71	4,752.80	117.91	41.307	
3,200.00	3,134.28	3,081.28	3,134.28	15.95	105.87	88.93	-175.09	-4,915.61	4,870.23	4,748.40	121.82	39.978	
3,300.00	3,231.72	3,178.72	3,231.72	16.46	109.27	89.18	-175.09	-4,915.61	4,869.85	4,744.11	125.73	38.732	
3,400.00	3,329.16	3,276.16	3,329.16	16.97	112.67	89.44	-175.09	-4,915.61	4,869.57	4,739.93	129.64	37.562	
3,500.00	3,426.60	3,373.60	3,426.60	17.48	116.07	89.70	-175.09	-4,915.61	4,869.40	4,735.85	133.55	36.461	
3,600.00	3,524.04	3,471.04	3,524.04	17.99	119.47	89.96	-175.09	-4,915.61	4,869.33	4,731.87	137.46	35.423	
3,616.39	3,540.01	3,487.01	3,540.01	18.07	120.03	90.00	-175.09	-4,915.61	4,869.33	4,731.22	138.10	35.259	
3,700.00	3,621.48	3,568.48	3,621.48	18.50	122.87	90.22	-175.09	-4,915.61	4,869.36	4,727.99	141.37	34.444	
3,800.00	3,718.92	3,665.92	3,718.92	19.01	126.27	90.47	-175.09	-4,915.61	4,869.50	4,724.22	145.28	33.517	
3,900.00	3,816.36	3,763.36	3,816.36	19.52	129.68	90.73	-175.09	-4,915.61	4,869.74	4,720.55	149.20	32.640	
4,000.00	3,913.80	3,860.80	3,913.80	20.03	133.08	90.99	-175.09	-4,915.61	4,870.09	4,716.98	153.11	31.808	
4,100.00	4,011.24	3,958.24	4,011.24	20.55	136.48	91.25	-175.09	-4,915.61	4,870.54	4,713.52	157.02	31.018	
4,200.00	4,108.68	4,055.68	4,108.68	21.06	139.88	91.50	-175.09	-4,915.61	4,871.09	4,710.16	160.93	30.267	
4,300.00	4,206.12	4,153.12	4,206.12	21.57	143.28	91.76	-175.09	-4,915.61	4,871.75	4,706.90	164.85	29.553	
4,400.00	4,303.56	4,250.56	4,303.56	22.09	146.68	92.02	-175.09	-4,915.61	4,872.51	4,703.75	168.76	28.872	
4,500.00	4,401.00	4,348.00	4,401.00	22.60	150.08	92.28	-175.09	-4,915.61	4,873.38	4,700.70	172.68	28.223	
4,600.00	4,498.44	4,445.44	4,498.44	23.11	153.48	92.53	-175.09	-4,915.61	4,874.34	4,697.75	176.59	27.602	
4,700.00	4,595.88	4,542.88	4,595.88	23.63	156.88	92.79	-175.09	-4,915.61	4,875.42	4,694.91	180.51	27.010	
4,800.00	4,693.32	4,640.32	4,693.32	24.14	160.28	93.05	-175.09	-4,915.61	4,876.59	4,692.17	184.42	26.443	
4,900.00	4,790.76	4,737.76	4,790.76	24.66	163.68	93.30	-175.09	-4,915.61	4,877.87	4,689.53	188.34	25.900	
5,000.00	4,888.20	4,835.20	4,888.20	25.17	167.08	93.56	-175.09	-4,915.61	4,879.25	4,687.00	192.25	25.380	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,100.00	4,985.64	4,932.64	4,985.64	25.69	170.48	93.82	-175.09	-4,915.61	4,880.74	4,684.57	196.17	24.881		
5,200.00	5,083.08	5,030.08	5,083.08	26.20	173.89	94.08	-175.09	-4,915.61	4,882.32	4,682.24	200.08	24.402		
5,300.00	5,180.52	5,127.52	5,180.52	26.72	177.29	94.33	-175.09	-4,915.61	4,884.01	4,680.02	204.00	23.942		
5,400.00	5,277.96	5,224.96	5,277.96	27.24	180.69	94.59	-175.09	-4,915.61	4,885.81	4,677.90	207.91	23.500		
5,500.00	5,375.40	5,322.40	5,375.40	27.75	184.09	94.84	-175.09	-4,915.61	4,887.70	4,675.88	211.83	23.074		
5,600.00	5,472.84	5,419.84	5,472.84	28.27	187.49	95.10	-175.09	-4,915.61	4,889.70	4,673.96	215.74	22.665		
5,700.00	5,570.28	5,517.28	5,570.28	28.79	190.89	95.36	-175.09	-4,915.61	4,891.81	4,672.15	219.66	22.270		
5,800.00	5,667.72	5,614.72	5,667.72	29.30	194.29	95.61	-175.09	-4,915.61	4,894.01	4,670.44	223.57	21.890		
5,900.00	5,765.16	5,712.16	5,765.16	29.82	197.69	95.87	-175.09	-4,915.61	4,896.32	4,668.83	227.49	21.523		
6,000.00	5,862.60	5,809.60	5,862.60	30.34	201.09	96.12	-175.09	-4,915.61	4,898.72	4,667.32	231.40	21.170		
6,100.00	5,960.05	5,907.05	5,960.05	30.85	204.50	96.38	-175.09	-4,915.61	4,901.23	4,665.92	235.32	20.828		
6,200.00	6,057.49	6,004.49	6,057.49	31.37	207.90	96.63	-175.09	-4,915.61	4,903.85	4,664.61	239.23	20.498		
6,300.00	6,154.93	6,101.93	6,154.93	31.89	211.30	96.88	-175.09	-4,915.61	4,906.56	4,663.41	243.15	20.179		
6,400.00	6,252.37	6,200.63	6,252.37	32.40	214.74	97.14	-175.09	-4,915.61	4,909.37	4,662.27	247.11	19.867		
6,500.00	6,349.81	6,303.19	6,349.81	32.92	218.32	97.39	-175.09	-4,915.61	4,912.29	4,661.09	251.20	19.555		
6,600.00	6,447.25	6,405.75	6,447.25	33.44	221.90	97.64	-175.09	-4,915.61	4,915.31	4,660.02	255.29	19.254		
6,700.00	6,544.28	6,508.72	6,544.28	33.95	225.50	69.23	-175.09	-4,915.61	4,912.70	4,653.30	259.40	18.939		
6,800.00	6,638.86	6,585.86	6,638.86	34.44	228.19	51.19	-175.09	-4,915.61	4,895.25	4,632.67	262.58	18.643		
6,900.00	6,728.65	6,675.65	6,728.65	34.89	231.33	42.75	-175.09	-4,915.61	4,863.29	4,597.12	266.17	18.272		
7,000.00	6,811.45	6,758.45	6,811.45	35.29	234.22	39.11	-175.09	-4,915.61	4,817.66	4,548.19	269.47	17.878		
7,100.00	6,885.21	6,832.21	6,885.21	35.66	236.79	38.38	-175.09	-4,915.61	4,759.54	4,487.11	272.42	17.471		
7,200.00	6,948.11	6,904.89	6,948.11	35.99	239.33	40.08	-175.09	-4,915.61	4,690.37	4,415.06	275.31	17.037		
7,300.00	6,998.62	6,945.62	6,998.62	36.30	240.75	44.51	-175.09	-4,915.61	4,611.88	4,334.83	277.05	16.646		
7,400.00	7,035.48	6,982.48	7,035.48	36.65	242.04	52.88	-175.09	-4,915.61	4,526.00	4,247.36	278.64	16.243		
7,500.00	7,057.79	7,004.79	7,057.79	37.13	242.81	67.57	-175.09	-4,915.61	4,434.84	4,155.14	279.70	15.856		
7,600.00	7,065.00	7,012.00	7,065.00	37.84	243.07	90.40	-175.09	-4,915.61	4,340.60	4,060.37	280.22	15.490		
7,700.00	7,064.77	7,011.77	7,064.77	38.82	243.06	90.39	-175.09	-4,915.61	4,245.70	3,965.20	280.50	15.136		
7,800.00	7,064.54	7,011.54	7,064.54	40.06	243.05	90.38	-175.09	-4,915.61	4,151.04	3,870.22	280.82	14.782		
7,900.00	7,064.31	7,011.31	7,064.31	41.52	243.04	90.37	-175.09	-4,915.61	4,056.64	3,775.47	281.17	14.427		
8,000.00	7,064.08	7,011.08	7,064.08	43.14	243.03	90.36	-175.09	-4,915.61	3,962.51	3,680.93	281.58	14.072		
8,100.00	7,063.85	7,010.85	7,063.85	44.90	243.03	90.35	-175.09	-4,915.61	3,868.68	3,586.65	282.04	13.717		
8,200.00	7,063.62	7,010.62	7,063.62	46.78	243.02	90.34	-175.09	-4,915.61	3,775.17	3,492.62	282.55	13.361		
8,300.00	7,063.39	7,010.39	7,063.39	48.76	243.01	90.33	-175.09	-4,915.61	3,681.99	3,398.87	283.12	13.005		
8,400.00	7,063.16	7,010.16	7,063.16	50.83	243.00	90.32	-175.09	-4,915.61	3,589.19	3,305.43	283.76	12.649		
8,500.00	7,062.93	7,009.93	7,062.93	52.97	242.99	90.31	-175.09	-4,915.61	3,496.78	3,212.31	284.47	12.292		
8,600.00	7,062.70	7,009.70	7,062.70	55.18	242.99	90.30	-175.09	-4,915.61	3,404.80	3,119.54	285.26	11.936		
8,700.00	7,062.47	7,009.47	7,062.47	57.46	242.98	90.29	-175.09	-4,915.61	3,313.28	3,027.15	286.13	11.579		
8,800.00	7,062.24	7,009.24	7,062.24	59.78	242.97	90.29	-175.09	-4,915.61	3,222.27	2,935.17	287.10	11.224		
8,900.00	7,062.01	7,009.01	7,062.01	62.14	242.96	90.28	-175.09	-4,915.61	3,131.81	2,843.64	288.17	10.868		
9,000.00	7,061.78	7,008.78	7,061.78	64.55	242.95	90.27	-175.09	-4,915.61	3,041.94	2,752.60	289.34	10.513		
9,100.00	7,061.55	7,008.55	7,061.55	67.00	242.95	90.26	-175.09	-4,915.61	2,952.73	2,662.09	290.63	10.160		
9,200.00	7,061.31	7,008.31	7,061.31	69.47	242.94	90.25	-175.09	-4,915.61	2,864.22	2,572.17	292.05	9.807		
9,300.00	7,061.08	7,008.08	7,061.08	71.98	242.93	90.24	-175.09	-4,915.61	2,776.50	2,482.90	293.60	9.457		
9,400.00	7,060.85	7,007.85	7,060.85	74.51	242.92	90.23	-175.09	-4,915.61	2,689.64	2,394.33	295.30	9.108		
9,500.00	7,060.62	7,007.62	7,060.62	77.06	242.91	90.22	-175.09	-4,915.61	2,603.72	2,306.55	297.16	8.762		
9,600.00	7,060.39	7,007.39	7,060.39	79.64	242.91	90.21	-175.09	-4,915.61	2,518.83	2,219.65	299.19	8.419		
9,700.00	7,060.16	7,007.16	7,060.16	82.23	242.90	90.20	-175.09	-4,915.61	2,435.10	2,133.70	301.40	8.079		
9,800.00	7,059.93	7,006.93	7,059.93	84.84	242.89	90.19	-175.09	-4,915.61	2,352.64	2,048.84	303.80	7.744		
9,900.00	7,059.70	7,006.70	7,059.70	87.47	242.88	90.18	-175.09	-4,915.61	2,271.58	1,965.18	306.40	7.414		
10,000.00	7,059.47	7,006.47	7,059.47	90.11	242.87	90.17	-175.09	-4,915.61	2,192.09	1,882.87	309.22	7.089		
10,100.00	7,059.24	7,006.24	7,059.24	92.76	242.87	90.16	-175.09	-4,915.61	2,114.35	1,802.07	312.27	6.771		
10,200.00	7,059.01	7,006.01	7,059.01	95.42	242.86	90.15	-175.09	-4,915.61	2,038.54	1,722.98	315.55	6.460		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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							
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)			
10,300.00	7,058.78	7,005.78	7,058.78	98.10	242.85	90.14	-175.09	-4,915.61	1,964.90	1,645.82	319.08	6.158		
10,400.00	7,058.55	7,005.55	7,058.55	100.79	242.84	90.13	-175.09	-4,915.61	1,893.68	1,570.82	322.85	5.865		
10,500.00	7,058.32	7,005.32	7,058.32	103.48	242.83	90.12	-175.09	-4,915.61	1,825.16	1,498.29	326.87	5.584		
10,600.00	7,058.09	7,005.09	7,058.09	106.19	242.82	90.11	-175.09	-4,915.61	1,759.65	1,428.53	331.12	5.314		
10,700.00	7,057.86	7,004.86	7,057.86	108.90	242.82	90.10	-175.09	-4,915.61	1,697.52	1,361.92	335.60	5.058		
10,800.00	7,057.63	7,004.63	7,057.63	111.62	242.81	90.09	-175.09	-4,915.61	1,639.13	1,298.87	340.26	4.817		
10,900.00	7,057.40	7,004.40	7,057.40	114.35	242.80	90.08	-175.09	-4,915.61	1,584.91	1,239.84	345.07	4.593		
11,000.00	7,057.17	7,004.17	7,057.17	117.08	242.79	90.07	-175.09	-4,915.61	1,535.29	1,185.32	349.97	4.387		
11,100.00	7,056.94	7,003.94	7,056.94	119.82	242.78	90.06	-175.09	-4,915.61	1,490.74	1,135.85	354.89	4.201		
11,200.00	7,056.71	7,003.71	7,056.71	122.56	242.78	90.05	-175.09	-4,915.61	1,451.72	1,091.98	359.74	4.035		
11,300.00	7,056.48	7,003.48	7,056.48	125.31	242.77	90.04	-175.09	-4,915.61	1,418.69	1,054.28	364.41	3.893		
11,400.00	7,056.25	7,003.25	7,056.25	128.06	242.76	90.03	-175.09	-4,915.61	1,392.07	1,023.29	368.79	3.775		
11,500.00	7,056.02	7,003.02	7,056.02	130.82	242.75	90.02	-175.09	-4,915.61	1,372.24	999.49	372.76	3.681		
11,600.00	7,055.79	7,002.79	7,055.79	133.59	242.74	90.01	-175.09	-4,915.61	1,359.50	983.30	376.20	3.614		
11,700.00	7,055.55	7,002.55	7,055.55	136.35	242.74	90.00	-175.09	-4,915.61	1,354.04	975.00	379.04	3.572		
11,724.08	7,055.50	7,002.50	7,055.50	137.02	242.73	90.00	-175.09	-4,915.61	1,353.83	974.20	379.63	3.566	CC, ES	
11,800.00	7,055.32	7,002.32	7,055.32	139.12	242.73	89.99	-175.09	-4,915.61	1,355.95	974.75	381.20	3.557	SF	
11,900.00	7,055.09	7,002.09	7,055.09	141.90	242.72	89.98	-175.09	-4,915.61	1,365.21	982.55	382.66	3.568		
12,000.00	7,054.86	7,001.86	7,054.86	144.67	242.71	89.97	-175.09	-4,915.61	1,381.66	998.25	383.41	3.604		
12,100.00	7,054.63	7,001.63	7,054.63	147.45	242.70	89.96	-175.09	-4,915.61	1,405.05	1,021.56	383.49	3.664		
12,200.00	7,054.40	7,001.40	7,054.40	150.24	242.70	89.95	-175.09	-4,915.61	1,435.04	1,052.07	382.97	3.747		
12,300.00	7,054.17	7,001.17	7,054.17	153.02	242.69	89.94	-175.09	-4,915.61	1,471.23	1,089.31	381.92	3.852		
12,400.00	7,053.94	7,000.94	7,053.94	155.81	242.68	89.93	-175.09	-4,915.61	1,513.18	1,132.74	380.44	3.977		
12,500.00	7,053.71	7,000.71	7,053.71	158.60	242.67	89.92	-175.09	-4,915.61	1,560.42	1,181.81	378.61	4.121		
12,600.00	7,053.48	7,000.48	7,053.48	161.40	242.66	89.91	-175.09	-4,915.61	1,612.48	1,235.95	376.52	4.283		
12,700.00	7,053.25	7,000.25	7,053.25	164.19	242.66	89.90	-175.09	-4,915.61	1,668.91	1,294.66	374.25	4.459		
12,800.00	7,053.02	7,000.02	7,053.02	166.99	242.65	89.90	-175.09	-4,915.61	1,729.29	1,357.43	371.86	4.650		
12,900.00	7,052.79	7,000.21	7,052.79	169.79	242.65	89.89	-175.09	-4,915.61	1,793.22	1,423.79	369.42	4.854		
13,000.00	7,052.56	7,000.44	7,052.56	172.59	242.66	89.88	-175.09	-4,915.61	1,860.33	1,493.36	366.97	5.069		
13,100.00	7,052.33	7,000.67	7,052.33	175.40	242.67	89.87	-175.09	-4,915.61	1,930.28	1,565.76	364.53	5.295		
13,200.00	7,052.10	7,000.90	7,052.10	178.20	242.68	89.86	-175.09	-4,915.61	2,002.79	1,640.66	362.13	5.531		
13,300.00	7,051.87	7,001.13	7,051.87	181.01	242.69	89.85	-175.09	-4,915.61	2,077.59	1,717.79	359.79	5.774		
13,400.00	7,051.64	7,001.36	7,051.64	183.82	242.69	89.84	-175.09	-4,915.61	2,154.42	1,796.90	357.53	6.026		
13,500.00	7,051.41	7,001.59	7,051.41	186.63	242.70	89.83	-175.09	-4,915.61	2,233.10	1,877.76	355.34	6.284		
13,600.00	7,051.18	7,001.82	7,051.18	189.44	242.71	89.82	-175.09	-4,915.61	2,313.42	1,960.17	353.25	6.549		
13,700.00	7,050.95	7,002.05	7,050.95	192.25	242.72	89.81	-175.09	-4,915.61	2,395.22	2,043.98	351.24	6.819		
13,800.00	7,050.72	7,002.28	7,050.72	195.07	242.73	89.80	-175.09	-4,915.61	2,478.36	2,129.04	349.32	7.095		
13,900.00	7,050.49	7,002.51	7,050.49	197.88	242.73	89.79	-175.09	-4,915.61	2,562.71	2,215.21	347.50	7.375		
14,000.00	7,050.26	7,002.74	7,050.26	200.70	242.74	89.78	-175.09	-4,915.61	2,648.14	2,302.38	345.76	7.659		
14,100.00	7,050.03	7,002.97	7,050.03	203.52	242.75	89.77	-175.09	-4,915.61	2,734.56	2,390.46	344.10	7.947		
14,200.00	7,049.80	7,003.21	7,049.80	206.34	242.76	89.76	-175.09	-4,915.61	2,821.88	2,479.35	342.53	8.238		
14,300.00	7,049.56	7,003.44	7,049.56	209.16	242.77	89.75	-175.09	-4,915.61	2,910.01	2,568.98	341.04	8.533		
14,400.00	7,049.33	7,003.67	7,049.33	211.98	242.78	89.74	-175.09	-4,915.61	2,998.89	2,659.28	339.62	8.830		
14,500.00	7,049.10	7,003.90	7,049.10	214.80	242.78	89.73	-175.09	-4,915.61	3,088.45	2,750.18	338.27	9.130		
14,600.00	7,048.87	7,004.13	7,048.87	217.63	242.79	89.72	-175.09	-4,915.61	3,178.64	2,841.65	336.99	9.432		
14,700.00	7,048.64	7,004.36	7,048.64	220.45	242.80	89.71	-175.09	-4,915.61	3,269.39	2,933.62	335.77	9.737		
14,800.00	7,048.41	7,004.59	7,048.41	223.28	242.81	89.70	-175.09	-4,915.61	3,360.67	3,026.05	334.62	10.043		
14,900.00	7,048.18	7,004.82	7,048.18	226.10	242.82	89.69	-175.09	-4,915.61	3,452.43	3,118.91	333.52	10.352		
14,979.18	7,048.00	7,005.00	7,048.00	228.34	242.82	89.68	-175.09	-4,915.61	3,525.41	3,192.72	332.69	10.597		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-110.64	-2,882.64	-7,653.37	8,178.43					
100.00	100.00	44.00	100.00	3.28	3.37	-110.64	-2,882.64	-7,653.37	8,178.24	8,171.59	6.65	1,229.174		
200.00	200.00	144.00	200.00	3.34	4.64	-110.64	-2,882.64	-7,653.37	8,178.24	8,170.26	7.98	1,025.261		
300.00	299.98	243.98	299.98	3.44	7.52	63.30	-2,882.64	-7,653.37	8,177.46	8,166.49	10.96	745.858		
400.00	399.84	343.84	399.84	3.59	10.77	63.37	-2,882.64	-7,653.37	8,175.10	8,160.75	14.36	569.352		
500.00	499.45	443.45	499.45	3.79	14.12	63.50	-2,882.64	-7,653.37	8,171.19	8,153.29	17.91	456.263		
600.00	598.70	542.70	598.70	4.03	17.51	63.67	-2,882.64	-7,653.37	8,165.74	8,144.20	21.54	379.094		
700.00	697.47	641.47	697.47	4.31	20.91	63.90	-2,882.64	-7,653.37	8,158.76	8,133.54	25.22	323.500		
800.00	795.62	739.62	795.62	4.64	24.30	64.17	-2,882.64	-7,653.37	8,150.28	8,121.35	28.93	281.712		
900.00	893.16	837.16	893.16	5.00	27.67	64.39	-2,882.64	-7,653.37	8,140.52	8,107.85	32.66	249.229		
1,000.00	990.60	934.60	990.60	5.38	31.06	64.53	-2,882.64	-7,653.37	8,130.62	8,094.19	36.42	223.235		
1,100.00	1,088.04	1,032.04	1,088.04	5.79	34.44	64.67	-2,882.64	-7,653.37	8,120.77	8,080.56	40.21	201.981		
1,200.00	1,185.48	1,129.48	1,185.48	6.22	37.83	64.81	-2,882.64	-7,653.37	8,110.97	8,066.96	44.01	184.302		
1,300.00	1,282.92	1,226.92	1,282.92	6.66	41.22	64.95	-2,882.64	-7,653.37	8,101.22	8,053.39	47.83	169.380		
1,400.00	1,380.36	1,324.36	1,380.36	7.10	44.61	65.09	-2,882.64	-7,653.37	8,091.53	8,039.87	51.66	156.628		
1,500.00	1,477.80	1,421.80	1,477.80	7.56	48.00	65.23	-2,882.64	-7,653.37	8,081.88	8,026.38	55.50	145.610		
1,600.00	1,575.24	1,519.24	1,575.24	8.03	51.40	65.38	-2,882.64	-7,653.37	8,072.29	8,012.93	59.36	135.999		
1,700.00	1,672.68	1,616.68	1,672.68	8.50	54.79	65.52	-2,882.64	-7,653.37	8,062.74	7,999.53	63.21	127.546		
1,800.00	1,770.12	1,714.12	1,770.12	8.98	58.19	65.66	-2,882.64	-7,653.37	8,053.25	7,986.17	67.08	120.055		
1,900.00	1,867.56	1,811.56	1,867.56	9.46	61.58	65.80	-2,882.64	-7,653.37	8,043.81	7,972.86	70.95	113.372		
2,000.00	1,965.00	1,909.00	1,965.00	9.95	64.98	65.95	-2,882.64	-7,653.37	8,034.42	7,959.60	74.83	107.375		
2,100.00	2,062.44	2,006.44	2,062.44	10.44	68.38	66.09	-2,882.64	-7,653.37	8,025.09	7,946.38	78.70	101.965		
2,200.00	2,159.88	2,103.88	2,159.88	10.93	71.78	66.23	-2,882.64	-7,653.37	8,015.80	7,933.21	82.59	97.059		
2,300.00	2,257.32	2,201.32	2,257.32	11.42	75.17	66.38	-2,882.64	-7,653.37	8,006.57	7,920.10	86.47	92.591		
2,400.00	2,354.76	2,301.24	2,354.76	11.92	78.66	66.52	-2,882.64	-7,653.37	7,997.39	7,906.94	90.45	88.420		
2,500.00	2,452.20	2,403.80	2,452.20	12.42	82.24	66.67	-2,882.64	-7,653.37	7,988.26	7,893.75	94.52	84.517		
2,600.00	2,549.64	2,506.36	2,549.64	12.92	85.81	66.81	-2,882.64	-7,653.37	7,979.19	7,880.60	98.59	80.934		
2,700.00	2,647.08	2,608.92	2,647.08	13.42	89.39	66.96	-2,882.64	-7,653.37	7,970.17	7,867.51	102.66	77.635		
2,800.00	2,744.52	2,688.52	2,744.52	13.93	92.17	67.10	-2,882.64	-7,653.37	7,961.20	7,855.27	105.94	75.151		
2,900.00	2,841.96	2,785.96	2,841.96	14.43	95.57	67.25	-2,882.64	-7,653.37	7,952.29	7,842.45	109.83	72.403		
3,000.00	2,939.40	2,883.40	2,939.40	14.94	98.97	67.40	-2,882.64	-7,653.37	7,943.43	7,829.69	113.73	69.843		
3,100.00	3,036.84	2,980.84	3,036.84	15.44	102.37	67.54	-2,882.64	-7,653.37	7,934.62	7,816.99	117.63	67.452		
3,200.00	3,134.28	3,078.28	3,134.28	15.95	105.77	67.69	-2,882.64	-7,653.37	7,925.87	7,804.33	121.54	65.214		
3,300.00	3,231.72	3,175.72	3,231.72	16.46	109.17	67.84	-2,882.64	-7,653.37	7,917.17	7,791.73	125.44	63.116		
3,400.00	3,329.16	3,273.16	3,329.16	16.97	112.57	67.98	-2,882.64	-7,653.37	7,908.52	7,779.18	129.34	61.144		
3,500.00	3,426.60	3,370.60	3,426.60	17.48	115.97	68.13	-2,882.64	-7,653.37	7,899.94	7,766.69	133.25	59.288		
3,600.00	3,524.04	3,468.04	3,524.04	17.99	119.37	68.28	-2,882.64	-7,653.37	7,891.40	7,754.25	137.15	57.537		
3,700.00	3,621.48	3,565.48	3,621.48	18.50	122.77	68.43	-2,882.64	-7,653.37	7,882.92	7,741.86	141.06	55.884		
3,800.00	3,718.92	3,662.92	3,718.92	19.01	126.17	68.58	-2,882.64	-7,653.37	7,874.50	7,729.53	144.97	54.319		
3,900.00	3,816.36	3,760.36	3,816.36	19.52	129.57	68.73	-2,882.64	-7,653.37	7,866.13	7,717.25	148.88	52.837		
4,000.00	3,913.80	3,857.80	3,913.80	20.03	132.97	68.88	-2,882.64	-7,653.37	7,857.81	7,705.03	152.78	51.431		
4,100.00	4,011.24	3,955.24	4,011.24	20.55	136.37	69.02	-2,882.64	-7,653.37	7,849.55	7,692.86	156.69	50.095		
4,200.00	4,108.68	4,052.68	4,108.68	21.06	139.77	69.17	-2,882.64	-7,653.37	7,841.35	7,680.75	160.60	48.824		
4,300.00	4,206.12	4,150.12	4,206.12	21.57	143.17	69.33	-2,882.64	-7,653.37	7,833.20	7,668.69	164.51	47.614		
4,400.00	4,303.56	4,247.56	4,303.56	22.09	146.57	69.48	-2,882.64	-7,653.37	7,825.11	7,656.69	168.43	46.460		
4,500.00	4,401.00	4,345.00	4,401.00	22.60	149.97	69.63	-2,882.64	-7,653.37	7,817.08	7,644.74	172.34	45.359		
4,600.00	4,498.44	4,442.44	4,498.44	23.11	153.38	69.78	-2,882.64	-7,653.37	7,809.10	7,632.85	176.25	44.307		
4,700.00	4,595.88	4,539.88	4,595.88	23.63	156.78	69.93	-2,882.64	-7,653.37	7,801.18	7,621.02	180.16	43.301		
4,800.00	4,693.32	4,637.32	4,693.32	24.14	160.18	70.08	-2,882.64	-7,653.37	7,793.31	7,609.24	184.07	42.338		
4,900.00	4,790.76	4,734.76	4,790.76	24.66	163.58	70.23	-2,882.64	-7,653.37	7,785.50	7,597.52	187.99	41.415		
5,000.00	4,888.20	4,832.20	4,888.20	25.17	166.98	70.39	-2,882.64	-7,653.37	7,777.75	7,585.85	191.90	40.530		
5,100.00	4,985.64	4,929.64	4,985.64	25.69	170.38	70.54	-2,882.64	-7,653.37	7,770.06	7,574.24	195.82	39.680		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,027.08	5,083.08	26.20	173.78	70.69	-2,882.64	-7,653.37	7,762.42	7,562.69	199.73	38.864		
5,300.00	5,180.52	5,124.52	5,180.52	26.72	177.18	70.84	-2,882.64	-7,653.37	7,754.85	7,551.20	203.65	38.080		
5,400.00	5,277.96	5,221.96	5,277.96	27.24	180.58	71.00	-2,882.64	-7,653.37	7,747.33	7,539.77	207.56	37.326		
5,500.00	5,375.40	5,319.40	5,375.40	27.75	183.98	71.15	-2,882.64	-7,653.37	7,739.86	7,528.39	211.48	36.599		
5,600.00	5,472.84	5,416.84	5,472.84	28.27	187.39	71.31	-2,882.64	-7,653.37	7,732.46	7,517.07	215.39	35.899		
5,700.00	5,570.28	5,514.28	5,570.28	28.79	190.79	71.46	-2,882.64	-7,653.37	7,725.11	7,505.80	219.31	35.225		
5,800.00	5,667.72	5,611.72	5,667.72	29.30	194.19	71.61	-2,882.64	-7,653.37	7,717.83	7,494.60	223.23	34.574		
5,900.00	5,765.16	5,709.16	5,765.16	29.82	197.59	71.77	-2,882.64	-7,653.37	7,710.60	7,483.46	227.14	33.946		
6,000.00	5,862.60	5,806.60	5,862.60	30.34	200.99	71.92	-2,882.64	-7,653.37	7,703.43	7,472.37	231.06	33.340		
6,100.00	5,960.05	5,904.05	5,960.05	30.85	204.39	72.08	-2,882.64	-7,653.37	7,696.32	7,461.34	234.98	32.753		
6,200.00	6,057.49	6,001.49	6,057.49	31.37	207.79	72.24	-2,882.64	-7,653.37	7,689.27	7,450.37	238.90	32.187		
6,300.00	6,154.93	6,101.07	6,154.93	31.89	211.27	72.39	-2,882.64	-7,653.37	7,682.27	7,439.38	242.89	31.629		
6,400.00	6,252.37	6,203.63	6,252.37	32.40	214.85	72.55	-2,882.64	-7,653.37	7,675.34	7,428.35	246.99	31.076		
6,500.00	6,349.81	6,306.19	6,349.81	32.92	218.43	72.70	-2,882.64	-7,653.37	7,668.47	7,417.38	251.08	30.542		
6,600.00	6,447.25	6,408.75	6,447.25	33.44	222.01	72.86	-2,882.64	-7,653.37	7,661.65	7,406.47	255.18	30.025		
6,700.00	6,544.28	6,488.28	6,544.28	33.95	224.78	44.06	-2,882.64	-7,653.37	7,649.13	7,390.67	258.47	29.594		
6,800.00	6,638.86	6,582.86	6,638.86	34.44	228.09	24.94	-2,882.64	-7,653.37	7,621.71	7,359.47	262.24	29.064		
6,900.00	6,728.65	6,672.65	6,728.65	34.89	231.22	14.61	-2,882.64	-7,653.37	7,579.91	7,314.11	265.80	28.517		
7,000.00	6,811.45	6,755.45	6,811.45	35.29	234.11	7.98	-2,882.64	-7,653.37	7,524.72	7,255.66	269.06	27.967		
7,100.00	6,885.21	6,829.21	6,885.21	35.66	236.69	2.72	-2,882.64	-7,653.37	7,457.51	7,185.57	271.94	27.423		
7,200.00	6,948.11	6,907.89	6,948.11	35.99	239.43	-2.61	-2,882.64	-7,653.37	7,379.91	7,104.98	274.93	26.843		
7,300.00	6,998.62	6,942.62	6,998.62	36.30	240.64	-9.58	-2,882.64	-7,653.37	7,293.83	7,017.52	276.31	26.398		
7,400.00	7,035.48	6,979.48	7,035.48	36.65	241.93	-21.39	-2,882.64	-7,653.37	7,201.40	6,923.72	277.69	25.933		
7,500.00	7,057.79	7,001.79	7,057.79	37.13	242.71	-46.46	-2,882.64	-7,653.37	7,104.92	6,826.43	278.49	25.512		
7,600.00	7,065.00	7,009.00	7,065.00	37.84	242.96	-90.68	-2,882.64	-7,653.37	7,006.79	6,728.06	278.72	25.139		
7,700.00	7,064.77	7,008.77	7,064.77	38.82	242.95	-90.67	-2,882.64	-7,653.37	6,908.65	6,629.97	278.68	24.791		
7,800.00	7,064.54	7,008.54	7,064.54	40.06	242.95	-90.66	-2,882.64	-7,653.37	6,810.57	6,531.93	278.64	24.442		
7,900.00	7,064.31	7,008.31	7,064.31	41.52	242.94	-90.65	-2,882.64	-7,653.37	6,712.55	6,433.93	278.62	24.092		
8,000.00	7,064.08	7,008.08	7,064.08	43.14	242.93	-90.64	-2,882.64	-7,653.37	6,614.58	6,335.98	278.60	23.742		
8,100.00	7,063.85	7,007.85	7,063.85	44.90	242.92	-90.63	-2,882.64	-7,653.37	6,516.68	6,238.07	278.60	23.391		
8,200.00	7,063.62	7,007.62	7,063.62	46.78	242.91	-90.62	-2,882.64	-7,653.37	6,418.84	6,140.22	278.62	23.038		
8,300.00	7,063.39	7,007.39	7,063.39	48.76	242.91	-90.61	-2,882.64	-7,653.37	6,321.07	6,042.42	278.64	22.685		
8,400.00	7,063.16	7,007.16	7,063.16	50.83	242.90	-90.60	-2,882.64	-7,653.37	6,223.37	5,944.68	278.69	22.331		
8,500.00	7,062.93	7,006.93	7,062.93	52.97	242.89	-90.59	-2,882.64	-7,653.37	6,125.74	5,846.99	278.75	21.976		
8,600.00	7,062.70	7,006.70	7,062.70	55.18	242.88	-90.58	-2,882.64	-7,653.37	6,028.19	5,749.36	278.84	21.619		
8,700.00	7,062.47	7,006.47	7,062.47	57.46	242.87	-90.57	-2,882.64	-7,653.37	5,930.73	5,651.79	278.94	21.262		
8,800.00	7,062.24	7,006.24	7,062.24	59.78	242.86	-90.56	-2,882.64	-7,653.37	5,833.35	5,554.28	279.06	20.903		
8,900.00	7,062.01	7,006.01	7,062.01	62.14	242.86	-90.55	-2,882.64	-7,653.37	5,736.05	5,456.84	279.21	20.544		
9,000.00	7,061.78	7,005.78	7,061.78	64.55	242.85	-90.54	-2,882.64	-7,653.37	5,638.86	5,359.47	279.39	20.183		
9,100.00	7,061.55	7,005.55	7,061.55	67.00	242.84	-90.53	-2,882.64	-7,653.37	5,541.76	5,262.17	279.59	19.821		
9,200.00	7,061.31	7,005.31	7,061.31	69.47	242.83	-90.52	-2,882.64	-7,653.37	5,444.77	5,164.94	279.83	19.457		
9,300.00	7,061.08	7,005.08	7,061.08	71.98	242.82	-90.51	-2,882.64	-7,653.37	5,347.89	5,067.79	280.10	19.093		
9,400.00	7,060.85	7,004.85	7,060.85	74.51	242.82	-90.50	-2,882.64	-7,653.37	5,251.13	4,970.73	280.40	18.727		
9,500.00	7,060.62	7,004.62	7,060.62	77.06	242.81	-90.49	-2,882.64	-7,653.37	5,154.49	4,873.74	280.74	18.360		
9,600.00	7,060.39	7,004.39	7,060.39	79.64	242.80	-90.48	-2,882.64	-7,653.37	5,057.98	4,776.85	281.13	17.992		
9,700.00	7,060.16	7,004.16	7,060.16	82.23	242.79	-90.47	-2,882.64	-7,653.37	4,961.61	4,680.06	281.55	17.622		
9,800.00	7,059.93	7,003.93	7,059.93	84.84	242.78	-90.46	-2,882.64	-7,653.37	4,865.38	4,583.36	282.03	17.252		
9,900.00	7,059.70	7,003.70	7,059.70	87.47	242.78	-90.45	-2,882.64	-7,653.37	4,769.31	4,486.76	282.55	16.879		
10,000.00	7,059.47	7,003.47	7,059.47	90.11	242.77	-90.44	-2,882.64	-7,653.37	4,673.41	4,390.28	283.13	16.506		
10,100.00	7,059.24	7,003.24	7,059.24	92.76	242.76	-90.43	-2,882.64	-7,653.37	4,577.68	4,293.91	283.77	16.132		
10,200.00	7,059.01	7,003.01	7,059.01	95.42	242.75	-90.42	-2,882.64	-7,653.37	4,482.14	4,197.67	284.47	15.756		
10,300.00	7,058.78	7,002.78	7,058.78	98.10	242.74	-90.41	-2,882.64	-7,653.37	4,386.79	4,101.56	285.23	15.380		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,058.55	7,002.55	7,058.55	100.79	242.74	-90.40	-2,882.64	-7,653.37	4,291.66	4,005.60	286.07	15.002		
10,500.00	7,058.32	7,002.32	7,058.32	103.48	242.73	-90.39	-2,882.64	-7,653.37	4,196.76	3,909.78	286.98	14.624		
10,600.00	7,058.09	7,002.09	7,058.09	106.19	242.72	-90.38	-2,882.64	-7,653.37	4,102.09	3,814.12	287.97	14.245		
10,700.00	7,057.86	7,001.86	7,057.86	108.90	242.71	-90.37	-2,882.64	-7,653.37	4,007.69	3,718.64	289.05	13.865		
10,800.00	7,057.63	7,001.63	7,057.63	111.62	242.70	-90.36	-2,882.64	-7,653.37	3,913.56	3,623.34	290.22	13.485		
10,900.00	7,057.40	7,001.40	7,057.40	114.35	242.70	-90.35	-2,882.64	-7,653.37	3,819.74	3,528.25	291.49	13.104		
11,000.00	7,057.17	7,001.17	7,057.17	117.08	242.69	-90.34	-2,882.64	-7,653.37	3,726.23	3,433.37	292.86	12.724		
11,100.00	7,056.94	7,000.94	7,056.94	119.82	242.68	-90.33	-2,882.64	-7,653.37	3,633.07	3,338.73	294.34	12.343		
11,200.00	7,056.71	7,000.71	7,056.71	122.56	242.67	-90.32	-2,882.64	-7,653.37	3,540.28	3,244.33	295.95	11.963		
11,300.00	7,056.48	7,000.48	7,056.48	125.31	242.66	-90.31	-2,882.64	-7,653.37	3,447.90	3,150.22	297.68	11.583		
11,400.00	7,056.25	7,000.25	7,056.25	128.06	242.66	-90.30	-2,882.64	-7,653.37	3,355.95	3,056.41	299.54	11.204		
11,500.00	7,056.02	7,000.02	7,056.02	130.82	242.65	-90.29	-2,882.64	-7,653.37	3,264.47	2,962.93	301.55	10.826		
11,600.00	7,055.79	7,000.21	7,055.79	133.59	242.65	-90.28	-2,882.64	-7,653.37	3,173.51	2,869.79	303.73	10.449		
11,700.00	7,055.55	7,000.45	7,055.55	136.35	242.66	-90.27	-2,882.64	-7,653.37	3,083.11	2,777.05	306.07	10.073		
11,800.00	7,055.32	7,000.68	7,055.32	139.12	242.67	-90.26	-2,882.64	-7,653.37	2,993.33	2,684.74	308.59	9.700		
11,900.00	7,055.09	7,000.91	7,055.09	141.90	242.68	-90.25	-2,882.64	-7,653.37	2,904.20	2,592.91	311.30	9.329		
12,000.00	7,054.86	7,001.14	7,054.86	144.67	242.69	-90.24	-2,882.64	-7,653.37	2,815.81	2,501.61	314.21	8.962		
12,100.00	7,054.63	7,001.37	7,054.63	147.45	242.69	-90.23	-2,882.64	-7,653.37	2,728.22	2,410.89	317.33	8.597		
12,200.00	7,054.40	7,001.60	7,054.40	150.24	242.70	-90.22	-2,882.64	-7,653.37	2,641.52	2,320.83	320.68	8.237		
12,300.00	7,054.17	7,001.83	7,054.17	153.02	242.71	-90.21	-2,882.64	-7,653.37	2,555.78	2,231.50	324.28	7.881		
12,400.00	7,053.94	7,002.06	7,053.94	155.81	242.72	-90.21	-2,882.64	-7,653.37	2,471.11	2,142.98	328.14	7.531		
12,500.00	7,053.71	7,002.29	7,053.71	158.60	242.73	-90.20	-2,882.64	-7,653.37	2,387.64	2,055.36	332.28	7.186		
12,600.00	7,053.48	7,002.52	7,053.48	161.40	242.74	-90.19	-2,882.64	-7,653.37	2,305.47	1,968.77	336.71	6.847		
12,700.00	7,053.25	7,002.75	7,053.25	164.19	242.74	-90.18	-2,882.64	-7,653.37	2,224.77	1,883.32	341.45	6.516		
12,800.00	7,053.02	7,002.98	7,053.02	166.99	242.75	-90.17	-2,882.64	-7,653.37	2,145.69	1,799.18	346.52	6.192		
12,900.00	7,052.79	7,003.21	7,052.79	169.79	242.76	-90.16	-2,882.64	-7,653.37	2,068.43	1,716.51	351.93	5.877		
13,000.00	7,052.56	7,003.44	7,052.56	172.59	242.77	-90.15	-2,882.64	-7,653.37	1,993.19	1,635.50	357.69	5.572		
13,100.00	7,052.33	7,003.67	7,052.33	175.40	242.78	-90.14	-2,882.64	-7,653.37	1,920.21	1,556.41	363.80	5.278		
13,200.00	7,052.10	7,003.90	7,052.10	178.20	242.78	-90.13	-2,882.64	-7,653.37	1,849.76	1,479.48	370.28	4.996		
13,300.00	7,051.87	7,004.13	7,051.87	181.01	242.79	-90.12	-2,882.64	-7,653.37	1,782.13	1,405.04	377.10	4.726		
13,400.00	7,051.64	7,004.36	7,051.64	183.82	242.80	-90.11	-2,882.64	-7,653.37	1,717.67	1,333.43	384.24	4.470		
13,500.00	7,051.41	7,004.59	7,051.41	186.63	242.81	-90.10	-2,882.64	-7,653.37	1,656.74	1,265.07	391.68	4.230		
13,600.00	7,051.18	7,004.82	7,051.18	189.44	242.82	-90.09	-2,882.64	-7,653.37	1,599.75	1,200.41	399.34	4.006		
13,700.00	7,050.95	7,005.05	7,050.95	192.25	242.82	-90.08	-2,882.64	-7,653.37	1,547.13	1,139.98	407.15	3.800		
13,800.00	7,050.72	7,005.28	7,050.72	195.07	242.83	-90.07	-2,882.64	-7,653.37	1,499.33	1,084.33	415.00	3.613		
13,900.00	7,050.49	7,005.51	7,050.49	197.88	242.84	-90.06	-2,882.64	-7,653.37	1,456.85	1,034.08	422.76	3.446		
14,000.00	7,050.26	7,005.74	7,050.26	200.70	242.85	-90.05	-2,882.64	-7,653.37	1,420.14	989.88	430.26	3.301		
14,100.00	7,050.03	7,005.97	7,050.03	203.52	242.86	-90.04	-2,882.64	-7,653.37	1,389.68	952.34	437.33	3.178		
14,200.00	7,049.80	7,006.21	7,049.80	206.34	242.86	-90.03	-2,882.64	-7,653.37	1,365.87	922.09	443.78	3.078		
14,300.00	7,049.56	7,006.44	7,049.56	209.16	242.87	-90.02	-2,882.64	-7,653.37	1,349.07	899.65	449.42	3.002		
14,400.00	7,049.33	7,006.67	7,049.33	211.98	242.88	-90.01	-2,882.64	-7,653.37	1,339.55	885.45	454.10	2.950		
14,478.01	7,049.15	7,006.85	7,049.15	214.18	242.89	-90.00	-2,882.64	-7,653.37	1,337.28	880.29	456.99	2.926 CC		
14,500.00	7,049.10	7,006.90	7,049.10	214.80	242.89	-90.00	-2,882.64	-7,653.37	1,337.46	879.78	457.68	2.922 ES		
14,600.00	7,048.87	7,007.13	7,048.87	217.63	242.90	-89.99	-2,882.64	-7,653.37	1,342.83	882.73	460.10	2.919 SF		
14,700.00	7,048.64	7,007.36	7,048.64	220.45	242.90	-89.98	-2,882.64	-7,653.37	1,355.58	894.24	461.34	2.938		
14,800.00	7,048.41	7,007.59	7,048.41	223.28	242.91	-89.97	-2,882.64	-7,653.37	1,375.50	914.05	461.45	2.981		
14,900.00	7,048.18	7,007.82	7,048.18	226.10	242.92	-89.96	-2,882.64	-7,653.37	1,402.28	941.76	460.52	3.045		
14,979.18	7,048.00	7,008.00	7,048.00	228.34	242.93	-89.95	-2,882.64	-7,653.37	1,428.10	968.98	459.13	3.110		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	43.00	3.28	3.28	-102.05	-1,390.77	-6,517.75	6,664.62				
100.00	100.00	57.00	100.00	3.28	3.43	-102.05	-1,390.77	-6,517.75	6,664.48	6,657.77	6.71	992.875	
200.00	200.00	157.00	200.00	3.34	4.97	-102.05	-1,390.77	-6,517.75	6,664.48	6,656.17	8.31	802.168	
300.00	299.98	256.98	299.98	3.44	7.94	71.89	-1,390.77	-6,517.75	6,663.94	6,652.56	11.37	585.858	
400.00	399.84	356.84	399.84	3.59	11.20	71.97	-1,390.77	-6,517.75	6,662.31	6,647.52	14.79	450.420	
500.00	499.45	456.45	499.45	3.79	14.56	72.09	-1,390.77	-6,517.75	6,659.61	6,641.26	18.35	362.920	
600.00	598.70	555.70	598.70	4.03	17.96	72.26	-1,390.77	-6,517.75	6,655.86	6,633.87	21.99	302.737	
700.00	697.47	654.47	697.47	4.31	21.36	72.48	-1,390.77	-6,517.75	6,651.06	6,625.39	25.67	259.111	
800.00	795.62	752.62	795.62	4.64	24.75	72.74	-1,390.77	-6,517.75	6,645.26	6,615.88	29.38	226.161	
900.00	893.16	850.16	893.16	5.00	28.13	72.98	-1,390.77	-6,517.75	6,638.62	6,605.50	33.12	200.454	
1,000.00	990.60	947.60	990.60	5.38	31.51	73.16	-1,390.77	-6,517.75	6,631.92	6,595.03	36.88	179.813	
1,100.00	1,088.04	1,045.04	1,088.04	5.79	34.89	73.35	-1,390.77	-6,517.75	6,625.28	6,584.61	40.67	162.898	
1,200.00	1,185.48	1,142.48	1,185.48	6.22	38.28	73.53	-1,390.77	-6,517.75	6,618.72	6,574.24	44.48	148.801	
1,300.00	1,282.92	1,239.92	1,282.92	6.66	41.67	73.71	-1,390.77	-6,517.75	6,612.23	6,563.92	48.31	136.885	
1,400.00	1,380.36	1,337.36	1,380.36	7.10	45.06	73.89	-1,390.77	-6,517.75	6,605.80	6,553.66	52.14	126.687	
1,500.00	1,477.80	1,434.80	1,477.80	7.56	48.45	74.08	-1,390.77	-6,517.75	6,599.45	6,543.46	55.99	117.866	
1,600.00	1,575.24	1,532.24	1,575.24	8.03	51.85	74.26	-1,390.77	-6,517.75	6,593.17	6,533.32	59.85	110.165	
1,700.00	1,672.68	1,629.68	1,672.68	8.50	55.24	74.44	-1,390.77	-6,517.75	6,586.96	6,523.25	63.71	103.386	
1,800.00	1,770.12	1,727.12	1,770.12	8.98	58.64	74.63	-1,390.77	-6,517.75	6,580.82	6,513.23	67.58	97.374	
1,900.00	1,867.56	1,824.56	1,867.56	9.46	62.04	74.81	-1,390.77	-6,517.75	6,574.75	6,503.29	71.46	92.007	
2,000.00	1,965.00	1,922.00	1,965.00	9.95	65.43	75.00	-1,390.77	-6,517.75	6,568.75	6,493.41	75.34	87.189	
2,100.00	2,062.44	2,019.44	2,062.44	10.44	68.83	75.18	-1,390.77	-6,517.75	6,562.82	6,483.60	79.22	82.839	
2,200.00	2,159.88	2,116.88	2,159.88	10.93	72.23	75.37	-1,390.77	-6,517.75	6,556.97	6,473.86	83.11	78.894	
2,300.00	2,257.32	2,214.32	2,257.32	11.42	75.63	75.55	-1,390.77	-6,517.75	6,551.19	6,464.18	87.00	75.299	
2,400.00	2,354.76	2,311.76	2,354.76	11.92	79.03	75.74	-1,390.77	-6,517.75	6,545.47	6,454.58	90.90	72.011	
2,500.00	2,452.20	2,409.20	2,452.20	12.42	82.43	75.92	-1,390.77	-6,517.75	6,539.84	6,445.04	94.79	68.992	
2,600.00	2,549.64	2,506.64	2,549.64	12.92	85.82	76.11	-1,390.77	-6,517.75	6,534.27	6,435.58	98.69	66.211	
2,700.00	2,647.08	2,604.08	2,647.08	13.42	89.22	76.30	-1,390.77	-6,517.75	6,528.78	6,426.19	102.59	63.640	
2,800.00	2,744.52	2,701.52	2,744.52	13.93	92.62	76.49	-1,390.77	-6,517.75	6,523.36	6,416.87	106.49	61.258	
2,900.00	2,841.96	2,801.04	2,841.96	14.43	96.09	76.67	-1,390.77	-6,517.75	6,518.01	6,407.54	110.47	59.005	
3,000.00	2,939.40	2,903.60	2,939.40	14.94	99.67	76.86	-1,390.77	-6,517.75	6,512.73	6,398.19	114.55	56.856	
3,100.00	3,036.84	3,006.16	3,036.84	15.44	103.25	77.05	-1,390.77	-6,517.75	6,507.53	6,388.90	118.63	54.855	
3,200.00	3,134.28	3,108.72	3,134.28	15.95	106.83	77.24	-1,390.77	-6,517.75	6,502.41	6,379.69	122.72	52.987	
3,300.00	3,231.72	3,188.72	3,231.72	16.46	109.62	77.43	-1,390.77	-6,517.75	6,497.35	6,371.34	126.02	51.560	
3,400.00	3,329.16	3,286.16	3,329.16	16.97	113.02	77.61	-1,390.77	-6,517.75	6,492.37	6,362.45	129.92	49.970	
3,500.00	3,426.60	3,383.60	3,426.60	17.48	116.42	77.80	-1,390.77	-6,517.75	6,487.47	6,353.63	133.83	48.474	
3,600.00	3,524.04	3,481.04	3,524.04	17.99	119.82	77.99	-1,390.77	-6,517.75	6,482.64	6,344.89	137.74	47.063	
3,700.00	3,621.48	3,578.48	3,621.48	18.50	123.22	78.18	-1,390.77	-6,517.75	6,477.88	6,336.22	141.65	45.730	
3,800.00	3,718.92	3,675.92	3,718.92	19.01	126.62	78.37	-1,390.77	-6,517.75	6,473.20	6,327.63	145.57	44.469	
3,900.00	3,816.36	3,773.36	3,816.36	19.52	130.02	78.56	-1,390.77	-6,517.75	6,468.59	6,319.11	149.48	43.274	
4,000.00	3,913.80	3,870.80	3,913.80	20.03	133.42	78.75	-1,390.77	-6,517.75	6,464.06	6,310.67	153.39	42.141	
4,100.00	4,011.24	3,968.24	4,011.24	20.55	136.83	78.94	-1,390.77	-6,517.75	6,459.60	6,302.29	157.31	41.064	
4,200.00	4,108.68	4,065.68	4,108.68	21.06	140.23	79.14	-1,390.77	-6,517.75	6,455.22	6,294.00	161.22	40.040	
4,300.00	4,206.12	4,163.12	4,206.12	21.57	143.63	79.33	-1,390.77	-6,517.75	6,450.91	6,285.78	165.13	39.065	
4,400.00	4,303.56	4,260.56	4,303.56	22.09	147.03	79.52	-1,390.77	-6,517.75	6,446.68	6,277.63	169.05	38.135	
4,500.00	4,401.00	4,358.00	4,401.00	22.60	150.43	79.71	-1,390.77	-6,517.75	6,442.52	6,269.56	172.96	37.248	
4,600.00	4,498.44	4,455.44	4,498.44	23.11	153.83	79.90	-1,390.77	-6,517.75	6,438.44	6,261.56	176.88	36.400	
4,700.00	4,595.88	4,552.88	4,595.88	23.63	157.23	80.09	-1,390.77	-6,517.75	6,434.44	6,253.64	180.80	35.590	
4,800.00	4,693.32	4,650.32	4,693.32	24.14	160.63	80.29	-1,390.77	-6,517.75	6,430.51	6,245.80	184.71	34.814	
4,900.00	4,790.76	4,747.76	4,790.76	24.66	164.03	80.48	-1,390.77	-6,517.75	6,426.66	6,238.03	188.63	34.070	
5,000.00	4,888.20	4,845.20	4,888.20	25.17	167.43	80.67	-1,390.77	-6,517.75	6,422.88	6,230.34	192.55	33.358	
5,100.00	4,985.64	4,942.64	4,985.64	25.69	170.83	80.87	-1,390.77	-6,517.75	6,419.19	6,222.72	196.46	32.674	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	5,083.08	5,040.08	5,083.08	26.20	174.24	81.06	-1,390.77	-6,517.75	6,415.56	6,215.18	200.38	32.017		
5,300.00	5,180.52	5,137.52	5,180.52	26.72	177.64	81.25	-1,390.77	-6,517.75	6,412.02	6,207.72	204.30	31.385		
5,400.00	5,277.96	5,234.96	5,277.96	27.24	181.04	81.45	-1,390.77	-6,517.75	6,408.55	6,200.33	208.22	30.778		
5,500.00	5,375.40	5,332.40	5,375.40	27.75	184.44	81.64	-1,390.77	-6,517.75	6,405.16	6,193.02	212.14	30.194		
5,600.00	5,472.84	5,429.84	5,472.84	28.27	187.84	81.83	-1,390.77	-6,517.75	6,401.84	6,185.79	216.05	29.631		
5,700.00	5,570.28	5,527.28	5,570.28	28.79	191.24	82.03	-1,390.77	-6,517.75	6,398.61	6,178.63	219.97	29.088		
5,800.00	5,667.72	5,624.72	5,667.72	29.30	194.64	82.22	-1,390.77	-6,517.75	6,395.45	6,171.55	223.89	28.565		
5,900.00	5,765.16	5,722.16	5,765.16	29.82	198.04	82.42	-1,390.77	-6,517.75	6,392.37	6,164.55	227.81	28.060		
6,000.00	5,862.60	5,819.60	5,862.60	30.34	201.44	82.61	-1,390.77	-6,517.75	6,389.36	6,157.63	231.73	27.572		
6,100.00	5,960.05	5,917.05	5,960.05	30.85	204.85	82.81	-1,390.77	-6,517.75	6,386.43	6,150.78	235.65	27.101		
6,200.00	6,057.49	6,014.49	6,057.49	31.37	208.25	83.00	-1,390.77	-6,517.75	6,383.59	6,144.01	239.57	26.646		
6,300.00	6,154.93	6,111.93	6,154.93	31.89	211.65	83.20	-1,390.77	-6,517.75	6,380.81	6,137.32	243.49	26.206		
6,400.00	6,252.37	6,209.37	6,252.37	32.40	215.05	83.39	-1,390.77	-6,517.75	6,378.12	6,130.71	247.41	25.779		
6,500.00	6,349.81	6,306.81	6,349.81	32.92	218.45	83.59	-1,390.77	-6,517.75	6,375.51	6,124.18	251.33	25.367		
6,600.00	6,447.25	6,404.25	6,447.25	33.44	221.85	83.78	-1,390.77	-6,517.75	6,372.97	6,117.72	255.25	24.967		
6,700.00	6,544.28	6,501.28	6,544.28	33.95	225.24	83.97	-1,390.77	-6,517.75	6,364.62	6,105.47	259.15	24.559		
6,800.00	6,638.86	6,604.14	6,638.86	34.44	228.83	84.16	-1,390.77	-6,517.75	6,341.01	6,077.79	263.23	24.089		
6,900.00	6,728.65	6,685.65	6,728.65	34.89	231.67	84.35	-1,390.77	-6,517.75	6,302.58	6,036.07	266.51	23.648		
7,000.00	6,811.45	6,768.45	6,811.45	35.29	234.56	84.54	-1,390.77	-6,517.75	6,250.27	5,980.47	269.79	23.167		
7,100.00	6,885.21	6,842.21	6,885.21	35.66	237.14	84.73	-1,390.77	-6,517.75	6,185.33	5,912.63	272.71	22.681		
7,200.00	6,948.11	6,905.11	6,948.11	35.99	239.33	84.92	-1,390.77	-6,517.75	6,109.37	5,834.19	275.18	22.201		
7,300.00	6,998.62	6,955.62	6,998.62	36.30	241.10	85.11	-1,390.77	-6,517.75	6,024.23	5,747.07	277.17	21.735		
7,400.00	7,035.48	7,002.52	7,035.48	36.65	242.91	85.30	-1,390.77	-6,517.75	5,931.99	5,652.86	279.13	21.251		
7,500.00	7,057.79	7,014.79	7,057.79	37.13	243.16	85.49	-1,390.77	-6,517.75	5,834.91	5,555.43	279.48	20.877		
7,600.00	7,065.00	7,022.00	7,065.00	37.84	243.42	85.68	-1,390.77	-6,517.75	5,735.36	5,455.58	279.78	20.499		
7,700.00	7,064.77	7,021.77	7,064.77	38.82	243.41	85.87	-1,390.77	-6,517.75	5,635.40	5,355.60	279.80	20.141		
7,800.00	7,064.54	7,021.54	7,064.54	40.06	243.40	86.06	-1,390.77	-6,517.75	5,535.43	5,255.62	279.81	19.783		
7,900.00	7,064.31	7,021.31	7,064.31	41.52	243.39	86.25	-1,390.77	-6,517.75	5,435.47	5,155.64	279.83	19.424		
8,000.00	7,064.08	7,021.08	7,064.08	43.14	243.38	86.44	-1,390.77	-6,517.75	5,335.51	5,055.66	279.85	19.066		
8,100.00	7,063.85	7,020.85	7,063.85	44.90	243.37	86.63	-1,390.77	-6,517.75	5,235.55	4,955.68	279.87	18.707		
8,200.00	7,063.62	7,020.62	7,063.62	46.78	243.37	86.82	-1,390.77	-6,517.75	5,135.59	4,855.70	279.89	18.349		
8,300.00	7,063.39	7,020.39	7,063.39	48.76	243.36	87.01	-1,390.77	-6,517.75	5,035.63	4,755.71	279.92	17.990		
8,400.00	7,063.16	7,020.16	7,063.16	50.83	243.35	87.20	-1,390.77	-6,517.75	4,935.67	4,655.73	279.94	17.631		
8,500.00	7,062.93	7,019.93	7,062.93	52.97	243.34	87.39	-1,390.77	-6,517.75	4,835.72	4,555.75	279.97	17.272		
8,600.00	7,062.70	7,019.70	7,062.70	55.18	243.33	87.58	-1,390.77	-6,517.75	4,735.77	4,455.77	280.00	16.913		
8,700.00	7,062.47	7,019.47	7,062.47	57.46	243.33	87.77	-1,390.77	-6,517.75	4,635.82	4,355.78	280.04	16.554		
8,800.00	7,062.24	7,019.24	7,062.24	59.78	243.32	87.96	-1,390.77	-6,517.75	4,535.87	4,255.80	280.07	16.195		
8,900.00	7,062.01	7,019.01	7,062.01	62.14	243.31	88.15	-1,390.77	-6,517.75	4,435.92	4,155.81	280.11	15.836		
9,000.00	7,061.78	7,018.78	7,061.78	64.55	243.30	88.34	-1,390.77	-6,517.75	4,335.98	4,055.83	280.15	15.477		
9,100.00	7,061.55	7,018.55	7,061.55	67.00	243.29	88.53	-1,390.77	-6,517.75	4,236.04	3,955.85	280.19	15.118		
9,200.00	7,061.31	7,018.31	7,061.31	69.47	243.29	88.72	-1,390.77	-6,517.75	4,136.10	3,855.86	280.24	14.759		
9,300.00	7,061.08	7,018.08	7,061.08	71.98	243.28	88.91	-1,390.77	-6,517.75	4,036.17	3,755.88	280.29	14.400		
9,400.00	7,060.85	7,017.85	7,060.85	74.51	243.27	89.10	-1,390.77	-6,517.75	3,936.24	3,655.89	280.34	14.041		
9,500.00	7,060.62	7,017.62	7,060.62	77.06	243.26	89.29	-1,390.77	-6,517.75	3,836.31	3,555.91	280.40	13.682		
9,600.00	7,060.39	7,017.39	7,060.39	79.64	243.25	89.48	-1,390.77	-6,517.75	3,736.39	3,455.93	280.46	13.322		
9,700.00	7,060.16	7,017.16	7,060.16	82.23	243.25	89.67	-1,390.77	-6,517.75	3,636.47	3,355.94	280.53	12.963		
9,800.00	7,059.93	7,016.93	7,059.93	84.84	243.24	89.86	-1,390.77	-6,517.75	3,536.55	3,255.96	280.60	12.604		
9,900.00	7,059.70	7,016.70	7,059.70	87.47	243.23	89.96	-1,390.77	-6,517.75	3,436.64	3,155.97	280.67	12.244		
10,000.00	7,059.47	7,016.47	7,059.47	90.11	243.22	90.15	-1,390.77	-6,517.75	3,336.74	3,055.99	280.75	11.885		
10,100.00	7,059.24	7,016.24	7,059.24	92.76	243.21	90.34	-1,390.77	-6,517.75	3,236.84	2,956.01	280.83	11.526		
10,200.00	7,059.01	7,016.01	7,059.01	95.42	243.21	90.53	-1,390.77	-6,517.75	3,136.95	2,856.02	280.92	11.166		
10,300.00	7,058.78	7,015.78	7,058.78	98.10	243.20	90.72	-1,390.77	-6,517.75	3,037.06	2,756.04	281.02	10.807		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	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	7,058.55	7,015.55	7,058.55	100.79	243.19	92.62	-1,390.77	-6,517.75	2,937.19	2,656.06	281.13	10.448		
10,500.00	7,058.32	7,015.32	7,058.32	103.48	243.18	92.53	-1,390.77	-6,517.75	2,837.32	2,556.07	281.25	10.088		
10,600.00	7,058.09	7,015.09	7,058.09	106.19	243.17	92.44	-1,390.77	-6,517.75	2,737.46	2,456.09	281.37	9.729		
10,700.00	7,057.86	7,014.86	7,057.86	108.90	243.17	92.35	-1,390.77	-6,517.75	2,637.61	2,356.10	281.51	9.370		
10,800.00	7,057.63	7,014.63	7,057.63	111.62	243.16	92.26	-1,390.77	-6,517.75	2,537.77	2,256.12	281.66	9.010		
10,900.00	7,057.40	7,014.40	7,057.40	114.35	243.15	92.17	-1,390.77	-6,517.75	2,437.95	2,156.13	281.82	8.651		
11,000.00	7,057.17	7,014.17	7,057.17	117.08	243.14	92.08	-1,390.77	-6,517.75	2,338.14	2,056.14	282.00	8.291		
11,100.00	7,056.94	7,013.94	7,056.94	119.82	243.13	91.99	-1,390.77	-6,517.75	2,238.35	1,956.15	282.20	7.932		
11,200.00	7,056.71	7,013.71	7,056.71	122.56	243.13	91.91	-1,390.77	-6,517.75	2,138.58	1,856.16	282.42	7.572		
11,300.00	7,056.48	7,013.48	7,056.48	125.31	243.12	91.82	-1,390.77	-6,517.75	2,038.83	1,756.16	282.67	7.213		
11,400.00	7,056.25	7,013.25	7,056.25	128.06	243.11	91.73	-1,390.77	-6,517.75	1,939.11	1,656.16	282.95	6.853		
11,500.00	7,056.02	7,013.02	7,056.02	130.82	243.10	91.64	-1,390.77	-6,517.75	1,839.41	1,556.14	283.27	6.493		
11,600.00	7,055.79	7,012.79	7,055.79	133.59	243.09	91.55	-1,390.77	-6,517.75	1,739.76	1,456.12	283.64	6.134		
11,700.00	7,055.55	7,012.55	7,055.55	136.35	243.09	91.46	-1,390.77	-6,517.75	1,640.14	1,356.08	284.06	5.774		
11,800.00	7,055.32	7,012.32	7,055.32	139.12	243.08	91.37	-1,390.77	-6,517.75	1,540.57	1,256.03	284.55	5.414		
11,900.00	7,055.09	7,012.09	7,055.09	141.90	243.07	91.28	-1,390.77	-6,517.75	1,441.07	1,155.94	285.13	5.054		
12,000.00	7,054.86	7,011.86	7,054.86	144.67	243.06	91.19	-1,390.77	-6,517.75	1,341.63	1,055.82	285.82	4.694		
12,100.00	7,054.63	7,011.63	7,054.63	147.45	243.05	91.10	-1,390.77	-6,517.75	1,242.29	955.64	286.65	4.334		
12,200.00	7,054.40	7,011.40	7,054.40	150.24	243.05	91.01	-1,390.77	-6,517.75	1,143.06	855.39	287.67	3.974		
12,300.00	7,054.17	7,011.17	7,054.17	153.02	243.04	90.92	-1,390.77	-6,517.75	1,043.98	755.04	288.94	3.613		
12,400.00	7,053.94	7,010.94	7,053.94	155.81	243.03	90.83	-1,390.77	-6,517.75	945.09	654.53	290.56	3.253		
12,500.00	7,053.71	7,010.71	7,053.71	158.60	243.02	90.74	-1,390.77	-6,517.75	846.47	553.81	292.66	2.892		
12,600.00	7,053.48	7,010.48	7,053.48	161.40	243.01	90.66	-1,390.77	-6,517.75	748.21	452.75	295.46	2.532		
12,700.00	7,053.25	7,010.25	7,053.25	164.19	243.00	90.57	-1,390.77	-6,517.75	650.48	351.17	299.31	2.173		
12,800.00	7,053.02	7,010.02	7,053.02	166.99	243.00	90.48	-1,390.77	-6,517.75	553.56	248.78	304.78	1.816		
12,900.00	7,052.79	7,009.79	7,052.79	169.79	242.99	90.39	-1,390.77	-6,517.75	457.97	145.06	312.91	1.464	Level 3	
13,000.00	7,052.56	7,009.56	7,052.56	172.59	242.98	90.30	-1,390.77	-6,517.75	364.74	39.12	325.62	1.120	Level 2	
13,100.00	7,052.33	7,009.33	7,052.33	175.40	242.97	90.21	-1,390.77	-6,517.75	276.30	-70.29	346.60	0.797	Level 1	
13,200.00	7,052.10	7,009.10	7,052.10	178.20	242.96	90.12	-1,390.77	-6,517.75	199.12	-182.20	381.32	0.522	Level 1	
13,300.00	7,051.87	7,008.87	7,051.87	181.01	242.96	90.03	-1,390.77	-6,517.75	151.51	-269.36	420.87	0.360	Level 1	
13,333.47	7,051.79	7,008.79	7,051.79	181.95	242.95	90.00	-1,390.77	-6,517.75	147.76	-277.05	424.81	0.348	Level 1, CC, ES, SF	
13,400.00	7,051.64	7,008.64	7,051.64	183.82	242.95	89.94	-1,390.77	-6,517.75	162.05	-246.80	408.85	0.396	Level 1	
13,500.00	7,051.41	7,008.41	7,051.41	186.63	242.94	89.85	-1,390.77	-6,517.75	222.63	-143.15	365.78	0.609	Level 1	
13,600.00	7,051.18	7,008.18	7,051.18	189.44	242.93	89.76	-1,390.77	-6,517.75	304.74	-31.13	335.87	0.907	Level 1	
13,700.00	7,050.95	7,007.95	7,050.95	192.25	242.92	89.67	-1,390.77	-6,517.75	395.19	76.95	318.24	1.242	Level 2	
13,800.00	7,050.72	7,007.72	7,050.72	195.07	242.92	89.58	-1,390.77	-6,517.75	489.37	181.84	307.52	1.591		
13,900.00	7,050.49	7,007.49	7,050.49	197.88	242.91	89.49	-1,390.77	-6,517.75	585.48	284.82	300.66	1.947		
14,000.00	7,050.26	7,007.26	7,050.26	200.70	242.90	89.40	-1,390.77	-6,517.75	682.71	386.64	296.07	2.306		
14,100.00	7,050.03	7,007.03	7,050.03	203.52	242.89	89.32	-1,390.77	-6,517.75	780.64	487.76	292.87	2.665		
14,200.00	7,049.80	7,006.80	7,049.80	206.34	242.88	89.23	-1,390.77	-6,517.75	879.03	588.44	290.59	3.025		
14,300.00	7,049.56	7,006.56	7,049.56	209.16	242.88	89.14	-1,390.77	-6,517.75	977.75	688.84	288.91	3.384		
14,400.00	7,049.33	7,006.33	7,049.33	211.98	242.87	89.05	-1,390.77	-6,517.75	1,076.71	789.06	287.65	3.743		
14,500.00	7,049.10	7,006.10	7,049.10	214.80	242.86	88.96	-1,390.77	-6,517.75	1,175.84	889.15	286.70	4.101		
14,600.00	7,048.87	7,005.87	7,048.87	217.63	242.85	88.87	-1,390.77	-6,517.75	1,275.11	989.15	285.96	4.459		
14,700.00	7,048.64	7,005.64	7,048.64	220.45	242.84	88.78	-1,390.77	-6,517.75	1,374.49	1,089.11	285.38	4.816		
14,800.00	7,048.41	7,005.41	7,048.41	223.28	242.84	88.69	-1,390.77	-6,517.75	1,473.95	1,189.02	284.93	5.173		
14,900.00	7,048.18	7,005.18	7,048.18	226.10	242.83	88.60	-1,390.77	-6,517.75	1,573.47	1,288.91	284.56	5.529		
14,979.18	7,048.00	7,005.00	7,048.00	228.34	242.82	88.53	-1,390.77	-6,517.75	1,652.32	1,367.99	284.33	5.811		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
0.00	0.00	0.00	38.00	3.28	3.28	-91.90	-254.18	-7,656.44	7,660.76					
100.00	100.00	100.00	125.79	3.28	3.29	-91.90	-253.89	-7,656.16	7,660.41	7,653.84	6.57	1,165.639		
200.00	200.00	181.52	219.51	3.34	3.33	-91.89	-253.30	-7,655.76	7,659.97	7,653.31	6.67	1,149.186		
300.00	299.98	255.10	293.09	3.44	3.40	82.04	-252.84	-7,655.72	7,659.65	7,652.82	6.84	1,120.573		
400.00	399.84	330.66	368.66	3.59	3.49	82.08	-252.64	-7,655.92	7,659.18	7,652.10	7.08	1,081.490		
500.00	499.45	412.12	450.11	3.79	3.63	82.14	-252.71	-7,656.36	7,658.53	7,651.12	7.41	1,032.942		
600.00	598.70	520.43	558.42	4.03	3.85	82.26	-252.98	-7,656.96	7,657.43	7,649.55	7.88	972.043		
700.00	697.47	610.67	648.65	4.31	4.06	82.39	-253.64	-7,657.47	7,655.90	7,647.52	8.38	913.821		
800.00	795.62	697.79	735.77	4.64	4.30	82.54	-254.51	-7,658.07	7,654.08	7,645.14	8.93	856.839		
900.00	893.16	797.50	835.47	5.00	4.58	82.72	-255.52	-7,658.81	7,651.97	7,642.39	9.58	798.833		
1,000.00	990.60	899.68	937.64	5.38	4.90	82.88	-256.53	-7,659.53	7,649.82	7,639.54	10.28	744.053		
1,100.00	1,088.04	1,001.86	1,039.82	5.79	5.23	83.05	-257.40	-7,660.19	7,647.67	7,636.65	11.02	693.861		
1,200.00	1,185.48	1,100.06	1,138.01	6.22	5.57	83.21	-257.96	-7,660.79	7,645.56	7,633.78	11.78	649.036		
1,300.00	1,282.92	1,194.38	1,232.34	6.66	5.90	83.36	-258.31	-7,661.39	7,643.52	7,630.97	12.55	609.099		
1,400.00	1,380.36	1,304.62	1,342.57	7.10	6.29	83.55	-258.60	-7,662.03	7,641.49	7,628.09	13.40	570.448		
1,500.00	1,477.80	1,393.49	1,431.43	7.56	6.62	83.69	-258.85	-7,662.53	7,639.49	7,625.31	14.18	538.688		
1,600.00	1,575.24	1,491.26	1,529.20	8.03	6.99	83.85	-259.23	-7,663.12	7,637.62	7,622.60	15.01	508.691		
1,700.00	1,672.68	1,582.09	1,620.03	8.50	7.34	84.00	-259.56	-7,663.70	7,635.84	7,620.00	15.83	482.294		
1,800.00	1,770.12	1,683.87	1,721.81	8.98	7.73	84.17	-259.79	-7,664.39	7,634.15	7,617.45	16.70	457.072		
1,900.00	1,867.56	1,780.52	1,818.46	9.46	8.11	84.34	-259.88	-7,665.00	7,632.49	7,614.93	17.56	434.619		
2,000.00	1,965.00	1,881.01	1,918.94	9.95	8.50	84.50	-260.07	-7,665.64	7,630.90	7,612.45	18.44	413.760		
2,100.00	2,062.44	1,971.95	2,009.88	10.44	8.86	84.65	-260.29	-7,666.21	7,629.37	7,610.07	19.29	395.448		
2,200.00	2,159.88	2,105.72	2,143.65	10.93	9.40	84.88	-260.40	-7,666.91	7,627.82	7,607.50	20.32	375.392		
2,300.00	2,257.32	2,208.64	2,246.57	11.42	9.81	85.05	-260.67	-7,667.12	7,625.99	7,604.77	21.23	359.246		
2,400.00	2,354.76	2,322.65	2,360.58	11.92	10.27	85.24	-261.36	-7,667.13	7,624.04	7,601.85	22.18	343.677		
2,500.00	2,452.20	2,415.01	2,452.93	12.42	10.65	85.39	-261.86	-7,667.11	7,622.11	7,599.06	23.06	330.585		
2,600.00	2,549.64	2,519.52	2,557.44	12.92	11.07	85.56	-262.29	-7,667.09	7,620.26	7,596.28	23.98	317.759		
2,700.00	2,647.08	2,646.82	2,684.74	13.42	11.59	85.77	-262.60	-7,666.69	7,618.19	7,593.19	25.00	304.724		
2,800.00	2,744.52	2,749.19	2,787.11	13.93	12.01	85.95	-262.52	-7,666.11	7,615.94	7,590.02	25.92	293.811		
2,900.00	2,841.96	2,822.81	2,860.73	14.43	12.31	86.07	-262.24	-7,665.74	7,613.86	7,587.13	26.73	284.859		
3,000.00	2,939.40	2,874.74	2,912.67	14.94	12.52	86.16	-261.87	-7,665.75	7,612.35	7,584.90	27.45	277.325		
3,100.00	3,036.84	2,929.81	2,967.72	15.44	12.75	86.26	-261.33	-7,666.09	7,611.48	7,583.30	28.18	270.068		
3,200.00	3,134.28	3,000.01	3,037.91	15.95	13.04	86.38	-260.53	-7,666.91	7,611.21	7,582.23	28.98	262.622		
3,211.86	3,145.84	3,000.01	3,037.91	16.01	13.04	86.38	-260.53	-7,666.91	7,611.21	7,582.16	29.04	262.079		
3,300.00	3,231.72	3,068.10	3,106.00	16.46	13.32	86.51	-259.64	-7,667.96	7,611.37	7,581.60	29.77	255.655		
3,400.00	3,329.16	3,134.01	3,171.89	16.97	13.60	86.62	-258.67	-7,669.09	7,611.85	7,581.30	30.55	249.129		
3,500.00	3,426.60	3,200.01	3,237.86	17.48	13.87	86.74	-257.59	-7,670.63	7,612.94	7,581.60	31.34	242.942		
3,600.00	3,524.04	3,255.60	3,293.42	17.99	14.11	86.84	-256.59	-7,672.18	7,614.56	7,582.48	32.08	237.396		
3,700.00	3,621.48	3,336.22	3,373.99	18.50	14.44	86.99	-254.99	-7,674.66	7,616.57	7,583.65	32.92	231.358		
3,800.00	3,718.92	3,442.29	3,479.97	19.01	14.89	87.19	-252.37	-7,677.94	7,618.72	7,584.84	33.88	224.891		
3,900.00	3,816.36	3,569.09	3,606.67	19.52	15.42	87.43	-248.89	-7,681.45	7,620.66	7,585.74	34.92	218.207		
4,000.00	3,913.80	3,676.07	3,713.59	20.03	15.87	87.62	-246.27	-7,684.12	7,622.39	7,586.51	35.89	212.404		
4,100.00	4,011.24	3,779.03	3,816.50	20.55	16.30	87.81	-244.10	-7,686.64	7,624.14	7,587.30	36.83	206.998		
4,200.00	4,108.68	3,880.34	3,917.76	21.06	16.73	88.00	-242.20	-7,689.07	7,625.88	7,588.11	37.77	201.897		
4,300.00	4,206.12	3,986.60	4,023.98	21.57	17.18	88.19	-240.53	-7,691.55	7,627.63	7,588.90	38.73	196.932		
4,400.00	4,303.56	4,101.24	4,138.58	22.09	17.66	88.39	-238.91	-7,694.04	7,629.28	7,589.55	39.73	192.029		
4,500.00	4,401.00	4,194.72	4,232.03	22.60	18.05	88.56	-237.59	-7,695.99	7,630.92	7,590.28	40.64	187.780		
4,600.00	4,498.44	4,301.42	4,338.70	23.11	18.50	88.74	-236.41	-7,698.19	7,632.59	7,590.99	41.60	183.465		
4,700.00	4,595.88	4,409.68	4,446.93	23.63	18.96	88.93	-235.59	-7,700.32	7,634.20	7,591.62	42.57	179.313		
4,800.00	4,693.32	4,537.19	4,574.43	24.14	19.50	89.15	-234.97	-7,702.57	7,635.68	7,592.05	43.63	175.010		
4,900.00	4,790.76	4,660.81	4,698.04	24.66	20.02	89.36	-234.60	-7,704.14	7,636.68	7,592.01	44.67	170.963		
5,000.00	4,888.20	4,754.31	4,791.53	25.17	20.41	89.52	-234.30	-7,705.27	7,637.72	7,592.14	45.58	167.571		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,100.00	4,985.64	4,855.96	4,893.17	25.69	20.84	89.69	-234.00	-7,706.54	7,638.86	7,592.34	46.52	164.189		
5,200.00	5,083.08	4,957.74	4,994.94	26.20	21.27	89.86	-233.63	-7,707.69	7,639.96	7,592.49	47.47	160.938		
5,300.00	5,180.52	5,061.57	5,098.76	26.72	21.71	90.04	-233.17	-7,708.82	7,641.11	7,592.68	48.43	157.785		
5,400.00	5,277.96	5,161.77	5,198.96	27.24	22.14	90.21	-232.74	-7,709.81	7,642.22	7,592.85	49.37	154.801		
5,500.00	5,375.40	5,262.18	5,299.36	27.75	22.56	90.38	-232.43	-7,710.81	7,643.39	7,593.08	50.31	151.927		
5,600.00	5,472.84	5,420.07	5,457.25	28.27	23.23	90.65	-231.70	-7,711.75	7,644.29	7,592.79	51.50	148.446		
5,700.00	5,570.28	5,522.09	5,559.26	28.79	23.66	90.83	-230.96	-7,711.79	7,644.71	7,592.27	52.44	145.772		
5,800.00	5,667.72	5,600.01	5,637.18	29.30	23.99	90.97	-230.61	-7,711.99	7,645.38	7,592.09	53.29	143.469		
5,900.00	5,765.16	5,694.50	5,731.67	29.82	24.39	91.13	-230.33	-7,712.39	7,646.27	7,592.07	54.21	141.058		
6,000.00	5,862.60	5,781.43	5,818.60	30.34	24.76	91.27	-230.02	-7,712.79	7,647.27	7,592.18	55.09	138.809		
6,100.00	5,960.05	5,874.73	5,911.90	30.85	25.16	91.43	-229.63	-7,713.31	7,648.44	7,592.44	56.00	136.568		
6,200.00	6,057.49	5,955.88	5,993.05	31.37	25.50	91.57	-229.30	-7,713.85	7,649.78	7,592.91	56.87	134.524		
6,300.00	6,154.93	6,049.64	6,086.80	31.89	25.90	91.73	-229.09	-7,714.71	7,651.40	7,593.62	57.78	132.422		
6,400.00	6,252.37	6,139.25	6,176.40	32.40	26.28	91.88	-228.97	-7,715.46	7,653.01	7,594.34	58.68	130.424		
6,500.00	6,349.81	6,211.24	6,248.39	32.92	26.59	92.00	-228.91	-7,716.32	7,655.01	7,595.51	59.50	128.659		
6,600.00	6,447.25	6,312.00	6,349.14	33.44	27.02	92.17	-229.04	-7,717.66	7,657.18	7,596.74	60.44	126.682		
6,700.00	6,544.28	6,410.44	6,447.58	33.95	27.43	92.34	-229.26	-7,718.99	7,659.58	7,598.20	61.38	124.698		
6,800.00	6,638.86	6,505.81	6,542.94	34.44	27.97	92.50	-229.78	-7,720.37	7,663.53	7,599.13	62.40	122.345		
6,900.00	6,728.65	6,590.87	6,627.99	34.89	28.37	92.65	-230.29	-7,721.23	7,668.06	7,600.46	63.26	120.154		
7,000.00	6,811.45	6,670.08	6,707.19	35.29	28.71	92.79	-231.09	-7,722.01	7,673.21	7,605.41	64.00	118.006		
7,100.00	6,885.21	6,749.46	6,786.57	35.66	28.96	92.90	-231.88	-7,722.72	7,678.91	7,610.91	64.62	115.941		
7,200.00	6,948.11	6,822.36	6,859.45	35.99	29.19	93.02	-232.62	-7,723.45	7,684.77	7,616.81	65.16	113.867		
7,300.00	6,998.62	6,867.38	6,904.47	36.30	29.38	93.15	-233.20	-7,724.11	7,690.78	7,622.73	65.63	111.815		
7,400.00	7,035.48	6,900.70	6,937.77	36.65	29.52	93.27	-233.57	-7,724.62	7,696.93	7,628.83	66.00	109.833		
7,500.00	7,057.79	6,916.27	6,953.34	37.13	29.59	93.39	-233.74	-7,724.87	7,703.23	7,635.13	66.26	107.981		
7,600.00	7,065.00	6,922.15	6,959.23	37.84	29.61	93.48	-233.80	-7,724.97	7,709.78	7,641.68	66.44	106.221		
7,700.00	7,064.77	6,923.14	6,960.21	38.82	29.62	93.55	-233.81	-7,724.99	7,716.48	7,648.38	66.59	104.513		
7,800.00	7,064.54	6,924.13	6,961.21	40.06	29.62	93.60	-233.82	-7,725.01	7,723.23	7,655.13	66.75	102.792		
7,900.00	7,064.31	6,925.14	6,962.21	41.52	29.63	93.64	-233.83	-7,725.02	7,730.03	7,661.93	66.92	101.058		
8,000.00	7,064.08	6,926.15	6,963.23	43.14	29.63	93.67	-233.84	-7,725.04	7,736.88	7,668.78	67.11	99.312		
8,100.00	7,063.85	6,927.17	6,964.25	44.90	29.63	93.69	-233.85	-7,725.06	7,743.78	7,675.68	67.32	97.554		
8,200.00	7,063.62	6,928.21	6,965.28	46.78	29.64	93.70	-233.86	-7,725.08	7,750.73	7,682.63	67.54	95.783		
8,300.00	7,063.39	6,929.25	6,966.32	48.76	29.64	93.71	-233.87	-7,725.10	7,757.73	7,689.63	67.78	94.000		
8,400.00	7,063.16	6,930.30	6,967.37	50.83	29.65	93.72	-233.88	-7,725.11	7,764.78	7,696.68	68.04	92.205		
8,500.00	7,062.93	6,931.36	6,968.43	52.97	29.65	93.73	-233.89	-7,725.13	7,771.88	7,703.78	68.32	90.398		
8,600.00	7,062.70	6,932.43	6,969.50	55.18	29.66	93.74	-233.90	-7,725.15	7,778.93	7,710.83	68.62	88.579		
8,700.00	7,062.47	6,933.51	6,970.59	57.46	29.66	93.75	-233.91	-7,725.17	7,786.03	7,717.93	68.94	86.748		
8,800.00	7,062.24	6,934.60	6,971.68	59.78	29.67	93.76	-233.92	-7,725.19	7,793.18	7,725.08	69.29	84.907		
8,900.00	7,062.01	6,935.71	6,972.78	62.14	29.67	93.77	-233.93	-7,725.21	7,800.33	7,732.18	69.66	83.054		
9,000.00	7,061.78	6,936.82	6,973.89	64.55	29.68	93.78	-233.94	-7,725.23	7,807.48	7,739.28	70.06	81.192		
9,100.00	7,061.55	6,937.94	6,975.01	67.00	29.68	93.79	-233.95	-7,725.25	7,814.63	7,746.38	70.48	79.319		
9,200.00	7,061.31	6,939.08	6,976.15	69.47	29.68	93.80	-233.96	-7,725.27	7,821.78	7,753.48	70.94	77.438		
9,300.00	7,061.08	6,940.22	6,977.29	71.98	29.69	93.81	-233.97	-7,725.29	7,828.93	7,760.58	71.43	75.548		
9,400.00	7,060.85	6,941.38	6,978.45	74.51	29.69	93.82	-233.99	-7,725.31	7,836.08	7,767.68	71.96	73.651		
9,500.00	7,060.62	6,942.54	6,979.61	77.06	29.70	93.83	-234.00	-7,725.34	7,843.18	7,774.78	72.52	71.747		
9,600.00	7,060.39	6,943.72	6,980.79	79.64	29.70	93.84	-234.01	-7,725.36	7,850.28	7,781.88	73.12	69.837		
9,700.00	7,060.16	6,944.91	6,981.98	82.23	29.71	93.85	-234.02	-7,725.38	7,857.33	7,788.93	73.75	67.922		
9,800.00	7,059.93	6,946.11	6,983.18	84.84	29.71	93.86	-234.03	-7,725.40	7,864.38	7,796.03	74.44	66.004		
9,900.00	7,059.70	6,947.33	6,984.40	87.47	29.72	93.87	-234.04	-7,725.42	7,871.43	7,803.08	75.16	64.084		
10,000.00	7,059.47	6,948.56	6,985.62	90.11	29.73	93.88	-234.05	-7,725.45	7,878.48	7,810.13	75.94	62.162		
10,100.00	7,059.24	6,949.79	6,986.86	92.76	29.73	93.89	-234.06	-7,725.47	7,885.53	7,817.18	76.77	60.241		
10,200.00	7,059.01	6,951.05	6,988.11	95.42	29.74	93.90	-234.08	-7,725.50	7,892.58	7,824.23	77.65	58.322		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,300.00	7,058.78	6,952.31	6,989.38	98.10	29.74	87.40	-234.09	-7,725.52	4,433.34	4,354.74	78.60	56.407		
10,400.00	7,058.55	6,953.59	6,990.66	100.79	29.75	87.45	-234.10	-7,725.54	4,337.92	4,258.32	79.60	54.496		
10,500.00	7,058.32	6,954.88	6,991.95	103.48	29.75	87.51	-234.11	-7,725.57	4,242.72	4,162.05	80.67	52.593		
10,600.00	7,058.09	6,956.18	6,993.25	106.19	29.76	87.56	-234.12	-7,725.59	4,147.75	4,065.93	81.81	50.699		
10,700.00	7,057.86	6,957.50	6,994.57	108.90	29.76	87.62	-234.13	-7,725.62	4,053.01	3,969.98	83.03	48.815		
10,800.00	7,057.63	6,958.83	6,995.90	111.62	29.77	87.68	-234.15	-7,725.65	3,958.53	3,874.21	84.32	46.945		
10,900.00	7,057.40	6,960.17	6,997.24	114.35	29.77	87.74	-234.16	-7,725.67	3,864.33	3,778.63	85.70	45.089		
11,000.00	7,057.17	6,961.53	6,998.60	117.08	29.78	87.80	-234.17	-7,725.70	3,770.43	3,683.25	87.18	43.250		
11,100.00	7,056.94	6,962.91	6,999.97	119.82	29.79	87.86	-234.18	-7,725.73	3,676.85	3,588.10	88.75	41.431		
11,200.00	7,056.71	6,964.29	7,001.36	122.56	29.79	87.92	-234.19	-7,725.75	3,583.62	3,493.20	90.42	39.633		
11,300.00	7,056.48	6,965.70	7,002.76	125.31	29.80	87.98	-234.21	-7,725.78	3,490.75	3,398.55	92.20	37.859		
11,400.00	7,056.25	6,967.12	7,004.18	128.06	29.80	88.04	-234.22	-7,725.81	3,398.30	3,304.19	94.11	36.111		
11,500.00	7,056.02	6,968.55	7,005.61	130.82	29.81	88.10	-234.23	-7,725.84	3,306.28	3,210.14	96.14	34.392		
11,600.00	7,055.79	6,970.00	7,007.06	133.59	29.82	88.17	-234.24	-7,725.87	3,214.74	3,116.44	98.30	32.703		
11,700.00	7,055.55	6,971.46	7,008.53	136.35	29.82	88.23	-234.26	-7,725.90	3,123.71	3,023.10	100.61	31.047		
11,800.00	7,055.32	6,972.95	7,010.01	139.12	29.83	88.30	-234.27	-7,725.93	3,033.26	2,930.17	103.08	29.426		
11,900.00	7,055.09	6,974.44	7,011.51	141.90	29.84	88.36	-234.28	-7,725.96	2,943.41	2,837.70	105.72	27.842		
12,000.00	7,054.86	6,975.96	7,013.02	144.67	29.84	88.43	-234.29	-7,725.99	2,854.24	2,745.71	108.53	26.299		
12,100.00	7,054.63	6,977.49	7,014.55	147.45	29.85	88.49	-234.31	-7,726.02	2,765.81	2,654.28	111.54	24.797		
12,200.00	7,054.40	6,979.04	7,016.10	150.24	29.86	88.56	-234.32	-7,726.05	2,678.20	2,563.45	114.75	23.339		
12,300.00	7,054.17	6,980.60	7,017.67	153.02	29.86	88.63	-234.33	-7,726.09	2,591.48	2,473.29	118.19	21.927		
12,400.00	7,053.94	6,982.19	7,019.25	155.81	29.87	88.70	-234.35	-7,726.12	2,505.75	2,383.89	121.86	20.563		
12,500.00	7,053.71	6,983.79	7,020.85	158.60	29.88	88.77	-234.36	-7,726.16	2,421.11	2,295.33	125.78	19.249		
12,600.00	7,053.48	6,985.41	7,022.47	161.40	29.88	88.84	-234.37	-7,726.19	2,337.69	2,207.72	129.97	17.987		
12,700.00	7,053.25	6,987.05	7,024.11	164.19	29.89	88.91	-234.39	-7,726.22	2,255.61	2,121.16	134.44	16.778		
12,800.00	7,053.02	6,988.71	7,025.77	166.99	29.90	88.98	-234.40	-7,726.26	2,175.03	2,035.81	139.22	15.623		
12,900.00	7,052.79	6,990.39	7,027.45	169.79	29.90	89.06	-234.41	-7,726.30	2,096.12	1,951.82	144.30	14.526		
13,000.00	7,052.56	6,992.09	7,029.15	172.59	29.91	89.13	-234.43	-7,726.33	2,019.08	1,869.37	149.71	13.486		
13,100.00	7,052.33	6,993.81	7,030.86	175.40	29.92	89.21	-234.44	-7,726.37	1,944.13	1,788.68	155.46	12.506		
13,200.00	7,052.10	6,995.54	7,032.60	178.20	29.93	89.28	-234.45	-7,726.41	1,871.53	1,709.99	161.54	11.586		
13,300.00	7,051.87	6,997.30	7,034.36	181.01	29.93	89.36	-234.47	-7,726.45	1,801.55	1,633.60	167.95	10.727		
13,400.00	7,051.64	6,999.09	7,036.14	183.82	29.94	89.44	-234.48	-7,726.49	1,734.51	1,559.83	174.67	9.930		
13,500.00	7,051.41	7,000.93	7,037.98	186.63	29.95	89.52	-234.49	-7,726.53	1,670.76	1,489.08	181.68	9.196		
13,600.00	7,051.18	7,002.82	7,039.87	189.44	29.96	89.60	-234.51	-7,726.57	1,610.71	1,421.79	188.92	8.526		
13,700.00	7,050.95	7,004.71	7,041.77	192.25	29.96	89.68	-234.52	-7,726.61	1,554.77	1,358.45	196.32	7.920		
13,800.00	7,050.72	7,006.61	7,043.66	195.07	29.97	89.77	-234.54	-7,726.66	1,503.40	1,299.61	203.78	7.377		
13,900.00	7,050.49	7,008.50	7,045.56	197.88	29.98	89.85	-234.55	-7,726.70	1,457.09	1,245.90	211.19	6.899		
14,000.00	7,050.26	7,010.40	7,047.46	200.70	29.99	89.93	-234.56	-7,726.74	1,416.34	1,197.95	218.39	6.485		
14,100.00	7,050.03	7,012.30	7,049.36	203.52	30.00	90.01	-234.58	-7,726.78	1,381.63	1,156.44	225.19	6.135		
14,200.00	7,049.80	7,014.21	7,051.26	206.34	30.00	90.10	-234.59	-7,726.83	1,353.43	1,122.01	231.42	5.848		
14,300.00	7,049.56	7,016.12	7,053.17	209.16	30.01	90.18	-234.60	-7,726.87	1,332.16	1,095.28	236.88	5.624		
14,400.00	7,049.33	7,018.02	7,055.08	211.98	30.02	90.26	-234.62	-7,726.91	1,318.15	1,076.76	241.39	5.461		
14,500.00	7,049.10	7,019.94	7,056.99	214.80	30.03	90.35	-234.63	-7,726.96	1,311.64	1,066.83	244.80	5.358		
14,535.74	7,049.02	7,020.62	7,057.67	215.81	30.03	90.38	-234.63	-7,726.97	1,311.15	1,065.41	245.74	5.336 CC, ES		
14,600.00	7,048.87	7,021.85	7,058.90	217.63	30.04	90.43	-234.64	-7,727.00	1,312.72	1,065.69	247.03	5.314 SF		
14,700.00	7,048.64	7,023.76	7,060.81	220.45	30.05	90.52	-234.66	-7,727.04	1,321.39	1,073.36	248.03	5.328		
14,800.00	7,048.41	7,025.68	7,062.73	223.28	30.05	90.60	-234.67	-7,727.09	1,337.51	1,089.66	247.85	5.397		
14,900.00	7,048.18	7,027.60	7,064.65	226.10	30.06	90.68	-234.68	-7,727.13	1,360.79	1,114.24	246.55	5.519		
14,979.18	7,048.00	7,029.12	7,066.17	228.34	30.07	90.75	-234.69	-7,727.16	1,384.08	1,139.25	244.83	5.653		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	-110.67	-1,345.11	-3,566.23	3,811.96					
100.00	100.00	39.00	100.00	3.28	3.35	-110.67	-1,345.11	-3,566.23	3,811.47	3,804.84	6.63	574.482		
200.00	200.00	139.00	200.00	3.34	4.52	-110.67	-1,345.11	-3,566.23	3,811.47	3,803.62	7.85	485.230		
300.00	299.98	238.98	299.98	3.44	7.37	63.29	-1,345.11	-3,566.23	3,810.69	3,799.88	10.81	352.609		
400.00	399.84	338.84	399.84	3.59	10.60	63.40	-1,345.11	-3,566.23	3,808.33	3,794.14	14.19	268.335		
500.00	499.45	438.45	499.45	3.79	13.95	63.58	-1,345.11	-3,566.23	3,804.43	3,786.69	17.74	214.464		
600.00	598.70	537.70	598.70	4.03	17.34	63.85	-1,345.11	-3,566.23	3,799.00	3,777.63	21.37	177.783		
700.00	697.47	636.47	697.47	4.31	20.73	64.18	-1,345.11	-3,566.23	3,792.08	3,767.03	25.05	151.393		
800.00	795.62	734.62	795.62	4.64	24.12	64.59	-1,345.11	-3,566.23	3,783.70	3,754.95	28.76	131.569		
900.00	893.16	832.16	893.16	5.00	27.50	64.97	-1,345.11	-3,566.23	3,774.12	3,741.63	32.49	116.163		
1,000.00	990.60	929.60	990.60	5.38	30.88	65.27	-1,345.11	-3,566.23	3,764.46	3,728.21	36.25	103.850		
1,100.00	1,088.04	1,027.04	1,088.04	5.79	34.27	65.58	-1,345.11	-3,566.23	3,754.91	3,714.87	40.03	93.794		
1,200.00	1,185.48	1,124.48	1,185.48	6.22	37.65	65.88	-1,345.11	-3,566.23	3,745.46	3,701.63	43.84	85.439		
1,300.00	1,282.92	1,221.92	1,282.92	6.66	41.04	66.19	-1,345.11	-3,566.23	3,736.14	3,688.48	47.66	78.394		
1,400.00	1,380.36	1,319.36	1,380.36	7.10	44.43	66.50	-1,345.11	-3,566.23	3,726.92	3,675.43	51.49	72.378		
1,500.00	1,477.80	1,416.80	1,477.80	7.56	47.83	66.81	-1,345.11	-3,566.23	3,717.81	3,662.48	55.34	67.185		
1,600.00	1,575.24	1,514.24	1,575.24	8.03	51.22	67.13	-1,345.11	-3,566.23	3,708.82	3,649.63	59.19	62.659		
1,700.00	1,672.68	1,611.68	1,672.68	8.50	54.62	67.44	-1,345.11	-3,566.23	3,699.95	3,636.90	63.05	58.682		
1,800.00	1,770.12	1,709.12	1,770.12	8.98	58.01	67.75	-1,345.11	-3,566.23	3,691.19	3,624.27	66.92	55.159		
1,900.00	1,867.56	1,806.56	1,867.56	9.46	61.41	68.07	-1,345.11	-3,566.23	3,682.55	3,611.75	70.79	52.019		
2,000.00	1,965.00	1,904.00	1,965.00	9.95	64.81	68.39	-1,345.11	-3,566.23	3,674.02	3,599.35	74.67	49.204		
2,100.00	2,062.44	2,001.44	2,062.44	10.44	68.20	68.71	-1,345.11	-3,566.23	3,665.61	3,587.06	78.55	46.665		
2,200.00	2,159.88	2,101.12	2,159.88	10.93	71.68	69.03	-1,345.11	-3,566.23	3,657.32	3,574.81	82.52	44.323		
2,300.00	2,257.32	2,203.68	2,257.32	11.42	75.26	69.35	-1,345.11	-3,566.23	3,649.15	3,562.57	86.58	42.146		
2,400.00	2,354.76	2,306.24	2,354.76	11.92	78.83	69.68	-1,345.11	-3,566.23	3,641.11	3,550.45	90.65	40.165		
2,500.00	2,452.20	2,408.80	2,452.20	12.42	82.41	70.00	-1,345.11	-3,566.23	3,633.18	3,538.45	94.73	38.354		
2,600.00	2,549.64	2,488.64	2,549.64	12.92	85.20	70.33	-1,345.11	-3,566.23	3,625.37	3,527.36	98.01	36.990		
2,700.00	2,647.08	2,586.08	2,647.08	13.42	88.60	70.65	-1,345.11	-3,566.23	3,617.69	3,515.78	101.91	35.500		
2,800.00	2,744.52	2,683.52	2,744.52	13.93	91.99	70.98	-1,345.11	-3,566.23	3,610.13	3,504.32	105.81	34.120		
2,900.00	2,841.96	2,780.96	2,841.96	14.43	95.39	71.31	-1,345.11	-3,566.23	3,602.70	3,492.99	109.71	32.838		
3,000.00	2,939.40	2,878.40	2,939.40	14.94	98.79	71.64	-1,345.11	-3,566.23	3,595.39	3,481.77	113.61	31.646		
3,100.00	3,036.84	2,975.84	3,036.84	15.44	102.19	71.98	-1,345.11	-3,566.23	3,588.20	3,470.68	117.52	30.533		
3,200.00	3,134.28	3,073.28	3,134.28	15.95	105.59	72.31	-1,345.11	-3,566.23	3,581.15	3,459.72	121.43	29.492		
3,300.00	3,231.72	3,170.72	3,231.72	16.46	108.99	72.65	-1,345.11	-3,566.23	3,574.22	3,448.88	125.33	28.518		
3,400.00	3,329.16	3,268.16	3,329.16	16.97	112.39	72.98	-1,345.11	-3,566.23	3,567.42	3,438.17	129.24	27.603		
3,500.00	3,426.60	3,365.60	3,426.60	17.48	115.79	73.32	-1,345.11	-3,566.23	3,560.74	3,427.59	133.15	26.742		
3,600.00	3,524.04	3,463.04	3,524.04	17.99	119.19	73.66	-1,345.11	-3,566.23	3,554.20	3,417.14	137.06	25.931		
3,700.00	3,621.48	3,560.48	3,621.48	18.50	122.60	74.00	-1,345.11	-3,566.23	3,547.79	3,406.82	140.97	25.166		
3,800.00	3,718.92	3,657.92	3,718.92	19.01	126.00	74.34	-1,345.11	-3,566.23	3,541.51	3,396.62	144.89	24.443		
3,900.00	3,816.36	3,755.36	3,816.36	19.52	129.40	74.68	-1,345.11	-3,566.23	3,535.36	3,386.56	148.80	23.759		
4,000.00	3,913.80	3,852.80	3,913.80	20.03	132.80	75.03	-1,345.11	-3,566.23	3,529.34	3,376.63	152.72	23.111		
4,100.00	4,011.24	3,950.24	4,011.24	20.55	136.20	75.37	-1,345.11	-3,566.23	3,523.46	3,366.83	156.63	22.495		
4,200.00	4,108.68	4,047.68	4,108.68	21.06	139.60	75.72	-1,345.11	-3,566.23	3,517.71	3,357.17	160.55	21.911		
4,300.00	4,206.12	4,145.12	4,206.12	21.57	143.00	76.07	-1,345.11	-3,566.23	3,512.10	3,347.63	164.46	21.355		
4,400.00	4,303.56	4,242.56	4,303.56	22.09	146.40	76.41	-1,345.11	-3,566.23	3,506.62	3,338.24	168.38	20.826		
4,500.00	4,401.00	4,340.00	4,401.00	22.60	149.80	76.76	-1,345.11	-3,566.23	3,501.27	3,328.98	172.30	20.321		
4,600.00	4,498.44	4,437.44	4,498.44	23.11	153.20	77.11	-1,345.11	-3,566.23	3,496.06	3,319.85	176.21	19.840		
4,700.00	4,595.88	4,534.88	4,595.88	23.63	156.60	77.46	-1,345.11	-3,566.23	3,490.99	3,310.86	180.13	19.380		
4,800.00	4,693.32	4,632.32	4,693.32	24.14	160.00	77.81	-1,345.11	-3,566.23	3,486.06	3,302.01	184.05	18.941		
4,900.00	4,790.76	4,729.76	4,790.76	24.66	163.40	78.17	-1,345.11	-3,566.23	3,481.27	3,293.30	187.97	18.520		
5,000.00	4,888.20	4,827.20	4,888.20	25.17	166.80	78.52	-1,345.11	-3,566.23	3,476.61	3,284.72	191.89	18.118		
5,100.00	4,985.64	4,924.64	4,985.64	25.69	170.21	78.88	-1,345.11	-3,566.23	3,472.09	3,276.29	195.81	17.732		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,200.00	5,083.08	5,022.08	5,083.08	26.20	173.61	79.23	-1,345.11	-3,566.23	3,467.72	3,267.99	199.73	17.362		
5,300.00	5,180.52	5,119.52	5,180.52	26.72	177.01	79.59	-1,345.11	-3,566.23	3,463.48	3,259.83	203.65	17.007		
5,400.00	5,277.96	5,216.96	5,277.96	27.24	180.41	79.95	-1,345.11	-3,566.23	3,459.38	3,251.82	207.57	16.666		
5,500.00	5,375.40	5,314.40	5,375.40	27.75	183.81	80.30	-1,345.11	-3,566.23	3,455.43	3,243.94	211.49	16.339		
5,600.00	5,472.84	5,411.84	5,472.84	28.27	187.21	80.66	-1,345.11	-3,566.23	3,451.62	3,236.21	215.41	16.023		
5,700.00	5,570.28	5,509.28	5,570.28	28.79	190.61	81.02	-1,345.11	-3,566.23	3,447.95	3,228.62	219.33	15.720		
5,800.00	5,667.72	5,606.72	5,667.72	29.30	194.01	81.38	-1,345.11	-3,566.23	3,444.42	3,221.17	223.25	15.428		
5,900.00	5,765.16	5,704.16	5,765.16	29.82	197.41	81.74	-1,345.11	-3,566.23	3,441.04	3,213.86	227.18	15.147		
6,000.00	5,862.60	5,801.60	5,862.60	30.34	200.82	82.10	-1,345.11	-3,566.23	3,437.80	3,206.70	231.10	14.876		
6,100.00	5,960.05	5,900.96	5,960.05	30.85	204.28	82.47	-1,345.11	-3,566.23	3,434.70	3,199.62	235.09	14.610		
6,200.00	6,057.49	6,003.51	6,057.49	31.37	207.86	82.83	-1,345.11	-3,566.23	3,431.75	3,192.56	239.19	14.348		
6,300.00	6,154.93	6,106.07	6,154.93	31.89	211.44	83.19	-1,345.11	-3,566.23	3,428.94	3,185.66	243.29	14.094		
6,400.00	6,252.37	6,208.63	6,252.37	32.40	215.02	83.56	-1,345.11	-3,566.23	3,426.28	3,178.89	247.39	13.850		
6,500.00	6,349.81	6,288.81	6,349.81	32.92	217.82	83.92	-1,345.11	-3,566.23	3,423.77	3,173.06	250.71	13.656		
6,600.00	6,447.25	6,386.25	6,447.25	33.44	221.22	84.28	-1,345.11	-3,566.23	3,421.40	3,166.77	254.63	13.437		
6,700.00	6,544.28	6,483.28	6,544.28	33.95	224.61	85.91	-1,345.11	-3,566.23	3,413.28	3,154.75	258.53	13.203		
6,800.00	6,638.86	6,577.86	6,638.86	34.44	227.91	37.58	-1,345.11	-3,566.23	3,389.97	3,127.65	262.32	12.923		
6,900.00	6,728.65	6,667.65	6,728.65	34.89	231.05	28.46	-1,345.11	-3,566.23	3,351.90	3,086.00	265.90	12.606		
7,000.00	6,811.45	6,750.45	6,811.45	35.29	233.94	23.67	-1,345.11	-3,566.23	3,299.97	3,030.79	269.18	12.259		
7,100.00	6,885.21	6,824.21	6,885.21	35.66	236.51	21.19	-1,345.11	-3,566.23	3,235.47	2,963.37	272.10	11.891		
7,200.00	6,948.11	6,887.11	6,948.11	35.99	238.71	20.25	-1,345.11	-3,566.23	3,159.94	2,885.35	274.59	11.508		
7,300.00	6,998.62	6,937.62	6,998.62	36.30	240.47	20.77	-1,345.11	-3,566.23	3,075.22	2,798.64	276.58	11.119		
7,400.00	7,035.48	6,974.48	7,035.48	36.65	241.76	23.52	-1,345.11	-3,566.23	2,983.36	2,705.32	278.04	10.730		
7,500.00	7,057.79	7,003.21	7,057.79	37.13	242.76	32.80	-1,345.11	-3,566.23	2,886.59	2,607.43	279.16	10.340		
7,600.00	7,065.00	7,004.00	7,065.00	37.84	242.79	92.09	-1,345.11	-3,566.23	2,787.27	2,508.01	279.26	9.981		
7,700.00	7,064.77	7,003.77	7,064.77	38.82	242.78	92.01	-1,345.11	-3,566.23	2,687.47	2,408.17	279.30	9.622		
7,800.00	7,064.54	7,003.54	7,064.54	40.06	242.77	91.94	-1,345.11	-3,566.23	2,587.70	2,308.35	279.35	9.263		
7,900.00	7,064.31	7,003.31	7,064.31	41.52	242.76	91.86	-1,345.11	-3,566.23	2,487.94	2,208.53	279.40	8.905		
8,000.00	7,064.08	7,003.08	7,064.08	43.14	242.75	91.79	-1,345.11	-3,566.23	2,388.20	2,108.73	279.46	8.546		
8,100.00	7,063.85	7,002.85	7,063.85	44.90	242.75	91.71	-1,345.11	-3,566.23	2,288.48	2,008.95	279.53	8.187		
8,200.00	7,063.62	7,002.62	7,063.62	46.78	242.74	91.64	-1,345.11	-3,566.23	2,188.79	1,909.18	279.61	7.828		
8,300.00	7,063.39	7,002.39	7,063.39	48.76	242.73	91.56	-1,345.11	-3,566.23	2,089.13	1,809.43	279.70	7.469		
8,400.00	7,063.16	7,002.16	7,063.16	50.83	242.72	91.49	-1,345.11	-3,566.23	1,989.50	1,709.70	279.80	7.110		
8,500.00	7,062.93	7,001.93	7,062.93	52.97	242.71	91.41	-1,345.11	-3,566.23	1,889.91	1,610.00	279.92	6.752		
8,600.00	7,062.70	7,001.70	7,062.70	55.18	242.71	91.34	-1,345.11	-3,566.23	1,790.37	1,510.32	280.05	6.393		
8,700.00	7,062.47	7,001.47	7,062.47	57.46	242.70	91.26	-1,345.11	-3,566.23	1,690.88	1,410.67	280.21	6.034		
8,800.00	7,062.24	7,001.24	7,062.24	59.78	242.69	91.19	-1,345.11	-3,566.23	1,591.46	1,311.06	280.40	5.676		
8,900.00	7,062.01	7,001.01	7,062.01	62.14	242.68	91.11	-1,345.11	-3,566.23	1,492.11	1,211.49	280.62	5.317		
9,000.00	7,061.78	7,000.78	7,061.78	64.55	242.67	91.04	-1,345.11	-3,566.23	1,392.86	1,111.97	280.88	4.959		
9,100.00	7,061.55	7,000.55	7,061.55	67.00	242.67	90.96	-1,345.11	-3,566.23	1,293.72	1,012.51	281.20	4.601		
9,200.00	7,061.31	7,000.31	7,061.31	69.47	242.66	90.89	-1,345.11	-3,566.23	1,194.72	913.12	281.60	4.243		
9,300.00	7,061.08	7,000.08	7,061.08	71.98	242.65	90.81	-1,345.11	-3,566.23	1,095.91	813.81	282.10	3.885		
9,400.00	7,060.85	7,000.15	7,060.85	74.51	242.65	90.74	-1,345.11	-3,566.23	997.33	714.59	282.74	3.527		
9,500.00	7,060.62	7,000.38	7,060.62	77.06	242.66	90.66	-1,345.11	-3,566.23	899.07	615.49	283.58	3.170		
9,600.00	7,060.39	7,000.61	7,060.39	79.64	242.67	90.59	-1,345.11	-3,566.23	801.24	516.54	284.69	2.814		
9,700.00	7,060.16	7,000.84	7,060.16	82.23	242.68	90.51	-1,345.11	-3,566.23	704.02	417.79	286.23	2.460		
9,800.00	7,059.93	7,001.07	7,059.93	84.84	242.68	90.44	-1,345.11	-3,566.23	607.70	319.29	288.41	2.107		
9,900.00	7,059.70	7,001.30	7,059.70	87.47	242.69	90.36	-1,345.11	-3,566.23	512.78	221.16	291.63	1.758		
10,000.00	7,059.47	7,001.53	7,059.47	90.11	242.70	90.29	-1,345.11	-3,566.23	420.24	123.63	296.61	1.417 Level 3		
10,100.00	7,059.24	7,001.76	7,059.24	92.76	242.71	90.21	-1,345.11	-3,566.23	332.05	27.40	304.65	1.090 Level 2		
10,200.00	7,059.01	7,001.99	7,059.01	95.42	242.72	90.14	-1,345.11	-3,566.23	252.81	-64.83	317.64	0.796 Level 1		
10,300.00	7,058.78	7,002.22	7,058.78	98.10	242.72	90.06	-1,345.11	-3,566.23	193.82	-141.33	335.15	0.578 Level 1		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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)			
10,381.72	7,058.59	7,002.41	7,058.59	100.30	242.73	90.00	-1,345.11	-3,566.23	175.75	-167.10	342.85	0.513	Level 1, CC, ES, SF	
10,400.00	7,058.55	7,002.45	7,058.55	100.79	242.73	89.99	-1,345.11	-3,566.23	176.70	-165.60	342.29	0.516	Level 1	
10,500.00	7,058.32	7,002.68	7,058.32	103.48	242.74	89.91	-1,345.11	-3,566.23	211.84	-115.95	327.79	0.646	Level 1	
10,600.00	7,058.09	7,002.91	7,058.09	106.19	242.75	89.84	-1,345.11	-3,566.23	280.23	-30.83	311.06	0.901	Level 1	
10,700.00	7,057.86	7,003.14	7,057.86	108.90	242.76	89.76	-1,345.11	-3,566.23	363.57	63.43	300.14	1.211	Level 2	
10,800.00	7,057.63	7,003.37	7,057.63	111.62	242.76	89.69	-1,345.11	-3,566.23	453.69	160.13	293.56	1.545		
10,900.00	7,057.40	7,003.60	7,057.40	114.35	242.77	89.61	-1,345.11	-3,566.23	547.26	257.75	289.51	1.890		
11,000.00	7,057.17	7,003.83	7,057.17	117.08	242.78	89.54	-1,345.11	-3,566.23	642.76	355.85	286.92	2.240		
11,100.00	7,056.94	7,004.06	7,056.94	119.82	242.79	89.46	-1,345.11	-3,566.23	739.46	454.27	285.19	2.593		
11,200.00	7,056.71	7,004.29	7,056.71	122.56	242.80	89.39	-1,345.11	-3,566.23	836.93	552.93	284.00	2.947		
11,300.00	7,056.48	7,004.52	7,056.48	125.31	242.81	89.31	-1,345.11	-3,566.23	934.94	651.78	283.16	3.302		
11,400.00	7,056.25	7,004.75	7,056.25	128.06	242.81	89.24	-1,345.11	-3,566.23	1,033.33	750.77	282.55	3.657		
11,500.00	7,056.02	7,004.98	7,056.02	130.82	242.82	89.16	-1,345.11	-3,566.23	1,132.00	849.89	282.10	4.013		
11,600.00	7,055.79	7,005.21	7,055.79	133.59	242.83	89.09	-1,345.11	-3,566.23	1,230.88	949.11	281.77	4.368		
11,700.00	7,055.55	7,005.45	7,055.55	136.35	242.84	89.01	-1,345.11	-3,566.23	1,329.93	1,048.42	281.52	4.724		
11,800.00	7,055.32	7,005.68	7,055.32	139.12	242.85	88.93	-1,345.11	-3,566.23	1,429.12	1,147.79	281.33	5.080		
11,900.00	7,055.09	7,005.91	7,055.09	141.90	242.85	88.86	-1,345.11	-3,566.23	1,528.41	1,247.22	281.18	5.436		
12,000.00	7,054.86	7,006.14	7,054.86	144.67	242.86	88.78	-1,345.11	-3,566.23	1,627.78	1,346.70	281.08	5.791		
12,100.00	7,054.63	7,006.37	7,054.63	147.45	242.87	88.71	-1,345.11	-3,566.23	1,727.23	1,446.23	281.00	6.147		
12,200.00	7,054.40	7,006.60	7,054.40	150.24	242.88	88.63	-1,345.11	-3,566.23	1,826.74	1,545.79	280.95	6.502		
12,300.00	7,054.17	7,006.83	7,054.17	153.02	242.89	88.56	-1,345.11	-3,566.23	1,926.30	1,645.39	280.91	6.857		
12,400.00	7,053.94	7,007.06	7,053.94	155.81	242.89	88.48	-1,345.11	-3,566.23	2,025.90	1,745.01	280.89	7.212		
12,500.00	7,053.71	7,007.29	7,053.71	158.60	242.90	88.41	-1,345.11	-3,566.23	2,125.55	1,844.66	280.88	7.567		
12,600.00	7,053.48	7,007.52	7,053.48	161.40	242.91	88.33	-1,345.11	-3,566.23	2,225.22	1,944.33	280.88	7.922		
12,700.00	7,053.25	7,007.75	7,053.25	164.19	242.92	88.26	-1,345.11	-3,566.23	2,324.92	2,044.02	280.90	8.277		
12,800.00	7,053.02	7,007.98	7,053.02	166.99	242.93	88.18	-1,345.11	-3,566.23	2,424.64	2,143.73	280.91	8.631		
12,900.00	7,052.79	7,008.21	7,052.79	169.79	242.93	88.11	-1,345.11	-3,566.23	2,524.39	2,243.45	280.94	8.986		
13,000.00	7,052.56	7,008.44	7,052.56	172.59	242.94	88.03	-1,345.11	-3,566.23	2,624.16	2,343.19	280.97	9.340		
13,100.00	7,052.33	7,008.67	7,052.33	175.40	242.95	87.96	-1,345.11	-3,566.23	2,723.94	2,442.94	281.00	9.694		
13,200.00	7,052.10	7,008.90	7,052.10	178.20	242.96	87.88	-1,345.11	-3,566.23	2,823.74	2,542.69	281.04	10.047		
13,300.00	7,051.87	7,009.13	7,051.87	181.01	242.97	87.81	-1,345.11	-3,566.23	2,923.55	2,642.46	281.09	10.401		
13,400.00	7,051.64	7,009.36	7,051.64	183.82	242.97	87.73	-1,345.11	-3,566.23	3,023.38	2,742.24	281.14	10.754		
13,500.00	7,051.41	7,009.59	7,051.41	186.63	242.98	87.66	-1,345.11	-3,566.23	3,123.21	2,842.03	281.19	11.107		
13,600.00	7,051.18	7,009.82	7,051.18	189.44	242.99	87.58	-1,345.11	-3,566.23	3,223.06	2,941.82	281.24	11.460		
13,700.00	7,050.95	6,989.95	7,050.95	192.25	242.30	87.51	-1,345.11	-3,566.23	3,322.91	3,042.32	280.59	11.842		
13,800.00	7,050.72	6,989.72	7,050.72	195.07	242.29	87.43	-1,345.11	-3,566.23	3,422.78	3,142.14	280.63	12.197		
13,900.00	7,050.49	6,989.49	7,050.49	197.88	242.28	87.36	-1,345.11	-3,566.23	3,522.65	3,241.97	280.68	12.550		
14,000.00	7,050.26	6,989.26	7,050.26	200.70	242.27	87.28	-1,345.11	-3,566.23	3,622.53	3,341.80	280.73	12.904		
14,100.00	7,050.03	6,989.03	7,050.03	203.52	242.26	87.21	-1,345.11	-3,566.23	3,722.41	3,441.64	280.77	13.258		
14,200.00	7,049.80	6,988.80	7,049.80	206.34	242.26	87.13	-1,345.11	-3,566.23	3,822.30	3,541.48	280.82	13.611		
14,300.00	7,049.56	6,988.56	7,049.56	209.16	242.25	87.06	-1,345.11	-3,566.23	3,922.20	3,641.33	280.88	13.964		
14,400.00	7,049.33	6,988.33	7,049.33	211.98	242.24	86.98	-1,345.11	-3,566.23	4,022.10	3,741.17	280.93	14.317		
14,500.00	7,049.10	6,988.10	7,049.10	214.80	242.23	86.91	-1,345.11	-3,566.23	4,122.01	3,841.03	280.98	14.670		
14,600.00	7,048.87	6,987.87	7,048.87	217.63	242.22	86.83	-1,345.11	-3,566.23	4,221.92	3,940.88	281.04	15.023		
14,700.00	7,048.64	6,987.64	7,048.64	220.45	242.22	86.76	-1,345.11	-3,566.23	4,321.84	4,040.74	281.10	15.375		
14,800.00	7,048.41	6,987.41	7,048.41	223.28	242.21	86.69	-1,345.11	-3,566.23	4,421.75	4,140.60	281.16	15.727		
14,900.00	7,048.18	6,987.18	7,048.18	226.10	242.20	86.61	-1,345.11	-3,566.23	4,521.68	4,240.46	281.22	16.079		
14,979.18	7,048.00	6,987.00	7,048.00	228.34	242.19	86.55	-1,345.11	-3,566.23	4,600.80	4,319.54	281.26	16.358		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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-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	58.46	3.28	3.28	-90.84	-133.58	-9,143.14	9,144.30					
100.00	100.00	184.99	209.97	3.28	3.34	-90.83	-132.13	-9,141.58	9,143.19	9,136.57	6.62	1,380.735		
200.00	200.00	289.55	314.52	3.34	3.45	-90.82	-131.62	-9,140.24	9,141.91	9,135.12	6.79	1,346.843		
300.00	299.98	369.76	394.72	3.44	3.58	83.12	-131.44	-9,139.33	9,140.56	9,133.55	7.01	1,303.171		
400.00	399.84	465.11	490.07	3.59	3.76	83.19	-131.21	-9,138.37	9,138.92	9,131.57	7.35	1,243.606		
500.00	499.45	547.96	572.92	3.79	3.95	83.27	-130.99	-9,137.62	9,136.98	9,129.24	7.74	1,181.168		
600.00	598.70	624.30	649.26	4.03	4.15	83.37	-131.11	-9,137.09	9,134.86	9,126.68	8.17	1,117.783		
700.00	697.47	737.18	762.13	4.31	4.46	83.53	-131.26	-9,136.53	9,132.56	9,123.79	8.77	1,040.909		
800.00	795.62	845.35	870.30	4.64	4.80	83.72	-131.12	-9,135.70	9,129.63	9,120.20	9.43	968.021		
900.00	893.16	926.44	951.38	5.00	5.06	83.86	-130.99	-9,135.10	9,126.43	9,116.37	10.05	907.750		
1,000.00	990.60	984.00	1,008.95	5.38	5.26	83.94	-131.04	-9,134.78	9,123.47	9,112.83	10.63	857.898		
1,100.00	1,088.04	984.00	1,008.95	5.79	5.26	83.94	-131.04	-9,134.78	9,121.37	9,110.33	11.04	825.972		
1,200.00	1,185.48	1,046.19	1,071.14	6.22	5.46	84.03	-131.05	-9,135.01	9,119.62	9,107.95	11.67	781.240		
1,300.00	1,282.92	1,112.00	1,136.93	6.66	5.68	84.12	-130.81	-9,136.44	9,119.20	9,106.87	12.33	739.380		
1,365.54	1,346.78	1,112.00	1,136.93	6.95	5.68	84.12	-130.81	-9,136.44	9,118.96	9,106.34	12.63	722.162		
1,400.00	1,380.36	1,112.00	1,136.93	7.10	5.68	84.12	-130.81	-9,136.44	9,119.03	9,106.25	12.78	713.365		
1,500.00	1,477.80	1,112.00	1,136.93	7.56	5.68	84.12	-130.81	-9,136.44	9,119.96	9,106.71	13.24	688.755		
1,600.00	1,575.24	1,112.00	1,136.93	8.03	5.68	84.12	-130.81	-9,136.44	9,121.98	9,108.27	13.71	665.544		
1,700.00	1,672.68	1,175.44	1,200.31	8.50	5.90	84.22	-130.51	-9,139.07	9,124.22	9,109.83	14.39	634.154		
1,800.00	1,770.12	1,241.00	1,265.74	8.98	6.12	84.31	-130.29	-9,143.16	9,127.99	9,112.91	15.09	605.052		
1,900.00	1,867.56	1,241.00	1,265.74	9.46	6.12	84.31	-130.29	-9,143.16	9,131.92	9,116.36	15.56	586.741		
2,000.00	1,965.00	1,241.00	1,265.74	9.95	6.12	84.31	-130.29	-9,143.16	9,136.95	9,120.90	16.04	569.511		
2,100.00	2,062.44	1,241.00	1,265.74	10.44	6.12	84.31	-130.29	-9,143.16	9,143.06	9,126.54	16.52	553.299		
2,200.00	2,159.88	1,293.98	1,318.54	10.93	6.31	84.38	-130.16	-9,147.53	9,149.62	9,132.42	17.20	532.103		
2,300.00	2,257.32	1,316.87	1,341.32	11.42	6.39	84.42	-130.10	-9,149.73	9,157.22	9,139.46	17.76	515.601		
2,400.00	2,354.76	1,369.00	1,393.14	11.92	6.58	84.49	-129.97	-9,155.42	9,165.87	9,147.44	18.43	497.261		
2,500.00	2,452.20	1,369.00	1,393.14	12.42	6.58	84.49	-129.97	-9,155.42	9,174.97	9,156.05	18.92	485.056		
2,600.00	2,549.64	1,369.00	1,393.14	12.92	6.58	84.49	-129.97	-9,155.42	9,185.15	9,165.75	19.40	473.540		
2,700.00	2,647.08	1,369.00	1,393.14	13.42	6.58	84.49	-129.97	-9,155.42	9,196.41	9,176.53	19.88	462.668		
2,800.00	2,744.52	1,438.43	1,461.99	13.93	6.84	84.58	-130.06	-9,164.38	9,207.74	9,187.12	20.62	446.581		
2,900.00	2,841.96	1,498.00	1,520.90	14.43	7.07	84.66	-130.54	-9,173.24	9,220.51	9,199.18	21.33	432.323		
3,000.00	2,939.40	1,498.00	1,520.90	14.94	7.07	84.66	-130.54	-9,173.24	9,233.62	9,211.82	21.80	423.481		
3,100.00	3,036.84	1,498.00	1,520.90	15.44	7.07	84.66	-130.54	-9,173.24	9,247.79	9,225.51	22.28	415.112		
3,200.00	3,134.28	1,498.00	1,520.90	15.95	7.07	84.66	-130.54	-9,173.24	9,263.02	9,240.27	22.75	407.187		
3,300.00	3,231.72	1,560.46	1,582.46	16.46	7.33	84.74	-131.30	-9,183.74	9,278.43	9,254.96	23.47	395.334		
3,400.00	3,329.16	1,626.00	1,646.80	16.97	7.60	84.83	-132.22	-9,196.17	9,295.39	9,271.18	24.21	384.000		
3,500.00	3,426.60	1,626.00	1,646.80	17.48	7.60	84.83	-132.22	-9,196.17	9,312.44	9,287.76	24.67	377.463		
3,600.00	3,524.04	1,626.00	1,646.80	17.99	7.60	84.83	-132.22	-9,196.17	9,330.52	9,305.39	25.13	371.260		
3,700.00	3,621.48	1,626.00	1,646.80	18.50	7.60	84.83	-132.22	-9,196.17	9,349.64	9,324.05	25.59	365.373		
3,800.00	3,718.92	1,674.15	1,693.88	19.01	7.82	84.89	-133.01	-9,206.24	9,369.25	9,343.00	26.25	356.907		
3,900.00	3,816.36	1,696.08	1,715.27	19.52	7.92	84.92	-133.42	-9,211.10	9,389.82	9,363.02	26.80	350.391		
4,000.00	3,913.80	1,754.00	1,771.54	20.03	8.19	84.99	-134.63	-9,224.75	9,411.48	9,383.98	27.50	342.207		
4,100.00	4,011.24	1,754.00	1,771.54	20.55	8.19	84.99	-134.63	-9,224.75	9,433.38	9,405.43	27.95	337.545		
4,200.00	4,108.68	1,754.00	1,771.54	21.06	8.19	84.99	-134.63	-9,224.75	9,456.28	9,427.89	28.39	333.116		
4,300.00	4,206.12	1,754.00	1,771.54	21.57	8.19	84.99	-134.63	-9,224.75	9,480.18	9,451.36	28.82	328.907		
4,400.00	4,303.56	1,817.48	1,832.92	22.09	8.52	85.06	-135.95	-9,240.88	9,504.33	9,474.78	29.55	321.627		
4,500.00	4,401.00	1,883.00	1,895.99	22.60	8.86	85.14	-137.03	-9,258.59	9,529.72	9,499.43	30.29	314.606		
4,600.00	4,498.44	1,883.00	1,895.99	23.11	8.86	85.14	-137.03	-9,258.59	9,555.29	9,524.58	30.72	311.073		
4,700.00	4,595.88	1,883.00	1,895.99	23.63	8.86	85.14	-137.03	-9,258.59	9,581.84	9,550.70	31.14	307.715		
4,800.00	4,693.32	1,930.93	1,941.95	24.14	9.13	85.20	-137.75	-9,272.18	9,608.99	9,577.20	31.79	302.242		
4,900.00	4,790.76	1,961.63	1,971.31	24.66	9.31	85.24	-138.23	-9,281.14	9,636.85	9,604.49	32.36	297.805		
5,000.00	4,888.20	2,011.00	2,018.39	25.17	9.60	85.29	-139.05	-9,295.96	9,665.42	9,632.40	33.02	292.718		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	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)			
5,100.00	4,985.64	2,011.00	2,018.39	25.69	9.60	85.29	-139.05	-9,295.96	9,694.55	9,661.13	33.43	290.031		
5,200.00	5,083.08	2,070.54	2,075.02	26.20	9.97	85.36	-140.05	-9,314.34	9,724.23	9,690.09	34.14	284.842		
5,300.00	5,180.52	2,140.00	2,140.90	26.72	10.41	85.44	-141.21	-9,336.29	9,754.54	9,719.63	34.91	279.449		
5,400.00	5,277.96	5,400.00	2,381.54	27.24	32.89	85.74	-144.69	-9,413.50	9,783.76	9,732.65	51.11	191.439		
5,500.00	5,375.40	2,465.39	2,450.88	27.75	12.60	85.83	-145.84	-9,435.09	9,812.42	9,774.93	37.48	261.787		
5,600.00	5,472.84	2,525.00	2,507.67	28.27	13.01	85.90	-146.64	-9,453.21	9,841.68	9,803.46	38.22	257.528		
5,700.00	5,570.28	2,559.58	2,540.56	28.79	13.26	85.94	-147.01	-9,463.87	9,871.37	9,832.56	38.81	254.355		
5,800.00	5,667.72	2,612.17	2,590.55	29.30	13.64	86.00	-147.37	-9,480.24	9,901.52	9,862.02	39.50	250.648		
5,900.00	5,765.16	2,653.00	2,629.30	29.82	13.94	86.05	-147.48	-9,493.07	9,932.11	9,891.98	40.13	247.502		
6,000.00	5,862.60	2,653.00	2,629.30	30.34	13.94	86.05	-147.48	-9,493.07	9,963.45	9,922.93	40.52	245.914		
6,100.00	5,960.05	2,721.32	2,693.97	30.85	14.45	86.13	-147.52	-9,515.08	9,994.99	9,953.69	41.30	242.006		
7,200.00	6,948.11	6,855.74	6,706.78	35.99	39.09	27.43	-169.65	-10,299.16	9,978.89	9,912.26	66.63	149.765		
7,300.00	6,998.62	6,903.01	6,754.02	36.30	39.26	29.16	-170.55	-10,300.44	9,897.16	9,830.06	67.10	147.496		
7,400.00	7,035.48	6,936.68	6,787.67	36.65	39.38	33.96	-171.24	-10,301.39	9,807.76	9,740.29	67.47	145.374		
7,500.00	7,057.79	6,958.16	6,809.13	37.13	39.45	46.02	-171.71	-10,302.00	9,712.84	9,645.11	67.73	143.406		
7,600.00	7,065.00	6,966.83	6,817.80	37.84	39.49	80.79	-171.91	-10,302.25	9,614.71	9,546.81	67.90	141.611		
7,700.00	7,064.77	6,969.14	6,820.11	38.82	39.49	80.88	-171.97	-10,302.32	9,515.80	9,447.78	68.02	139.907		
7,800.00	7,064.54	6,971.47	6,822.44	40.06	39.50	80.97	-172.02	-10,302.39	9,416.91	9,348.77	68.14	138.194		
7,900.00	7,064.31	6,973.81	6,824.77	41.52	39.51	81.07	-172.07	-10,302.46	9,318.04	9,249.76	68.28	136.470		
8,000.00	7,064.08	6,976.15	6,827.12	43.14	39.52	81.16	-172.13	-10,302.53	9,219.20	9,150.78	68.42	134.736		
8,100.00	7,063.85	6,978.51	6,829.47	44.90	39.53	81.26	-172.19	-10,302.60	9,120.38	9,051.80	68.58	132.992		
8,200.00	7,063.62	6,980.88	6,831.84	46.78	39.54	81.35	-172.24	-10,302.67	9,021.59	8,952.85	68.74	131.237		
8,300.00	7,063.39	6,983.26	6,834.22	48.76	39.54	81.45	-172.30	-10,302.74	8,922.82	8,853.91	68.92	129.473		
8,400.00	7,063.16	6,985.65	6,836.60	50.83	39.55	81.54	-172.36	-10,302.81	8,824.08	8,754.98	69.10	127.699		
8,500.00	7,062.93	6,988.05	6,839.00	52.97	39.56	81.64	-172.42	-10,302.88	8,725.37	8,656.07	69.30	125.915		
8,600.00	7,062.70	6,990.46	6,841.41	55.18	39.57	81.74	-172.47	-10,302.95	8,626.69	8,557.18	69.50	124.121		
8,700.00	7,062.47	6,992.88	6,843.83	57.46	39.58	81.83	-172.53	-10,303.02	8,528.03	8,458.31	69.72	122.317		
8,800.00	7,062.24	6,995.31	6,846.26	59.78	39.59	81.93	-172.59	-10,303.10	8,429.41	8,359.46	69.95	120.504		
8,900.00	7,062.01	6,997.76	6,848.70	62.14	39.60	82.03	-172.65	-10,303.17	8,330.82	8,260.63	70.19	118.682		
9,000.00	7,061.78	7,000.21	6,851.16	64.55	39.60	82.13	-172.72	-10,303.24	8,232.27	8,161.81	70.45	116.851		
9,100.00	7,061.55	7,002.68	6,853.62	67.00	39.61	82.23	-172.78	-10,303.32	8,133.74	8,063.02	70.72	115.011		
9,200.00	7,061.31	7,005.15	6,856.10	69.47	39.62	82.33	-172.84	-10,303.39	8,035.26	7,964.25	71.01	113.163		
9,300.00	7,061.08	7,007.64	6,858.58	71.98	39.63	82.43	-172.90	-10,303.47	7,936.81	7,865.50	71.31	111.306		
9,400.00	7,060.85	7,010.14	6,861.08	74.51	39.64	82.53	-172.97	-10,303.54	7,838.39	7,766.77	71.62	109.441		
9,500.00	7,060.62	7,012.66	6,863.59	77.06	39.65	82.63	-173.03	-10,303.62	7,740.02	7,668.07	71.95	107.569		
9,600.00	7,060.39	7,015.18	6,866.11	79.64	39.66	82.73	-173.10	-10,303.70	7,641.69	7,569.39	72.30	105.690		
9,700.00	7,060.16	7,017.71	6,868.65	82.23	39.67	82.84	-173.16	-10,303.77	7,543.41	7,470.74	72.67	103.803		
9,800.00	7,059.93	7,020.38	6,871.31	84.84	39.68	82.94	-173.23	-10,303.85	7,445.16	7,372.11	73.06	101.910		
9,900.00	7,059.70	7,023.15	6,874.08	87.47	39.69	83.06	-173.30	-10,303.94	7,346.97	7,273.50	73.46	100.011		
10,000.00	7,059.47	7,025.92	6,876.85	90.11	39.70	83.17	-173.37	-10,304.02	7,248.82	7,174.93	73.89	98.106		
10,100.00	7,059.24	7,028.68	6,879.60	92.76	39.71	83.28	-173.44	-10,304.11	7,150.72	7,076.39	74.33	96.196		
10,200.00	7,059.01	7,031.43	6,882.35	95.42	39.72	83.39	-173.51	-10,304.19	7,052.67	6,977.87	74.80	94.282		
10,300.00	7,058.78	7,034.17	6,885.09	98.10	39.73	83.50	-173.58	-10,304.27	6,954.68	6,879.39	75.30	92.365		
10,400.00	7,058.55	7,036.90	6,887.82	100.79	39.74	83.62	-173.65	-10,304.36	6,856.75	6,780.94	75.81	90.444		
10,500.00	7,058.32	7,039.62	6,890.54	103.48	39.75	83.73	-173.71	-10,304.44	6,758.87	6,682.52	76.35	88.521		
10,600.00	7,058.09	7,042.34	6,893.25	106.19	39.76	83.84	-173.78	-10,304.52	6,661.06	6,584.14	76.92	86.596		
10,700.00	7,057.86	7,045.04	6,895.95	108.90	39.77	83.95	-173.84	-10,304.60	6,563.31	6,485.80	77.52	84.671		
10,800.00	7,057.63	7,047.74	6,898.65	111.62	39.78	84.06	-173.90	-10,304.68	6,465.63	6,387.49	78.14	82.745		
10,900.00	7,057.40	7,050.43	6,901.34	114.35	39.79	84.17	-173.96	-10,304.76	6,368.02	6,289.23	78.79	80.819		
11,000.00	7,057.17	7,053.11	6,904.01	117.08	39.80	84.28	-174.03	-10,304.84	6,270.49	6,191.01	79.48	78.895		
11,100.00	7,056.94	7,055.78	6,906.69	119.82	39.80	84.38	-174.09	-10,304.92	6,173.03	6,092.83	80.20	76.973		
11,200.00	7,056.71	7,058.44	6,909.35	122.56	39.81	84.49	-174.14	-10,305.00	6,075.65	5,994.70	80.95	75.055		

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 12N-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 12N-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-MWDD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
11,300.00	7,056.48	7,061.10	6,912.00	125.31	39.82	84.60	-174.20	-10,305.08	5,978.36	5,896.62	81.74	73.140		
11,400.00	7,056.25	7,063.75	6,914.65	128.06	39.83	84.71	-174.26	-10,305.16	5,881.16	5,798.60	82.57	71.230		
11,500.00	7,056.02	7,066.39	6,917.28	130.82	39.84	84.82	-174.32	-10,305.24	5,784.06	5,700.62	83.43	69.326		
11,600.00	7,055.79	7,069.02	6,919.91	133.59	39.85	84.92	-174.37	-10,305.32	5,687.05	5,602.71	84.34	67.429		
11,700.00	7,055.55	7,071.64	6,922.53	136.35	39.86	85.03	-174.43	-10,305.40	5,590.14	5,504.85	85.29	65.540		
11,800.00	7,055.32	7,074.26	6,925.15	139.12	39.87	85.14	-174.48	-10,305.48	5,493.35	5,407.06	86.29	63.660		
11,900.00	7,055.09	7,076.86	6,927.75	141.90	39.88	85.25	-174.53	-10,305.55	5,396.67	5,309.33	87.34	61.790		
12,000.00	7,054.86	7,079.46	6,930.35	144.67	39.89	85.35	-174.59	-10,305.63	5,300.11	5,211.68	88.44	59.932		
12,100.00	7,054.63	7,082.05	6,932.94	147.45	39.90	85.46	-174.64	-10,305.71	5,203.68	5,114.10	89.59	58.085		
12,200.00	7,054.40	7,084.63	6,935.52	150.24	39.91	85.56	-174.69	-10,305.78	5,107.39	5,016.60	90.80	56.252		
12,300.00	7,054.17	7,087.21	6,938.09	153.02	39.92	85.67	-174.74	-10,305.86	5,011.24	4,919.18	92.06	54.433		
12,400.00	7,053.94	7,089.77	6,940.66	155.81	39.93	85.77	-174.79	-10,305.93	4,915.25	4,821.86	93.39	52.630		
12,500.00	7,053.71	7,092.33	6,943.21	158.60	39.94	85.88	-174.84	-10,306.01	4,819.41	4,724.63	94.79	50.844		
12,600.00	7,053.48	7,094.88	6,945.76	161.40	39.95	85.98	-174.88	-10,306.08	4,723.75	4,627.50	96.25	49.076		
12,700.00	7,053.25	7,097.43	6,948.31	164.19	39.96	86.09	-174.93	-10,306.16	4,628.27	4,530.48	97.79	47.327		
12,800.00	7,053.02	7,099.96	6,950.84	166.99	39.96	86.19	-174.97	-10,306.23	4,532.98	4,433.57	99.41	45.599		
12,900.00	7,052.79	7,102.49	6,953.37	169.79	39.97	86.30	-175.02	-10,306.31	4,437.90	4,336.79	101.11	43.892		
13,000.00	7,052.56	7,105.01	6,955.88	172.59	39.98	86.40	-175.06	-10,306.38	4,343.03	4,240.14	102.90	42.207		
13,100.00	7,052.33	7,107.52	6,958.39	175.40	39.99	86.50	-175.11	-10,306.45	4,248.41	4,143.63	104.78	40.547		
13,200.00	7,052.10	7,110.03	6,960.90	178.20	40.00	86.61	-175.15	-10,306.53	4,154.03	4,047.27	106.76	38.912		
13,300.00	7,051.87	7,112.53	6,963.39	181.01	40.01	86.71	-175.19	-10,306.60	4,059.91	3,951.08	108.84	37.302		
13,400.00	7,051.64	7,115.02	6,965.88	183.82	40.02	86.81	-175.23	-10,306.67	3,966.09	3,855.06	111.03	35.721		
13,500.00	7,051.41	7,117.50	6,968.36	186.63	40.03	86.91	-175.27	-10,306.74	3,872.57	3,759.23	113.34	34.167		
13,600.00	7,051.18	7,119.97	6,970.84	189.44	40.04	87.02	-175.31	-10,306.81	3,779.38	3,663.61	115.78	32.643		
13,700.00	7,050.95	7,122.44	6,973.30	192.25	40.05	87.12	-175.35	-10,306.89	3,686.55	3,568.20	118.35	31.150		
13,800.00	7,050.72	7,124.90	6,975.76	195.07	40.05	87.22	-175.39	-10,306.96	3,594.10	3,473.04	121.06	29.688		
13,900.00	7,050.49	7,127.35	6,978.21	197.88	40.06	87.32	-175.43	-10,307.03	3,502.07	3,378.14	123.93	28.260		
14,000.00	7,050.26	7,129.80	6,980.66	200.70	40.07	87.42	-175.46	-10,307.10	3,410.48	3,283.52	126.95	26.864		
14,100.00	7,050.03	7,132.23	6,983.09	203.52	40.08	87.52	-175.50	-10,307.17	3,319.37	3,189.22	130.15	25.504		
14,200.00	7,049.80	7,134.67	6,985.52	206.34	40.09	87.62	-175.54	-10,307.24	3,228.79	3,095.25	133.53	24.180		
14,300.00	7,049.56	7,137.09	6,987.94	209.16	40.10	87.72	-175.57	-10,307.31	3,138.77	3,001.66	137.11	22.892		
14,400.00	7,049.33	7,139.50	6,990.36	211.98	40.11	87.82	-175.60	-10,307.38	3,049.38	2,908.48	140.91	21.641		
14,500.00	7,049.10	7,141.91	6,992.77	214.80	40.12	87.92	-175.64	-10,307.45	2,960.67	2,815.74	144.92	20.429		
14,600.00	7,048.87	7,144.31	6,995.17	217.63	40.12	88.02	-175.67	-10,307.51	2,872.69	2,723.51	149.18	19.257		
14,700.00	7,048.64	7,146.71	6,997.56	220.45	40.13	88.12	-175.70	-10,307.58	2,785.52	2,631.83	153.69	18.124		
14,800.00	7,048.41	7,149.52	7,000.37	223.28	40.14	88.23	-175.74	-10,307.66	2,699.24	2,540.76	158.48	17.032		
14,900.00	7,048.18	7,152.37	7,003.21	226.10	40.15	88.35	-175.78	-10,307.74	2,613.94	2,450.38	163.56	15.981		
14,979.18	7,048.00	7,154.59	7,005.44	228.34	40.16	88.44	-175.80	-10,307.81	2,547.15	2,379.35	167.80	15.180 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 12N-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 12N-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	-90.50	-79.17	-9,146.11	9,146.53					
100.00	100.00	62.00	100.00	3.28	3.45	-90.50	-79.17	-9,146.11	9,146.46	9,139.72	6.74	1,357.314		
200.00	200.00	162.00	200.00	3.34	5.10	-90.50	-79.17	-9,146.11	9,146.46	9,138.02	8.44	1,083.633		
300.00	299.98	261.98	299.98	3.44	8.09	83.43	-79.17	-9,146.11	9,146.26	9,134.72	11.53	792.992		
400.00	399.84	361.84	399.84	3.59	11.37	83.48	-79.17	-9,146.11	9,145.66	9,130.70	14.96	611.421		
500.00	499.45	461.45	499.45	3.79	14.73	83.55	-79.17	-9,146.11	9,144.67	9,126.15	18.52	493.780		
600.00	598.70	560.70	598.70	4.03	18.13	83.65	-79.17	-9,146.11	9,143.30	9,121.14	22.16	412.662		
700.00	697.47	659.47	697.47	4.31	21.53	83.78	-79.17	-9,146.11	9,141.57	9,115.73	25.84	353.755		
800.00	795.62	757.62	795.62	4.64	24.92	83.94	-79.17	-9,146.11	9,139.49	9,109.93	29.56	309.211		
900.00	893.16	855.16	893.16	5.00	28.30	84.10	-79.17	-9,146.11	9,137.14	9,103.84	33.29	274.431		
1,000.00	990.60	952.60	990.60	5.38	31.68	84.24	-79.17	-9,146.11	9,134.79	9,097.73	37.06	246.468		
1,100.00	1,088.04	1,050.04	1,088.04	5.79	35.07	84.37	-79.17	-9,146.11	9,132.50	9,091.65	40.86	223.532		
1,200.00	1,185.48	1,147.48	1,185.48	6.22	38.45	84.51	-79.17	-9,146.11	9,130.27	9,085.60	44.67	204.403		
1,300.00	1,282.92	1,244.92	1,282.92	6.66	41.84	84.65	-79.17	-9,146.11	9,128.09	9,079.59	48.50	188.222		
1,400.00	1,380.36	1,342.36	1,380.36	7.10	45.24	84.78	-79.17	-9,146.11	9,125.96	9,073.63	52.34	174.368		
1,500.00	1,477.80	1,439.80	1,477.80	7.56	48.63	84.92	-79.17	-9,146.11	9,123.89	9,067.70	56.19	162.379		
1,600.00	1,575.24	1,537.24	1,575.24	8.03	52.02	85.06	-79.17	-9,146.11	9,121.88	9,061.83	60.05	151.907		
1,700.00	1,672.68	1,634.68	1,672.68	8.50	55.42	85.19	-79.17	-9,146.11	9,119.92	9,056.00	63.92	142.685		
1,800.00	1,770.12	1,732.12	1,770.12	8.98	58.81	85.33	-79.17	-9,146.11	9,118.01	9,050.22	67.79	134.504		
1,900.00	1,867.56	1,829.56	1,867.56	9.46	62.21	85.47	-79.17	-9,146.11	9,116.16	9,044.49	71.67	127.199		
2,000.00	1,965.00	1,927.00	1,965.00	9.95	65.61	85.61	-79.17	-9,146.11	9,114.37	9,038.82	75.55	120.637		
2,100.00	2,062.44	2,024.44	2,062.44	10.44	69.01	85.74	-79.17	-9,146.11	9,112.63	9,033.19	79.44	114.713		
2,200.00	2,159.88	2,121.88	2,159.88	10.93	72.40	85.88	-79.17	-9,146.11	9,110.94	9,027.61	83.33	109.337		
2,300.00	2,257.32	2,219.32	2,257.32	11.42	75.80	86.02	-79.17	-9,146.11	9,109.31	9,022.09	87.22	104.439		
2,400.00	2,354.76	2,316.76	2,354.76	11.92	79.20	86.16	-79.17	-9,146.11	9,107.74	9,016.62	91.12	99.956		
2,500.00	2,452.20	2,414.20	2,452.20	12.42	82.60	86.29	-79.17	-9,146.11	9,106.22	9,011.20	95.01	95.840		
2,600.00	2,549.64	2,511.64	2,549.64	12.92	86.00	86.43	-79.17	-9,146.11	9,104.75	9,005.84	98.91	92.047		
2,700.00	2,647.08	2,609.08	2,647.08	13.42	89.40	86.57	-79.17	-9,146.11	9,103.35	9,000.53	102.82	88.540		
2,800.00	2,744.52	2,706.52	2,744.52	13.93	92.80	86.71	-79.17	-9,146.11	9,101.99	8,995.27	106.72	85.290		
2,900.00	2,841.96	2,803.96	2,841.96	14.43	96.20	86.84	-79.17	-9,146.11	9,100.69	8,990.07	110.62	82.268		
3,000.00	2,939.40	2,901.40	2,939.40	14.94	99.60	86.98	-79.17	-9,146.11	9,099.45	8,984.92	114.53	79.452		
3,100.00	3,036.84	3,001.16	3,036.84	15.44	103.08	87.12	-79.17	-9,146.11	9,098.26	8,979.75	118.52	76.768		
3,200.00	3,134.28	3,103.72	3,134.28	15.95	106.66	87.26	-79.17	-9,146.11	9,097.13	8,974.53	122.60	74.201		
3,300.00	3,231.72	3,206.28	3,231.72	16.46	110.23	87.39	-79.17	-9,146.11	9,096.06	8,969.37	126.69	71.798		
3,400.00	3,329.16	3,308.84	3,329.16	16.97	113.81	87.53	-79.17	-9,146.11	9,095.04	8,964.26	130.78	69.546		
3,500.00	3,426.60	3,388.60	3,426.60	17.48	116.60	87.67	-79.17	-9,146.11	9,094.07	8,960.00	134.07	67.831		
3,600.00	3,524.04	3,486.04	3,524.04	17.99	120.00	87.81	-79.17	-9,146.11	9,093.16	8,955.18	137.98	65.901		
3,700.00	3,621.48	3,583.48	3,621.48	18.50	123.40	87.95	-79.17	-9,146.11	9,092.30	8,950.41	141.89	64.079		
3,800.00	3,718.92	3,680.92	3,718.92	19.01	126.80	88.08	-79.17	-9,146.11	9,091.51	8,945.70	145.80	62.354		
3,900.00	3,816.36	3,778.36	3,816.36	19.52	130.20	88.22	-79.17	-9,146.11	9,090.76	8,941.04	149.72	60.720		
4,000.00	3,913.80	3,875.80	3,913.80	20.03	133.60	88.36	-79.17	-9,146.11	9,090.07	8,936.44	153.63	59.168		
4,100.00	4,011.24	3,973.24	4,011.24	20.55	137.00	88.50	-79.17	-9,146.11	9,089.44	8,931.90	157.54	57.695		
4,200.00	4,108.68	4,070.68	4,108.68	21.06	140.40	88.64	-79.17	-9,146.11	9,088.86	8,927.41	161.46	56.293		
4,300.00	4,206.12	4,168.12	4,206.12	21.57	143.80	88.77	-79.17	-9,146.11	9,088.34	8,922.97	165.37	54.957		
4,400.00	4,303.56	4,265.56	4,303.56	22.09	147.20	88.91	-79.17	-9,146.11	9,087.88	8,918.59	169.29	53.683		
4,500.00	4,401.00	4,363.00	4,401.00	22.60	150.60	89.05	-79.17	-9,146.11	9,087.47	8,914.27	173.20	52.468		
4,600.00	4,498.44	4,460.44	4,498.44	23.11	154.00	89.19	-79.17	-9,146.11	9,087.11	8,910.00	177.12	51.306		
4,700.00	4,595.88	4,557.88	4,595.88	23.63	157.40	89.33	-79.17	-9,146.11	9,086.81	8,905.78	181.03	50.194		
4,800.00	4,693.32	4,655.32	4,693.32	24.14	160.81	89.46	-79.17	-9,146.11	9,086.57	8,901.62	184.95	49.130		
4,900.00	4,790.76	4,752.76	4,790.76	24.66	164.21	89.60	-79.17	-9,146.11	9,086.38	8,897.52	188.86	48.111		
5,000.00	4,888.20	4,850.20	4,888.20	25.17	167.61	89.74	-79.17	-9,146.11	9,086.25	8,893.47	192.78	47.133		
5,100.00	4,985.64	4,947.64	4,985.64	25.69	171.01	89.88	-79.17	-9,146.11	9,086.17	8,889.48	196.70	46.194		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
5,187.51	5,070.91	5,032.91	5,070.91	26.14	173.98	90.00	-79.17	-9,146.11	9,086.15	8,886.03	200.12	45.402		
5,200.00	5,083.08	5,045.08	5,083.08	26.20	174.41	90.02	-79.17	-9,146.11	9,086.15	8,885.54	200.61	45.292		
5,300.00	5,180.52	5,142.52	5,180.52	26.72	177.81	90.16	-79.17	-9,146.11	9,086.19	8,881.66	204.53	44.425		
5,400.00	5,277.96	5,239.96	5,277.96	27.24	181.21	90.29	-79.17	-9,146.11	9,086.28	8,877.83	208.45	43.590		
5,500.00	5,375.40	5,337.40	5,375.40	27.75	184.61	90.43	-79.17	-9,146.11	9,086.42	8,874.06	212.37	42.787		
5,600.00	5,472.84	5,434.84	5,472.84	28.27	188.01	90.57	-79.17	-9,146.11	9,086.63	8,870.34	216.28	42.013		
5,700.00	5,570.28	5,532.28	5,570.28	28.79	191.42	90.71	-79.17	-9,146.11	9,086.88	8,866.68	220.20	41.266		
5,800.00	5,667.72	5,629.72	5,667.72	29.30	194.82	90.85	-79.17	-9,146.11	9,087.20	8,863.08	224.12	40.547		
5,900.00	5,765.16	5,727.16	5,765.16	29.82	198.22	90.98	-79.17	-9,146.11	9,087.56	8,859.53	228.04	39.852		
6,000.00	5,862.60	5,824.60	5,862.60	30.34	201.62	91.12	-79.17	-9,146.11	9,087.99	8,856.04	231.95	39.180		
6,100.00	5,960.05	5,922.05	5,960.05	30.85	205.02	91.26	-79.17	-9,146.11	9,088.47	8,852.60	235.87	38.531		
6,200.00	6,057.49	6,019.49	6,057.49	31.37	208.42	91.40	-79.17	-9,146.11	9,089.00	8,849.21	239.79	37.904		
6,300.00	6,154.93	6,116.93	6,154.93	31.89	211.82	91.54	-79.17	-9,146.11	9,089.59	8,845.89	243.71	37.297		
6,400.00	6,252.37	6,214.37	6,252.37	32.40	215.22	91.67	-79.17	-9,146.11	9,090.24	8,842.62	247.63	36.710		
6,500.00	6,349.81	6,311.81	6,349.81	32.92	218.62	91.81	-79.17	-9,146.11	9,090.94	8,839.40	251.54	36.141		
6,600.00	6,447.25	6,409.25	6,447.25	33.44	222.03	91.95	-79.17	-9,146.11	9,091.70	8,836.24	255.46	35.589		
6,700.00	6,544.68	6,506.68	6,544.68	33.95	225.41	63.41	-79.17	-9,146.11	9,086.68	8,827.31	259.36	35.035		
6,800.00	6,638.86	6,600.86	6,638.86	34.44	228.71	45.09	-79.17	-9,146.11	9,066.47	8,803.32	263.15	34.453		
6,900.00	6,728.65	6,709.35	6,728.65	34.89	232.50	36.20	-79.17	-9,146.11	9,031.46	8,764.07	267.39	33.777		
7,000.00	6,811.45	6,773.45	6,811.45	35.29	234.74	31.88	-79.17	-9,146.11	8,982.51	8,712.48	270.03	33.265		
7,100.00	6,885.21	6,847.21	6,885.21	35.66	237.31	30.20	-79.17	-9,146.11	8,920.83	8,647.87	272.97	32.681		
7,200.00	6,948.11	6,910.11	6,948.11	35.99	239.51	30.57	-79.17	-9,146.11	8,847.95	8,572.47	275.48	32.118		
7,300.00	6,998.62	6,960.62	6,998.62	36.30	241.27	33.24	-79.17	-9,146.11	8,765.63	8,488.12	277.51	31.587		
7,400.00	7,035.48	7,002.52	7,035.48	36.65	242.74	39.72	-79.17	-9,146.11	8,675.92	8,396.72	279.20	31.074		
7,500.00	7,057.79	7,019.79	7,057.79	37.13	243.34	54.85	-79.17	-9,146.11	8,580.98	8,301.00	279.98	30.648		
7,600.00	7,065.00	7,027.00	7,065.00	37.84	243.59	90.75	-79.17	-9,146.11	8,483.15	8,202.78	280.38	30.256		
7,700.00	7,064.77	7,026.77	7,064.77	38.82	243.58	90.74	-79.17	-9,146.11	8,384.70	8,104.20	280.50	29.892		
7,800.00	7,064.54	7,026.54	7,064.54	40.06	243.57	90.73	-79.17	-9,146.11	8,286.27	8,005.64	280.63	29.527		
7,900.00	7,064.31	7,026.31	7,064.31	41.52	243.57	90.72	-79.17	-9,146.11	8,187.89	7,907.11	280.78	29.162		
8,000.00	7,064.08	7,026.08	7,064.08	43.14	243.56	90.71	-79.17	-9,146.11	8,089.55	7,808.61	280.93	28.795		
8,100.00	7,063.85	7,025.85	7,063.85	44.90	243.55	90.70	-79.17	-9,146.11	7,991.24	7,710.14	281.10	28.428		
8,200.00	7,063.62	7,025.62	7,063.62	46.78	243.54	90.69	-79.17	-9,146.11	7,892.99	7,611.70	281.29	28.060		
8,300.00	7,063.39	7,025.39	7,063.39	48.76	243.53	90.68	-79.17	-9,146.11	7,794.77	7,513.29	281.48	27.692		
8,400.00	7,063.16	7,025.16	7,063.16	50.83	243.53	90.68	-79.17	-9,146.11	7,696.60	7,414.90	281.70	27.322		
8,500.00	7,062.93	7,024.93	7,062.93	52.97	243.52	90.67	-79.17	-9,146.11	7,598.48	7,316.55	281.92	26.952		
8,600.00	7,062.70	7,024.70	7,062.70	55.18	243.51	90.66	-79.17	-9,146.11	7,500.41	7,218.24	282.17	26.581		
8,700.00	7,062.47	7,024.47	7,062.47	57.46	243.50	90.65	-79.17	-9,146.11	7,402.39	7,119.96	282.43	26.210		
8,800.00	7,062.24	7,024.24	7,062.24	59.78	243.49	90.64	-79.17	-9,146.11	7,304.42	7,021.71	282.71	25.837		
8,900.00	7,062.01	7,024.01	7,062.01	62.14	243.49	90.63	-79.17	-9,146.11	7,206.51	6,923.50	283.01	25.464		
9,000.00	7,061.78	7,023.78	7,061.78	64.55	243.48	90.62	-79.17	-9,146.11	7,108.65	6,825.33	283.32	25.090		
9,100.00	7,061.55	7,023.55	7,061.55	67.00	243.47	90.61	-79.17	-9,146.11	7,010.86	6,727.20	283.66	24.716		
9,200.00	7,061.31	7,023.31	7,061.31	69.47	243.46	90.60	-79.17	-9,146.11	6,913.13	6,629.11	284.02	24.340		
9,300.00	7,061.08	7,023.08	7,061.08	71.98	243.45	90.60	-79.17	-9,146.11	6,815.47	6,531.07	284.40	23.964		
9,400.00	7,060.85	7,022.85	7,060.85	74.51	243.44	90.59	-79.17	-9,146.11	6,717.87	6,433.06	284.81	23.587		
9,500.00	7,060.62	7,022.62	7,060.62	77.06	243.44	90.58	-79.17	-9,146.11	6,620.35	6,335.11	285.24	23.210		
9,600.00	7,060.39	7,022.39	7,060.39	79.64	243.43	90.57	-79.17	-9,146.11	6,522.90	6,237.21	285.70	22.831		
9,700.00	7,060.16	7,022.16	7,060.16	82.23	243.42	90.56	-79.17	-9,146.11	6,425.53	6,139.35	286.18	22.453		
9,800.00	7,059.93	7,021.93	7,059.93	84.84	243.41	90.55	-79.17	-9,146.11	6,328.25	6,041.55	286.69	22.073		
9,900.00	7,059.70	7,021.70	7,059.70	87.47	243.40	90.54	-79.17	-9,146.11	6,231.05	5,943.81	287.24	21.693		
10,000.00	7,059.47	7,021.47	7,059.47	90.11	243.40	90.53	-79.17	-9,146.11	6,133.93	5,846.12	287.81	21.312		
10,100.00	7,059.24	7,021.24	7,059.24	92.76	243.39	90.52	-79.17	-9,146.11	6,036.92	5,748.50	288.42	20.931		
10,200.00	7,059.01	7,021.01	7,059.01	95.42	243.38	90.51	-79.17	-9,146.11	5,940.00	5,650.94	289.06	20.549		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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		
10,300.00	7,058.78	7,020.78	7,058.78	98.10	243.37	90.51	-79.17	-9,146.11	5,843.18	5,553.44	289.74	20.167		
10,400.00	7,058.55	7,020.55	7,058.55	100.79	243.36	90.50	-79.17	-9,146.11	5,746.48	5,456.02	290.46	19.784		
10,500.00	7,058.32	7,020.32	7,058.32	103.48	243.36	90.49	-79.17	-9,146.11	5,649.89	5,358.68	291.21	19.401		
10,600.00	7,058.09	7,020.09	7,058.09	106.19	243.35	90.48	-79.17	-9,146.11	5,553.42	5,261.41	292.01	19.018		
10,700.00	7,057.86	7,019.86	7,057.86	108.90	243.34	90.47	-79.17	-9,146.11	5,457.07	5,164.22	292.85	18.634		
10,800.00	7,057.63	7,019.63	7,057.63	111.62	243.33	90.46	-79.17	-9,146.11	5,360.87	5,067.12	293.74	18.250		
10,900.00	7,057.40	7,019.40	7,057.40	114.35	243.32	90.45	-79.17	-9,146.11	5,264.80	4,970.12	294.68	17.866		
11,000.00	7,057.17	7,019.17	7,057.17	117.08	243.32	90.44	-79.17	-9,146.11	5,168.88	4,873.21	295.67	17.482		
11,100.00	7,056.94	7,018.94	7,056.94	119.82	243.31	90.43	-79.17	-9,146.11	5,073.12	4,776.41	296.71	17.098		
11,200.00	7,056.71	7,018.71	7,056.71	122.56	243.30	90.43	-79.17	-9,146.11	4,977.52	4,679.71	297.81	16.714		
11,300.00	7,056.48	7,018.48	7,056.48	125.31	243.29	90.42	-79.17	-9,146.11	4,882.11	4,583.14	298.97	16.330		
11,400.00	7,056.25	7,018.25	7,056.25	128.06	243.28	90.41	-79.17	-9,146.11	4,786.88	4,486.68	300.19	15.946		
11,500.00	7,056.02	7,018.02	7,056.02	130.82	243.28	90.40	-79.17	-9,146.11	4,691.84	4,390.36	301.48	15.563		
11,600.00	7,055.79	7,017.79	7,055.79	133.59	243.27	90.39	-79.17	-9,146.11	4,597.02	4,294.18	302.84	15.180		
11,700.00	7,055.55	7,017.55	7,055.55	136.35	243.26	90.38	-79.17	-9,146.11	4,502.42	4,198.15	304.27	14.797		
11,800.00	7,055.32	7,017.32	7,055.32	139.12	243.25	90.37	-79.17	-9,146.11	4,408.06	4,102.28	305.78	14.416		
11,900.00	7,055.09	7,017.09	7,055.09	141.90	243.24	90.36	-79.17	-9,146.11	4,313.96	4,006.58	307.38	14.035		
12,000.00	7,054.86	7,016.86	7,054.86	144.67	243.24	90.35	-79.17	-9,146.11	4,220.13	3,911.07	309.06	13.655		
12,100.00	7,054.63	7,016.63	7,054.63	147.45	243.23	90.34	-79.17	-9,146.11	4,126.58	3,815.75	310.83	13.276		
12,200.00	7,054.40	7,016.40	7,054.40	150.24	243.22	90.34	-79.17	-9,146.11	4,033.35	3,720.65	312.70	12.898		
12,300.00	7,054.17	7,016.17	7,054.17	153.02	243.21	90.33	-79.17	-9,146.11	3,940.45	3,625.77	314.68	12.522		
12,400.00	7,053.94	7,015.94	7,053.94	155.81	243.20	90.32	-79.17	-9,146.11	3,847.90	3,531.14	316.76	12.148		
12,500.00	7,053.71	7,015.71	7,053.71	158.60	243.20	90.31	-79.17	-9,146.11	3,755.73	3,436.77	318.96	11.775		
12,600.00	7,053.48	7,015.48	7,053.48	161.40	243.19	90.30	-79.17	-9,146.11	3,663.98	3,342.69	321.29	11.404		
12,700.00	7,053.25	7,015.25	7,053.25	164.19	243.18	90.29	-79.17	-9,146.11	3,572.67	3,248.92	323.75	11.035		
12,800.00	7,053.02	7,015.02	7,053.02	166.99	243.17	90.28	-79.17	-9,146.11	3,481.84	3,155.49	326.34	10.669		
12,900.00	7,052.79	7,014.79	7,052.79	169.79	243.16	90.27	-79.17	-9,146.11	3,391.52	3,062.43	329.09	10.306		
13,000.00	7,052.56	7,014.56	7,052.56	172.59	243.16	90.26	-79.17	-9,146.11	3,301.76	2,969.77	331.99	9.945		
13,100.00	7,052.33	7,014.33	7,052.33	175.40	243.15	90.26	-79.17	-9,146.11	3,212.60	2,877.54	335.06	9.588		
13,200.00	7,052.10	7,014.10	7,052.10	178.20	243.14	90.25	-79.17	-9,146.11	3,124.11	2,785.79	338.32	9.234		
13,300.00	7,051.87	7,013.87	7,051.87	181.01	243.13	90.24	-79.17	-9,146.11	3,036.32	2,694.57	341.76	8.884		
13,400.00	7,051.64	7,013.64	7,051.64	183.82	243.12	90.23	-79.17	-9,146.11	2,949.32	2,603.92	345.40	8.539		
13,500.00	7,051.41	7,013.41	7,051.41	186.63	243.12	90.22	-79.17	-9,146.11	2,863.16	2,513.90	349.26	8.198		
13,600.00	7,051.18	7,013.18	7,051.18	189.44	243.11	90.21	-79.17	-9,146.11	2,777.93	2,424.59	353.34	7.862		
13,700.00	7,050.95	7,012.95	7,050.95	192.25	243.10	90.20	-79.17	-9,146.11	2,693.72	2,336.05	357.66	7.531		
13,800.00	7,050.72	7,012.72	7,050.72	195.07	243.09	90.19	-79.17	-9,146.11	2,610.62	2,248.38	362.24	7.207		
13,900.00	7,050.49	7,012.49	7,050.49	197.88	243.08	90.18	-79.17	-9,146.11	2,528.74	2,161.66	367.09	6.889		
14,000.00	7,050.26	7,012.26	7,050.26	200.70	243.07	90.17	-79.17	-9,146.11	2,448.21	2,076.00	372.21	6.578		
14,100.00	7,050.03	7,012.03	7,050.03	203.52	243.07	90.17	-79.17	-9,146.11	2,369.17	1,991.55	377.62	6.274		
14,200.00	7,049.80	7,011.80	7,049.80	206.34	243.06	90.16	-79.17	-9,146.11	2,291.76	1,908.43	383.34	5.978		
14,300.00	7,049.56	7,011.56	7,049.56	209.16	243.05	90.15	-79.17	-9,146.11	2,216.17	1,826.81	389.36	5.692		
14,400.00	7,049.33	7,011.33	7,049.33	211.98	243.04	90.14	-79.17	-9,146.11	2,142.57	1,746.88	395.69	5.415		
14,500.00	7,049.10	7,011.10	7,049.10	214.80	243.03	90.13	-79.17	-9,146.11	2,071.19	1,668.86	402.33	5.148		
14,600.00	7,048.87	7,010.87	7,048.87	217.63	243.03	90.12	-79.17	-9,146.11	2,002.26	1,592.99	409.26	4.892		
14,700.00	7,048.64	7,010.64	7,048.64	220.45	243.02	90.11	-79.17	-9,146.11	1,936.04	1,519.56	416.48	4.649		
14,800.00	7,048.41	7,010.41	7,048.41	223.28	243.01	90.10	-79.17	-9,146.11	1,872.82	1,448.87	423.95	4.418		
14,900.00	7,048.18	7,010.18	7,048.18	226.10	243.00	90.09	-79.17	-9,146.11	1,812.92	1,381.30	431.62	4.200		
14,979.18	7,048.00	7,010.00	7,048.00	228.34	243.00	90.09	-79.17	-9,146.11	1,768.06	1,330.26	437.80	4.038 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 12N-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 12N-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	-90.68	-108.31	-9,143.34	9,144.02					
100.00	100.00	111.44	136.44	3.28	3.29	-90.68	-108.59	-9,142.98	9,143.70	9,137.12	6.58	1,390.174		
200.00	200.00	185.73	210.73	3.34	3.34	-90.68	-108.51	-9,142.79	9,143.44	9,136.77	6.67	1,370.321		
300.00	299.98	260.41	285.40	3.44	3.41	83.25	-108.46	-9,142.81	9,143.26	9,136.41	6.85	1,335.495		
400.00	399.84	347.34	372.33	3.59	3.53	83.28	-108.55	-9,143.01	9,142.87	9,135.76	7.11	1,285.269		
500.00	499.45	435.48	460.48	3.79	3.68	83.34	-108.68	-9,143.33	9,142.22	9,134.75	7.47	1,224.224		
600.00	598.70	611.63	636.63	4.03	4.08	83.50	-109.17	-9,143.62	9,141.11	9,133.00	8.11	1,127.041		
700.00	697.47	678.56	703.55	4.31	4.26	83.60	-109.51	-9,143.44	9,139.06	9,130.49	8.57	1,065.997		
800.00	795.62	727.00	751.99	4.64	4.40	83.70	-109.74	-9,143.48	9,137.07	9,128.03	9.03	1,011.474		
900.00	893.16	727.00	751.99	5.00	4.40	83.71	-109.74	-9,143.48	9,135.63	9,126.23	9.39	972.575		
1,000.00	990.60	796.92	821.91	5.38	4.60	83.81	-109.64	-9,144.20	9,134.40	9,124.42	9.99	914.699		
1,061.97	1,050.99	816.33	841.32	5.63	4.66	83.84	-109.47	-9,144.61	9,134.18	9,123.88	10.30	887.103		
1,100.00	1,088.04	856.00	880.96	5.79	4.78	83.90	-108.90	-9,145.70	9,134.32	9,123.75	10.58	863.669		
1,111.45	1,099.20	856.00	880.96	5.84	4.78	83.90	-108.90	-9,145.70	9,134.31	9,123.69	10.62	859.759		
1,200.00	1,185.48	856.00	880.96	6.22	4.78	83.90	-108.90	-9,145.70	9,134.74	9,123.74	11.00	830.281		
1,300.00	1,282.92	856.00	880.96	6.66	4.78	83.90	-108.90	-9,145.70	9,136.26	9,124.82	11.44	798.541		
1,400.00	1,380.36	906.15	931.07	7.10	4.94	83.98	-107.82	-9,147.73	9,138.31	9,126.26	12.05	758.458		
1,500.00	1,477.80	929.84	954.71	7.56	5.02	84.01	-107.18	-9,148.98	9,141.36	9,128.77	12.58	726.506		
1,600.00	1,575.24	984.00	1,008.72	8.03	5.20	84.10	-105.39	-9,152.55	9,145.45	9,132.23	13.23	691.523		
1,700.00	1,672.68	984.00	1,008.72	8.50	5.20	84.10	-105.39	-9,152.55	9,149.99	9,136.29	13.69	668.142		
1,800.00	1,770.12	984.00	1,008.72	8.98	5.20	84.10	-105.39	-9,152.55	9,155.61	9,141.44	14.17	646.209		
1,900.00	1,867.56	1,028.61	1,053.14	9.46	5.35	84.17	-103.44	-9,156.18	9,161.92	9,147.12	14.80	619.164		
2,000.00	1,965.00	1,054.61	1,079.00	9.95	5.45	84.22	-102.04	-9,158.56	9,169.11	9,153.75	15.37	596.704		
2,100.00	2,062.44	1,112.00	1,135.95	10.44	5.65	84.32	-98.24	-9,164.48	9,177.32	9,161.27	16.05	571.818		
2,200.00	2,159.88	1,112.00	1,135.95	10.93	5.65	84.32	-98.24	-9,164.48	9,185.95	9,169.42	16.53	555.695		
2,300.00	2,257.32	1,112.00	1,135.95	11.42	5.65	84.32	-98.24	-9,164.48	9,195.65	9,178.64	17.01	540.542		
2,400.00	2,354.76	1,177.53	1,200.80	11.92	5.90	84.45	-92.80	-9,172.11	9,205.83	9,188.10	17.74	519.030		
2,500.00	2,452.20	1,241.00	1,263.44	12.42	6.15	84.57	-86.47	-9,180.15	9,216.93	9,198.47	18.46	499.276		
2,600.00	2,549.64	1,256.44	1,278.65	12.92	6.22	84.60	-84.76	-9,182.19	9,228.51	9,209.51	19.00	485.634		
2,700.00	2,647.08	1,315.18	1,336.39	13.42	6.46	84.73	-77.37	-9,190.03	9,240.72	9,221.00	19.72	468.574		
2,800.00	2,744.52	1,369.00	1,389.11	13.93	6.70	84.85	-69.39	-9,197.33	9,253.42	9,233.00	20.42	453.108		
2,900.00	2,841.96	1,409.30	1,428.47	14.43	6.88	84.95	-62.78	-9,202.95	9,266.72	9,245.64	21.08	439.659		
3,000.00	2,939.40	1,446.71	1,464.91	14.94	7.06	85.03	-56.29	-9,208.35	9,280.70	9,258.98	21.72	427.298		
3,100.00	3,036.84	1,498.00	1,514.73	15.44	7.31	85.16	-46.82	-9,216.08	9,295.40	9,272.98	22.42	414.518		
3,200.00	3,134.28	1,498.00	1,514.73	15.95	7.31	85.16	-46.82	-9,216.08	9,310.81	9,287.91	22.90	406.646		
3,300.00	3,231.72	1,554.42	1,569.33	16.46	7.60	85.30	-35.78	-9,225.01	9,326.82	9,303.18	23.64	394.555		
3,400.00	3,329.16	1,589.07	1,602.77	16.97	7.78	85.39	-28.74	-9,230.73	9,343.60	9,319.33	24.28	384.904		
3,500.00	3,426.60	1,626.00	1,638.33	17.48	7.98	85.49	-21.02	-9,237.03	9,361.09	9,336.17	24.92	375.624		
3,600.00	3,524.04	1,660.48	1,671.44	17.99	8.17	85.58	-13.54	-9,243.08	9,379.27	9,353.71	25.57	366.877		
3,700.00	3,621.48	1,697.25	1,706.63	18.50	8.39	85.68	-5.17	-9,249.68	9,398.14	9,371.92	26.22	358.442		
3,800.00	3,718.92	1,754.00	1,760.70	19.01	8.72	85.83	8.52	-9,260.16	9,417.73	9,390.76	26.98	349.072		
3,900.00	3,816.36	1,754.00	1,760.70	19.52	8.72	85.83	8.52	-9,260.16	9,437.94	9,410.51	27.43	344.052		
4,000.00	3,913.80	1,754.00	1,760.70	20.03	8.72	85.83	8.52	-9,260.16	9,459.16	9,431.28	27.88	339.281		
4,100.00	4,011.24	1,812.78	1,816.37	20.55	9.10	86.00	23.51	-9,271.63	9,480.72	9,452.06	28.67	330.718		
4,200.00	4,108.68	1,836.65	1,838.87	21.06	9.26	86.07	29.77	-9,276.52	9,503.31	9,474.06	29.25	324.920		
4,300.00	4,206.12	1,883.00	1,882.40	21.57	9.56	86.20	42.23	-9,286.43	9,526.76	9,496.81	29.96	317.995		
4,400.00	4,303.56	1,894.54	1,893.22	22.09	9.64	86.23	45.39	-9,288.96	9,550.80	9,520.34	30.46	313.509		
4,500.00	4,401.00	2,082.42	2,069.36	22.60	10.98	86.78	97.24	-9,328.71	9,574.67	9,542.58	32.09	298.411		
4,600.00	4,498.44	2,174.25	2,155.78	23.11	11.65	87.04	121.72	-9,347.84	9,598.43	9,565.32	33.11	289.893		
4,700.00	4,595.88	2,244.22	2,221.74	23.63	12.17	87.23	139.81	-9,362.59	9,622.50	9,588.51	33.99	283.066		
4,800.00	4,693.32	2,376.73	2,346.99	24.14	13.15	87.59	172.76	-9,390.65	9,646.73	9,611.44	35.29	273.389		
4,900.00	4,790.76	2,439.16	2,406.10	24.66	13.62	87.76	187.95	-9,403.76	9,670.90	9,634.77	36.12	267.724		

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 12N-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 12N-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	4,888.20	2,487.58	2,451.81	25.17	13.99	87.89	200.12	-9,414.05	9,695.59	9,658.73	36.87	263.000		
5,100.00	4,985.64	2,549.02	2,509.67	25.69	14.46	88.06	216.06	-9,427.27	9,720.82	9,683.12	37.70	257.867		
5,200.00	5,083.08	2,657.98	2,612.18	26.20	15.32	88.36	244.68	-9,450.57	9,746.20	9,707.34	38.86	250.797		
5,300.00	5,180.52	2,689.23	2,641.54	26.72	15.57	88.44	253.02	-9,457.30	9,771.93	9,732.44	39.49	247.439		
5,400.00	5,277.96	2,723.60	2,673.75	27.24	15.85	88.54	262.36	-9,464.82	9,798.32	9,758.17	40.14	244.097		
5,500.00	5,375.40	2,782.00	2,728.29	27.75	16.32	88.70	278.62	-9,477.94	9,825.42	9,784.47	40.96	239.892		
5,600.00	5,472.84	2,873.56	2,813.77	28.27	17.08	88.96	304.06	-9,498.60	9,852.93	9,810.91	42.02	234.501		
5,700.00	5,570.28	3,073.13	3,001.30	28.79	18.71	89.50	356.91	-9,541.83	9,879.22	9,835.37	43.84	225.330		
5,800.00	5,667.72	3,109.75	3,035.71	29.30	19.01	89.60	366.61	-9,549.75	9,906.02	9,861.52	44.50	222.599		
5,900.00	5,765.16	3,167.00	3,089.36	29.82	19.48	89.75	382.06	-9,562.43	9,933.49	9,888.18	45.31	219.256		
6,000.00	5,862.60	6,129.18	5,974.21	30.34	35.38	95.28	733.44	-9,876.35	9,941.11	9,880.43	60.68	163.838		
6,100.00	5,960.05	6,229.66	6,074.67	30.85	35.66	95.40	731.47	-9,875.61	9,942.11	9,880.60	61.51	161.642		
6,200.00	6,057.49	6,320.77	6,165.77	31.37	35.92	95.51	729.92	-9,874.87	9,943.14	9,880.83	62.31	159.566		
6,300.00	6,154.93	6,432.62	6,277.60	31.89	36.25	95.65	728.17	-9,873.98	9,944.27	9,881.08	63.19	157.382		
6,400.00	6,252.37	6,546.42	6,391.38	32.40	36.59	95.79	726.79	-9,872.64	9,945.12	9,881.06	64.07	155.230		
6,500.00	6,349.81	6,624.82	6,469.78	32.92	36.82	95.89	726.17	-9,871.73	9,946.13	9,881.29	64.84	153.385		
6,600.00	6,447.25	6,702.08	6,547.03	33.44	37.06	95.98	725.71	-9,870.96	9,947.38	9,881.76	65.62	151.588		
6,700.00	6,544.28	6,780.81	6,625.76	33.95	37.30	67.42	725.13	-9,870.35	9,943.12	9,876.72	66.40	149.745		
6,800.00	6,638.86	6,864.04	6,708.98	34.44	37.56	49.19	724.66	-9,869.81	9,923.98	9,856.81	67.17	147.745		
6,900.00	6,728.65	6,933.28	6,778.22	34.89	37.78	40.46	724.44	-9,869.41	9,890.32	9,822.47	67.85	145.758		
7,000.00	6,811.45	6,992.79	6,837.73	35.29	37.97	36.41	724.36	-9,869.19	9,843.05	9,774.58	68.47	143.767		
7,100.00	6,885.21	7,219.60	7,064.53	35.66	38.69	35.71	723.73	-9,866.70	9,782.44	9,712.88	69.56	140.627		
7,200.00	6,948.11	7,290.34	7,135.25	35.99	38.91	37.00	722.73	-9,865.57	9,710.42	9,640.30	70.12	138.483		
7,300.00	6,998.62	7,320.23	7,165.13	36.30	39.00	40.87	722.26	-9,865.13	9,629.21	9,558.70	70.51	136.568		
7,400.00	7,035.48	7,345.83	7,190.72	36.65	39.08	49.02	721.84	-9,864.79	9,540.79	9,469.95	70.84	134.675		
7,500.00	7,057.79	7,361.03	7,205.92	37.13	39.13	65.21	721.60	-9,864.60	9,447.28	9,376.18	71.11	132.857		
7,600.00	7,065.00	7,365.38	7,210.27	37.84	39.15	94.17	721.53	-9,864.55	9,350.95	9,279.64	71.31	131.136		
7,700.00	7,064.77	7,364.35	7,209.24	38.82	39.14	94.14	721.54	-9,864.56	9,254.02	9,182.54	71.48	129.462		
7,800.00	7,064.54	7,363.31	7,208.20	40.06	39.14	94.12	721.56	-9,864.57	9,157.15	9,085.48	71.67	127.764		
7,900.00	7,064.31	7,362.27	7,207.16	41.52	39.14	94.09	721.58	-9,864.58	9,060.35	8,988.47	71.88	126.042		
8,000.00	7,064.08	7,361.22	7,206.11	43.14	39.13	94.06	721.59	-9,864.60	8,963.62	8,891.50	72.11	124.297		
8,100.00	7,063.85	7,360.17	7,205.06	44.90	39.13	94.04	721.61	-9,864.61	8,866.96	8,794.60	72.37	122.529		
8,200.00	7,063.62	7,359.11	7,204.00	46.78	39.13	94.01	721.63	-9,864.62	8,770.38	8,697.74	72.64	120.739		
8,300.00	7,063.39	7,358.04	7,202.93	48.76	39.12	93.98	721.65	-9,864.64	8,673.87	8,600.94	72.94	118.926		
8,400.00	7,063.16	7,356.96	7,201.85	50.83	39.12	93.96	721.66	-9,864.65	8,577.45	8,504.20	73.25	117.092		
8,500.00	7,062.93	7,355.88	7,200.77	52.97	39.12	93.93	721.68	-9,864.66	8,481.11	8,407.51	73.60	115.238		
8,600.00	7,062.70	7,354.79	7,199.68	55.18	39.11	93.90	721.70	-9,864.68	8,384.85	8,310.89	73.96	113.364		
8,700.00	7,062.47	7,353.70	7,198.59	57.46	39.11	93.88	721.72	-9,864.69	8,288.68	8,214.32	74.36	111.471		
8,800.00	7,062.24	7,352.59	7,197.49	59.78	39.11	93.85	721.73	-9,864.70	8,192.60	8,117.83	74.78	109.560		
8,900.00	7,062.01	7,351.48	7,196.38	62.14	39.10	93.82	721.75	-9,864.72	8,096.62	8,021.40	75.22	107.632		
9,000.00	7,061.78	7,350.37	7,195.26	64.55	39.10	93.79	721.77	-9,864.73	8,000.74	7,925.04	75.70	105.689		
9,100.00	7,061.55	7,349.24	7,194.14	67.00	39.10	93.76	721.79	-9,864.75	7,904.96	7,828.75	76.21	103.732		
9,200.00	7,061.31	7,348.11	7,193.01	69.47	39.09	93.74	721.81	-9,864.76	7,809.28	7,732.54	76.74	101.761		
9,300.00	7,061.08	7,346.97	7,191.87	71.98	39.09	93.71	721.82	-9,864.78	7,713.71	7,636.40	77.31	99.779		
9,400.00	7,060.85	7,345.83	7,190.72	74.51	39.08	93.68	721.84	-9,864.79	7,618.26	7,540.35	77.91	97.786		
9,500.00	7,060.62	7,344.68	7,189.57	77.06	39.08	93.65	721.86	-9,864.81	7,522.92	7,444.38	78.54	95.785		
9,600.00	7,060.39	7,343.52	7,188.41	79.64	39.08	93.62	721.88	-9,864.82	7,427.71	7,348.50	79.21	93.776		
9,700.00	7,060.16	7,342.35	7,187.24	82.23	39.07	93.59	721.90	-9,864.84	7,332.62	7,252.71	79.91	91.762		
9,800.00	7,059.93	7,341.17	7,186.07	84.84	39.07	93.56	721.92	-9,864.85	7,237.67	7,157.02	80.65	89.744		
9,900.00	7,059.70	7,339.99	7,184.88	87.47	39.07	93.53	721.94	-9,864.87	7,142.85	7,061.43	81.42	87.723		
10,000.00	7,059.47	7,338.80	7,183.69	90.11	39.06	93.50	721.96	-9,864.88	7,048.18	6,965.94	82.24	85.702		
10,100.00	7,059.24	7,337.60	7,182.49	92.76	39.06	93.47	721.98	-9,864.90	6,953.65	6,870.56	83.10	83.682		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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	7,059.01	7,336.39	7,181.29	95.42	39.05	93.44	722.00	-9,864.91	6,859.28	6,775.29	83.99	81.664		
10,300.00	7,058.78	7,335.18	7,180.07	98.10	39.05	93.41	722.02	-9,864.93	6,765.08	6,680.14	84.93	79.651		
10,400.00	7,058.55	7,333.95	7,178.85	100.79	39.05	93.38	722.04	-9,864.95	6,671.04	6,585.12	85.92	77.644		
10,500.00	7,058.32	7,332.72	7,177.62	103.48	39.04	93.35	722.06	-9,864.96	6,577.17	6,490.22	86.95	75.645		
10,600.00	7,058.09	7,331.48	7,176.38	106.19	39.04	93.32	722.08	-9,864.98	6,483.49	6,395.47	88.02	73.655		
10,700.00	7,057.86	7,330.23	7,175.13	108.90	39.04	93.29	722.10	-9,865.00	6,390.00	6,300.85	89.15	71.677		
10,800.00	7,057.63	7,328.98	7,173.87	111.62	39.03	93.26	722.12	-9,865.01	6,296.71	6,206.39	90.33	69.711		
10,900.00	7,057.40	7,327.71	7,172.61	114.35	39.03	93.22	722.14	-9,865.03	6,203.63	6,112.08	91.55	67.760		
11,000.00	7,057.17	7,326.44	7,171.34	117.08	39.02	93.19	722.16	-9,865.05	6,110.77	6,017.93	92.83	65.825		
11,100.00	7,056.94	7,325.16	7,170.05	119.82	39.02	93.16	722.18	-9,865.07	6,018.13	5,923.96	94.17	63.907		
11,200.00	7,056.71	7,323.87	7,168.76	122.56	39.02	93.13	722.20	-9,865.08	5,925.74	5,830.17	95.56	62.008		
11,300.00	7,056.48	7,322.57	7,167.46	125.31	39.01	93.10	722.22	-9,865.10	5,833.59	5,736.57	97.02	60.129		
11,400.00	7,056.25	7,321.26	7,166.16	128.06	39.01	93.06	722.24	-9,865.12	5,741.71	5,643.18	98.53	58.272		
11,500.00	7,056.02	7,319.94	7,164.84	130.82	39.00	93.03	722.26	-9,865.14	5,650.10	5,549.99	100.11	56.438		
11,600.00	7,055.79	7,318.61	7,163.51	133.59	39.00	93.00	722.28	-9,865.16	5,558.78	5,457.03	101.76	54.628		
11,700.00	7,055.55	7,317.27	7,162.17	136.35	39.00	92.96	722.31	-9,865.17	5,467.77	5,364.30	103.47	52.844		
11,800.00	7,055.32	7,315.93	7,160.83	139.12	38.99	92.93	722.33	-9,865.19	5,377.07	5,271.82	105.25	51.087		
11,900.00	7,055.09	7,314.57	7,159.47	141.90	38.99	92.90	722.35	-9,865.21	5,286.71	5,179.60	107.11	49.357		
12,000.00	7,054.86	7,313.21	7,158.11	144.67	38.98	92.86	722.37	-9,865.23	5,196.70	5,087.65	109.05	47.656		
12,100.00	7,054.63	7,311.83	7,156.74	147.45	38.98	92.83	722.39	-9,865.25	5,107.06	4,996.00	111.06	45.984		
12,200.00	7,054.40	7,310.45	7,155.35	150.24	38.97	92.79	722.42	-9,865.27	5,017.82	4,904.66	113.16	44.343		
12,300.00	7,054.17	7,309.06	7,153.96	153.02	38.97	92.76	722.44	-9,865.29	4,928.98	4,813.64	115.34	42.733		
12,400.00	7,053.94	7,307.65	7,152.55	155.81	38.96	92.72	722.46	-9,865.31	4,840.59	4,722.97	117.62	41.156		
12,500.00	7,053.71	7,306.24	7,151.14	158.60	38.96	92.69	722.49	-9,865.33	4,752.65	4,632.67	119.98	39.612		
12,600.00	7,053.48	7,304.81	7,149.72	161.40	38.96	92.65	722.51	-9,865.35	4,665.19	4,542.75	122.44	38.101		
12,700.00	7,053.25	7,303.38	7,148.28	164.19	38.95	92.61	722.53	-9,865.37	4,578.25	4,453.25	125.01	36.624		
12,800.00	7,053.02	7,301.93	7,146.84	166.99	38.95	92.58	722.56	-9,865.40	4,491.86	4,364.18	127.67	35.183		
12,900.00	7,052.79	7,300.48	7,145.38	169.79	38.94	92.54	722.58	-9,865.42	4,406.03	4,275.59	130.45	33.776		
13,000.00	7,052.56	7,299.01	7,143.92	172.59	38.94	92.51	722.60	-9,865.44	4,320.82	4,187.48	133.34	32.405		
13,100.00	7,052.33	7,297.54	7,142.44	175.40	38.93	92.47	722.63	-9,865.46	4,236.25	4,099.91	136.34	31.071		
13,200.00	7,052.10	7,296.05	7,140.95	178.20	38.93	92.43	722.65	-9,865.48	4,152.37	4,012.90	139.47	29.772		
13,300.00	7,051.87	7,302.57	7,147.47	181.01	38.95	92.59	722.51	-9,865.38	4,069.20	3,926.45	142.74	28.507		
13,400.00	7,051.64	7,300.35	7,145.26	183.82	38.94	92.54	722.55	-9,865.41	3,986.82	3,840.69	146.13	27.283		
13,500.00	7,051.41	7,298.13	7,143.03	186.63	38.94	92.48	722.59	-9,865.44	3,905.26	3,755.62	149.64	26.097		
13,600.00	7,051.18	7,295.90	7,140.80	189.44	38.93	92.43	722.63	-9,865.48	3,824.58	3,671.28	153.30	24.948		
13,700.00	7,050.95	7,293.66	7,138.57	192.25	38.92	92.37	722.67	-9,865.51	3,744.83	3,587.73	157.11	23.836		
13,800.00	7,050.72	7,291.42	7,136.32	195.07	38.91	92.31	722.71	-9,865.55	3,666.07	3,505.02	161.06	22.762		
13,900.00	7,050.49	7,289.17	7,134.08	197.88	38.91	92.26	722.75	-9,865.58	3,588.37	3,423.21	165.16	21.726		
14,000.00	7,050.26	7,286.91	7,131.82	200.70	38.90	92.20	722.79	-9,865.62	3,511.80	3,342.38	169.43	20.728		
14,100.00	7,050.03	7,284.65	7,129.56	203.52	38.89	92.14	722.83	-9,865.65	3,436.43	3,262.58	173.85	19.767		
14,200.00	7,049.80	7,282.38	7,127.29	206.34	38.89	92.09	722.87	-9,865.69	3,362.34	3,183.91	178.43	18.844		
14,300.00	7,049.56	7,280.10	7,125.01	209.16	38.88	92.03	722.91	-9,865.73	3,289.63	3,106.45	183.18	17.959		
14,400.00	7,049.33	7,277.82	7,122.73	211.98	38.87	91.97	722.95	-9,865.76	3,218.37	3,030.28	188.09	17.111		
14,500.00	7,049.10	7,275.53	7,120.44	214.80	38.86	91.92	722.98	-9,865.80	3,148.68	2,955.51	193.17	16.300		
14,600.00	7,048.87	7,273.23	7,118.14	217.63	38.86	91.86	723.02	-9,865.84	3,080.66	2,882.25	198.41	15.527		
14,700.00	7,048.64	7,270.93	7,115.84	220.45	38.85	91.80	723.06	-9,865.87	3,014.42	2,810.61	203.81	14.791		
14,800.00	7,048.41	7,268.61	7,113.53	223.28	38.84	91.74	723.09	-9,865.91	2,950.08	2,740.72	209.36	14.091		
14,900.00	7,048.18	7,266.30	7,111.21	226.10	38.84	91.68	723.13	-9,865.95	2,887.77	2,672.72	215.05	13.428		
14,979.18	7,048.00	7,264.46	7,109.37	228.34	38.83	91.64	723.16	-9,865.97	2,839.96	2,620.31	219.66	12.929 CC, ES, SF		

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-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 12N-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

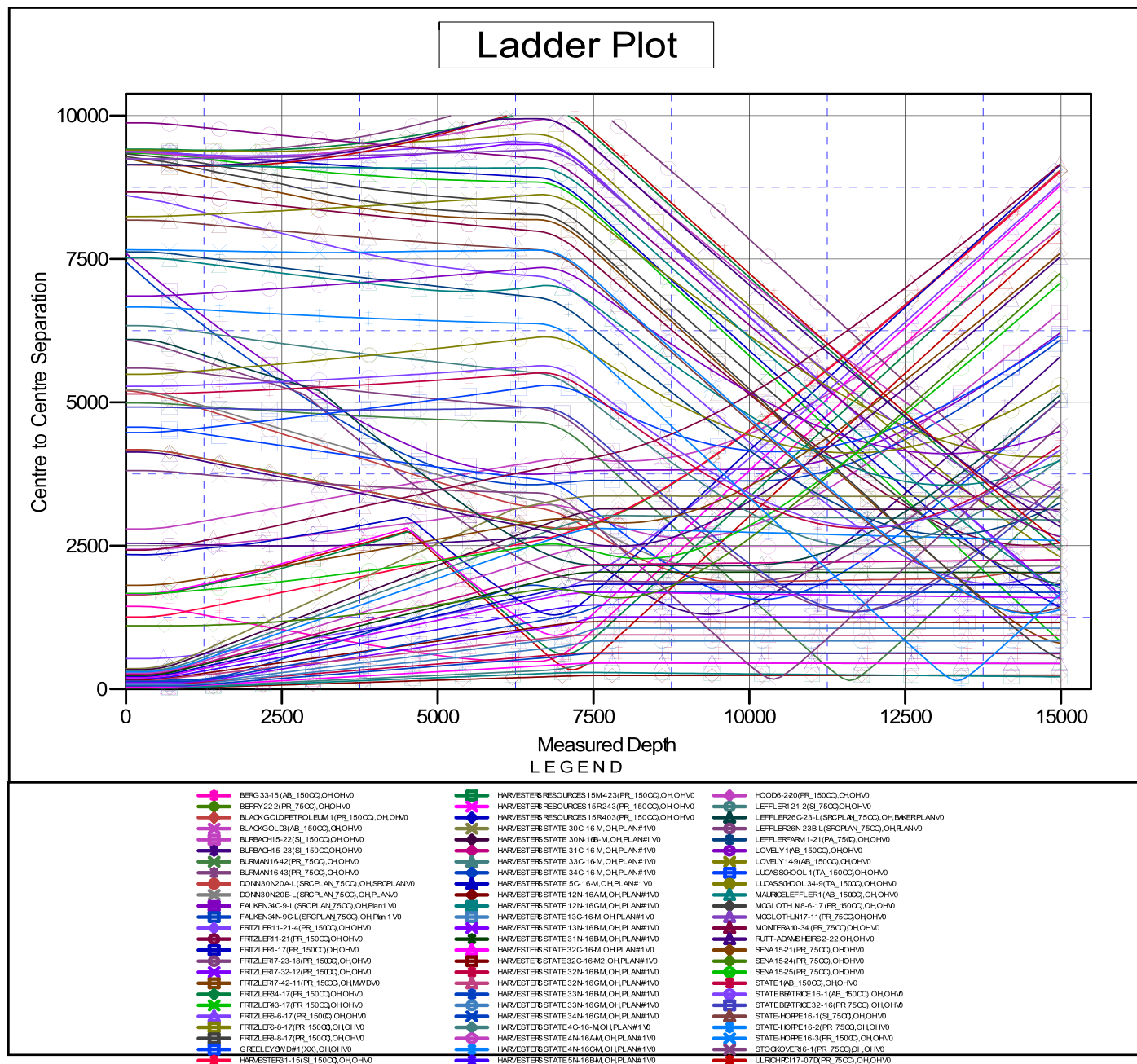
Offset Depths are relative to Offset Datum

Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 12N-16B-M

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.48°

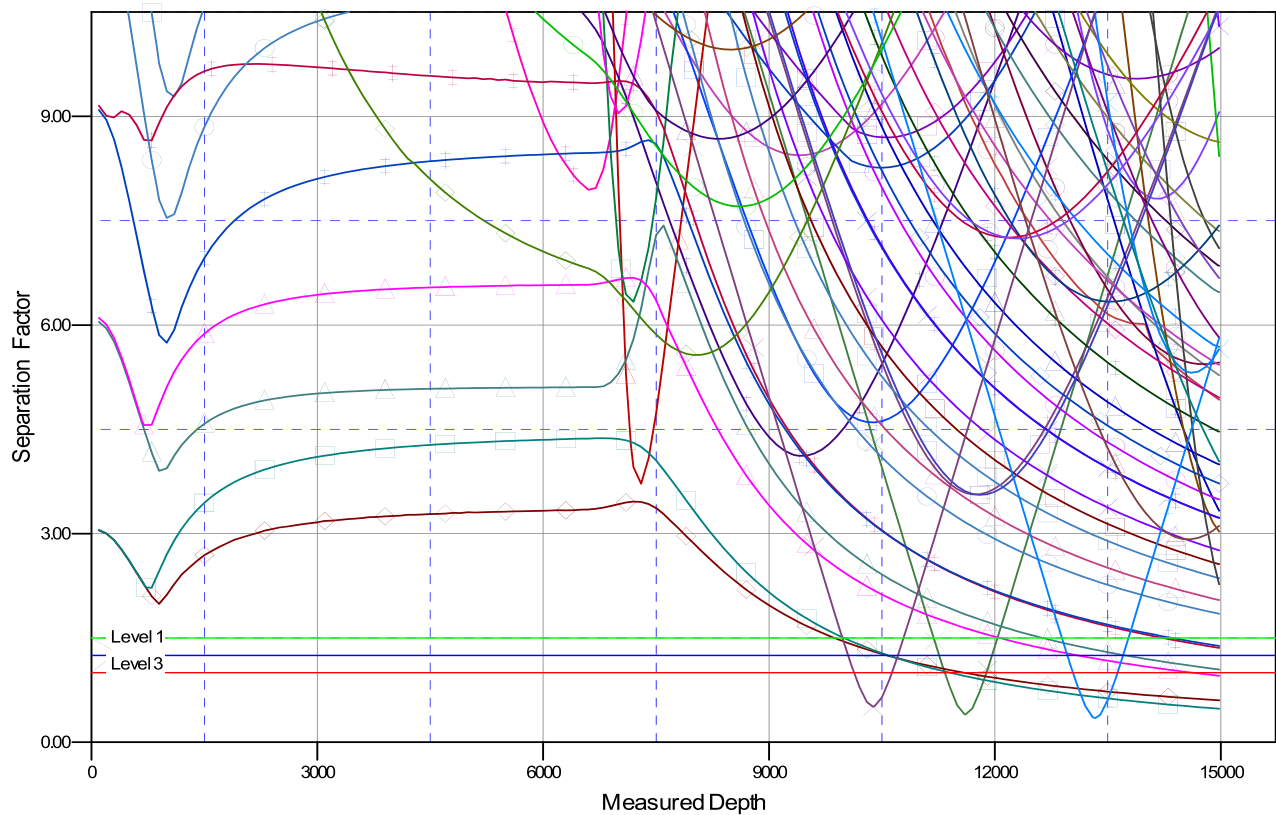


Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 12N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4820.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4820.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 12N-16B-M	Survey 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 12N-16B-M
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.48°

Separation Factor Plot



LEGEND

BERG 33-15 (AB, 1500Q, OH, OHV0)	HARVESTERS RESOURCES 15M423 (PR, 1500Q, OH, OHV0)	H006-220 (PR, 1500Q, OH, OHV0)
BERV 22-2 (PR, 750Q, OH, OHV0)	HARVESTERS RESOURCES 15N43 (PR, 1500Q, OH, OHV0)	LEFFLER 21-2 (SL, 750Q, OH, OHV0)
BLACK GOLD PETROLEUM 1 (PR, 1500Q, OH, OHV0)	HARVESTERS RESOURCES 15N403 (PR, 1500Q, OH, OHV0)	LEFFLER 26-23-L (SRC PLAN, 750Q, OH, OHV0)
BURBACH 15-22 (SL, 1500Q, OH, OHV0)	HARVESTERS STATE 30C-16M, OH, PLAN#1 V0	LEFFLER 26N-23B-L (SRC PLAN, 750Q, OH, OHV0)
BURBACH 15-23 (SL, 1500Q, OH, OHV0)	HARVESTERS STATE 31C-16M, OH, PLAN#1 V0	LOVELY 149 (AB, 1500Q, OH, OHV0)
BURMAN 16-42 (PR, 750Q, OH, OHV0)	HARVESTERS STATE 33C-16M, OH, PLAN#1 V0	LOVELY 149 (AB, 1500Q, OH, OHV0)
BURMAN 16-43 (PR, 750Q, OH, OHV0)	HARVESTERS STATE 34C-16M, OH, PLAN#1 V0	LUCAS SCHOOL 1 (TA, 1500Q, OH, OHV0)
DOHN 00N020-A-L (SRC PLAN, 750Q, OH, SRC PLAN V0)	HARVESTERS STATE 5C-16M, OH, PLAN#1 V0	LUCAS SCHOOL 34-9 (TA, 1500Q, OH, OHV0)
DOHN 00N020-B-L (SRC PLAN, 750Q, OH, PLAN V0)	HARVESTERS STATE 12N-16AM, OH, PLAN#1 V0	MAURICE LEFFLER 1 (AB, 1500Q, OH, OHV0)
FALKEN 31G-9-L (SRC PLAN, 750Q, OH, Plan 1 V0)	HARVESTERS STATE 12N-16GM, OH, PLAN#1 V0	MOGLOTHUN 6-17 (PR, 600Q, OH, OHV0)
FALKEN 31N-9C-L (SRC PLAN, 750Q, OH, Plan 1 V0)	HARVESTERS STATE 13C-16M, OH, PLAN#1 V0	MOGLOTHUN 17-11 (PR, 750Q, OH, OHV0)
FRTZLER 1-21-4 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 13N-16BM, OH, PLAN#1 V0	MONTEWA 10-34 (PR, 750Q, OH, OHV0)
FRTZLER 1-21 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 31N-16BM, OH, PLAN#1 V0	RUTT-ADAMS HERS 2-22 (OH, OHV0)
FRTZLER 6-17 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 32C-16M, OH, PLAN#1 V0	SENA 15-21 (PR, 750Q, OH, OHV0)
FRTZLER 7-23-16 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 32C-16M2, OH, PLAN#1 V0	SENA 15-24 (PR, 750Q, OH, OHV0)
FRTZLER 7-32-12 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 32N-16BM, OH, PLAN#1 V0	SENA 15-25 (PR, 750Q, OH, OHV0)
FRTZLER 7-42-11 (PR, 1500Q, OH, MW D V0)	HARVESTERS STATE 32N-16GM, OH, PLAN#1 V0	STATE 1 (AB, 1500Q, OH, OHV0)
FRTZLER 8-17 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 33N-16BM, OH, PLAN#1 V0	STATEBATRICE 16-11 (AB, 1500Q, OH, OHV0)
FRTZLER 8-17 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 33N-16GM, OH, PLAN#1 V0	STATEBATRICE 32-16 (PR, 750Q, OH, OHV0)
FRTZLER 8-17 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 34N-16GM, OH, PLAN#1 V0	STATE HOPE 16-1 (SL, 750Q, OH, OHV0)
FRTZLER 8-17 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 42-16M, OH, PLAN#1 V0	STATE HOPE 16-2 (PR, 750Q, OH, OHV0)
FRTZLER 8-17 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 44N-16AM, OH, PLAN#1 V0	STATE HOPE 16-3 (PR, 1500Q, OH, OHV0)
GRIFFLEY 30D#1 (OH, OHV0)	HARVESTERS STATE 4N-16GM, OH, PLAN#1 V0	STOCKOVER 6-11 (PR, 750Q, OH, OHV0)
HARVESTERS 1-15 (SL, 1500Q, OH, OHV0)	HARVESTERS STATE 5N-16BM, OH, PLAN#1 V0	ULRICH 17-07 (PR, 750Q, OH, OHV0)