



SRC ENERGY

**SECTION 15, T6N, R66W
HARVESTERS STATE 7-15 PAD
HARVESTERS STATE 13C-16-M**

**OH
PLAN #1**

Anticollision Report

04 October, 2017





Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

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

Survey Tool Program	Date	10/4/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	15,436.55	PLAN #1 (OH)	MWD+IFR1	OWSG MWD + IFR1

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
BERG 33-15 (AB_150CC) - OH - OH	4,393.62	4,135.88	410.63	367.88	9.605	CC
BERG 33-15 (AB_150CC) - OH - OH	4,400.00	4,141.80	410.63	367.82	9.591	ES
BERG 33-15 (AB_150CC) - OH - OH	4,700.00	4,422.61	424.61	379.06	9.323	SF
BERRY 22-2(PR_75CC) - OH - OH	7,467.48	6,968.03	1,827.31	1,759.35	26.888	CC, ES
BERRY 22-2(PR_75CC) - OH - OH	7,700.00	7,113.90	1,859.26	1,788.60	26.316	SF
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	7,479.88	7,100.16	1,844.52	1,776.12	26.970	CC, ES
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	7,700.00	7,240.15	1,872.47	1,801.68	26.451	SF
BLACKGOLD 3(AB_150CC) - OH - OH	0.00	24.90	2,883.41			
BLACKGOLD 3(AB_150CC) - OH - OH	100.00	122.81	2,883.43	2,876.85	438.246	ES
BLACKGOLD 3(AB_150CC) - OH - OH	11,900.00	7,243.24	6,102.88	5,966.17	44.642	SF
BURBACH 15-22(SI_150CC) - OH - OH	200.00	181.00	2,486.47	2,477.51	277.357	CC
BURBACH 15-22(SI_150CC) - OH - OH	400.00	380.84	2,489.53	2,473.93	159.633	ES
BURBACH 15-22(SI_150CC) - OH - OH	10,200.00	7,215.22	3,772.17	3,440.18	11.362	SF
BURBACH 15-23(SI_150CC) - OH - OH	9,787.20	7,202.29	2,357.25	2,033.13	7.273	CC
BURBACH 15-23(SI_150CC) - OH - OH	9,800.00	7,202.22	2,357.28	2,032.89	7.267	ES
BURBACH 15-23(SI_150CC) - OH - OH	10,100.00	7,200.72	2,377.91	2,047.52	7.197	SF
BURMAN 16-42(PR_75CC) - OH - OH	12,055.59	7,179.93	1,201.49	818.07	3.134	CC
BURMAN 16-42(PR_75CC) - OH - OH	12,100.00	7,179.71	1,202.31	818.06	3.129	ES, SF
BURMAN 16-43(PR_75CC) - OH - OH	12,070.28	7,176.85	299.39	-84.33	0.780	Level 1, CC, ES, SF
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	10,415.22	7,321.54	869.53	747.38	7.119	CC
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	15,437.48	12,356.34	1,003.50	606.79	2.530	ES, SF
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	10,391.35	7,412.05	1,030.14	904.87	8.223	CC
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	15,437.48	12,439.28	1,118.52	711.63	2.749	ES, SF
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	5,969.77	15,919.65	4,543.15	4,273.79	16.867	CC
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	6,100.00	15,922.78	4,545.02	4,272.85	16.699	ES
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	11,300.00	19,118.26	4,938.07	4,487.46	10.959	SF
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	5,926.86	15,869.54	4,353.64	4,083.55	16.119	CC
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	6,000.00	15,871.60	4,354.25	4,082.51	16.023	ES
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	11,200.00	19,018.34	4,726.30	4,278.94	10.565	SF
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,342.38	7,251.02	785.40	553.59	3.388	CC, ES
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,400.00	7,252.95	787.51	553.71	3.368	SF
FRITZLER 11-21(PR_150CC) - OH - OH	14,936.30	7,144.51	1,454.89	992.38	3.146	CC
FRITZLER 11-21(PR_150CC) - OH - OH	15,000.00	7,144.19	1,456.29	991.83	3.135	ES, SF
FRITZLER 1-17(PR_150CC) - OH - OH	15,437.48	7,157.00	801.96	499.67	2.653	CC, ES, SF
FRITZLER 17-23-18(PR_150CC) - OH - OH	15,437.48	7,481.18	2,879.82	2,779.33	28.658	CC, ES, SF
FRITZLER 17-32-12(PR_150CC) - OH - OH	15,437.48	7,574.12	2,339.66	2,115.86	10.454	CC, ES, SF
FRITZLER 17-42-11(PR_150CC) - OH - MWD	15,437.48	7,535.98	1,847.77	1,580.63	6.917	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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
FRITZLER 34-17(PR_150CC) - OH - OH	15,437.48	7,288.07	2,091.06	2,010.15	25.845	CC, ES, SF
FRITZLER 43-17(PR_150CC) - OH - OH	15,437.48	7,314.22	1,458.27	1,227.56	6.321	CC, ES, SF
FRITZLER 6-6-17 (PR_150CC) - OH - OH	15,437.48	7,178.82	1,581.94	1,456.56	12.617	CC, ES, SF
FRITZLER 6-8-17(PR_150CC) - OH - OH	15,437.48	7,251.42	1,626.60	1,489.47	11.862	CC, ES, SF
FRITZLER 8-8-17(PR_150CC) - OH - OH	15,437.48	7,238.12	808.43	553.58	3.172	CC, ES, SF
GREELEY SWD #1(XX) - OH - OH	10,638.95	7,169.02	515.71	170.92	1.496	Level 3, CC, ES, SF
HARVESTER 31-15(SI_150CC) - OH - OH	0.00	0.00	1,350.54			
HARVESTER 31-15(SI_150CC) - OH - OH	9,800.00	7,410.24	4,764.23	4,671.92	51.607	SF
HARVESTER 32-15(SI_150CC) - OH - OH	100.00	77.71	561.80	555.23	85.516	CC, ES
HARVESTER 32-15(SI_150CC) - OH - OH	7,100.00	6,684.45	2,543.53	2,480.14	40.123	SF
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,525.99	11,257.05	170.64	61.53	1.564	CC
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,600.00	11,276.27	188.83	55.47	1.416	Level 3, ES, SF
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,402.54	11,317.77	489.58	367.96	4.026	CC, ES
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,500.00	11,346.47	505.56	373.10	3.817	SF
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	7,260.37	11,172.18	795.22	664.90	6.102	CC
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	7,300.00	11,189.11	797.27	664.72	6.015	ES
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	7,400.00	11,221.58	820.47	683.52	5.991	SF
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	7,243.50	11,275.76	1,205.06	1,072.32	9.078	CC, ES
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	7,300.00	11,289.12	1,208.77	1,074.14	8.979	SF
HARVESTERS STATE 30C-16-M - OH - PLAN #1	200.00	203.00	459.77	453.10	68.865	CC, ES
HARVESTERS STATE 30C-16-M - OH - PLAN #1	15,437.48	15,216.01	4,401.24	3,943.47	9.615	SF
HARVESTERS STATE 30N-16B-M - OH - PLAN #1	200.00	203.00	440.11	433.43	65.919	CC, ES
HARVESTERS STATE 30N-16B-M - OH - PLAN #1	15,437.48	14,942.37	4,185.29	3,728.01	9.153	SF
HARVESTERS STATE 31C-16-M - OH - PLAN #1	200.00	202.00	359.95	353.28	53.920	CC, ES
HARVESTERS STATE 31C-16-M - OH - PLAN #1	15,437.48	14,996.88	3,301.38	2,844.07	7.219	SF
HARVESTERS STATE 33C-16-M - OH - PLAN #1	990.16	1,007.47	57.75	46.95	5.344	CC
HARVESTERS STATE 33C-16-M - OH - PLAN #1	1,000.00	1,017.31	57.77	46.89	5.311	ES
HARVESTERS STATE 33C-16-M - OH - PLAN #1	15,437.48	15,258.04	631.37	174.13	1.381	Level 3, SF
HARVESTERS STATE 34C-16-M - OH - PLAN #1	1,227.42	1,206.74	56.70	44.17	4.524	CC
HARVESTERS STATE 34C-16-M - OH - PLAN #1	1,300.00	1,277.92	56.94	43.81	4.336	ES
HARVESTERS STATE 34C-16-M - OH - PLAN #1	15,437.48	15,786.61	630.94	172.79	1.377	Level 3, SF
HARVESTERS STATE 5C-16-M - OH - PLAN #1	200.00	202.00	319.88	313.20	47.917	CC, ES
HARVESTERS STATE 5C-16-M - OH - PLAN #1	15,437.48	14,987.41	2,861.30	2,404.14	6.259	SF
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	942.55	963.95	77.14	66.67	7.371	CC, ES
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	15,437.48	14,915.55	888.83	457.58	2.061	SF
HARVESTERS STATE 12N-16B-M - OH - PLAN #1	846.52	869.81	97.37	87.59	9.958	CC, ES
HARVESTERS STATE 12N-16B-M - OH - PLAN #1	15,430.97	14,987.01	1,062.50	611.88	2.358	SF
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	723.57	746.33	118.01	109.05	13.171	CC, ES
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	15,417.36	15,008.82	1,264.02	809.78	2.783	SF
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	1,209.40	1,202.54	18.88	6.43	1.517	CC
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	15,437.48	15,341.04	264.47	-123.42	0.682	Level 1, ES, SF
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	200.00	202.00	339.93	333.25	50.920	CC, ES
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	15,437.48	14,817.75	3,095.65	2,640.58	6.803	SF
HARVESTERS STATE 32C-16-M - OH - PLAN #1	667.86	708.42	138.20	129.53	15.947	CC, ES
HARVESTERS STATE 32C-16-M - OH - PLAN #1	15,437.48	15,081.89	1,470.39	974.00	2.962	SF
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	200.00	202.00	259.77	253.10	38.913	CC, ES
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	15,437.48	15,002.44	2,200.09	1,743.14	4.815	SF
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	200.00	201.00	159.95	153.27	23.963	CC, ES
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	15,437.48	14,871.88	1,678.60	1,225.12	3.702	SF
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	200.00	202.00	240.10	233.43	35.967	CC, ES
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	15,419.64	14,920.79	1,985.17	1,529.54	4.357	SF
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	1,092.91	1,106.15	38.01	26.42	3.281	CC
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	15,434.24	15,147.92	447.06	20.53	1.048	Level 2, ES, SF

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Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
HARVESTERS STATE 33N-16C-M - OH - PLAN #1	1,165.38	1,172.03	18.98	6.84	1.563	CC
HARVESTERS STATE 33N-16C-M - OH - PLAN #1	15,437.48	15,277.56	236.39	-172.41	0.578	Level 1, ES, SF
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	1,218.80	1,205.05	37.76	25.27	3.023	CC
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	15,437.48	15,486.17	432.69	-18.08	0.960	Level 1, ES, SF
HARVESTERS STATE 4C-16-M - OH - PLAN #1	200.00	203.00	420.06	416.10	105.957	CC, ES
HARVESTERS STATE 4C-16-M - OH - PLAN #1	15,437.48	15,116.21	3,996.97	3,539.46	8.736	SF
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	200.00	202.00	379.99	373.32	56.922	CC, ES
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	15,437.48	14,732.12	3,534.39	3,078.85	7.759	SF
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	200.00	202.00	400.04	393.36	59.925	CC, ES
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	15,437.48	14,969.16	3,644.62	3,188.07	7.983	SF
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	200.00	202.00	279.81	273.14	41.915	CC, ES
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	15,437.48	14,805.04	2,528.79	2,073.45	5.554	SF
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	200.00	202.00	299.85	293.17	44.916	CC, ES
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	15,437.48	14,872.41	2,644.46	2,188.39	5.798	SF
HOOD 41-20(PR_150CC) - OH - OH	15,437.48	7,149.00	1,690.42	1,245.88	3.803	CC, ES, SF
HOOD 6-2-20(PR_150CC) - OH - OH	15,437.48	7,574.11	2,529.18	2,304.43	11.253	CC, ES, SF
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,291.90	7,141.34	1,428.68	1,257.04	8.324	CC
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,300.00	7,141.81	1,428.70	1,256.80	8.311	ES
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,500.00	7,153.54	1,443.70	1,266.56	8.150	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	7,800.00	10,143.29	1,117.69	978.46	8.028	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	8,000.00	9,954.81	1,100.16	964.81	8.128	ES
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	10,221.33	7,730.67	1,094.01	971.18	8.907	CC
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	7,700.00	10,093.84	871.37	729.82	6.156	SF
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	10,225.92	7,593.20	832.08	710.96	6.870	CC
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	10,300.00	7,546.97	833.40	710.72	6.793	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,619.37	7,153.10	1,642.61	1,216.75	3.857	CC
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,700.00	7,152.70	1,644.59	1,216.29	3.840	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,800.00	7,152.19	1,652.52	1,221.77	3.836	SF
LOVELY 1(AB_150CC) - OH - OH	13,591.81	7,200.24	5,156.37	4,729.63	12.083	CC
LOVELY 1(AB_150CC) - OH - OH	13,700.00	7,200.31	5,157.51	4,727.95	12.007	ES
LOVELY 1(AB_150CC) - OH - OH	14,700.00	7,205.31	5,274.11	4,822.25	11.672	SF
LOVELY 14-9(AB_150CC) - OH - OH	15,088.45	7,204.26	5,100.03	4,631.14	10.877	CC
LOVELY 14-9(AB_150CC) - OH - OH	15,200.00	7,204.82	5,101.25	4,629.43	10.812	ES
LOVELY 14-9(AB_150CC) - OH - OH	15,437.48	7,206.00	5,111.96	4,634.24	10.701	SF
LUCAS SCHOOL 1(TA_150CC) - OH - OH	200.00	203.00	4,532.49	4,522.88	471.889	CC
LUCAS SCHOOL 1(TA_150CC) - OH - OH	400.00	402.84	4,536.31	4,519.98	277.683	ES
LUCAS SCHOOL 1(TA_150CC) - OH - OH	12,300.00	7,226.70	5,385.94	5,000.91	13.988	SF
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	12,078.77	7,187.81	5,168.99	4,784.66	13.449	CC
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	12,200.00	7,187.21	5,170.41	4,782.99	13.346	ES
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	13,400.00	7,181.20	5,335.17	4,921.44	12.895	SF
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,638.35	4,452.00	3,062.64	2,880.76	16.839	CC
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,700.00	4,452.00	3,063.26	2,880.30	16.742	ES
MAURICE LEFFLER 1(AB_150CC) - OH - OH	14,900.00	4,452.00	3,312.33	3,100.91	15.667	SF
MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH	15,437.48	7,300.36	620.66	368.87	2.465	CC, ES, SF
MCGLOTHLIN 17-11(PR_75CC) - OH - OH	15,437.48	7,180.00	4,093.76	3,619.97	8.640	CC, ES, SF
MONTERA 10-34 (PR_75CC) - OH - OH	225.54	263.06	2,525.98	2,519.22	373.441	CC, ES
MONTERA 10-34 (PR_75CC) - OH - OH	11,400.00	7,343.94	6,552.76	6,432.40	54.446	SF
RUTT-ADAMS HEIRS 2-22 - OH - OH	8,319.38	7,185.63	1,442.88	1,150.18	4.930	CC, ES
RUTT-ADAMS HEIRS 2-22 - OH - OH	8,500.00	7,184.73	1,454.14	1,157.94	4.909	SF
SENA 15-21(PR_75CC) - OH - OH	200.00	203.00	1,888.78	1,879.18	196.646	CC
SENA 15-21(PR_75CC) - OH - OH	300.00	303.02	1,890.09	1,877.23	146.951	ES
SENA 15-21(PR_75CC) - OH - OH	9,400.00	7,235.22	4,072.09	3,758.99	13.005	SF
SENA 15-24(PR_75CC) - OH - OH	200.00	183.00	1,117.12	1,108.10	123.825	CC

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
SENA 15-24(PR_75CC) - OH - OH	800.00	778.62	1,125.36	1,095.08	37.160	ES
SENA 15-24(PR_75CC) - OH - OH	8,700.00	7,224.73	2,666.47	2,366.85	8.900	SF
SENA 15-25(PR_75CC) - OH - OH	200.00	210.00	1,715.38	1,705.56	174.780	CC
SENA 15-25(PR_75CC) - OH - OH	400.00	389.84	1,718.53	1,702.63	108.098	ES
SENA 15-25(PR_75CC) - OH - OH	9,400.00	7,228.22	3,394.61	3,081.05	10.826	SF
STATE 1(AB_150CC) - OH - OH	12,232.21	7,177.04	3,855.84	3,467.67	9.933	CC
STATE 1(AB_150CC) - OH - OH	12,300.00	7,176.70	3,856.44	3,466.57	9.892	ES
STATE 1(AB_150CC) - OH - OH	12,900.00	7,173.70	3,913.24	3,510.22	9.710	SF
STATE BEATRICE 16-1(AB_150CC) - OH - OH	12,361.97	7,178.39	3,877.40	3,485.60	9.896	CC
STATE BEATRICE 16-1(AB_150CC) - OH - OH	12,500.00	7,177.70	3,879.85	3,484.64	9.817	ES
STATE BEATRICE 16-1(AB_150CC) - OH - OH	13,100.00	7,174.70	3,947.01	3,539.06	9.675	SF
STATE BEATRICE 32-16(PR_75CC) - OH - OH	12,167.89	7,172.37	2,404.40	2,018.16	6.225	CC
STATE BEATRICE 32-16(PR_75CC) - OH - OH	12,200.00	7,172.21	2,404.61	2,017.61	6.213	ES
STATE BEATRICE 32-16(PR_75CC) - OH - OH	12,400.00	7,171.20	2,415.57	2,024.36	6.175	SF
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,921.56	7,155.58	287.00	-175.49	0.621	Level 1, CC, ES, SF
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,777.17	7,174.31	1,198.16	767.15	2.780	CC
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,800.00	7,174.19	1,198.38	766.92	2.777	ES, SF
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,983.28	7,191.68	2,360.59	2,113.68	9.561	CC
STATE-HOPPE 16-3(PR_150CC) - OH - OH	15,000.00	7,191.96	2,360.65	2,113.33	9.545	ES
STATE-HOPPE 16-3(PR_150CC) - OH - OH	15,300.00	7,196.92	2,381.74	2,128.86	9.418	SF
STOCKOVER 16-1(PR_75CC) - OH - OH	10,825.40	7,171.09	1,226.47	876.67	3.506	CC, ES
STOCKOVER 16-1(PR_75CC) - OH - OH	10,900.00	7,170.71	1,228.73	877.60	3.499	SF
ULRICH PC I 17-07D(PR_75CC) - OH - OH	15,437.48	7,341.26	3,232.01	3,013.89	14.818	CC, ES, SF
ULRICH PC I 17-08(PR_75CC) - OH - OH	15,437.48	7,171.00	2,701.64	2,235.51	5.796	CC, ES, SF
ULRICH PC I17-17D(PR_75CC) - OH - OH	15,437.48	7,435.81	3,726.53	3,484.74	15.412	CC, ES, SF

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
				Reference	Offset		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.00	0.00	0.00	36.00	3.28	3.28	164.83	-1,300.20	352.42	1,347.60					
100.00	100.00	61.21	97.21	3.28	3.28	164.83	-1,300.26	352.43	1,347.18	1,340.61	6.57	205.133		
200.00	200.00	159.95	195.95	3.34	3.31	164.84	-1,300.58	352.40	1,347.48	1,340.83	6.65	202.604		
300.00	299.98	262.08	298.08	3.44	3.40	-18.82	-1,300.89	352.20	1,346.07	1,339.23	6.84	196.691		
400.00	399.84	362.58	398.57	3.59	3.54	-18.92	-1,301.00	352.12	1,341.20	1,334.07	7.13	187.985		
500.00	499.45	461.86	497.86	3.79	3.73	-19.09	-1,301.11	352.15	1,333.07	1,325.55	7.52	177.358		
600.00	598.70	557.82	593.82	4.03	3.94	-19.34	-1,301.26	352.28	1,321.75	1,313.78	7.97	165.846		
700.00	697.47	654.14	690.14	4.31	4.18	-19.66	-1,301.75	352.38	1,307.49	1,299.00	8.49	153.987		
800.00	795.62	754.48	790.48	4.64	4.46	-20.05	-1,302.34	352.23	1,290.02	1,280.94	9.08	142.060		
900.00	893.06	854.68	890.68	5.00	4.76	-20.53	-1,302.77	351.69	1,269.12	1,259.40	9.72	130.571		
1,000.00	989.64	952.86	988.85	5.40	5.07	-21.11	-1,303.05	351.19	1,244.95	1,234.56	10.39	119.770		
1,100.00	1,085.27	1,047.54	1,083.53	5.83	5.39	-21.77	-1,303.30	350.53	1,217.63	1,206.54	11.09	109.752		
1,200.00	1,179.82	1,140.52	1,176.50	6.29	5.71	-22.55	-1,303.72	349.98	1,187.49	1,175.67	11.82	100.457		
1,300.00	1,273.47	1,234.63	1,270.62	6.79	6.04	-23.25	-1,304.17	349.37	1,155.13	1,142.56	12.58	91.851		
1,400.00	1,367.06	1,329.05	1,365.03	7.30	6.39	-23.92	-1,304.66	348.63	1,122.75	1,109.40	13.35	84.121		
1,500.00	1,460.64	1,424.98	1,460.96	7.83	6.74	-24.63	-1,305.01	347.86	1,090.37	1,076.22	14.14	77.101		
1,600.00	1,554.23	1,520.81	1,556.78	8.38	7.11	-25.40	-1,305.11	347.18	1,057.95	1,042.99	14.95	70.745		
1,700.00	1,647.82	1,615.36	1,651.33	8.93	7.47	-26.19	-1,305.14	346.24	1,025.55	1,009.77	15.78	64.995		
1,800.00	1,741.41	1,706.77	1,742.73	9.49	7.82	-27.00	-1,305.28	345.31	993.42	976.81	16.61	59.808		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
1,900.00	1,835.00	1,799.16	1,835.12	10.05	8.18	-27.87	-1,305.56	344.45	961.67	944.21	17.46	55.084		
2,000.00	1,928.59	1,893.42	1,929.37	10.62	8.55	-28.82	-1,305.90	343.54	930.18	911.85	18.32	50.766		
2,100.00	2,022.18	1,986.07	2,022.02	11.20	8.92	-29.80	-1,306.31	342.53	898.96	879.76	19.20	46.830		
2,200.00	2,115.77	2,079.71	2,115.65	11.78	9.30	-30.85	-1,306.86	341.43	868.08	848.00	20.08	43.225		
2,300.00	2,209.36	2,172.26	2,208.19	12.37	9.67	-31.98	-1,307.34	340.57	837.55	816.57	20.98	39.922		
2,400.00	2,302.95	2,265.44	2,301.37	12.95	10.05	-33.22	-1,307.85	339.95	807.51	785.62	21.89	36.890		
2,500.00	2,396.54	2,361.39	2,397.32	13.54	10.44	-34.57	-1,308.42	339.11	777.78	754.97	22.81	34.093		
2,600.00	2,490.13	2,456.25	2,492.17	14.13	10.82	-36.02	-1,308.68	338.19	748.18	724.43	23.75	31.505		
2,700.00	2,583.72	2,549.86	2,585.78	14.73	11.21	-37.58	-1,308.78	337.54	719.05	694.36	24.69	29.118		
2,800.00	2,677.31	2,642.85	2,678.76	15.32	11.59	-39.27	-1,308.79	337.04	690.49	664.83	25.66	26.913		
2,900.00	2,770.90	2,735.51	2,771.43	15.92	11.97	-41.09	-1,308.99	336.56	662.73	636.10	26.63	24.884		
3,000.00	2,864.49	2,829.21	2,865.13	16.52	12.36	-43.06	-1,309.26	336.06	635.74	608.11	27.63	23.012		
3,100.00	2,958.08	2,922.83	2,958.74	17.12	12.74	-45.21	-1,309.45	335.64	609.54	580.90	28.64	21.284		
3,200.00	3,051.67	3,015.87	3,051.78	17.72	13.13	-47.52	-1,309.75	335.22	584.33	554.66	29.67	19.696		
3,300.00	3,145.26	3,109.10	3,145.01	18.32	13.52	-50.00	-1,310.22	334.74	560.26	529.54	30.72	18.239		
3,400.00	3,238.85	3,202.53	3,238.44	18.92	13.91	-52.71	-1,310.56	334.49	537.44	505.65	31.79	16.908		
3,500.00	3,332.44	3,299.64	3,335.55	19.53	14.31	-55.78	-1,310.58	334.14	515.68	482.81	32.87	15.687		
3,600.00	3,426.03	3,394.24	3,430.15	20.13	14.71	-59.02	-1,310.24	333.53	495.06	461.08	33.98	14.569		
3,700.00	3,519.62	3,487.48	3,523.38	20.74	15.09	-62.46	-1,309.85	332.88	476.12	441.01	35.11	13.561		
3,800.00	3,613.21	3,580.10	3,615.99	21.34	15.48	-66.08	-1,309.77	332.17	459.25	423.01	36.25	12.670		
3,900.00	3,706.80	3,672.91	3,708.80	21.95	15.87	-69.89	-1,310.08	331.47	444.73	407.35	37.39	11.896		
4,000.00	3,800.39	3,766.34	3,802.23	22.56	16.26	-73.87	-1,310.90	330.69	432.65	394.13	38.52	11.232		
4,100.00	3,893.98	3,860.13	3,896.01	23.16	16.66	-78.06	-1,311.71	329.98	423.08	383.44	39.64	10.673		
4,200.00	3,987.57	3,954.15	3,990.03	23.77	17.05	-82.44	-1,312.25	329.33	416.16	375.42	40.74	10.216		
4,300.00	4,081.16	4,048.31	4,084.18	24.38	17.45	-86.94	-1,312.73	328.62	411.97	370.17	41.80	9.856		
4,393.62	4,168.78	4,135.88	4,171.75	24.95	17.82	-91.18	-1,313.17	327.91	410.63	367.88	42.75	9.605 CC		
4,400.00	4,174.75	4,141.80	4,177.66	24.99	17.84	-91.46	-1,313.19	327.86	410.63	367.82	42.81	9.591 ES		
4,500.00	4,268.34	4,235.30	4,271.16	25.60	18.24	-96.02	-1,313.40	327.27	412.40	368.62	43.78	9.420		
4,600.00	4,361.93	4,329.35	4,365.21	26.21	18.63	-100.63	-1,312.88	326.47	417.01	372.32	44.69	9.331		
4,700.00	4,455.52	4,422.61	4,458.46	26.82	19.03	-105.09	-1,312.31	325.71	424.61	379.06	45.54	9.323 SF		
4,800.00	4,549.11	4,516.80	4,552.66	27.43	19.42	-109.44	-1,311.77	324.81	434.89	388.54	46.36	9.381		
4,900.00	4,642.70	4,609.38	4,645.22	28.04	19.81	-113.58	-1,310.69	323.74	447.83	400.72	47.11	9.505		
5,000.00	4,736.29	4,696.06	4,731.89	28.65	20.18	-117.24	-1,309.49	323.49	464.06	416.29	47.77	9.715		
5,100.00	4,829.88	4,796.23	4,832.05	29.26	20.60	-121.17	-1,308.27	323.19	482.43	433.87	48.56	9.934		
5,200.00	4,923.47	4,894.61	4,930.42	29.87	21.01	-124.74	-1,307.88	321.92	501.57	452.24	49.33	10.167		
5,300.00	5,017.06	4,983.04	5,018.84	30.48	21.39	-127.61	-1,308.34	321.26	522.34	472.35	49.99	10.449		
5,400.00	5,110.65	5,072.23	5,108.03	31.09	21.76	-130.28	-1,308.47	321.45	545.46	494.81	50.65	10.770		
5,500.00	5,204.24	5,161.33	5,197.13	31.70	22.14	-132.82	-1,307.61	321.74	570.56	519.26	51.30	11.123		
5,600.00	5,297.83	5,251.97	5,287.75	32.32	22.52	-135.22	-1,306.26	322.40	597.40	545.42	51.97	11.494		
5,700.00	5,391.42	5,345.03	5,380.80	32.93	22.91	-137.45	-1,304.92	323.35	625.40	572.70	52.70	11.867		
5,800.00	5,485.01	5,442.87	5,478.63	33.54	23.32	-139.54	-1,304.21	324.71	653.99	600.47	53.52	12.219		
5,900.00	5,578.60	5,539.44	5,575.20	34.15	23.72	-141.42	-1,304.28	325.50	682.36	628.03	54.34	12.558		
6,000.00	5,672.19	5,628.68	5,664.43	34.77	24.10	-143.05	-1,303.94	326.25	711.70	656.66	55.04	12.929		
6,100.00	5,765.78	5,721.92	5,757.66	35.38	24.49	-144.60	-1,303.45	327.48	741.96	686.13	55.83	13.291		
6,200.00	5,859.37	5,821.24	5,856.98	35.99	24.91	-146.17	-1,303.01	327.85	772.11	715.41	56.70	13.617		
6,300.00	5,952.96	5,911.73	5,947.47	36.60	25.29	-147.50	-1,302.71	328.17	802.62	745.17	57.46	13.969		
6,400.00	6,046.55	5,999.14	6,034.87	37.22	25.66	-148.63	-1,302.46	329.43	834.07	775.89	58.18	14.337		
6,500.00	6,140.14	6,098.99	6,134.69	37.83	26.08	-149.79	-1,302.58	331.52	865.82	806.73	59.10	14.651		
6,600.00	6,233.73	6,192.65	6,228.34	38.44	26.48	-150.81	-1,302.85	333.03	897.49	837.56	59.93	14.976		
6,700.00	6,327.32	6,280.09	6,315.77	39.06	26.84	-151.72	-1,302.71	334.34	929.69	869.03	60.67	15.324		
6,800.00	6,420.91	6,379.09	6,414.75	39.67	27.26	-152.66	-1,302.62	336.33	962.32	900.73	61.59	15.625		
6,900.00	6,514.50	6,484.56	6,520.20	40.28	27.71	-153.56	-1,303.64	338.29	994.21	931.60	62.60	15.881		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,000.00	6,608.09	6,583.32	6,618.93	40.90	28.13	-154.34	-1,305.44	339.82	1,025.40	961.87	63.53	16.141		
7,100.00	6,701.63	6,673.30	6,708.90	41.51	28.51	-165.56	-1,306.51	340.04	1,057.30	992.97	64.33	16.435		
7,200.00	6,793.85	6,767.40	6,803.00	42.10	28.91	171.40	-1,307.19	339.94	1,095.04	1,029.81	65.23	16.788		
7,300.00	6,882.50	6,856.32	6,891.92	42.64	29.29	154.82	-1,308.17	340.23	1,138.61	1,072.51	66.10	17.225		
7,400.00	6,965.41	6,939.43	6,975.01	43.12	29.64	142.94	-1,309.09	340.50	1,187.55	1,120.59	66.96	17.735		
7,500.00	7,040.53	7,014.66	7,050.24	43.53	29.96	133.76	-1,309.93	340.74	1,241.45	1,173.67	67.78	18.316		
7,600.00	7,106.00	7,080.18	7,115.76	43.89	30.24	125.88	-1,310.65	340.96	1,299.97	1,231.41	68.55	18.963		
7,700.00	7,160.23	7,134.37	7,169.94	44.20	30.47	118.38	-1,311.25	341.13	1,362.67	1,293.40	69.27	19.672		
7,800.00	7,201.86	7,175.89	7,211.46	44.48	30.65	110.71	-1,311.71	341.27	1,428.92	1,358.99	69.93	20.435		
7,900.00	7,229.88	7,203.73	7,239.30	44.73	30.77	102.60	-1,312.02	341.36	1,497.81	1,427.30	70.51	21.242		
8,000.00	7,243.60	7,217.19	7,252.76	44.99	30.83	94.16	-1,312.17	341.40	1,568.17	1,497.15	71.02	22.082		
8,100.00	7,244.73	7,218.01	7,253.58	45.29	30.83	90.15	-1,312.17	341.40	1,639.09	1,567.64	71.45	22.941		
8,200.00	7,244.23	7,217.19	7,252.76	45.74	30.83	90.11	-1,312.17	341.40	1,712.55	1,640.67	71.88	23.826		
8,300.00	7,243.73	7,216.38	7,251.94	46.38	30.82	90.07	-1,312.16	341.40	1,788.58	1,716.29	72.30	24.740		
8,400.00	7,243.23	7,215.56	7,251.13	47.29	30.82	90.02	-1,312.15	341.39	1,866.88	1,794.18	72.70	25.679		
8,500.00	7,242.73	7,214.74	7,250.31	48.46	30.81	89.98	-1,312.14	341.39	1,947.16	1,874.07	73.09	26.642		
8,600.00	7,242.23	7,213.92	7,249.49	49.87	30.81	89.94	-1,312.13	341.39	2,029.19	1,955.74	73.45	27.626		
8,700.00	7,241.73	7,213.10	7,248.67	51.48	30.81	89.90	-1,312.12	341.39	2,112.77	2,038.97	73.80	28.629		
8,800.00	7,241.23	7,212.29	7,247.85	53.24	30.80	89.86	-1,312.11	341.38	2,197.73	2,123.60	74.12	29.649		
8,900.00	7,240.73	7,211.47	7,247.04	55.13	30.80	89.82	-1,312.10	341.38	2,283.90	2,209.47	74.43	30.684		
9,000.00	7,240.23	7,210.65	7,246.22	57.11	30.80	89.78	-1,312.09	341.38	2,371.15	2,296.43	74.72	31.734		
9,100.00	7,239.73	7,209.83	7,245.40	59.19	30.79	89.74	-1,312.08	341.38	2,459.38	2,384.39	74.99	32.795		
9,200.00	7,239.23	7,209.01	7,244.58	61.34	30.79	89.69	-1,312.08	341.37	2,548.48	2,473.23	75.25	33.869		
9,300.00	7,238.72	7,208.20	7,243.76	63.55	30.79	89.65	-1,312.07	341.37	2,638.36	2,562.87	75.49	34.952		
9,400.00	7,238.22	7,207.38	7,242.95	65.81	30.78	89.61	-1,312.06	341.37	2,728.94	2,653.23	75.71	36.044		
9,500.00	7,237.72	7,206.56	7,242.13	68.13	30.78	89.57	-1,312.05	341.36	2,820.16	2,744.23	75.92	37.144		
9,600.00	7,237.22	7,205.74	7,241.31	70.48	30.78	89.53	-1,312.04	341.36	2,911.95	2,835.83	76.13	38.252		
9,700.00	7,236.72	7,204.92	7,240.49	72.88	30.77	89.49	-1,312.03	341.36	3,004.27	2,927.96	76.32	39.367		
9,800.00	7,236.22	7,204.10	7,239.67	75.31	30.77	89.45	-1,312.02	341.36	3,097.07	3,020.57	76.49	40.487		
9,900.00	7,235.72	7,203.29	7,238.86	77.77	30.77	89.41	-1,312.01	341.35	3,190.30	3,113.63	76.67	41.613		
10,000.00	7,235.22	7,202.47	7,238.04	80.26	30.76	89.36	-1,312.00	341.35	3,283.93	3,207.10	76.83	42.744		
10,100.00	7,234.72	7,201.65	7,237.22	82.77	30.76	89.32	-1,311.99	341.35	3,377.92	3,300.94	76.98	43.879		
10,200.00	7,234.22	7,200.83	7,236.40	85.31	30.76	89.28	-1,311.98	341.35	3,472.25	3,395.12	77.13	45.018		
10,300.00	7,233.72	7,200.01	7,235.58	87.86	30.75	89.24	-1,311.98	341.34	3,566.89	3,489.62	77.27	46.161		
10,400.00	7,233.22	7,199.20	7,234.77	90.44	30.75	89.20	-1,311.97	341.34	3,661.81	3,584.41	77.41	47.307		
10,500.00	7,232.72	7,198.38	7,233.95	93.03	30.75	89.16	-1,311.96	341.34	3,757.00	3,679.46	77.53	48.456		
10,600.00	7,232.22	7,197.56	7,233.13	95.64	30.74	89.12	-1,311.95	341.34	3,852.43	3,774.77	77.66	49.607		
10,700.00	7,231.72	7,196.74	7,232.31	98.26	30.74	89.08	-1,311.94	341.33	3,948.08	3,870.31	77.78	50.760		
10,800.00	7,231.21	7,195.92	7,231.49	100.89	30.73	89.03	-1,311.93	341.33	4,043.95	3,966.06	77.89	51.916		
10,900.00	7,230.71	7,195.11	7,230.68	103.54	30.73	88.99	-1,311.92	341.33	4,140.01	4,062.01	78.01	53.073		
11,000.00	7,230.21	7,194.29	7,229.86	106.20	30.73	88.95	-1,311.91	341.32	4,236.26	4,158.14	78.11	54.232		
11,100.00	7,229.71	7,193.47	7,229.04	108.87	30.72	88.91	-1,311.90	341.32	4,332.67	4,254.45	78.22	55.392		
11,200.00	7,229.21	7,192.65	7,228.22	111.54	30.72	88.87	-1,311.89	341.32	4,429.24	4,350.92	78.32	56.553		
11,300.00	7,228.71	7,191.83	7,227.40	114.23	30.72	88.83	-1,311.89	341.32	4,525.96	4,447.54	78.42	57.715		
11,400.00	7,228.21	7,191.02	7,226.59	116.92	30.71	88.79	-1,311.88	341.31	4,622.82	4,544.31	78.51	58.878		
11,500.00	7,227.71	7,190.20	7,225.77	119.63	30.71	88.75	-1,311.87	341.31	4,719.81	4,641.21	78.61	60.042		
11,600.00	7,227.21	7,189.38	7,224.95	122.34	30.71	88.71	-1,311.86	341.31	4,816.93	4,738.23	78.70	61.206		
11,700.00	7,226.71	7,188.56	7,224.13	125.05	30.70	88.66	-1,311.85	341.31	4,914.16	4,835.37	78.79	62.371		
11,800.00	7,226.21	7,187.74	7,223.31	127.78	30.70	88.62	-1,311.84	341.30	5,011.50	4,932.62	78.88	63.535		
11,900.00	7,225.71	7,186.93	7,222.50	130.51	30.70	88.58	-1,311.83	341.30	5,108.94	5,029.98	78.96	64.700		
12,000.00	7,225.21	7,186.11	7,221.68	133.24	30.69	88.54	-1,311.82	341.30	5,206.48	5,127.43	79.05	65.865		
12,100.00	7,224.71	7,185.29	7,220.86	135.98	30.69	88.50	-1,311.81	341.30	5,304.11	5,224.98	79.13	67.030		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
12,200.00	7,224.21	7,184.47	7,220.04	138.72	30.69	88.46	-1,311.80	341.29	5,401.82	5,322.61	79.21	68.194	
12,300.00	7,223.70	7,183.65	7,219.22	141.47	30.68	88.42	-1,311.79	341.29	5,499.62	5,420.33	79.29	69.358	
12,400.00	7,223.20	7,182.84	7,218.41	144.23	30.68	88.38	-1,311.79	341.29	5,597.50	5,518.13	79.37	70.522	
12,500.00	7,222.70	7,182.02	7,217.59	146.98	30.68	88.33	-1,311.78	341.29	5,695.45	5,616.00	79.45	71.686	
12,600.00	7,222.20	7,181.20	7,216.77	149.74	30.67	88.29	-1,311.77	341.28	5,793.47	5,713.94	79.53	72.848	
12,700.00	7,221.70	7,180.38	7,215.95	152.51	30.67	88.25	-1,311.76	341.28	5,891.55	5,811.95	79.60	74.011	
12,800.00	7,221.20	7,179.56	7,215.13	155.28	30.66	88.21	-1,311.75	341.28	5,989.70	5,910.02	79.68	75.172	
12,900.00	7,220.70	7,178.74	7,214.32	158.05	30.66	88.17	-1,311.74	341.27	6,087.91	6,008.16	79.76	76.333	
13,000.00	7,220.20	7,177.93	7,213.50	160.82	30.66	88.13	-1,311.73	341.27	6,186.18	6,106.35	79.83	77.492	
13,100.00	7,219.70	7,177.11	7,212.68	163.60	30.65	88.09	-1,311.72	341.27	6,284.50	6,204.60	79.90	78.651	
13,200.00	7,219.20	7,176.29	7,211.86	166.38	30.65	88.05	-1,311.71	341.27	6,382.87	6,302.90	79.98	79.809	
13,300.00	7,218.70	7,175.47	7,211.04	169.16	30.65	88.01	-1,311.70	341.26	6,481.30	6,401.25	80.05	80.966	
13,400.00	7,218.20	7,174.65	7,210.23	171.95	30.64	87.96	-1,311.70	341.26	6,579.77	6,499.65	80.12	82.122	
13,500.00	7,217.70	7,173.84	7,209.41	174.74	30.64	87.92	-1,311.69	341.26	6,678.28	6,598.09	80.19	83.276	
13,600.00	7,217.20	7,173.02	7,208.59	177.53	30.64	87.88	-1,311.68	341.26	6,776.84	6,696.58	80.27	84.430	
13,700.00	7,216.70	7,172.20	7,207.77	180.32	30.63	87.84	-1,311.67	341.25	6,875.44	6,795.11	80.34	85.582	
13,800.00	7,216.19	7,171.38	7,206.95	183.11	30.63	87.80	-1,311.66	341.25	6,974.08	6,893.67	80.41	86.733	
13,900.00	7,215.69	7,170.56	7,206.14	185.91	30.63	87.76	-1,311.65	341.25	7,072.76	6,992.28	80.48	87.882	
14,000.00	7,215.19	7,169.75	7,205.32	188.71	30.62	87.72	-1,311.64	341.25	7,171.48	7,090.93	80.55	89.030	
14,100.00	7,214.69	7,168.93	7,204.50	191.51	30.62	87.68	-1,311.63	341.24	7,270.23	7,189.61	80.62	90.177	
14,200.00	7,214.19	7,168.11	7,203.68	194.31	30.62	87.64	-1,311.62	341.24	7,369.01	7,288.32	80.69	91.322	
14,300.00	7,213.69	7,167.29	7,202.86	197.11	30.61	87.59	-1,311.61	341.24	7,467.83	7,387.06	80.76	92.465	
14,400.00	7,213.19	7,166.47	7,202.05	199.92	30.61	87.55	-1,311.60	341.23	7,566.67	7,485.84	80.83	93.607	
14,500.00	7,212.69	7,165.66	7,201.23	202.72	30.61	87.51	-1,311.60	341.23	7,665.55	7,584.65	80.91	94.747	
14,600.00	7,212.19	7,164.84	7,200.41	205.53	30.60	87.47	-1,311.59	341.23	7,764.46	7,683.48	80.98	95.886	
14,700.00	7,211.69	7,164.02	7,199.59	208.34	30.60	87.43	-1,311.58	341.23	7,863.39	7,782.34	81.05	97.023	
14,800.00	7,211.19	7,163.20	7,198.77	211.15	30.60	87.39	-1,311.57	341.22	7,962.35	7,881.23	81.12	98.158	
14,900.00	7,210.69	7,162.38	7,197.96	213.96	30.59	87.35	-1,311.56	341.22	8,061.34	7,980.15	81.19	99.292	
15,000.00	7,210.19	7,161.57	7,197.14	216.78	30.59	87.31	-1,311.55	341.22	8,160.35	8,079.09	81.26	100.423	
15,100.00	7,209.69	7,160.75	7,196.32	219.59	30.58	87.27	-1,311.54	341.22	8,259.38	8,178.05	81.33	101.553	
15,200.00	7,209.18	7,159.93	7,195.50	222.41	30.58	87.22	-1,311.53	341.21	8,358.44	8,277.03	81.40	102.681	
15,300.00	7,208.68	7,159.11	7,194.68	225.22	30.58	87.18	-1,311.52	341.21	8,457.51	8,376.04	81.47	103.807	
15,400.00	7,208.18	7,158.29	7,193.87	228.04	30.57	87.14	-1,311.51	341.21	8,556.61	8,475.07	81.54	104.931	
15,437.48	7,208.00	7,157.99	7,193.56	229.10	30.57	87.13	-1,311.51	341.21	8,593.76	8,512.19	81.57	105.352	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERRY 22-2(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	68.00	3.28	3.28	172.27	-4,039.40	548.03	4,076.97				
100.00	100.00	31.37	99.37	3.28	3.28	172.27	-4,039.41	548.01	4,076.41	4,069.84	6.57	620.894	
200.00	200.00	127.02	195.02	3.34	3.30	172.28	-4,039.48	547.80	4,076.46	4,069.82	6.63	614.519	
300.00	299.98	217.88	285.88	3.44	3.36	-11.37	-4,039.74	547.53	4,074.99	4,068.19	6.80	599.455	
400.00	399.84	313.04	381.04	3.59	3.47	-11.40	-4,040.15	547.45	4,070.27	4,063.21	7.06	576.542	
500.00	499.45	415.02	483.01	3.79	3.63	-11.45	-4,040.58	547.49	4,062.15	4,054.73	7.43	547.059	
600.00	598.70	513.13	581.13	4.03	3.83	-11.53	-4,041.00	547.49	4,050.63	4,042.76	7.87	514.862	
700.00	697.47	615.29	683.28	4.31	4.08	-11.63	-4,041.45	547.24	4,035.69	4,027.30	8.39	481.040	
800.00	795.62	717.19	785.18	4.64	4.35	-11.76	-4,041.80	546.75	4,017.27	4,008.30	8.97	447.752	
900.00	893.06	808.29	876.28	5.00	4.62	-11.90	-4,042.22	546.06	3,995.57	3,986.00	9.57	417.341	
1,000.00	989.64	908.10	976.08	5.40	4.93	-12.07	-4,042.75	545.01	3,970.59	3,960.34	10.24	387.614	
1,100.00	1,085.27	986.00	1,053.97	5.83	5.18	-12.25	-4,043.37	543.93	3,942.52	3,931.64	10.88	362.379	
1,200.00	1,179.82	1,070.93	1,138.89	6.29	5.47	-12.46	-4,044.38	542.52	3,911.53	3,899.96	11.57	338.152	
1,300.00	1,273.47	1,160.77	1,228.70	6.79	5.78	-12.58	-4,045.62	540.93	3,878.26	3,865.96	12.29	315.436	
1,400.00	1,367.06	1,260.13	1,328.03	7.30	6.14	-12.67	-4,047.02	539.08	3,844.84	3,831.77	13.07	294.239	
1,500.00	1,460.64	1,361.28	1,429.15	7.83	6.51	-12.76	-4,048.25	536.96	3,811.23	3,797.36	13.87	274.876	
1,600.00	1,554.23	1,456.57	1,524.41	8.38	6.87	-12.85	-4,049.31	534.98	3,777.51	3,762.85	14.66	257.685	
1,700.00	1,647.82	1,546.34	1,614.17	8.93	7.21	-12.93	-4,050.32	533.18	3,743.85	3,728.40	15.45	242.348	
1,800.00	1,741.41	1,644.41	1,712.21	9.49	7.59	-13.02	-4,051.52	531.35	3,710.29	3,694.01	16.28	227.947	
1,900.00	1,835.00	1,742.75	1,810.53	10.05	7.97	-13.12	-4,052.42	529.49	3,676.45	3,659.33	17.12	214.791	
2,000.00	1,928.59	1,827.64	1,895.41	10.62	8.30	-13.21	-4,053.33	528.10	3,642.80	3,624.88	17.92	203.296	
2,100.00	2,022.18	1,917.68	1,985.43	11.20	8.66	-13.30	-4,054.44	526.61	3,609.31	3,590.56	18.75	192.533	
2,200.00	2,115.77	2,005.84	2,073.56	11.78	9.01	-13.39	-4,055.67	525.03	3,575.95	3,556.38	19.58	182.680	
2,300.00	2,209.36	2,091.58	2,159.28	12.37	9.36	-13.48	-4,057.05	523.41	3,542.80	3,522.40	20.40	173.649	
2,400.00	2,302.95	2,186.63	2,254.29	12.95	9.74	-13.58	-4,058.71	521.58	3,509.77	3,488.51	21.27	165.045	
2,500.00	2,396.54	2,316.27	2,383.90	13.54	10.26	-13.73	-4,060.30	519.20	3,476.31	3,454.07	22.24	156.278	
2,600.00	2,490.13	2,456.97	2,524.58	14.13	10.84	-13.90	-4,060.27	517.06	3,441.75	3,418.50	23.25	148.011	
2,700.00	2,583.72	2,567.93	2,635.52	14.73	11.29	-14.04	-4,058.96	515.43	3,406.10	3,381.93	24.17	140.926	
2,800.00	2,677.31	2,662.08	2,729.65	15.32	11.67	-14.17	-4,057.74	513.96	3,370.36	3,345.32	25.04	134.612	
2,900.00	2,770.90	2,753.05	2,820.60	15.92	12.05	-14.29	-4,056.58	512.41	3,334.64	3,308.74	25.90	128.751	
3,000.00	2,864.49	2,843.79	2,911.32	16.52	12.42	-14.41	-4,055.54	510.79	3,299.02	3,272.26	26.76	123.259	
3,100.00	2,958.08	2,934.62	3,002.13	17.12	12.80	-14.53	-4,054.53	509.11	3,263.46	3,235.83	27.63	118.099	
3,200.00	3,051.67	3,025.34	3,092.83	17.72	13.18	-14.65	-4,053.66	507.36	3,228.03	3,199.52	28.50	113.248	
3,300.00	3,145.26	3,124.18	3,191.64	18.32	13.59	-14.78	-4,052.65	505.36	3,192.54	3,163.14	29.40	108.595	
3,400.00	3,238.85	3,219.31	3,286.75	18.92	13.98	-14.92	-4,051.51	503.50	3,156.91	3,126.62	30.29	104.240	
3,500.00	3,332.44	3,302.37	3,369.78	19.53	14.33	-15.04	-4,050.66	501.88	3,121.46	3,090.32	31.14	100.229	
3,600.00	3,426.03	3,387.64	3,455.04	20.13	14.69	-15.16	-4,050.07	500.05	3,086.30	3,054.29	32.01	96.416	
3,700.00	3,519.62	3,476.37	3,543.74	20.74	15.06	-15.28	-4,049.71	497.84	3,051.35	3,018.46	32.89	92.779	
3,800.00	3,613.21	3,564.71	3,632.05	21.34	15.43	-15.40	-4,049.52	495.48	3,016.56	2,982.79	33.77	89.332	
3,900.00	3,706.80	3,655.69	3,723.00	21.95	15.81	-15.53	-4,049.42	493.29	2,981.93	2,947.27	34.66	86.045	
4,000.00	3,800.39	3,746.10	3,813.39	22.56	16.19	-15.67	-4,049.29	491.51	2,947.36	2,911.82	35.54	82.922	
4,100.00	3,893.98	3,837.14	3,904.42	23.16	16.57	-15.81	-4,049.33	489.59	2,912.95	2,876.52	36.43	79.950	
4,200.00	3,987.57	3,932.44	3,999.69	23.77	16.97	-15.97	-4,049.29	487.86	2,878.54	2,841.21	37.34	77.098	
4,300.00	4,081.16	4,026.84	4,094.08	24.38	17.37	-16.14	-4,049.18	486.28	2,844.11	2,805.87	38.24	74.381	
4,400.00	4,174.75	4,120.61	4,187.84	24.99	17.76	-16.31	-4,048.99	485.13	2,809.70	2,770.56	39.14	71.790	
4,500.00	4,268.34	4,219.14	4,286.37	25.60	18.18	-16.53	-4,048.45	485.13	2,775.23	2,735.18	40.05	69.296	
4,600.00	4,361.93	4,328.31	4,395.54	26.21	18.63	-16.80	-4,047.29	485.92	2,740.48	2,699.50	40.98	66.875	
4,700.00	4,455.52	4,437.28	4,504.49	26.82	19.09	-17.07	-4,045.29	486.68	2,705.03	2,663.13	41.91	64.550	
4,800.00	4,549.11	4,523.15	4,590.33	27.43	19.44	-17.30	-4,043.61	487.42	2,669.57	2,626.76	42.80	62.372	
4,900.00	4,642.70	4,600.01	4,667.18	28.04	19.77	-17.51	-4,042.52	487.93	2,634.59	2,590.91	43.68	60.309	
5,000.00	4,736.29	4,672.62	4,739.79	28.65	20.07	-17.70	-4,042.04	488.27	2,600.32	2,555.75	44.57	58.347	
5,100.00	4,829.88	4,758.60	4,825.77	29.26	20.43	-17.92	-4,042.04	488.70	2,566.68	2,521.21	45.47	56.449	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERRY 22-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,852.65	4,919.82	29.87	20.82	-18.18	-4,042.08	489.17	2,533.13	2,486.75	46.38	54.612		
5,300.00	5,017.06	4,945.97	5,013.14	30.48	21.21	-18.43	-4,042.16	489.38	2,499.62	2,452.32	47.30	52.846		
5,400.00	5,110.65	5,039.84	5,107.01	31.09	21.61	-18.70	-4,042.23	489.77	2,466.17	2,417.95	48.22	51.146		
5,500.00	5,204.24	5,137.40	5,204.57	31.70	22.02	-18.99	-4,042.17	490.37	2,432.70	2,383.56	49.14	49.504		
5,600.00	5,297.83	5,243.88	5,311.05	32.32	22.46	-19.32	-4,041.75	491.11	2,399.01	2,348.93	50.07	47.910		
5,700.00	5,391.42	5,352.98	5,420.13	32.93	22.92	-19.68	-4,040.41	492.17	2,364.67	2,313.66	51.00	46.362		
5,800.00	5,485.01	5,485.73	5,552.80	33.54	23.48	-20.20	-4,037.05	495.22	2,329.64	2,277.70	51.94	44.853		
5,900.00	5,578.60	5,566.47	5,633.43	34.15	23.83	-20.55	-4,033.97	497.83	2,293.72	2,240.85	52.87	43.388		
6,000.00	5,672.19	5,640.88	5,707.79	34.77	24.14	-20.86	-4,031.92	499.73	2,258.64	2,204.84	53.79	41.987		
6,100.00	5,765.78	5,717.98	5,784.87	35.38	24.47	-21.17	-4,030.58	501.08	2,224.36	2,169.63	54.72	40.646		
6,200.00	5,859.37	5,801.07	5,867.95	35.99	24.82	-21.49	-4,029.83	501.80	2,190.68	2,135.02	55.66	39.360		
6,300.00	5,952.96	5,891.52	5,958.40	36.60	25.20	-21.83	-4,029.43	502.12	2,157.36	2,100.76	56.59	38.121		
6,400.00	6,046.55	5,994.16	6,061.04	37.22	25.64	-22.22	-4,028.92	502.24	2,123.99	2,066.46	57.53	36.921		
6,500.00	6,140.14	6,085.09	6,151.97	37.83	26.02	-22.58	-4,028.34	502.13	2,090.52	2,032.05	58.47	35.755		
6,600.00	6,233.73	6,184.00	6,250.88	38.44	26.44	-22.97	-4,027.71	501.94	2,057.10	1,997.69	59.41	34.628		
6,700.00	6,327.32	6,282.89	6,349.76	39.06	26.86	-23.38	-4,026.77	501.70	2,023.47	1,963.12	60.34	33.532		
6,800.00	6,420.91	6,372.49	6,439.35	39.67	27.24	-23.77	-4,025.85	501.46	1,989.85	1,928.55	61.29	32.464		
6,900.00	6,514.50	6,464.29	6,531.15	40.28	27.63	-24.17	-4,025.11	501.20	1,956.51	1,894.26	62.24	31.433		
7,000.00	6,608.09	6,557.32	6,624.18	40.90	28.03	-24.59	-4,024.47	500.63	1,923.26	1,860.07	63.20	30.433		
7,100.00	6,701.63	6,652.60	6,719.45	41.51	28.43	-25.03	-4,023.68	500.42	1,890.56	1,826.40	64.15	29.469		
7,200.00	6,793.85	6,749.00	6,815.85	42.10	28.84	-25.59	-4,022.49	500.68	1,862.69	1,797.53	65.16	28.588		
7,300.00	6,882.50	6,839.33	6,906.17	42.64	29.23	-26.17	-4,021.34	500.47	1,841.87	1,775.68	66.19	27.827		
7,400.00	6,965.41	6,919.75	6,986.58	43.12	29.57	-26.77	-4,020.34	500.29	1,829.78	1,762.53	67.24	27.212		
7,467.48	7,017.07	6,968.03	7,034.85	43.40	29.77	-27.00	-4,019.67	500.51	1,827.31	1,759.35	67.96	26.888 CC, ES		
7,500.00	7,040.53	6,989.71	7,056.53	43.53	29.87	-27.11	-4,019.34	500.73	1,827.90	1,759.59	68.31	26.759		
7,600.00	7,106.00	7,044.37	7,111.18	43.89	30.10	-27.05	-4,018.58	501.48	1,837.50	1,768.09	69.41	26.474		
7,700.00	7,160.23	7,113.90	7,152.94	44.20	30.39	-27.00	-4,018.20	502.12	1,859.26	1,788.60	70.65	26.316 SF		
7,800.00	7,201.86	7,126.19	7,192.99	44.48	30.45	-27.00	-4,017.98	502.79	1,893.06	1,821.39	71.68	26.411		
7,900.00	7,229.88	7,152.57	7,219.36	44.73	30.56	-27.00	-4,017.84	503.23	1,938.11	1,865.29	72.82	26.615		
8,000.00	7,243.60	7,164.61	7,231.40	44.99	30.61	-27.29	-4,017.78	503.43	1,993.11	1,919.19	73.92	26.962		
8,100.00	7,244.73	7,164.08	7,230.87	45.29	30.61	-27.29	-4,017.78	503.42	2,055.71	1,980.76	74.95	27.427		
8,200.00	7,244.23	7,161.91	7,228.70	45.74	30.60	-27.17	-4,017.79	503.38	2,121.63	2,045.67	75.96	27.931		
8,300.00	7,243.73	7,159.75	7,226.54	46.38	30.59	-27.09	-4,017.81	503.35	2,190.14	2,113.19	76.95	28.461		
8,400.00	7,243.23	7,157.58	7,224.38	47.29	30.58	-27.01	-4,017.82	503.31	2,260.99	2,183.08	77.91	29.019		
8,500.00	7,242.73	7,155.42	7,222.21	48.46	30.57	-27.00	-4,017.83	503.27	2,333.98	2,255.14	78.84	29.605		
8,600.00	7,242.23	7,153.25	7,220.05	49.87	30.56	-27.00	-4,017.84	503.24	2,408.90	2,329.18	79.72	30.216		
8,700.00	7,241.73	7,151.09	7,217.88	51.48	30.55	-27.00	-4,017.85	503.20	2,485.59	2,405.02	80.56	30.853		
8,800.00	7,241.23	7,148.92	7,215.72	53.24	30.54	-27.00	-4,017.86	503.17	2,563.88	2,482.52	81.36	31.513		
8,900.00	7,240.73	7,146.76	7,213.55	55.13	30.53	-27.00	-4,017.87	503.13	2,643.63	2,561.52	82.11	32.194		
9,000.00	7,240.23	7,144.59	7,211.39	57.11	30.52	-27.00	-4,017.89	503.10	2,724.72	2,641.90	82.83	32.897		
9,100.00	7,239.73	7,142.43	7,209.23	59.19	30.51	-27.00	-4,017.90	503.06	2,807.03	2,723.53	83.50	33.618		
9,200.00	7,239.23	7,140.27	7,207.06	61.34	30.50	-27.00	-4,017.91	503.02	2,890.45	2,806.32	84.13	34.356		
9,300.00	7,238.72	7,138.10	7,204.90	63.55	30.50	-27.00	-4,017.92	502.99	2,974.90	2,890.17	84.73	35.111		
9,400.00	7,238.22	7,135.94	7,202.73	65.81	30.49	-27.00	-4,017.93	502.95	3,060.28	2,974.99	85.29	35.880		
9,500.00	7,237.72	7,133.77	7,200.57	68.13	30.48	-27.00	-4,017.94	502.92	3,146.52	3,060.70	85.82	36.664		
9,600.00	7,237.22	7,131.61	7,198.40	70.48	30.47	-27.00	-4,017.96	502.88	3,233.55	3,147.23	86.32	37.460		
9,700.00	7,236.72	7,129.44	7,196.24	72.88	30.46	-27.00	-4,017.97	502.84	3,321.31	3,234.51	86.79	38.267		
9,800.00	7,236.22	7,127.28	7,194.08	75.31	30.45	-27.00	-4,017.98	502.81	3,409.74	3,322.50	87.24	39.086		
9,900.00	7,235.72	7,125.11	7,191.91	77.77	30.44	-27.00	-4,017.99	502.77	3,498.79	3,411.13	87.66	39.914		
10,000.00	7,235.22	7,122.95	7,189.75	80.26	30.43	-27.00	-4,018.00	502.74	3,588.42	3,500.37	88.06	40.751		
10,100.00	7,234.72	7,120.78	7,187.58	82.77	30.42	-27.00	-4,018.01	502.70	3,678.59	3,590.15	88.43	41.597		
10,200.00	7,234.22	7,118.62	7,185.42	85.31	30.41	-27.00	-4,018.02	502.66	3,769.24	3,680.45	88.79	42.451		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERRY 22-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	7,116.46	7,183.26	87.86	30.40	-87.52	-4,018.04	502.63	3,860.36	3,771.23	89.13	43.312		
10,400.00	7,233.22	7,114.29	7,181.09	90.44	30.39	-87.44	-4,018.05	502.59	3,951.91	3,862.46	89.45	44.179		
10,500.00	7,232.72	7,112.13	7,178.93	93.03	30.39	-87.36	-4,018.06	502.56	4,043.85	3,954.10	89.76	45.053		
10,600.00	7,232.22	7,109.96	7,176.76	95.64	30.38	-87.28	-4,018.07	502.52	4,136.17	4,046.12	90.05	45.932		
10,700.00	7,231.72	7,107.80	7,174.60	98.26	30.37	-87.20	-4,018.08	502.48	4,228.84	4,138.51	90.33	46.817		
10,800.00	7,231.21	7,105.63	7,172.43	100.89	30.36	-87.12	-4,018.09	502.45	4,321.83	4,231.24	90.59	47.707		
10,900.00	7,230.71	7,103.47	7,170.27	103.54	30.35	-87.04	-4,018.11	502.41	4,415.13	4,324.28	90.84	48.601		
11,000.00	7,230.21	7,101.30	7,168.11	106.20	30.34	-86.96	-4,018.12	502.38	4,508.71	4,417.63	91.09	49.499		
11,100.00	7,229.71	7,100.89	7,165.94	108.87	30.34	-86.89	-4,018.13	502.34	4,602.57	4,511.24	91.33	50.398		
11,200.00	7,229.21	7,103.05	7,163.78	111.54	30.35	-86.81	-4,018.14	502.30	4,696.67	4,605.11	91.57	51.293		
11,300.00	7,228.71	7,105.22	7,161.61	114.23	30.36	-86.73	-4,018.15	502.27	4,791.02	4,699.22	91.80	52.192		
11,400.00	7,228.21	7,107.38	7,159.45	116.92	30.37	-86.65	-4,018.16	502.23	4,885.58	4,793.56	92.02	53.094		
11,500.00	7,227.71	7,109.55	7,157.28	119.63	30.37	-86.57	-4,018.17	502.20	4,980.36	4,888.13	92.23	53.998		
11,600.00	7,227.21	7,111.71	7,155.12	122.34	30.38	-86.49	-4,018.19	502.16	5,075.34	4,982.90	92.44	54.904		
11,700.00	7,226.71	7,113.88	7,152.96	125.05	30.39	-86.41	-4,018.20	502.12	5,170.51	5,077.87	92.64	55.813		
11,800.00	7,226.21	7,116.04	7,150.79	127.78	30.40	-86.34	-4,018.21	502.09	5,265.85	5,173.02	92.83	56.724		
11,900.00	7,225.71	7,118.21	7,148.63	130.51	30.41	-86.26	-4,018.22	502.05	5,361.37	5,268.34	93.02	57.636		
12,000.00	7,225.21	7,120.37	7,146.46	133.24	30.42	-86.18	-4,018.23	502.02	5,457.04	5,363.84	93.20	58.550		
12,100.00	7,224.71	7,083.14	7,149.95	135.98	30.26	-86.30	-4,018.23	502.08	5,552.88	5,459.67	93.21	59.574		
12,200.00	7,224.21	7,081.56	7,148.37	138.72	30.26	-86.25	-4,018.24	502.05	5,648.85	5,555.48	93.37	60.503		
12,300.00	7,223.70	7,079.99	7,146.79	141.47	30.25	-86.19	-4,018.25	502.03	5,744.96	5,651.44	93.52	61.433		
12,400.00	7,223.20	7,078.42	7,145.23	144.23	30.24	-86.13	-4,018.26	502.00	5,841.19	5,747.53	93.66	62.365		
12,500.00	7,222.70	7,076.86	7,143.67	146.98	30.24	-86.08	-4,018.28	501.98	5,937.56	5,843.75	93.80	63.298		
12,600.00	7,222.20	7,075.31	7,142.12	149.74	30.23	-86.02	-4,018.29	501.95	6,034.04	5,940.09	93.94	64.232		
12,700.00	7,221.70	7,073.77	7,140.57	152.51	30.22	-85.96	-4,018.30	501.93	6,130.63	6,036.55	94.08	65.167		
12,800.00	7,221.20	7,072.23	7,139.04	155.28	30.22	-85.91	-4,018.31	501.91	6,227.33	6,133.12	94.21	66.103		
12,900.00	7,220.70	7,070.70	7,137.51	158.05	30.21	-85.85	-4,018.33	501.88	6,324.13	6,229.79	94.33	67.039		
13,000.00	7,220.20	7,069.18	7,135.99	160.82	30.20	-85.80	-4,018.34	501.86	6,421.03	6,326.57	94.46	67.977		
13,100.00	7,219.70	7,067.66	7,134.47	163.60	30.20	-85.74	-4,018.35	501.83	6,518.02	6,423.44	94.58	68.915		
13,200.00	7,219.20	7,066.15	7,132.96	166.38	30.19	-85.69	-4,018.36	501.81	6,615.10	6,520.40	94.70	69.854		
13,300.00	7,218.70	7,064.65	7,131.46	169.16	30.18	-85.63	-4,018.38	501.79	6,712.27	6,617.45	94.82	70.793		
13,400.00	7,218.20	7,063.16	7,129.97	171.95	30.18	-85.58	-4,018.39	501.76	6,809.52	6,714.59	94.93	71.732		
13,500.00	7,217.70	7,061.67	7,128.48	174.74	30.17	-85.53	-4,018.41	501.74	6,906.84	6,811.80	95.04	72.672		
13,600.00	7,217.20	7,060.19	7,127.00	177.53	30.17	-85.47	-4,018.42	501.72	7,004.24	6,909.09	95.15	73.613		
13,700.00	7,216.70	7,058.71	7,125.52	180.32	30.16	-85.42	-4,018.43	501.70	7,101.72	7,006.46	95.26	74.553		
13,800.00	7,216.19	7,057.25	7,124.06	183.11	30.15	-85.37	-4,018.45	501.67	7,199.26	7,103.89	95.36	75.494		
13,900.00	7,215.69	7,055.79	7,122.60	185.91	30.15	-85.31	-4,018.46	501.65	7,296.87	7,201.40	95.47	76.434		
14,000.00	7,215.19	7,054.33	7,121.14	188.71	30.14	-85.26	-4,018.48	501.63	7,394.54	7,298.97	95.57	77.375		
14,100.00	7,214.69	7,052.88	7,119.69	191.51	30.13	-85.21	-4,018.49	501.61	7,492.27	7,396.60	95.67	78.315		
14,200.00	7,214.19	7,051.44	7,118.25	194.31	30.13	-85.16	-4,018.51	501.59	7,590.06	7,494.29	95.77	79.256		
14,300.00	7,213.69	7,050.01	7,116.82	197.11	30.12	-85.10	-4,018.52	501.56	7,687.91	7,592.04	95.86	80.196		
14,400.00	7,213.19	7,048.58	7,115.39	199.92	30.12	-85.05	-4,018.54	501.54	7,785.81	7,689.85	95.96	81.137		
14,500.00	7,212.69	7,047.16	7,113.97	202.72	30.11	-85.00	-4,018.55	501.52	7,883.76	7,787.71	96.05	82.077		
14,600.00	7,212.19	7,045.74	7,112.55	205.53	30.10	-84.95	-4,018.57	501.50	7,981.77	7,885.62	96.15	83.016		
14,700.00	7,211.69	7,044.33	7,111.14	208.34	30.10	-84.90	-4,018.58	501.48	8,079.82	7,983.58	96.24	83.956		
14,800.00	7,211.19	7,042.93	7,109.74	211.15	30.09	-84.85	-4,018.60	501.46	8,177.92	8,081.59	96.33	84.895		
14,900.00	7,210.69	7,041.53	7,108.34	213.96	30.09	-84.80	-4,018.61	501.44	8,276.07	8,179.65	96.42	85.834		
15,000.00	7,210.19	7,040.14	7,106.95	216.78	30.08	-84.75	-4,018.63	501.42	8,374.26	8,277.75	96.51	86.772		
15,100.00	7,209.69	7,038.76	7,105.57	219.59	30.07	-84.70	-4,018.65	501.40	8,472.49	8,375.89	96.60	87.710		
15,200.00	7,209.18	7,037.38	7,104.19	222.41	30.07	-84.65	-4,018.66	501.38	8,570.76	8,474.07	96.68	88.647		
15,300.00	7,208.68	7,036.00	7,102.82	225.22	30.06	-84.60	-4,018.68	501.36	8,669.07	8,572.30	96.77	89.584		
15,400.00	7,208.18	7,034.64	7,101.45	228.04	30.06	-84.55	-4,018.70	501.34	8,767.42	8,670.56	96.86	90.520		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - BERRY 22-2(PR_75CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-GYRO-NS											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,034.13	7,100.94	229.10	30.05	-84.53	-4,018.70	501.33	8,804.29	8,707.40	96.89	90.871	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	22.20	-1.80	3.28	3.28	172.27	-4,039.41	548.02	4,076.41					
100.00	100.00	115.55	91.55	3.28	3.29	172.28	-4,039.55	547.92	4,076.55	4,069.97	6.58	619.844		
200.00	200.00	214.71	190.71	3.34	3.36	172.28	-4,039.80	547.80	4,076.78	4,070.09	6.69	609.189		
300.00	299.98	320.54	296.54	3.44	3.48	-11.37	-4,039.97	547.60	4,075.21	4,068.29	6.92	589.019		
400.00	399.84	420.74	396.73	3.59	3.65	-11.40	-4,040.11	547.25	4,070.16	4,062.93	7.24	562.513		
500.00	499.45	522.45	498.44	3.79	3.86	-11.45	-4,040.19	546.94	4,061.66	4,054.01	7.64	531.283		
600.00	598.70	620.18	596.18	4.03	4.09	-11.53	-4,040.29	546.57	4,049.77	4,041.65	8.12	498.645		
700.00	697.47	720.52	696.52	4.31	4.36	-11.63	-4,040.36	546.28	4,034.46	4,025.79	8.67	465.385		
800.00	795.62	815.44	791.44	4.64	4.64	-11.76	-4,040.46	546.08	4,015.84	4,006.58	9.26	433.898		
900.00	893.06	914.24	890.23	5.00	4.95	-11.91	-4,040.59	545.77	3,993.88	3,983.98	9.90	403.480		
1,000.00	989.64	1,009.22	985.21	5.40	5.26	-12.09	-4,040.72	545.49	3,968.62	3,958.05	10.57	375.517		
1,100.00	1,085.27	1,108.64	1,084.63	5.83	5.60	-12.31	-4,040.82	545.22	3,940.05	3,928.76	11.29	349.109		
1,200.00	1,179.82	1,198.66	1,174.66	6.29	5.92	-12.54	-4,040.94	544.89	3,908.26	3,896.26	12.00	325.684		
1,300.00	1,273.47	1,285.10	1,261.09	6.79	6.23	-12.69	-4,041.19	544.53	3,874.15	3,861.43	12.72	304.490		
1,400.00	1,367.06	1,379.19	1,355.18	7.30	6.58	-12.80	-4,041.57	544.09	3,840.00	3,826.52	13.48	284.794		
1,500.00	1,460.64	1,478.72	1,454.71	7.83	6.95	-12.91	-4,041.90	543.52	3,805.78	3,791.50	14.28	266.500		
1,600.00	1,554.23	1,572.64	1,548.63	8.38	7.31	-13.02	-4,042.12	542.89	3,771.47	3,756.39	15.07	250.208		
1,700.00	1,647.82	1,665.54	1,641.52	8.93	7.67	-13.13	-4,042.37	542.28	3,737.20	3,721.32	15.88	235.406		
1,800.00	1,741.41	1,756.72	1,732.70	9.49	8.02	-13.24	-4,042.63	541.70	3,702.97	3,686.29	16.68	221.960		
1,900.00	1,835.00	1,846.28	1,822.26	10.05	8.38	-13.35	-4,043.00	541.02	3,668.84	3,651.35	17.49	209.711		
2,000.00	1,928.59	1,937.07	1,913.04	10.62	8.74	-13.46	-4,043.50	540.20	3,634.84	3,616.52	18.32	198.415		
2,100.00	2,022.18	2,033.31	2,009.27	11.20	9.12	-13.57	-4,044.08	539.09	3,600.87	3,581.70	19.17	187.840		
2,200.00	2,115.77	2,134.11	2,110.06	11.78	9.53	-13.69	-4,044.53	537.87	3,566.75	3,546.71	20.04	177.965		
2,300.00	2,209.36	2,234.29	2,210.24	12.37	9.93	-13.81	-4,044.84	536.52	3,532.49	3,511.58	20.92	168.885		
2,400.00	2,302.95	2,337.68	2,313.62	12.95	10.35	-13.94	-4,044.88	535.17	3,498.01	3,476.20	21.81	160.417		
2,500.00	2,396.54	2,435.21	2,411.14	13.54	10.75	-14.07	-4,044.69	533.97	3,463.33	3,440.65	22.68	152.708		
2,600.00	2,490.13	2,528.63	2,504.56	14.13	11.13	-14.19	-4,044.47	533.02	3,428.66	3,405.11	23.54	145.629		
2,700.00	2,583.72	2,624.12	2,600.04	14.73	11.52	-14.33	-4,044.17	532.20	3,393.96	3,369.54	24.42	138.995		
2,800.00	2,677.31	2,716.42	2,692.34	15.32	11.90	-14.46	-4,043.86	531.40	3,359.25	3,333.97	25.29	132.853		
2,900.00	2,770.90	2,804.38	2,780.29	15.92	12.26	-14.59	-4,043.67	530.67	3,324.68	3,298.54	26.14	127.170		
3,000.00	2,864.49	2,902.03	2,877.95	16.52	12.67	-14.74	-4,043.45	529.94	3,290.14	3,263.11	27.03	121.708		
3,100.00	2,958.08	2,982.93	2,958.84	17.12	13.00	-14.87	-4,043.37	529.46	3,255.74	3,227.87	27.88	116.789		
3,200.00	3,051.67	3,069.62	3,045.53	17.72	13.36	-15.01	-4,043.53	529.05	3,221.66	3,192.92	28.74	112.093		
3,300.00	3,145.26	3,163.78	3,139.69	18.32	13.75	-15.16	-4,043.83	528.57	3,187.71	3,158.08	29.63	107.588		
3,400.00	3,238.85	3,253.31	3,229.22	18.92	14.13	-15.31	-4,044.10	528.07	3,153.75	3,123.25	30.51	103.382		
3,500.00	3,332.44	3,339.55	3,315.45	19.53	14.49	-15.45	-4,044.58	527.56	3,120.05	3,088.67	31.38	99.438		
3,600.00	3,426.03	3,442.49	3,418.39	20.13	14.92	-15.63	-4,045.28	526.89	3,086.49	3,054.20	32.29	95.575		
3,700.00	3,519.62	3,564.61	3,540.51	20.74	15.43	-15.85	-4,045.01	526.44	3,052.14	3,018.88	33.26	91.772		
3,800.00	3,613.21	3,669.50	3,645.39	21.34	15.86	-16.06	-4,044.06	526.34	3,017.25	2,983.07	34.18	88.282		
3,900.00	3,706.80	3,770.63	3,746.52	21.95	16.28	-16.26	-4,042.87	526.09	2,982.12	2,947.03	35.09	84.989		
4,000.00	3,800.39	3,860.02	3,835.89	22.56	16.66	-16.45	-4,041.70	525.92	2,946.90	2,910.93	35.97	81.916		
4,100.00	3,893.98	3,946.36	3,922.23	23.16	17.02	-16.62	-4,040.81	525.61	2,911.94	2,875.09	36.86	79.006		
4,200.00	3,987.57	4,034.90	4,010.77	23.77	17.39	-16.81	-4,040.10	525.22	2,877.20	2,839.45	37.75	76.225		
4,300.00	4,081.16	4,122.22	4,098.09	24.38	17.76	-16.99	-4,039.55	524.71	2,842.62	2,803.99	38.64	73.576		
4,400.00	4,174.75	4,203.69	4,179.55	24.99	18.10	-17.16	-4,039.35	524.22	2,808.42	2,768.90	39.51	71.072		
4,500.00	4,268.34	4,299.40	4,275.27	25.60	18.50	-17.37	-4,039.27	523.67	2,774.39	2,733.97	40.42	68.632		
4,600.00	4,361.93	4,389.14	4,365.00	26.21	18.88	-17.57	-4,039.21	523.19	2,740.43	2,699.11	41.32	66.315		
4,700.00	4,455.52	4,483.10	4,458.96	26.82	19.28	-17.79	-4,039.20	522.76	2,706.57	2,664.33	42.23	64.086		
4,800.00	4,549.11	4,578.55	4,554.41	27.43	19.68	-18.01	-4,039.15	522.33	2,672.70	2,629.55	43.15	61.945		
4,900.00	4,642.70	4,668.51	4,644.37	28.04	20.07	-18.23	-4,039.11	521.88	2,638.87	2,594.82	44.05	59.904		
5,000.00	4,736.29	4,755.35	4,731.21	28.65	20.43	-18.44	-4,039.25	521.49	2,605.27	2,560.32	44.95	57.953		
5,100.00	4,829.88	4,845.33	4,821.19	29.26	20.81	-18.68	-4,039.54	521.48	2,571.96	2,526.09	45.86	56.077		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,939.33	4,915.19	29.87	21.21	-18.93	-4,039.85	521.50	2,538.71	2,491.92	46.78	54.267		
5,300.00	5,017.06	5,032.18	5,008.03	30.48	21.60	-19.18	-4,040.17	521.53	2,505.50	2,457.80	47.70	52.527		
5,400.00	5,110.65	5,123.82	5,099.67	31.09	21.98	-19.44	-4,040.54	521.56	2,472.42	2,423.80	48.62	50.854		
5,500.00	5,204.24	5,217.16	5,193.01	31.70	22.38	-19.71	-4,040.97	521.66	2,439.44	2,389.90	49.54	49.242		
5,600.00	5,297.83	5,314.24	5,290.09	32.32	22.79	-20.00	-4,041.36	521.62	2,406.43	2,355.96	50.47	47.684		
5,700.00	5,391.42	5,408.27	5,384.13	32.93	23.19	-20.29	-4,041.69	521.54	2,373.41	2,322.02	51.39	46.183		
5,800.00	5,485.01	5,498.86	5,474.71	33.54	23.57	-20.57	-4,042.06	521.49	2,340.51	2,288.19	52.32	44.737		
5,900.00	5,578.60	5,617.45	5,593.29	34.15	24.07	-20.96	-4,041.81	521.68	2,307.13	2,253.88	53.26	43.319		
6,000.00	5,672.19	5,710.95	5,686.79	34.77	24.46	-21.29	-4,041.08	521.91	2,273.37	2,219.18	54.19	41.953		
6,100.00	5,765.78	5,793.37	5,769.21	35.38	24.81	-21.58	-4,040.73	521.96	2,239.93	2,184.81	55.12	40.640		
6,200.00	5,859.37	5,882.29	5,858.14	35.99	25.19	-21.90	-4,040.72	521.88	2,206.89	2,150.84	56.05	39.373		
6,300.00	5,952.96	5,977.86	5,953.70	36.60	25.59	-22.24	-4,040.82	521.67	2,173.99	2,117.00	56.99	38.149		
6,400.00	6,046.55	6,070.44	6,046.28	37.22	25.99	-22.58	-4,040.91	521.27	2,141.09	2,083.16	57.92	36.963		
6,500.00	6,140.14	6,163.92	6,139.76	37.83	26.39	-22.93	-4,041.10	520.80	2,108.33	2,049.46	58.87	35.816		
6,600.00	6,233.73	6,265.07	6,240.91	38.44	26.82	-23.31	-4,041.19	520.15	2,075.52	2,015.71	59.80	34.705		
6,700.00	6,327.32	6,366.41	6,342.25	39.06	27.25	-23.71	-4,040.88	519.27	2,042.35	1,981.61	60.74	33.622		
6,800.00	6,420.91	6,460.91	6,436.74	39.67	27.65	-24.09	-4,040.42	518.28	2,009.05	1,947.36	61.69	32.568		
6,900.00	6,514.50	6,558.16	6,533.98	40.28	28.06	-24.50	-4,039.92	517.27	1,975.81	1,913.17	62.63	31.546		
7,000.00	6,608.09	6,654.13	6,629.94	40.90	28.47	-24.91	-4,039.24	515.99	1,942.39	1,878.81	63.58	30.550		
7,100.00	6,701.63	6,747.27	6,723.07	41.51	28.87	-35.91	-4,038.63	514.65	1,909.52	1,844.98	64.54	29.588		
7,200.00	6,793.85	6,844.61	6,820.39	42.10	29.28	-58.81	-4,038.07	512.81	1,881.62	1,816.09	65.53	28.713		
7,300.00	6,882.50	6,941.92	6,917.66	42.64	29.70	-75.07	-4,037.35	510.19	1,860.54	1,794.00	66.54	27.959		
7,400.00	6,965.41	7,031.77	7,007.46	43.12	30.08	-86.07	-4,036.49	507.46	1,847.81	1,780.24	67.57	27.347		
7,479.88	7,026.14	7,100.16	7,075.80	43.45	30.37	-92.24	-4,035.77	504.95	1,844.52	1,776.12	68.39	26.970 CC, ES		
7,500.00	7,040.53	7,114.98	7,090.61	43.53	30.44	-93.47	-4,035.61	504.36	1,844.74	1,776.13	68.60	26.889		
7,600.00	7,106.00	7,182.96	7,158.54	43.89	30.73	-98.07	-4,034.87	501.65	1,852.68	1,783.00	69.68	26.589		
7,700.00	7,160.23	7,240.15	7,215.68	44.20	30.97	-100.47	-4,034.25	499.37	1,872.47	1,801.68	70.79	26.451 SF		
7,800.00	7,201.86	7,285.14	7,260.63	44.48	31.16	-100.82	-4,033.76	497.57	1,904.30	1,832.36	71.94	26.471		
7,900.00	7,229.88	7,316.81	7,292.27	44.73	31.30	-99.06	-4,033.42	496.31	1,947.69	1,874.58	73.10	26.644		
8,000.00	7,243.60	7,334.40	7,309.84	44.99	31.37	-95.01	-4,033.22	495.61	2,001.50	1,927.27	74.23	26.964		
8,100.00	7,244.73	7,339.50	7,314.94	45.29	31.40	-92.30	-4,033.17	495.41	2,063.40	1,988.11	75.29	27.407		
8,200.00	7,244.23	7,342.98	7,318.42	45.74	31.41	-92.42	-4,033.13	495.27	2,128.73	2,052.39	76.33	27.888		
8,300.00	7,243.73	7,346.47	7,321.90	46.38	31.43	-92.55	-4,033.09	495.13	2,196.66	2,119.29	77.36	28.395		
8,400.00	7,243.23	7,349.95	7,325.38	47.29	31.44	-92.67	-4,033.06	494.99	2,266.96	2,188.60	78.36	28.929		
8,500.00	7,242.73	7,353.43	7,328.86	48.46	31.46	-92.80	-4,033.02	494.85	2,339.42	2,260.09	79.33	29.490		
8,600.00	7,242.23	7,356.92	7,332.34	49.87	31.47	-92.93	-4,032.98	494.71	2,413.84	2,333.59	80.25	30.077		
8,700.00	7,241.73	7,360.40	7,335.82	51.48	31.49	-93.05	-4,032.94	494.57	2,490.05	2,408.91	81.14	30.689		
8,800.00	7,241.23	7,363.88	7,339.30	53.24	31.50	-93.18	-4,032.90	494.43	2,567.89	2,485.91	81.98	31.324		
8,900.00	7,240.73	7,367.36	7,342.78	55.13	31.51	-93.30	-4,032.87	494.29	2,647.21	2,564.43	82.78	31.980		
9,000.00	7,240.23	7,370.85	7,346.26	57.11	31.53	-93.43	-4,032.83	494.15	2,727.89	2,644.36	83.53	32.657		
9,100.00	7,239.73	7,374.33	7,349.74	59.19	31.54	-93.55	-4,032.79	494.02	2,809.81	2,725.56	84.25	33.352		
9,200.00	7,239.23	7,377.81	7,353.22	61.34	31.56	-93.68	-4,032.75	493.88	2,892.86	2,807.93	84.92	34.065		
9,300.00	7,238.72	7,381.30	7,356.70	63.55	31.57	-93.80	-4,032.71	493.74	2,976.94	2,891.38	85.56	34.793		
9,400.00	7,238.22	7,384.78	7,360.18	65.81	31.59	-93.93	-4,032.68	493.60	3,061.99	2,975.82	86.16	35.537		
9,500.00	7,237.72	7,388.26	7,363.66	68.13	31.60	-94.05	-4,032.64	493.46	3,147.90	3,061.17	86.74	36.293		
9,600.00	7,237.22	7,391.74	7,367.14	70.48	31.62	-94.18	-4,032.60	493.32	3,234.62	3,147.35	87.28	37.062		
9,700.00	7,236.72	7,395.23	7,370.62	72.88	31.63	-94.31	-4,032.56	493.18	3,322.09	3,234.30	87.79	37.843		
9,800.00	7,236.22	7,398.71	7,374.10	75.31	31.65	-94.43	-4,032.52	493.04	3,410.24	3,321.97	88.27	38.634		
9,900.00	7,235.72	7,402.19	7,377.58	77.77	31.66	-94.56	-4,032.49	492.90	3,499.02	3,410.29	88.73	39.434		
10,000.00	7,235.22	7,405.68	7,381.06	80.26	31.68	-94.68	-4,032.45	492.76	3,588.40	3,499.23	89.17	40.244		
10,100.00	7,234.72	7,409.16	7,384.54	82.77	31.69	-94.81	-4,032.41	492.63	3,678.31	3,588.73	89.58	41.061		
10,200.00	7,234.22	7,412.64	7,388.02	85.31	31.71	-94.93	-4,032.37	492.49	3,768.73	3,678.76	89.98	41.886		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	7,416.12	7,391.50	87.86	31.72	-95.06	-4,032.34	492.35	3,859.62	3,769.27	90.35	42.718		
10,400.00	7,233.22	7,419.61	7,394.98	90.44	31.74	-95.18	-4,032.30	492.21	3,950.95	3,860.24	90.71	43.557		
10,500.00	7,232.72	7,423.09	7,398.46	93.03	31.75	-95.31	-4,032.26	492.07	4,042.68	3,951.63	91.05	44.401		
10,600.00	7,232.22	7,426.57	7,401.94	95.64	31.77	-95.43	-4,032.22	491.93	4,134.80	4,043.42	91.38	45.250		
10,700.00	7,231.72	7,400.00	7,375.39	98.26	31.65	-94.48	-4,032.51	492.99	4,227.37	4,135.77	91.60	46.149		
10,800.00	7,231.21	7,400.00	7,375.39	100.89	31.65	-94.48	-4,032.51	492.99	4,320.20	4,228.31	91.89	47.015		
10,900.00	7,230.71	7,400.00	7,375.39	103.54	31.65	-94.48	-4,032.51	492.99	4,413.34	4,321.18	92.16	47.886		
11,000.00	7,230.21	7,400.00	7,375.39	106.20	31.65	-94.48	-4,032.51	492.99	4,506.77	4,414.35	92.43	48.761		
11,100.00	7,229.71	7,400.00	7,375.39	108.87	31.65	-94.48	-4,032.51	492.99	4,600.48	4,507.80	92.68	49.639		
11,200.00	7,229.21	7,400.00	7,375.39	111.54	31.65	-94.48	-4,032.51	492.99	4,694.45	4,601.53	92.92	50.522		
11,300.00	7,228.71	7,400.00	7,375.39	114.23	31.65	-94.48	-4,032.51	492.99	4,788.67	4,695.51	93.15	51.407		
11,400.00	7,228.21	7,400.00	7,375.39	116.92	31.65	-94.48	-4,032.51	492.99	4,883.11	4,789.74	93.37	52.296		
11,500.00	7,227.71	7,400.00	7,375.39	119.63	31.65	-94.48	-4,032.51	492.99	4,977.77	4,884.18	93.59	53.188		
11,600.00	7,227.21	7,400.00	7,375.39	122.34	31.65	-94.48	-4,032.51	492.99	5,072.64	4,978.84	93.80	54.082		
11,700.00	7,226.71	7,400.00	7,375.39	125.05	31.65	-94.48	-4,032.51	492.99	5,167.70	5,073.70	94.00	54.978		
11,800.00	7,226.21	7,400.00	7,375.39	127.78	31.65	-94.48	-4,032.51	492.99	5,262.94	5,168.75	94.19	55.877		
11,900.00	7,225.71	7,400.00	7,375.39	130.51	31.65	-94.48	-4,032.51	492.99	5,358.35	5,263.98	94.37	56.778		
12,000.00	7,225.21	7,400.00	7,375.39	133.24	31.65	-94.48	-4,032.51	492.99	5,453.93	5,359.38	94.55	57.681		
12,100.00	7,224.71	7,400.00	7,375.39	135.98	31.65	-94.48	-4,032.51	492.99	5,549.67	5,454.94	94.73	58.585		
12,200.00	7,224.21	7,400.00	7,375.39	138.72	31.65	-94.48	-4,032.51	492.99	5,645.55	5,550.66	94.90	59.492		
12,300.00	7,223.70	7,400.00	7,375.39	141.47	31.65	-94.48	-4,032.51	492.99	5,741.58	5,646.52	95.06	60.399		
12,400.00	7,223.20	7,400.00	7,375.39	144.23	31.65	-94.48	-4,032.51	492.99	5,837.73	5,742.52	95.22	61.308		
12,500.00	7,222.70	7,400.00	7,375.39	146.98	31.65	-94.48	-4,032.51	492.99	5,934.02	5,838.65	95.37	62.218		
12,600.00	7,222.20	7,400.00	7,375.39	149.74	31.65	-94.48	-4,032.51	492.99	6,030.42	5,934.90	95.52	63.130		
12,700.00	7,221.70	7,400.00	7,375.39	152.51	31.65	-94.48	-4,032.51	492.99	6,126.95	6,031.27	95.67	64.042		
12,800.00	7,221.20	7,400.00	7,375.39	155.28	31.65	-94.48	-4,032.51	492.99	6,223.58	6,127.76	95.81	64.955		
12,900.00	7,220.70	7,400.00	7,375.39	158.05	31.65	-94.48	-4,032.51	492.99	6,320.31	6,224.36	95.95	65.869		
13,000.00	7,220.20	7,400.00	7,375.39	160.82	31.65	-94.48	-4,032.51	492.99	6,417.15	6,321.06	96.09	66.784		
13,100.00	7,219.70	7,400.00	7,375.39	163.60	31.65	-94.48	-4,032.51	492.99	6,514.08	6,417.86	96.22	67.699		
13,200.00	7,219.20	7,400.00	7,375.39	166.38	31.65	-94.48	-4,032.51	492.99	6,611.10	6,514.75	96.35	68.615		
13,300.00	7,218.70	7,400.00	7,375.39	169.16	31.65	-94.48	-4,032.51	492.99	6,708.21	6,611.73	96.48	69.531		
13,400.00	7,218.20	7,400.00	7,375.39	171.95	31.65	-94.48	-4,032.51	492.99	6,805.40	6,708.80	96.60	70.447		
13,500.00	7,217.70	7,400.00	7,375.39	174.74	31.65	-94.48	-4,032.51	492.99	6,902.68	6,805.95	96.72	71.364		
13,600.00	7,217.20	7,400.00	7,375.39	177.53	31.65	-94.48	-4,032.51	492.99	7,000.03	6,903.19	96.84	72.281		
13,700.00	7,216.70	7,400.00	7,375.39	180.32	31.65	-94.48	-4,032.51	492.99	7,097.45	7,000.49	96.96	73.199		
13,800.00	7,216.19	7,400.00	7,375.39	183.11	31.65	-94.48	-4,032.51	492.99	7,194.95	7,097.87	97.08	74.116		
13,900.00	7,215.69	7,400.00	7,375.39	185.91	31.65	-94.48	-4,032.51	492.99	7,292.51	7,195.32	97.19	75.034		
14,000.00	7,215.19	7,400.00	7,375.39	188.71	31.65	-94.48	-4,032.51	492.99	7,390.14	7,292.84	97.30	75.951		
14,100.00	7,214.69	7,400.00	7,375.39	191.51	31.65	-94.48	-4,032.51	492.99	7,487.83	7,390.42	97.41	76.869		
14,200.00	7,214.19	7,400.00	7,375.39	194.31	31.65	-94.48	-4,032.51	492.99	7,585.58	7,488.06	97.52	77.786		
14,300.00	7,213.69	7,400.00	7,375.39	197.11	31.65	-94.48	-4,032.51	492.99	7,683.39	7,585.77	97.62	78.703		
14,400.00	7,213.19	7,400.00	7,375.39	199.92	31.65	-94.48	-4,032.51	492.99	7,781.25	7,683.53	97.73	79.620		
14,500.00	7,212.69	7,400.00	7,375.39	202.72	31.65	-94.48	-4,032.51	492.99	7,879.17	7,781.34	97.83	80.537		
14,600.00	7,212.19	7,400.00	7,375.39	205.53	31.65	-94.48	-4,032.51	492.99	7,977.14	7,879.21	97.93	81.454		
14,700.00	7,211.69	7,400.00	7,375.39	208.34	31.65	-94.48	-4,032.51	492.99	8,075.16	7,977.13	98.04	82.370		
14,800.00	7,211.19	7,400.00	7,375.39	211.15	31.65	-94.48	-4,032.51	492.99	8,173.23	8,075.09	98.13	83.286		
14,900.00	7,210.69	7,400.00	7,375.39	213.96	31.65	-94.48	-4,032.51	492.99	8,271.34	8,173.11	98.23	84.201		
15,000.00	7,210.19	7,400.00	7,375.39	216.78	31.65	-94.48	-4,032.51	492.99	8,369.50	8,271.17	98.33	85.116		
15,100.00	7,209.69	7,400.00	7,375.39	219.59	31.65	-94.48	-4,032.51	492.99	8,467.70	8,369.28	98.43	86.031		
15,200.00	7,209.18	7,400.00	7,375.39	222.41	31.65	-94.48	-4,032.51	492.99	8,565.95	8,467.42	98.52	86.945		
15,300.00	7,208.68	7,400.00	7,375.39	225.22	31.65	-94.48	-4,032.51	492.99	8,664.23	8,565.61	98.62	87.858		
15,400.00	7,208.18	7,400.00	7,375.39	228.04	31.65	-94.48	-4,032.51	492.99	8,762.55	8,663.84	98.71	88.771		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-GYRO-NS											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,400.00	7,375.39	229.10	31.65	-94.48	-4,032.51	492.99	8,799.41	8,700.67	98.74	89.113	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACKGOLD 3(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	24.90	-0.10	3.28	3.28	-23.58	2,642.70	-1,153.34	2,883.41					
100.00	100.00	122.81	97.81	3.28	3.29	-23.58	2,642.63	-1,153.55	2,883.43	2,876.85	6.58	438.246 ES		
200.00	200.00	220.49	195.49	3.34	3.36	-23.58	2,642.80	-1,153.62	2,883.62	2,876.92	6.70	430.578		
300.00	299.98	330.13	305.13	3.44	3.49	152.79	2,642.79	-1,153.27	2,885.02	2,878.09	6.93	416.209		
400.00	399.84	421.62	396.62	3.59	3.64	152.79	2,642.88	-1,153.15	2,889.71	2,882.48	7.24	399.355		
500.00	499.45	530.10	505.09	3.79	3.87	152.81	2,642.81	-1,153.09	2,897.38	2,889.72	7.66	378.253		
600.00	598.70	637.06	612.05	4.03	4.13	152.84	2,642.65	-1,152.81	2,908.01	2,899.84	8.16	356.261		
700.00	697.47	741.68	716.68	4.31	4.42	152.87	2,642.09	-1,152.21	2,921.24	2,912.51	8.73	334.689		
800.00	795.62	837.65	812.65	4.64	4.70	152.89	2,641.80	-1,151.74	2,937.81	2,928.49	9.33	315.043		
900.00	893.06	943.91	918.90	5.00	5.04	152.93	2,641.16	-1,150.92	2,957.09	2,947.09	10.00	295.653		
1,000.00	989.64	1,032.87	1,007.85	5.40	5.33	152.94	2,640.68	-1,150.36	2,979.58	2,968.91	10.66	279.444		
1,100.00	1,085.27	1,123.95	1,098.93	5.83	5.65	152.94	2,640.39	-1,149.88	3,005.36	2,994.00	11.36	264.483		
1,200.00	1,179.82	1,222.34	1,197.32	6.29	5.99	152.96	2,640.03	-1,149.37	3,034.17	3,022.05	12.12	250.338		
1,300.00	1,273.47	1,315.55	1,290.53	6.79	6.33	153.17	2,639.62	-1,148.95	3,065.27	3,052.38	12.88	237.948		
1,400.00	1,367.06	1,402.97	1,377.94	7.30	6.66	153.45	2,639.40	-1,148.42	3,096.71	3,083.07	13.63	227.156		
1,500.00	1,460.64	1,498.36	1,473.33	7.83	7.01	153.75	2,639.26	-1,147.80	3,128.29	3,113.86	14.43	216.770		
1,600.00	1,554.23	1,602.36	1,577.34	8.38	7.41	154.06	2,638.81	-1,147.33	3,159.77	3,144.49	15.28	206.768		
1,700.00	1,647.82	1,692.59	1,667.56	8.93	7.76	154.32	2,638.17	-1,147.32	3,191.22	3,175.13	16.09	198.371		
1,800.00	1,741.41	1,776.92	1,751.89	9.49	8.09	154.55	2,637.63	-1,147.60	3,222.91	3,206.04	16.88	190.975		
1,900.00	1,835.00	1,889.31	1,864.27	10.05	8.53	154.86	2,636.95	-1,147.78	3,254.66	3,236.86	17.80	182.872		
2,000.00	1,928.59	1,974.16	1,949.12	10.62	8.86	155.09	2,636.13	-1,148.00	3,286.16	3,267.56	18.60	176.634		
2,100.00	2,022.18	2,065.43	2,040.39	11.20	9.23	155.32	2,635.42	-1,148.54	3,317.98	3,298.53	19.45	170.627		
2,200.00	2,115.77	2,168.23	2,143.18	11.78	9.64	155.58	2,634.58	-1,148.90	3,349.75	3,329.40	20.35	164.636		
2,300.00	2,209.36	2,260.89	2,235.84	12.37	10.01	155.81	2,633.65	-1,149.12	3,381.37	3,360.17	21.20	159.462		
2,400.00	2,302.95	2,353.53	2,328.48	12.95	10.39	156.04	2,632.79	-1,149.56	3,413.18	3,391.11	22.07	154.671		
2,500.00	2,396.54	2,447.78	2,422.71	13.54	10.77	156.26	2,631.78	-1,150.26	3,444.98	3,422.04	22.94	150.167		
2,600.00	2,490.13	2,538.51	2,513.43	14.13	11.14	156.46	2,630.80	-1,151.10	3,476.89	3,453.09	23.80	146.084		
2,700.00	2,583.72	2,626.45	2,601.36	14.73	11.50	156.66	2,629.95	-1,151.96	3,508.96	3,484.31	24.65	142.360		
2,800.00	2,677.31	2,709.27	2,684.18	15.32	11.84	156.84	2,629.41	-1,152.67	3,541.30	3,515.83	25.47	139.028		
2,900.00	2,770.90	2,789.91	2,764.82	15.92	12.18	157.02	2,629.15	-1,153.43	3,574.01	3,547.73	26.28	135.975		
3,000.00	2,864.49	2,886.27	2,861.18	16.52	12.57	157.22	2,628.99	-1,154.44	3,606.93	3,579.75	27.18	132.712		
3,100.00	2,958.08	2,981.31	2,956.20	17.12	12.96	157.42	2,628.68	-1,155.59	3,639.80	3,611.73	28.07	129.676		
3,200.00	3,051.67	3,074.45	3,049.33	17.72	13.35	157.60	2,628.26	-1,157.09	3,672.70	3,643.75	28.95	126.862		
3,300.00	3,145.26	3,162.46	3,137.33	18.32	13.72	157.77	2,627.93	-1,158.50	3,705.70	3,675.89	29.81	124.326		
3,400.00	3,238.85	3,249.53	3,224.38	18.92	14.08	157.93	2,627.67	-1,160.26	3,738.91	3,708.25	30.66	121.954		
3,500.00	3,332.44	3,338.98	3,313.81	19.53	14.45	158.09	2,627.43	-1,162.41	3,772.29	3,740.77	31.52	119.663		
3,600.00	3,426.03	3,434.33	3,409.12	20.13	14.85	158.25	2,627.22	-1,164.76	3,805.75	3,773.33	32.42	117.377		
3,700.00	3,519.62	3,531.11	3,505.88	20.74	15.25	158.42	2,626.90	-1,166.99	3,839.11	3,805.77	33.33	115.180		
3,800.00	3,613.21	3,637.57	3,612.31	21.34	15.70	158.60	2,626.62	-1,169.35	3,872.53	3,838.24	34.29	112.921		
3,900.00	3,706.80	3,773.95	3,748.65	21.95	16.27	158.82	2,624.77	-1,172.36	3,904.93	3,869.50	35.42	110.233		
4,000.00	3,800.39	3,874.35	3,849.01	22.56	16.69	158.97	2,622.94	-1,174.39	3,936.93	3,900.57	36.36	108.283		
4,100.00	3,893.98	3,968.52	3,943.14	23.16	17.09	159.12	2,621.17	-1,176.29	3,968.90	3,931.64	37.26	106.525		
4,200.00	3,987.57	4,064.43	4,039.01	23.77	17.49	159.26	2,619.32	-1,178.36	4,000.90	3,962.73	38.17	104.822		
4,300.00	4,081.16	4,161.10	4,135.64	24.38	17.90	159.41	2,617.40	-1,180.45	4,032.86	3,993.77	39.08	103.184		
4,400.00	4,174.75	4,258.10	4,232.60	24.99	18.31	159.55	2,615.43	-1,182.48	4,064.79	4,024.78	40.00	101.614		
4,500.00	4,268.34	4,352.68	4,327.14	25.60	18.71	159.69	2,613.47	-1,184.43	4,096.68	4,055.78	40.91	100.146		
4,600.00	4,361.93	4,447.35	4,421.77	26.21	19.11	159.82	2,611.52	-1,186.40	4,128.62	4,086.81	41.81	98.740		
4,700.00	4,455.52	4,544.11	4,518.49	26.82	19.52	159.95	2,609.44	-1,188.53	4,160.53	4,117.80	42.73	97.364		
4,800.00	4,549.11	4,638.25	4,612.58	27.43	19.92	160.08	2,607.39	-1,190.61	4,192.42	4,148.79	43.64	96.078		
4,900.00	4,642.70	4,739.81	4,714.09	28.04	20.35	160.22	2,605.17	-1,192.86	4,224.35	4,179.77	44.58	94.753		
5,000.00	4,736.29	4,850.92	4,825.14	28.65	20.82	160.36	2,602.31	-1,195.17	4,255.88	4,210.30	45.59	93.360		
5,100.00	4,829.88	4,943.61	4,917.78	29.26	21.21	160.48	2,599.80	-1,197.03	4,287.30	4,240.82	46.48	92.233		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACKGOLD 3(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	5,030.64	5,004.77	29.87	21.58	160.60	2,597.58	-1,198.74	4,318.88	4,271.53	47.35	91.216		
5,300.00	5,017.06	5,118.06	5,092.14	30.48	21.95	160.71	2,595.52	-1,200.34	4,350.62	4,302.41	48.21	90.236		
5,400.00	5,110.65	5,202.03	5,176.08	31.09	22.30	160.82	2,593.73	-1,201.87	4,382.58	4,333.52	49.06	89.332		
5,500.00	5,204.24	5,288.14	5,262.16	31.70	22.67	160.93	2,592.09	-1,203.41	4,414.75	4,364.83	49.92	88.443		
5,600.00	5,297.83	5,368.74	5,342.74	32.32	23.01	161.03	2,590.80	-1,204.64	4,447.16	4,396.42	50.74	87.646		
5,700.00	5,391.42	5,457.35	5,431.34	32.93	23.39	161.15	2,589.72	-1,205.61	4,479.84	4,428.23	51.61	86.801		
5,800.00	5,485.01	5,546.21	5,520.19	33.54	23.76	161.27	2,588.68	-1,206.63	4,512.59	4,460.11	52.48	85.983		
5,900.00	5,578.60	5,626.61	5,600.57	34.15	24.11	161.38	2,587.87	-1,207.65	4,545.55	4,492.25	53.30	85.279		
6,000.00	5,672.19	5,700.21	5,674.17	34.77	24.42	161.48	2,587.50	-1,208.38	4,578.91	4,524.83	54.08	84.672		
6,100.00	5,765.78	5,833.23	5,807.19	35.38	24.98	161.67	2,586.68	-1,208.51	4,611.96	4,556.74	55.22	83.517		
6,200.00	5,859.37	5,930.73	5,904.68	35.99	25.40	161.81	2,585.80	-1,208.32	4,644.74	4,588.59	56.15	82.725		
6,300.00	5,952.96	6,300.00	6,043.81	36.60	26.96	162.02	2,584.07	-1,206.66	4,677.01	4,618.71	58.30	80.218		
6,400.00	6,046.55	6,400.00	6,229.84	37.22	27.39	162.32	2,579.35	-1,202.14	4,707.76	4,648.37	59.39	79.265		
6,500.00	6,140.14	6,399.48	6,373.10	37.83	27.39	162.56	2,573.61	-1,197.79	4,737.08	4,677.10	59.97	78.986		
6,600.00	6,233.73	6,444.55	6,418.13	38.44	27.58	162.62	2,571.78	-1,196.91	4,766.69	4,706.09	60.60	78.663		
6,700.00	6,327.32	6,500.00	6,473.55	39.06	27.82	162.70	2,570.08	-1,196.33	4,797.34	4,736.07	61.27	78.294		
6,800.00	6,420.91	6,540.06	6,513.60	39.67	27.99	162.75	2,569.20	-1,196.15	4,828.90	4,767.05	61.85	78.075		
6,900.00	6,514.50	6,600.00	6,573.53	40.28	28.24	162.83	2,568.34	-1,196.08	4,861.32	4,798.78	62.54	77.729		
7,000.00	6,608.09	6,671.12	6,644.65	40.90	28.55	162.91	2,567.69	-1,196.21	4,894.33	4,831.03	63.30	77.318		
7,100.00	6,701.63	6,750.59	6,724.12	41.51	28.89	152.39	2,567.11	-1,196.57	4,927.33	4,863.22	64.11	76.854		
7,200.00	6,793.85	6,820.26	6,793.78	42.10	29.18	130.15	2,566.78	-1,197.15	4,957.60	4,892.74	64.86	76.437		
7,300.00	6,882.50	6,874.67	6,848.18	42.64	29.41	114.73	2,566.83	-1,197.81	4,984.24	4,918.75	65.48	76.115		
7,400.00	6,965.41	6,946.21	6,919.72	43.12	29.72	104.70	2,567.29	-1,198.87	5,006.80	4,940.60	66.20	75.636		
7,500.00	7,040.53	7,025.43	6,998.93	43.53	30.05	98.24	2,567.77	-1,199.93	5,024.58	4,957.62	66.95	75.045		
7,600.00	7,106.00	7,087.98	7,061.47	43.89	30.32	94.01	2,568.17	-1,200.73	5,037.63	4,970.00	67.63	74.486		
7,700.00	7,160.23	7,140.30	7,113.79	44.20	30.54	91.35	2,568.55	-1,201.35	5,046.08	4,977.77	68.32	73.861		
7,800.00	7,201.86	7,180.52	7,154.01	44.48	30.71	89.83	2,568.88	-1,201.75	5,050.12	4,981.07	69.05	73.137		
7,900.00	7,229.88	7,208.36	7,181.84	44.73	30.83	89.17	2,569.12	-1,201.97	5,049.96	4,980.09	69.86	72.283		
8,000.00	7,243.60	7,223.37	7,196.85	44.99	30.89	89.24	2,569.25	-1,202.10	5,045.83	4,975.05	70.77	71.297		
8,100.00	7,244.73	7,225.45	7,198.93	45.29	30.90	89.50	2,569.26	-1,202.12	5,038.72	4,966.96	71.76	70.213		
8,200.00	7,244.23	7,225.84	7,199.32	45.74	30.90	89.50	2,569.27	-1,202.12	5,032.97	4,960.06	72.90	69.035		
8,300.00	7,243.73	7,226.24	7,199.72	46.38	30.90	89.51	2,569.27	-1,202.12	5,029.19	4,955.00	74.19	67.789		
8,400.00	7,243.23	7,226.64	7,200.12	47.29	30.90	89.51	2,569.27	-1,202.13	5,027.40	4,951.80	75.60	66.497		
8,439.92	7,243.03	7,226.80	7,200.28	47.73	30.90	89.51	2,569.27	-1,202.13	5,027.24	4,951.03	76.22	65.961		
8,500.00	7,242.73	7,227.04	7,200.52	48.46	30.91	89.52	2,569.28	-1,202.13	5,027.60	4,950.47	77.13	65.181		
8,600.00	7,242.23	7,227.45	7,200.93	49.87	30.91	89.52	2,569.28	-1,202.13	5,029.79	4,951.03	78.76	63.861		
8,700.00	7,241.73	7,227.86	7,201.34	51.48	30.91	89.52	2,569.28	-1,202.14	5,033.97	4,953.49	80.48	62.551		
8,800.00	7,241.23	7,228.27	7,201.76	53.24	30.91	89.53	2,569.29	-1,202.14	5,040.12	4,957.86	82.27	61.266		
8,900.00	7,240.73	7,228.69	7,202.17	55.13	30.91	89.53	2,569.29	-1,202.15	5,048.25	4,964.14	84.12	60.015		
9,000.00	7,240.23	7,229.11	7,202.60	57.11	30.91	89.54	2,569.29	-1,202.15	5,058.35	4,972.33	86.02	58.807		
9,100.00	7,239.73	7,229.54	7,203.02	59.19	30.92	89.54	2,569.30	-1,202.15	5,070.39	4,982.44	87.96	57.647		
9,200.00	7,239.23	7,229.97	7,203.45	61.34	30.92	89.55	2,569.30	-1,202.16	5,084.38	4,994.45	89.92	56.540		
9,300.00	7,238.72	7,230.40	7,203.88	63.55	30.92	89.55	2,569.30	-1,202.16	5,100.28	5,008.37	91.91	55.489		
9,400.00	7,238.22	7,230.84	7,204.32	65.81	30.92	89.56	2,569.31	-1,202.16	5,118.10	5,024.18	93.92	54.495		
9,500.00	7,237.72	7,231.28	7,204.76	68.13	30.92	89.56	2,569.31	-1,202.17	5,137.79	5,041.87	95.93	53.559		
9,600.00	7,237.22	7,231.73	7,205.21	70.48	30.93	89.57	2,569.32	-1,202.17	5,159.35	5,061.42	97.94	52.680		
9,700.00	7,236.72	7,232.18	7,205.66	72.88	30.93	89.57	2,569.32	-1,202.18	5,182.76	5,082.81	99.94	51.858		
9,800.00	7,236.22	7,232.63	7,206.11	75.31	30.93	89.58	2,569.32	-1,202.18	5,207.97	5,106.04	101.93	51.092		
9,900.00	7,235.72	7,233.09	7,206.57	77.77	30.93	89.58	2,569.33	-1,202.19	5,234.98	5,131.06	103.91	50.379		
10,000.00	7,235.22	7,233.55	7,207.03	80.26	30.93	89.59	2,569.33	-1,202.19	5,263.74	5,157.87	105.87	49.719		
10,100.00	7,234.72	7,234.02	7,207.50	82.77	30.94	89.60	2,569.34	-1,202.19	5,294.24	5,186.44	107.81	49.109		
10,200.00	7,234.22	7,234.49	7,207.97	85.31	30.94	89.60	2,569.34	-1,202.20	5,326.44	5,216.73	109.71	48.548		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACKGOLD 3(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	7,234.96	7,208.44	87.86	30.94	89.61	2,569.34	-1,202.20	5,360.32	5,248.72	111.60	48.034		
10,400.00	7,233.22	7,235.44	7,208.92	90.44	30.94	89.61	2,569.35	-1,202.21	5,395.83	5,282.39	113.44	47.563		
10,500.00	7,232.72	7,235.93	7,209.41	93.03	30.94	89.62	2,569.35	-1,202.21	5,432.96	5,317.70	115.26	47.136		
10,600.00	7,232.22	7,236.42	7,209.90	95.64	30.95	89.62	2,569.36	-1,202.22	5,471.66	5,354.61	117.04	46.749		
10,700.00	7,231.72	7,236.91	7,210.39	98.26	30.95	89.63	2,569.36	-1,202.22	5,511.90	5,393.11	118.79	46.401		
10,800.00	7,231.21	7,237.41	7,210.89	100.89	30.95	89.63	2,569.36	-1,202.23	5,553.65	5,433.16	120.50	46.089		
10,900.00	7,230.71	7,237.91	7,211.39	103.54	30.95	89.64	2,569.37	-1,202.23	5,596.88	5,474.71	122.17	45.813		
11,000.00	7,230.21	7,238.42	7,211.90	106.20	30.95	89.65	2,569.37	-1,202.23	5,641.55	5,517.75	123.80	45.570		
11,100.00	7,229.71	7,238.94	7,212.42	108.87	30.96	89.65	2,569.38	-1,202.24	5,687.62	5,562.23	125.39	45.359		
11,200.00	7,229.21	7,239.45	7,212.94	111.54	30.96	89.66	2,569.38	-1,202.24	5,735.07	5,608.13	126.94	45.178		
11,300.00	7,228.71	7,239.98	7,213.46	114.23	30.96	89.66	2,569.38	-1,202.25	5,783.86	5,655.41	128.46	45.026		
11,400.00	7,228.21	7,240.51	7,213.99	116.92	30.96	89.67	2,569.39	-1,202.25	5,833.96	5,704.03	129.93	44.901		
11,500.00	7,227.71	7,241.04	7,214.52	119.63	30.96	89.68	2,569.39	-1,202.26	5,885.33	5,753.97	131.36	44.802		
11,600.00	7,227.21	7,241.58	7,215.06	122.34	30.97	89.68	2,569.40	-1,202.26	5,937.94	5,805.18	132.76	44.728		
11,700.00	7,226.71	7,242.13	7,215.61	125.05	30.97	89.69	2,569.40	-1,202.27	5,991.75	5,857.64	134.11	44.677		
11,800.00	7,226.21	7,242.68	7,216.16	127.78	30.97	89.69	2,569.41	-1,202.27	6,046.74	5,911.31	135.43	44.649		
11,900.00	7,225.71	7,243.24	7,216.72	130.51	30.97	89.70	2,569.41	-1,202.28	6,102.88	5,966.17	136.71	44.642 SF		
12,000.00	7,225.21	7,243.80	7,217.28	133.24	30.98	89.71	2,569.42	-1,202.29	6,160.12	6,022.17	137.95	44.655		
12,100.00	7,224.71	7,244.37	7,217.85	135.98	30.98	89.71	2,569.42	-1,202.29	6,218.45	6,079.30	139.15	44.688		
12,200.00	7,224.21	7,244.94	7,218.42	138.72	30.98	89.72	2,569.43	-1,202.30	6,277.83	6,137.51	140.32	44.739		
12,300.00	7,223.70	7,245.52	7,219.00	141.47	30.98	89.73	2,569.43	-1,202.30	6,338.23	6,196.77	141.45	44.808		
12,400.00	7,223.20	7,246.11	7,219.59	144.23	30.99	89.73	2,569.44	-1,202.31	6,399.62	6,257.07	142.55	44.894		
12,500.00	7,222.70	7,246.70	7,220.18	146.98	30.99	89.74	2,569.44	-1,202.31	6,461.97	6,318.36	143.61	44.995		
12,600.00	7,222.20	7,247.30	7,220.78	149.74	30.99	89.75	2,569.45	-1,202.32	6,525.27	6,380.62	144.65	45.112		
12,700.00	7,221.70	7,247.91	7,221.39	152.51	30.99	89.75	2,569.45	-1,202.33	6,589.47	6,443.82	145.64	45.243		
12,800.00	7,221.20	7,248.52	7,222.00	155.28	31.00	89.76	2,569.46	-1,202.33	6,654.56	6,507.94	146.61	45.389		
12,900.00	7,220.70	7,249.14	7,222.62	158.05	31.00	89.77	2,569.46	-1,202.34	6,720.50	6,572.95	147.55	45.548		
13,000.00	7,220.20	7,249.77	7,223.25	160.82	31.00	89.77	2,569.47	-1,202.34	6,787.27	6,638.82	148.46	45.719		
13,100.00	7,219.70	7,250.40	7,223.88	163.60	31.00	89.78	2,569.47	-1,202.35	6,854.86	6,705.52	149.34	45.903		
13,200.00	7,219.20	7,251.04	7,224.52	166.38	31.01	89.79	2,569.48	-1,202.36	6,923.23	6,773.04	150.19	46.098		
13,300.00	7,218.70	7,251.69	7,225.17	169.16	31.01	89.80	2,569.48	-1,202.36	6,992.36	6,841.35	151.01	46.304		
13,400.00	7,218.20	7,252.34	7,225.82	171.95	31.01	89.80	2,569.49	-1,202.37	7,062.23	6,910.42	151.81	46.521		
13,500.00	7,217.70	7,253.00	7,226.48	174.74	31.02	89.81	2,569.49	-1,202.38	7,132.82	6,980.24	152.58	46.749		
13,600.00	7,217.20	7,253.67	7,227.15	177.53	31.02	89.82	2,569.50	-1,202.38	7,204.10	7,050.78	153.33	46.986		
13,700.00	7,216.70	7,254.35	7,227.83	180.32	31.02	89.83	2,569.50	-1,202.39	7,276.06	7,122.01	154.05	47.232		
13,800.00	7,216.19	7,255.03	7,228.51	183.11	31.02	89.83	2,569.51	-1,202.40	7,348.68	7,193.93	154.75	47.488		
13,900.00	7,215.69	7,255.73	7,229.21	185.91	31.03	89.84	2,569.51	-1,202.40	7,421.93	7,266.50	155.43	47.752		
14,000.00	7,215.19	7,256.43	7,229.91	188.71	31.03	89.85	2,569.52	-1,202.41	7,495.80	7,339.72	156.08	48.025		
14,100.00	7,214.69	7,257.14	7,230.61	191.51	31.03	89.86	2,569.53	-1,202.42	7,570.27	7,413.55	156.72	48.305		
14,200.00	7,214.19	7,257.85	7,231.33	194.31	31.04	89.87	2,569.53	-1,202.42	7,645.33	7,487.99	157.33	48.593		
14,300.00	7,213.69	7,258.58	7,232.06	197.11	31.04	89.87	2,569.54	-1,202.43	7,720.94	7,563.02	157.93	48.889		
14,400.00	7,213.19	7,259.31	7,232.79	199.92	31.04	89.88	2,569.54	-1,202.44	7,797.11	7,638.61	158.51	49.191		
14,500.00	7,212.69	7,260.05	7,233.53	202.72	31.05	89.89	2,569.55	-1,202.45	7,873.81	7,714.75	159.07	49.500		
14,600.00	7,212.19	7,260.81	7,234.28	205.53	31.05	89.90	2,569.56	-1,202.45	7,951.03	7,791.43	159.61	49.816		
14,700.00	7,211.69	7,261.57	7,235.04	208.34	31.05	89.91	2,569.56	-1,202.46	8,028.76	7,868.62	160.13	50.138		
14,800.00	7,211.19	7,262.34	7,235.81	211.15	31.05	89.92	2,569.57	-1,202.47	8,106.97	7,946.33	160.64	50.467		
14,900.00	7,210.69	7,263.12	7,236.59	213.96	31.06	89.93	2,569.57	-1,202.48	8,185.65	8,024.52	161.13	50.801		
15,000.00	7,210.19	7,263.90	7,237.38	216.78	31.06	89.94	2,569.58	-1,202.49	8,264.80	8,103.19	161.61	51.140		
15,100.00	7,209.69	7,264.70	7,238.18	219.59	31.06	89.94	2,569.59	-1,202.49	8,344.39	8,182.32	162.07	51.485		
15,200.00	7,209.18	7,265.51	7,238.99	222.41	31.07	89.95	2,569.59	-1,202.50	8,424.42	8,261.90	162.52	51.835		
15,300.00	7,208.68	7,266.33	7,239.81	225.22	31.07	89.96	2,569.60	-1,202.51	8,504.87	8,341.91	162.96	52.191		
15,400.00	7,208.18	7,267.16	7,240.64	228.04	31.08	89.97	2,569.61	-1,202.52	8,585.73	8,422.35	163.38	52.551		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - BLACKGOLD 3(AB_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-GYRO-NS											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,267.47	7,240.95	229.10	31.08	89.98	2,569.61	-1,202.52	8,616.14	8,452.61	163.53	52.687	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	19.00	3.28	3.28	-60.49	1,224.90	-2,163.83	2,486.55					
100.00	100.00	81.00	100.00	3.28	3.57	-60.49	1,224.90	-2,163.83	2,486.47	2,479.62	6.86	362.647		
200.00	200.00	181.00	200.00	3.34	5.63	-60.49	1,224.90	-2,163.83	2,486.47	2,477.51	8.96	277.357 CC		
300.00	299.98	280.98	299.98	3.44	8.71	115.90	1,224.90	-2,163.83	2,487.24	2,475.09	12.14	204.803		
400.00	399.84	380.84	399.84	3.59	12.01	115.97	1,224.90	-2,163.83	2,489.53	2,473.93	15.60	159.633 ES		
500.00	499.45	480.45	499.45	3.79	15.38	116.08	1,224.90	-2,163.83	2,493.36	2,474.19	19.17	130.077		
600.00	598.70	579.70	598.70	4.03	18.78	116.23	1,224.90	-2,163.83	2,498.77	2,475.96	22.81	109.543		
700.00	697.47	678.47	697.47	4.31	22.18	116.42	1,224.90	-2,163.83	2,505.77	2,479.28	26.50	94.567		
800.00	795.62	776.62	795.62	4.64	25.58	116.65	1,224.90	-2,163.83	2,514.43	2,484.21	30.21	83.225		
900.00	893.06	874.06	893.06	5.00	28.95	116.91	1,224.90	-2,163.83	2,524.77	2,490.83	33.94	74.379		
1,000.00	989.64	970.64	989.64	5.40	32.31	117.20	1,224.90	-2,163.83	2,536.87	2,499.19	37.69	67.317		
1,100.00	1,085.27	1,066.27	1,085.27	5.83	35.63	117.52	1,224.90	-2,163.83	2,550.79	2,509.36	41.43	61.573		
1,200.00	1,179.82	1,160.82	1,179.82	6.29	38.92	117.85	1,224.90	-2,163.83	2,566.59	2,521.42	45.16	56.829		
1,300.00	1,273.47	1,254.47	1,273.47	6.79	42.18	118.41	1,224.90	-2,163.83	2,583.96	2,535.06	48.89	52.849		
1,400.00	1,367.06	1,348.06	1,367.06	7.30	45.43	119.06	1,224.90	-2,163.83	2,601.76	2,549.12	52.64	49.428		
1,500.00	1,460.64	1,441.64	1,460.64	7.83	48.69	119.70	1,224.90	-2,163.83	2,619.92	2,563.53	56.39	46.457		
1,600.00	1,554.23	1,535.23	1,554.23	8.38	51.95	120.33	1,224.90	-2,163.83	2,638.43	2,578.26	60.16	43.855		
1,700.00	1,647.82	1,628.82	1,647.82	8.93	55.21	120.96	1,224.90	-2,163.83	2,657.27	2,593.33	63.94	41.560		
1,800.00	1,741.41	1,722.41	1,741.41	9.49	58.48	121.58	1,224.90	-2,163.83	2,676.44	2,608.72	67.72	39.522		
1,900.00	1,835.00	1,816.00	1,835.00	10.05	61.74	122.18	1,224.90	-2,163.83	2,695.94	2,624.43	71.51	37.702		
2,000.00	1,928.59	1,909.59	1,928.59	10.62	65.00	122.78	1,224.90	-2,163.83	2,715.75	2,640.46	75.30	36.067		
2,100.00	2,022.18	2,003.18	2,022.18	11.20	68.26	123.38	1,224.90	-2,163.83	2,735.88	2,656.79	79.09	34.591		
2,200.00	2,115.77	2,103.23	2,115.77	11.78	71.75	123.96	1,224.90	-2,163.83	2,756.31	2,673.19	83.11	33.163		
2,300.00	2,209.36	2,209.64	2,209.36	12.37	75.46	124.54	1,224.90	-2,163.83	2,777.03	2,689.67	87.36	31.789		
2,400.00	2,302.95	2,283.95	2,302.95	12.95	78.06	125.11	1,224.90	-2,163.83	2,798.04	2,707.56	90.48	30.923		
2,500.00	2,396.54	2,377.54	2,396.54	13.54	81.32	125.67	1,224.90	-2,163.83	2,819.34	2,725.06	94.28	29.903		
2,600.00	2,490.13	2,471.13	2,490.13	14.13	84.59	126.22	1,224.90	-2,163.83	2,840.92	2,742.83	98.08	28.964		
2,700.00	2,583.72	2,564.72	2,583.72	14.73	87.85	126.77	1,224.90	-2,163.83	2,862.76	2,760.88	101.88	28.098		
2,800.00	2,677.31	2,658.31	2,677.31	15.32	91.12	127.31	1,224.90	-2,163.83	2,884.87	2,779.19	105.68	27.297		
2,900.00	2,770.90	2,751.90	2,770.90	15.92	94.38	127.84	1,224.90	-2,163.83	2,907.24	2,797.76	109.49	26.554		
3,000.00	2,864.49	2,845.49	2,864.49	16.52	97.65	128.36	1,224.90	-2,163.83	2,929.87	2,816.58	113.29	25.863		
3,100.00	2,958.08	2,939.08	2,958.08	17.12	100.91	128.88	1,224.90	-2,163.83	2,952.74	2,835.65	117.08	25.219		
3,200.00	3,051.67	3,032.67	3,051.67	17.72	104.18	129.38	1,224.90	-2,163.83	2,975.85	2,854.96	120.88	24.617		
3,300.00	3,145.26	3,126.26	3,145.26	18.32	107.44	129.88	1,224.90	-2,163.83	2,999.19	2,874.51	124.68	24.055		
3,400.00	3,238.85	3,219.85	3,238.85	18.92	110.71	130.38	1,224.90	-2,163.83	3,022.77	2,894.29	128.48	23.527		
3,500.00	3,332.44	3,313.44	3,332.44	19.53	113.97	130.86	1,224.90	-2,163.83	3,046.57	2,914.29	132.28	23.032		
3,600.00	3,426.03	3,407.03	3,426.03	20.13	117.24	131.34	1,224.90	-2,163.83	3,070.59	2,934.52	136.07	22.566		
3,700.00	3,519.62	3,500.62	3,519.62	20.74	120.51	131.82	1,224.90	-2,163.83	3,094.83	2,954.96	139.87	22.127		
3,800.00	3,613.21	3,605.79	3,613.21	21.34	124.18	132.28	1,224.90	-2,163.83	3,119.27	2,975.20	144.07	21.651		
3,900.00	3,706.80	3,687.80	3,706.80	21.95	127.04	132.74	1,224.90	-2,163.83	3,143.92	2,996.46	147.46	21.321		
4,000.00	3,800.39	3,781.39	3,800.39	22.56	130.30	133.19	1,224.90	-2,163.83	3,168.77	3,017.52	151.25	20.950		
4,100.00	3,893.98	3,874.98	3,893.98	23.16	133.57	133.64	1,224.90	-2,163.83	3,193.81	3,038.77	155.04	20.599		
4,200.00	3,987.57	3,968.57	3,987.57	23.77	136.84	134.08	1,224.90	-2,163.83	3,219.05	3,060.21	158.84	20.267		
4,300.00	4,081.16	4,062.16	4,081.16	24.38	140.10	134.51	1,224.90	-2,163.83	3,244.47	3,081.84	162.63	19.950		
4,400.00	4,174.75	4,155.75	4,174.75	24.99	143.37	134.94	1,224.90	-2,163.83	3,270.07	3,103.66	166.42	19.650		
4,500.00	4,268.34	4,249.34	4,268.34	25.60	146.64	135.36	1,224.90	-2,163.83	3,295.86	3,125.65	170.21	19.364		
4,600.00	4,361.93	4,342.93	4,361.93	26.21	149.90	135.77	1,224.90	-2,163.83	3,321.81	3,147.82	173.99	19.092		
4,700.00	4,455.52	4,436.52	4,455.52	26.82	153.17	136.18	1,224.90	-2,163.83	3,347.93	3,170.15	177.78	18.832		
4,800.00	4,549.11	4,530.11	4,549.11	27.43	156.44	136.58	1,224.90	-2,163.83	3,374.22	3,192.66	181.57	18.584		
4,900.00	4,642.70	4,623.70	4,642.70	28.04	159.70	136.98	1,224.90	-2,163.83	3,400.67	3,215.32	185.35	18.347		
5,000.00	4,736.29	4,717.29	4,736.29	28.65	162.97	137.37	1,224.90	-2,163.83	3,427.28	3,238.14	189.14	18.120		
5,100.00	4,829.88	4,810.88	4,829.88	29.26	166.24	137.75	1,224.90	-2,163.83	3,454.05	3,261.12	192.92	17.904		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,904.47	4,923.47	29.87	169.50	138.13	1,224.90	-2,163.83	3,480.96	3,284.25	196.71	17.696		
5,300.00	5,017.06	5,001.94	5,017.06	30.48	172.90	138.50	1,224.90	-2,163.83	3,508.02	3,307.40	200.63	17.485		
5,400.00	5,110.65	5,108.35	5,110.65	31.09	176.62	138.87	1,224.90	-2,163.83	3,535.23	3,330.37	204.86	17.257		
5,500.00	5,204.24	5,185.24	5,204.24	31.70	179.30	139.23	1,224.90	-2,163.83	3,562.57	3,354.52	208.05	17.123		
5,600.00	5,297.83	5,278.83	5,297.83	32.32	182.57	139.59	1,224.90	-2,163.83	3,590.06	3,378.22	211.84	16.947		
5,700.00	5,391.42	5,372.42	5,391.42	32.93	185.84	139.94	1,224.90	-2,163.83	3,617.67	3,402.06	215.62	16.778		
5,800.00	5,485.01	5,466.01	5,485.01	33.54	189.10	140.29	1,224.90	-2,163.83	3,645.42	3,426.03	219.40	16.616		
5,900.00	5,578.60	5,559.60	5,578.60	34.15	192.37	140.63	1,224.90	-2,163.83	3,673.30	3,450.12	223.18	16.459		
6,000.00	5,672.19	5,653.19	5,672.19	34.77	195.64	140.97	1,224.90	-2,163.83	3,701.30	3,474.35	226.95	16.309		
6,100.00	5,765.78	5,746.78	5,765.78	35.38	198.90	141.30	1,224.90	-2,163.83	3,729.43	3,498.69	230.73	16.163		
6,200.00	5,859.37	5,840.37	5,859.37	35.99	202.17	141.63	1,224.90	-2,163.83	3,757.67	3,523.16	234.51	16.023		
6,300.00	5,952.96	5,933.96	5,952.96	36.60	205.44	141.95	1,224.90	-2,163.83	3,786.03	3,547.74	238.29	15.889		
6,400.00	6,046.55	6,027.55	6,046.55	37.22	208.70	142.27	1,224.90	-2,163.83	3,814.51	3,572.44	242.06	15.758		
6,500.00	6,140.14	6,121.14	6,140.14	37.83	211.97	142.58	1,224.90	-2,163.83	3,843.09	3,597.25	245.84	15.632		
6,600.00	6,233.73	6,214.73	6,233.73	38.44	215.24	142.89	1,224.90	-2,163.83	3,871.79	3,622.18	249.62	15.511		
6,700.00	6,327.32	6,308.32	6,327.32	39.06	218.50	143.20	1,224.90	-2,163.83	3,900.60	3,647.20	253.39	15.394		
6,800.00	6,420.91	6,401.91	6,420.91	39.67	221.77	143.50	1,224.90	-2,163.83	3,929.51	3,672.34	257.17	15.280		
6,900.00	6,514.50	6,504.50	6,514.50	40.28	225.35	143.80	1,224.90	-2,163.83	3,958.52	3,697.26	261.26	15.152		
7,000.00	6,608.09	6,589.09	6,608.09	40.90	228.30	144.09	1,224.90	-2,163.83	3,987.63	3,722.91	264.72	15.064		
7,100.00	6,701.63	6,682.63	6,701.63	41.51	231.57	134.10	1,224.90	-2,163.83	4,016.19	3,747.70	268.49	14.959		
7,200.00	6,793.85	6,774.85	6,793.85	42.10	234.79	113.16	1,224.90	-2,163.83	4,038.13	3,765.93	272.21	14.835		
7,300.00	6,882.50	6,863.50	6,882.50	42.64	237.88	99.38	1,224.90	-2,163.83	4,051.84	3,776.06	275.77	14.693		
7,400.00	6,965.41	6,946.41	6,965.41	43.12	240.78	91.11	1,224.90	-2,163.83	4,057.34	3,778.25	279.10	14.537		
7,500.00	7,040.53	7,021.53	7,040.53	43.53	243.40	86.47	1,224.90	-2,163.83	4,054.96	3,772.84	282.11	14.373		
7,600.00	7,106.00	7,087.00	7,106.00	43.89	245.68	84.25	1,224.90	-2,163.83	4,045.21	3,760.42	284.80	14.204		
7,700.00	7,160.23	7,141.23	7,160.23	44.20	247.58	83.74	1,224.90	-2,163.83	4,028.80	3,741.67	287.13	14.031		
7,800.00	7,201.86	7,182.86	7,201.86	44.48	249.03	84.49	1,224.90	-2,163.83	4,006.53	3,717.41	289.12	13.858		
7,900.00	7,229.88	7,210.88	7,229.88	44.73	250.01	86.21	1,224.90	-2,163.83	3,979.26	3,688.51	290.75	13.686		
8,000.00	7,243.60	7,224.60	7,243.60	44.99	250.49	88.70	1,224.90	-2,163.83	3,947.86	3,655.84	292.02	13.519		
8,100.00	7,244.73	7,225.73	7,244.73	45.29	250.53	90.10	1,224.90	-2,163.83	3,913.86	3,620.88	292.98	13.359		
8,200.00	7,244.23	7,225.23	7,244.23	45.74	250.51	90.09	1,224.90	-2,163.83	3,881.56	3,587.51	294.05	13.201		
8,300.00	7,243.73	7,224.73	7,243.73	46.38	250.49	90.09	1,224.90	-2,163.83	3,851.57	3,556.31	295.26	13.045		
8,400.00	7,243.23	7,224.23	7,243.23	47.29	250.47	90.08	1,224.90	-2,163.83	3,823.97	3,527.36	296.61	12.892		
8,500.00	7,242.73	7,223.73	7,242.73	48.46	250.46	90.07	1,224.90	-2,163.83	3,798.80	3,500.70	298.10	12.743		
8,600.00	7,242.23	7,223.23	7,242.23	49.87	250.44	90.06	1,224.90	-2,163.83	3,776.11	3,476.41	299.71	12.599		
8,700.00	7,241.73	7,222.73	7,241.73	51.48	250.42	90.06	1,224.90	-2,163.83	3,755.95	3,454.53	301.42	12.461		
8,800.00	7,241.23	7,222.23	7,241.23	53.24	250.40	90.05	1,224.90	-2,163.83	3,738.36	3,435.13	303.23	12.328		
8,900.00	7,240.73	7,221.73	7,240.73	55.13	250.39	90.04	1,224.90	-2,163.83	3,723.37	3,418.24	305.13	12.203		
9,000.00	7,240.23	7,221.23	7,240.23	57.11	250.37	90.03	1,224.90	-2,163.83	3,711.01	3,403.92	307.09	12.084		
9,100.00	7,239.73	7,220.73	7,239.73	59.19	250.35	90.02	1,224.90	-2,163.83	3,701.32	3,392.21	309.11	11.974		
9,200.00	7,239.23	7,220.23	7,239.23	61.34	250.33	90.02	1,224.90	-2,163.83	3,694.30	3,383.13	311.18	11.872		
9,300.00	7,238.72	7,219.72	7,238.72	63.55	250.32	90.01	1,224.90	-2,163.83	3,689.99	3,376.72	313.27	11.779		
9,400.00	7,238.22	7,219.22	7,238.22	65.81	250.30	90.00	1,224.90	-2,163.83	3,688.38	3,372.99	315.39	11.695		
9,409.31	7,238.18	7,219.18	7,238.18	66.03	250.30	90.00	1,224.90	-2,163.83	3,688.37	3,372.78	315.59	11.687		
9,500.00	7,237.72	7,218.72	7,237.72	68.13	250.28	89.99	1,224.90	-2,163.83	3,689.48	3,371.96	317.53	11.619		
9,600.00	7,237.22	7,218.22	7,237.22	70.48	250.26	89.99	1,224.90	-2,163.83	3,693.30	3,373.64	319.66	11.554		
9,700.00	7,236.72	7,217.72	7,236.72	72.88	250.25	89.98	1,224.90	-2,163.83	3,699.81	3,378.03	321.78	11.498		
9,800.00	7,236.22	7,217.22	7,236.22	75.31	250.23	89.97	1,224.90	-2,163.83	3,709.00	3,385.12	323.89	11.452		
9,900.00	7,235.72	7,216.72	7,235.72	77.77	250.21	89.96	1,224.90	-2,163.83	3,720.87	3,394.90	325.97	11.415		
10,000.00	7,235.22	7,216.22	7,235.22	80.26	250.19	89.95	1,224.90	-2,163.83	3,735.37	3,407.35	328.02	11.388		
10,100.00	7,234.72	7,215.72	7,234.72	82.77	250.18	89.95	1,224.90	-2,163.83	3,752.48	3,422.45	330.03	11.370		
10,200.00	7,234.22	7,215.22	7,234.22	85.31	250.16	89.94	1,224.90	-2,163.83	3,772.17	3,440.18	331.99	11.362 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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.00	7,233.72	7,214.72	7,233.72	87.86	250.14	89.93	1,224.90	-2,163.83	3,794.39	3,460.48	333.91	11.364	
10,400.00	7,233.22	7,214.22	7,233.22	90.44	250.12	89.92	1,224.90	-2,163.83	3,819.10	3,483.33	335.77	11.374	
10,500.00	7,232.72	7,213.72	7,232.72	93.03	250.11	89.92	1,224.90	-2,163.83	3,846.25	3,508.68	337.57	11.394	
10,600.00	7,232.22	7,213.22	7,232.22	95.64	250.09	89.91	1,224.90	-2,163.83	3,875.79	3,536.48	339.32	11.422	
10,700.00	7,231.72	7,212.72	7,231.72	98.26	250.07	89.90	1,224.90	-2,163.83	3,907.67	3,566.67	341.00	11.459	
10,800.00	7,231.21	7,212.21	7,231.21	100.89	250.05	89.89	1,224.90	-2,163.83	3,941.83	3,599.21	342.62	11.505	
10,900.00	7,230.71	7,211.71	7,230.71	103.54	250.04	89.88	1,224.90	-2,163.83	3,978.21	3,634.04	344.17	11.559	
11,000.00	7,230.21	7,211.21	7,230.21	106.20	250.02	89.88	1,224.90	-2,163.83	4,016.75	3,671.09	345.66	11.620	
11,100.00	7,229.71	7,210.71	7,229.71	108.87	250.00	89.87	1,224.90	-2,163.83	4,057.39	3,710.30	347.09	11.690	
11,200.00	7,229.21	7,210.21	7,229.21	111.54	249.99	89.86	1,224.90	-2,163.83	4,100.07	3,751.62	348.44	11.767	
11,300.00	7,228.71	7,209.71	7,228.71	114.23	249.97	89.85	1,224.90	-2,163.83	4,144.72	3,794.98	349.74	11.851	
11,400.00	7,228.21	7,209.21	7,228.21	116.92	249.95	89.85	1,224.90	-2,163.83	4,191.28	3,840.31	350.97	11.942	
11,500.00	7,227.71	7,208.71	7,227.71	119.63	249.93	89.84	1,224.90	-2,163.83	4,239.68	3,887.55	352.14	12.040	
11,600.00	7,227.21	7,208.21	7,227.21	122.34	249.92	89.83	1,224.90	-2,163.83	4,289.88	3,936.63	353.25	12.144	
11,700.00	7,226.71	7,207.71	7,226.71	125.05	249.90	89.82	1,224.90	-2,163.83	4,341.79	3,987.50	354.30	12.255	
11,800.00	7,226.21	7,207.21	7,226.21	127.78	249.88	89.81	1,224.90	-2,163.83	4,395.37	4,040.08	355.29	12.371	
11,900.00	7,225.71	7,206.71	7,225.71	130.51	249.86	89.81	1,224.90	-2,163.83	4,450.55	4,094.33	356.23	12.494	
12,000.00	7,225.21	7,206.21	7,225.21	133.24	249.85	89.80	1,224.90	-2,163.83	4,507.28	4,150.17	357.11	12.621	
12,100.00	7,224.71	7,205.71	7,224.71	135.98	249.83	89.79	1,224.90	-2,163.83	4,565.49	4,207.54	357.95	12.755	
12,200.00	7,224.21	7,205.21	7,224.21	138.72	249.81	89.78	1,224.90	-2,163.83	4,625.13	4,266.40	358.73	12.893	
12,300.00	7,223.70	7,204.70	7,223.70	141.47	249.79	89.78	1,224.90	-2,163.83	4,686.14	4,326.68	359.47	13.036	
12,400.00	7,223.20	7,204.20	7,223.20	144.23	249.78	89.77	1,224.90	-2,163.83	4,748.48	4,388.32	360.16	13.184	
12,500.00	7,222.70	7,203.70	7,222.70	146.98	249.76	89.76	1,224.90	-2,163.83	4,812.09	4,451.28	360.81	13.337	
12,600.00	7,222.20	7,203.20	7,222.20	149.74	249.74	89.75	1,224.90	-2,163.83	4,876.91	4,515.49	361.42	13.494	
12,700.00	7,221.70	7,202.70	7,221.70	152.51	249.72	89.74	1,224.90	-2,163.83	4,942.92	4,580.92	361.99	13.655	
12,800.00	7,221.20	7,202.20	7,221.20	155.28	249.71	89.74	1,224.90	-2,163.83	5,010.04	4,647.52	362.53	13.820	
12,900.00	7,220.70	7,201.70	7,220.70	158.05	249.69	89.73	1,224.90	-2,163.83	5,078.25	4,715.23	363.03	13.989	
13,000.00	7,220.20	7,201.20	7,220.20	160.82	249.67	89.72	1,224.90	-2,163.83	5,147.50	4,784.01	363.49	14.161	
13,100.00	7,219.70	7,200.70	7,219.70	163.60	249.65	89.71	1,224.90	-2,163.83	5,217.75	4,853.82	363.93	14.337	
13,200.00	7,219.20	7,200.20	7,219.20	166.38	249.64	89.71	1,224.90	-2,163.83	5,288.95	4,924.62	364.34	14.517	
13,300.00	7,218.70	7,200.30	7,218.70	169.16	249.64	89.70	1,224.90	-2,163.83	5,361.08	4,996.34	364.74	14.699	
13,400.00	7,218.20	7,200.80	7,218.20	171.95	249.66	89.69	1,224.90	-2,163.83	5,434.08	5,068.96	365.12	14.883	
13,500.00	7,217.70	7,201.30	7,217.70	174.74	249.67	89.68	1,224.90	-2,163.83	5,507.94	5,142.45	365.49	15.070	
13,600.00	7,217.20	7,201.80	7,217.20	177.53	249.69	89.67	1,224.90	-2,163.83	5,582.61	5,216.78	365.83	15.260	
13,700.00	7,216.70	7,202.31	7,216.70	180.32	249.71	89.67	1,224.90	-2,163.83	5,658.06	5,291.91	366.15	15.453	
13,800.00	7,216.19	7,202.81	7,216.19	183.11	249.73	89.66	1,224.90	-2,163.83	5,734.26	5,367.81	366.45	15.648	
13,900.00	7,215.69	7,203.31	7,215.69	185.91	249.74	89.65	1,224.90	-2,163.83	5,811.18	5,444.46	366.72	15.846	
14,000.00	7,215.19	7,203.81	7,215.19	188.71	249.76	89.64	1,224.90	-2,163.83	5,888.80	5,521.81	366.99	16.046	
14,100.00	7,214.69	7,204.31	7,214.69	191.51	249.78	89.64	1,224.90	-2,163.83	5,967.08	5,599.85	367.23	16.249	
14,200.00	7,214.19	7,204.81	7,214.19	194.31	249.80	89.63	1,224.90	-2,163.83	6,046.00	5,678.55	367.46	16.454	
14,300.00	7,213.69	7,205.31	7,213.69	197.11	249.81	89.62	1,224.90	-2,163.83	6,125.54	5,757.87	367.67	16.660	
14,400.00	7,213.19	7,205.81	7,213.19	199.92	249.83	89.61	1,224.90	-2,163.83	6,205.67	5,837.81	367.87	16.869	
14,500.00	7,212.69	7,206.31	7,212.69	202.72	249.85	89.60	1,224.90	-2,163.83	6,286.37	5,918.32	368.05	17.080	
14,600.00	7,212.19	7,206.81	7,212.19	205.53	249.87	89.60	1,224.90	-2,163.83	6,367.62	5,999.39	368.23	17.293	
14,700.00	7,211.69	7,207.31	7,211.69	208.34	249.88	89.59	1,224.90	-2,163.83	6,449.40	6,081.01	368.39	17.507	
14,800.00	7,211.19	7,207.81	7,211.19	211.15	249.90	89.58	1,224.90	-2,163.83	6,531.68	6,163.14	368.54	17.723	
14,900.00	7,210.69	7,208.31	7,210.69	213.96	249.92	89.57	1,224.90	-2,163.83	6,614.45	6,245.77	368.68	17.941	
15,000.00	7,210.19	7,208.81	7,210.19	216.78	249.94	89.57	1,224.90	-2,163.83	6,697.69	6,328.88	368.81	18.160	
15,100.00	7,209.69	7,209.31	7,209.69	219.59	249.95	89.56	1,224.90	-2,163.83	6,781.38	6,412.45	368.94	18.381	
15,200.00	7,209.18	7,209.82	7,209.18	222.41	249.97	89.55	1,224.90	-2,163.83	6,865.51	6,496.46	369.05	18.603	
15,300.00	7,208.68	7,189.68	7,208.68	225.22	249.27	89.54	1,224.90	-2,163.83	6,950.06	6,581.63	368.44	18.864	
15,400.00	7,208.18	7,189.18	7,208.18	228.04	249.25	89.53	1,224.90	-2,163.83	7,035.02	6,666.52	368.50	19.091	

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
15,437.48	7,208.00	7,189.00	7,208.00	229.10	249.24	89.53	1,224.90	-2,163.83	7,066.96	6,698.44	368.52	19.176	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	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	34.00	3.28	3.28	-92.45	-108.42	-2,533.88	2,536.42				
100.00	100.00	66.00	100.00	3.28	3.48	-92.45	-108.42	-2,533.88	2,536.20	2,529.44	6.76	375.113	
200.00	200.00	166.00	200.00	3.34	5.21	-92.45	-108.42	-2,533.88	2,536.20	2,527.65	8.55	296.690	
300.00	299.98	265.98	299.98	3.44	8.22	83.96	-108.42	-2,533.88	2,536.01	2,524.35	11.66	217.465	
400.00	399.84	365.84	399.84	3.59	11.50	84.08	-108.42	-2,533.88	2,535.47	2,520.37	15.09	168.003	
500.00	499.45	465.45	499.45	3.79	14.87	84.30	-108.42	-2,533.88	2,534.58	2,515.93	18.66	135.860	
600.00	598.70	564.70	598.70	4.03	18.27	84.59	-108.42	-2,533.88	2,533.39	2,511.10	22.29	113.635	
700.00	697.47	663.47	697.47	4.31	21.67	84.97	-108.42	-2,533.88	2,531.95	2,505.97	25.98	97.460	
800.00	795.62	761.62	795.62	4.64	25.06	85.42	-108.42	-2,533.88	2,530.32	2,500.63	29.70	85.208	
900.00	893.06	859.06	893.06	5.00	28.43	85.95	-108.42	-2,533.88	2,528.59	2,495.16	33.43	75.633	
1,000.00	989.64	955.64	989.64	5.40	31.79	86.55	-108.42	-2,533.88	2,526.84	2,489.66	37.18	67.960	
1,100.00	1,085.27	1,051.27	1,085.27	5.83	35.11	87.22	-108.42	-2,533.88	2,525.18	2,484.25	40.93	61.688	
1,200.00	1,179.82	1,145.82	1,179.82	6.29	38.40	87.95	-108.42	-2,533.88	2,523.73	2,479.04	44.69	56.474	
1,300.00	1,273.47	1,239.47	1,273.47	6.79	41.65	88.70	-108.42	-2,533.88	2,522.64	2,474.20	48.44	52.076	
1,400.00	1,367.06	1,333.06	1,367.06	7.30	44.91	89.45	-108.42	-2,533.88	2,522.03	2,469.82	52.21	48.301	
1,473.42	1,435.77	1,401.77	1,435.77	7.69	47.30	90.00	-108.42	-2,533.88	2,521.90	2,466.90	55.00	45.856	
1,500.00	1,460.64	1,426.64	1,460.64	7.83	48.17	90.20	-108.42	-2,533.88	2,521.92	2,465.91	56.00	45.031	
1,600.00	1,554.23	1,520.23	1,554.23	8.38	51.43	90.95	-108.42	-2,533.88	2,522.29	2,462.49	59.81	42.174	
1,700.00	1,647.82	1,613.82	1,647.82	8.93	54.69	91.70	-108.42	-2,533.88	2,523.16	2,459.54	63.62	39.661	
1,800.00	1,741.41	1,707.41	1,741.41	9.49	57.95	92.44	-108.42	-2,533.88	2,524.52	2,457.08	67.44	37.434	
1,900.00	1,835.00	1,801.00	1,835.00	10.05	61.22	93.19	-108.42	-2,533.88	2,526.37	2,455.11	71.27	35.450	
2,000.00	1,928.59	1,905.41	1,928.59	10.62	64.86	93.94	-108.42	-2,533.88	2,528.71	2,453.24	75.48	33.504	
2,100.00	2,022.18	1,988.18	2,022.18	11.20	67.74	94.68	-108.42	-2,533.88	2,531.54	2,452.60	78.94	32.071	
2,200.00	2,115.77	2,081.77	2,115.77	11.78	71.01	95.43	-108.42	-2,533.88	2,534.85	2,452.08	82.78	30.623	
2,300.00	2,209.36	2,175.36	2,209.36	12.37	74.27	96.17	-108.42	-2,533.88	2,538.65	2,452.03	86.62	29.308	
2,400.00	2,302.95	2,268.95	2,302.95	12.95	77.53	96.91	-108.42	-2,533.88	2,542.93	2,452.47	90.46	28.110	
2,500.00	2,396.54	2,362.54	2,396.54	13.54	80.80	97.64	-108.42	-2,533.88	2,547.70	2,453.38	94.31	27.014	
2,600.00	2,490.13	2,456.13	2,490.13	14.13	84.06	98.38	-108.42	-2,533.88	2,552.93	2,454.77	98.16	26.008	
2,700.00	2,583.72	2,549.72	2,583.72	14.73	87.33	99.11	-108.42	-2,533.88	2,558.65	2,456.64	102.01	25.083	
2,800.00	2,677.31	2,643.31	2,677.31	15.32	90.59	99.84	-108.42	-2,533.88	2,564.83	2,458.97	105.86	24.229	
2,900.00	2,770.90	2,736.90	2,770.90	15.92	93.86	100.56	-108.42	-2,533.88	2,571.48	2,461.77	109.71	23.440	
3,000.00	2,864.49	2,830.49	2,864.49	16.52	97.12	101.29	-108.42	-2,533.88	2,578.60	2,465.04	113.56	22.708	
3,100.00	2,958.08	2,924.08	2,958.08	17.12	100.39	102.00	-108.42	-2,533.88	2,586.17	2,468.77	117.41	22.028	
3,200.00	3,051.67	3,017.67	3,051.67	17.72	103.65	102.72	-108.42	-2,533.88	2,594.21	2,472.95	121.25	21.395	
3,300.00	3,145.26	3,111.26	3,145.26	18.32	106.92	103.43	-108.42	-2,533.88	2,602.69	2,477.59	125.10	20.805	
3,400.00	3,238.85	3,204.85	3,238.85	18.92	110.18	104.14	-108.42	-2,533.88	2,611.62	2,482.67	128.95	20.253	
3,500.00	3,332.44	3,301.56	3,332.44	19.53	113.56	104.84	-108.42	-2,533.88	2,621.00	2,488.09	132.90	19.721	
3,600.00	3,426.03	3,407.97	3,426.03	20.13	117.27	105.54	-108.42	-2,533.88	2,630.81	2,493.62	137.19	19.176	
3,700.00	3,519.62	3,485.62	3,519.62	20.74	119.98	106.23	-108.42	-2,533.88	2,641.06	2,500.58	140.48	18.800	
3,800.00	3,613.21	3,579.21	3,613.21	21.34	123.25	106.92	-108.42	-2,533.88	2,651.73	2,507.41	144.32	18.374	
3,900.00	3,706.80	3,672.80	3,706.80	21.95	126.51	107.60	-108.42	-2,533.88	2,662.83	2,514.67	148.16	17.972	
4,000.00	3,800.39	3,766.39	3,800.39	22.56	129.78	108.28	-108.42	-2,533.88	2,674.35	2,522.35	152.00	17.594	
4,100.00	3,893.98	3,859.98	3,893.98	23.16	133.05	108.95	-108.42	-2,533.88	2,686.28	2,530.44	155.84	17.238	
4,200.00	3,987.57	3,953.57	3,987.57	23.77	136.31	109.62	-108.42	-2,533.88	2,698.61	2,538.94	159.67	16.901	
4,300.00	4,081.16	4,047.16	4,081.16	24.38	139.58	110.28	-108.42	-2,533.88	2,711.35	2,547.84	163.51	16.582	
4,400.00	4,174.75	4,140.75	4,174.75	24.99	142.85	110.94	-108.42	-2,533.88	2,724.48	2,557.15	167.34	16.281	
4,500.00	4,268.34	4,234.34	4,268.34	25.60	146.11	111.59	-108.42	-2,533.88	2,738.01	2,566.84	171.17	15.996	
4,600.00	4,361.93	4,327.93	4,361.93	26.21	149.38	112.23	-108.42	-2,533.88	2,751.92	2,576.92	175.00	15.726	
4,700.00	4,455.52	4,421.52	4,455.52	26.82	152.65	112.87	-108.42	-2,533.88	2,766.20	2,587.38	178.82	15.469	
4,800.00	4,549.11	4,515.11	4,549.11	27.43	155.91	113.50	-108.42	-2,533.88	2,780.86	2,598.22	182.65	15.225	
4,900.00	4,642.70	4,608.70	4,642.70	28.04	159.18	114.13	-108.42	-2,533.88	2,795.89	2,609.42	186.47	14.994	
5,000.00	4,736.29	4,702.29	4,736.29	28.65	162.44	114.75	-108.42	-2,533.88	2,811.28	2,620.99	190.29	14.774	

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	4,804.12	4,829.88	29.26	166.00	115.37	-108.42	-2,533.88	2,827.02	2,632.63	194.39	14.543		
5,200.00	4,923.47	4,889.47	4,923.47	29.87	168.98	115.97	-108.42	-2,533.88	2,843.11	2,645.19	197.92	14.365		
5,300.00	5,017.06	4,983.06	5,017.06	30.48	172.24	116.58	-108.42	-2,533.88	2,859.55	2,657.81	201.74	14.175		
5,400.00	5,110.65	5,076.65	5,110.65	31.09	175.51	117.17	-108.42	-2,533.88	2,876.32	2,670.77	205.55	13.993		
5,500.00	5,204.24	5,170.24	5,204.24	31.70	178.78	117.76	-108.42	-2,533.88	2,893.43	2,684.07	209.36	13.820		
5,600.00	5,297.83	5,263.83	5,297.83	32.32	182.04	118.35	-108.42	-2,533.88	2,910.86	2,697.69	213.17	13.655		
5,700.00	5,391.42	5,357.42	5,391.42	32.93	185.31	118.92	-108.42	-2,533.88	2,928.61	2,711.63	216.98	13.497		
5,800.00	5,485.01	5,451.01	5,485.01	33.54	188.58	119.49	-108.42	-2,533.88	2,946.68	2,725.89	220.78	13.347		
5,900.00	5,578.60	5,544.60	5,578.60	34.15	191.84	120.06	-108.42	-2,533.88	2,965.05	2,740.46	224.59	13.202		
6,000.00	5,672.19	5,638.19	5,672.19	34.77	195.11	120.62	-108.42	-2,533.88	2,983.73	2,755.34	228.39	13.064		
6,100.00	5,765.78	5,731.78	5,765.78	35.38	198.38	121.17	-108.42	-2,533.88	3,002.70	2,770.51	232.19	12.932		
6,200.00	5,859.37	5,825.37	5,859.37	35.99	201.65	121.71	-108.42	-2,533.88	3,021.97	2,785.98	235.99	12.806		
6,300.00	5,952.96	5,918.96	5,952.96	36.60	204.91	122.25	-108.42	-2,533.88	3,041.52	2,801.73	239.78	12.685		
6,400.00	6,046.55	6,012.55	6,046.55	37.22	208.18	122.78	-108.42	-2,533.88	3,061.35	2,817.77	243.58	12.568		
6,500.00	6,140.14	6,106.14	6,140.14	37.83	211.45	123.31	-108.42	-2,533.88	3,081.45	2,834.08	247.37	12.457		
6,600.00	6,233.73	6,200.27	6,233.73	38.44	214.73	123.83	-108.42	-2,533.88	3,101.83	2,850.65	251.18	12.349		
6,700.00	6,327.32	6,306.68	6,327.32	39.06	218.45	124.34	-108.42	-2,533.88	3,122.47	2,867.05	255.42	12.225		
6,800.00	6,420.91	6,386.91	6,420.91	39.67	221.25	124.85	-108.42	-2,533.88	3,143.37	2,884.63	258.74	12.149		
6,900.00	6,514.50	6,480.50	6,514.50	40.28	224.51	125.35	-108.42	-2,533.88	3,164.53	2,902.00	262.53	12.054		
7,000.00	6,608.09	6,574.09	6,608.09	40.90	227.78	125.85	-108.42	-2,533.88	3,185.93	2,919.61	266.32	11.963		
7,100.00	6,701.63	6,667.63	6,701.63	41.51	231.05	116.48	-108.42	-2,533.88	3,206.62	2,936.52	270.10	11.872		
7,200.00	6,793.85	6,759.85	6,793.85	42.10	234.26	96.76	-108.42	-2,533.88	3,217.83	2,944.00	273.83	11.751		
7,300.00	6,882.50	6,848.50	6,882.50	42.64	237.36	84.20	-108.42	-2,533.88	3,217.53	2,940.14	277.39	11.599		
7,400.00	6,965.41	6,931.41	6,965.41	43.12	240.25	77.19	-108.42	-2,533.88	3,206.11	2,925.41	280.71	11.422		
7,500.00	7,040.53	7,006.53	7,040.53	43.53	242.88	73.93	-108.42	-2,533.88	3,184.26	2,900.56	283.71	11.224		
7,600.00	7,106.00	7,072.00	7,106.00	43.89	245.16	73.29	-108.42	-2,533.88	3,152.92	2,866.57	286.35	11.011		
7,700.00	7,160.23	7,126.23	7,160.23	44.20	247.05	74.66	-108.42	-2,533.88	3,113.25	2,824.62	288.63	10.786		
7,800.00	7,201.86	7,167.86	7,201.86	44.48	248.51	77.63	-108.42	-2,533.88	3,066.55	2,776.02	290.53	10.555		
7,900.00	7,229.88	7,204.12	7,229.88	44.73	249.77	81.95	-108.42	-2,533.88	3,014.20	2,721.88	292.32	10.311		
8,000.00	7,243.60	7,209.60	7,243.60	44.99	249.96	87.36	-108.42	-2,533.88	2,957.64	2,664.48	293.15	10.089		
8,100.00	7,244.73	7,210.73	7,244.73	45.29	250.00	90.21	-108.42	-2,533.88	2,898.83	2,604.89	293.94	9.862		
8,200.00	7,244.23	7,210.23	7,244.23	45.74	249.99	90.19	-108.42	-2,533.88	2,841.79	2,546.98	294.80	9.640		
8,300.00	7,243.73	7,209.73	7,243.73	46.38	249.97	90.18	-108.42	-2,533.88	2,787.17	2,491.35	295.82	9.422		
8,400.00	7,243.23	7,209.23	7,243.23	47.29	249.95	90.17	-108.42	-2,533.88	2,735.12	2,438.13	296.99	9.210		
8,500.00	7,242.73	7,208.73	7,242.73	48.46	249.93	90.16	-108.42	-2,533.88	2,685.79	2,387.48	298.30	9.004		
8,600.00	7,242.23	7,208.23	7,242.23	49.87	249.92	90.14	-108.42	-2,533.88	2,639.32	2,339.55	299.77	8.804		
8,700.00	7,241.73	7,207.73	7,241.73	51.48	249.90	90.13	-108.42	-2,533.88	2,595.88	2,294.50	301.38	8.613		
8,800.00	7,241.23	7,207.23	7,241.23	53.24	249.88	90.12	-108.42	-2,533.88	2,555.61	2,252.50	303.12	8.431		
8,900.00	7,240.73	7,206.73	7,240.73	55.13	249.86	90.11	-108.42	-2,533.88	2,518.67	2,213.70	304.98	8.259		
9,000.00	7,240.23	7,206.23	7,240.23	57.11	249.85	90.10	-108.42	-2,533.88	2,485.21	2,178.27	306.95	8.097		
9,100.00	7,239.73	7,205.73	7,239.73	59.19	249.83	90.08	-108.42	-2,533.88	2,455.37	2,146.36	309.01	7.946		
9,200.00	7,239.23	7,205.23	7,239.23	61.34	249.81	90.07	-108.42	-2,533.88	2,429.28	2,118.14	311.15	7.808		
9,300.00	7,238.72	7,204.72	7,238.72	63.55	249.79	90.06	-108.42	-2,533.88	2,407.07	2,093.73	313.34	7.682		
9,400.00	7,238.22	7,204.22	7,238.22	65.81	249.78	90.05	-108.42	-2,533.88	2,388.84	2,073.27	315.56	7.570		
9,500.00	7,237.72	7,203.72	7,237.72	68.13	249.76	90.03	-108.42	-2,533.88	2,374.68	2,056.88	317.80	7.472		
9,600.00	7,237.22	7,203.22	7,237.22	70.48	249.74	90.02	-108.42	-2,533.88	2,364.67	2,044.63	320.03	7.389		
9,700.00	7,236.72	7,202.72	7,236.72	72.88	249.72	90.01	-108.42	-2,533.88	2,358.86	2,036.62	322.24	7.320		
9,787.20	7,236.29	7,202.29	7,236.29	75.00	249.71	90.00	-108.42	-2,533.88	2,357.25	2,033.13	324.12	7.273 CC		
9,800.00	7,236.22	7,202.22	7,236.22	75.31	249.71	90.00	-108.42	-2,533.88	2,357.28	2,032.89	324.39	7.267 ES		
9,900.00	7,235.72	7,201.72	7,235.72	77.77	249.69	89.99	-108.42	-2,533.88	2,359.94	2,033.46	326.48	7.228		
10,000.00	7,235.22	7,201.22	7,235.22	80.26	249.67	89.97	-108.42	-2,533.88	2,366.83	2,038.35	328.48	7.205		
10,100.00	7,234.72	7,200.72	7,234.72	82.77	249.65	89.96	-108.42	-2,533.88	2,377.91	2,047.52	330.39	7.197 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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH)													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,234.22	7,200.22	7,234.22	85.31	249.64	89.95	-108.42	-2,533.88	2,393.12	2,060.92	332.20	7.204		
10,300.00	7,233.72	7,200.28	7,233.72	87.86	249.64	89.94	-108.42	-2,533.88	2,412.38	2,078.48	333.90	7.225		
10,400.00	7,233.22	7,200.78	7,233.22	90.44	249.66	89.93	-108.42	-2,533.88	2,435.60	2,100.10	335.50	7.260		
10,500.00	7,232.72	7,201.28	7,232.72	93.03	249.67	89.91	-108.42	-2,533.88	2,462.66	2,125.69	336.97	7.308		
10,600.00	7,232.22	7,201.78	7,232.22	95.64	249.69	89.90	-108.42	-2,533.88	2,493.44	2,155.13	338.31	7.370		
10,700.00	7,231.72	7,202.28	7,231.72	98.26	249.71	89.89	-108.42	-2,533.88	2,527.80	2,188.27	339.53	7.445		
10,800.00	7,231.21	7,202.79	7,231.21	100.89	249.73	89.88	-108.42	-2,533.88	2,565.61	2,224.98	340.62	7.532		
10,900.00	7,230.71	7,203.29	7,230.71	103.54	249.74	89.86	-108.42	-2,533.88	2,606.70	2,265.11	341.60	7.631		
11,000.00	7,230.21	7,203.79	7,230.21	106.20	249.76	89.85	-108.42	-2,533.88	2,650.93	2,308.48	342.46	7.741		
11,100.00	7,229.71	7,204.29	7,229.71	108.87	249.78	89.84	-108.42	-2,533.88	2,698.15	2,354.94	343.21	7.861		
11,200.00	7,229.21	7,204.79	7,229.21	111.54	249.80	89.83	-108.42	-2,533.88	2,748.19	2,404.33	343.86	7.992		
11,300.00	7,228.71	7,205.29	7,228.71	114.23	249.81	89.82	-108.42	-2,533.88	2,800.91	2,456.49	344.42	8.132		
11,400.00	7,228.21	7,205.79	7,228.21	116.92	249.83	89.80	-108.42	-2,533.88	2,856.16	2,511.27	344.89	8.281		
11,500.00	7,227.71	7,206.29	7,227.71	119.63	249.85	89.79	-108.42	-2,533.88	2,913.80	2,568.51	345.28	8.439		
11,600.00	7,227.21	7,206.79	7,227.21	122.34	249.87	89.78	-108.42	-2,533.88	2,973.68	2,628.07	345.61	8.604		
11,700.00	7,226.71	7,207.29	7,226.71	125.05	249.88	89.77	-108.42	-2,533.88	3,035.67	2,689.81	345.86	8.777		
11,800.00	7,226.21	7,207.79	7,226.21	127.78	249.90	89.76	-108.42	-2,533.88	3,099.66	2,753.60	346.06	8.957		
11,900.00	7,225.71	7,208.29	7,225.71	130.51	249.92	89.74	-108.42	-2,533.88	3,165.50	2,819.30	346.21	9.143		
12,000.00	7,225.21	7,208.79	7,225.21	133.24	249.94	89.73	-108.42	-2,533.88	3,233.10	2,886.80	346.31	9.336		
12,100.00	7,224.71	7,209.29	7,224.71	135.98	249.95	89.72	-108.42	-2,533.88	3,302.35	2,955.99	346.36	9.534		
12,200.00	7,224.21	7,209.80	7,224.21	138.72	249.97	89.71	-108.42	-2,533.88	3,373.14	3,026.75	346.39	9.738		
12,300.00	7,223.70	7,189.70	7,223.70	141.47	249.27	89.69	-108.42	-2,533.88	3,445.38	3,099.72	345.66	9.968		
12,400.00	7,223.20	7,189.20	7,223.20	144.23	249.25	89.68	-108.42	-2,533.88	3,518.97	3,173.39	345.59	10.183		
12,500.00	7,222.70	7,188.70	7,222.70	146.98	249.23	89.67	-108.42	-2,533.88	3,593.84	3,248.35	345.49	10.402		
12,600.00	7,222.20	7,188.20	7,222.20	149.74	249.22	89.66	-108.42	-2,533.88	3,669.91	3,324.54	345.37	10.626		
12,700.00	7,221.70	7,187.70	7,221.70	152.51	249.20	89.65	-108.42	-2,533.88	3,747.10	3,401.87	345.24	10.854		
12,800.00	7,221.20	7,187.20	7,221.20	155.28	249.18	89.63	-108.42	-2,533.88	3,825.35	3,480.27	345.09	11.085		
12,900.00	7,220.70	7,186.70	7,220.70	158.05	249.16	89.62	-108.42	-2,533.88	3,904.60	3,559.67	344.93	11.320		
13,000.00	7,220.20	7,186.20	7,220.20	160.82	249.15	89.61	-108.42	-2,533.88	3,984.77	3,640.02	344.75	11.558		
13,100.00	7,219.70	7,185.70	7,219.70	163.60	249.13	89.60	-108.42	-2,533.88	4,065.83	3,721.26	344.57	11.800		
13,200.00	7,219.20	7,185.20	7,219.20	166.38	249.11	89.58	-108.42	-2,533.88	4,147.71	3,803.33	344.38	12.044		
13,300.00	7,218.70	7,184.70	7,218.70	169.16	249.09	89.57	-108.42	-2,533.88	4,230.37	3,886.19	344.18	12.291		
13,400.00	7,218.20	7,184.20	7,218.20	171.95	249.08	89.56	-108.42	-2,533.88	4,313.77	3,969.79	343.98	12.541		
13,500.00	7,217.70	7,183.70	7,217.70	174.74	249.06	89.55	-108.42	-2,533.88	4,397.86	4,054.08	343.78	12.793		
13,600.00	7,217.20	7,183.20	7,217.20	177.53	249.04	89.54	-108.42	-2,533.88	4,482.60	4,139.02	343.57	13.047		
13,700.00	7,216.70	7,182.70	7,216.70	180.32	249.02	89.52	-108.42	-2,533.88	4,567.96	4,224.59	343.37	13.303		
13,800.00	7,216.19	7,182.19	7,216.19	183.11	249.01	89.51	-108.42	-2,533.88	4,653.90	4,310.74	343.16	13.562		
13,900.00	7,215.69	7,181.69	7,215.69	185.91	248.99	89.50	-108.42	-2,533.88	4,740.39	4,397.44	342.95	13.822		
14,000.00	7,215.19	7,181.19	7,215.19	188.71	248.97	89.49	-108.42	-2,533.88	4,827.41	4,484.66	342.74	14.085		
14,100.00	7,214.69	7,180.69	7,214.69	191.51	248.95	89.48	-108.42	-2,533.88	4,914.91	4,572.38	342.53	14.349		
14,200.00	7,214.19	7,180.19	7,214.19	194.31	248.94	89.46	-108.42	-2,533.88	5,002.89	4,660.56	342.33	14.614		
14,300.00	7,213.69	7,179.69	7,213.69	197.11	248.92	89.45	-108.42	-2,533.88	5,091.31	4,749.19	342.12	14.882		
14,400.00	7,213.19	7,179.19	7,213.19	199.92	248.90	89.44	-108.42	-2,533.88	5,180.15	4,838.23	341.92	15.150		
14,500.00	7,212.69	7,178.69	7,212.69	202.72	248.88	89.43	-108.42	-2,533.88	5,269.40	4,927.67	341.72	15.420		
14,600.00	7,212.19	7,178.19	7,212.19	205.53	248.87	89.41	-108.42	-2,533.88	5,359.02	5,017.49	341.52	15.691		
14,700.00	7,211.69	7,177.69	7,211.69	208.34	248.85	89.40	-108.42	-2,533.88	5,449.00	5,107.67	341.33	15.964		
14,800.00	7,211.19	7,177.19	7,211.19	211.15	248.83	89.39	-108.42	-2,533.88	5,539.33	5,198.19	341.14	16.238		
14,900.00	7,210.69	7,176.69	7,210.69	213.96	248.81	89.38	-108.42	-2,533.88	5,629.98	5,289.03	340.95	16.513		
15,000.00	7,210.19	7,176.19	7,210.19	216.78	248.80	89.37	-108.42	-2,533.88	5,720.94	5,380.18	340.76	16.789		
15,100.00	7,209.69	7,175.69	7,209.69	219.59	248.78	89.35	-108.42	-2,533.88	5,812.21	5,471.62	340.58	17.066		
15,200.00	7,209.18	7,175.18	7,209.18	222.41	248.76	89.34	-108.42	-2,533.88	5,903.75	5,563.35	340.40	17.343		
15,300.00	7,208.68	7,174.68	7,208.68	225.22	248.74	89.33	-108.42	-2,533.88	5,995.57	5,655.34	340.23	17.622		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH)												Offset Well Error:	3.28 ft
Survey Program: 100-2" Cone@2.448 Sigma													
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)		
15,400.00	7,208.18	7,174.18	7,208.18	228.04	248.73	89.32	-108.42	-2,533.88	6,087.64	5,747.58	340.05	17.902	
15,437.48	7,208.00	7,174.00	7,208.00	229.10	248.72	89.31	-108.42	-2,533.88	6,122.21	5,782.22	339.99	18.007	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-42(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	45.00	3.28	3.28	-104.92	-1,277.50	-4,795.40	4,962.86				
100.00	100.00	55.00	100.00	3.28	3.42	-104.92	-1,277.50	-4,795.40	4,962.65	4,955.95	6.70	740.437	
200.00	200.00	155.00	200.00	3.34	4.92	-104.92	-1,277.50	-4,795.40	4,962.65	4,954.40	8.26	601.108	
300.00	299.98	254.98	299.98	3.44	7.87	71.48	-1,277.50	-4,795.40	4,962.10	4,950.79	11.31	438.692	
400.00	399.84	354.84	399.84	3.59	11.14	71.56	-1,277.50	-4,795.40	4,960.44	4,945.71	14.72	336.881	
500.00	499.45	454.45	499.45	3.79	14.50	71.71	-1,277.50	-4,795.40	4,957.68	4,939.40	18.28	271.177	
600.00	598.70	553.70	598.70	4.03	17.89	71.92	-1,277.50	-4,795.40	4,953.85	4,931.93	21.92	226.028	
700.00	697.47	652.47	697.47	4.31	21.29	72.18	-1,277.50	-4,795.40	4,948.98	4,923.38	25.60	193.322	
800.00	795.62	750.62	795.62	4.64	24.68	72.50	-1,277.50	-4,795.40	4,943.09	4,913.78	29.31	168.628	
900.00	893.06	848.06	893.06	5.00	28.05	72.87	-1,277.50	-4,795.40	4,936.23	4,903.19	33.05	149.370	
1,000.00	989.64	944.64	989.64	5.40	31.40	73.30	-1,277.50	-4,795.40	4,928.46	4,891.67	36.79	133.957	
1,100.00	1,085.27	1,040.27	1,085.27	5.83	34.73	73.78	-1,277.50	-4,795.40	4,919.83	4,879.29	40.54	121.356	
1,200.00	1,179.82	1,134.82	1,179.82	6.29	38.01	74.31	-1,277.50	-4,795.40	4,910.41	4,866.12	44.29	110.875	
1,300.00	1,273.47	1,228.47	1,273.47	6.79	41.27	74.74	-1,277.50	-4,795.40	4,900.48	4,852.45	48.03	102.021	
1,400.00	1,367.06	1,322.06	1,367.06	7.30	44.53	75.12	-1,277.50	-4,795.40	4,890.74	4,838.94	51.80	94.415	
1,500.00	1,460.64	1,415.64	1,460.64	7.83	47.79	75.49	-1,277.50	-4,795.40	4,881.24	4,825.65	55.58	87.818	
1,600.00	1,554.23	1,509.23	1,554.23	8.38	51.05	75.87	-1,277.50	-4,795.40	4,871.97	4,812.59	59.38	82.048	
1,700.00	1,647.82	1,602.82	1,647.82	8.93	54.31	76.25	-1,277.50	-4,795.40	4,862.94	4,799.75	63.19	76.961	
1,800.00	1,741.41	1,703.59	1,741.41	9.49	57.82	76.63	-1,277.50	-4,795.40	4,854.14	4,786.89	67.25	72.176	
1,900.00	1,835.00	1,810.00	1,835.00	10.05	61.53	77.01	-1,277.50	-4,795.40	4,845.59	4,774.06	71.53	67.746	
2,000.00	1,928.59	1,883.59	1,928.59	10.62	64.09	77.39	-1,277.50	-4,795.40	4,837.28	4,762.62	74.66	64.791	
2,100.00	2,022.18	1,977.18	2,022.18	11.20	67.36	77.77	-1,277.50	-4,795.40	4,829.21	4,750.71	78.50	61.521	
2,200.00	2,115.77	2,070.77	2,115.77	11.78	70.62	78.16	-1,277.50	-4,795.40	4,821.38	4,739.04	82.34	58.555	
2,300.00	2,209.36	2,164.36	2,209.36	12.37	73.89	78.54	-1,277.50	-4,795.40	4,813.80	4,727.62	86.19	55.853	
2,400.00	2,302.95	2,257.95	2,302.95	12.95	77.15	78.93	-1,277.50	-4,795.40	4,806.47	4,716.43	90.04	53.383	
2,500.00	2,396.54	2,351.54	2,396.54	13.54	80.41	79.31	-1,277.50	-4,795.40	4,799.38	4,705.49	93.89	51.117	
2,600.00	2,490.13	2,445.13	2,490.13	14.13	83.68	79.70	-1,277.50	-4,795.40	4,792.55	4,694.80	97.75	49.030	
2,700.00	2,583.72	2,538.72	2,583.72	14.73	86.94	80.09	-1,277.50	-4,795.40	4,785.96	4,684.35	101.61	47.103	
2,800.00	2,677.31	2,632.31	2,677.31	15.32	90.21	80.48	-1,277.50	-4,795.40	4,779.62	4,674.15	105.47	45.318	
2,900.00	2,770.90	2,725.90	2,770.90	15.92	93.47	80.87	-1,277.50	-4,795.40	4,773.54	4,664.20	109.33	43.661	
3,000.00	2,864.49	2,819.49	2,864.49	16.52	96.74	81.26	-1,277.50	-4,795.40	4,767.70	4,654.50	113.20	42.118	
3,100.00	2,958.08	2,913.08	2,958.08	17.12	100.00	81.66	-1,277.50	-4,795.40	4,762.12	4,645.06	117.07	40.679	
3,200.00	3,051.67	3,006.67	3,051.67	17.72	103.27	82.05	-1,277.50	-4,795.40	4,756.80	4,635.86	120.93	39.334	
3,300.00	3,145.26	3,100.26	3,145.26	18.32	106.54	82.44	-1,277.50	-4,795.40	4,751.72	4,626.92	124.81	38.073	
3,400.00	3,238.85	3,206.15	3,238.85	18.92	110.23	82.84	-1,277.50	-4,795.40	4,746.91	4,617.80	129.11	36.768	
3,500.00	3,332.44	3,287.44	3,332.44	19.53	113.07	83.24	-1,277.50	-4,795.40	4,742.35	4,609.80	132.55	35.778	
3,600.00	3,426.03	3,381.03	3,426.03	20.13	116.33	83.63	-1,277.50	-4,795.40	4,738.05	4,601.63	136.42	34.730	
3,700.00	3,519.62	3,474.62	3,519.62	20.74	119.60	84.03	-1,277.50	-4,795.40	4,734.01	4,593.71	140.30	33.743	
3,800.00	3,613.21	3,568.21	3,613.21	21.34	122.86	84.43	-1,277.50	-4,795.40	4,730.23	4,586.05	144.17	32.809	
3,900.00	3,706.80	3,661.80	3,706.80	21.95	126.13	84.82	-1,277.50	-4,795.40	4,726.70	4,578.65	148.05	31.927	
4,000.00	3,800.39	3,755.39	3,800.39	22.56	129.40	85.22	-1,277.50	-4,795.40	4,723.44	4,571.51	151.93	31.090	
4,100.00	3,893.98	3,848.98	3,893.98	23.16	132.66	85.62	-1,277.50	-4,795.40	4,720.44	4,564.63	155.80	30.297	
4,200.00	3,987.57	3,942.57	3,987.57	23.77	135.93	86.02	-1,277.50	-4,795.40	4,717.69	4,558.01	159.68	29.545	
4,300.00	4,081.16	4,036.16	4,081.16	24.38	139.20	86.42	-1,277.50	-4,795.40	4,715.21	4,551.66	163.56	28.829	
4,400.00	4,174.75	4,129.75	4,174.75	24.99	142.46	86.82	-1,277.50	-4,795.40	4,713.00	4,545.56	167.44	28.148	
4,500.00	4,268.34	4,223.34	4,268.34	25.60	145.73	87.22	-1,277.50	-4,795.40	4,711.04	4,539.72	171.32	27.499	
4,600.00	4,361.93	4,316.93	4,361.93	26.21	149.00	87.62	-1,277.50	-4,795.40	4,709.35	4,534.15	175.19	26.881	
4,700.00	4,455.52	4,410.52	4,455.52	26.82	152.26	88.02	-1,277.50	-4,795.40	4,707.92	4,528.84	179.07	26.291	
4,800.00	4,549.11	4,504.11	4,549.11	27.43	155.53	88.42	-1,277.50	-4,795.40	4,706.75	4,523.80	182.95	25.727	
4,900.00	4,642.70	4,602.30	4,642.70	28.04	158.95	88.83	-1,277.50	-4,795.40	4,705.85	4,518.86	186.99	25.166	
5,000.00	4,736.29	4,708.71	4,736.29	28.65	162.67	89.23	-1,277.50	-4,795.40	4,705.21	4,513.89	191.32	24.594	
5,100.00	4,829.88	4,784.88	4,829.88	29.26	165.33	89.63	-1,277.50	-4,795.40	4,704.83	4,510.24	194.59	24.179	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-42(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	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)			
5,192.69	4,916.63	4,871.63	4,916.63	29.83	168.36	90.00	-1,277.50	-4,795.40	4,704.72	4,506.54	198.18	23.739		
5,200.00	4,923.47	4,878.47	4,923.47	29.87	168.59	90.03	-1,277.50	-4,795.40	4,704.72	4,506.25	198.46	23.706		
5,300.00	5,017.06	4,972.06	5,017.06	30.48	171.86	90.43	-1,277.50	-4,795.40	4,704.87	4,502.53	202.34	23.252		
5,400.00	5,110.65	5,065.65	5,110.65	31.09	175.13	90.83	-1,277.50	-4,795.40	4,705.28	4,499.06	206.22	22.817		
5,500.00	5,204.24	5,159.24	5,204.24	31.70	178.39	91.23	-1,277.50	-4,795.40	4,705.96	4,495.86	210.10	22.399		
5,600.00	5,297.83	5,252.83	5,297.83	32.32	181.66	91.63	-1,277.50	-4,795.40	4,706.90	4,492.93	213.97	21.997		
5,700.00	5,391.42	5,346.42	5,391.42	32.93	184.93	92.04	-1,277.50	-4,795.40	4,708.11	4,490.26	217.85	21.612		
5,800.00	5,485.01	5,440.01	5,485.01	33.54	188.19	92.44	-1,277.50	-4,795.40	4,709.58	4,487.85	221.73	21.240		
5,900.00	5,578.60	5,533.60	5,578.60	34.15	191.46	92.84	-1,277.50	-4,795.40	4,711.31	4,485.71	225.60	20.883		
6,000.00	5,672.19	5,627.19	5,672.19	34.77	194.73	93.24	-1,277.50	-4,795.40	4,713.30	4,483.83	229.48	20.539		
6,100.00	5,765.78	5,720.78	5,765.78	35.38	197.99	93.64	-1,277.50	-4,795.40	4,715.56	4,482.21	233.35	20.208		
6,200.00	5,859.37	5,814.37	5,859.37	35.99	201.26	94.04	-1,277.50	-4,795.40	4,718.08	4,480.85	237.23	19.889		
6,300.00	5,952.96	5,907.96	5,952.96	36.60	204.53	94.44	-1,277.50	-4,795.40	4,720.86	4,479.76	241.10	19.581		
6,400.00	6,046.55	6,001.55	6,046.55	37.22	207.79	94.84	-1,277.50	-4,795.40	4,723.90	4,478.93	244.97	19.283		
6,500.00	6,140.14	6,104.86	6,140.14	37.83	211.40	95.23	-1,277.50	-4,795.40	4,727.20	4,478.02	249.18	18.971		
6,600.00	6,233.73	6,188.73	6,233.73	38.44	214.33	95.63	-1,277.50	-4,795.40	4,730.76	4,478.05	252.71	18.720		
6,700.00	6,327.32	6,282.32	6,327.32	39.06	217.60	96.03	-1,277.50	-4,795.40	4,734.58	4,478.00	256.58	18.452		
6,800.00	6,420.91	6,375.91	6,420.91	39.67	220.86	96.43	-1,277.50	-4,795.40	4,738.66	4,478.21	260.45	18.194		
6,900.00	6,514.50	6,469.50	6,514.50	40.28	224.13	96.82	-1,277.50	-4,795.40	4,743.00	4,478.68	264.32	17.944		
7,000.00	6,608.09	6,563.09	6,608.09	40.90	227.40	97.22	-1,277.50	-4,795.40	4,747.60	4,479.41	268.19	17.702		
7,100.00	6,701.63	6,656.63	6,701.63	41.51	230.66	98.19	-1,277.50	-4,795.40	4,751.20	4,479.15	272.05	17.464		
7,200.00	6,793.85	6,748.85	6,793.85	42.10	233.88	69.09	-1,277.50	-4,795.40	4,742.45	4,466.59	275.86	17.192		
7,300.00	6,882.50	6,837.50	6,882.50	42.64	236.97	56.71	-1,277.50	-4,795.40	4,718.88	4,439.39	279.49	16.884		
7,400.00	6,965.41	6,920.41	6,965.41	43.12	239.87	49.55	-1,277.50	-4,795.40	4,681.12	4,398.25	282.86	16.549		
7,500.00	7,040.53	7,004.47	7,040.53	43.53	242.80	45.96	-1,277.50	-4,795.40	4,630.12	4,343.89	286.22	16.177		
7,600.00	7,106.00	7,061.00	7,106.00	43.89	244.78	45.07	-1,277.50	-4,795.40	4,567.15	4,278.58	288.58	15.826		
7,700.00	7,160.23	7,115.23	7,160.23	44.20	246.67	46.73	-1,277.50	-4,795.40	4,493.75	4,202.94	290.81	15.453		
7,800.00	7,201.86	7,156.86	7,201.86	44.48	248.12	51.51	-1,277.50	-4,795.40	4,411.68	4,119.12	292.57	15.079		
7,900.00	7,229.88	7,184.88	7,229.88	44.73	249.10	61.09	-1,277.50	-4,795.40	4,322.92	4,029.10	293.82	14.713		
8,000.00	7,243.60	7,201.40	7,243.60	44.99	249.68	78.81	-1,277.50	-4,795.40	4,229.57	3,934.91	294.65	14.354		
8,100.00	7,244.73	7,200.27	7,244.73	45.29	249.64	90.94	-1,277.50	-4,795.40	4,133.99	3,839.14	294.85	14.021		
8,200.00	7,244.23	7,200.77	7,244.23	45.74	249.66	90.92	-1,277.50	-4,795.40	4,038.41	3,743.29	295.13	13.684		
8,300.00	7,243.73	7,201.27	7,243.73	46.38	249.67	90.90	-1,277.50	-4,795.40	3,943.06	3,647.62	295.43	13.347		
8,400.00	7,243.23	7,201.77	7,243.23	47.29	249.69	90.87	-1,277.50	-4,795.40	3,847.93	3,552.16	295.77	13.010		
8,500.00	7,242.73	7,202.27	7,242.73	48.46	249.71	90.85	-1,277.50	-4,795.40	3,753.06	3,456.91	296.15	12.673		
8,600.00	7,242.23	7,202.77	7,242.23	49.87	249.73	90.82	-1,277.50	-4,795.40	3,658.47	3,361.89	296.57	12.336		
8,700.00	7,241.73	7,203.27	7,241.73	51.48	249.74	90.80	-1,277.50	-4,795.40	3,564.17	3,267.13	297.04	11.999		
8,800.00	7,241.23	7,203.77	7,241.23	53.24	249.76	90.78	-1,277.50	-4,795.40	3,470.19	3,172.63	297.56	11.662		
8,900.00	7,240.73	7,204.27	7,240.73	55.13	249.78	90.75	-1,277.50	-4,795.40	3,376.55	3,078.42	298.13	11.326		
9,000.00	7,240.23	7,204.77	7,240.23	57.11	249.80	90.73	-1,277.50	-4,795.40	3,283.29	2,984.52	298.77	10.989		
9,100.00	7,239.73	7,205.27	7,239.73	59.19	249.81	90.71	-1,277.50	-4,795.40	3,190.44	2,890.96	299.48	10.653		
9,200.00	7,239.23	7,205.77	7,239.23	61.34	249.83	90.68	-1,277.50	-4,795.40	3,098.03	2,797.77	300.26	10.318		
9,300.00	7,238.72	7,206.28	7,238.72	63.55	249.85	90.66	-1,277.50	-4,795.40	3,006.11	2,704.98	301.12	9.983		
9,400.00	7,238.22	7,206.78	7,238.22	65.81	249.87	90.63	-1,277.50	-4,795.40	2,914.72	2,612.64	302.08	9.649		
9,500.00	7,237.72	7,207.28	7,237.72	68.13	249.88	90.61	-1,277.50	-4,795.40	2,823.91	2,520.77	303.13	9.316		
9,600.00	7,237.22	7,207.78	7,237.22	70.48	249.90	90.59	-1,277.50	-4,795.40	2,733.74	2,429.44	304.30	8.984		
9,700.00	7,236.72	7,208.28	7,236.72	72.88	249.92	90.56	-1,277.50	-4,795.40	2,644.29	2,338.69	305.59	8.653		
9,800.00	7,236.22	7,208.78	7,236.22	75.31	249.93	90.54	-1,277.50	-4,795.40	2,555.61	2,248.59	307.02	8.324		
9,900.00	7,235.72	7,209.28	7,235.72	77.77	249.95	90.51	-1,277.50	-4,795.40	2,467.80	2,159.21	308.59	7.997		
10,000.00	7,235.22	7,209.78	7,235.22	80.26	249.97	90.49	-1,277.50	-4,795.40	2,380.95	2,070.63	310.32	7.673		
10,100.00	7,234.72	7,189.72	7,234.72	82.77	249.27	90.47	-1,277.50	-4,795.40	2,295.17	1,983.66	311.51	7.368		
10,200.00	7,234.22	7,189.22	7,234.22	85.31	249.25	90.44	-1,277.50	-4,795.40	2,210.59	1,897.01	313.58	7.050		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-42(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.00	7,233.72	7,188.72	7,233.72	87.86	249.23	90.42	-1,277.50	-4,795.40	2,127.35	1,811.50	315.85	6.735	
10,400.00	7,233.22	7,188.22	7,233.22	90.44	249.22	90.40	-1,277.50	-4,795.40	2,045.60	1,727.26	318.35	6.426	
10,500.00	7,232.72	7,187.72	7,232.72	93.03	249.20	90.37	-1,277.50	-4,795.40	1,965.55	1,644.47	321.08	6.122	
10,600.00	7,232.22	7,187.22	7,232.22	95.64	249.18	90.35	-1,277.50	-4,795.40	1,887.40	1,563.32	324.07	5.824	
10,700.00	7,231.72	7,186.72	7,231.72	98.26	249.16	90.32	-1,277.50	-4,795.40	1,811.40	1,484.07	327.33	5.534	
10,800.00	7,231.21	7,186.21	7,231.21	100.89	249.15	90.30	-1,277.50	-4,795.40	1,737.83	1,406.96	330.87	5.252	
10,900.00	7,230.71	7,185.71	7,230.71	103.54	249.13	90.28	-1,277.50	-4,795.40	1,667.01	1,332.33	334.68	4.981	
11,000.00	7,230.21	7,185.21	7,230.21	106.20	249.11	90.25	-1,277.50	-4,795.40	1,599.32	1,260.55	338.77	4.721	
11,100.00	7,229.71	7,184.71	7,229.71	108.87	249.09	90.23	-1,277.50	-4,795.40	1,535.16	1,192.03	343.13	4.474	
11,200.00	7,229.21	7,184.21	7,229.21	111.54	249.08	90.20	-1,277.50	-4,795.40	1,474.99	1,127.28	347.71	4.242	
11,300.00	7,228.71	7,183.71	7,228.71	114.23	249.06	90.18	-1,277.50	-4,795.40	1,419.32	1,066.85	352.47	4.027	
11,400.00	7,228.21	7,183.21	7,228.21	116.92	249.04	90.16	-1,277.50	-4,795.40	1,368.71	1,011.36	357.35	3.830	
11,500.00	7,227.71	7,182.71	7,227.71	119.63	249.02	90.13	-1,277.50	-4,795.40	1,323.72	961.48	362.24	3.654	
11,600.00	7,227.21	7,182.21	7,227.21	122.34	249.01	90.11	-1,277.50	-4,795.40	1,284.96	917.94	367.02	3.501	
11,700.00	7,226.71	7,181.71	7,226.71	125.05	248.99	90.08	-1,277.50	-4,795.40	1,253.00	881.45	371.56	3.372	
11,800.00	7,226.21	7,181.21	7,226.21	127.78	248.97	90.06	-1,277.50	-4,795.40	1,228.37	852.68	375.69	3.270	
11,900.00	7,225.71	7,180.71	7,225.71	130.51	248.96	90.04	-1,277.50	-4,795.40	1,211.52	832.26	379.26	3.194	
12,000.00	7,225.21	7,180.21	7,225.21	133.24	248.94	90.01	-1,277.50	-4,795.40	1,202.77	820.62	382.15	3.147	
12,055.59	7,224.93	7,179.93	7,224.93	134.76	248.93	90.00	-1,277.50	-4,795.40	1,201.49	818.07	383.42	3.134 CC	
12,100.00	7,224.71	7,179.71	7,224.71	135.98	248.92	89.99	-1,277.50	-4,795.40	1,202.31	818.06	384.25	3.129 ES, SF	
12,200.00	7,224.21	7,179.21	7,224.21	138.72	248.90	89.97	-1,277.50	-4,795.40	1,210.13	824.62	385.51	3.139	
12,300.00	7,223.70	7,178.70	7,223.70	141.47	248.89	89.94	-1,277.50	-4,795.40	1,226.09	840.15	385.94	3.177	
12,400.00	7,223.20	7,178.20	7,223.20	144.23	248.87	89.92	-1,277.50	-4,795.40	1,249.87	864.28	385.59	3.241	
12,500.00	7,222.70	7,177.70	7,222.70	146.98	248.85	89.89	-1,277.50	-4,795.40	1,281.04	896.48	384.55	3.331	
12,600.00	7,222.20	7,177.20	7,222.20	149.74	248.83	89.87	-1,277.50	-4,795.40	1,319.07	936.12	382.94	3.445	
12,700.00	7,221.70	7,176.70	7,221.70	152.51	248.82	89.85	-1,277.50	-4,795.40	1,363.38	982.50	380.88	3.580	
12,800.00	7,221.20	7,176.20	7,221.20	155.28	248.80	89.82	-1,277.50	-4,795.40	1,413.40	1,034.90	378.50	3.734	
12,900.00	7,220.70	7,175.70	7,220.70	158.05	248.78	89.80	-1,277.50	-4,795.40	1,468.53	1,092.64	375.89	3.907	
13,000.00	7,220.20	7,175.20	7,220.20	160.82	248.76	89.77	-1,277.50	-4,795.40	1,528.22	1,155.06	373.15	4.095	
13,100.00	7,219.70	7,174.70	7,219.70	163.60	248.75	89.75	-1,277.50	-4,795.40	1,591.96	1,221.59	370.37	4.298	
13,200.00	7,219.20	7,174.20	7,219.20	166.38	248.73	89.73	-1,277.50	-4,795.40	1,659.28	1,291.69	367.58	4.514	
13,300.00	7,218.70	7,173.70	7,218.70	169.16	248.71	89.70	-1,277.50	-4,795.40	1,729.76	1,364.92	364.85	4.741	
13,400.00	7,218.20	7,173.20	7,218.20	171.95	248.69	89.68	-1,277.50	-4,795.40	1,803.04	1,440.85	362.19	4.978	
13,500.00	7,217.70	7,172.70	7,217.70	174.74	248.68	89.66	-1,277.50	-4,795.40	1,878.78	1,519.16	359.63	5.224	
13,600.00	7,217.20	7,172.20	7,217.20	177.53	248.66	89.63	-1,277.50	-4,795.40	1,956.71	1,599.53	357.18	5.478	
13,700.00	7,216.70	7,171.70	7,216.70	180.32	248.64	89.61	-1,277.50	-4,795.40	2,036.56	1,681.72	354.84	5.739	
13,800.00	7,216.19	7,171.19	7,216.19	183.11	248.62	89.58	-1,277.50	-4,795.40	2,118.12	1,765.50	352.63	6.007	
13,900.00	7,215.69	7,170.69	7,215.69	185.91	248.61	89.56	-1,277.50	-4,795.40	2,201.21	1,850.68	350.53	6.280	
14,000.00	7,215.19	7,170.19	7,215.19	188.71	248.59	89.54	-1,277.50	-4,795.40	2,285.65	1,937.09	348.56	6.557	
14,100.00	7,214.69	7,169.69	7,214.69	191.51	248.57	89.51	-1,277.50	-4,795.40	2,371.30	2,024.61	346.69	6.840	
14,200.00	7,214.19	7,169.19	7,214.19	194.31	248.55	89.49	-1,277.50	-4,795.40	2,458.03	2,113.10	344.93	7.126	
14,300.00	7,213.69	7,168.69	7,213.69	197.11	248.54	89.46	-1,277.50	-4,795.40	2,545.74	2,202.47	343.28	7.416	
14,400.00	7,213.19	7,168.19	7,213.19	199.92	248.52	89.44	-1,277.50	-4,795.40	2,634.33	2,292.61	341.72	7.709	
14,500.00	7,212.69	7,167.69	7,212.69	202.72	248.50	89.42	-1,277.50	-4,795.40	2,723.70	2,383.45	340.25	8.005	
14,600.00	7,212.19	7,167.19	7,212.19	205.53	248.48	89.39	-1,277.50	-4,795.40	2,813.79	2,474.92	338.86	8.304	
14,700.00	7,211.69	7,166.69	7,211.69	208.34	248.47	89.37	-1,277.50	-4,795.40	2,904.53	2,566.97	337.56	8.604	
14,800.00	7,211.19	7,166.19	7,211.19	211.15	248.45	89.34	-1,277.50	-4,795.40	2,995.86	2,659.52	336.33	8.907	
14,900.00	7,210.69	7,165.69	7,210.69	213.96	248.43	89.32	-1,277.50	-4,795.40	3,087.72	2,752.55	335.17	9.212	
15,000.00	7,210.19	7,165.19	7,210.19	216.78	248.41	89.30	-1,277.50	-4,795.40	3,180.08	2,845.99	334.08	9.519	
15,100.00	7,209.69	7,164.69	7,209.69	219.59	248.40	89.27	-1,277.50	-4,795.40	3,272.88	2,939.83	333.05	9.827	
15,200.00	7,209.18	7,164.18	7,209.18	222.41	248.38	89.25	-1,277.50	-4,795.40	3,366.10	3,034.02	332.07	10.137	
15,300.00	7,208.68	7,163.68	7,208.68	225.22	248.36	89.23	-1,277.50	-4,795.40	3,459.69	3,128.54	331.15	10.447	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-42(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
15,400.00	7,208.18	7,163.18	7,208.18	228.04	248.34	89.20	-1,277.50	-4,795.40	3,553.64	3,223.36	330.28	10.760	
15,437.48	7,208.00	7,163.00	7,208.00	229.10	248.34	89.19	-1,277.50	-4,795.40	3,588.93	3,258.97	329.96	10.877	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-43(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	48.00	3.28	3.28	-120.06	-2,778.44	-4,801.26	5,547.44				
100.00	100.00	52.00	100.00	3.28	3.40	-120.06	-2,778.44	-4,801.26	5,547.23	5,540.55	6.69	829.432	
200.00	200.00	152.00	200.00	3.34	4.84	-120.06	-2,778.44	-4,801.26	5,547.23	5,539.06	8.18	678.287	
300.00	299.98	251.98	299.98	3.44	7.78	56.34	-2,778.44	-4,801.26	5,546.27	5,535.05	11.22	494.487	
400.00	399.84	351.84	399.84	3.59	11.04	56.43	-2,778.44	-4,801.26	5,543.37	5,528.74	14.63	379.024	
500.00	499.45	451.45	499.45	3.79	14.39	56.59	-2,778.44	-4,801.26	5,538.54	5,520.36	18.18	304.627	
600.00	598.70	550.70	598.70	4.03	17.78	56.80	-2,778.44	-4,801.26	5,531.82	5,510.00	21.82	253.578	
700.00	697.47	649.47	697.47	4.31	21.18	57.08	-2,778.44	-4,801.26	5,523.21	5,497.71	25.50	216.632	
800.00	795.62	747.62	795.62	4.64	24.57	57.42	-2,778.44	-4,801.26	5,512.75	5,483.55	29.21	188.754	
900.00	893.06	845.06	893.06	5.00	27.95	57.83	-2,778.44	-4,801.26	5,500.48	5,467.55	32.93	167.017	
1,000.00	989.64	941.64	989.64	5.40	31.30	58.29	-2,778.44	-4,801.26	5,486.45	5,449.78	36.67	149.617	
1,100.00	1,085.27	1,037.27	1,085.27	5.83	34.62	58.82	-2,778.44	-4,801.26	5,470.69	5,430.29	40.41	135.387	
1,200.00	1,179.82	1,131.82	1,179.82	6.29	37.91	59.40	-2,778.44	-4,801.26	5,453.28	5,409.14	44.14	123.542	
1,300.00	1,273.47	1,225.47	1,273.47	6.79	41.17	59.81	-2,778.44	-4,801.26	5,434.69	5,386.82	47.87	113.530	
1,400.00	1,367.06	1,319.06	1,367.06	7.30	44.42	60.11	-2,778.44	-4,801.26	5,416.17	5,364.56	51.62	104.933	
1,500.00	1,460.64	1,412.64	1,460.64	7.83	47.68	60.42	-2,778.44	-4,801.26	5,397.82	5,342.44	55.38	97.473	
1,600.00	1,554.23	1,506.23	1,554.23	8.38	50.94	60.73	-2,778.44	-4,801.26	5,379.64	5,320.48	59.15	90.944	
1,700.00	1,647.82	1,600.18	1,647.82	8.93	54.22	61.04	-2,778.44	-4,801.26	5,361.62	5,298.67	62.95	85.169	
1,800.00	1,741.41	1,706.59	1,741.41	9.49	57.92	61.36	-2,778.44	-4,801.26	5,343.78	5,276.59	67.20	79.525	
1,900.00	1,835.00	1,787.00	1,835.00	10.05	60.73	61.67	-2,778.44	-4,801.26	5,326.11	5,255.57	70.54	75.503	
2,000.00	1,928.59	1,880.59	1,928.59	10.62	63.99	61.99	-2,778.44	-4,801.26	5,308.62	5,234.27	74.35	71.396	
2,100.00	2,022.18	1,974.18	2,022.18	11.20	67.25	62.31	-2,778.44	-4,801.26	5,291.30	5,213.13	78.17	67.687	
2,200.00	2,115.77	2,067.77	2,115.77	11.78	70.52	62.63	-2,778.44	-4,801.26	5,274.17	5,192.17	82.00	64.322	
2,300.00	2,209.36	2,161.36	2,209.36	12.37	73.78	62.96	-2,778.44	-4,801.26	5,257.21	5,171.38	85.83	61.255	
2,400.00	2,302.95	2,254.95	2,302.95	12.95	77.04	63.28	-2,778.44	-4,801.26	5,240.43	5,150.77	89.66	58.449	
2,500.00	2,396.54	2,348.54	2,396.54	13.54	80.31	63.61	-2,778.44	-4,801.26	5,223.84	5,130.34	93.50	55.873	
2,600.00	2,490.13	2,442.13	2,490.13	14.13	83.57	63.94	-2,778.44	-4,801.26	5,207.43	5,110.10	97.34	53.499	
2,700.00	2,583.72	2,535.72	2,583.72	14.73	86.84	64.27	-2,778.44	-4,801.26	5,191.21	5,090.03	101.18	51.307	
2,800.00	2,677.31	2,629.31	2,677.31	15.32	90.10	64.60	-2,778.44	-4,801.26	5,175.18	5,070.15	105.03	49.275	
2,900.00	2,770.90	2,722.90	2,770.90	15.92	93.37	64.94	-2,778.44	-4,801.26	5,159.34	5,050.46	108.88	47.387	
3,000.00	2,864.49	2,816.49	2,864.49	16.52	96.63	65.28	-2,778.44	-4,801.26	5,143.69	5,030.96	112.73	45.629	
3,100.00	2,958.08	2,910.08	2,958.08	17.12	99.90	65.61	-2,778.44	-4,801.26	5,128.24	5,011.65	116.58	43.987	
3,200.00	3,051.67	3,003.67	3,051.67	17.72	103.17	65.96	-2,778.44	-4,801.26	5,112.98	4,992.54	120.44	42.452	
3,300.00	3,145.26	3,102.74	3,145.26	18.32	106.62	66.30	-2,778.44	-4,801.26	5,097.92	4,973.43	124.49	40.950	
3,400.00	3,238.85	3,209.15	3,238.85	18.92	110.33	66.64	-2,778.44	-4,801.26	5,083.06	4,954.26	128.80	39.465	
3,500.00	3,332.44	3,284.44	3,332.44	19.53	112.96	66.99	-2,778.44	-4,801.26	5,068.40	4,936.38	132.03	38.390	
3,600.00	3,426.03	3,378.03	3,426.03	20.13	116.23	67.34	-2,778.44	-4,801.26	5,053.95	4,918.06	135.89	37.191	
3,700.00	3,519.62	3,471.62	3,519.62	20.74	119.49	67.68	-2,778.44	-4,801.26	5,039.69	4,899.94	139.76	36.060	
3,800.00	3,613.21	3,565.21	3,613.21	21.34	122.76	68.04	-2,778.44	-4,801.26	5,025.65	4,882.02	143.63	34.991	
3,900.00	3,706.80	3,658.80	3,706.80	21.95	126.03	68.39	-2,778.44	-4,801.26	5,011.81	4,864.32	147.50	33.979	
4,000.00	3,800.39	3,752.39	3,800.39	22.56	129.29	68.74	-2,778.44	-4,801.26	4,998.19	4,846.82	151.37	33.020	
4,100.00	3,893.98	3,845.98	3,893.98	23.16	132.56	69.10	-2,778.44	-4,801.26	4,984.77	4,829.53	155.24	32.110	
4,200.00	3,987.57	3,939.57	3,987.57	23.77	135.82	69.46	-2,778.44	-4,801.26	4,971.57	4,812.46	159.12	31.245	
4,300.00	4,081.16	4,033.16	4,081.16	24.38	139.09	69.82	-2,778.44	-4,801.26	4,958.58	4,795.59	162.99	30.422	
4,400.00	4,174.75	4,126.75	4,174.75	24.99	142.36	70.18	-2,778.44	-4,801.26	4,945.82	4,778.95	166.87	29.639	
4,500.00	4,268.34	4,220.34	4,268.34	25.60	145.62	70.54	-2,778.44	-4,801.26	4,933.26	4,762.52	170.75	28.892	
4,600.00	4,361.93	4,313.93	4,361.93	26.21	148.89	70.91	-2,778.44	-4,801.26	4,920.93	4,746.31	174.63	28.180	
4,700.00	4,455.52	4,407.52	4,455.52	26.82	152.16	71.27	-2,778.44	-4,801.26	4,908.82	4,730.32	178.51	27.500	
4,800.00	4,549.11	4,501.11	4,549.11	27.43	155.42	71.64	-2,778.44	-4,801.26	4,896.94	4,714.55	182.39	26.849	
4,900.00	4,642.70	4,605.30	4,642.70	28.04	159.06	72.01	-2,778.44	-4,801.26	4,885.28	4,698.64	186.64	26.175	
5,000.00	4,736.29	4,688.29	4,736.29	28.65	161.96	72.38	-2,778.44	-4,801.26	4,873.85	4,683.69	190.15	25.631	
5,100.00	4,829.88	4,781.88	4,829.88	29.26	165.22	72.75	-2,778.44	-4,801.26	4,862.64	4,668.60	194.04	25.060	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-43(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,875.47	4,923.47	29.87	168.49	73.13	-2,778.44	-4,801.26	4,851.66	4,653.74	197.92	24.513		
5,300.00	5,017.06	4,969.06	5,017.06	30.48	171.76	73.50	-2,778.44	-4,801.26	4,840.92	4,639.11	201.81	23.988		
5,400.00	5,110.65	5,062.65	5,110.65	31.09	175.02	73.88	-2,778.44	-4,801.26	4,830.41	4,624.71	205.70	23.483		
5,500.00	5,204.24	5,156.24	5,204.24	31.70	178.29	74.26	-2,778.44	-4,801.26	4,820.13	4,610.55	209.58	22.999		
5,600.00	5,297.83	5,249.83	5,297.83	32.32	181.56	74.64	-2,778.44	-4,801.26	4,810.09	4,596.62	213.47	22.533		
5,700.00	5,391.42	5,343.42	5,391.42	32.93	184.82	75.02	-2,778.44	-4,801.26	4,800.29	4,582.93	217.36	22.084		
5,800.00	5,485.01	5,437.01	5,485.01	33.54	188.09	75.40	-2,778.44	-4,801.26	4,790.73	4,569.47	221.25	21.653		
5,900.00	5,578.60	5,530.60	5,578.60	34.15	191.36	75.79	-2,778.44	-4,801.26	4,781.40	4,556.26	225.14	21.237		
6,000.00	5,672.19	5,624.19	5,672.19	34.77	194.62	76.17	-2,778.44	-4,801.26	4,772.32	4,543.29	229.03	20.837		
6,100.00	5,765.78	5,717.78	5,765.78	35.38	197.89	76.56	-2,778.44	-4,801.26	4,763.48	4,530.56	232.92	20.451		
6,200.00	5,859.37	5,811.37	5,859.37	35.99	201.16	76.95	-2,778.44	-4,801.26	4,754.89	4,518.07	236.82	20.078		
6,300.00	5,952.96	5,904.96	5,952.96	36.60	204.42	77.33	-2,778.44	-4,801.26	4,746.54	4,505.83	240.71	19.719		
6,400.00	6,046.55	6,001.45	6,046.55	37.22	207.79	77.72	-2,778.44	-4,801.26	4,738.44	4,493.74	244.70	19.364		
6,500.00	6,140.14	6,107.86	6,140.14	37.83	211.51	78.12	-2,778.44	-4,801.26	4,730.59	4,481.54	249.04	18.995		
6,600.00	6,233.73	6,185.73	6,233.73	38.44	214.22	78.51	-2,778.44	-4,801.26	4,722.98	4,470.60	252.39	18.713		
6,700.00	6,327.32	6,279.32	6,327.32	39.06	217.49	78.90	-2,778.44	-4,801.26	4,715.63	4,459.35	256.28	18.400		
6,800.00	6,420.91	6,372.91	6,420.91	39.67	220.76	79.30	-2,778.44	-4,801.26	4,708.53	4,448.36	260.17	18.098		
6,900.00	6,514.50	6,466.50	6,514.50	40.28	224.02	79.69	-2,778.44	-4,801.26	4,701.69	4,437.62	264.07	17.805		
7,000.00	6,608.09	6,560.09	6,608.09	40.90	227.29	80.09	-2,778.44	-4,801.26	4,695.09	4,427.13	267.96	17.522		
7,100.00	6,701.63	6,653.63	6,701.63	41.51	230.56	80.48	-2,778.44	-4,801.26	4,687.49	4,415.64	271.85	17.243		
7,200.00	6,793.85	6,745.85	6,793.85	42.10	233.78	80.87	-2,778.44	-4,801.26	4,679.44	4,399.77	275.67	16.931		
7,300.00	6,882.50	6,834.50	6,882.50	42.64	236.87	81.26	-2,778.44	-4,801.26	4,671.44	4,387.77	279.29	16.587		
7,400.00	6,965.41	6,917.41	6,965.41	43.12	239.76	81.65	-2,778.44	-4,801.26	4,663.44	4,375.77	282.65	16.217		
7,500.00	7,040.53	7,007.47	7,040.53	43.53	242.91	82.04	-2,778.44	-4,801.26	4,655.44	4,363.77	285.91	15.801		
7,600.00	7,106.00	7,058.00	7,106.00	43.89	244.67	82.43	-2,778.44	-4,801.26	4,647.44	4,352.00	288.27	15.433		
7,700.00	7,160.23	7,112.23	7,160.23	44.20	246.56	82.82	-2,778.44	-4,801.26	4,639.44	4,340.23	290.41	15.035		
7,800.00	7,201.86	7,153.86	7,201.86	44.48	248.02	83.21	-2,778.44	-4,801.26	4,631.44	4,328.46	292.03	14.642		
7,900.00	7,229.88	7,181.88	7,229.88	44.73	249.00	83.60	-2,778.44	-4,801.26	4,623.44	4,316.69	293.10	14.262		
8,000.00	7,243.60	7,204.40	7,243.60	44.99	249.78	83.99	-2,778.44	-4,801.26	4,615.44	4,304.92	293.91	13.886		
8,100.00	7,244.73	7,203.27	7,244.73	45.29	249.74	84.38	-2,778.44	-4,801.26	4,607.44	4,293.15	293.85	13.550		
8,200.00	7,244.23	7,203.77	7,244.23	45.74	249.76	84.77	-2,778.44	-4,801.26	4,600.44	4,281.38	293.83	13.211		
8,300.00	7,243.73	7,204.27	7,243.73	46.38	249.78	85.16	-2,778.44	-4,801.26	4,593.44	4,269.61	293.81	12.873		
8,400.00	7,243.23	7,204.77	7,243.23	47.29	249.80	85.55	-2,778.44	-4,801.26	4,586.44	4,257.84	293.79	12.534		
8,500.00	7,242.73	7,205.27	7,242.73	48.46	249.81	85.94	-2,778.44	-4,801.26	4,579.44	4,246.07	293.78	12.196		
8,600.00	7,242.23	7,205.77	7,242.23	49.87	249.83	86.33	-2,778.44	-4,801.26	4,572.44	4,234.30	293.76	11.857		
8,700.00	7,241.73	7,206.27	7,241.73	51.48	249.85	86.72	-2,778.44	-4,801.26	4,565.44	4,222.53	293.74	11.519		
8,800.00	7,241.23	7,206.77	7,241.23	53.24	249.86	87.11	-2,778.44	-4,801.26	4,558.44	4,210.76	293.73	11.180		
8,900.00	7,240.73	7,207.27	7,240.73	55.13	249.88	87.50	-2,778.44	-4,801.26	4,551.44	4,198.99	293.71	10.842		
9,000.00	7,240.23	7,207.77	7,240.23	57.11	249.90	87.89	-2,778.44	-4,801.26	4,544.44	4,187.22	293.70	10.503		
9,100.00	7,239.73	7,208.27	7,239.73	59.19	249.92	88.28	-2,778.44	-4,801.26	4,537.44	4,175.45	293.69	10.165		
9,200.00	7,239.23	7,208.77	7,239.23	61.34	249.93	88.67	-2,778.44	-4,801.26	4,530.44	4,163.68	293.68	9.826		
9,300.00	7,238.72	7,209.28	7,238.72	63.55	249.95	89.06	-2,778.44	-4,801.26	4,523.44	4,151.91	293.67	9.488		
9,400.00	7,238.22	7,209.78	7,238.22	65.81	249.97	89.45	-2,778.44	-4,801.26	4,516.44	4,140.14	293.67	9.150		
9,500.00	7,237.72	7,189.72	7,237.72	68.13	249.27	89.84	-2,778.44	-4,801.26	4,509.44	4,128.37	292.95	8.833		
9,600.00	7,237.22	7,189.22	7,237.22	70.48	249.25	90.23	-2,778.44	-4,801.26	4,502.44	4,116.60	292.93	8.495		
9,700.00	7,236.72	7,188.72	7,236.72	72.88	249.23	90.62	-2,778.44	-4,801.26	4,495.44	4,104.83	292.91	8.156		
9,800.00	7,236.22	7,188.22	7,236.22	75.31	249.22	91.01	-2,778.44	-4,801.26	4,488.44	4,093.06	292.90	7.818		
9,900.00	7,235.72	7,187.72	7,235.72	77.77	249.20	91.40	-2,778.44	-4,801.26	4,481.44	4,081.29	292.90	7.480		
10,000.00	7,235.22	7,187.22	7,235.22	80.26	249.18	91.79	-2,778.44	-4,801.26	4,474.44	4,069.52	292.92	7.141		
10,100.00	7,234.72	7,186.72	7,234.72	82.77	249.16	92.18	-2,778.44	-4,801.26	4,467.44	4,057.75	292.96	6.802		
10,200.00	7,234.22	7,186.22	7,234.22	85.31	249.15	92.57	-2,778.44	-4,801.26	4,460.44	4,045.98	293.03	6.464		
10,300.00	7,233.72	7,185.72	7,233.72	87.86	249.13	92.96	-2,778.44	-4,801.26	4,453.44	4,034.21	293.13	6.125		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-43(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,185.22	7,233.22	90.44	249.11	-91.60	-2,778.44	-4,801.26	1,696.88	1,403.60	293.28	5.786		
10,500.00	7,232.72	7,184.72	7,232.72	93.03	249.10	-91.50	-2,778.44	-4,801.26	1,598.54	1,305.06	293.49	5.447		
10,600.00	7,232.22	7,184.22	7,232.22	95.64	249.08	-91.41	-2,778.44	-4,801.26	1,500.43	1,206.66	293.77	5.107		
10,700.00	7,231.72	7,183.72	7,231.72	98.26	249.06	-91.31	-2,778.44	-4,801.26	1,402.59	1,108.42	294.17	4.768		
10,800.00	7,231.21	7,183.21	7,231.21	100.89	249.04	-91.22	-2,778.44	-4,801.26	1,305.07	1,010.36	294.71	4.428		
10,900.00	7,230.71	7,182.71	7,230.71	103.54	249.03	-91.12	-2,778.44	-4,801.26	1,207.95	912.52	295.44	4.089		
11,000.00	7,230.21	7,182.21	7,230.21	106.20	249.01	-91.03	-2,778.44	-4,801.26	1,111.35	814.91	296.44	3.749		
11,100.00	7,229.71	7,181.71	7,229.71	108.87	248.99	-90.93	-2,778.44	-4,801.26	1,015.40	717.60	297.81	3.410		
11,200.00	7,229.21	7,181.21	7,229.21	111.54	248.97	-90.83	-2,778.44	-4,801.26	920.32	620.62	299.70	3.071		
11,300.00	7,228.71	7,180.71	7,228.71	114.23	248.96	-90.74	-2,778.44	-4,801.26	826.40	524.07	302.33	2.733		
11,400.00	7,228.21	7,180.21	7,228.21	116.92	248.94	-90.64	-2,778.44	-4,801.26	734.09	428.07	306.02	2.399		
11,500.00	7,227.71	7,179.71	7,227.71	119.63	248.92	-90.55	-2,778.44	-4,801.26	644.08	332.85	311.23	2.069		
11,600.00	7,227.21	7,179.21	7,227.21	122.34	248.90	-90.45	-2,778.44	-4,801.26	557.48	238.90	318.59	1.750		
11,700.00	7,226.71	7,178.71	7,226.71	125.05	248.89	-90.35	-2,778.44	-4,801.26	476.17	147.25	328.91	1.448	Level 3	
11,800.00	7,226.21	7,178.21	7,226.21	127.78	248.87	-90.26	-2,778.44	-4,801.26	403.34	60.39	342.94	1.176	Level 2	
11,900.00	7,225.71	7,177.71	7,225.71	130.51	248.85	-90.16	-2,778.44	-4,801.26	344.42	-15.83	360.25	0.956	Level 1	
12,000.00	7,225.21	7,177.21	7,225.21	133.24	248.83	-90.07	-2,778.44	-4,801.26	307.53	-69.31	376.84	0.816	Level 1	
12,070.28	7,224.85	7,176.85	7,224.85	135.17	248.82	-90.00	-2,778.44	-4,801.26	299.39	-84.33	383.71	0.780	Level 1, CC, ES, SF	
12,100.00	7,224.71	7,176.71	7,224.71	135.98	248.82	-89.97	-2,778.44	-4,801.26	300.86	-83.87	384.73	0.782	Level 1	
12,200.00	7,224.21	7,176.21	7,224.21	138.72	248.80	-89.88	-2,778.44	-4,801.26	326.28	-53.98	380.27	0.858	Level 1	
12,300.00	7,223.70	7,175.70	7,223.70	141.47	248.78	-89.78	-2,778.44	-4,801.26	377.37	8.50	368.87	1.023	Level 2	
12,400.00	7,223.20	7,175.20	7,223.20	144.23	248.76	-89.68	-2,778.44	-4,801.26	445.36	88.61	356.75	1.248	Level 2	
12,500.00	7,222.70	7,174.70	7,222.70	146.98	248.75	-89.59	-2,778.44	-4,801.26	523.73	177.28	346.45	1.512		
12,600.00	7,222.20	7,174.20	7,222.20	149.74	248.73	-89.49	-2,778.44	-4,801.26	608.47	270.17	338.29	1.799		
12,700.00	7,221.70	7,173.70	7,221.70	152.51	248.71	-89.40	-2,778.44	-4,801.26	697.26	365.32	331.94	2.101		
12,800.00	7,221.20	7,173.20	7,221.20	155.28	248.69	-89.30	-2,778.44	-4,801.26	788.74	461.76	326.98	2.412		
12,900.00	7,220.70	7,172.70	7,220.70	158.05	248.68	-89.21	-2,778.44	-4,801.26	882.08	559.01	323.06	2.730		
13,000.00	7,220.20	7,172.20	7,220.20	160.82	248.66	-89.11	-2,778.44	-4,801.26	976.73	656.81	319.92	3.053		
13,100.00	7,219.70	7,171.70	7,219.70	163.60	248.64	-89.01	-2,778.44	-4,801.26	1,072.35	754.98	317.37	3.379		
13,200.00	7,219.20	7,171.20	7,219.20	166.38	248.62	-88.92	-2,778.44	-4,801.26	1,168.71	853.44	315.27	3.707		
13,300.00	7,218.70	7,170.70	7,218.70	169.16	248.61	-88.82	-2,778.44	-4,801.26	1,265.63	952.11	313.52	4.037		
13,400.00	7,218.20	7,170.20	7,218.20	171.95	248.59	-88.73	-2,778.44	-4,801.26	1,362.99	1,050.94	312.05	4.368		
13,500.00	7,217.70	7,169.70	7,217.70	174.74	248.57	-88.63	-2,778.44	-4,801.26	1,460.72	1,149.91	310.80	4.700		
13,600.00	7,217.20	7,169.20	7,217.20	177.53	248.55	-88.53	-2,778.44	-4,801.26	1,558.73	1,249.00	309.73	5.033		
13,700.00	7,216.70	7,168.70	7,216.70	180.32	248.54	-88.44	-2,778.44	-4,801.26	1,656.97	1,348.17	308.80	5.366		
13,800.00	7,216.19	7,168.19	7,216.19	183.11	248.52	-88.34	-2,778.44	-4,801.26	1,755.42	1,447.42	308.00	5.699		
13,900.00	7,215.69	7,167.69	7,215.69	185.91	248.50	-88.25	-2,778.44	-4,801.26	1,854.03	1,546.74	307.29	6.033		
14,000.00	7,215.19	7,167.19	7,215.19	188.71	248.48	-88.15	-2,778.44	-4,801.26	1,952.79	1,646.11	306.67	6.368		
14,100.00	7,214.69	7,166.69	7,214.69	191.51	248.47	-88.06	-2,778.44	-4,801.26	2,051.66	1,745.54	306.12	6.702		
14,200.00	7,214.19	7,166.19	7,214.19	194.31	248.45	-87.96	-2,778.44	-4,801.26	2,150.64	1,845.00	305.63	7.037		
14,300.00	7,213.69	7,165.69	7,213.69	197.11	248.43	-87.86	-2,778.44	-4,801.26	2,249.71	1,944.51	305.20	7.371		
14,400.00	7,213.19	7,165.19	7,213.19	199.92	248.41	-87.77	-2,778.44	-4,801.26	2,348.85	2,044.04	304.81	7.706		
14,500.00	7,212.69	7,164.69	7,212.69	202.72	248.40	-87.67	-2,778.44	-4,801.26	2,448.07	2,143.61	304.46	8.041		
14,600.00	7,212.19	7,164.19	7,212.19	205.53	248.38	-87.58	-2,778.44	-4,801.26	2,547.35	2,243.20	304.14	8.376		
14,700.00	7,211.69	7,163.69	7,211.69	208.34	248.36	-87.48	-2,778.44	-4,801.26	2,646.68	2,342.82	303.86	8.710		
14,800.00	7,211.19	7,163.19	7,211.19	211.15	248.34	-87.39	-2,778.44	-4,801.26	2,746.06	2,442.46	303.60	9.045		
14,900.00	7,210.69	7,162.69	7,210.69	213.96	248.33	-87.29	-2,778.44	-4,801.26	2,845.48	2,542.12	303.36	9.380		
15,000.00	7,210.19	7,162.19	7,210.19	216.78	248.31	-87.20	-2,778.44	-4,801.26	2,944.94	2,641.79	303.15	9.714		
15,100.00	7,209.69	7,161.69	7,209.69	219.59	248.29	-87.10	-2,778.44	-4,801.26	3,044.44	2,741.48	302.96	10.049		
15,200.00	7,209.18	7,161.18	7,209.18	222.41	248.27	-87.00	-2,778.44	-4,801.26	3,143.97	2,841.19	302.78	10.384		
15,300.00	7,208.68	7,160.68	7,208.68	225.22	248.26	-86.91	-2,778.44	-4,801.26	3,243.53	2,940.91	302.62	10.718		
15,400.00	7,208.18	7,160.18	7,208.18	228.04	248.24	-86.81	-2,778.44	-4,801.26	3,343.11	3,040.64	302.48	11.053		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												HARVESTERS STATE 7-15 PAD - BURMAN 16-43(PR_75CC) - OH - OH		Offset Site Error:		0.00 ft			
Survey Program:												100-2° Cone@2.448 Sigma				Offset Well Error:		3.28 ft	
Reference		Offset		Semi Major Axis			Distance						Warning						
Measured Depth	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)								
15,437.48	7,208.00	7,160.00	7,208.00	229.10	248.23	-86.78	-2,778.44	-4,801.26	3,380.44	3,078.02	302.42	11.178							



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	25.00	66.00	3.28	3.28	-140.41	-3,949.56	-3,265.90	5,125.38					
100.00	100.00	884.53	920.54	3.28	5.08	-140.57	-3,902.96	-3,209.05	5,119.02	5,110.62	8.41	608.926		
200.00	200.00	983.19	1,017.87	3.34	5.50	-140.61	-3,892.75	-3,196.58	5,102.99	5,094.20	8.79	580.439		
300.00	299.98	1,081.63	1,115.00	3.44	5.93	35.94	-3,882.56	-3,184.15	5,085.57	5,076.33	9.24	550.139		
400.00	399.84	1,179.56	1,211.61	3.59	6.37	36.18	-3,872.42	-3,171.77	5,065.38	5,055.62	9.76	519.146		
500.00	499.45	1,276.87	1,307.61	3.79	6.83	36.48	-3,862.34	-3,159.48	5,042.43	5,032.11	10.32	488.495		
600.00	598.70	1,373.43	1,402.88	4.03	7.29	36.85	-3,852.34	-3,147.28	5,016.76	5,005.83	10.93	458.888		
700.00	697.47	1,469.12	1,497.29	4.31	7.76	37.28	-3,842.44	-3,135.19	4,988.41	4,976.83	11.58	430.755		
800.00	795.62	1,563.84	1,590.73	4.64	8.23	37.77	-3,832.63	-3,123.22	4,957.42	4,945.16	12.26	404.318		
900.00	893.06	1,657.46	1,683.09	5.00	8.70	38.34	-3,822.94	-3,111.40	4,923.83	4,910.86	12.97	379.649		
1,000.00	989.64	1,749.87	1,774.26	5.40	9.17	38.98	-3,813.37	-3,099.72	4,887.71	4,874.00	13.70	356.731		
1,100.00	1,085.27	1,840.95	1,864.12	5.83	9.64	39.69	-3,803.94	-3,088.21	4,849.10	4,834.65	14.45	335.486		
1,200.00	1,179.82	1,930.61	1,952.57	6.29	10.10	40.48	-3,794.66	-3,076.89	4,808.08	4,792.86	15.22	315.811		
1,300.00	1,273.47	2,030.91	2,039.87	6.79	10.62	40.91	-3,785.49	-3,065.71	4,765.28	4,749.22	16.06	296.710		
1,400.00	1,367.06	2,107.50	2,127.09	7.30	11.02	41.16	-3,776.34	-3,054.54	4,722.44	4,705.64	16.80	281.049		
1,500.00	1,460.64	2,195.92	2,214.32	7.83	11.48	41.41	-3,767.19	-3,043.37	4,679.67	4,662.06	17.61	265.688		
1,600.00	1,554.23	2,284.33	2,301.54	8.38	11.95	41.66	-3,758.03	-3,032.20	4,636.98	4,618.54	18.44	251.489		
1,700.00	1,647.82	2,372.74	2,388.76	8.93	12.41	41.92	-3,748.88	-3,021.03	4,594.36	4,575.09	19.27	238.359		
1,800.00	1,741.41	2,461.15	2,475.99	9.49	12.88	42.18	-3,739.72	-3,009.86	4,551.83	4,531.70	20.12	226.206		
1,900.00	1,835.00	2,549.56	2,563.21	10.05	13.35	42.44	-3,730.57	-2,998.69	4,509.38	4,488.40	20.98	214.945		
2,000.00	1,928.59	2,637.97	2,650.43	10.62	13.82	42.72	-3,721.42	-2,987.52	4,467.01	4,445.17	21.84	204.495		
2,100.00	2,022.18	2,726.38	2,737.66	11.20	14.29	42.99	-3,712.26	-2,976.35	4,424.73	4,402.02	22.72	194.782		
2,200.00	2,115.77	2,814.79	2,824.88	11.78	14.76	43.27	-3,703.11	-2,965.18	4,382.54	4,358.95	23.60	185.739		
2,300.00	2,209.36	2,903.20	2,912.10	12.37	15.24	43.56	-3,693.96	-2,954.01	4,340.45	4,315.97	24.48	177.307		
2,400.00	2,302.95	2,991.61	2,999.33	12.95	15.71	43.85	-3,684.80	-2,942.84	4,298.45	4,273.08	25.37	169.431		
2,500.00	2,396.54	3,080.02	3,086.55	13.54	16.18	44.15	-3,675.65	-2,931.67	4,256.55	4,230.29	26.27	162.061		
2,600.00	2,490.13	3,168.43	3,173.77	14.13	16.66	44.45	-3,666.49	-2,920.50	4,214.75	4,187.59	27.16	155.155		
2,700.00	2,583.72	3,256.84	3,261.00	14.73	17.13	44.76	-3,657.34	-2,909.33	4,173.06	4,144.99	28.07	148.672		
2,800.00	2,677.31	3,345.25	3,348.22	15.32	17.61	45.07	-3,648.19	-2,898.16	4,131.47	4,102.49	28.98	142.578		
2,900.00	2,770.90	3,433.67	3,435.44	15.92	18.09	45.39	-3,639.03	-2,886.99	4,090.00	4,060.11	29.89	136.839		
3,000.00	2,864.49	3,522.94	3,522.67	16.52	18.60	45.72	-3,629.88	-2,875.83	4,048.64	4,017.80	30.83	131.315		
3,100.00	2,958.08	3,610.49	3,609.89	17.12	19.04	46.05	-3,620.73	-2,864.66	4,007.39	3,975.67	31.72	126.319		
3,200.00	3,051.67	3,698.90	3,697.11	17.72	19.52	46.39	-3,611.57	-2,853.49	3,966.27	3,933.62	32.65	121.489		
3,300.00	3,145.26	3,787.31	3,784.34	18.32	20.00	46.74	-3,602.42	-2,842.32	3,925.28	3,891.70	33.57	116.916		
3,400.00	3,238.85	3,875.72	3,871.56	18.92	20.48	47.09	-3,593.26	-2,831.15	3,884.41	3,849.91	34.50	112.581		
3,500.00	3,332.44	3,964.13	3,958.78	19.53	20.96	47.45	-3,584.11	-2,819.98	3,843.68	3,808.24	35.44	108.467		
3,600.00	3,426.03	4,052.54	4,046.01	20.13	21.44	47.82	-3,574.96	-2,808.81	3,803.08	3,766.71	36.37	104.559		
3,700.00	3,519.62	4,140.95	4,133.23	20.74	21.92	48.19	-3,565.80	-2,797.64	3,762.63	3,725.32	37.31	100.841		
3,800.00	3,613.21	4,229.36	4,220.45	21.34	22.40	48.58	-3,556.65	-2,786.47	3,722.32	3,684.07	38.26	97.302		
3,900.00	3,706.80	4,317.77	4,307.68	21.95	22.88	48.97	-3,547.50	-2,775.30	3,682.17	3,642.97	39.20	93.929		
4,000.00	3,800.39	4,406.18	4,394.90	22.56	23.36	49.36	-3,538.34	-2,764.13	3,642.17	3,602.02	40.15	90.711		
4,100.00	3,893.98	4,494.59	4,482.12	23.16	23.84	49.77	-3,529.19	-2,752.96	3,602.34	3,561.24	41.10	87.639		
4,200.00	3,987.57	4,583.00	4,569.34	23.77	24.32	50.18	-3,520.03	-2,741.79	3,562.67	3,520.61	42.06	84.702		
4,300.00	4,081.16	4,671.42	4,656.57	24.38	24.80	50.61	-3,510.88	-2,730.62	3,523.18	3,480.16	43.02	81.894		
4,400.00	4,174.75	4,759.83	4,743.79	24.99	25.28	51.04	-3,501.73	-2,719.45	3,483.86	3,439.88	43.99	79.206		
4,500.00	4,268.34	4,848.24	4,831.01	25.60	25.76	51.48	-3,492.57	-2,708.28	3,444.73	3,399.78	44.95	76.630		
4,600.00	4,361.93	4,936.65	4,918.24	26.21	26.25	51.93	-3,483.42	-2,697.11	3,405.80	3,359.87	45.92	74.162		
4,700.00	4,455.52	5,025.06	5,005.46	26.82	26.73	52.39	-3,474.27	-2,685.94	3,367.06	3,320.16	46.90	71.793		
4,800.00	4,549.11	5,113.47	5,092.68	27.43	27.21	52.86	-3,465.11	-2,674.77	3,328.52	3,280.64	47.88	69.520		
4,900.00	4,642.70	5,201.88	5,179.91	28.04	27.69	53.34	-3,455.96	-2,663.60	3,290.20	3,241.34	48.86	67.336		
5,000.00	4,736.29	5,290.29	5,267.13	28.65	28.17	53.83	-3,446.80	-2,652.43	3,252.10	3,202.25	49.85	65.238		
5,100.00	4,829.88	5,378.70	5,354.35	29.26	28.66	54.33	-3,437.65	-2,641.26	3,214.22	3,163.38	50.84	63.220		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-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	4,923.47	5,467.11	5,441.58	29.87	29.14	54.84	-3,428.50	-2,630.09	3,176.58	3,124.74	51.84	61.278		
5,300.00	5,017.06	5,555.52	5,528.80	30.48	29.62	55.36	-3,419.34	-2,618.92	3,139.19	3,086.35	52.84	59.408		
5,400.00	5,110.65	5,643.93	5,616.02	31.09	30.10	55.90	-3,410.19	-2,607.75	3,102.05	3,048.20	53.85	57.608		
5,500.00	5,204.24	5,732.34	5,703.25	31.70	30.59	56.44	-3,401.04	-2,596.59	3,065.17	3,010.31	54.86	55.874		
5,600.00	5,297.83	5,829.27	5,790.47	32.32	31.12	57.00	-3,391.88	-2,585.42	3,028.56	2,972.64	55.91	54.164		
5,700.00	5,391.42	5,909.17	5,877.69	32.93	31.55	57.57	-3,382.73	-2,574.25	2,992.23	2,935.33	56.90	52.589		
5,800.00	5,485.01	6,002.42	5,964.92	33.54	32.06	58.15	-3,373.57	-2,563.08	2,956.20	2,898.25	57.95	51.014		
5,900.00	5,578.60	6,085.99	6,052.14	34.15	32.52	58.75	-3,364.42	-2,551.91	2,920.47	2,861.51	58.96	49.533		
6,000.00	5,672.19	6,174.40	6,139.36	34.77	33.00	59.36	-3,355.27	-2,540.74	2,885.05	2,825.05	60.00	48.084		
6,100.00	5,765.78	6,262.81	6,226.59	35.38	33.48	59.98	-3,346.11	-2,529.57	2,849.96	2,788.92	61.05	46.685		
6,200.00	5,859.37	6,279.13	6,242.72	35.99	33.57	60.10	-3,344.43	-2,527.78	2,816.37	2,754.37	62.01	45.421		
6,300.00	5,952.96	6,300.00	6,263.41	36.60	33.68	60.26	-3,342.28	-2,526.09	2,785.39	2,722.44	62.95	44.247		
6,400.00	6,046.55	6,325.01	6,288.27	37.22	33.79	60.46	-3,339.72	-2,524.97	2,757.15	2,693.28	63.88	43.162		
6,500.00	6,140.14	6,334.59	6,297.79	37.83	33.83	60.54	-3,338.74	-2,524.80	2,731.54	2,666.81	64.73	42.196		
6,600.00	6,233.73	6,350.00	6,313.12	38.44	33.90	60.67	-3,337.18	-2,524.84	2,708.85	2,643.29	65.56	41.316		
6,700.00	6,327.32	6,371.87	6,334.87	39.06	33.98	60.86	-3,334.97	-2,525.52	2,689.04	2,622.67	66.37	40.513		
6,800.00	6,420.91	6,400.00	6,362.79	39.67	34.08	61.11	-3,332.17	-2,527.50	2,672.30	2,605.13	67.18	39.781		
6,900.00	6,514.50	6,400.00	6,362.79	40.28	34.08	61.11	-3,332.17	-2,527.50	2,658.50	2,590.72	67.78	39.221		
7,000.00	6,608.09	6,425.01	6,387.52	40.90	34.16	61.35	-3,329.71	-2,530.30	2,647.72	2,579.25	68.47	38.671		
7,100.00	6,701.63	6,450.00	6,412.10	41.51	34.23	62.04	-3,327.29	-2,534.07	2,638.98	2,569.88	69.10	38.191		
7,200.00	6,793.85	6,450.00	6,412.10	42.10	34.23	63.69	-3,327.29	-2,534.07	2,621.91	2,552.47	69.44	37.757		
7,300.00	6,882.50	6,500.00	6,460.76	42.64	34.34	17.64	-3,322.57	-2,544.51	2,593.88	2,523.84	70.04	37.032		
7,400.00	6,965.41	6,500.00	6,460.76	43.12	34.34	7.41	-3,322.57	-2,544.51	2,555.06	2,484.94	70.12	36.438		
7,500.00	7,040.53	6,525.01	6,484.76	43.53	34.39	-0.39	-3,320.27	-2,551.16	2,506.58	2,436.28	70.30	35.653		
7,600.00	7,106.00	6,536.79	6,495.96	43.89	34.42	-7.37	-3,319.21	-2,554.62	2,448.85	2,378.58	70.27	34.850		
7,700.00	7,160.23	6,550.00	6,508.46	44.20	34.44	-14.42	-3,318.02	-2,558.75	2,382.87	2,312.70	70.16	33.961		
7,800.00	7,201.86	6,568.25	6,525.57	44.48	34.46	-22.44	-3,316.42	-2,564.88	2,309.70	2,239.64	70.06	32.966		
7,900.00	7,229.88	6,581.83	6,538.19	44.73	34.48	-32.28	-3,315.24	-2,569.76	2,230.74	2,160.84	69.89	31.917		
8,000.00	7,243.60	6,600.00	6,554.91	44.99	34.51	-44.73	-3,313.70	-2,576.70	2,147.58	2,077.79	69.80	30.769		
8,100.00	7,244.73	6,600.00	6,554.91	45.29	34.51	-51.22	-3,313.70	-2,576.70	2,062.28	1,992.74	69.54	29.657		
8,200.00	7,244.23	6,613.53	6,567.23	45.74	34.52	-51.69	-3,312.56	-2,582.19	1,977.83	1,908.34	69.50	28.458		
8,300.00	7,243.73	6,625.01	6,577.58	46.38	34.53	-52.10	-3,311.62	-2,587.05	1,894.69	1,825.19	69.50	27.262		
8,400.00	7,243.23	6,636.35	6,587.73	47.29	34.54	-52.50	-3,310.70	-2,592.03	1,812.97	1,743.39	69.58	26.055		
8,500.00	7,242.73	6,650.00	6,599.82	48.46	34.55	-52.98	-3,309.61	-2,598.26	1,732.87	1,663.06	69.80	24.826		
8,600.00	7,242.23	6,650.00	6,599.82	49.87	34.55	-52.98	-3,309.61	-2,598.26	1,654.72	1,584.74	69.98	23.647		
8,700.00	7,241.73	6,678.15	6,624.32	51.48	34.57	-53.99	-3,307.42	-2,611.93	1,578.25	1,507.57	70.68	22.329		
8,800.00	7,241.23	6,700.00	6,642.92	53.24	34.58	-54.77	-3,305.78	-2,623.29	1,504.23	1,432.73	71.50	21.039		
8,900.00	7,240.73	6,712.54	6,653.42	55.13	34.58	-55.22	-3,304.87	-2,630.10	1,432.68	1,360.24	72.44	19.779		
9,000.00	7,240.23	6,732.20	6,669.59	57.11	34.59	-55.93	-3,303.47	-2,641.18	1,363.99	1,290.26	73.73	18.499		
9,100.00	7,239.73	6,750.00	6,683.94	59.19	34.59	-56.57	-3,302.24	-2,651.64	1,298.48	1,223.15	75.33	17.238		
9,200.00	7,239.23	6,777.47	6,705.50	61.34	34.59	-57.56	-3,300.43	-2,668.56	1,236.46	1,159.10	77.37	15.982		
9,300.00	7,238.72	6,800.00	6,722.63	63.55	34.59	-58.36	-3,299.02	-2,683.13	1,178.37	1,098.65	79.73	14.780		
9,400.00	7,238.22	6,832.37	6,746.32	65.81	34.59	-59.51	-3,297.10	-2,705.10	1,124.55	1,041.99	82.56	13.622		
9,500.00	7,237.72	6,864.15	6,768.47	68.13	34.58	-60.60	-3,295.36	-2,727.82	1,075.40	989.65	85.75	12.541		
9,600.00	7,237.22	6,900.00	6,792.07	70.48	34.58	-61.81	-3,293.57	-2,754.73	1,031.25	941.95	89.30	11.548		
9,700.00	7,236.72	6,937.88	6,815.33	72.88	34.57	-63.03	-3,291.87	-2,784.57	992.39	899.23	93.16	10.652		
9,800.00	7,236.22	6,980.36	6,839.27	75.31	34.58	-64.33	-3,290.23	-2,819.62	959.00	861.75	97.25	9.861		
9,900.00	7,235.72	7,025.01	6,861.87	77.77	34.60	-65.59	-3,288.81	-2,858.10	931.16	829.70	101.46	9.178		
10,000.00	7,235.22	7,077.30	6,884.84	80.26	34.65	-66.91	-3,287.53	-2,905.03	908.79	803.08	105.71	8.597		
10,100.00	7,234.72	7,131.61	6,904.57	82.77	34.76	-68.07	-3,286.68	-2,955.60	891.73	781.83	109.90	8.114		
10,200.00	7,234.22	7,189.33	6,920.77	85.31	34.95	-69.05	-3,286.29	-3,010.99	879.70	765.72	113.98	7.718		
10,300.00	7,233.72	7,250.00	6,932.34	87.86	35.27	-69.78	-3,286.47	-3,070.52	872.40	754.51	117.89	7.400		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,311.98	6,938.29	90.44	35.74	-70.18	-3,287.27	-3,132.18	869.58	747.97	121.60	7.151		
10,415.22	7,233.14	7,321.54	6,938.67	90.83	35.82	-70.20	-3,287.45	-3,141.73	869.53	747.38	122.15	7.119	CC	
10,500.00	7,232.72	7,392.34	6,938.81	93.03	36.54	-70.26	-3,289.05	-3,212.51	870.59	745.43	125.16	6.956		
10,600.00	7,232.22	7,492.32	6,938.39	95.64	37.86	-70.31	-3,291.37	-3,312.47	872.20	743.26	128.94	6.764		
10,700.00	7,231.72	7,592.31	6,937.98	98.26	39.45	-70.35	-3,293.70	-3,412.42	873.81	740.85	132.96	6.572		
10,800.00	7,231.21	7,692.29	6,937.56	100.89	41.27	-70.39	-3,296.02	-3,512.38	875.41	738.22	137.19	6.381		
10,900.00	7,230.71	7,792.28	6,937.14	103.54	43.28	-70.44	-3,298.35	-3,612.34	877.02	735.41	141.62	6.193		
11,000.00	7,230.21	7,892.26	6,936.73	106.20	45.45	-70.48	-3,300.67	-3,712.29	878.63	732.43	146.20	6.010		
11,100.00	7,229.71	7,992.25	6,936.31	108.87	47.75	-70.52	-3,303.00	-3,812.25	880.24	729.31	150.93	5.832		
11,200.00	7,229.21	8,092.23	6,935.89	111.54	50.17	-70.56	-3,305.32	-3,912.21	881.85	726.07	155.78	5.661		
11,300.00	7,228.71	8,192.22	6,935.47	114.23	52.69	-70.61	-3,307.65	-4,012.17	883.46	722.72	160.74	5.496		
11,400.00	7,228.21	8,292.20	6,935.06	116.92	55.29	-70.65	-3,309.97	-4,112.12	885.07	719.28	165.79	5.338		
11,500.00	7,227.71	8,392.19	6,934.64	119.63	57.96	-70.69	-3,312.30	-4,212.08	886.68	715.76	170.92	5.188		
11,600.00	7,227.21	8,492.17	6,934.22	122.34	60.70	-70.73	-3,314.62	-4,312.04	888.30	712.17	176.13	5.044		
11,700.00	7,226.71	8,592.16	6,933.81	125.05	63.49	-70.78	-3,316.95	-4,411.99	889.91	708.52	181.39	4.906		
11,800.00	7,226.21	8,692.14	6,933.39	127.78	66.33	-70.82	-3,319.27	-4,511.95	891.52	704.81	186.71	4.775		
11,900.00	7,225.71	8,792.13	6,932.97	130.51	69.21	-70.86	-3,321.60	-4,611.91	893.14	701.06	192.08	4.650		
12,000.00	7,225.21	8,892.11	6,932.56	133.24	72.13	-70.90	-3,323.92	-4,711.86	894.75	697.26	197.49	4.531		
12,100.00	7,224.71	8,992.10	6,932.14	135.98	75.09	-70.94	-3,326.25	-4,811.82	896.36	693.43	202.94	4.417		
12,200.00	7,224.21	9,092.08	6,931.72	138.72	78.07	-70.98	-3,328.57	-4,911.78	897.98	689.56	208.42	4.309		
12,300.00	7,223.70	9,192.07	6,931.30	141.47	81.08	-71.02	-3,330.90	-5,011.74	899.60	685.66	213.94	4.205		
12,400.00	7,223.20	9,292.05	6,930.89	144.23	84.12	-71.07	-3,333.22	-5,111.69	901.21	681.73	219.48	4.106		
12,500.00	7,222.70	9,392.04	6,930.47	146.98	87.17	-71.11	-3,335.55	-5,211.65	902.83	677.78	225.05	4.012		
12,600.00	7,222.20	9,492.02	6,930.05	149.74	90.24	-71.15	-3,337.87	-5,311.61	904.44	673.80	230.64	3.921		
12,700.00	7,221.70	9,592.01	6,929.64	152.51	93.34	-71.19	-3,340.20	-5,411.56	906.06	669.80	236.26	3.835		
12,800.00	7,221.20	9,691.99	6,929.22	155.28	96.44	-71.23	-3,342.52	-5,511.52	907.68	665.78	241.89	3.752		
12,900.00	7,220.70	9,791.98	6,928.80	158.05	99.56	-71.27	-3,344.85	-5,611.48	909.30	661.75	247.55	3.673		
13,000.00	7,220.20	9,891.96	6,928.38	160.82	102.70	-71.31	-3,347.17	-5,711.43	910.92	657.70	253.22	3.597		
13,100.00	7,219.70	9,991.95	6,927.97	163.60	105.84	-71.35	-3,349.50	-5,811.39	912.54	653.63	258.91	3.525		
13,200.00	7,219.20	10,091.93	6,927.55	166.38	109.00	-71.39	-3,351.82	-5,911.35	914.16	649.55	264.61	3.455		
13,300.00	7,218.70	10,191.92	6,927.13	169.16	112.16	-71.43	-3,354.15	-6,011.30	915.77	645.45	270.32	3.388		
13,400.00	7,218.20	10,291.90	6,926.72	171.95	115.34	-71.47	-3,356.47	-6,111.26	917.40	641.34	276.05	3.323		
13,500.00	7,217.70	10,391.89	6,926.30	174.74	118.52	-71.51	-3,358.80	-6,211.22	919.02	637.23	281.79	3.261		
13,600.00	7,217.20	10,491.87	6,925.91	177.53	121.69	-71.55	-3,361.12	-6,311.18	920.64	633.12	287.52	3.204		
13,700.00	7,216.70	10,591.86	6,925.52	180.32	124.88	-71.59	-3,363.44	-6,411.14	922.26	629.01	293.25	3.151		
13,800.00	7,216.19	10,691.85	6,925.15	183.11	128.07	-71.63	-3,365.76	-6,511.10	923.88	624.90	298.98	3.104		
13,900.00	7,215.69	10,791.84	6,924.79	185.91	131.26	-71.67	-3,368.08	-6,611.06	925.50	620.79	304.71	3.061		
14,000.00	7,215.19	10,891.83	6,924.42	188.71	134.45	-71.71	-3,370.40	-6,711.02	927.12	616.68	310.44	3.024		
14,100.00	7,214.69	10,991.82	6,924.05	191.51	137.64	-71.75	-3,372.72	-6,811.00	928.74	612.57	316.17	2.991		
14,200.00	7,214.19	11,091.81	6,923.68	194.31	140.83	-71.79	-3,375.04	-6,911.00	930.36	608.46	321.90	2.964		
14,300.00	7,213.69	11,191.80	6,923.31	197.11	144.02	-71.83	-3,377.36	-7,011.00	931.98	604.35	327.63	2.941		
14,400.00	7,213.19	11,291.79	6,922.94	199.91	147.21	-71.87	-3,379.68	-7,111.00	933.60	600.24	333.36	2.918		
14,500.00	7,212.69	11,391.78	6,922.57	202.71	150.40	-71.91	-3,382.00	-7,211.00	935.22	596.13	339.09	2.899		
14,600.00	7,212.19	11,491.77	6,922.20	205.51	153.59	-71.95	-3,384.32	-7,311.00	936.84	592.02	344.82	2.884		
14,700.00	7,211.69	11,591.76	6,921.83	208.31	156.78	-71.99	-3,386.64	-7,411.00	938.46	587.91	350.55	2.871		
14,800.00	7,211.19	11,691.75	6,921.46	211.11	159.97	-72.03	-3,388.96	-7,511.00	940.08	583.80	356.28	2.864		
14,900.00	7,210.69	11,791.74	6,921.09	213.91	163.16	-72.07	-3,391.28	-7,611.00	941.70	579.69	362.01	2.861		
15,000.00	7,210.19	11,891.73	6,920.72	216.71	166.35	-72.11	-3,393.60	-7,711.00	943.32	575.58	367.74	2.864		
15,100.00	7,209.69	11,991.72	6,920.35	219.51	169.54	-72.15	-3,395.92	-7,811.00	944.94	571.47	373.47	2.871		
15,200.00	7,209.19	12,091.71	6,919.98	222.31	172.73	-72.19	-3,398.24	-7,911.00	946.56	567.36	379.20	2.884		
15,300.00	7,208.69	12,191.70	6,919.61	225.11	175.92	-72.23	-3,400.56	-8,011.00	948.18	563.25	384.93	2.901		
15,400.00	7,208.19	12,291.69	6,919.24	227.91	179.11	-72.27	-3,402.88	-8,111.00	949.80	559.14	390.66	2.924		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN											Offset Site Error:	0.00 ft
Survey Program:	25-MWD											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	12,356.34	6,918.10	229.10	181.61	-73.21	-3,459.57	-8,169.04	1,003.50	606.79	396.71	2.530 ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	25.00	66.00	3.28	0.00	-140.55	-3,969.59	-3,265.90	5,140.83					
100.00	100.00	59.00	100.00	3.28	0.07	-140.55	-3,969.59	-3,265.90	5,140.41	5,137.05	3.36	1,530.149		
200.00	200.00	873.41	911.25	3.34	3.70	-140.75	-3,942.08	-3,220.32	5,139.68	5,132.57	7.11	722.782		
300.00	299.98	972.16	1,008.93	3.44	4.20	35.75	-3,934.59	-3,207.91	5,124.44	5,116.79	7.65	669.650		
400.00	399.84	1,070.50	1,106.20	3.59	4.71	35.94	-3,927.14	-3,195.55	5,106.41	5,098.17	8.24	619.435		
500.00	499.45	1,168.31	1,202.95	3.79	5.21	36.19	-3,919.72	-3,183.26	5,085.61	5,076.73	8.88	572.740		
600.00	598.70	1,265.46	1,299.06	4.03	5.71	36.51	-3,912.35	-3,171.06	5,062.06	5,052.51	9.55	529.866		
700.00	697.47	1,361.85	1,394.40	4.31	6.22	36.88	-3,905.05	-3,158.95	5,035.80	5,025.54	10.26	490.816		
800.00	795.62	1,457.35	1,488.86	4.64	6.71	37.32	-3,897.80	-3,146.95	5,006.86	4,995.86	10.99	455.407		
900.00	893.06	1,551.85	1,582.34	5.00	7.21	37.83	-3,890.64	-3,135.07	4,975.28	4,963.53	11.75	423.358		
1,000.00	989.64	1,645.22	1,674.70	5.40	7.70	38.41	-3,883.56	-3,123.34	4,941.12	4,928.59	12.53	394.348		
1,100.00	1,085.27	1,737.37	1,765.85	5.83	8.18	39.06	-3,876.57	-3,111.76	4,904.43	4,891.11	13.33	368.056		
1,200.00	1,179.82	1,828.17	1,855.67	6.29	8.66	39.79	-3,869.69	-3,100.35	4,865.28	4,851.14	14.14	344.177		
1,300.00	1,273.47	1,932.14	1,944.40	6.79	9.21	40.18	-3,862.88	-3,089.08	4,824.29	4,809.26	15.02	321.099		
1,400.00	1,367.06	2,007.50	2,033.06	7.30	9.60	40.40	-3,856.09	-3,077.82	4,783.24	4,767.45	15.79	302.972		
1,500.00	1,460.64	2,097.13	2,121.72	7.83	10.08	40.61	-3,849.29	-3,066.56	4,742.25	4,725.62	16.63	285.135		
1,600.00	1,554.23	2,186.76	2,210.38	8.38	10.55	40.84	-3,842.49	-3,055.30	4,701.32	4,683.83	17.49	268.835		
1,700.00	1,647.82	2,276.39	2,299.04	8.93	11.02	41.06	-3,835.70	-3,044.03	4,660.45	4,642.10	18.35	253.918		
1,800.00	1,741.41	2,366.02	2,387.70	9.49	11.49	41.30	-3,828.90	-3,032.77	4,619.65	4,600.42	19.23	240.237		
1,900.00	1,835.00	2,455.65	2,476.36	10.05	11.97	41.53	-3,822.11	-3,021.51	4,578.91	4,558.80	20.11	227.665		
2,000.00	1,928.59	2,545.28	2,565.01	10.62	12.44	41.77	-3,815.31	-3,010.25	4,538.24	4,517.24	21.00	216.084		
2,100.00	2,022.18	2,634.91	2,653.67	11.20	12.91	42.01	-3,808.51	-2,998.99	4,497.64	4,475.74	21.90	205.392		
2,200.00	2,115.77	2,724.54	2,742.33	11.78	13.39	42.26	-3,801.72	-2,987.72	4,457.11	4,434.31	22.80	195.499		
2,300.00	2,209.36	2,814.17	2,830.99	12.37	13.86	42.51	-3,794.92	-2,976.46	4,416.66	4,392.95	23.70	186.324		
2,400.00	2,302.95	2,903.80	2,919.65	12.95	14.34	42.77	-3,788.12	-2,965.20	4,376.28	4,351.66	24.61	177.797		
2,500.00	2,396.54	2,993.43	3,008.31	13.54	14.81	43.03	-3,781.33	-2,953.94	4,335.98	4,310.45	25.53	169.855		
2,600.00	2,490.13	3,083.06	3,096.97	14.13	15.28	43.29	-3,774.53	-2,942.68	4,295.75	4,269.31	26.44	162.443		
2,700.00	2,583.72	3,172.69	3,185.63	14.73	15.76	43.56	-3,767.73	-2,931.42	4,255.61	4,228.25	27.36	155.513		
2,800.00	2,677.31	3,262.32	3,274.29	15.32	16.23	43.84	-3,760.94	-2,920.15	4,215.56	4,187.27	28.29	149.021		
2,900.00	2,770.90	3,351.95	3,362.95	15.92	16.71	44.11	-3,754.14	-2,908.89	4,175.59	4,146.37	29.21	142.928		
3,000.00	2,864.49	3,441.58	3,451.61	16.52	17.18	44.40	-3,747.34	-2,897.63	4,135.70	4,105.56	30.14	137.200		
3,100.00	2,958.08	3,531.21	3,540.27	17.12	17.66	44.69	-3,740.55	-2,886.37	4,095.92	4,064.84	31.08	131.807		
3,200.00	3,051.67	3,629.17	3,628.93	17.72	18.17	44.99	-3,733.75	-2,875.11	4,056.22	4,024.17	32.05	126.568		
3,300.00	3,145.26	3,710.47	3,717.59	18.32	18.60	45.29	-3,726.96	-2,863.84	4,016.62	3,983.68	32.95	121.917		
3,400.00	3,238.85	3,800.10	3,806.25	18.92	19.08	45.59	-3,720.16	-2,852.58	3,977.13	3,943.24	33.88	117.373		
3,500.00	3,332.44	3,889.73	3,894.91	19.53	19.55	45.91	-3,713.36	-2,841.32	3,937.73	3,902.91	34.83	113.070		
3,600.00	3,426.03	3,979.36	3,983.57	20.13	20.03	46.23	-3,706.57	-2,830.06	3,898.45	3,862.68	35.77	108.990		
3,700.00	3,519.62	4,068.99	4,072.23	20.74	20.50	46.55	-3,699.77	-2,818.80	3,859.27	3,822.55	36.71	105.115		
3,800.00	3,613.21	4,158.62	4,160.89	21.34	20.98	46.88	-3,692.97	-2,807.53	3,820.20	3,782.54	37.66	101.433		
3,900.00	3,706.80	4,248.25	4,249.55	21.95	21.45	47.22	-3,686.18	-2,796.27	3,781.26	3,742.64	38.61	97.928		
4,000.00	3,800.39	4,337.88	4,338.21	22.56	21.93	47.56	-3,679.38	-2,785.01	3,742.43	3,702.86	39.56	94.589		
4,100.00	3,893.98	4,427.51	4,426.87	23.16	22.40	47.91	-3,672.58	-2,773.75	3,703.72	3,663.20	40.52	91.406		
4,200.00	3,987.57	4,517.14	4,515.53	23.77	22.88	48.27	-3,665.79	-2,762.49	3,665.15	3,623.67	41.48	88.367		
4,300.00	4,081.16	4,606.77	4,604.19	24.38	23.35	48.64	-3,658.99	-2,751.22	3,626.70	3,584.27	42.44	85.463		
4,400.00	4,174.75	4,696.40	4,692.85	24.99	23.83	49.01	-3,652.19	-2,739.96	3,588.39	3,545.00	43.40	82.687		
4,500.00	4,268.34	4,786.03	4,781.50	25.60	24.30	49.39	-3,645.40	-2,728.70	3,550.23	3,505.86	44.36	80.030		
4,600.00	4,361.93	4,875.66	4,870.16	26.21	24.78	49.78	-3,638.60	-2,717.44	3,512.20	3,466.87	45.33	77.484		
4,700.00	4,455.52	4,965.29	4,958.82	26.82	25.25	50.17	-3,631.81	-2,706.18	3,474.33	3,428.03	46.30	75.045		
4,800.00	4,549.11	5,054.92	5,047.48	27.43	25.73	50.58	-3,625.01	-2,694.91	3,436.61	3,389.34	47.27	72.704		
4,900.00	4,642.70	5,144.55	5,136.14	28.04	26.20	50.99	-3,618.21	-2,683.65	3,399.05	3,350.81	48.24	70.457		
5,000.00	4,736.29	5,234.18	5,224.80	28.65	26.68	51.41	-3,611.42	-2,672.39	3,361.66	3,312.44	49.22	68.299		
5,100.00	4,829.88	5,326.21	5,313.46	29.26	27.16	51.84	-3,604.62	-2,661.13	3,324.44	3,274.23	50.21	66.210		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	5,413.44	5,402.12	29.87	27.63	52.28	-3,597.82	-2,649.87	3,287.39	3,236.21	51.18	64.229		
5,300.00	5,017.06	5,503.07	5,490.78	30.48	28.10	52.73	-3,591.03	-2,638.61	3,250.53	3,198.36	52.17	62.309		
5,400.00	5,110.65	5,592.70	5,579.44	31.09	28.58	53.19	-3,584.23	-2,627.34	3,213.86	3,160.70	53.16	60.460		
5,500.00	5,204.24	5,682.33	5,668.10	31.70	29.05	53.65	-3,577.43	-2,616.08	3,177.38	3,123.23	54.15	58.678		
5,600.00	5,297.83	5,771.96	5,756.76	32.32	29.53	54.13	-3,570.64	-2,604.82	3,141.11	3,085.96	55.14	56.961		
5,700.00	5,391.42	5,861.59	5,845.42	32.93	30.00	54.62	-3,563.84	-2,593.56	3,105.04	3,048.90	56.14	55.306		
5,800.00	5,485.01	5,951.22	5,934.08	33.54	30.48	55.12	-3,557.04	-2,582.30	3,069.19	3,012.04	57.15	53.708		
5,900.00	5,578.60	6,040.85	6,022.74	34.15	30.95	55.63	-3,550.25	-2,571.03	3,033.57	2,975.41	58.15	52.166		
6,000.00	5,672.19	6,130.48	6,111.40	34.77	31.43	56.15	-3,543.45	-2,559.77	2,998.17	2,939.01	59.16	50.677		
6,100.00	5,765.78	6,229.91	6,200.06	35.38	31.95	56.68	-3,536.66	-2,548.51	2,963.02	2,902.80	60.22	49.203		
6,200.00	5,859.37	6,309.74	6,288.72	35.99	32.38	57.22	-3,529.86	-2,537.25	2,928.12	2,866.93	61.19	47.850		
6,300.00	5,952.96	6,374.99	6,353.26	36.60	32.72	57.62	-3,524.91	-2,529.05	2,893.58	2,831.39	62.19	46.529		
6,400.00	6,046.55	6,400.00	6,378.05	37.22	32.85	57.79	-3,523.02	-2,526.40	2,860.91	2,797.78	63.13	45.319		
6,500.00	6,140.14	6,425.01	6,402.94	37.83	32.97	57.96	-3,521.15	-2,524.72	2,830.87	2,766.82	64.05	44.200		
6,600.00	6,233.73	6,436.02	6,413.91	38.44	33.02	58.04	-3,520.33	-2,524.29	2,803.37	2,738.47	64.91	43.191		
6,700.00	6,327.32	6,450.00	6,427.85	39.06	33.08	58.14	-3,519.30	-2,524.02	2,778.66	2,712.93	65.73	42.272		
6,800.00	6,420.91	6,473.79	6,451.57	39.67	33.16	58.32	-3,517.55	-2,524.27	2,756.69	2,690.15	66.55	41.426		
6,900.00	6,514.50	6,500.00	6,477.68	40.28	33.26	58.54	-3,515.66	-2,525.58	2,737.65	2,670.31	67.33	40.658		
7,000.00	6,608.09	6,511.58	6,489.19	40.90	33.30	58.64	-3,514.83	-2,526.50	2,721.41	2,653.40	68.01	40.012		
7,100.00	6,701.63	6,525.01	6,502.52	41.51	33.34	49.08	-3,513.88	-2,527.83	2,707.10	2,638.46	68.64	39.438		
7,200.00	6,793.85	6,550.00	6,527.24	42.10	33.41	28.61	-3,512.13	-2,531.05	2,684.46	2,615.23	69.23	38.777		
7,300.00	6,882.50	6,550.00	6,527.24	42.64	33.41	13.78	-3,512.13	-2,531.05	2,651.69	2,582.16	69.53	38.136		
7,400.00	6,965.41	6,600.00	6,576.23	43.12	33.53	3.33	-3,508.74	-2,540.39	2,608.51	2,538.46	70.06	37.235		
7,500.00	7,040.53	6,600.00	6,576.23	43.53	33.53	-5.25	-3,508.74	-2,540.39	2,555.99	2,485.87	70.13	36.448		
7,600.00	7,106.00	6,625.01	6,600.42	43.89	33.58	-13.04	-3,507.10	-2,546.51	2,495.12	2,424.83	70.29	35.496		
7,700.00	7,160.23	6,637.67	6,612.57	44.20	33.60	-21.16	-3,506.28	-2,549.97	2,426.81	2,356.52	70.29	34.527		
7,800.00	7,201.86	6,650.00	6,624.34	44.48	33.63	-30.40	-3,505.50	-2,553.56	2,352.31	2,282.08	70.23	33.494		
7,900.00	7,229.88	6,650.00	6,624.34	44.73	33.63	-41.11	-3,505.50	-2,553.56	2,273.32	2,203.28	70.04	32.456		
8,000.00	7,243.60	6,676.23	6,649.13	44.99	33.66	-54.26	-3,503.86	-2,561.98	2,190.91	2,120.78	70.13	31.241		
8,100.00	7,244.73	6,700.00	6,671.28	45.29	33.70	-61.42	-3,502.43	-2,570.48	2,108.03	2,037.76	70.27	30.000		
8,200.00	7,244.23	6,700.00	6,671.28	45.74	33.70	-61.42	-3,502.43	-2,570.48	2,025.95	1,955.68	70.27	28.831		
8,300.00	7,243.73	6,700.00	6,671.28	46.38	33.70	-61.42	-3,502.43	-2,570.48	1,945.55	1,875.17	70.38	27.643		
8,400.00	7,243.23	6,714.88	6,684.97	47.29	33.72	-61.98	-3,501.55	-2,576.22	1,866.83	1,796.07	70.76	26.382		
8,500.00	7,242.73	6,725.01	6,694.23	48.46	33.73	-62.37	-3,500.96	-2,580.31	1,790.02	1,718.76	71.26	25.120		
8,600.00	7,242.23	6,739.19	6,707.06	49.87	33.74	-62.91	-3,500.15	-2,586.28	1,715.30	1,643.32	71.98	23.830		
8,700.00	7,241.73	6,750.00	6,716.75	51.48	33.75	-63.33	-3,499.55	-2,591.03	1,642.94	1,570.04	72.90	22.538		
8,800.00	7,241.23	6,768.20	6,732.89	53.24	33.77	-64.03	-3,498.55	-2,599.39	1,573.18	1,499.05	74.13	21.223		
8,900.00	7,240.73	6,784.87	6,747.46	55.13	33.78	-64.67	-3,497.67	-2,607.45	1,506.35	1,430.72	75.63	19.917		
9,000.00	7,240.23	6,800.00	6,760.49	57.11	33.79	-65.24	-3,496.88	-2,615.09	1,442.77	1,365.32	77.44	18.630		
9,100.00	7,239.73	6,825.01	6,781.63	59.19	33.81	-66.20	-3,495.63	-2,628.40	1,382.76	1,303.11	79.65	17.361		
9,200.00	7,239.23	6,850.00	6,802.21	61.34	33.82	-67.14	-3,494.44	-2,642.51	1,326.73	1,244.54	82.19	16.143		
9,300.00	7,238.72	6,871.27	6,819.29	63.55	33.82	-67.94	-3,493.47	-2,655.16	1,274.99	1,189.93	85.06	14.989		
9,400.00	7,238.22	6,900.00	6,841.66	65.81	33.84	-69.00	-3,492.24	-2,673.13	1,227.93	1,139.66	88.27	13.911		
9,500.00	7,237.72	6,930.68	6,864.64	68.13	33.85	-70.10	-3,491.02	-2,693.42	1,185.84	1,094.08	91.77	12.922		
9,600.00	7,237.22	6,965.84	6,889.74	70.48	33.86	-71.34	-3,489.73	-2,717.99	1,148.98	1,053.49	95.49	12.033		
9,700.00	7,236.72	7,005.24	6,916.22	72.88	33.88	-72.66	-3,488.46	-2,747.13	1,117.48	1,018.13	99.34	11.249		
9,800.00	7,236.22	7,050.00	6,944.05	75.31	33.92	-74.08	-3,487.21	-2,782.16	1,091.34	988.09	103.25	10.569		
9,900.00	7,235.72	7,100.00	6,972.16	77.77	33.98	-75.55	-3,486.10	-2,823.48	1,070.44	963.28	107.15	9.990		
10,000.00	7,235.22	7,150.00	6,996.94	80.26	34.08	-76.86	-3,485.28	-2,866.88	1,054.46	943.45	111.01	9.499		
10,100.00	7,234.72	7,212.97	7,023.21	82.77	34.28	-78.27	-3,484.66	-2,924.08	1,042.96	928.22	114.73	9.090		
10,200.00	7,234.22	7,277.78	7,044.22	85.31	34.60	-79.43	-3,484.53	-2,985.36	1,035.42	917.02	118.40	8.745		
10,300.00	7,233.72	7,346.67	7,059.63	87.86	35.05	-80.29	-3,484.95	-3,052.47	1,031.29	909.30	122.00	8.453		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,391.35	7,233.26	7,412.05	7,067.49	90.21	35.61	-80.74	-3,485.87	-3,117.34	1,030.14	904.87	125.27	8.223	CC	
10,400.00	7,233.22	7,418.31	7,067.89	90.44	35.67	-80.76	-3,485.98	-3,123.59	1,030.15	904.57	125.58	8.203		
10,500.00	7,232.72	7,502.57	7,068.75	93.03	36.58	-80.85	-3,487.87	-3,207.80	1,031.47	902.26	129.21	7.983		
10,600.00	7,232.22	7,602.56	7,068.15	95.64	37.91	-80.86	-3,490.22	-3,307.76	1,033.23	900.10	133.14	7.761		
10,700.00	7,231.72	7,702.54	7,067.55	98.26	39.50	-80.87	-3,492.58	-3,407.71	1,035.00	897.69	137.30	7.538		
10,800.00	7,231.21	7,802.53	7,066.95	100.89	41.31	-80.88	-3,494.94	-3,507.67	1,036.76	895.07	141.69	7.317		
10,900.00	7,230.71	7,902.51	7,066.34	103.54	43.31	-80.89	-3,497.29	-3,607.62	1,038.52	892.25	146.27	7.100		
11,000.00	7,230.21	8,002.49	7,065.74	106.20	45.46	-80.90	-3,499.65	-3,707.58	1,040.28	889.26	151.02	6.888		
11,100.00	7,229.71	8,102.48	7,065.14	108.87	47.74	-80.91	-3,502.01	-3,807.53	1,042.05	886.13	155.91	6.684		
11,200.00	7,229.21	8,202.46	7,064.54	111.54	50.14	-80.92	-3,504.36	-3,907.49	1,043.81	882.88	160.93	6.486		
11,300.00	7,228.71	8,302.45	7,063.94	114.23	52.65	-80.93	-3,506.72	-4,007.44	1,045.57	879.51	166.06	6.296		
11,400.00	7,228.21	8,402.43	7,063.33	116.92	55.24	-80.94	-3,509.08	-4,107.40	1,047.33	876.05	171.28	6.115		
11,500.00	7,227.71	8,502.42	7,062.73	119.63	57.90	-80.95	-3,511.43	-4,207.35	1,049.10	872.51	176.59	5.941		
11,600.00	7,227.21	8,602.40	7,062.13	122.34	60.63	-80.96	-3,513.79	-4,307.31	1,050.86	868.89	181.97	5.775		
11,700.00	7,226.71	8,702.38	7,061.53	125.05	63.41	-80.97	-3,516.14	-4,407.26	1,052.62	865.21	187.41	5.617		
11,800.00	7,226.21	8,802.37	7,060.93	127.78	66.25	-80.97	-3,518.50	-4,507.22	1,054.38	861.48	192.91	5.466		
11,900.00	7,225.71	8,902.35	7,060.32	130.51	69.12	-80.98	-3,520.86	-4,607.17	1,056.15	857.69	198.45	5.322		
12,000.00	7,225.21	9,002.34	7,059.72	133.24	72.04	-80.99	-3,523.21	-4,707.12	1,057.91	853.86	204.05	5.185		
12,100.00	7,224.71	9,102.32	7,059.12	135.98	74.99	-81.00	-3,525.57	-4,807.08	1,059.67	849.99	209.68	5.054		
12,200.00	7,224.21	9,202.31	7,058.52	138.72	77.97	-81.01	-3,527.93	-4,907.03	1,061.43	846.09	215.34	4.929		
12,300.00	7,223.70	9,302.29	7,057.92	141.47	80.98	-81.02	-3,530.28	-5,006.99	1,063.20	842.16	221.04	4.810		
12,400.00	7,223.20	9,402.28	7,057.31	144.23	84.01	-81.03	-3,532.64	-5,106.94	1,064.96	838.20	226.76	4.696		
12,500.00	7,222.70	9,502.26	7,056.71	146.98	87.06	-81.04	-3,534.99	-5,206.90	1,066.72	834.21	232.51	4.588		
12,600.00	7,222.20	9,602.24	7,056.11	149.74	90.14	-81.05	-3,537.35	-5,306.85	1,068.48	830.20	238.28	4.484		
12,700.00	7,221.70	9,702.23	7,055.51	152.51	93.23	-81.06	-3,539.71	-5,406.81	1,070.25	826.17	244.08	4.385		
12,800.00	7,221.20	9,802.21	7,054.91	155.28	96.33	-81.07	-3,542.06	-5,506.76	1,072.01	822.12	249.89	4.290		
12,900.00	7,220.70	9,902.20	7,054.30	158.05	99.45	-81.08	-3,544.42	-5,606.72	1,073.77	818.05	255.72	4.199		
13,000.00	7,220.20	10,002.18	7,053.70	160.82	102.58	-81.09	-3,546.78	-5,706.67	1,075.54	813.97	261.57	4.112		
13,100.00	7,219.70	10,102.17	7,053.10	163.60	105.73	-81.10	-3,549.13	-5,806.63	1,077.30	809.87	267.43	4.028		
13,200.00	7,219.20	10,202.15	7,052.50	166.38	108.88	-81.11	-3,551.49	-5,906.58	1,079.06	805.76	273.30	3.948		
13,300.00	7,218.70	10,302.13	7,051.90	169.16	112.05	-81.12	-3,553.84	-6,006.54	1,080.83	801.64	279.19	3.871		
13,400.00	7,218.20	10,402.12	7,051.29	171.95	115.22	-81.12	-3,556.20	-6,106.49	1,082.59	797.50	285.09	3.797		
13,500.00	7,217.70	10,502.10	7,050.69	174.74	118.40	-81.13	-3,558.56	-6,206.45	1,084.35	793.35	291.00	3.726		
13,600.00	7,217.20	10,602.09	7,050.09	177.53	121.59	-81.14	-3,560.91	-6,306.40	1,086.11	789.20	296.92	3.658		
13,700.00	7,216.70	10,702.07	7,049.49	180.32	124.79	-81.15	-3,563.27	-6,406.36	1,087.88	785.03	302.85	3.592		
13,800.00	7,216.19	10,802.06	7,048.89	183.11	127.99	-81.16	-3,565.63	-6,506.31	1,089.64	780.86	308.78	3.529		
13,900.00	7,215.69	10,902.04	7,048.28	185.91	131.20	-81.17	-3,567.98	-6,606.26	1,091.40	776.68	314.73	3.468		
14,000.00	7,215.19	11,002.02	7,047.68	188.71	134.42	-81.18	-3,570.34	-6,706.22	1,093.17	772.49	320.68	3.409		
14,100.00	7,214.69	11,102.01	7,047.08	191.51	137.64	-81.19	-3,572.69	-6,806.17	1,094.93	768.29	326.64	3.352		
14,200.00	7,214.19	11,201.99	7,046.48	194.31	140.86	-81.20	-3,575.05	-6,906.13	1,096.69	764.08	332.61	3.297		
14,300.00	7,213.69	11,301.98	7,045.88	197.11	144.09	-81.21	-3,577.41	-7,006.08	1,098.46	759.87	338.58	3.244		
14,400.00	7,213.19	11,401.96	7,045.27	199.92	147.33	-81.21	-3,579.76	-7,106.04	1,100.22	755.66	344.56	3.193		
14,500.00	7,212.69	11,501.95	7,044.67	202.72	150.57	-81.22	-3,582.12	-7,205.99	1,101.98	751.44	350.55	3.144		
14,600.00	7,212.19	11,601.93	7,044.07	205.53	153.81	-81.23	-3,584.48	-7,305.95	1,103.75	747.21	356.54	3.096		
14,700.00	7,211.69	11,701.91	7,043.47	208.34	157.05	-81.24	-3,586.83	-7,405.90	1,105.51	742.98	362.53	3.049		
14,800.00	7,211.19	11,801.90	7,042.87	211.15	160.30	-81.25	-3,589.19	-7,505.86	1,107.27	738.74	368.54	3.005		
14,900.00	7,210.69	11,901.88	7,042.26	213.96	163.56	-81.26	-3,591.55	-7,605.81	1,109.04	734.50	374.54	2.961		
15,000.00	7,210.19	12,001.87	7,041.66	216.78	166.81	-81.27	-3,593.90	-7,705.77	1,110.80	730.25	380.55	2.919		
15,100.00	7,209.69	12,101.85	7,041.06	219.59	170.07	-81.28	-3,596.26	-7,805.72	1,112.57	726.00	386.56	2.878		
15,200.00	7,209.18	12,201.84	7,040.46	222.41	173.33	-81.28	-3,598.61	-7,905.68	1,114.33	721.75	392.58	2.838		
15,300.00	7,208.68	12,301.82	7,039.85	225.22	176.59	-81.29	-3,600.97	-8,005.63	1,116.09	717.49	398.60	2.800		
15,400.00	7,208.18	12,401.80	7,039.25	228.04	179.86	-81.30	-3,603.33	-8,105.59	1,117.86	713.23	404.63	2.763		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN											Offset Site Error:	0.00 ft
Survey Program:	25-MWD											Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	12,439.28	7,039.03	229.10	181.08	-81.30	-3,604.21	-8,143.05	1,118.52	711.63	406.88	2.749 ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	15,808.41	7,241.41	3.28	248.32	0.52	2,403.54	22.01	7,629.91					
100.00	100.00	15,808.16	7,241.41	3.28	248.31	0.52	2,403.55	21.76	7,535.06	7,411.51	123.56	60.985		
200.00	200.00	15,807.92	7,241.41	3.34	248.30	0.51	2,403.55	21.52	7,440.36	7,316.29	124.07	59.971		
300.00	299.98	15,807.57	7,241.41	3.44	248.29	177.15	2,403.55	21.17	7,346.38	7,221.75	124.63	58.947		
400.00	399.84	15,807.00	7,241.41	3.59	248.28	177.38	2,403.55	20.60	7,253.83	7,128.56	125.27	57.905		
500.00	499.45	15,806.22	7,241.41	3.79	248.26	177.55	2,403.55	19.82	7,162.89	7,036.88	126.01	56.842		
600.00	598.70	15,805.23	7,241.41	4.03	248.23	177.70	2,403.55	18.83	7,073.73	6,946.87	126.86	55.762		
700.00	697.47	15,804.02	7,241.42	4.31	248.19	177.82	2,403.55	17.62	6,986.52	6,858.71	127.81	54.665		
800.00	795.62	15,802.60	7,241.42	4.64	248.15	177.92	2,403.56	16.21	6,901.45	6,772.58	128.87	53.553		
900.00	893.06	15,800.98	7,241.42	5.00	248.11	178.00	2,403.56	14.58	6,818.70	6,688.65	130.06	52.428		
1,000.00	989.64	15,800.92	7,241.43	5.40	248.11	178.07	2,403.56	12.75	6,738.47	6,607.08	131.39	51.284		
1,100.00	1,085.27	15,802.95	7,241.43	5.83	248.16	178.12	2,403.57	10.71	6,660.94	6,528.04	132.90	50.121		
1,200.00	1,179.82	15,805.19	7,241.44	6.29	248.23	178.16	2,403.57	8.48	6,586.30	6,451.75	134.55	48.951		
1,300.00	1,273.47	15,807.58	7,241.44	6.79	248.29	178.15	2,403.57	6.09	6,514.17	6,377.83	136.34	47.779		
1,400.00	1,367.06	15,809.98	7,241.45	7.30	248.36	178.12	2,403.58	3.69	6,442.90	6,304.67	138.23	46.609		
1,500.00	1,460.64	15,812.38	7,241.46	7.83	248.43	178.09	2,403.58	1.29	6,372.41	6,232.20	140.21	45.450		
1,600.00	1,554.23	15,814.78	7,241.46	8.38	248.50	178.06	2,403.59	-1.11	6,302.71	6,160.45	142.26	44.304		
1,700.00	1,647.82	15,817.18	7,241.47	8.93	248.57	178.03	2,403.59	-3.51	6,233.83	6,089.44	144.40	43.172		
1,800.00	1,741.41	15,819.58	7,241.47	9.49	248.63	178.00	2,403.59	-5.91	6,165.81	6,019.20	146.61	42.057		
1,900.00	1,835.00	15,821.98	7,241.48	10.05	248.70	177.97	2,403.60	-8.31	6,098.66	5,949.77	148.89	40.960		
2,000.00	1,928.59	15,824.38	7,241.49	10.62	248.77	177.94	2,403.60	-10.71	6,032.43	5,881.17	151.26	39.882		
2,100.00	2,022.18	15,826.78	7,241.49	11.20	248.84	177.91	2,403.61	-13.11	5,967.14	5,813.44	153.69	38.825		
2,200.00	2,115.77	15,829.18	7,241.50	11.78	248.90	177.88	2,403.61	-15.51	5,902.81	5,746.61	156.20	37.790		
2,300.00	2,209.36	15,831.58	7,241.50	12.37	248.97	177.85	2,403.62	-17.91	5,839.49	5,680.72	158.77	36.778		
2,400.00	2,302.95	15,833.98	7,241.51	12.95	249.04	177.82	2,403.62	-20.31	5,777.21	5,615.79	161.42	35.791		
2,500.00	2,396.54	15,836.38	7,241.52	13.54	249.11	177.79	2,403.63	-22.71	5,715.99	5,551.87	164.12	34.827		
2,600.00	2,490.13	15,838.78	7,241.52	14.13	249.18	177.76	2,403.63	-25.11	5,655.88	5,488.99	166.89	33.889		
2,700.00	2,583.72	15,841.18	7,241.53	14.73	249.24	177.73	2,403.63	-27.51	5,596.92	5,427.19	169.72	32.977		
2,800.00	2,677.31	15,843.58	7,241.53	15.32	249.31	177.70	2,403.64	-29.91	5,539.12	5,366.51	172.61	32.090		
2,900.00	2,770.90	15,845.98	7,241.54	15.92	249.38	177.67	2,403.64	-32.31	5,482.54	5,306.99	175.55	31.230		
3,000.00	2,864.49	15,848.38	7,241.54	16.52	249.45	177.64	2,403.65	-34.71	5,427.22	5,248.67	178.55	30.396		
3,100.00	2,958.08	15,850.78	7,241.55	17.12	249.52	177.61	2,403.65	-37.11	5,373.18	5,191.58	181.60	29.589		
3,200.00	3,051.67	15,853.18	7,241.56	17.72	249.58	177.58	2,403.66	-39.51	5,320.47	5,135.79	184.69	28.808		
3,300.00	3,145.26	15,855.58	7,241.56	18.32	249.65	177.55	2,403.66	-41.91	5,269.14	5,081.31	187.82	28.054		
3,400.00	3,238.85	15,857.98	7,241.57	18.92	249.72	177.52	2,403.66	-44.31	5,219.21	5,028.21	191.00	27.326		
3,500.00	3,332.44	15,860.38	7,241.57	19.53	249.79	177.49	2,403.67	-46.71	5,170.73	4,976.53	194.21	26.625		
3,600.00	3,426.03	15,862.78	7,241.58	20.13	249.85	177.46	2,403.67	-49.11	5,123.75	4,926.30	197.45	25.950		
3,700.00	3,519.62	15,865.18	7,241.59	20.74	249.92	177.43	2,403.68	-51.51	5,078.30	4,877.58	200.71	25.301		
3,800.00	3,613.21	15,867.58	7,241.59	21.34	249.99	177.40	2,403.68	-53.91	5,034.42	4,830.42	204.01	24.678		
3,900.00	3,706.80	15,869.98	7,241.60	21.95	250.06	177.37	2,403.69	-56.31	4,992.16	4,784.85	207.31	24.080		
4,000.00	3,800.39	15,872.38	7,241.60	22.56	250.13	177.34	2,403.69	-58.71	4,951.56	4,740.93	210.63	23.508		
4,100.00	3,893.98	15,874.78	7,241.61	23.16	250.19	177.31	2,403.69	-61.11	4,912.66	4,698.70	213.96	22.961		
4,200.00	3,987.57	15,877.18	7,241.61	23.77	250.26	177.28	2,403.70	-63.51	4,875.50	4,658.21	217.29	22.438		
4,300.00	4,081.16	15,879.58	7,241.62	24.38	250.33	177.25	2,403.70	-65.91	4,840.12	4,619.51	220.61	21.939		
4,400.00	4,174.75	15,881.98	7,241.63	24.99	250.40	177.22	2,403.71	-68.31	4,806.56	4,582.63	223.92	21.465		
4,500.00	4,268.34	15,884.38	7,241.63	25.60	250.47	177.19	2,403.71	-70.71	4,774.85	4,547.63	227.22	21.014		
4,600.00	4,361.93	15,886.78	7,241.64	26.21	250.53	177.16	2,403.72	-73.11	4,745.04	4,514.55	230.49	20.587		
4,700.00	4,455.52	15,889.18	7,241.64	26.82	250.60	177.13	2,403.72	-75.51	4,717.16	4,483.43	233.73	20.182		
4,800.00	4,549.11	15,891.58	7,241.65	27.43	250.67	177.10	2,403.72	-77.91	4,691.25	4,454.32	236.93	19.800		
4,900.00	4,642.70	15,906.08	7,241.66	28.04	251.08	177.07	2,403.73	-80.31	4,667.33	4,426.95	240.38	19.417		
5,000.00	4,736.29	15,903.68	7,241.66	28.65	251.01	177.03	2,403.73	-82.71	4,645.44	4,402.07	243.37	19.088		
5,100.00	4,829.88	15,901.28	7,241.67	29.26	250.94	177.00	2,403.74	-85.11	4,625.61	4,379.31	246.30	18.780		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	15,901.18	7,241.67	29.87	250.94	176.97	2,403.74	-87.51	4,607.87	4,358.64	249.23	18.489		
5,300.00	5,017.06	15,903.58	7,241.68	30.48	251.01	176.94	2,403.75	-89.91	4,592.23	4,340.09	252.14	18.213		
5,400.00	5,110.65	15,905.98	7,241.69	31.09	251.08	176.91	2,403.75	-92.31	4,578.72	4,323.75	254.97	17.958		
5,500.00	5,204.24	15,908.38	7,241.69	31.70	251.14	176.88	2,403.75	-94.71	4,567.36	4,309.64	257.72	17.722		
5,600.00	5,297.83	15,910.78	7,241.70	32.32	251.21	176.85	2,403.76	-97.11	4,558.17	4,297.78	260.38	17.506		
5,700.00	5,391.42	15,913.18	7,241.70	32.93	251.28	176.82	2,403.76	-99.51	4,551.15	4,288.20	262.95	17.308		
5,800.00	5,485.01	15,915.58	7,241.71	33.54	251.35	176.79	2,403.77	-101.91	4,546.32	4,280.90	265.42	17.129		
5,900.00	5,578.60	15,917.98	7,241.71	34.15	251.42	176.76	2,403.77	-104.31	4,543.69	4,275.91	267.78	16.968		
5,969.77	5,643.90	15,919.65	7,241.72	34.58	251.46	176.74	2,403.77	-105.99	4,543.15	4,273.79	269.36	16.867 CC		
6,000.00	5,672.19	15,920.38	7,241.72	34.77	251.48	176.73	2,403.78	-106.71	4,543.25	4,273.22	270.03	16.825		
6,100.00	5,765.78	15,922.78	7,241.73	35.38	251.55	176.70	2,403.78	-109.11	4,545.02	4,272.85	272.17	16.699 ES		
6,200.00	5,859.37	15,925.18	7,241.73	35.99	251.62	176.67	2,403.78	-111.51	4,548.98	4,274.79	274.19	16.591		
6,300.00	5,952.96	15,927.58	7,241.74	36.60	251.69	176.64	2,403.79	-113.91	4,555.13	4,279.04	276.09	16.498		
6,400.00	6,046.55	15,929.98	7,241.74	37.22	251.76	176.61	2,403.79	-116.31	4,563.46	4,285.59	277.88	16.422		
6,500.00	6,140.14	15,932.38	7,241.75	37.83	251.82	176.58	2,403.80	-118.71	4,573.97	4,294.43	279.54	16.362		
6,600.00	6,233.73	15,934.78	7,241.76	38.44	251.89	176.55	2,403.80	-121.11	4,586.63	4,305.55	281.08	16.318		
6,700.00	6,327.32	15,937.18	7,241.76	39.06	251.96	176.52	2,403.81	-123.51	4,601.43	4,318.93	282.50	16.288		
6,800.00	6,420.91	15,939.58	7,241.77	39.67	252.03	176.49	2,403.81	-125.91	4,618.34	4,334.55	283.79	16.274		
6,900.00	6,514.50	15,941.98	7,241.77	40.28	252.10	176.46	2,403.81	-128.31	4,637.35	4,352.39	284.96	16.274		
7,000.00	6,608.09	15,944.38	7,241.78	40.90	252.16	176.43	2,403.82	-130.71	4,658.43	4,372.42	286.01	16.287		
7,100.00	6,701.63	15,948.05	7,241.79	41.51	252.27	166.09	2,403.83	-134.39	4,681.55	4,394.57	286.98	16.313		
7,200.00	6,793.85	15,964.55	7,241.83	42.10	252.73	143.89	2,403.86	-150.88	4,706.43	4,418.24	288.19	16.331		
7,300.00	6,882.50	16,003.81	7,241.91	42.64	253.84	127.80	2,403.91	-182.58	4,732.32	4,442.41	289.90	16.324		
7,400.00	6,965.41	16,042.38	7,242.02	43.12	254.94	116.39	2,403.99	-228.71	4,758.26	4,466.79	291.48	16.325		
7,500.00	7,040.53	16,101.80	7,242.16	43.53	256.62	108.01	2,404.10	-288.14	4,783.24	4,489.69	293.54	16.295		
7,600.00	7,106.00	16,173.06	7,242.34	43.89	258.63	101.69	2,404.23	-359.39	4,806.18	4,510.28	295.91	16.242		
7,700.00	7,160.23	16,254.38	7,242.54	44.20	260.94	96.93	2,404.38	-440.72	4,826.08	4,527.50	298.58	16.163		
7,800.00	7,201.86	16,343.78	7,242.76	44.48	263.47	93.49	2,404.54	-530.12	4,842.04	4,540.45	301.59	16.055		
7,900.00	7,229.88	16,439.06	7,242.99	44.73	266.17	91.24	2,404.71	-625.39	4,853.32	4,548.39	304.93	15.916		
8,000.00	7,243.60	16,537.85	7,243.23	44.99	268.96	90.12	2,404.88	-724.18	4,859.39	4,550.82	308.57	15.748		
8,100.00	7,244.73	16,637.81	7,243.47	45.29	271.80	89.98	2,405.06	-824.14	4,860.77	4,548.33	312.44	15.557		
8,200.00	7,244.23	16,737.80	7,243.72	45.74	274.63	89.99	2,405.24	-924.14	4,861.54	4,545.05	316.49	15.361		
8,300.00	7,243.73	16,837.80	7,243.96	46.38	277.46	90.00	2,405.42	-1,024.13	4,862.31	4,541.62	320.69	15.162		
8,400.00	7,243.23	16,937.79	7,244.21	47.29	280.30	90.01	2,405.60	-1,124.12	4,863.08	4,538.04	325.04	14.962		
8,500.00	7,242.73	17,037.79	7,244.45	48.46	283.13	90.02	2,405.78	-1,224.12	4,863.84	4,534.34	329.51	14.761		
8,600.00	7,242.23	17,137.78	7,244.70	49.87	285.97	90.03	2,405.96	-1,324.11	4,864.61	4,530.52	334.10	14.561		
8,700.00	7,241.73	17,237.78	7,244.94	51.48	288.81	90.04	2,406.14	-1,424.10	4,865.38	4,526.59	338.79	14.361		
8,800.00	7,241.23	17,337.77	7,245.18	53.24	291.64	90.04	2,406.32	-1,524.10	4,866.15	4,522.58	343.57	14.164		
8,900.00	7,240.73	17,437.76	7,245.43	55.13	294.48	90.05	2,406.50	-1,624.09	4,866.92	4,518.48	348.43	13.968		
9,000.00	7,240.23	17,537.76	7,245.67	57.11	297.32	90.06	2,406.68	-1,724.09	4,867.69	4,514.32	353.37	13.775		
9,100.00	7,239.73	17,637.75	7,245.92	59.19	300.16	90.07	2,406.86	-1,824.08	4,868.45	4,510.08	358.37	13.585		
9,200.00	7,239.23	17,737.75	7,246.16	61.34	302.99	90.08	2,407.04	-1,924.07	4,869.22	4,505.79	363.43	13.398		
9,300.00	7,238.72	17,837.74	7,246.41	63.55	305.83	90.09	2,407.22	-2,024.07	4,869.99	4,501.44	368.55	13.214		
9,400.00	7,238.22	17,937.74	7,246.65	65.81	308.67	90.10	2,407.40	-2,124.06	4,870.76	4,497.05	373.71	13.034		
9,500.00	7,237.72	18,037.73	7,246.89	68.13	311.51	90.11	2,407.58	-2,224.05	4,871.53	4,492.62	378.91	12.857		
9,600.00	7,237.22	18,137.72	7,247.14	70.48	314.35	90.11	2,407.76	-2,324.05	4,872.30	4,488.15	384.15	12.683		
9,700.00	7,236.72	18,237.72	7,247.38	72.88	317.19	90.12	2,407.93	-2,424.04	4,873.07	4,483.65	389.42	12.514		
9,800.00	7,236.22	18,337.71	7,247.63	75.31	320.03	90.13	2,408.11	-2,524.04	4,873.84	4,479.11	394.72	12.347		
9,900.00	7,235.72	18,437.71	7,247.87	77.77	322.87	90.14	2,408.29	-2,624.03	4,874.61	4,474.55	400.06	12.185		
10,000.00	7,235.22	18,537.70	7,248.12	80.26	325.72	90.15	2,408.47	-2,724.02	4,875.38	4,469.96	405.41	12.026		
10,100.00	7,234.72	18,637.70	7,248.36	82.77	328.56	90.16	2,408.65	-2,824.02	4,876.15	4,465.35	410.79	11.870		
10,200.00	7,234.22	18,737.69	7,248.60	85.31	331.40	90.17	2,408.83	-2,924.01	4,876.92	4,460.72	416.19	11.718		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	18,837.68	7,248.85	87.86	334.24	90.18	2,409.01	-3,024.01	4,877.69	4,456.07	421.61	11.569		
10,400.00	7,233.22	18,937.68	7,249.09	90.44	337.09	90.18	2,409.19	-3,124.00	4,878.46	4,451.41	427.05	11.424		
10,500.00	7,232.72	19,037.67	7,249.34	93.03	339.93	90.19	2,409.37	-3,223.99	4,879.23	4,446.72	432.50	11.281		
10,600.00	7,232.22	19,118.26	7,249.53	95.64	342.22	90.20	2,409.52	-3,304.58	4,880.03	4,442.64	437.39	11.157		
10,700.00	7,231.72	19,118.26	7,249.53	98.26	342.22	90.20	2,409.52	-3,304.58	4,882.23	4,442.44	439.79	11.101		
10,800.00	7,231.21	19,118.26	7,249.53	100.89	342.22	90.20	2,409.52	-3,304.58	4,886.46	4,444.44	442.02	11.055		
10,900.00	7,230.71	19,118.26	7,249.53	103.54	342.22	90.20	2,409.52	-3,304.58	4,892.74	4,448.66	444.08	11.018		
11,000.00	7,230.21	19,118.26	7,249.53	106.20	342.22	90.20	2,409.52	-3,304.58	4,901.05	4,455.08	445.98	10.990		
11,100.00	7,229.71	19,118.26	7,249.53	108.87	342.22	90.20	2,409.52	-3,304.58	4,911.39	4,463.70	447.69	10.970		
11,200.00	7,229.21	19,118.26	7,249.53	111.54	342.22	90.20	2,409.52	-3,304.58	4,923.73	4,474.50	449.24	10.960		
11,300.00	7,228.71	19,118.26	7,249.53	114.23	342.22	90.20	2,409.52	-3,304.58	4,938.07	4,487.46	450.61	10.959 SF		
11,400.00	7,228.21	19,118.26	7,249.53	116.92	342.22	90.20	2,409.52	-3,304.58	4,954.39	4,502.59	451.80	10.966		
11,500.00	7,227.71	19,118.26	7,249.53	119.63	342.22	90.20	2,409.52	-3,304.58	4,972.66	4,519.84	452.82	10.981		
11,600.00	7,227.21	19,118.26	7,249.53	122.34	342.22	90.20	2,409.52	-3,304.58	4,992.87	4,539.19	453.68	11.005		
11,700.00	7,226.71	19,118.26	7,249.53	125.05	342.22	90.20	2,409.52	-3,304.58	5,014.99	4,560.63	454.36	11.037		
11,800.00	7,226.21	19,118.26	7,249.53	127.78	342.22	90.20	2,409.52	-3,304.58	5,039.00	4,584.12	454.88	11.078		
11,900.00	7,225.71	19,118.26	7,249.53	130.51	342.22	90.20	2,409.52	-3,304.58	5,064.87	4,609.64	455.24	11.126		
12,000.00	7,225.21	19,118.26	7,249.53	133.24	342.22	90.20	2,409.52	-3,304.58	5,092.58	4,637.14	455.44	11.182		
12,100.00	7,224.71	19,118.26	7,249.53	135.98	342.22	90.20	2,409.52	-3,304.58	5,122.08	4,666.60	455.48	11.245		
12,200.00	7,224.21	19,118.26	7,249.53	138.72	342.22	90.20	2,409.52	-3,304.58	5,153.36	4,697.98	455.39	11.316		
12,300.00	7,223.70	19,118.26	7,249.53	141.47	342.22	90.20	2,409.52	-3,304.58	5,186.38	4,731.24	455.14	11.395		
12,400.00	7,223.20	19,118.26	7,249.53	144.23	342.22	90.20	2,409.52	-3,304.58	5,221.10	4,766.34	454.76	11.481		
12,500.00	7,222.70	19,118.26	7,249.53	146.98	342.22	90.20	2,409.52	-3,304.58	5,257.50	4,803.25	454.25	11.574		
12,600.00	7,222.20	19,118.26	7,249.53	149.74	342.22	90.20	2,409.52	-3,304.58	5,295.54	4,841.92	453.62	11.674		
12,700.00	7,221.70	19,118.26	7,249.53	152.51	342.22	90.20	2,409.52	-3,304.58	5,335.18	4,882.32	452.86	11.781		
12,800.00	7,221.20	19,118.26	7,249.53	155.28	342.22	90.20	2,409.52	-3,304.58	5,376.39	4,924.40	451.99	11.895		
12,900.00	7,220.70	19,118.26	7,249.53	158.05	342.22	90.20	2,409.52	-3,304.58	5,419.13	4,968.11	451.01	12.015		
13,000.00	7,220.20	19,118.26	7,249.53	160.82	342.22	90.20	2,409.52	-3,304.58	5,463.36	5,013.43	449.93	12.143		
13,100.00	7,219.70	19,118.26	7,249.53	163.60	342.22	90.20	2,409.52	-3,304.58	5,509.06	5,060.30	448.76	12.276		
13,200.00	7,219.20	19,118.26	7,249.53	166.38	342.22	90.20	2,409.52	-3,304.58	5,556.18	5,108.68	447.50	12.416		
13,300.00	7,218.70	19,118.26	7,249.53	169.16	342.22	90.20	2,409.52	-3,304.58	5,604.69	5,158.54	446.15	12.562		
13,400.00	7,218.20	19,118.26	7,249.53	171.95	342.22	90.20	2,409.52	-3,304.58	5,654.55	5,209.82	444.73	12.715		
13,500.00	7,217.70	19,118.26	7,249.53	174.74	342.22	90.20	2,409.52	-3,304.58	5,705.73	5,262.50	443.23	12.873		
13,600.00	7,217.20	19,118.26	7,249.53	177.53	342.22	90.20	2,409.52	-3,304.58	5,758.19	5,316.52	441.67	13.037		
13,700.00	7,216.70	19,118.26	7,249.53	180.32	342.22	90.20	2,409.52	-3,304.58	5,811.90	5,371.85	440.05	13.207		
13,800.00	7,216.19	19,118.26	7,249.53	183.11	342.22	90.20	2,409.52	-3,304.58	5,866.82	5,428.45	438.37	13.383		
13,900.00	7,215.69	19,118.26	7,249.53	185.91	342.22	90.20	2,409.52	-3,304.58	5,922.92	5,486.28	436.64	13.565		
14,000.00	7,215.19	19,118.26	7,249.53	188.71	342.22	90.20	2,409.52	-3,304.58	5,980.16	5,545.30	434.86	13.752		
14,100.00	7,214.69	19,118.26	7,249.53	191.51	342.22	90.20	2,409.52	-3,304.58	6,038.52	5,605.48	433.04	13.944		
14,200.00	7,214.19	19,118.26	7,249.53	194.31	342.22	90.20	2,409.52	-3,304.58	6,097.96	5,666.78	431.19	14.142		
14,300.00	7,213.69	19,118.26	7,249.53	197.11	342.22	90.20	2,409.52	-3,304.58	6,158.45	5,729.15	429.30	14.345		
14,400.00	7,213.19	19,118.26	7,249.53	199.92	342.22	90.20	2,409.52	-3,304.58	6,219.96	5,792.58	427.38	14.554		
14,500.00	7,212.69	19,118.26	7,249.53	202.72	342.22	90.20	2,409.52	-3,304.58	6,282.46	5,857.03	425.44	14.767		
14,600.00	7,212.19	19,118.26	7,249.53	205.53	342.22	90.20	2,409.52	-3,304.58	6,345.92	5,922.45	423.47	14.985		
14,700.00	7,211.69	19,118.26	7,249.53	208.34	342.22	90.20	2,409.52	-3,304.58	6,410.31	5,988.83	421.49	15.209		
14,800.00	7,211.19	19,118.26	7,249.53	211.15	342.22	90.20	2,409.52	-3,304.58	6,475.61	6,056.12	419.49	15.437		
14,900.00	7,210.69	19,118.26	7,249.53	213.96	342.22	90.20	2,409.52	-3,304.58	6,541.78	6,124.31	417.48	15.670		
15,000.00	7,210.19	19,118.26	7,249.53	216.78	342.22	90.20	2,409.52	-3,304.58	6,608.81	6,193.35	415.46	15.907		
15,100.00	7,209.69	19,118.26	7,249.53	219.59	342.22	90.20	2,409.52	-3,304.58	6,676.66	6,263.23	413.43	16.149		
15,200.00	7,209.18	19,118.26	7,249.53	222.41	342.22	90.20	2,409.52	-3,304.58	6,745.30	6,333.91	411.40	16.396		
15,300.00	7,208.68	19,118.26	7,249.53	225.22	342.22	90.20	2,409.52	-3,304.58	6,814.73	6,405.37	409.36	16.647		
15,400.00	7,208.18	19,118.26	7,249.53	228.04	342.22	90.20	2,409.52	-3,304.58	6,884.91	6,477.58	407.33	16.903		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth	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)		
15,437.48	7,208.00	19,118.26	7,249.53	229.10	342.22	90.20	2,409.52	-3,304.58	6,911.40	6,504.83	406.56	17.000	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	15,720.49	7,133.46	3.28	248.15	-0.14	2,243.23	-5.56	7,477.86					
100.00	100.00	15,720.73	7,133.46	3.28	248.16	-0.15	2,243.22	-5.80	7,382.52	7,260.99	121.53	60.744		
200.00	200.00	15,720.98	7,133.46	3.34	248.16	-0.15	2,243.22	-6.05	7,287.32	7,165.30	122.02	59.722		
300.00	299.98	15,721.35	7,133.46	3.44	248.17	176.56	2,243.22	-6.42	7,192.80	7,070.24	122.56	58.689		
400.00	399.84	15,721.98	7,133.46	3.59	248.19	176.85	2,243.21	-7.05	7,099.65	6,976.46	123.19	57.633		
500.00	499.45	15,722.87	7,133.47	3.79	248.22	177.07	2,243.20	-7.93	7,008.04	6,884.12	123.92	56.553		
600.00	598.70	15,724.01	7,133.47	4.03	248.25	177.25	2,243.19	-9.07	6,918.15	6,793.39	124.76	55.451		
700.00	697.47	15,725.40	7,133.47	4.31	248.29	177.40	2,243.18	-10.47	6,830.14	6,704.43	125.72	54.330		
800.00	795.62	15,727.04	7,133.48	4.64	248.33	177.52	2,243.16	-12.11	6,744.21	6,617.42	126.79	53.190		
900.00	893.06	15,728.94	7,133.48	5.00	248.39	177.62	2,243.14	-14.01	6,660.55	6,532.55	128.00	52.035		
1,000.00	989.64	15,731.08	7,133.49	5.40	248.45	177.70	2,243.12	-16.15	6,579.33	6,449.99	129.34	50.867		
1,100.00	1,085.27	15,733.47	7,133.49	5.83	248.51	177.77	2,243.09	-18.54	6,500.76	6,369.93	130.83	49.688		
1,200.00	1,179.82	15,736.10	7,133.50	6.29	248.59	177.82	2,243.07	-21.17	6,425.03	6,292.56	132.47	48.501		
1,300.00	1,273.47	15,738.91	7,133.51	6.79	248.67	177.81	2,243.04	-23.98	6,351.77	6,217.51	134.25	47.311		
1,400.00	1,367.06	15,741.73	7,133.51	7.30	248.75	177.78	2,243.01	-26.80	6,279.35	6,143.21	136.14	46.123		
1,500.00	1,460.64	15,744.56	7,133.52	7.83	248.83	177.74	2,242.98	-29.62	6,207.71	6,069.59	138.12	44.945		
1,600.00	1,554.23	15,747.38	7,133.53	8.38	248.91	177.70	2,242.95	-32.45	6,136.85	5,996.68	140.18	43.780		
1,700.00	1,647.82	15,750.20	7,133.53	8.93	248.99	177.66	2,242.92	-35.27	6,066.82	5,924.50	142.32	42.629		
1,800.00	1,741.41	15,753.02	7,133.54	9.49	249.07	177.63	2,242.89	-38.09	5,997.63	5,853.09	144.54	41.494		
1,900.00	1,835.00	15,755.85	7,133.55	10.05	249.15	177.59	2,242.87	-40.92	5,929.32	5,782.47	146.85	40.377		
2,000.00	1,928.59	15,758.67	7,133.55	10.62	249.23	177.55	2,242.84	-43.74	5,861.92	5,712.69	149.23	39.280		
2,100.00	2,022.18	15,761.49	7,133.56	11.20	249.31	177.52	2,242.81	-46.56	5,795.46	5,643.76	151.70	38.204		
2,200.00	2,115.77	15,764.32	7,133.57	11.78	249.39	177.48	2,242.78	-49.38	5,729.97	5,575.73	154.24	37.150		
2,300.00	2,209.36	15,767.14	7,133.57	12.37	249.47	177.44	2,242.75	-52.21	5,665.49	5,508.64	156.85	36.120		
2,400.00	2,302.95	15,769.96	7,133.58	12.95	249.55	177.40	2,242.72	-55.03	5,602.05	5,442.51	159.54	35.114		
2,500.00	2,396.54	15,772.79	7,133.59	13.54	249.63	177.37	2,242.69	-57.85	5,539.69	5,377.39	162.30	34.133		
2,600.00	2,490.13	15,775.61	7,133.60	14.13	249.71	177.33	2,242.66	-60.68	5,478.44	5,313.32	165.12	33.178		
2,700.00	2,583.72	15,778.43	7,133.60	14.73	249.79	177.29	2,242.63	-63.50	5,418.35	5,250.33	168.02	32.249		
2,800.00	2,677.31	15,781.26	7,133.61	15.32	249.86	177.26	2,242.60	-66.32	5,359.44	5,188.47	170.97	31.347		
2,900.00	2,770.90	15,784.08	7,133.62	15.92	249.94	177.22	2,242.58	-69.15	5,301.77	5,127.78	173.99	30.471		
3,000.00	2,864.49	15,786.90	7,133.62	16.52	250.02	177.18	2,242.55	-71.97	5,245.36	5,068.29	177.07	29.623		
3,100.00	2,958.08	15,789.73	7,133.63	17.12	250.10	177.15	2,242.52	-74.79	5,190.27	5,010.07	180.20	28.803		
3,200.00	3,051.67	15,792.55	7,133.64	17.72	250.16	177.11	2,242.49	-77.62	5,136.54	4,952.87	183.67	27.967		
3,300.00	3,145.26	15,804.69	7,133.64	18.32	250.53	177.07	2,242.46	-80.44	5,084.20	4,897.40	186.80	27.218		
3,400.00	3,238.85	15,801.87	7,133.65	18.92	250.45	177.03	2,242.43	-83.26	5,033.30	4,843.33	189.97	26.495		
3,500.00	3,332.44	15,801.02	7,133.66	19.53	250.42	177.00	2,242.40	-86.08	4,983.89	4,790.67	193.22	25.794		
3,600.00	3,426.03	15,803.84	7,133.66	20.13	250.50	176.96	2,242.37	-88.91	4,936.00	4,739.43	196.57	25.110		
3,700.00	3,519.62	15,806.67	7,133.67	20.74	250.58	176.92	2,242.34	-91.73	4,889.69	4,689.73	199.96	24.453		
3,800.00	3,613.21	15,809.49	7,133.68	21.34	250.66	176.89	2,242.32	-94.55	4,845.01	4,641.63	203.37	23.823		
3,900.00	3,706.80	15,812.31	7,133.69	21.95	250.74	176.85	2,242.29	-97.38	4,801.98	4,595.18	206.81	23.219		
4,000.00	3,800.39	15,815.14	7,133.69	22.56	250.82	176.81	2,242.26	-100.20	4,760.67	4,550.41	210.26	22.642		
4,100.00	3,893.98	15,817.96	7,133.70	23.16	250.90	176.77	2,242.23	-103.02	4,721.11	4,507.40	213.72	22.090		
4,200.00	3,987.57	15,820.78	7,133.71	23.77	250.98	176.74	2,242.20	-105.85	4,683.36	4,466.18	217.18	21.564		
4,300.00	4,081.16	15,823.61	7,133.71	24.38	251.06	176.70	2,242.17	-108.67	4,647.44	4,426.80	220.64	21.063		
4,400.00	4,174.75	15,826.43	7,133.72	24.99	251.14	176.66	2,242.14	-111.49	4,613.42	4,389.33	224.09	20.587		
4,500.00	4,268.34	15,829.25	7,133.73	25.60	251.22	176.63	2,242.11	-114.32	4,581.32	4,353.80	227.52	20.136		
4,600.00	4,361.93	15,832.08	7,133.73	26.21	251.30	176.59	2,242.08	-117.14	4,551.19	4,320.26	230.92	19.709		
4,700.00	4,455.52	15,834.90	7,133.74	26.82	251.38	176.55	2,242.05	-119.96	4,523.07	4,288.77	234.30	19.305		
4,800.00	4,549.11	15,837.72	7,133.75	27.43	251.46	176.51	2,242.03	-122.79	4,497.00	4,259.37	237.63	18.925		
4,900.00	4,642.70	15,840.55	7,133.75	28.04	251.54	176.48	2,242.00	-125.61	4,473.00	4,232.09	240.91	18.567		
5,000.00	4,736.29	15,843.37	7,133.76	28.65	251.62	176.44	2,241.97	-128.43	4,451.13	4,206.99	244.14	18.232		
5,100.00	4,829.88	15,846.19	7,133.77	29.26	251.70	176.40	2,241.94	-131.25	4,431.40	4,184.10	247.30	17.919		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	15,849.02	7,133.77	29.87	251.78	176.37	2,241.91	-134.08	4,413.85	4,163.46	250.39	17.628		
5,300.00	5,017.06	15,851.84	7,133.78	30.48	251.86	176.33	2,241.88	-136.90	4,398.50	4,145.09	253.41	17.357		
5,400.00	5,110.65	15,854.66	7,133.79	31.09	251.94	176.29	2,241.85	-139.72	4,385.38	4,129.04	256.34	17.108		
5,500.00	5,204.24	15,857.49	7,133.80	31.70	252.02	176.25	2,241.82	-142.55	4,374.50	4,115.33	259.17	16.879		
5,600.00	5,297.83	15,860.31	7,133.80	32.32	252.10	176.22	2,241.79	-145.37	4,365.88	4,103.97	261.91	16.670		
5,700.00	5,391.42	15,863.13	7,133.81	32.93	252.18	176.18	2,241.77	-148.19	4,359.54	4,095.00	264.54	16.480		
5,800.00	5,485.01	15,865.96	7,133.82	33.54	252.26	176.14	2,241.74	-151.02	4,355.49	4,088.43	267.06	16.309		
5,900.00	5,578.60	15,868.78	7,133.82	34.15	252.34	176.11	2,241.71	-153.84	4,353.72	4,084.26	269.46	16.157		
5,926.86	5,603.74	15,869.54	7,133.83	34.32	252.36	176.10	2,241.70	-154.60	4,353.64	4,083.55	270.09	16.119 CC		
6,000.00	5,672.19	15,871.60	7,133.83	34.77	252.42	176.07	2,241.68	-156.66	4,354.25	4,082.51	271.74	16.023 ES		
6,100.00	5,765.78	15,874.43	7,133.84	35.38	252.50	176.03	2,241.65	-159.49	4,357.08	4,083.18	273.90	15.907		
6,200.00	5,859.37	15,877.25	7,133.84	35.99	252.58	175.99	2,241.62	-162.31	4,362.19	4,086.26	275.93	15.809		
6,300.00	5,952.96	15,880.07	7,133.85	36.60	252.66	175.96	2,241.59	-165.13	4,369.59	4,091.76	277.83	15.727		
6,400.00	6,046.55	15,882.89	7,133.86	37.22	252.74	175.92	2,241.56	-167.95	4,379.25	4,099.65	279.60	15.663		
6,500.00	6,140.14	15,885.72	7,133.86	37.83	252.82	175.88	2,241.53	-170.78	4,391.17	4,109.94	281.24	15.614		
6,600.00	6,233.73	15,888.54	7,133.87	38.44	252.90	175.85	2,241.51	-173.60	4,405.33	4,122.59	282.74	15.581		
6,700.00	6,327.32	15,908.70	7,133.88	39.06	253.47	175.81	2,241.48	-176.42	4,421.70	4,137.11	284.59	15.537		
6,800.00	6,420.91	15,905.88	7,133.89	39.67	253.39	175.77	2,241.45	-179.25	4,440.26	4,154.60	285.67	15.544		
6,900.00	6,514.50	15,903.05	7,133.89	40.28	253.31	175.73	2,241.42	-182.07	4,460.99	4,174.38	286.61	15.565		
7,000.00	6,608.09	15,900.23	7,133.90	40.90	253.23	175.70	2,241.39	-184.89	4,483.85	4,196.42	287.43	15.600		
7,100.00	6,701.63	15,903.93	7,133.91	41.51	253.33	165.27	2,241.35	-188.99	4,508.79	4,220.49	288.30	15.639		
7,200.00	6,793.85	15,920.84	7,133.95	42.10	253.81	142.89	2,241.17	-205.90	4,535.37	4,245.96	289.41	15.671		
7,300.00	6,882.50	15,952.95	7,134.03	42.64	254.72	126.65	2,240.85	-238.00	4,562.74	4,271.93	290.82	15.689		
7,400.00	6,965.41	16,000.61	7,134.14	43.12	256.06	115.09	2,240.37	-284.51	4,589.92	4,297.38	292.54	15.690		
7,500.00	7,040.53	16,059.22	7,134.29	43.53	257.72	106.61	2,239.76	-344.27	4,615.82	4,321.34	294.49	15.674		
7,600.00	7,106.00	16,130.77	7,134.46	43.89	259.74	100.22	2,239.02	-415.82	4,639.36	4,342.60	296.76	15.633		
7,700.00	7,160.23	16,212.35	7,134.66	44.20	262.05	95.44	2,238.19	-497.39	4,659.50	4,360.13	299.37	15.564		
7,800.00	7,201.86	16,301.94	7,134.88	44.48	264.58	92.01	2,237.27	-586.98	4,675.32	4,373.00	302.32	15.465		
7,900.00	7,229.88	16,402.72	7,135.11	44.73	267.44	89.80	2,236.29	-682.37	4,686.08	4,380.31	305.77	15.325		
8,000.00	7,243.60	16,503.86	7,135.36	44.99	270.30	88.76	2,235.28	-781.23	4,691.28	4,381.82	309.46	15.160		
8,100.00	7,244.73	16,603.89	7,135.60	45.29	273.13	88.67	2,234.25	-881.19	4,691.47	4,378.15	313.33	14.973		
8,200.00	7,244.23	16,703.90	7,135.84	45.74	275.96	88.68	2,233.23	-981.18	4,691.02	4,373.65	317.38	14.781		
8,300.00	7,243.73	16,803.90	7,136.09	46.38	278.79	88.69	2,232.20	-1,081.17	4,690.57	4,368.99	321.58	14.586		
8,400.00	7,243.23	16,903.91	7,136.33	47.29	281.62	88.70	2,231.18	-1,181.17	4,690.11	4,364.19	325.93	14.390		
8,500.00	7,242.73	16,996.16	7,136.58	48.46	284.23	88.70	2,230.15	-1,281.16	4,689.66	4,359.48	330.18	14.203		
8,600.00	7,242.23	17,103.91	7,136.82	49.87	287.29	88.71	2,229.13	-1,381.15	4,689.21	4,354.21	334.99	13.998		
8,700.00	7,241.73	17,203.92	7,137.07	51.48	290.12	88.72	2,228.11	-1,481.14	4,688.75	4,349.07	339.69	13.803		
8,800.00	7,241.23	17,296.15	7,137.31	53.24	292.73	88.73	2,227.08	-1,581.13	4,688.30	4,344.05	344.25	13.619		
8,900.00	7,240.73	17,403.93	7,137.56	55.13	295.79	88.74	2,226.06	-1,681.12	4,687.85	4,338.51	349.34	13.419		
9,000.00	7,240.23	17,503.93	7,137.80	57.11	298.62	88.75	2,225.03	-1,781.11	4,687.40	4,333.11	354.28	13.231		
9,100.00	7,239.73	17,603.94	7,138.04	59.19	301.46	88.76	2,224.01	-1,881.10	4,686.94	4,327.66	359.29	13.045		
9,200.00	7,239.23	17,696.13	7,138.29	61.34	304.07	88.77	2,222.98	-1,981.09	4,686.49	4,322.36	364.13	12.870		
9,300.00	7,238.72	17,796.13	7,138.53	63.55	306.91	88.78	2,221.96	-2,081.08	4,686.04	4,316.79	369.24	12.691		
9,400.00	7,238.22	17,903.95	7,138.78	65.81	309.97	88.79	2,220.93	-2,181.07	4,685.59	4,310.96	374.63	12.507		
9,500.00	7,237.72	17,996.12	7,139.02	68.13	312.58	88.79	2,219.91	-2,281.06	4,685.13	4,305.52	379.61	12.342		
9,600.00	7,237.22	18,096.12	7,139.27	70.48	315.42	88.80	2,218.88	-2,381.05	4,684.68	4,299.83	384.85	12.173		
9,700.00	7,236.72	18,203.96	7,139.51	72.88	318.48	88.81	2,217.86	-2,481.04	4,684.23	4,293.88	390.35	12.000		
9,800.00	7,236.22	18,303.96	7,139.75	75.31	321.31	88.82	2,216.83	-2,581.04	4,683.78	4,288.12	395.65	11.838		
9,900.00	7,235.72	18,403.97	7,140.00	77.77	324.15	88.83	2,215.81	-2,681.03	4,683.32	4,282.34	400.99	11.680		
10,000.00	7,235.22	18,496.10	7,140.24	80.26	326.77	88.84	2,214.78	-2,781.02	4,682.87	4,276.75	406.12	11.531		
10,100.00	7,234.72	18,603.98	7,140.49	82.77	329.83	88.85	2,213.76	-2,881.01	4,682.42	4,270.70	411.73	11.373		
10,200.00	7,234.22	18,703.98	7,140.73	85.31	332.67	88.86	2,212.73	-2,981.00	4,681.97	4,264.84	417.13	11.224		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	18,796.09	7,140.98	87.86	335.28	88.87	2,211.71	-3,080.99	4,681.52	4,259.20	422.32	11.085		
10,400.00	7,233.22	18,896.09	7,141.22	90.44	338.12	88.88	2,210.68	-3,180.98	4,681.07	4,253.31	427.76	10.943		
10,500.00	7,232.72	18,996.08	7,141.46	93.03	340.96	88.88	2,209.66	-3,280.97	4,680.62	4,247.40	433.21	10.804		
10,543.37	7,232.50	19,018.34	7,141.52	94.16	341.60	88.89	2,209.43	-3,303.22	4,680.47	4,245.51	434.96	10.761		
10,600.00	7,232.22	19,018.34	7,141.52	95.64	341.60	88.89	2,209.43	-3,303.22	4,680.81	4,244.47	436.34	10.727		
10,700.00	7,231.72	19,018.34	7,141.52	98.26	341.60	88.89	2,209.43	-3,303.22	4,683.09	4,244.45	438.64	10.676		
10,800.00	7,231.21	19,018.34	7,141.52	100.89	341.60	88.89	2,209.43	-3,303.22	4,687.50	4,246.75	440.75	10.635		
10,900.00	7,230.71	19,018.34	7,141.52	103.54	341.60	88.89	2,209.43	-3,303.22	4,694.04	4,251.35	442.69	10.604		
11,000.00	7,230.21	19,018.34	7,141.52	106.20	341.60	88.89	2,209.43	-3,303.22	4,702.69	4,258.26	444.43	10.581		
11,100.00	7,229.71	19,018.34	7,141.52	108.87	341.60	88.89	2,209.43	-3,303.22	4,713.45	4,267.46	445.99	10.568		
11,200.00	7,229.21	19,018.34	7,141.52	111.54	341.60	88.89	2,209.43	-3,303.22	4,726.30	4,278.94	447.36	10.565 SF		
11,300.00	7,228.71	19,018.34	7,141.52	114.23	341.60	88.89	2,209.43	-3,303.22	4,741.23	4,292.69	448.55	10.570		
11,400.00	7,228.21	19,018.34	7,141.52	116.92	341.60	88.89	2,209.43	-3,303.22	4,758.21	4,308.67	449.54	10.585		
11,500.00	7,227.71	19,018.34	7,141.52	119.63	341.60	88.89	2,209.43	-3,303.22	4,777.23	4,326.88	450.36	10.608		
11,600.00	7,227.21	19,018.34	7,141.52	122.34	341.60	88.89	2,209.43	-3,303.22	4,798.26	4,347.27	450.99	10.639		
11,700.00	7,226.71	19,018.34	7,141.52	125.05	341.60	88.89	2,209.43	-3,303.22	4,821.26	4,369.83	451.44	10.680		
11,800.00	7,226.21	19,018.34	7,141.52	127.78	341.60	88.89	2,209.43	-3,303.22	4,846.23	4,394.51	451.71	10.729		
11,900.00	7,225.71	19,018.34	7,141.52	130.51	341.60	88.89	2,209.43	-3,303.22	4,873.11	4,421.29	451.82	10.785		
12,000.00	7,225.21	19,018.34	7,141.52	133.24	341.60	88.89	2,209.43	-3,303.22	4,901.89	4,450.13	451.76	10.851		
12,100.00	7,224.71	19,018.34	7,141.52	135.98	341.60	88.89	2,209.43	-3,303.22	4,932.53	4,480.99	451.55	10.924		
12,200.00	7,224.21	19,018.34	7,141.52	138.72	341.60	88.89	2,209.43	-3,303.22	4,965.00	4,513.82	451.18	11.005		
12,300.00	7,223.70	19,018.34	7,141.52	141.47	341.60	88.89	2,209.43	-3,303.22	4,999.26	4,548.60	450.66	11.093		
12,400.00	7,223.20	19,018.34	7,141.52	144.23	341.60	88.89	2,209.43	-3,303.22	5,035.26	4,585.26	450.00	11.189		
12,500.00	7,222.70	19,018.34	7,141.52	146.98	341.60	88.89	2,209.43	-3,303.22	5,072.99	4,623.78	449.21	11.293		
12,600.00	7,222.20	19,018.34	7,141.52	149.74	341.60	88.89	2,209.43	-3,303.22	5,112.39	4,664.10	448.29	11.404		
12,700.00	7,221.70	19,018.34	7,141.52	152.51	341.60	88.89	2,209.43	-3,303.22	5,153.43	4,706.18	447.25	11.523		
12,800.00	7,221.20	19,018.34	7,141.52	155.28	341.60	88.89	2,209.43	-3,303.22	5,196.07	4,749.98	446.09	11.648		
12,900.00	7,220.70	19,018.34	7,141.52	158.05	341.60	88.89	2,209.43	-3,303.22	5,240.28	4,795.45	444.83	11.780		
13,000.00	7,220.20	19,018.34	7,141.52	160.82	341.60	88.89	2,209.43	-3,303.22	5,286.00	4,842.53	443.47	11.920		
13,100.00	7,219.70	19,018.34	7,141.52	163.60	341.60	88.89	2,209.43	-3,303.22	5,333.21	4,891.19	442.02	12.066		
13,200.00	7,219.20	19,018.34	7,141.52	166.38	341.60	88.89	2,209.43	-3,303.22	5,381.87	4,941.39	440.48	12.218		
13,300.00	7,218.70	19,018.34	7,141.52	169.16	341.60	88.89	2,209.43	-3,303.22	5,431.93	4,993.07	438.86	12.377		
13,400.00	7,218.20	19,018.34	7,141.52	171.95	341.60	88.89	2,209.43	-3,303.22	5,483.35	5,046.18	437.17	12.543		
13,500.00	7,217.70	19,018.34	7,141.52	174.74	341.60	88.89	2,209.43	-3,303.22	5,536.11	5,100.70	435.41	12.715		
13,600.00	7,217.20	19,018.34	7,141.52	177.53	341.60	88.89	2,209.43	-3,303.22	5,590.15	5,156.57	433.59	12.893		
13,700.00	7,216.70	19,018.34	7,141.52	180.32	341.60	88.89	2,209.43	-3,303.22	5,645.45	5,213.74	431.71	13.077		
13,800.00	7,216.19	19,018.34	7,141.52	183.11	341.60	88.89	2,209.43	-3,303.22	5,701.97	5,272.19	429.78	13.267		
13,900.00	7,215.69	19,018.34	7,141.52	185.91	341.60	88.89	2,209.43	-3,303.22	5,759.67	5,331.86	427.81	13.463		
14,000.00	7,215.19	19,018.34	7,141.52	188.71	341.60	88.89	2,209.43	-3,303.22	5,818.51	5,392.72	425.80	13.665		
14,100.00	7,214.69	19,018.34	7,141.52	191.51	341.60	88.89	2,209.43	-3,303.22	5,878.47	5,454.72	423.75	13.873		
14,200.00	7,214.19	19,018.34	7,141.52	194.31	341.60	88.89	2,209.43	-3,303.22	5,939.51	5,517.84	421.67	14.086		
14,300.00	7,213.69	19,018.34	7,141.52	197.11	341.60	88.89	2,209.43	-3,303.22	6,001.59	5,582.02	419.57	14.304		
14,400.00	7,213.19	19,018.34	7,141.52	199.92	341.60	88.89	2,209.43	-3,303.22	6,064.69	5,647.25	417.44	14.528		
14,500.00	7,212.69	19,018.34	7,141.52	202.72	341.60	88.89	2,209.43	-3,303.22	6,128.76	5,713.47	415.30	14.758		
14,600.00	7,212.19	19,018.34	7,141.52	205.53	341.60	88.89	2,209.43	-3,303.22	6,193.79	5,780.66	413.14	14.992		
14,700.00	7,211.69	19,018.34	7,141.52	208.34	341.60	88.89	2,209.43	-3,303.22	6,259.74	5,848.78	410.96	15.232		
14,800.00	7,211.19	19,018.34	7,141.52	211.15	341.60	88.89	2,209.43	-3,303.22	6,326.59	5,917.81	408.78	15.477		
14,900.00	7,210.69	19,018.34	7,141.52	213.96	341.60	88.89	2,209.43	-3,303.22	6,394.30	5,987.70	406.60	15.726		
15,000.00	7,210.19	19,018.34	7,141.52	216.78	341.60	88.89	2,209.43	-3,303.22	6,462.85	6,058.44	404.41	15.981		
15,100.00	7,209.69	19,018.34	7,141.52	219.59	341.60	88.89	2,209.43	-3,303.22	6,532.21	6,129.98	402.22	16.240		
15,200.00	7,209.18	19,018.34	7,141.52	222.41	341.60	88.89	2,209.43	-3,303.22	6,602.35	6,202.32	400.03	16.504		
15,300.00	7,208.68	19,018.34	7,141.52	225.22	341.60	88.89	2,209.43	-3,303.22	6,673.26	6,275.41	397.85	16.773		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,400.00	7,208.18	19,018.34	7,141.52	228.04	341.60	88.89	2,209.43	-3,303.22	6,744.90	6,349.23	395.67	17.047	
15,437.48	7,208.00	19,018.34	7,141.52	229.10	341.60	88.89	2,209.43	-3,303.22	6,771.94	6,377.08	394.86	17.150	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21-4(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1,489.97	1,536.55	3.28	8.01	-116.80	-3,797.17	-7,518.56	8,562.02					
100.00	100.00	1,521.27	1,567.29	3.28	8.18	-116.78	-3,792.81	-7,514.61	8,544.46	8,533.64	10.82	789.364		
200.00	200.00	1,584.00	1,629.02	3.34	8.51	-116.75	-3,784.38	-7,507.38	8,527.86	8,516.73	11.13	766.532		
300.00	299.98	1,584.24	1,629.26	3.44	8.51	59.91	-3,784.35	-7,507.35	8,510.80	8,499.60	11.20	760.029		
400.00	399.84	1,706.11	1,749.22	3.59	9.14	60.34	-3,767.39	-7,494.21	8,492.25	8,480.38	11.87	715.508		
500.00	499.45	1,773.00	1,815.12	3.79	9.49	60.76	-3,758.33	-7,487.16	8,472.38	8,460.04	12.34	686.492		
600.00	598.70	1,854.16	1,895.15	4.03	9.91	61.24	-3,748.01	-7,478.50	8,451.16	8,438.24	12.92	654.062		
700.00	697.47	1,914.27	1,954.45	4.31	10.22	61.73	-3,740.51	-7,472.05	8,428.45	8,415.00	13.45	626.747		
800.00	795.62	800.00	2,061.22	4.64	4.86	62.36	-3,726.49	-7,461.04	8,404.44	8,395.16	9.29	905.082		
900.00	893.06	2,295.28	2,329.80	5.00	12.25	63.35	-3,692.11	-7,428.32	8,377.10	8,361.31	15.80	530.298		
1,000.00	989.64	2,502.01	2,532.76	5.40	13.41	64.35	-3,664.54	-7,400.25	8,346.86	8,329.76	17.10	488.035		
1,100.00	1,085.27	2,554.56	2,584.33	5.83	13.70	65.07	-3,657.63	-7,392.93	8,315.38	8,297.64	17.74	468.791		
1,200.00	1,179.82	2,874.42	2,897.42	6.29	15.57	66.59	-3,611.87	-7,346.47	8,281.90	8,262.26	19.63	421.829		
1,300.00	1,273.47	2,916.50	2,938.50	6.79	15.82	66.93	-3,605.37	-7,340.03	8,246.28	8,226.00	20.28	406.555		
1,400.00	1,367.06	2,958.86	2,979.90	7.30	16.08	67.06	-3,599.06	-7,333.67	8,211.22	8,190.27	20.96	391.846		
1,500.00	1,460.64	1,500.00	3,098.41	7.83	7.67	67.41	-3,581.99	-7,315.24	8,176.50	8,161.74	14.76	553.995		
1,600.00	1,554.23	3,154.71	3,171.42	8.38	17.25	67.63	-3,571.72	-7,303.24	8,141.41	8,118.56	22.85	356.293		
1,700.00	1,647.82	3,200.00	3,215.79	8.93	17.52	67.76	-3,565.78	-7,296.33	8,107.19	8,083.61	23.58	343.802		
1,800.00	1,741.41	1,800.00	3,288.51	9.49	9.47	67.98	-3,556.07	-7,285.08	8,073.33	8,055.67	17.67	456.949		
1,900.00	1,835.00	3,357.81	3,370.38	10.05	18.44	68.22	-3,545.06	-7,272.31	8,039.53	8,014.16	25.37	316.858		
2,000.00	1,928.59	3,391.00	3,402.90	10.62	18.64	68.32	-3,540.72	-7,267.33	8,006.28	7,980.19	26.08	306.960		
2,100.00	2,022.18	3,391.00	3,402.90	11.20	18.64	68.32	-3,540.72	-7,267.33	7,974.03	7,947.37	26.66	299.154		
2,200.00	2,115.77	3,445.13	3,456.04	11.78	18.94	68.48	-3,533.68	-7,259.84	7,942.20	7,914.73	27.47	289.090		
2,300.00	2,209.36	3,486.00	3,496.27	12.37	19.18	68.61	-3,528.37	-7,254.91	7,911.57	7,883.33	28.24	280.157		
2,400.00	2,302.95	3,583.79	3,592.51	12.95	19.72	68.91	-3,515.31	-7,243.53	7,881.58	7,852.31	29.26	269.324		
2,500.00	2,396.54	3,581.00	3,589.77	13.54	19.70	68.90	-3,515.69	-7,243.86	7,851.80	7,821.95	29.85	263.025		
2,600.00	2,490.13	3,626.64	3,634.68	14.13	19.95	69.05	-3,509.35	-7,238.81	7,822.68	7,792.02	30.66	255.145		
2,700.00	2,583.72	3,677.00	3,684.32	14.73	20.23	69.21	-3,502.18	-7,234.25	7,794.79	7,763.30	31.49	247.502		
2,800.00	2,677.31	4,102.49	4,101.28	15.32	22.70	70.64	-3,433.47	-7,185.50	7,763.58	7,729.53	34.04	228.055		
2,900.00	2,770.90	2,900.00	4,235.55	15.92	15.62	71.08	-3,415.19	-7,165.15	7,731.97	7,703.10	28.87	267.810		
3,000.00	2,864.49	4,291.47	4,286.39	16.52	23.81	71.24	-3,408.21	-7,157.11	7,700.17	7,664.06	36.11	213.229		
3,100.00	2,958.08	4,343.00	4,336.99	17.12	24.11	71.41	-3,401.59	-7,149.95	7,669.62	7,632.65	36.97	207.455		
3,200.00	3,051.67	4,343.00	4,336.99	17.72	24.11	71.41	-3,401.59	-7,149.95	7,639.58	7,601.96	37.61	203.107		
3,300.00	3,145.26	4,422.37	4,415.02	18.32	24.57	71.66	-3,391.31	-7,139.66	7,610.40	7,571.81	38.60	197.176		
3,400.00	3,238.85	4,474.79	4,466.52	18.92	24.86	71.84	-3,384.24	-7,132.98	7,581.50	7,542.03	39.47	192.079		
3,500.00	3,332.44	4,534.00	4,524.77	19.53	25.20	72.03	-3,376.40	-7,125.83	7,553.36	7,512.98	40.38	187.069		
3,600.00	3,426.03	4,577.10	4,567.22	20.13	25.44	72.17	-3,370.94	-7,120.76	7,525.81	7,484.59	41.21	182.600		
3,700.00	3,519.62	4,629.00	4,618.39	20.74	25.72	72.34	-3,364.82	-7,114.57	7,498.75	7,456.66	42.09	178.154		
3,800.00	3,613.21	4,664.06	4,653.00	21.34	25.91	72.45	-3,360.92	-7,110.52	7,472.44	7,429.55	42.90	174.200		
3,900.00	3,706.80	4,691.56	4,680.18	21.95	26.05	72.54	-3,357.96	-7,107.59	7,447.08	7,403.41	43.67	170.528		
4,000.00	3,800.39	4,724.00	4,712.28	22.56	26.23	72.65	-3,354.58	-7,104.38	7,422.65	7,378.18	44.47	166.924		
4,100.00	3,893.98	4,100.00	4,812.60	23.16	23.03	72.97	-3,344.61	-7,094.31	7,398.57	7,356.36	42.21	175.274		
4,200.00	3,987.57	4,866.51	4,853.41	23.77	26.95	73.10	-3,340.83	-7,090.20	7,374.92	7,328.54	46.38	159.014		
4,300.00	4,081.16	4,915.00	4,901.51	24.38	27.19	73.25	-3,336.52	-7,085.83	7,352.20	7,304.95	47.24	155.628		
4,400.00	4,174.75	4,915.00	4,901.51	24.99	27.19	73.25	-3,336.52	-7,085.83	7,330.35	7,282.45	47.91	153.014		
4,500.00	4,268.34	4,987.87	4,973.87	25.60	27.54	73.48	-3,330.27	-7,079.95	7,309.10	7,260.23	48.87	149.567		
4,600.00	4,361.93	5,033.66	5,019.38	26.21	27.76	73.63	-3,326.44	-7,076.60	7,288.69	7,238.97	49.72	146.592		
4,700.00	4,455.52	5,104.00	5,089.34	26.82	28.09	73.85	-3,320.70	-7,071.96	7,269.12	7,218.44	50.68	143.443		
4,800.00	4,549.11	5,104.00	5,089.34	27.43	28.09	73.85	-3,320.70	-7,071.96	7,250.20	7,198.86	51.34	141.224		
4,900.00	4,642.70	5,163.18	5,148.25	28.04	28.35	74.04	-3,316.27	-7,068.56	7,232.07	7,179.83	52.24	138.444		
5,000.00	4,736.29	5,203.83	5,188.76	28.65	28.53	74.16	-3,313.58	-7,066.48	7,214.83	7,161.76	53.06	135.968		
5,100.00	4,829.88	5,244.78	5,229.60	29.26	28.71	74.29	-3,311.17	-7,064.60	7,198.42	7,144.53	53.89	133.582		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21-4(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	5,294.00	5,278.71	29.87	28.92	74.44	-3,308.66	-7,062.63	7,182.85	7,128.10	54.75	131.203		
5,300.00	5,017.06	5,343.13	5,327.76	30.48	29.12	74.59	-3,306.47	-7,060.88	7,168.01	7,112.42	55.59	128.937		
5,400.00	5,110.65	5,404.20	5,388.75	31.09	29.36	74.77	-3,303.99	-7,058.90	7,153.78	7,097.29	56.49	126.643		
5,500.00	5,204.24	5,465.53	5,450.01	31.70	29.60	74.95	-3,301.78	-7,057.11	7,140.13	7,082.74	57.38	124.430		
5,600.00	5,297.83	5,527.10	5,511.53	32.32	29.85	75.13	-3,299.83	-7,055.53	7,127.05	7,068.78	58.28	122.293		
5,700.00	5,391.42	5,579.00	5,563.40	32.93	30.05	75.29	-3,298.41	-7,054.35	7,114.57	7,055.44	59.13	120.312		
5,800.00	5,485.01	5,650.18	5,634.54	33.54	30.31	75.49	-3,296.74	-7,052.99	7,102.65	7,042.60	60.06	118.261		
5,900.00	5,578.60	5,711.72	5,696.06	34.15	30.54	75.67	-3,295.52	-7,052.07	7,091.33	7,030.39	60.95	116.356		
6,000.00	5,672.19	5,773.44	5,757.78	34.77	30.77	75.85	-3,294.50	-7,051.38	7,080.60	7,018.77	61.83	114.515		
6,100.00	5,765.78	5,864.00	5,848.32	35.38	31.11	76.11	-3,293.39	-7,050.79	7,070.54	7,007.70	62.83	112.530		
6,200.00	5,859.37	5,901.90	5,886.22	35.99	31.24	76.22	-3,293.02	-7,050.69	7,060.86	6,997.25	63.62	110.993		
6,300.00	5,952.96	5,972.34	5,956.66	36.60	31.48	76.42	-3,292.37	-7,050.66	7,051.77	6,987.24	64.53	109.286		
6,400.00	6,046.55	6,042.82	6,027.13	37.22	31.73	76.62	-3,291.74	-7,050.86	7,043.15	6,977.71	65.44	107.635		
6,500.00	6,140.14	6,113.33	6,097.64	37.83	31.98	76.82	-3,291.15	-7,051.28	7,035.00	6,968.65	66.34	106.038		
6,600.00	6,233.73	6,198.64	6,182.95	38.44	32.28	77.07	-3,290.46	-7,052.03	7,027.28	6,959.97	67.31	104.397		
6,700.00	6,327.32	6,300.80	6,285.10	39.06	32.64	77.36	-3,289.50	-7,052.89	7,019.69	6,951.34	68.35	102.703		
6,800.00	6,420.91	6,402.83	6,387.12	39.67	32.99	77.66	-3,288.37	-7,053.64	7,012.15	6,942.76	69.39	101.061		
6,900.00	6,514.50	6,491.09	6,475.37	40.28	33.31	77.92	-3,287.28	-7,054.25	7,004.74	6,934.37	70.37	99.541		
7,000.00	6,608.09	6,572.43	6,556.70	40.90	33.60	78.16	-3,286.22	-7,054.95	6,997.65	6,926.32	71.33	98.104		
7,100.00	6,701.63	6,653.70	6,637.96	41.51	33.89	78.94	-3,285.12	-7,055.79	6,989.64	6,917.35	72.28	96.696		
7,200.00	6,793.85	6,723.00	6,707.25	42.10	34.14	79.20	-3,284.15	-7,056.63	6,969.33	6,896.17	73.16	95.263		
7,300.00	6,882.50	6,793.96	6,778.20	42.64	34.39	79.46	-3,283.22	-7,057.68	6,934.51	6,860.53	73.97	93.746		
7,400.00	6,965.41	6,852.57	6,836.79	43.12	34.59	79.66	-3,282.57	-7,058.77	6,886.02	6,811.36	74.66	92.230		
7,500.00	7,040.53	6,906.21	6,890.42	43.53	34.78	79.82	-3,282.07	-7,059.94	6,824.96	6,749.70	75.26	90.686		
7,600.00	7,106.00	6,953.60	6,937.78	43.89	34.94	79.96	-3,281.72	-7,061.10	6,752.68	6,676.93	75.76	89.136		
7,700.00	7,160.23	7,010.00	6,994.17	44.20	35.14	80.00	-3,281.39	-7,062.66	6,670.89	6,594.67	76.21	87.528		
7,800.00	7,201.86	7,028.89	7,013.05	44.48	35.21	80.00	-3,281.27	-7,063.22	6,581.38	6,504.94	76.44	86.096		
7,900.00	7,229.88	7,056.65	7,040.80	44.73	35.31	80.00	-3,281.05	-7,064.06	6,486.35	6,409.72	76.63	84.646		
8,000.00	7,243.60	7,071.73	7,055.87	44.99	35.36	80.00	-3,280.90	-7,064.52	6,388.08	6,311.39	76.69	83.295		
8,100.00	7,244.73	7,075.56	7,059.69	45.29	35.37	80.00	-3,280.86	-7,064.64	6,288.90	6,212.24	76.66	82.038		
8,200.00	7,244.23	7,077.92	7,062.06	45.74	35.38	80.00	-3,280.84	-7,064.72	6,189.73	6,113.12	76.61	80.792		
8,300.00	7,243.73	7,080.30	7,064.43	46.38	35.39	80.00	-3,280.81	-7,064.79	6,090.59	6,014.02	76.57	79.542		
8,400.00	7,243.23	7,082.70	7,066.83	47.29	35.40	80.00	-3,280.78	-7,064.87	5,991.47	5,914.94	76.53	78.288		
8,500.00	7,242.73	7,085.10	7,069.23	48.46	35.41	80.00	-3,280.75	-7,064.94	5,892.39	5,815.89	76.49	77.030		
8,600.00	7,242.23	7,087.52	7,071.65	49.87	35.41	80.00	-3,280.72	-7,065.02	5,793.33	5,716.87	76.46	75.768		
8,700.00	7,241.73	7,089.95	7,074.07	51.48	35.42	80.00	-3,280.69	-7,065.09	5,694.31	5,617.88	76.43	74.502		
8,800.00	7,241.23	7,092.39	7,076.52	53.24	35.43	80.14	-3,280.66	-7,065.17	5,595.32	5,518.91	76.41	73.231		
8,900.00	7,240.73	7,094.85	7,078.97	55.13	35.44	80.31	-3,280.63	-7,065.25	5,496.36	5,419.98	76.39	71.954		
9,000.00	7,240.23	7,097.32	7,081.44	57.11	35.45	80.49	-3,280.60	-7,065.33	5,397.45	5,321.08	76.37	70.673		
9,100.00	7,239.73	7,099.80	7,083.92	59.19	35.46	80.66	-3,280.57	-7,065.41	5,298.57	5,222.21	76.36	69.387		
9,200.00	7,239.23	7,102.29	7,086.41	61.34	35.47	80.84	-3,280.53	-7,065.49	5,199.73	5,123.37	76.36	68.095		
9,300.00	7,238.72	7,104.80	7,088.92	63.55	35.48	81.02	-3,280.50	-7,065.57	5,100.94	5,024.58	76.36	66.797		
9,400.00	7,238.22	7,107.32	7,091.44	65.81	35.48	81.20	-3,280.47	-7,065.65	5,002.20	4,925.82	76.38	65.493		
9,500.00	7,237.72	7,109.86	7,093.97	68.13	35.49	81.38	-3,280.43	-7,065.73	4,903.50	4,827.10	76.40	64.182		
9,600.00	7,237.22	7,112.40	7,096.51	70.48	35.50	81.56	-3,280.39	-7,065.81	4,804.86	4,728.43	76.43	62.865		
9,700.00	7,236.72	7,114.96	7,099.07	72.88	35.51	81.74	-3,280.36	-7,065.89	4,706.27	4,629.79	76.48	61.540		
9,800.00	7,236.22	7,117.54	7,101.65	75.31	35.52	81.92	-3,280.32	-7,065.98	4,607.74	4,531.21	76.53	60.208		
9,900.00	7,235.72	7,120.13	7,104.23	77.77	35.53	82.10	-3,280.28	-7,066.06	4,509.28	4,432.68	76.60	58.867		
10,000.00	7,235.22	7,122.73	7,106.84	80.26	35.54	82.29	-3,280.24	-7,066.14	4,410.88	4,334.19	76.69	57.519		
10,100.00	7,234.72	7,125.35	7,109.45	82.77	35.55	82.48	-3,280.20	-7,066.23	4,312.55	4,235.77	76.79	56.161		
10,200.00	7,234.22	7,127.98	7,112.08	85.31	35.56	82.66	-3,280.16	-7,066.31	4,214.31	4,137.39	76.91	54.794		
10,300.00	7,233.72	7,130.62	7,114.72	87.86	35.57	82.85	-3,280.12	-7,066.40	4,116.14	4,039.08	77.06	53.418		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21-4(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 172-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,233.22	7,133.28	7,117.38	90.44	35.58	-83.04	-3,280.07	-7,066.49	4,018.06	3,940.84	77.22	52.031	
10,500.00	7,232.72	7,135.96	7,120.05	93.03	35.59	-83.23	-3,280.03	-7,066.58	3,920.08	3,842.66	77.42	50.634	
10,600.00	7,232.22	7,138.65	7,122.74	95.64	35.59	-83.43	-3,279.98	-7,066.66	3,822.20	3,744.56	77.65	49.226	
10,700.00	7,231.72	7,141.35	7,125.44	98.26	35.60	-83.62	-3,279.94	-7,066.75	3,724.43	3,646.53	77.91	47.806	
10,800.00	7,231.21	7,144.07	7,128.16	100.89	35.61	-83.82	-3,279.89	-7,066.84	3,626.79	3,548.58	78.21	46.374	
10,900.00	7,230.71	7,146.80	7,130.89	103.54	35.62	-84.01	-3,279.84	-7,066.93	3,529.27	3,450.72	78.55	44.931	
11,000.00	7,230.21	7,149.55	7,133.63	106.20	35.63	-84.21	-3,279.79	-7,067.03	3,431.89	3,352.95	78.94	43.475	
11,100.00	7,229.71	7,152.31	7,136.40	108.87	35.64	-84.41	-3,279.75	-7,067.12	3,334.66	3,255.28	79.39	42.006	
11,200.00	7,229.21	7,155.09	7,139.17	111.54	35.65	-84.61	-3,279.69	-7,067.21	3,237.60	3,157.71	79.89	40.525	
11,300.00	7,228.71	7,157.88	7,141.97	114.23	35.66	-84.81	-3,279.64	-7,067.30	3,140.73	3,060.26	80.47	39.031	
11,400.00	7,228.21	7,160.69	7,144.77	116.92	35.67	-85.01	-3,279.59	-7,067.40	3,044.05	2,962.93	81.12	37.526	
11,500.00	7,227.71	7,163.52	7,147.60	119.63	35.68	-85.21	-3,279.54	-7,067.49	2,947.59	2,865.73	81.86	36.009	
11,600.00	7,227.21	7,166.36	7,150.44	122.34	35.69	-85.42	-3,279.48	-7,067.59	2,851.37	2,768.68	82.69	34.481	
11,700.00	7,226.71	7,169.22	7,153.29	125.05	35.70	-85.63	-3,279.43	-7,067.69	2,755.42	2,671.78	83.64	32.943	
11,800.00	7,226.21	7,172.09	7,156.16	127.78	35.71	-85.83	-3,279.37	-7,067.78	2,659.76	2,575.05	84.71	31.397	
11,900.00	7,225.71	7,174.98	7,159.05	130.51	35.72	-86.04	-3,279.31	-7,067.88	2,564.43	2,478.51	85.92	29.846	
12,000.00	7,225.21	7,177.89	7,161.95	133.24	35.73	-86.25	-3,279.25	-7,067.98	2,469.47	2,382.18	87.29	28.290	
12,100.00	7,224.71	7,180.81	7,164.87	135.98	35.74	-86.46	-3,279.19	-7,068.08	2,374.92	2,286.08	88.84	26.733	
12,200.00	7,224.21	7,183.75	7,167.81	138.72	35.75	-86.68	-3,279.13	-7,068.18	2,280.83	2,190.24	90.59	25.178	
12,300.00	7,223.70	7,186.71	7,170.77	141.47	35.76	-86.89	-3,279.07	-7,068.28	2,187.26	2,094.70	92.56	23.630	
12,400.00	7,223.20	7,189.68	7,173.74	144.23	35.77	-87.11	-3,279.00	-7,068.38	2,094.28	1,999.49	94.79	22.093	
12,500.00	7,222.70	7,192.67	7,176.72	146.98	35.79	-87.32	-3,278.94	-7,068.49	2,001.97	1,904.66	97.32	20.572	
12,600.00	7,222.20	7,195.68	7,179.73	149.74	35.80	-87.54	-3,278.87	-7,068.59	1,910.43	1,810.27	100.17	19.073	
12,700.00	7,221.70	7,198.70	7,182.75	152.51	35.81	-87.76	-3,278.81	-7,068.70	1,819.78	1,716.39	103.39	17.601	
12,800.00	7,221.20	7,201.75	7,185.79	155.28	35.82	-87.98	-3,278.74	-7,068.80	1,730.16	1,623.12	107.03	16.164	
12,900.00	7,220.70	7,204.81	7,188.85	158.05	35.83	-88.21	-3,278.67	-7,068.91	1,641.72	1,530.57	111.16	14.770	
13,000.00	7,220.20	7,207.88	7,191.92	160.82	35.84	-88.43	-3,278.60	-7,069.01	1,554.69	1,438.87	115.82	13.424	
13,100.00	7,219.70	7,210.98	7,195.02	163.60	35.85	-88.65	-3,278.53	-7,069.12	1,469.29	1,348.21	121.08	12.135	
13,200.00	7,219.20	7,214.09	7,198.13	166.38	35.86	-88.88	-3,278.45	-7,069.23	1,385.85	1,258.82	127.03	10.910	
13,300.00	7,218.70	7,217.23	7,201.26	169.16	35.87	-89.11	-3,278.38	-7,069.34	1,304.73	1,171.00	133.73	9.757	
13,400.00	7,218.20	7,220.38	7,204.41	171.95	35.88	-89.34	-3,278.30	-7,069.45	1,226.39	1,085.14	141.25	8.682	
13,500.00	7,217.70	7,223.55	7,207.58	174.74	35.89	-89.57	-3,278.22	-7,069.57	1,151.41	1,001.75	149.66	7.694	
13,600.00	7,217.20	7,226.74	7,210.76	177.53	35.91	-89.80	-3,278.14	-7,069.68	1,080.47	921.50	158.97	6.797	
13,700.00	7,216.70	7,229.95	7,213.97	180.32	35.92	-90.04	-3,278.06	-7,069.79	1,014.44	845.29	169.15	5.997	
13,800.00	7,216.19	7,233.17	7,217.19	183.11	35.93	-90.27	-3,277.98	-7,069.91	954.32	774.25	180.07	5.300	
13,900.00	7,215.69	7,236.42	7,220.43	185.91	35.94	-90.51	-3,277.90	-7,070.02	901.31	709.86	191.44	4.708	
14,000.00	7,215.19	7,239.68	7,223.70	188.71	35.95	-90.75	-3,277.81	-7,070.14	856.71	653.90	202.82	4.224	
14,100.00	7,214.69	7,242.97	7,226.98	191.51	35.96	-90.98	-3,277.73	-7,070.26	821.91	608.39	213.52	3.849	
14,200.00	7,214.19	7,246.28	7,230.28	194.31	35.97	-91.23	-3,277.64	-7,070.38	798.19	575.44	222.75	3.583	
14,300.00	7,213.69	7,249.60	7,233.60	197.11	35.99	-91.47	-3,277.55	-7,070.50	786.54	556.84	229.70	3.424	
14,342.38	7,213.48	7,251.02	7,235.02	198.30	35.99	-91.57	-3,277.51	-7,070.55	785.40	553.59	231.81	3.388 CC, ES	
14,400.00	7,213.19	7,252.95	7,236.94	199.92	36.00	-91.71	-3,277.46	-7,070.62	787.51	553.71	233.79	3.368 SF	
14,500.00	7,212.69	7,256.31	7,240.31	202.72	36.01	-91.96	-3,277.36	-7,070.74	801.04	566.23	234.82	3.411	
14,600.00	7,212.19	7,259.70	7,243.69	205.53	36.02	-92.20	-3,277.27	-7,070.86	826.53	593.53	233.00	3.547	
14,700.00	7,211.69	7,263.11	7,247.09	208.34	36.03	-92.45	-3,277.17	-7,070.99	862.91	634.02	228.88	3.770	
14,800.00	7,211.19	7,266.54	7,250.52	211.15	36.05	-92.70	-3,277.08	-7,071.11	908.87	685.70	223.17	4.073	
14,900.00	7,210.69	7,269.99	7,253.96	213.96	36.06	-92.95	-3,276.98	-7,071.24	963.05	746.55	216.50	4.448	
15,000.00	7,210.19	7,273.46	7,257.43	216.78	36.07	-93.21	-3,276.88	-7,071.37	1,024.14	814.72	209.41	4.891	
15,100.00	7,209.69	7,276.95	7,260.92	219.59	36.08	-93.46	-3,276.77	-7,071.50	1,090.98	888.68	202.29	5.393	
15,200.00	7,209.18	7,280.46	7,264.43	222.41	36.09	-93.72	-3,276.67	-7,071.63	1,162.57	967.19	195.39	5.950	
15,300.00	7,208.68	7,284.00	7,267.96	225.22	36.11	-93.98	-3,276.56	-7,071.76	1,238.10	1,049.26	188.85	6.556	
15,400.00	7,208.18	7,287.56	7,271.52	228.04	36.12	-94.23	-3,276.45	-7,071.89	1,316.89	1,134.16	182.74	7.206	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - FRITZLER 11-21-4(PR_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	172-MWD											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,288.90	7,272.86	229.10	36.12	-94.33	-3,276.41	-7,071.94	1,347.15	1,166.58	180.57	7.461	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	66.00	3.28	3.28	-117.28	-3,950.78	-7,660.40	8,619.44					
100.00	100.00	34.00	100.00	3.28	3.33	-117.28	-3,950.78	-7,660.40	8,619.19	8,612.57	6.62	1,302.390		
200.00	200.00	134.00	200.00	3.34	4.40	-117.28	-3,950.78	-7,660.40	8,619.19	8,611.45	7.74	1,114.057		
300.00	299.98	233.98	299.98	3.44	7.21	59.11	-3,950.78	-7,660.40	8,618.29	8,607.64	10.65	809.132		
400.00	399.84	333.84	399.84	3.59	10.44	59.18	-3,950.78	-7,660.40	8,615.61	8,601.58	14.03	614.222		
500.00	499.45	433.45	499.45	3.79	13.78	59.31	-3,950.78	-7,660.40	8,611.14	8,593.57	17.57	490.105		
600.00	598.70	532.70	598.70	4.03	17.17	59.49	-3,950.78	-7,660.40	8,604.90	8,583.70	21.20	405.937		
700.00	697.47	631.47	697.47	4.31	20.56	59.71	-3,950.78	-7,660.40	8,596.91	8,572.03	24.88	345.600		
800.00	795.62	729.62	795.62	4.64	23.95	59.99	-3,950.78	-7,660.40	8,587.19	8,558.61	28.58	300.419		
900.00	893.06	827.06	893.06	5.00	27.32	60.32	-3,950.78	-7,660.40	8,575.78	8,543.47	32.31	265.409		
1,000.00	989.64	923.64	989.64	5.40	30.67	60.69	-3,950.78	-7,660.40	8,562.70	8,526.65	36.05	237.534		
1,100.00	1,085.27	1,019.27	1,085.27	5.83	34.00	61.12	-3,950.78	-7,660.40	8,547.99	8,508.21	39.79	214.842		
1,200.00	1,179.82	1,113.82	1,179.82	6.29	37.28	61.59	-3,950.78	-7,660.40	8,531.71	8,488.18	43.52	196.031		
1,300.00	1,273.47	1,207.47	1,273.47	6.79	40.54	61.89	-3,950.78	-7,660.40	8,514.27	8,467.02	47.25	180.183		
1,400.00	1,367.06	1,301.06	1,367.06	7.30	43.80	62.09	-3,950.78	-7,660.40	8,496.86	8,445.86	51.00	166.600		
1,500.00	1,460.64	1,405.36	1,460.64	7.83	47.43	62.29	-3,950.78	-7,660.40	8,479.56	8,424.42	55.14	153.785		
1,600.00	1,554.23	1,488.23	1,554.23	8.38	50.32	62.49	-3,950.78	-7,660.40	8,462.38	8,403.83	58.54	144.549		
1,700.00	1,647.82	1,581.82	1,647.82	8.93	53.58	62.69	-3,950.78	-7,660.40	8,445.30	8,382.97	62.33	135.489		
1,800.00	1,741.41	1,675.41	1,741.41	9.49	56.84	62.89	-3,950.78	-7,660.40	8,428.34	8,362.21	66.13	127.451		
1,900.00	1,835.00	1,769.00	1,835.00	10.05	60.10	63.09	-3,950.78	-7,660.40	8,411.49	8,341.56	69.94	120.275		
2,000.00	1,928.59	1,862.59	1,928.59	10.62	63.36	63.30	-3,950.78	-7,660.40	8,394.76	8,321.01	73.75	113.830		
2,100.00	2,022.18	1,956.18	2,022.18	11.20	66.63	63.50	-3,950.78	-7,660.40	8,378.14	8,300.57	77.57	108.013		
2,200.00	2,115.77	2,049.77	2,115.77	11.78	69.89	63.71	-3,950.78	-7,660.40	8,361.63	8,280.24	81.39	102.736		
2,300.00	2,209.36	2,143.36	2,209.36	12.37	73.15	63.91	-3,950.78	-7,660.40	8,345.24	8,260.03	85.22	97.929		
2,400.00	2,302.95	2,236.95	2,302.95	12.95	76.42	64.12	-3,950.78	-7,660.40	8,328.97	8,239.92	89.05	93.532		
2,500.00	2,396.54	2,330.54	2,396.54	13.54	79.68	64.33	-3,950.78	-7,660.40	8,312.82	8,219.93	92.88	89.496		
2,600.00	2,490.13	2,424.13	2,490.13	14.13	82.95	64.53	-3,950.78	-7,660.40	8,296.78	8,200.06	96.72	85.778		
2,700.00	2,583.72	2,517.72	2,583.72	14.73	86.21	64.74	-3,950.78	-7,660.40	8,280.86	8,180.30	100.56	82.343		
2,800.00	2,677.31	2,611.31	2,677.31	15.32	89.48	64.95	-3,950.78	-7,660.40	8,265.07	8,160.66	104.41	79.160		
2,900.00	2,770.90	2,704.90	2,770.90	15.92	92.74	65.16	-3,950.78	-7,660.40	8,249.39	8,141.13	108.26	76.203		
3,000.00	2,864.49	2,801.51	2,864.49	16.52	96.11	65.37	-3,950.78	-7,660.40	8,233.83	8,121.62	112.21	73.379		
3,100.00	2,958.08	2,907.92	2,958.08	17.12	99.82	65.58	-3,950.78	-7,660.40	8,218.40	8,101.89	116.51	70.539		
3,200.00	3,051.67	2,985.67	3,051.67	17.72	102.54	65.80	-3,950.78	-7,660.40	8,203.08	8,083.28	119.81	68.468		
3,300.00	3,145.26	3,079.26	3,145.26	18.32	105.80	66.01	-3,950.78	-7,660.40	8,187.89	8,064.23	123.66	66.211		
3,400.00	3,238.85	3,172.85	3,238.85	18.92	109.07	66.22	-3,950.78	-7,660.40	8,172.83	8,045.31	127.52	64.091		
3,500.00	3,332.44	3,266.44	3,332.44	19.53	112.33	66.44	-3,950.78	-7,660.40	8,157.89	8,026.51	131.38	62.095		
3,600.00	3,426.03	3,360.03	3,426.03	20.13	115.60	66.65	-3,950.78	-7,660.40	8,143.07	8,007.83	135.24	60.214		
3,700.00	3,519.62	3,453.62	3,519.62	20.74	118.87	66.87	-3,950.78	-7,660.40	8,128.38	7,989.28	139.10	58.437		
3,800.00	3,613.21	3,547.21	3,613.21	21.34	122.13	67.08	-3,950.78	-7,660.40	8,113.81	7,970.85	142.96	56.756		
3,900.00	3,706.80	3,640.80	3,706.80	21.95	125.40	67.30	-3,950.78	-7,660.40	8,099.37	7,952.55	146.82	55.164		
4,000.00	3,800.39	3,734.39	3,800.39	22.56	128.66	67.52	-3,950.78	-7,660.40	8,085.06	7,934.38	150.69	53.655		
4,100.00	3,893.98	3,827.98	3,893.98	23.16	131.93	67.74	-3,950.78	-7,660.40	8,070.88	7,916.33	154.55	52.221		
4,200.00	3,987.57	3,921.57	3,987.57	23.77	135.20	67.96	-3,950.78	-7,660.40	8,056.83	7,898.41	158.42	50.858		
4,300.00	4,081.16	4,015.16	4,081.16	24.38	138.46	68.18	-3,950.78	-7,660.40	8,042.90	7,880.62	162.29	49.560		
4,400.00	4,174.75	4,108.75	4,174.75	24.99	141.73	68.40	-3,950.78	-7,660.40	8,029.11	7,862.95	166.16	48.323		
4,500.00	4,268.34	4,202.34	4,268.34	25.60	145.00	68.62	-3,950.78	-7,660.40	8,015.45	7,845.42	170.03	47.142		
4,600.00	4,361.93	4,304.07	4,361.93	26.21	148.55	68.84	-3,950.78	-7,660.40	8,001.92	7,827.74	174.18	45.940		
4,700.00	4,455.52	4,389.52	4,455.52	26.82	151.53	69.06	-3,950.78	-7,660.40	7,988.52	7,810.75	177.77	44.938		
4,800.00	4,549.11	4,483.11	4,549.11	27.43	154.80	69.28	-3,950.78	-7,660.40	7,975.26	7,793.62	181.64	43.907		
4,900.00	4,642.70	4,576.70	4,642.70	28.04	158.06	69.51	-3,950.78	-7,660.40	7,962.13	7,776.61	185.51	42.919		
5,000.00	4,736.29	4,670.29	4,736.29	28.65	161.33	69.73	-3,950.78	-7,660.40	7,949.13	7,759.74	189.39	41.972		
5,100.00	4,829.88	4,763.88	4,829.88	29.26	164.59	69.96	-3,950.78	-7,660.40	7,936.27	7,743.00	193.26	41.064		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,857.47	4,923.47	29.87	167.86	70.18	-3,950.78	-7,660.40	7,923.54	7,726.40	197.14	40.192		
5,300.00	5,017.06	4,951.06	5,017.06	30.48	171.13	70.41	-3,950.78	-7,660.40	7,910.95	7,709.94	201.02	39.355		
5,400.00	5,110.65	5,044.65	5,110.65	31.09	174.39	70.64	-3,950.78	-7,660.40	7,898.50	7,693.61	204.89	38.549		
5,500.00	5,204.24	5,138.24	5,204.24	31.70	177.66	70.86	-3,950.78	-7,660.40	7,886.19	7,677.41	208.77	37.774		
5,600.00	5,297.83	5,231.83	5,297.83	32.32	180.93	71.09	-3,950.78	-7,660.40	7,874.01	7,661.36	212.65	37.028		
5,700.00	5,391.42	5,325.42	5,391.42	32.93	184.19	71.32	-3,950.78	-7,660.40	7,861.97	7,645.44	216.53	36.309		
5,800.00	5,485.01	5,419.01	5,485.01	33.54	187.46	71.55	-3,950.78	-7,660.40	7,850.08	7,629.66	220.41	35.615		
5,900.00	5,578.60	5,512.60	5,578.60	34.15	190.73	71.78	-3,950.78	-7,660.40	7,838.32	7,614.03	224.29	34.947		
6,000.00	5,672.19	5,606.19	5,672.19	34.77	193.99	72.01	-3,950.78	-7,660.40	7,826.70	7,598.53	228.17	34.301		
6,100.00	5,765.78	5,700.22	5,765.78	35.38	197.28	72.24	-3,950.78	-7,660.40	7,815.23	7,583.16	232.07	33.676		
6,200.00	5,859.37	5,806.63	5,859.37	35.99	200.99	72.48	-3,950.78	-7,660.40	7,803.90	7,567.49	236.40	33.011		
6,300.00	5,952.96	5,886.96	5,952.96	36.60	203.80	72.71	-3,950.78	-7,660.40	7,792.71	7,552.88	239.82	32.494		
6,400.00	6,046.55	5,980.55	6,046.55	37.22	207.06	72.94	-3,950.78	-7,660.40	7,781.66	7,537.95	243.71	31.930		
6,500.00	6,140.14	6,074.14	6,140.14	37.83	210.33	73.18	-3,950.78	-7,660.40	7,770.76	7,523.17	247.59	31.385		
6,600.00	6,233.73	6,167.73	6,233.73	38.44	213.60	73.41	-3,950.78	-7,660.40	7,760.00	7,508.52	251.48	30.858		
6,700.00	6,327.32	6,261.32	6,327.32	39.06	216.86	73.64	-3,950.78	-7,660.40	7,749.39	7,494.02	255.36	30.347		
6,800.00	6,420.91	6,354.91	6,420.91	39.67	220.13	73.88	-3,950.78	-7,660.40	7,738.92	7,479.67	259.25	29.852		
6,900.00	6,514.50	6,448.50	6,514.50	40.28	223.40	74.12	-3,950.78	-7,660.40	7,728.60	7,465.46	263.13	29.371		
7,000.00	6,608.09	6,542.09	6,608.09	40.90	226.66	74.35	-3,950.78	-7,660.40	7,718.42	7,451.40	267.02	28.906		
7,100.00	6,701.63	6,635.63	6,701.63	41.51	229.93	74.58	-3,950.78	-7,660.40	7,707.16	7,436.25	270.90	28.450		
7,200.00	6,793.85	6,727.85	6,793.85	42.10	233.15	74.81	-3,950.78	-7,660.40	7,696.00	7,421.00	274.71	27.970		
7,300.00	6,882.50	6,816.50	6,882.50	42.64	236.24	75.04	-3,950.78	-7,660.40	7,685.00	7,405.75	278.52	27.471		
7,400.00	6,965.41	6,900.59	6,965.41	43.12	239.18	75.27	-3,950.78	-7,660.40	7,674.10	7,390.50	282.33	26.958		
7,500.00	7,040.53	6,974.53	7,040.53	43.53	241.76	75.50	-3,950.78	-7,660.40	7,663.20	7,375.25	286.14	26.454		
7,600.00	7,106.00	7,040.00	7,106.00	43.89	244.04	75.73	-3,950.78	-7,660.40	7,652.30	7,360.00	289.95	25.957		
7,700.00	7,160.23	7,105.77	7,160.23	44.20	246.34	75.96	-3,950.78	-7,660.40	7,641.40	7,344.75	293.76	25.443		
7,800.00	7,201.86	7,135.86	7,201.86	44.48	247.39	76.19	-3,950.78	-7,660.40	7,630.50	7,329.50	297.57	24.929		
7,900.00	7,229.88	7,163.88	7,229.88	44.73	248.37	76.42	-3,950.78	-7,660.40	7,619.60	7,314.25	301.38	24.414		
8,000.00	7,243.60	7,177.60	7,243.60	44.99	248.85	76.65	-3,950.78	-7,660.40	7,608.70	7,299.00	305.19	23.900		
8,100.00	7,244.73	7,178.73	7,244.73	45.29	248.89	76.88	-3,950.78	-7,660.40	7,597.80	7,283.75	308.99	23.385		
8,200.00	7,244.23	7,178.23	7,244.23	45.74	248.87	77.11	-3,950.78	-7,660.40	7,586.90	7,268.50	312.80	22.870		
8,300.00	7,243.73	7,177.73	7,243.73	46.38	248.85	77.34	-3,950.78	-7,660.40	7,576.00	7,253.25	316.60	22.355		
8,400.00	7,243.23	7,177.23	7,243.23	47.29	248.83	77.57	-3,950.78	-7,660.40	7,565.10	7,238.00	320.41	21.840		
8,500.00	7,242.73	7,176.73	7,242.73	48.46	248.82	77.80	-3,950.78	-7,660.40	7,554.20	7,222.75	324.21	21.325		
8,600.00	7,242.23	7,176.23	7,242.23	49.87	248.80	78.03	-3,950.78	-7,660.40	7,543.30	7,207.50	328.02	20.810		
8,700.00	7,241.73	7,175.73	7,241.73	51.48	248.78	78.26	-3,950.78	-7,660.40	7,532.40	7,192.25	331.82	20.295		
8,800.00	7,241.23	7,175.23	7,241.23	53.24	248.76	78.49	-3,950.78	-7,660.40	7,521.50	7,177.00	335.63	19.780		
8,900.00	7,240.73	7,174.73	7,240.73	55.13	248.75	78.72	-3,950.78	-7,660.40	7,510.60	7,161.75	339.43	19.265		
9,000.00	7,240.23	7,174.23	7,240.23	57.11	248.73	78.95	-3,950.78	-7,660.40	7,499.70	7,146.50	343.24	18.750		
9,100.00	7,239.73	7,173.73	7,239.73	59.19	248.71	79.18	-3,950.78	-7,660.40	7,488.80	7,131.25	347.04	18.235		
9,200.00	7,239.23	7,173.23	7,239.23	61.34	248.69	79.41	-3,950.78	-7,660.40	7,477.90	7,116.00	350.85	17.720		
9,300.00	7,238.72	7,172.72	7,238.72	63.55	248.68	79.64	-3,950.78	-7,660.40	7,467.00	7,100.75	354.65	17.205		
9,400.00	7,238.22	7,172.22	7,238.22	65.81	248.66	79.87	-3,950.78	-7,660.40	7,456.10	7,085.50	358.46	16.690		
9,500.00	7,237.72	7,171.72	7,237.72	68.13	248.64	80.10	-3,950.78	-7,660.40	7,445.20	7,070.25	362.26	16.175		
9,600.00	7,237.22	7,171.22	7,237.22	70.48	248.62	80.33	-3,950.78	-7,660.40	7,434.30	7,055.00	366.07	15.660		
9,700.00	7,236.72	7,170.72	7,236.72	72.88	248.61	80.56	-3,950.78	-7,660.40	7,423.40	7,039.75	369.87	15.145		
9,800.00	7,236.22	7,170.22	7,236.22	75.31	248.59	80.79	-3,950.78	-7,660.40	7,412.50	7,024.50	373.68	14.630		
9,900.00	7,235.72	7,169.72	7,235.72	77.77	248.57	81.02	-3,950.78	-7,660.40	7,401.60	7,009.25	377.48	14.115		
10,000.00	7,235.22	7,169.22	7,235.22	80.26	248.55	81.25	-3,950.78	-7,660.40	7,390.70	6,994.00	381.29	13.600		
10,100.00	7,234.72	7,168.72	7,234.72	82.77	248.54	81.48	-3,950.78	-7,660.40	7,379.80	6,978.75	385.09	13.085		
10,200.00	7,234.22	7,168.22	7,234.22	85.31	248.52	81.71	-3,950.78	-7,660.40	7,368.90	6,963.50	388.90	12.570		
10,300.00	7,233.72	7,167.72	7,233.72	87.86	248.50	81.94	-3,950.78	-7,660.40	7,358.00	6,948.25	392.70	12.055		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,167.22	7,233.22	90.44	248.48	-90.89	-3,950.78	-7,660.40	4,763.85	4,468.85	295.00	16.149		
10,500.00	7,232.72	7,166.72	7,232.72	93.03	248.47	-90.87	-3,950.78	-7,660.40	4,668.73	4,373.20	295.53	15.798		
10,600.00	7,232.22	7,166.22	7,232.22	95.64	248.45	-90.85	-3,950.78	-7,660.40	4,573.81	4,277.71	296.11	15.446		
10,700.00	7,231.72	7,165.72	7,231.72	98.26	248.43	-90.84	-3,950.78	-7,660.40	4,479.12	4,182.37	296.76	15.094		
10,800.00	7,231.21	7,165.21	7,231.21	100.89	248.41	-90.82	-3,950.78	-7,660.40	4,384.67	4,087.19	297.47	14.740		
10,900.00	7,230.71	7,164.71	7,230.71	103.54	248.40	-90.80	-3,950.78	-7,660.40	4,290.46	3,992.20	298.26	14.385		
11,000.00	7,230.21	7,164.21	7,230.21	106.20	248.38	-90.78	-3,950.78	-7,660.40	4,196.52	3,897.39	299.13	14.029		
11,100.00	7,229.71	7,163.71	7,229.71	108.87	248.36	-90.76	-3,950.78	-7,660.40	4,102.87	3,802.79	300.08	13.672		
11,200.00	7,229.21	7,163.21	7,229.21	111.54	248.34	-90.74	-3,950.78	-7,660.40	4,009.53	3,708.40	301.13	13.315		
11,300.00	7,228.71	7,162.71	7,228.71	114.23	248.33	-90.72	-3,950.78	-7,660.40	3,916.51	3,614.24	302.27	12.957		
11,400.00	7,228.21	7,162.21	7,228.21	116.92	248.31	-90.70	-3,950.78	-7,660.40	3,823.85	3,520.34	303.52	12.598		
11,500.00	7,227.71	7,161.71	7,227.71	119.63	248.29	-90.68	-3,950.78	-7,660.40	3,731.57	3,426.69	304.87	12.240		
11,600.00	7,227.21	7,161.21	7,227.21	122.34	248.27	-90.66	-3,950.78	-7,660.40	3,639.69	3,333.34	306.35	11.881		
11,700.00	7,226.71	7,160.71	7,226.71	125.05	248.26	-90.64	-3,950.78	-7,660.40	3,548.25	3,240.30	307.95	11.522		
11,800.00	7,226.21	7,160.21	7,226.21	127.78	248.24	-90.62	-3,950.78	-7,660.40	3,457.29	3,147.60	309.69	11.164		
11,900.00	7,225.71	7,159.71	7,225.71	130.51	248.22	-90.60	-3,950.78	-7,660.40	3,366.84	3,055.27	311.57	10.806		
12,000.00	7,225.21	7,159.21	7,225.21	133.24	248.20	-90.58	-3,950.78	-7,660.40	3,276.95	2,963.34	313.61	10.449		
12,100.00	7,224.71	7,158.71	7,224.71	135.98	248.19	-90.56	-3,950.78	-7,660.40	3,187.65	2,871.84	315.81	10.094		
12,200.00	7,224.21	7,158.21	7,224.21	138.72	248.17	-90.54	-3,950.78	-7,660.40	3,099.01	2,780.83	318.18	9.740		
12,300.00	7,223.70	7,157.70	7,223.70	141.47	248.15	-90.52	-3,950.78	-7,660.40	3,011.09	2,690.34	320.74	9.388		
12,400.00	7,223.20	7,157.20	7,223.20	144.23	248.13	-90.50	-3,950.78	-7,660.40	2,923.93	2,600.43	323.50	9.038		
12,500.00	7,222.70	7,156.70	7,222.70	146.98	248.12	-90.48	-3,950.78	-7,660.40	2,837.63	2,511.16	326.47	8.692		
12,600.00	7,222.20	7,156.20	7,222.20	149.74	248.10	-90.46	-3,950.78	-7,660.40	2,752.25	2,422.59	329.66	8.349		
12,700.00	7,221.70	7,155.70	7,221.70	152.51	248.08	-90.44	-3,950.78	-7,660.40	2,667.89	2,334.80	333.09	8.010		
12,800.00	7,221.20	7,155.20	7,221.20	155.28	248.06	-90.42	-3,950.78	-7,660.40	2,584.65	2,247.88	336.77	7.675		
12,900.00	7,220.70	7,154.70	7,220.70	158.05	248.05	-90.40	-3,950.78	-7,660.40	2,502.63	2,161.92	340.71	7.345		
13,000.00	7,220.20	7,154.20	7,220.20	160.82	248.03	-90.38	-3,950.78	-7,660.40	2,421.96	2,077.03	344.93	7.022		
13,100.00	7,219.70	7,153.70	7,219.70	163.60	248.01	-90.36	-3,950.78	-7,660.40	2,342.78	1,993.34	349.45	6.704		
13,200.00	7,219.20	7,153.20	7,219.20	166.38	247.99	-90.34	-3,950.78	-7,660.40	2,265.26	1,910.99	354.26	6.394		
13,300.00	7,218.70	7,152.70	7,218.70	169.16	247.98	-90.32	-3,950.78	-7,660.40	2,189.55	1,830.16	359.39	6.092		
13,400.00	7,218.20	7,152.20	7,218.20	171.95	247.96	-90.30	-3,950.78	-7,660.40	2,115.86	1,751.02	364.85	5.799		
13,500.00	7,217.70	7,151.70	7,217.70	174.74	247.94	-90.28	-3,950.78	-7,660.40	2,044.41	1,673.79	370.62	5.516		
13,600.00	7,217.20	7,151.20	7,217.20	177.53	247.92	-90.26	-3,950.78	-7,660.40	1,975.44	1,598.73	376.72	5.244		
13,700.00	7,216.70	7,150.70	7,216.70	180.32	247.91	-90.24	-3,950.78	-7,660.40	1,909.22	1,526.10	383.12	4.983		
13,800.00	7,216.19	7,150.19	7,216.19	183.11	247.89	-90.22	-3,950.78	-7,660.40	1,846.04	1,456.22	389.82	4.736		
13,900.00	7,215.69	7,149.69	7,215.69	185.91	247.87	-90.20	-3,950.78	-7,660.40	1,786.23	1,389.46	396.77	4.502		
14,000.00	7,215.19	7,149.19	7,215.19	188.71	247.86	-90.18	-3,950.78	-7,660.40	1,730.13	1,326.20	403.93	4.283		
14,100.00	7,214.69	7,148.69	7,214.69	191.51	247.84	-90.16	-3,950.78	-7,660.40	1,678.12	1,266.89	411.24	4.081		
14,200.00	7,214.19	7,148.19	7,214.19	194.31	247.82	-90.15	-3,950.78	-7,660.40	1,630.60	1,212.00	418.60	3.895		
14,300.00	7,213.69	7,147.69	7,213.69	197.11	247.80	-90.13	-3,950.78	-7,660.40	1,587.95	1,162.04	425.91	3.728		
14,400.00	7,213.19	7,147.19	7,213.19	199.92	247.79	-90.11	-3,950.78	-7,660.40	1,550.59	1,117.53	433.06	3.581		
14,500.00	7,212.69	7,146.69	7,212.69	202.72	247.77	-90.09	-3,950.78	-7,660.40	1,518.90	1,079.01	439.89	3.453		
14,600.00	7,212.19	7,146.19	7,212.19	205.53	247.75	-90.07	-3,950.78	-7,660.40	1,493.25	1,046.98	446.27	3.346		
14,700.00	7,211.69	7,145.69	7,211.69	208.34	247.73	-90.05	-3,950.78	-7,660.40	1,473.96	1,021.92	452.04	3.261		
14,800.00	7,211.19	7,145.19	7,211.19	211.15	247.72	-90.03	-3,950.78	-7,660.40	1,461.26	1,004.20	457.07	3.197		
14,900.00	7,210.69	7,144.69	7,210.69	213.96	247.70	-90.01	-3,950.78	-7,660.40	1,455.35	994.11	461.23	3.155		
14,936.30	7,210.51	7,144.51	7,210.51	214.99	247.69	-90.00	-3,950.78	-7,660.40	1,454.89	992.38	462.51	3.146 CC		
15,000.00	7,210.19	7,144.19	7,210.19	216.78	247.68	-89.99	-3,950.78	-7,660.40	1,456.29	991.83	464.46	3.135 ES, SF		
15,100.00	7,209.69	7,143.69	7,209.69	219.59	247.66	-89.97	-3,950.78	-7,660.40	1,464.07	997.38	466.69	3.137		
15,200.00	7,209.18	7,143.18	7,209.18	222.41	247.65	-89.95	-3,950.78	-7,660.40	1,478.60	1,010.66	467.94	3.160		
15,300.00	7,208.68	7,142.68	7,208.68	225.22	247.63	-89.93	-3,950.78	-7,660.40	1,499.66	1,031.42	468.24	3.203		
15,400.00	7,208.18	7,142.18	7,208.18	228.04	247.61	-89.91	-3,950.78	-7,660.40	1,527.00	1,059.33	467.66	3.265		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,142.00	7,208.00	229.10	247.60	-89.90	-3,950.78	-7,660.40	1,538.79	1,071.55	467.24	3.293	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 1-17(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	51.00	3.28	3.28	-106.38	-2,633.38	-8,960.72	9,339.80				
100.00	100.00	49.00	100.00	3.28	3.39	-106.38	-2,633.38	-8,960.72	9,339.66	9,332.98	6.67	1,399.325	
200.00	200.00	149.00	200.00	3.34	4.76	-106.38	-2,633.38	-8,960.72	9,339.66	9,331.56	8.10	1,152.789	
300.00	299.98	248.98	299.98	3.44	7.68	70.01	-2,633.38	-8,960.72	9,339.06	9,327.94	11.12	839.751	
400.00	399.84	348.84	399.84	3.59	10.94	70.07	-2,633.38	-8,960.72	9,337.27	9,322.75	14.52	642.857	
500.00	499.45	448.45	499.45	3.79	14.29	70.18	-2,633.38	-8,960.72	9,334.30	9,316.22	18.08	516.328	
600.00	598.70	547.70	598.70	4.03	17.68	70.33	-2,633.38	-8,960.72	9,330.15	9,308.44	21.71	429.740	
700.00	697.47	646.47	697.47	4.31	21.08	70.52	-2,633.38	-8,960.72	9,324.85	9,299.46	25.39	367.225	
800.00	795.62	744.62	795.62	4.64	24.47	70.75	-2,633.38	-8,960.72	9,318.42	9,289.31	29.11	320.160	
900.00	893.06	842.06	893.06	5.00	27.84	71.02	-2,633.38	-8,960.72	9,310.88	9,278.04	32.84	283.540	
1,000.00	989.64	938.64	989.64	5.40	31.20	71.33	-2,633.38	-8,960.72	9,302.26	9,265.68	36.58	254.290	
1,100.00	1,085.27	1,034.27	1,085.27	5.83	34.52	71.67	-2,633.38	-8,960.72	9,292.61	9,252.28	40.33	230.422	
1,200.00	1,179.82	1,128.82	1,179.82	6.29	37.80	72.06	-2,633.38	-8,960.72	9,281.95	9,237.88	44.07	210.598	
1,300.00	1,273.47	1,222.47	1,273.47	6.79	41.06	72.32	-2,633.38	-8,960.72	9,270.59	9,222.77	47.82	193.873	
1,400.00	1,367.06	1,316.06	1,367.06	7.30	44.32	72.52	-2,633.38	-8,960.72	9,259.29	9,207.71	51.58	179.511	
1,500.00	1,460.64	1,409.64	1,460.64	7.83	47.58	72.71	-2,633.38	-8,960.72	9,248.11	9,192.75	55.36	167.055	
1,600.00	1,554.23	1,503.23	1,554.23	8.38	50.84	72.91	-2,633.38	-8,960.72	9,237.06	9,177.91	59.15	156.158	
1,700.00	1,647.82	1,603.18	1,647.82	8.93	54.32	73.11	-2,633.38	-8,960.72	9,226.12	9,162.95	63.18	146.037	
1,800.00	1,741.41	1,709.59	1,741.41	9.49	58.03	73.30	-2,633.38	-8,960.72	9,215.31	9,147.88	67.44	136.653	
1,900.00	1,835.00	1,784.00	1,835.00	10.05	60.62	73.50	-2,633.38	-8,960.72	9,204.62	9,134.04	70.59	130.400	
2,000.00	1,928.59	1,877.59	1,928.59	10.62	63.89	73.70	-2,633.38	-8,960.72	9,194.06	9,119.64	74.41	123.553	
2,100.00	2,022.18	1,971.18	2,022.18	11.20	67.15	73.90	-2,633.38	-8,960.72	9,183.61	9,105.36	78.25	117.368	
2,200.00	2,115.77	2,064.77	2,115.77	11.78	70.41	74.10	-2,633.38	-8,960.72	9,173.29	9,091.21	82.08	111.756	
2,300.00	2,209.36	2,158.36	2,209.36	12.37	73.68	74.30	-2,633.38	-8,960.72	9,163.09	9,077.17	85.92	106.642	
2,400.00	2,302.95	2,251.95	2,302.95	12.95	76.94	74.50	-2,633.38	-8,960.72	9,153.02	9,063.25	89.77	101.962	
2,500.00	2,396.54	2,345.54	2,396.54	13.54	80.20	74.70	-2,633.38	-8,960.72	9,143.07	9,049.45	93.62	97.664	
2,600.00	2,490.13	2,439.13	2,490.13	14.13	83.47	74.90	-2,633.38	-8,960.72	9,133.25	9,035.78	97.47	93.705	
2,700.00	2,583.72	2,532.72	2,583.72	14.73	86.73	75.10	-2,633.38	-8,960.72	9,123.55	9,022.23	101.32	90.045	
2,800.00	2,677.31	2,626.31	2,677.31	15.32	90.00	75.30	-2,633.38	-8,960.72	9,113.98	9,008.80	105.18	86.653	
2,900.00	2,770.90	2,719.90	2,770.90	15.92	93.26	75.50	-2,633.38	-8,960.72	9,104.53	8,995.50	109.04	83.500	
3,000.00	2,864.49	2,813.49	2,864.49	16.52	96.53	75.70	-2,633.38	-8,960.72	9,095.21	8,982.32	112.90	80.562	
3,100.00	2,958.08	2,907.08	2,958.08	17.12	99.79	75.90	-2,633.38	-8,960.72	9,086.02	8,969.26	116.76	77.819	
3,200.00	3,051.67	3,000.67	3,051.67	17.72	103.06	76.11	-2,633.38	-8,960.72	9,076.96	8,956.33	120.62	75.251	
3,300.00	3,145.26	3,105.74	3,145.26	18.32	106.73	76.31	-2,633.38	-8,960.72	9,068.02	8,943.13	124.89	72.610	
3,400.00	3,238.85	3,187.85	3,238.85	18.92	109.59	76.51	-2,633.38	-8,960.72	9,059.21	8,930.86	128.35	70.580	
3,500.00	3,332.44	3,281.44	3,332.44	19.53	112.86	76.72	-2,633.38	-8,960.72	9,050.53	8,918.31	132.22	68.450	
3,600.00	3,426.03	3,375.03	3,426.03	20.13	116.12	76.92	-2,633.38	-8,960.72	9,041.98	8,905.89	136.09	66.441	
3,700.00	3,519.62	3,468.62	3,519.62	20.74	119.39	77.13	-2,633.38	-8,960.72	9,033.56	8,893.60	139.96	64.544	
3,800.00	3,613.21	3,562.21	3,613.21	21.34	122.66	77.33	-2,633.38	-8,960.72	9,025.26	8,881.43	143.83	62.749	
3,900.00	3,706.80	3,655.80	3,706.80	21.95	125.92	77.54	-2,633.38	-8,960.72	9,017.10	8,869.40	147.70	61.049	
4,000.00	3,800.39	3,749.39	3,800.39	22.56	129.19	77.74	-2,633.38	-8,960.72	9,009.07	8,857.49	151.57	59.436	
4,100.00	3,893.98	3,842.98	3,893.98	23.16	132.45	77.95	-2,633.38	-8,960.72	9,001.17	8,845.72	155.45	57.905	
4,200.00	3,987.57	3,936.57	3,987.57	23.77	135.72	78.15	-2,633.38	-8,960.72	8,993.40	8,834.07	159.32	56.448	
4,300.00	4,081.16	4,030.16	4,081.16	24.38	138.99	78.36	-2,633.38	-8,960.72	8,985.76	8,822.56	163.20	55.061	
4,400.00	4,174.75	4,123.75	4,174.75	24.99	142.25	78.57	-2,633.38	-8,960.72	8,978.25	8,811.18	167.07	53.738	
4,500.00	4,268.34	4,217.34	4,268.34	25.60	145.52	78.77	-2,633.38	-8,960.72	8,970.87	8,799.92	170.95	52.477	
4,600.00	4,361.93	4,310.93	4,361.93	26.21	148.79	78.98	-2,633.38	-8,960.72	8,963.63	8,788.80	174.83	51.271	
4,700.00	4,455.52	4,404.52	4,455.52	26.82	152.05	79.19	-2,633.38	-8,960.72	8,956.52	8,777.82	178.70	50.119	
4,800.00	4,549.11	4,501.89	4,549.11	27.43	155.45	79.39	-2,633.38	-8,960.72	8,949.54	8,766.83	182.71	48.981	
4,900.00	4,642.70	4,608.30	4,642.70	28.04	159.16	79.60	-2,633.38	-8,960.72	8,942.70	8,755.66	187.04	47.811	
5,000.00	4,736.29	4,685.29	4,736.29	28.65	161.85	79.81	-2,633.38	-8,960.72	8,935.99	8,745.65	190.34	46.947	
5,100.00	4,829.88	4,778.88	4,829.88	29.26	165.12	80.02	-2,633.38	-8,960.72	8,929.41	8,735.19	194.22	45.976	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 1-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,872.47	4,923.47	29.87	168.38	80.23	-2,633.38	-8,960.72	8,922.97	8,724.87	198.10	45.043		
5,300.00	5,017.06	4,966.06	5,017.06	30.48	171.65	80.44	-2,633.38	-8,960.72	8,916.66	8,714.68	201.98	44.146		
5,400.00	5,110.65	5,059.65	5,110.65	31.09	174.92	80.65	-2,633.38	-8,960.72	8,910.49	8,704.63	205.86	43.284		
5,500.00	5,204.24	5,153.24	5,204.24	31.70	178.18	80.86	-2,633.38	-8,960.72	8,904.45	8,694.71	209.74	42.454		
5,600.00	5,297.83	5,246.83	5,297.83	32.32	181.45	81.07	-2,633.38	-8,960.72	8,898.55	8,684.93	213.63	41.655		
5,700.00	5,391.42	5,340.42	5,391.42	32.93	184.72	81.28	-2,633.38	-8,960.72	8,892.78	8,675.28	217.51	40.885		
5,800.00	5,485.01	5,434.01	5,485.01	33.54	187.98	81.49	-2,633.38	-8,960.72	8,887.15	8,665.76	221.39	40.142		
5,900.00	5,578.60	5,527.60	5,578.60	34.15	191.25	81.70	-2,633.38	-8,960.72	8,881.66	8,656.39	225.27	39.426		
6,000.00	5,672.19	5,621.19	5,672.19	34.77	194.52	81.91	-2,633.38	-8,960.72	8,876.30	8,647.14	229.16	38.735		
6,100.00	5,765.78	5,714.78	5,765.78	35.38	197.79	82.12	-2,633.38	-8,960.72	8,871.08	8,638.04	233.04	38.067		
6,200.00	5,859.37	5,808.37	5,859.37	35.99	201.05	82.33	-2,633.38	-8,960.72	8,865.99	8,629.07	236.92	37.422		
6,300.00	5,952.96	5,901.96	5,952.96	36.60	204.32	82.54	-2,633.38	-8,960.72	8,861.05	8,620.24	240.81	36.797		
6,400.00	6,046.55	6,004.45	6,046.55	37.22	207.90	82.75	-2,633.38	-8,960.72	8,856.24	8,611.24	245.00	36.148		
6,500.00	6,140.14	6,089.14	6,140.14	37.83	210.85	82.97	-2,633.38	-8,960.72	8,851.56	8,602.99	248.57	35.609		
6,600.00	6,233.73	6,182.73	6,233.73	38.44	214.12	83.18	-2,633.38	-8,960.72	8,847.03	8,594.57	252.46	35.044		
6,700.00	6,327.32	6,276.32	6,327.32	39.06	217.39	83.39	-2,633.38	-8,960.72	8,842.63	8,586.29	256.34	34.495		
6,800.00	6,420.91	6,369.91	6,420.91	39.67	220.65	83.60	-2,633.38	-8,960.72	8,838.37	8,578.15	260.23	33.964		
6,900.00	6,514.50	6,463.50	6,514.50	40.28	223.92	83.82	-2,633.38	-8,960.72	8,834.25	8,570.14	264.11	33.449		
7,000.00	6,608.09	6,557.09	6,608.09	40.90	227.19	84.03	-2,633.38	-8,960.72	8,830.27	8,562.27	268.00	32.949		
7,100.00	6,701.63	6,650.63	6,701.63	41.51	230.45	74.82	-2,633.38	-8,960.72	8,825.15	8,553.28	271.88	32.460		
7,200.00	6,793.85	6,742.85	6,793.85	42.10	233.67	55.30	-2,633.38	-8,960.72	8,807.38	8,531.69	275.69	31.947		
7,300.00	6,882.50	6,831.50	6,882.50	42.64	236.77	42.11	-2,633.38	-8,960.72	8,774.58	8,495.27	279.31	31.415		
7,400.00	6,965.41	6,914.41	6,965.41	43.12	239.66	33.67	-2,633.38	-8,960.72	8,727.53	8,444.86	282.67	30.875		
7,500.00	7,040.53	6,989.53	7,040.53	43.53	242.28	28.17	-2,633.38	-8,960.72	8,667.37	8,381.68	285.69	30.338		
7,600.00	7,106.00	7,055.00	7,106.00	43.89	244.57	24.45	-2,633.38	-8,960.72	8,595.55	8,307.24	288.30	29.814		
7,700.00	7,160.23	7,109.23	7,160.23	44.20	246.46	21.83	-2,633.38	-8,960.72	8,513.79	8,223.34	290.46	29.312		
7,800.00	7,201.86	7,150.86	7,201.86	44.48	247.91	19.78	-2,633.38	-8,960.72	8,424.10	8,132.00	292.10	28.840		
7,900.00	7,229.88	7,178.88	7,229.88	44.73	248.89	17.54	-2,633.38	-8,960.72	8,328.64	8,035.45	293.19	28.407		
8,000.00	7,243.60	7,207.40	7,243.60	44.99	249.89	9.02	-2,633.38	-8,960.72	8,229.76	7,935.52	294.24	27.970		
8,100.00	7,244.73	7,206.27	7,244.73	45.29	249.85	-107.40	-2,633.38	-8,960.72	8,129.80	7,835.60	294.20	27.633		
8,200.00	7,244.23	7,206.77	7,244.23	45.74	249.86	-107.20	-2,633.38	-8,960.72	8,029.82	7,735.60	294.22	27.292		
8,300.00	7,243.73	7,207.27	7,243.73	46.38	249.88	-107.00	-2,633.38	-8,960.72	7,929.83	7,635.60	294.24	26.951		
8,400.00	7,243.23	7,207.77	7,243.23	47.29	249.90	-106.80	-2,633.38	-8,960.72	7,829.85	7,535.59	294.25	26.609		
8,500.00	7,242.73	7,208.27	7,242.73	48.46	249.92	-106.59	-2,633.38	-8,960.72	7,729.86	7,435.59	294.27	26.268		
8,600.00	7,242.23	7,208.77	7,242.23	49.87	249.93	-106.39	-2,633.38	-8,960.72	7,629.88	7,335.59	294.29	25.927		
8,700.00	7,241.73	7,209.27	7,241.73	51.48	249.95	-106.19	-2,633.38	-8,960.72	7,529.89	7,235.59	294.31	25.585		
8,800.00	7,241.23	7,209.77	7,241.23	53.24	249.97	-105.98	-2,633.38	-8,960.72	7,429.91	7,135.58	294.33	25.244		
8,900.00	7,240.73	7,189.73	7,240.73	55.13	249.27	-105.78	-2,633.38	-8,960.72	7,329.93	7,036.30	293.63	24.963		
9,000.00	7,240.23	7,189.23	7,240.23	57.11	249.25	-105.57	-2,633.38	-8,960.72	7,229.94	6,936.33	293.62	24.624		
9,100.00	7,239.73	7,188.73	7,239.73	59.19	249.24	-105.37	-2,633.38	-8,960.72	7,129.96	6,836.36	293.60	24.284		
9,200.00	7,239.23	7,188.23	7,239.23	61.34	249.22	-105.16	-2,633.38	-8,960.72	7,029.98	6,736.39	293.59	23.945		
9,300.00	7,238.72	7,187.72	7,238.72	63.55	249.20	-104.96	-2,633.38	-8,960.72	6,930.00	6,636.42	293.58	23.605		
9,400.00	7,238.22	7,187.22	7,238.22	65.81	249.18	-104.75	-2,633.38	-8,960.72	6,830.02	6,536.45	293.57	23.266		
9,500.00	7,237.72	7,186.72	7,237.72	68.13	249.17	-104.54	-2,633.38	-8,960.72	6,730.04	6,436.48	293.55	22.926		
9,600.00	7,237.22	7,186.22	7,237.22	70.48	249.15	-104.34	-2,633.38	-8,960.72	6,630.06	6,336.51	293.54	22.586		
9,700.00	7,236.72	7,185.72	7,236.72	72.88	249.13	-104.13	-2,633.38	-8,960.72	6,530.08	6,236.54	293.53	22.246		
9,800.00	7,236.22	7,185.22	7,236.22	75.31	249.11	-103.92	-2,633.38	-8,960.72	6,430.10	6,136.57	293.52	21.907		
9,900.00	7,235.72	7,184.72	7,235.72	77.77	249.10	-103.71	-2,633.38	-8,960.72	6,330.12	6,036.60	293.52	21.567		
10,000.00	7,235.22	7,184.22	7,235.22	80.26	249.08	-103.50	-2,633.38	-8,960.72	6,230.14	5,936.64	293.51	21.227		
10,100.00	7,234.72	7,183.72	7,234.72	82.77	249.06	-103.29	-2,633.38	-8,960.72	6,130.17	5,836.67	293.50	20.886		
10,200.00	7,234.22	7,183.22	7,234.22	85.31	249.04	-103.09	-2,633.38	-8,960.72	6,030.19	5,736.70	293.49	20.546		
10,300.00	7,233.72	7,182.72	7,233.72	87.86	249.03	-102.88	-2,633.38	-8,960.72	5,930.21	5,636.73	293.49	20.206		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 1-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,182.22	7,233.22	90.44	249.01	-102.67	-2,633.38	-8,960.72	5,830.24	5,536.76	293.48	19.866		
10,500.00	7,232.72	7,181.72	7,232.72	93.03	248.99	-102.45	-2,633.38	-8,960.72	5,730.27	5,436.79	293.47	19.526		
10,600.00	7,232.22	7,181.22	7,232.22	95.64	248.97	-102.24	-2,633.38	-8,960.72	5,630.29	5,336.82	293.47	19.185		
10,700.00	7,231.72	7,180.72	7,231.72	98.26	248.96	-102.03	-2,633.38	-8,960.72	5,530.32	5,236.86	293.47	18.845		
10,800.00	7,231.21	7,180.21	7,231.21	100.89	248.94	-101.82	-2,633.38	-8,960.72	5,430.35	5,136.89	293.46	18.504		
10,900.00	7,230.71	7,179.71	7,230.71	103.54	248.92	-101.61	-2,633.38	-8,960.72	5,330.38	5,036.92	293.46	18.164		
11,000.00	7,230.21	7,179.21	7,230.21	106.20	248.90	-101.40	-2,633.38	-8,960.72	5,230.41	4,936.96	293.46	17.824		
11,100.00	7,229.71	7,178.71	7,229.71	108.87	248.89	-101.19	-2,633.38	-8,960.72	5,130.45	4,836.99	293.45	17.483		
11,200.00	7,229.21	7,178.21	7,229.21	111.54	248.87	-100.97	-2,633.38	-8,960.72	5,030.48	4,737.03	293.45	17.142		
11,300.00	7,228.71	7,177.71	7,228.71	114.23	248.85	-100.76	-2,633.38	-8,960.72	4,930.52	4,637.07	293.45	16.802		
11,400.00	7,228.21	7,177.21	7,228.21	116.92	248.83	-100.55	-2,633.38	-8,960.72	4,830.55	4,537.10	293.45	16.461		
11,500.00	7,227.71	7,176.71	7,227.71	119.63	248.82	-100.33	-2,633.38	-8,960.72	4,730.59	4,437.14	293.45	16.121		
11,600.00	7,227.21	7,176.21	7,227.21	122.34	248.80	-100.12	-2,633.38	-8,960.72	4,630.63	4,337.18	293.45	15.780		
11,700.00	7,226.71	7,175.71	7,226.71	125.05	248.78	-99.90	-2,633.38	-8,960.72	4,530.67	4,237.22	293.45	15.439		
11,800.00	7,226.21	7,175.21	7,226.21	127.78	248.76	-99.69	-2,633.38	-8,960.72	4,430.72	4,137.26	293.45	15.099		
11,900.00	7,225.71	7,174.71	7,225.71	130.51	248.75	-99.47	-2,633.38	-8,960.72	4,330.76	4,037.30	293.46	14.758		
12,000.00	7,225.21	7,174.21	7,225.21	133.24	248.73	-99.26	-2,633.38	-8,960.72	4,230.81	3,937.35	293.46	14.417		
12,100.00	7,224.71	7,173.71	7,224.71	135.98	248.71	-99.04	-2,633.38	-8,960.72	4,130.86	3,837.39	293.46	14.076		
12,200.00	7,224.21	7,173.21	7,224.21	138.72	248.69	-98.83	-2,633.38	-8,960.72	4,030.91	3,737.44	293.47	13.735		
12,300.00	7,223.70	7,172.70	7,223.70	141.47	248.68	-98.61	-2,633.38	-8,960.72	3,930.96	3,637.49	293.47	13.395		
12,400.00	7,223.20	7,172.20	7,223.20	144.23	248.66	-98.40	-2,633.38	-8,960.72	3,831.02	3,537.54	293.48	13.054		
12,500.00	7,222.70	7,171.70	7,222.70	146.98	248.64	-98.18	-2,633.38	-8,960.72	3,731.08	3,437.60	293.48	12.713		
12,600.00	7,222.20	7,171.20	7,222.20	149.74	248.62	-97.96	-2,633.38	-8,960.72	3,631.14	3,337.65	293.49	12.372		
12,700.00	7,221.70	7,170.70	7,221.70	152.51	248.61	-97.75	-2,633.38	-8,960.72	3,531.21	3,237.71	293.50	12.031		
12,800.00	7,221.20	7,170.20	7,221.20	155.28	248.59	-97.53	-2,633.38	-8,960.72	3,431.28	3,137.77	293.51	11.690		
12,900.00	7,220.70	7,169.70	7,220.70	158.05	248.57	-97.31	-2,633.38	-8,960.72	3,331.36	3,037.83	293.52	11.349		
13,000.00	7,220.20	7,169.20	7,220.20	160.82	248.55	-97.10	-2,633.38	-8,960.72	3,231.44	2,937.90	293.54	11.009		
13,100.00	7,219.70	7,168.70	7,219.70	163.60	248.54	-96.88	-2,633.38	-8,960.72	3,131.52	2,837.97	293.55	10.668		
13,200.00	7,219.20	7,168.20	7,219.20	166.38	248.52	-96.66	-2,633.38	-8,960.72	3,031.61	2,738.04	293.57	10.327		
13,300.00	7,218.70	7,167.70	7,218.70	169.16	248.50	-96.44	-2,633.38	-8,960.72	2,931.71	2,638.11	293.59	9.986		
13,400.00	7,218.20	7,167.20	7,218.20	171.95	248.48	-96.22	-2,633.38	-8,960.72	2,831.81	2,538.19	293.62	9.645		
13,500.00	7,217.70	7,166.70	7,217.70	174.74	248.47	-96.01	-2,633.38	-8,960.72	2,731.92	2,438.28	293.65	9.303		
13,600.00	7,217.20	7,166.20	7,217.20	177.53	248.45	-95.79	-2,633.38	-8,960.72	2,632.04	2,338.36	293.68	8.962		
13,700.00	7,216.70	7,165.70	7,216.70	180.32	248.43	-95.57	-2,633.38	-8,960.72	2,532.17	2,238.45	293.72	8.621		
13,800.00	7,216.19	7,165.19	7,216.19	183.11	248.41	-95.35	-2,633.38	-8,960.72	2,432.31	2,138.54	293.76	8.280		
13,900.00	7,215.69	7,164.69	7,215.69	185.91	248.40	-95.13	-2,633.38	-8,960.72	2,332.46	2,038.64	293.82	7.938		
14,000.00	7,215.19	7,164.19	7,215.19	188.71	248.38	-94.91	-2,633.38	-8,960.72	2,232.62	1,938.74	293.88	7.597		
14,100.00	7,214.69	7,163.69	7,214.69	191.51	248.36	-94.69	-2,633.38	-8,960.72	2,132.80	1,838.84	293.96	7.255		
14,200.00	7,214.19	7,163.19	7,214.19	194.31	248.34	-94.47	-2,633.38	-8,960.72	2,032.99	1,738.94	294.05	6.914		
14,300.00	7,213.69	7,162.69	7,213.69	197.11	248.33	-94.25	-2,633.38	-8,960.72	1,933.21	1,639.05	294.16	6.572		
14,400.00	7,213.19	7,162.19	7,213.19	199.92	248.31	-94.03	-2,633.38	-8,960.72	1,833.45	1,539.15	294.30	6.230		
14,500.00	7,212.69	7,161.69	7,212.69	202.72	248.29	-93.81	-2,633.38	-8,960.72	1,733.72	1,439.24	294.47	5.888		
14,600.00	7,212.19	7,161.19	7,212.19	205.53	248.27	-93.59	-2,633.38	-8,960.72	1,634.02	1,339.33	294.69	5.545		
14,700.00	7,211.69	7,160.69	7,211.69	208.34	248.26	-93.37	-2,633.38	-8,960.72	1,534.35	1,239.40	294.95	5.202		
14,800.00	7,211.19	7,160.19	7,211.19	211.15	248.24	-93.15	-2,633.38	-8,960.72	1,434.74	1,139.44	295.29	4.859		
14,900.00	7,210.69	7,159.69	7,210.69	213.96	248.22	-92.93	-2,633.38	-8,960.72	1,335.18	1,039.45	295.73	4.515		
15,000.00	7,210.19	7,159.19	7,210.19	216.78	248.20	-92.71	-2,633.38	-8,960.72	1,235.69	939.39	296.30	4.170		
15,100.00	7,209.69	7,158.69	7,209.69	219.59	248.19	-92.49	-2,633.38	-8,960.72	1,136.30	839.24	297.06	3.825		
15,200.00	7,209.18	7,158.18	7,209.18	222.41	248.17	-92.27	-2,633.38	-8,960.72	1,037.02	738.95	298.07	3.479		
15,300.00	7,208.68	7,157.68	7,208.68	225.22	248.15	-92.05	-2,633.38	-8,960.72	937.89	638.44	299.45	3.132		
15,400.00	7,208.18	7,157.18	7,208.18	228.04	248.13	-91.83	-2,633.38	-8,960.72	838.97	537.59	301.38	2.784		
15,437.48	7,208.00	7,157.00	7,208.00	229.10	248.13	-91.75	-2,633.38	-8,960.72	801.96	499.67	302.29	2.653	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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 121-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	34.00	3.28	3.28	-106.13	-2,600.22	-8,992.98	9,361.41					
100.00	100.00	30.14	64.14	3.28	3.28	-106.13	-2,600.29	-8,993.02	9,361.47	9,354.91	6.57	1,425.893		
200.00	200.00	75.80	109.80	3.34	3.28	-106.13	-2,600.65	-8,993.24	9,362.15	9,355.53	6.62	1,414.049		
300.00	299.98	121.00	154.99	3.44	3.29	70.22	-2,601.31	-8,993.63	9,362.81	9,356.08	6.73	1,391.521		
400.00	399.84	166.63	200.61	3.59	3.31	70.23	-2,602.10	-8,994.28	9,362.88	9,355.98	6.90	1,357.194		
500.00	499.45	208.00	241.97	3.79	3.34	70.26	-2,602.76	-8,995.12	9,362.35	9,355.22	7.13	1,313.823		
600.00	598.70	208.00	241.97	4.03	3.34	70.28	-2,602.76	-8,995.12	9,361.51	9,354.14	7.37	1,269.976		
700.00	697.47	257.21	291.15	4.31	3.39	70.34	-2,603.37	-8,996.73	9,360.02	9,352.31	7.70	1,215.155		
800.00	795.62	300.00	333.88	4.64	3.44	70.43	-2,603.65	-8,998.91	9,358.40	9,350.32	8.08	1,158.566		
900.00	893.06	300.00	333.88	5.00	3.44	70.47	-2,603.65	-8,998.91	9,356.28	9,347.84	8.44	1,108.545		
1,000.00	989.64	300.00	333.88	5.40	3.44	70.51	-2,603.65	-8,998.91	9,354.05	9,345.21	8.84	1,058.375		
1,100.00	1,085.27	351.52	385.27	5.83	3.52	70.65	-2,603.59	-9,002.48	9,351.16	9,341.82	9.34	1,001.222		
1,200.00	1,179.82	391.00	424.60	6.29	3.59	70.79	-2,603.18	-9,005.91	9,348.16	9,338.30	9.87	947.499		
1,300.00	1,273.47	391.00	424.60	6.79	3.59	70.81	-2,603.18	-9,005.91	9,345.02	9,334.67	10.36	902.189		
1,400.00	1,367.06	391.00	424.60	7.30	3.59	70.81	-2,603.18	-9,005.91	9,342.90	9,332.03	10.87	859.448		
1,500.00	1,460.64	444.60	477.89	7.83	3.70	70.93	-2,602.08	-9,011.55	9,341.23	9,329.74	11.49	812.699		
1,600.00	1,554.23	481.00	514.00	8.38	3.78	71.02	-2,600.96	-9,016.00	9,340.63	9,328.53	12.10	771.654		
1,631.85	1,584.04	481.00	514.00	8.55	3.78	71.02	-2,600.96	-9,016.00	9,340.58	9,328.30	12.28	760.736		
1,700.00	1,647.82	481.00	514.00	8.93	3.78	71.02	-2,600.96	-9,016.00	9,340.83	9,328.18	12.65	738.296		
1,800.00	1,741.41	516.79	549.44	9.49	3.87	71.11	-2,599.63	-9,020.83	9,341.84	9,328.56	13.29	703.161		
1,900.00	1,835.00	572.00	603.97	10.05	4.02	71.25	-2,597.26	-9,029.09	9,343.88	9,329.91	13.98	668.495		
2,000.00	1,928.59	572.00	603.97	10.62	4.02	71.25	-2,597.26	-9,029.09	9,346.40	9,331.86	14.54	642.711		
2,100.00	2,022.18	572.00	603.97	11.20	4.02	71.25	-2,597.26	-9,029.09	9,349.98	9,334.87	15.11	618.775		
2,200.00	2,115.77	572.00	603.97	11.78	4.02	71.25	-2,597.26	-9,029.09	9,354.63	9,338.95	15.68	596.535		
2,300.00	2,209.36	628.92	660.00	12.37	4.21	71.39	-2,594.54	-9,038.73	9,359.58	9,343.17	16.41	570.394		
2,400.00	2,302.95	693.00	722.80	12.95	4.44	71.56	-2,591.27	-9,051.06	9,366.17	9,349.00	17.17	545.492		
2,500.00	2,396.54	693.00	722.80	13.54	4.44	71.56	-2,591.27	-9,051.06	9,372.84	9,355.10	17.74	528.200		
2,600.00	2,490.13	693.00	722.80	14.13	4.44	71.56	-2,591.27	-9,051.06	9,380.58	9,362.26	18.32	512.044		
2,700.00	2,583.72	693.00	722.80	14.73	4.44	71.56	-2,591.27	-9,051.06	9,389.37	9,370.48	18.89	496.934		
2,800.00	2,677.31	737.03	765.79	15.32	4.62	71.67	-2,589.10	-9,060.33	9,398.83	9,379.22	19.61	479.289		
2,900.00	2,770.90	761.00	789.15	15.92	4.72	71.74	-2,588.03	-9,065.59	9,409.20	9,388.94	20.26	464.368		
3,000.00	2,864.49	792.57	819.86	16.52	4.87	71.82	-2,586.55	-9,072.74	9,420.35	9,399.40	20.95	449.635		
3,100.00	2,958.08	823.69	850.06	17.12	5.01	71.90	-2,584.80	-9,080.03	9,432.25	9,410.62	21.63	436.016		
3,200.00	3,051.67	855.00	880.38	17.72	5.16	71.99	-2,582.76	-9,087.61	9,444.90	9,422.59	22.31	423.338		
3,300.00	3,145.26	855.00	880.38	18.32	5.16	71.99	-2,582.76	-9,087.61	9,458.45	9,435.57	22.88	413.458		
3,400.00	3,238.85	896.66	920.58	18.92	5.39	72.10	-2,579.82	-9,098.14	9,472.64	9,449.04	23.60	401.384		
3,500.00	3,332.44	949.00	970.84	19.53	5.67	72.25	-2,576.01	-9,112.21	9,487.99	9,463.61	24.38	389.179		
3,600.00	3,426.03	949.00	970.84	20.13	5.67	72.25	-2,576.01	-9,112.21	9,503.75	9,478.82	24.94	381.102		
3,700.00	3,519.62	969.72	990.67	20.74	5.80	72.31	-2,574.42	-9,117.99	9,520.50	9,494.92	25.58	372.163		
3,800.00	3,613.21	1,012.03	1,031.09	21.34	6.06	72.43	-2,570.83	-9,130.00	9,537.92	9,511.60	26.32	362.376		
3,900.00	3,706.80	1,044.00	1,061.55	21.95	6.25	72.52	-2,567.81	-9,139.23	9,555.99	9,528.98	27.01	353.730		
4,000.00	3,800.39	1,044.00	1,061.55	22.56	6.25	72.52	-2,567.81	-9,139.23	9,574.97	9,547.41	27.56	347.425		
4,100.00	3,893.98	1,093.06	1,108.11	23.16	6.58	72.66	-2,562.87	-9,153.88	9,594.45	9,566.11	28.34	338.598		
4,200.00	3,987.57	1,139.00	1,151.47	23.77	6.90	72.80	-2,558.06	-9,168.25	9,615.01	9,585.91	29.10	330.412		
4,300.00	4,081.16	1,139.00	1,151.47	24.38	6.90	72.80	-2,558.06	-9,168.25	9,636.13	9,606.50	29.63	325.176		
4,400.00	4,174.75	1,139.00	1,151.47	24.99	6.90	72.80	-2,558.06	-9,168.25	9,658.24	9,628.08	30.16	320.206		
4,500.00	4,268.34	1,180.16	1,190.11	25.60	7.21	72.92	-2,553.48	-9,181.67	9,681.00	9,650.09	30.90	313.272		
4,600.00	4,361.93	1,234.00	1,240.31	26.21	7.62	73.09	-2,546.90	-9,200.00	9,704.82	9,673.11	31.71	306.029		
4,700.00	4,455.52	1,234.00	1,240.31	26.82	7.62	73.09	-2,546.90	-9,200.00	9,729.04	9,696.81	32.23	301.880		
4,800.00	4,549.11	1,234.00	1,240.31	27.43	7.62	73.09	-2,546.90	-9,200.00	9,754.23	9,721.49	32.74	297.935		
4,900.00	4,642.70	1,234.00	1,240.31	28.04	7.62	73.09	-2,546.90	-9,200.00	9,780.37	9,747.12	33.25	294.185		
5,000.00	4,736.29	1,283.61	1,286.21	28.65	8.03	73.24	-2,540.42	-9,217.67	9,806.94	9,772.91	34.03	288.179		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-23-18(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 121-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	1,329.00	1,327.91	29.26	8.42	73.39	-2,534.27	-9,234.49	9,834.61	9,799.82	34.79	282.666		
5,200.00	4,923.47	1,329.00	1,327.91	29.87	8.42	73.39	-2,534.27	-9,234.49	9,862.79	9,827.50	35.28	279.524		
5,300.00	5,017.06	1,329.00	1,327.91	30.48	8.42	73.39	-2,534.27	-9,234.49	9,891.89	9,856.12	35.77	276.535		
5,400.00	5,110.65	1,363.00	1,358.96	31.09	8.73	73.50	-2,529.51	-9,247.50	9,921.69	9,885.23	36.46	272.116		
5,500.00	5,204.24	1,382.93	1,377.09	31.70	8.92	73.56	-2,526.63	-9,255.28	9,952.27	9,915.21	37.06	268.535		
5,600.00	5,297.83	1,423.00	1,413.34	32.32	9.29	73.69	-2,520.68	-9,271.27	9,983.69	9,945.91	37.78	264.230		
8,200.00	7,244.23	3,474.58	3,274.77	45.74	30.79	3.41	-2,276.52	-10,097.71	9,989.16	9,927.91	61.25	163.091		
8,300.00	7,243.73	3,505.84	3,303.30	46.38	31.11	3.48	-2,273.13	-10,110.01	9,897.25	9,835.74	61.51	160.907		
8,400.00	7,243.23	3,545.31	3,339.32	47.29	31.53	3.58	-2,268.81	-10,125.56	9,805.35	9,743.51	61.83	158.576		
8,500.00	7,242.73	3,585.56	3,376.03	48.46	31.95	3.69	-2,264.14	-10,141.40	9,713.45	9,651.28	62.17	156.245		
8,600.00	7,242.23	3,619.67	3,407.12	49.87	32.31	3.78	-2,259.99	-10,154.80	9,621.56	9,559.10	62.46	154.036		
8,700.00	7,241.73	3,835.65	3,604.79	51.48	34.55	4.39	-2,234.94	-10,238.11	9,529.45	9,465.40	64.05	148.786		
8,800.00	7,241.23	3,851.64	3,619.48	53.24	34.71	4.44	-2,233.07	-10,244.15	9,436.92	9,372.70	64.22	146.946		
8,900.00	7,240.73	3,887.00	3,651.90	55.13	35.07	4.55	-2,228.82	-10,257.61	9,344.52	9,279.99	64.53	144.803		
9,000.00	7,240.23	3,887.00	3,651.90	57.11	35.07	4.55	-2,228.82	-10,257.61	9,252.13	9,187.53	64.60	143.214		
9,100.00	7,239.73	3,887.00	3,651.90	59.19	35.07	4.55	-2,228.82	-10,257.61	9,159.89	9,095.21	64.68	141.619		
9,200.00	7,239.23	3,887.00	3,651.90	61.34	35.07	4.55	-2,228.82	-10,257.61	9,067.82	9,003.06	64.76	140.019		
9,300.00	7,238.72	3,926.95	3,688.42	63.55	35.49	4.68	-2,223.98	-10,273.05	8,975.69	8,910.56	65.13	137.813		
9,400.00	7,238.22	3,941.45	3,701.66	65.81	35.65	4.73	-2,222.24	-10,278.72	8,883.76	8,818.43	65.32	135.996		
9,500.00	7,237.72	7,386.00	7,004.69	68.13	57.82	68.67	-2,031.14	-11,006.40	8,787.33	8,705.98	81.35	108.012		
9,600.00	7,237.22	7,386.00	7,004.69	70.48	57.82	68.67	-2,031.14	-11,006.40	8,687.51	8,606.09	81.42	106.703		
9,700.00	7,236.72	7,386.00	7,004.69	72.88	57.82	68.67	-2,031.14	-11,006.40	8,587.69	8,506.21	81.48	105.393		
9,800.00	7,236.22	7,386.00	7,004.69	75.31	57.82	68.67	-2,031.14	-11,006.40	8,487.88	8,406.33	81.55	104.081		
9,900.00	7,235.72	7,386.00	7,004.69	77.77	57.82	68.67	-2,031.14	-11,006.40	8,388.07	8,306.45	81.62	102.768		
10,000.00	7,235.22	7,386.00	7,004.69	80.26	57.82	68.67	-2,031.14	-11,006.40	8,288.26	8,206.57	81.70	101.454		
10,100.00	7,234.72	7,386.00	7,004.69	82.77	57.82	68.67	-2,031.14	-11,006.40	8,188.46	8,106.69	81.77	100.138		
10,200.00	7,234.22	7,386.00	7,004.69	85.31	57.82	68.67	-2,031.14	-11,006.40	8,088.67	8,006.82	81.85	98.822		
10,300.00	7,233.72	7,386.00	7,004.69	87.86	57.82	68.67	-2,031.14	-11,006.40	7,988.88	7,906.94	81.93	97.504		
10,400.00	7,233.22	7,386.00	7,004.69	90.44	57.82	68.67	-2,031.14	-11,006.40	7,889.09	7,807.07	82.02	96.185		
10,500.00	7,232.72	7,386.00	7,004.69	93.03	57.82	68.67	-2,031.14	-11,006.40	7,789.31	7,707.20	82.11	94.865		
10,600.00	7,232.22	7,386.00	7,004.69	95.64	57.82	68.67	-2,031.14	-11,006.40	7,689.54	7,607.33	82.20	93.544		
10,700.00	7,231.72	7,386.00	7,004.69	98.26	57.82	68.67	-2,031.14	-11,006.40	7,589.77	7,507.47	82.30	92.221		
10,800.00	7,231.21	7,386.00	7,004.69	100.89	57.82	68.67	-2,031.14	-11,006.40	7,490.01	7,407.61	82.40	90.898		
10,900.00	7,230.71	7,386.00	7,004.69	103.54	57.82	68.67	-2,031.14	-11,006.40	7,390.25	7,307.75	82.50	89.573		
11,000.00	7,230.21	7,386.00	7,004.69	106.20	57.82	68.67	-2,031.14	-11,006.40	7,290.50	7,207.89	82.61	88.248		
11,100.00	7,229.71	7,386.00	7,004.69	108.87	57.82	68.67	-2,031.14	-11,006.40	7,190.76	7,108.03	82.73	86.921		
11,200.00	7,229.21	7,386.00	7,004.69	111.54	57.82	68.67	-2,031.14	-11,006.40	7,091.03	7,008.18	82.85	85.594		
11,300.00	7,228.71	7,386.00	7,004.69	114.23	57.82	68.67	-2,031.14	-11,006.40	6,991.30	6,908.33	82.97	84.265		
11,400.00	7,228.21	7,386.00	7,004.69	116.92	57.82	68.67	-2,031.14	-11,006.40	6,891.58	6,808.48	83.10	82.935		
11,500.00	7,227.71	7,386.00	7,004.69	119.63	57.82	68.67	-2,031.14	-11,006.40	6,791.87	6,708.64	83.23	81.605		
11,600.00	7,227.21	7,386.00	7,004.69	122.34	57.82	68.67	-2,031.14	-11,006.40	6,692.17	6,608.80	83.37	80.273		
11,700.00	7,226.71	7,386.00	7,004.69	125.05	57.82	68.67	-2,031.14	-11,006.40	6,592.47	6,508.96	83.51	78.940		
11,800.00	7,226.21	7,386.00	7,004.69	127.78	57.82	68.67	-2,031.14	-11,006.40	6,492.79	6,409.13	83.66	77.606		
11,900.00	7,225.71	7,386.00	7,004.69	130.51	57.82	68.67	-2,031.14	-11,006.40	6,393.12	6,309.30	83.82	76.272		
12,000.00	7,225.21	7,386.00	7,004.69	133.24	57.82	68.67	-2,031.14	-11,006.40	6,293.45	6,209.47	83.98	74.936		
12,100.00	7,224.71	7,386.00	7,004.69	135.98	57.82	68.67	-2,031.14	-11,006.40	6,193.80	6,109.65	84.16	73.600		
12,200.00	7,224.21	7,386.00	7,004.69	138.72	57.82	68.67	-2,031.14	-11,006.40	6,094.16	6,009.83	84.33	72.262		
12,300.00	7,223.70	7,386.00	7,004.69	141.47	57.82	68.67	-2,031.14	-11,006.40	5,994.53	5,910.01	84.52	70.923		
12,400.00	7,223.20	7,386.00	7,004.69	144.23	57.82	68.67	-2,031.14	-11,006.40	5,894.91	5,810.20	84.72	69.584		
12,500.00	7,222.70	7,403.68	7,022.35	146.98	57.87	70.48	-2,031.77	-11,007.04	5,795.27	5,710.33	84.94	68.227		
12,600.00	7,222.20	7,405.90	7,024.57	149.74	57.88	70.72	-2,031.84	-11,007.13	5,695.67	5,610.51	85.16	66.884		
12,700.00	7,221.70	7,408.15	7,026.81	152.51	57.88	70.95	-2,031.92	-11,007.21	5,596.08	5,510.70	85.38	65.541		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-23-18(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 121-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
12,800.00	7,221.20	7,410.43	7,029.09	155.28	57.89	71.19	-2,032.00	-11,007.30	5,496.51	5,410.89	85.62	64.198		
12,900.00	7,220.70	7,412.73	7,031.38	158.05	57.90	71.43	-2,032.09	-11,007.39	5,396.95	5,311.08	85.87	62.853		
13,000.00	7,220.20	7,415.06	7,033.71	160.82	57.90	71.68	-2,032.17	-11,007.47	5,297.40	5,211.28	86.12	61.508		
13,100.00	7,219.70	7,417.41	7,036.06	163.60	57.91	71.92	-2,032.25	-11,007.56	5,197.87	5,111.48	86.40	60.163		
13,200.00	7,219.20	7,419.79	7,038.43	166.38	57.92	72.18	-2,032.33	-11,007.66	5,098.36	5,011.68	86.68	58.817		
13,300.00	7,218.70	7,422.20	7,040.84	169.16	57.92	72.43	-2,032.42	-11,007.75	4,998.87	4,911.89	86.98	57.470		
13,400.00	7,218.20	7,424.63	7,043.27	171.95	57.93	72.69	-2,032.50	-11,007.85	4,899.39	4,812.09	87.30	56.122		
13,500.00	7,217.70	7,427.09	7,045.73	174.74	57.94	72.95	-2,032.59	-11,007.94	4,799.94	4,712.31	87.63	54.774		
13,600.00	7,217.20	7,429.59	7,048.22	177.53	57.94	73.22	-2,032.68	-11,008.04	4,700.50	4,612.52	87.98	53.425		
13,700.00	7,216.70	7,432.11	7,050.73	180.32	57.95	73.49	-2,032.77	-11,008.14	4,601.09	4,512.74	88.35	52.076		
13,800.00	7,216.19	7,434.66	7,053.28	183.11	57.96	73.77	-2,032.85	-11,008.24	4,501.71	4,412.96	88.74	50.727		
13,900.00	7,215.69	7,437.24	7,055.86	185.91	57.96	74.05	-2,032.94	-11,008.34	4,402.34	4,313.19	89.16	49.376		
14,000.00	7,215.19	7,439.85	7,058.47	188.71	57.97	74.33	-2,033.04	-11,008.45	4,303.01	4,213.41	89.60	48.026		
14,100.00	7,214.69	7,442.49	7,061.11	191.51	57.98	74.62	-2,033.13	-11,008.56	4,203.71	4,113.64	90.06	46.675		
14,200.00	7,214.19	7,445.17	7,063.78	194.31	57.98	74.91	-2,033.22	-11,008.67	4,104.43	4,013.88	90.56	45.324		
14,300.00	7,213.69	7,447.88	7,066.48	197.11	57.99	75.21	-2,033.32	-11,008.78	4,005.19	3,914.11	91.08	43.973		
14,400.00	7,213.19	7,450.62	7,069.22	199.92	58.00	75.51	-2,033.41	-11,008.89	3,905.99	3,814.35	91.64	42.622		
14,500.00	7,212.69	7,453.39	7,071.99	202.72	58.01	75.82	-2,033.51	-11,009.00	3,806.83	3,714.59	92.24	41.271		
14,600.00	7,212.19	7,456.20	7,074.80	205.53	58.01	76.13	-2,033.60	-11,009.12	3,707.71	3,614.83	92.88	39.920		
14,700.00	7,211.69	7,459.05	7,077.64	208.34	58.02	76.45	-2,033.70	-11,009.24	3,608.63	3,515.07	93.56	38.570		
14,800.00	7,211.19	7,461.93	7,080.51	211.15	58.03	76.77	-2,033.80	-11,009.36	3,509.60	3,415.31	94.29	37.220		
14,900.00	7,210.69	7,464.85	7,083.43	213.96	58.04	77.09	-2,033.90	-11,009.48	3,410.63	3,315.55	95.08	35.872		
15,000.00	7,210.19	7,467.80	7,086.38	216.78	58.05	77.43	-2,034.01	-11,009.61	3,311.71	3,215.79	95.92	34.525		
15,100.00	7,209.69	7,470.79	7,089.36	219.59	58.05	77.76	-2,034.11	-11,009.74	3,212.86	3,116.03	96.83	33.179		
15,200.00	7,209.18	7,473.82	7,092.39	222.41	58.06	78.10	-2,034.21	-11,009.87	3,114.08	3,016.26	97.82	31.836		
15,300.00	7,208.68	7,476.89	7,095.45	225.22	58.07	78.45	-2,034.32	-11,010.00	3,015.38	2,916.50	98.88	30.495		
15,400.00	7,208.18	7,480.00	7,098.56	228.04	58.08	78.80	-2,034.43	-11,010.13	2,916.75	2,816.72	100.03	29.158		
15,437.48	7,208.00	7,481.18	7,099.73	229.10	58.08	78.94	-2,034.47	-11,010.19	2,879.82	2,779.33	100.49	28.658	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - FRITZLER 17-32-12(PR_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	120-MWD											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	7,574.12	7,188.78	229.10	53.34	89.63	-673.88	-9,634.06	2,339.66	2,115.86	223.80	10.454	CC, ES, SF



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - FRITZLER 17-42-11(PR_150CC) - OH - MWD											Offset Site Error:	0.00 ft
Survey Program:	57-MWD											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	7,535.98	7,191.42	229.10	52.37	89.50	-656.02	-8,303.96	1,847.77	1,580.63	267.14	6.917	CC, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 34-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 168-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	34.00	3.28	3.28	-106.45	-2,657.05	-9,001.62	9,385.64					
100.00	100.00	37.46	71.46	3.28	3.28	-106.44	-2,656.97	-9,001.71	9,385.68	9,379.11	6.57	1,429.513		
200.00	200.00	94.21	128.20	3.34	3.29	-106.44	-2,656.53	-9,002.15	9,386.21	9,379.59	6.62	1,417.245		
300.00	299.98	168.00	201.98	3.44	3.30	69.93	-2,655.41	-9,003.30	9,386.64	9,379.90	6.74	1,393.249		
400.00	399.84	168.00	201.98	3.59	3.30	69.94	-2,655.41	-9,003.30	9,386.42	9,379.53	6.89	1,362.863		
500.00	499.45	211.61	245.57	3.79	3.33	69.98	-2,654.56	-9,004.47	9,385.67	9,378.56	7.11	1,319.735		
600.00	598.70	259.00	292.90	4.03	3.37	70.04	-2,653.66	-9,006.43	9,384.69	9,377.30	7.39	1,269.088		
700.00	697.47	259.00	292.90	4.31	3.37	70.07	-2,653.66	-9,006.43	9,383.13	9,375.44	7.68	1,221.466		
800.00	795.62	290.76	324.61	4.64	3.40	70.15	-2,653.15	-9,008.10	9,381.24	9,373.20	8.04	1,166.785		
900.00	893.06	318.44	352.25	5.00	3.44	70.23	-2,652.84	-9,009.74	9,378.96	9,370.52	8.44	1,111.896		
1,000.00	989.64	350.00	383.74	5.40	3.48	70.33	-2,652.65	-9,011.82	9,376.27	9,367.40	8.87	1,056.625		
1,100.00	1,085.27	401.49	435.10	5.83	3.57	70.49	-2,652.50	-9,015.49	9,373.07	9,363.69	9.38	998.917		
1,200.00	1,179.82	470.11	503.52	6.29	3.70	70.70	-2,652.36	-9,020.59	9,369.15	9,359.18	9.97	939.680		
1,300.00	1,273.47	532.00	565.24	6.79	3.84	70.86	-2,652.17	-9,025.30	9,364.65	9,354.06	10.59	884.251		
1,400.00	1,367.06	576.56	609.65	7.30	3.95	70.96	-2,652.11	-9,028.87	9,360.65	9,349.45	11.20	835.478		
1,500.00	1,460.64	611.74	644.71	7.83	4.05	71.03	-2,652.22	-9,031.90	9,357.38	9,345.57	11.82	791.988		
1,600.00	1,554.23	644.00	676.83	8.38	4.14	71.10	-2,652.45	-9,034.84	9,354.83	9,342.39	12.43	752.354		
1,700.00	1,647.82	712.87	745.38	8.93	4.35	71.25	-2,653.18	-9,041.39	9,352.82	9,339.65	13.17	710.328		
1,800.00	1,741.41	830.52	862.49	9.49	4.73	71.50	-2,654.69	-9,052.55	9,350.96	9,336.89	14.07	664.612		
1,900.00	1,835.00	908.00	939.61	10.05	5.01	71.66	-2,655.35	-9,059.96	9,349.21	9,334.33	14.88	628.431		
2,000.00	1,928.59	2,000.00	1,129.32	10.62	9.56	72.08	-2,655.59	-9,077.46	9,346.97	9,327.25	19.72	474.019		
2,100.00	2,022.18	1,135.49	1,166.15	11.20	5.87	72.16	-2,655.51	-9,080.73	9,344.76	9,327.96	16.80	556.169		
2,200.00	2,115.77	1,190.00	1,220.36	11.78	6.09	72.28	-2,655.22	-9,086.40	9,343.63	9,326.05	17.58	531.607		
2,300.00	2,209.36	1,190.00	1,220.36	12.37	6.09	72.28	-2,655.22	-9,086.40	9,342.95	9,324.79	18.15	514.699		
2,313.58	2,222.07	1,190.00	1,220.36	12.45	6.09	72.28	-2,655.22	-9,086.40	9,342.94	9,324.71	18.23	512.485		
2,400.00	2,302.95	1,190.00	1,220.36	12.95	6.09	72.28	-2,655.22	-9,086.40	9,343.34	9,324.61	18.73	498.847		
2,500.00	2,396.54	1,242.97	1,272.95	13.54	6.32	72.40	-2,654.85	-9,092.69	9,344.34	9,324.83	19.51	478.942		
2,600.00	2,490.13	1,285.00	1,314.63	14.13	6.50	72.50	-2,654.59	-9,098.12	9,346.21	9,325.96	20.25	461.479		
2,700.00	2,583.72	1,285.00	1,314.63	14.73	6.50	72.50	-2,654.59	-9,098.12	9,348.87	9,328.03	20.83	448.757		
2,800.00	2,677.31	1,340.25	1,369.35	15.32	6.75	72.62	-2,654.58	-9,105.73	9,352.15	9,330.51	21.63	432.344		
2,900.00	2,770.90	1,379.00	1,407.70	15.92	6.92	72.70	-2,654.99	-9,111.33	9,356.22	9,333.85	22.37	418.311		
3,000.00	2,864.49	1,408.29	1,436.65	16.52	7.06	72.77	-2,655.34	-9,115.73	9,361.01	9,337.95	23.07	405.846		
3,100.00	2,958.08	1,441.82	1,469.76	17.12	7.22	72.84	-2,655.58	-9,121.01	9,366.54	9,342.76	23.78	393.850		
3,200.00	3,051.67	1,475.00	1,502.49	17.72	7.38	72.92	-2,655.64	-9,126.48	9,372.80	9,348.31	24.50	382.604		
3,300.00	3,145.26	1,512.06	1,539.00	18.32	7.56	73.00	-2,655.68	-9,132.82	9,379.78	9,354.55	25.23	371.764		
3,400.00	3,238.85	1,570.00	1,596.02	18.92	7.85	73.13	-2,656.00	-9,143.13	9,387.51	9,361.46	26.05	360.313		
3,500.00	3,332.44	1,570.00	1,596.02	19.53	7.85	73.13	-2,656.00	-9,143.13	9,395.85	9,369.22	26.63	352.878		
3,600.00	3,426.03	1,631.81	1,656.74	20.13	8.17	73.27	-2,656.46	-9,154.62	9,404.81	9,377.34	27.47	342.385		
3,700.00	3,519.62	1,665.00	1,689.32	20.74	8.34	73.35	-2,656.66	-9,161.00	9,414.45	9,386.27	28.18	334.026		
3,800.00	3,613.21	1,700.40	1,724.01	21.34	8.53	73.43	-2,656.83	-9,168.02	9,424.81	9,395.89	28.91	325.992		
3,900.00	3,706.80	1,729.11	1,752.11	21.95	8.69	73.49	-2,656.95	-9,173.93	9,435.93	9,406.33	29.61	318.718		
4,000.00	3,800.39	1,759.00	1,781.31	22.56	8.85	73.56	-2,657.05	-9,180.29	9,447.83	9,417.52	30.30	311.763		
4,100.00	3,893.98	1,792.49	1,814.00	23.16	9.04	73.64	-2,657.32	-9,187.61	9,460.46	9,429.44	31.02	304.990		
4,200.00	3,987.57	1,853.00	1,872.94	23.77	9.39	73.77	-2,658.63	-9,201.18	9,473.87	9,442.01	31.86	297.361		
4,300.00	4,081.16	1,868.64	1,888.16	24.38	9.48	73.80	-2,659.11	-9,204.76	9,487.79	9,455.30	32.49	292.049		
4,400.00	4,174.75	1,923.05	1,941.07	24.99	9.80	73.92	-2,660.77	-9,217.33	9,502.35	9,469.05	33.30	285.368		
4,500.00	4,268.34	1,980.98	1,997.35	25.60	10.15	74.05	-2,662.51	-9,230.95	9,517.40	9,483.27	34.13	278.873		
4,600.00	4,361.93	2,042.00	2,056.58	26.21	10.52	74.18	-2,664.31	-9,245.51	9,532.89	9,497.91	34.97	272.573		
4,700.00	4,455.52	2,042.00	2,056.58	26.82	10.52	74.18	-2,664.31	-9,245.51	9,549.10	9,513.59	35.51	268.879		
4,800.00	4,549.11	2,042.00	2,056.58	27.43	10.52	74.18	-2,664.31	-9,245.51	9,566.33	9,530.28	36.05	265.360		
4,900.00	4,642.70	2,042.00	2,056.58	28.04	10.52	74.18	-2,664.31	-9,245.51	9,584.58	9,548.00	36.58	262.009		
5,000.00	4,736.29	2,092.51	2,105.38	28.65	10.85	74.29	-2,665.69	-9,258.46	9,602.86	9,565.49	37.37	256.975		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 34-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 168-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	2,137.00	2,147.98	29.26	11.14	74.39	-2,666.73	-9,271.25	9,622.96	9,584.84	38.12	252.411		
5,200.00	4,923.47	2,469.62	2,468.46	29.87	13.35	75.13	-2,671.23	-9,359.85	9,641.57	9,601.16	40.41	238.596		
5,300.00	5,017.06	2,513.00	2,510.26	30.48	13.64	75.23	-2,670.55	-9,371.43	9,659.87	9,618.70	41.17	234.638		
5,400.00	5,110.65	2,513.00	2,510.26	31.09	13.64	75.23	-2,670.55	-9,371.43	9,678.66	9,636.97	41.69	232.138		
5,500.00	5,204.24	2,513.00	2,510.26	31.70	13.64	75.23	-2,670.55	-9,371.43	9,698.46	9,656.24	42.21	229.754		
5,600.00	5,297.83	2,574.39	2,569.19	32.32	14.07	75.38	-2,669.52	-9,388.62	9,718.81	9,675.74	43.06	225.678		
5,700.00	5,391.42	2,609.00	2,602.36	32.93	14.31	75.46	-2,669.11	-9,398.49	9,739.82	9,696.05	43.77	222.535		
5,800.00	5,485.01	2,609.00	2,602.36	33.54	14.31	75.46	-2,669.11	-9,398.49	9,761.68	9,717.40	44.27	220.488		
5,900.00	5,578.60	2,648.36	2,639.97	34.15	14.60	75.56	-2,668.84	-9,410.08	9,784.12	9,739.12	45.00	217.436		
6,000.00	5,672.19	2,666.60	2,657.34	34.77	14.74	75.60	-2,668.81	-9,415.65	9,807.47	9,761.87	45.60	215.085		
6,100.00	5,765.78	2,704.00	2,692.83	35.38	15.02	75.68	-2,668.92	-9,427.44	9,831.71	9,785.40	46.31	212.323		
6,200.00	5,859.37	2,704.00	2,692.83	35.99	15.02	75.68	-2,668.92	-9,427.44	9,856.56	9,809.77	46.79	210.652		
6,300.00	5,952.96	3,310.55	3,271.27	36.60	19.57	77.08	-2,664.12	-9,608.60	9,880.31	9,829.48	50.82	194.400		
6,400.00	6,046.55	3,369.72	3,328.19	37.22	19.99	77.20	-2,666.51	-9,624.62	9,901.29	9,849.62	51.67	191.626		
6,500.00	6,140.14	3,429.32	3,385.43	37.83	20.42	77.32	-2,669.67	-9,640.89	9,922.68	9,870.16	52.52	188.943		
6,600.00	6,233.73	3,565.34	3,516.05	38.44	21.41	77.57	-2,677.60	-9,677.99	9,944.22	9,890.41	53.81	184.813		
6,700.00	6,327.32	3,737.00	3,681.40	39.06	22.64	77.92	-2,682.35	-9,723.83	9,965.00	9,909.69	55.30	180.183		
6,800.00	6,420.91	3,785.60	3,728.30	39.67	22.99	78.02	-2,683.27	-9,736.56	9,985.67	9,929.57	56.09	178.022		
7,500.00	7,040.53	6,983.00	6,865.74	43.53	40.58	27.56	-2,694.72	-10,245.96	9,955.42	9,880.49	74.94	132.852		
7,600.00	7,106.00	7,055.79	6,938.51	43.89	40.82	23.72	-2,696.40	-10,247.16	9,884.68	9,809.12	75.56	130.824		
7,700.00	7,160.23	7,116.71	6,999.38	44.20	41.02	20.89	-2,698.31	-10,248.12	9,803.79	9,727.73	76.06	128.896		
7,800.00	7,201.86	7,164.05	7,046.69	44.48	41.18	18.48	-2,700.11	-10,248.84	9,714.73	9,638.29	76.44	127.095		
7,900.00	7,229.88	7,196.53	7,079.13	44.73	41.29	15.43	-2,701.51	-10,249.31	9,619.69	9,543.01	76.68	125.446		
8,000.00	7,243.60	7,213.26	7,095.85	44.99	41.34	4.24	-2,702.28	-10,249.55	9,521.02	9,444.22	76.80	123.966		
8,100.00	7,244.73	7,216.10	7,098.68	45.29	41.35	-62.66	-2,702.41	-10,249.60	9,421.10	9,344.28	76.82	122.642		
8,200.00	7,244.23	7,217.14	7,099.71	45.74	41.35	-62.91	-2,702.46	-10,249.61	9,321.12	9,244.30	76.82	121.339		
8,300.00	7,243.73	7,218.17	7,100.74	46.38	41.36	-63.17	-2,702.51	-10,249.62	9,221.15	9,144.33	76.82	120.034		
8,400.00	7,243.23	7,219.19	7,101.77	47.29	41.36	-63.42	-2,702.56	-10,249.64	9,121.18	9,044.35	76.82	118.729		
8,500.00	7,242.73	7,220.22	7,102.79	48.46	41.36	-63.67	-2,702.61	-10,249.65	9,021.20	8,944.38	76.83	117.422		
8,600.00	7,242.23	7,221.24	7,103.81	49.87	41.37	-63.92	-2,702.66	-10,249.67	8,921.23	8,844.40	76.83	116.115		
8,700.00	7,241.73	7,222.26	7,104.83	51.48	41.37	-64.17	-2,702.71	-10,249.68	8,821.26	8,744.43	76.84	114.807		
8,800.00	7,241.23	7,223.28	7,105.85	53.24	41.37	-64.42	-2,702.76	-10,249.70	8,721.29	8,644.45	76.84	113.498		
8,900.00	7,240.73	7,224.30	7,106.86	55.13	41.38	-64.68	-2,702.80	-10,249.71	8,621.32	8,544.47	76.85	112.189		
9,000.00	7,240.23	7,225.31	7,107.88	57.11	41.38	-64.93	-2,702.85	-10,249.73	8,521.35	8,444.50	76.85	110.878		
9,100.00	7,239.73	7,226.32	7,108.89	59.19	41.38	-65.18	-2,702.90	-10,249.74	8,421.38	8,344.52	76.86	109.567		
9,200.00	7,239.23	7,225.97	7,108.54	61.34	41.38	-65.09	-2,702.78	-10,249.74	8,321.42	8,244.55	76.86	108.261		
9,300.00	7,238.72	7,226.97	7,109.54	63.55	41.39	-65.34	-2,702.82	-10,249.76	8,221.45	8,144.58	76.87	106.948		
9,400.00	7,238.22	7,227.97	7,110.54	65.81	41.39	-65.59	-2,702.86	-10,249.77	8,121.48	8,044.60	76.88	105.635		
9,500.00	7,237.72	7,228.97	7,111.54	68.13	41.39	-65.84	-2,702.90	-10,249.78	8,021.52	7,944.62	76.89	104.322		
9,600.00	7,237.22	7,229.97	7,112.54	70.48	41.40	-66.09	-2,702.94	-10,249.80	7,921.55	7,844.65	76.90	103.007		
9,700.00	7,236.72	7,230.97	7,113.53	72.88	41.40	-66.35	-2,702.98	-10,249.81	7,821.59	7,744.67	76.91	101.693		
9,800.00	7,236.22	7,231.97	7,114.53	75.31	41.40	-66.60	-2,703.02	-10,249.83	7,721.62	7,644.70	76.93	100.378		
9,900.00	7,235.72	7,232.97	7,115.53	77.77	41.41	-66.86	-2,703.06	-10,249.84	7,621.66	7,544.72	76.94	99.062		
10,000.00	7,235.22	7,233.97	7,116.53	80.26	41.41	-67.11	-2,703.10	-10,249.86	7,521.70	7,444.75	76.95	97.746		
10,100.00	7,234.72	7,234.96	7,117.52	82.77	41.41	-67.37	-2,703.15	-10,249.87	7,421.74	7,344.77	76.97	96.430		
10,200.00	7,234.22	7,235.96	7,118.52	85.31	41.42	-67.63	-2,703.19	-10,249.89	7,321.78	7,244.80	76.98	95.113		
10,300.00	7,233.72	7,236.96	7,119.52	87.86	41.42	-67.89	-2,703.23	-10,249.90	7,221.82	7,144.82	77.00	93.796		
10,400.00	7,233.22	7,237.96	7,120.52	90.44	41.42	-68.15	-2,703.27	-10,249.91	7,121.86	7,044.85	77.01	92.479		
10,500.00	7,232.72	7,238.96	7,121.51	93.03	41.43	-68.41	-2,703.31	-10,249.93	7,021.90	6,944.87	77.03	91.161		
10,600.00	7,232.22	7,239.95	7,122.51	95.64	41.43	-68.67	-2,703.35	-10,249.94	6,921.95	6,844.90	77.04	89.843		
10,700.00	7,231.72	7,240.95	7,123.51	98.26	41.43	-68.93	-2,703.39	-10,249.96	6,821.99	6,744.93	77.06	88.525		
10,800.00	7,231.21	7,241.95	7,124.50	100.89	41.44	-69.20	-2,703.43	-10,249.97	6,722.04	6,644.96	77.08	87.207		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 34-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 168-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,900.00	7,230.71	7,242.95	7,125.50	103.54	41.44	-69.46	-2,703.47	-10,249.99	6,622.08	6,544.98	77.10	85.889		
11,000.00	7,230.21	7,243.94	7,126.50	106.20	41.44	-69.72	-2,703.51	-10,250.00	6,522.13	6,445.01	77.12	84.571		
11,100.00	7,229.71	7,244.94	7,127.49	108.87	41.45	-69.99	-2,703.55	-10,250.02	6,422.18	6,345.04	77.14	83.252		
11,200.00	7,229.21	7,245.94	7,128.49	111.54	41.45	-70.26	-2,703.58	-10,250.03	6,322.24	6,245.07	77.16	81.934		
11,300.00	7,228.71	7,246.93	7,129.48	114.23	41.45	-70.52	-2,703.62	-10,250.04	6,222.29	6,145.10	77.18	80.615		
11,400.00	7,228.21	7,247.93	7,130.48	116.92	41.46	-70.79	-2,703.66	-10,250.06	6,122.34	6,045.14	77.21	79.297		
11,500.00	7,227.71	7,248.93	7,131.48	119.63	41.46	-71.06	-2,703.70	-10,250.07	6,022.40	5,945.17	77.23	77.978		
11,600.00	7,227.21	7,249.92	7,132.47	122.34	41.46	-71.33	-2,703.74	-10,250.09	5,922.46	5,845.20	77.26	76.660		
11,700.00	7,226.71	7,250.92	7,133.47	125.05	41.47	-71.60	-2,703.78	-10,250.10	5,822.52	5,745.24	77.28	75.341		
11,800.00	7,226.21	7,251.92	7,134.46	127.78	41.47	-71.87	-2,703.82	-10,250.12	5,722.58	5,645.27	77.31	74.023		
11,900.00	7,225.71	7,252.91	7,135.46	130.51	41.47	-72.14	-2,703.86	-10,250.13	5,622.64	5,545.31	77.34	72.705		
12,000.00	7,225.21	7,253.91	7,136.45	133.24	41.48	-72.41	-2,703.90	-10,250.15	5,522.71	5,445.35	77.36	71.387		
12,100.00	7,224.71	7,254.90	7,137.45	135.98	41.48	-72.68	-2,703.93	-10,250.16	5,422.78	5,345.38	77.39	70.068		
12,200.00	7,224.21	7,255.90	7,138.44	138.72	41.48	-72.96	-2,703.97	-10,250.17	5,322.85	5,245.43	77.42	68.750		
12,300.00	7,223.70	7,256.90	7,139.44	141.47	41.49	-73.23	-2,704.01	-10,250.19	5,222.92	5,145.47	77.45	67.433		
12,400.00	7,223.20	7,257.89	7,140.43	144.23	41.49	-73.50	-2,704.05	-10,250.20	5,123.00	5,045.51	77.49	66.115		
12,500.00	7,222.70	7,258.89	7,141.43	146.98	41.49	-73.78	-2,704.09	-10,250.22	5,023.08	4,945.56	77.52	64.797		
12,600.00	7,222.20	7,259.88	7,142.42	149.74	41.50	-74.05	-2,704.12	-10,250.23	4,923.16	4,845.60	77.56	63.479		
12,700.00	7,221.70	7,260.88	7,143.41	152.51	41.50	-74.33	-2,704.16	-10,250.25	4,823.24	4,745.65	77.59	62.162		
12,800.00	7,221.20	7,261.87	7,144.41	155.28	41.50	-74.61	-2,704.20	-10,250.26	4,723.33	4,645.70	77.63	60.844		
12,900.00	7,220.70	7,262.87	7,145.40	158.05	41.51	-74.88	-2,704.24	-10,250.28	4,623.42	4,545.75	77.67	59.527		
13,000.00	7,220.20	7,263.86	7,146.40	160.82	41.51	-75.16	-2,704.28	-10,250.29	4,523.52	4,445.81	77.71	58.209		
13,100.00	7,219.70	7,264.86	7,147.39	163.60	41.51	-75.44	-2,704.31	-10,250.30	4,423.62	4,345.86	77.75	56.892		
13,200.00	7,219.20	7,265.85	7,148.38	166.38	41.52	-75.72	-2,704.35	-10,250.32	4,323.72	4,245.92	77.80	55.574		
13,300.00	7,218.70	7,266.84	7,149.38	169.16	41.52	-76.00	-2,704.39	-10,250.33	4,223.83	4,145.98	77.85	54.257		
13,400.00	7,218.20	7,267.84	7,150.37	171.95	41.52	-76.28	-2,704.42	-10,250.35	4,123.94	4,046.04	77.90	52.939		
13,500.00	7,217.70	7,268.83	7,151.36	174.74	41.53	-76.56	-2,704.46	-10,250.36	4,024.06	3,946.11	77.95	51.621		
13,600.00	7,217.20	7,269.83	7,152.36	177.53	41.53	-76.84	-2,704.50	-10,250.38	3,924.19	3,846.18	78.01	50.303		
13,700.00	7,216.70	7,270.82	7,153.35	180.32	41.53	-77.12	-2,704.53	-10,250.39	3,824.32	3,746.25	78.07	48.984		
13,800.00	7,216.19	7,271.81	7,154.34	183.11	41.54	-77.40	-2,704.57	-10,250.41	3,724.46	3,646.32	78.14	47.665		
13,900.00	7,215.69	7,272.81	7,155.34	185.91	41.54	-77.69	-2,704.61	-10,250.42	3,624.60	3,546.40	78.21	46.346		
14,000.00	7,215.19	7,273.80	7,156.33	188.71	41.54	-77.97	-2,704.64	-10,250.43	3,524.76	3,446.47	78.28	45.026		
14,100.00	7,214.69	7,274.79	7,157.32	191.51	41.55	-78.25	-2,704.68	-10,250.45	3,424.92	3,346.55	78.37	43.705		
14,200.00	7,214.19	7,275.79	7,158.31	194.31	41.55	-78.54	-2,704.72	-10,250.46	3,325.09	3,246.64	78.45	42.383		
14,300.00	7,213.69	7,276.78	7,159.31	197.11	41.55	-78.82	-2,704.75	-10,250.48	3,225.27	3,146.72	78.55	41.060		
14,400.00	7,213.19	7,277.77	7,160.30	199.92	41.55	-79.11	-2,704.79	-10,250.49	3,125.47	3,046.81	78.66	39.735		
14,500.00	7,212.69	7,278.77	7,161.29	202.72	41.56	-79.39	-2,704.82	-10,250.51	3,025.67	2,946.90	78.77	38.409		
14,600.00	7,212.19	7,279.76	7,162.28	205.53	41.56	-79.68	-2,704.86	-10,250.52	2,925.89	2,846.99	78.90	37.082		
14,700.00	7,211.69	7,280.75	7,163.27	208.34	41.56	-79.96	-2,704.90	-10,250.53	2,826.13	2,747.08	79.05	35.752		
14,800.00	7,211.19	7,281.74	7,164.26	211.15	41.57	-80.25	-2,704.93	-10,250.55	2,726.38	2,647.17	79.21	34.420		
14,900.00	7,210.69	7,282.73	7,165.26	213.96	41.57	-80.54	-2,704.97	-10,250.56	2,626.65	2,547.26	79.39	33.085		
15,000.00	7,210.19	7,283.73	7,166.25	216.78	41.57	-80.82	-2,705.00	-10,250.58	2,526.94	2,447.34	79.60	31.747		
15,100.00	7,209.69	7,284.72	7,167.24	219.59	41.58	-81.11	-2,705.04	-10,250.59	2,427.25	2,347.42	79.83	30.406		
15,200.00	7,209.18	7,285.71	7,168.23	222.41	41.58	-81.40	-2,705.07	-10,250.61	2,327.60	2,247.50	80.10	29.060		
15,300.00	7,208.68	7,286.70	7,169.22	225.22	41.58	-81.69	-2,705.11	-10,250.62	2,227.97	2,147.56	80.40	27.710		
15,400.00	7,208.18	7,287.69	7,170.21	228.04	41.59	-81.97	-2,705.14	-10,250.64	2,128.37	2,047.61	80.76	26.355		
15,437.48	7,208.00	7,288.07	7,170.58	229.10	41.59	-82.08	-2,705.15	-10,250.64	2,091.06	2,010.15	80.91	25.845 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 43-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 118-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	34.00	3.28	3.28	-106.14	-2,589.31	-8,945.69	9,312.95					
100.00	100.00	37.48	71.48	3.28	3.28	-106.14	-2,589.23	-8,945.77	9,312.98	9,306.42	6.57	1,418.458		
200.00	200.00	94.27	128.27	3.34	3.29	-106.14	-2,588.81	-8,946.21	9,313.52	9,306.90	6.62	1,406.377		
300.00	299.98	462.60	496.44	3.44	3.71	70.34	-2,579.33	-8,945.22	9,311.16	9,304.00	7.16	1,300.901		
400.00	399.84	715.90	749.57	3.59	4.35	70.54	-2,571.37	-8,940.21	9,306.87	9,298.93	7.95	1,171.163		
500.00	499.45	788.16	821.73	3.79	4.57	70.72	-2,568.47	-8,938.20	9,300.23	9,291.88	8.36	1,112.769		
600.00	598.70	850.00	883.47	4.03	4.76	70.92	-2,565.10	-8,937.22	9,293.07	9,284.28	8.79	1,056.953		
700.00	697.47	875.56	908.98	4.31	4.85	71.10	-2,563.44	-8,937.04	9,285.29	9,276.13	9.16	1,014.047		
800.00	795.62	921.92	955.21	4.64	5.00	71.33	-2,560.06	-8,937.03	9,277.01	9,267.38	9.63	963.128		
900.00	893.06	980.50	1,013.57	5.00	5.21	71.60	-2,555.00	-8,937.56	9,268.19	9,257.99	10.19	909.217		
1,000.00	989.64	1,075.91	1,108.35	5.40	5.56	72.00	-2,544.22	-8,939.36	9,258.62	9,247.69	10.94	846.488		
1,100.00	1,085.27	1,181.17	1,212.61	5.83	5.97	72.47	-2,529.89	-8,941.63	9,247.81	9,236.03	11.78	785.098		
1,200.00	1,179.82	1,551.19	1,575.92	6.29	7.68	73.84	-2,460.71	-8,948.88	9,234.69	9,220.76	13.93	662.811		
1,300.00	1,273.47	1,846.23	1,861.33	6.79	9.32	74.97	-2,386.17	-8,951.96	9,219.23	9,203.19	16.04	574.825		
1,400.00	1,367.06	2,013.51	2,021.95	7.30	10.35	75.58	-2,339.49	-8,951.85	9,202.49	9,184.94	17.55	524.388		
1,500.00	1,460.64	2,046.42	2,053.49	7.83	10.55	75.71	-2,330.06	-8,951.84	9,186.03	9,167.75	18.28	502.567		
1,600.00	1,554.23	2,081.00	2,086.61	8.38	10.77	75.84	-2,320.14	-8,952.01	9,170.35	9,151.32	19.03	481.840		
1,700.00	1,647.82	2,115.37	2,119.51	8.93	11.00	75.97	-2,310.19	-8,952.38	9,155.44	9,135.64	19.80	462.349		
1,800.00	1,741.41	2,151.32	2,153.86	9.49	11.23	76.10	-2,299.61	-8,952.98	9,141.28	9,120.69	20.59	443.921		
1,900.00	1,835.00	1,900.00	2,241.62	10.05	9.56	76.46	-2,271.73	-8,954.84	9,127.65	9,108.16	19.49	468.225		
2,000.00	1,928.59	2,413.10	2,403.07	10.62	13.01	77.12	-2,219.56	-8,957.07	9,113.60	9,090.12	23.48	388.120		
2,100.00	2,022.18	2,509.77	2,494.97	11.20	13.68	77.49	-2,189.62	-8,958.09	9,099.92	9,075.20	24.72	368.080		
2,200.00	2,115.77	2,601.18	2,582.12	11.78	14.32	77.85	-2,162.04	-8,958.59	9,086.37	9,060.43	25.94	350.341		
2,300.00	2,209.36	2,698.61	2,674.73	12.37	15.01	78.23	-2,131.77	-8,959.29	9,073.25	9,046.04	27.21	333.472		
2,400.00	2,302.95	2,786.38	2,757.66	12.95	15.65	78.58	-2,103.03	-8,959.88	9,060.23	9,031.80	28.44	318.620		
2,500.00	2,396.54	2,844.57	2,812.63	13.54	16.08	78.82	-2,083.96	-8,960.37	9,047.78	9,018.32	29.46	307.137		
2,600.00	2,490.13	2,903.84	2,868.98	14.13	16.51	79.05	-2,065.62	-8,960.80	9,035.91	9,005.43	30.48	296.477		
2,700.00	2,583.72	2,959.33	2,922.17	14.73	16.90	79.26	-2,049.79	-8,961.09	9,024.62	8,993.15	31.47	286.784		
2,800.00	2,677.31	3,009.06	2,969.79	15.32	17.24	79.45	-2,035.48	-8,961.53	9,013.97	8,981.55	32.42	278.063		
2,900.00	2,770.90	3,186.18	3,139.53	15.92	18.47	80.13	-1,984.89	-8,962.08	9,003.13	8,968.89	34.23	262.989		
3,000.00	2,864.49	3,000.00	3,243.61	16.52	17.19	80.54	-1,954.80	-8,961.64	8,992.34	8,958.78	33.56	267.921		
3,100.00	2,958.08	3,353.90	3,300.59	17.12	19.63	80.77	-1,938.12	-8,961.34	8,981.87	8,945.27	36.60	245.419		
3,200.00	3,051.67	3,409.00	3,353.40	17.72	20.02	80.98	-1,922.40	-8,961.46	8,972.23	8,934.64	37.59	238.666		
3,300.00	3,145.26	3,454.20	3,396.72	18.32	20.33	81.15	-1,909.50	-8,961.71	8,963.23	8,924.71	38.52	232.677		
3,400.00	3,238.85	3,534.70	3,473.98	18.92	20.89	81.46	-1,886.88	-8,962.01	8,954.61	8,914.92	39.70	225.584		
3,500.00	3,332.44	3,598.00	3,534.64	19.53	21.34	81.71	-1,868.81	-8,962.41	8,946.54	8,905.79	40.75	219.536		
3,600.00	3,426.03	3,652.49	3,586.79	20.13	21.73	81.92	-1,853.01	-8,962.90	8,939.05	8,897.29	41.75	214.085		
3,700.00	3,519.62	3,714.81	3,646.38	20.74	22.17	82.16	-1,834.78	-8,963.60	8,932.14	8,889.32	42.82	208.612		
3,800.00	3,613.21	3,779.97	3,708.42	21.34	22.65	82.42	-1,814.88	-8,964.52	8,925.77	8,881.86	43.91	203.281		
3,900.00	3,706.80	3,853.41	3,778.07	21.95	23.20	82.72	-1,791.62	-8,965.70	8,919.92	8,874.84	45.07	197.894		
4,000.00	3,800.39	3,938.61	3,858.78	22.56	23.85	83.06	-1,764.36	-8,967.09	8,914.51	8,868.17	46.33	192.401		
4,100.00	3,893.98	4,012.47	3,928.75	23.16	24.40	83.36	-1,740.76	-8,968.22	8,909.47	8,861.97	47.51	187.544		
4,200.00	3,987.57	4,071.00	3,984.31	23.77	24.84	83.60	-1,722.36	-8,969.19	8,905.00	8,856.44	48.56	183.373		
4,300.00	4,081.16	4,117.00	4,028.06	24.38	25.18	83.78	-1,708.17	-8,970.07	8,901.20	8,851.69	49.52	179.761		
4,400.00	4,174.75	4,166.00	4,074.76	24.99	25.55	83.98	-1,693.39	-8,971.20	8,898.13	8,847.64	50.49	176.228		
4,500.00	4,268.34	4,541.07	4,430.31	25.60	28.39	85.50	-1,574.17	-8,974.63	8,894.71	8,840.77	53.94	164.900		
4,600.00	4,361.93	4,583.69	4,470.40	26.21	28.73	85.68	-1,559.70	-8,974.36	8,890.18	8,835.29	54.89	161.953		
4,700.00	4,455.52	4,639.00	4,522.56	26.82	29.16	85.91	-1,541.30	-8,974.28	8,886.46	8,830.51	55.94	158.844		
4,800.00	4,549.11	4,675.88	4,557.47	27.43	29.44	86.06	-1,529.39	-8,974.34	8,883.43	8,826.59	56.84	156.292		
4,900.00	4,642.70	4,736.00	4,614.68	28.04	29.89	86.30	-1,510.92	-8,974.55	8,881.05	8,823.14	57.91	153.372		
5,000.00	4,736.29	4,782.66	4,659.26	28.65	30.23	86.49	-1,497.19	-8,974.84	8,879.32	8,820.47	58.85	150.869		
5,100.00	4,829.88	4,834.36	4,708.77	29.26	30.60	86.69	-1,482.29	-8,975.34	8,878.29	8,818.45	59.84	148.376		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 43-17(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 118-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	4,923.47	4,955.24	4,825.51	29.87	31.42	87.14	-1,450.97	-8,976.34	8,877.47	8,816.21	61.26	144.908	
5,300.00	5,017.06	5,021.91	4,890.29	30.48	31.85	87.39	-1,435.23	-8,976.89	8,877.03	8,814.73	62.30	142.488	
5,344.93	5,059.12	5,055.62	4,923.10	30.76	32.06	87.51	-1,427.54	-8,977.21	8,876.99	8,814.20	62.78	141.392	
5,400.00	5,110.65	5,097.31	4,963.76	31.09	32.32	87.66	-1,418.31	-8,977.64	8,877.05	8,813.67	63.38	140.068	
5,500.00	5,204.24	5,208.45	5,072.61	31.70	32.98	88.04	-1,395.89	-8,978.73	8,877.35	8,812.71	64.64	137.331	
5,600.00	5,297.83	5,322.76	5,185.35	32.32	33.59	88.41	-1,377.08	-8,979.58	8,877.62	8,811.76	65.86	134.798	
5,700.00	5,391.42	5,408.72	5,270.44	32.93	34.02	88.67	-1,364.98	-8,980.22	8,878.09	8,811.20	66.89	132.722	
5,800.00	5,485.01	5,523.43	5,384.48	33.54	34.53	89.01	-1,352.59	-8,981.00	8,878.59	8,810.57	68.02	130.536	
5,900.00	5,578.60	5,900.00	5,604.83	34.15	36.02	89.61	-1,336.00	-8,981.46	8,878.99	8,808.88	70.11	126.650	
6,000.00	5,672.19	5,837.37	5,697.64	34.77	35.77	89.85	-1,331.14	-8,980.73	8,878.32	8,807.86	70.46	126.005	
6,067.89	5,735.73	5,872.00	5,732.24	35.18	35.89	89.94	-1,329.68	-8,980.60	8,878.18	8,807.19	71.00	125.047	
6,100.00	5,765.78	5,889.07	5,749.30	35.38	35.95	89.98	-1,329.02	-8,980.58	8,878.22	8,806.96	71.25	124.603	
6,200.00	5,859.37	5,947.38	5,807.58	35.99	36.15	90.12	-1,327.15	-8,980.69	8,878.66	8,806.60	72.06	123.214	
6,300.00	5,952.96	6,020.37	5,880.54	36.60	36.39	90.30	-1,325.42	-8,981.10	8,879.57	8,806.66	72.91	121.792	
6,400.00	6,046.55	6,114.80	5,974.96	37.22	36.70	90.53	-1,323.40	-8,981.76	8,880.75	8,806.92	73.82	120.295	
6,500.00	6,140.14	6,224.64	6,084.77	37.83	37.07	90.79	-1,321.26	-8,982.38	8,881.94	8,807.15	74.79	118.756	
6,600.00	6,233.73	6,293.42	6,153.54	38.44	37.30	90.95	-1,319.92	-8,982.80	8,883.33	8,807.71	75.63	117.465	
6,700.00	6,327.32	6,363.09	6,223.19	39.06	37.53	91.12	-1,318.46	-8,983.40	8,885.12	8,808.66	76.46	116.205	
6,800.00	6,420.91	6,438.74	6,298.81	39.67	37.78	91.30	-1,316.81	-8,984.22	8,887.28	8,809.97	77.32	114.946	
6,900.00	6,514.50	6,516.23	6,376.28	40.28	38.04	91.48	-1,315.21	-8,985.21	8,889.76	8,811.58	78.18	113.710	
7,000.00	6,608.09	6,613.33	6,473.36	40.90	38.37	91.72	-1,313.29	-8,986.54	8,892.48	8,813.37	79.11	112.407	
7,100.00	6,701.63	6,717.60	6,577.60	41.51	38.72	82.55	-1,311.28	-8,987.86	8,893.97	8,813.91	80.06	111.087	
7,200.00	6,793.85	6,785.44	6,645.42	42.10	38.95	63.14	-1,310.02	-8,988.81	8,882.92	8,802.05	80.87	109.837	
7,300.00	6,882.50	6,857.53	6,717.49	42.64	39.20	50.30	-1,308.71	-8,989.94	8,856.88	8,775.23	81.65	108.476	
7,400.00	6,965.41	6,931.31	6,791.24	43.12	39.45	42.48	-1,307.23	-8,991.20	8,816.45	8,734.07	82.37	107.030	
7,500.00	7,040.53	6,998.29	6,858.19	43.53	39.69	37.97	-1,305.66	-8,992.37	8,762.56	8,679.54	83.02	105.553	
7,600.00	7,106.00	7,075.10	6,934.97	43.89	39.96	35.87	-1,303.71	-8,993.71	8,696.44	8,612.80	83.64	103.972	
7,700.00	7,160.23	7,142.75	7,002.59	44.20	40.20	35.85	-1,302.05	-8,994.79	8,619.60	8,535.42	84.18	102.392	
7,800.00	7,201.86	7,195.01	7,054.83	44.48	40.38	38.32	-1,300.82	-8,995.56	8,533.95	8,449.34	84.61	100.857	
7,900.00	7,229.88	7,216.75	7,076.56	44.73	40.46	45.11	-1,300.35	-8,995.91	8,441.64	8,356.76	84.88	99.450	
8,000.00	7,243.60	7,231.17	7,090.97	44.99	40.51	64.36	-1,300.05	-8,996.13	8,344.88	8,259.80	85.08	98.083	
8,100.00	7,244.73	7,233.71	7,093.52	45.29	40.51	84.76	-1,299.99	-8,996.17	8,246.10	8,160.90	85.19	96.791	
8,200.00	7,244.23	7,234.71	7,094.52	45.74	40.52	84.81	-1,299.97	-8,996.19	8,147.19	8,061.89	85.30	95.508	
8,300.00	7,243.73	7,235.72	7,095.52	46.38	40.52	84.86	-1,299.95	-8,996.20	8,048.31	7,962.89	85.42	94.219	
8,400.00	7,243.23	7,236.72	7,096.53	47.29	40.52	84.90	-1,299.93	-8,996.22	7,949.46	7,863.91	85.55	92.926	
8,500.00	7,242.73	7,237.73	7,097.53	48.46	40.53	84.95	-1,299.91	-8,996.23	7,850.64	7,764.96	85.68	91.629	
8,600.00	7,242.23	7,238.74	7,098.55	49.87	40.53	85.00	-1,299.89	-8,996.25	7,751.84	7,666.02	85.82	90.326	
8,700.00	7,241.73	7,239.76	7,099.56	51.48	40.54	85.05	-1,299.87	-8,996.26	7,653.08	7,567.11	85.97	89.019	
8,800.00	7,241.23	7,240.77	7,100.57	53.24	40.54	85.09	-1,299.85	-8,996.28	7,554.35	7,468.22	86.13	87.707	
8,900.00	7,240.73	7,241.79	7,101.59	55.13	40.54	85.14	-1,299.83	-8,996.30	7,455.66	7,369.36	86.30	86.391	
9,000.00	7,240.23	7,242.81	7,102.61	57.11	40.55	85.19	-1,299.81	-8,996.31	7,357.00	7,270.51	86.48	85.070	
9,100.00	7,239.73	7,243.84	7,103.64	59.19	40.55	85.24	-1,299.79	-8,996.33	7,258.37	7,171.70	86.67	83.743	
9,200.00	7,239.23	7,244.86	7,104.66	61.34	40.55	85.29	-1,299.77	-8,996.34	7,159.79	7,072.91	86.88	82.413	
9,300.00	7,238.72	7,245.89	7,105.69	63.55	40.56	85.34	-1,299.75	-8,996.36	7,061.24	6,974.15	87.09	81.077	
9,400.00	7,238.22	7,246.92	7,106.72	65.81	40.56	85.39	-1,299.73	-8,996.38	6,962.74	6,875.41	87.32	79.737	
9,500.00	7,237.72	7,247.96	7,107.76	68.13	40.56	85.43	-1,299.71	-8,996.39	6,864.27	6,776.71	87.56	78.392	
9,600.00	7,237.22	7,248.99	7,108.79	70.48	40.57	85.48	-1,299.68	-8,996.41	6,765.86	6,678.04	87.82	77.042	
9,700.00	7,236.72	7,250.03	7,109.83	72.88	40.57	85.53	-1,299.66	-8,996.43	6,667.49	6,579.39	88.09	75.688	
9,800.00	7,236.22	7,251.07	7,110.87	75.31	40.57	85.58	-1,299.64	-8,996.44	6,569.17	6,480.79	88.38	74.329	
9,900.00	7,235.72	7,252.12	7,111.91	77.77	40.58	85.63	-1,299.62	-8,996.46	6,470.90	6,382.21	88.68	72.965	
10,000.00	7,235.22	7,253.16	7,112.96	80.26	40.58	85.68	-1,299.60	-8,996.48	6,372.68	6,283.67	89.01	71.598	
10,100.00	7,234.72	7,254.21	7,114.01	82.77	40.59	85.73	-1,299.58	-8,996.49	6,274.52	6,185.17	89.35	70.226	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 43-17(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 118-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,400.00	7,208.18	7,313.77	7,173.55	228.04	40.79	88.56	-1,298.49	-8,997.46	1,479.68	1,252.14	227.55	6.503	
15,437.48	7,208.00	7,314.22	7,174.00	229.10	40.80	88.58	-1,298.48	-8,997.47	1,458.27	1,227.56	230.71	6.321	CC, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												HARVESTERS STATE 7-15 PAD - FRITZLER 6-6-17 (PR_150CC) - OH - OH		Offset Site Error:		0.00 ft	
Survey Program: 89-MWD														Offset Well Error:		3.28 ft	
Reference		Offset		Semi Major Axis			Distance										
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)						
15,437.48	7,208.00	7,178.82	7,129.15	229.10	36.48	82.08	-1,994.68	-9,667.49	1,581.94	1,456.56	125.38	12.617	CC, ES, SF				



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - FRITZLER 6-8-17(PR_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	82-MWD											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,251.42	7,208.15	229.10	36.51	-90.58	-3,242.84	-9,616.61	1,626.60	1,489.47	137.13	11.862	CC, ES, SF



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - GREELEY SWD #1(XX) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth	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)		
15,437.48	7,208.00	7,145.00	7,208.00	229.10	247.71	-87.33	-2,986.34	-3,368.70	4,826.11	4,521.97	304.13	15.869	



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 32-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	19.00	3.28	3.28	68.62	204.75	522.90	561.88					
100.00	100.00	77.71	96.71	3.28	3.28	68.57	205.27	522.94	561.80	555.23	6.57	85.516	CC, ES	
200.00	200.00	179.83	198.81	3.34	3.33	68.41	206.87	522.89	562.32	555.66	6.67	84.350		
300.00	299.98	281.18	300.16	3.44	3.43	-115.51	208.18	522.41	563.12	556.25	6.87	81.964		
400.00	399.84	378.60	397.57	3.59	3.57	-116.05	209.33	522.09	565.53	558.37	7.16	78.942		
500.00	499.45	476.08	495.04	3.79	3.76	-116.84	210.49	522.24	570.03	562.49	7.55	75.531		
600.00	598.70	573.44	592.39	4.03	3.98	-117.88	211.77	522.66	576.61	568.60	8.01	71.987		
700.00	697.47	671.90	690.84	4.31	4.23	-119.18	213.33	523.18	585.31	576.77	8.55	68.494		
800.00	795.62	768.57	787.49	4.64	4.51	-120.64	214.67	523.81	596.18	587.04	9.14	65.246		
900.00	893.06	864.62	883.53	5.00	4.80	-122.28	216.29	524.55	609.65	599.87	9.78	62.335		
1,000.00	989.64	961.30	980.19	5.40	5.11	-124.05	217.75	525.45	625.74	615.27	10.47	59.760		
1,100.00	1,085.27	1,056.61	1,075.49	5.83	5.43	-125.90	219.12	526.25	644.51	633.31	11.20	57.562		
1,200.00	1,179.82	1,151.59	1,170.46	6.29	5.76	-127.82	220.60	526.97	666.27	654.31	11.96	55.727		
1,300.00	1,273.47	1,245.83	1,264.69	6.79	6.09	-130.00	221.89	527.51	690.46	677.72	12.74	54.206		
1,400.00	1,367.06	1,338.44	1,357.29	7.30	6.43	-132.15	223.39	527.85	715.79	702.26	13.53	52.919		
1,500.00	1,460.64	1,432.83	1,451.66	7.83	6.78	-134.19	224.84	528.30	742.10	727.77	14.34	51.766		
1,600.00	1,554.23	1,529.26	1,548.08	8.38	7.15	-136.13	226.00	528.41	768.81	753.64	15.17	50.692		
1,700.00	1,647.82	1,622.77	1,641.59	8.93	7.51	-137.91	227.25	528.30	796.22	780.23	15.99	49.793		
1,800.00	1,741.41	1,720.40	1,739.21	9.49	7.88	-139.66	228.30	527.81	823.91	807.06	16.84	48.915		
1,900.00	1,835.00	1,812.13	1,830.93	10.05	8.24	-141.18	229.04	527.49	852.14	834.47	17.67	48.224		
2,000.00	1,928.59	1,903.88	1,922.68	10.62	8.61	-142.60	229.89	527.32	881.11	862.61	18.50	47.622		
2,100.00	2,022.18	2,003.05	2,021.85	11.20	9.00	-144.05	230.70	526.87	910.36	890.98	19.38	46.973		
2,200.00	2,115.77	2,102.77	2,121.56	11.78	9.40	-145.41	230.95	526.07	939.46	919.19	20.27	46.358		
2,300.00	2,209.36	2,193.62	2,212.41	12.37	9.76	-146.57	230.96	525.35	968.81	947.71	21.10	45.915		
2,400.00	2,302.95	2,291.01	2,309.80	12.95	10.15	-147.74	230.85	524.70	998.50	976.52	21.98	45.433		
2,500.00	2,396.54	2,386.92	2,405.71	13.54	10.54	-148.81	230.44	523.92	1,028.21	1,005.36	22.85	45.001		
2,600.00	2,490.13	2,482.77	2,501.55	14.13	10.93	-149.83	229.85	523.10	1,058.06	1,034.34	23.72	44.603		
2,700.00	2,583.72	2,577.98	2,596.75	14.73	11.32	-150.76	228.95	522.48	1,088.03	1,063.43	24.59	44.239		
2,800.00	2,677.31	2,669.32	2,688.09	15.32	11.69	-151.60	228.01	522.06	1,118.27	1,092.82	25.44	43.951		
2,900.00	2,770.90	2,765.33	2,784.09	15.92	12.08	-152.42	227.02	521.91	1,148.87	1,122.55	26.33	43.641		
3,000.00	2,864.49	2,858.15	2,876.91	16.52	12.46	-153.19	225.98	521.50	1,179.47	1,152.28	27.19	43.382		
3,100.00	2,958.08	2,949.20	2,967.95	17.12	12.83	-153.91	225.33	520.99	1,210.54	1,182.50	28.04	43.173		
3,200.00	3,051.67	3,040.86	3,059.61	17.72	13.21	-154.62	224.83	520.47	1,241.94	1,213.04	28.90	42.980		
3,300.00	3,145.26	3,132.84	3,151.59	18.32	13.59	-155.30	224.64	519.78	1,273.71	1,243.96	29.76	42.807		
3,400.00	3,238.85	3,227.44	3,246.18	18.92	13.99	-155.97	224.47	518.96	1,305.62	1,274.99	30.63	42.619		
3,500.00	3,332.44	3,320.14	3,338.87	19.53	14.37	-156.60	224.30	518.18	1,337.69	1,306.19	31.50	42.464		
3,600.00	3,426.03	3,411.30	3,430.04	20.13	14.75	-157.18	224.08	517.86	1,370.06	1,337.70	32.36	42.340		
3,700.00	3,519.62	3,507.05	3,525.79	20.74	15.15	-157.74	223.77	517.71	1,402.54	1,369.29	33.25	42.180		
3,800.00	3,613.21	3,602.88	3,621.61	21.34	15.55	-158.28	223.36	517.42	1,435.01	1,400.86	34.15	42.026		
3,900.00	3,706.80	3,698.78	3,717.51	21.95	15.95	-158.81	222.86	516.99	1,467.44	1,432.40	35.04	41.877		
4,000.00	3,800.39	3,794.75	3,813.48	22.56	16.36	-159.31	222.27	516.42	1,499.85	1,463.91	35.94	41.732		
4,100.00	3,893.98	3,890.79	3,909.51	23.16	16.76	-159.80	221.58	515.72	1,532.21	1,495.37	36.84	41.593		
4,200.00	3,987.57	3,986.91	4,005.62	23.77	17.16	-160.27	220.80	514.88	1,564.53	1,526.79	37.74	41.457		
4,300.00	4,081.16	4,083.10	4,101.80	24.38	17.57	-160.73	219.93	513.90	1,596.81	1,558.16	38.64	41.325		
4,400.00	4,174.75	4,179.35	4,198.05	24.99	17.97	-161.17	218.96	512.78	1,629.03	1,589.49	39.54	41.196		
4,500.00	4,268.34	4,272.18	4,290.87	25.60	18.36	-161.58	217.98	511.68	1,661.28	1,620.86	40.42	41.099		
4,600.00	4,361.93	4,361.95	4,380.63	26.21	18.74	-161.95	217.09	510.87	1,693.76	1,652.48	41.28	41.035		
4,700.00	4,455.52	4,449.06	4,467.73	26.82	19.11	-162.29	216.42	510.34	1,726.60	1,684.49	42.11	41.003		
4,800.00	4,549.11	4,538.38	4,557.05	27.43	19.48	-162.64	216.18	509.69	1,759.90	1,716.93	42.96	40.966		
4,900.00	4,642.70	4,631.63	4,650.29	28.04	19.88	-163.00	215.99	508.93	1,793.29	1,749.45	43.84	40.903		
5,000.00	4,736.29	4,723.57	4,742.23	28.65	20.27	-163.33	215.85	508.37	1,826.86	1,782.15	44.72	40.855		
5,100.00	4,829.88	4,817.74	4,836.40	29.26	20.66	-163.65	215.58	508.04	1,860.44	1,814.83	45.61	40.792		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 32-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,902.53	4,921.19	29.87	21.02	-163.92	215.53	507.89	1,894.33	1,847.90	46.42	40.806		
5,300.00	5,017.06	4,995.41	5,014.07	30.48	21.41	-164.22	215.76	507.62	1,928.49	1,881.18	47.30	40.768		
5,400.00	5,110.65	5,092.16	5,110.82	31.09	21.82	-164.52	215.98	507.18	1,962.64	1,914.42	48.22	40.703		
5,500.00	5,204.24	5,183.92	5,202.58	31.70	22.21	-164.80	216.15	506.76	1,996.78	1,947.69	49.09	40.674		
5,600.00	5,297.83	5,281.45	5,300.11	32.32	22.62	-165.09	216.36	506.14	2,030.96	1,980.94	50.01	40.608		
5,700.00	5,391.42	5,381.26	5,399.91	32.93	23.05	-165.38	216.41	505.13	2,064.92	2,013.96	50.95	40.525		
5,800.00	5,485.01	5,472.68	5,491.32	33.54	23.43	-165.64	216.32	504.19	2,098.78	2,046.96	51.83	40.497		
5,900.00	5,578.60	5,565.19	5,583.84	34.15	23.83	-165.89	216.29	503.48	2,132.82	2,080.11	52.71	40.465		
6,000.00	5,672.19	5,665.09	5,683.74	34.77	24.25	-166.15	216.10	502.93	2,166.81	2,113.16	53.65	40.387		
6,100.00	5,765.78	5,762.63	5,781.27	35.38	24.66	-166.39	215.59	502.37	2,200.52	2,145.95	54.58	40.320		
6,200.00	5,859.37	5,849.88	5,868.52	35.99	25.03	-166.59	215.16	501.90	2,234.31	2,178.89	55.42	40.319		
6,300.00	5,952.96	5,937.01	5,955.65	36.60	25.40	-166.79	215.07	501.60	2,268.51	2,212.26	56.25	40.327		
6,400.00	6,046.55	6,033.87	6,052.50	37.22	25.81	-167.01	215.08	501.04	2,302.79	2,245.61	57.17	40.277		
6,500.00	6,140.14	6,131.74	6,150.38	37.83	26.23	-167.23	214.88	500.29	2,336.86	2,278.75	58.10	40.220		
6,600.00	6,233.73	6,222.01	6,240.64	38.44	26.61	-167.43	214.70	499.68	2,370.97	2,312.01	58.97	40.208		
6,700.00	6,327.32	6,310.69	6,329.32	39.06	26.99	-167.61	214.64	499.32	2,405.30	2,345.48	59.82	40.209		
6,800.00	6,420.91	6,404.14	6,422.77	39.67	27.39	-167.79	214.63	499.07	2,439.74	2,379.03	60.71	40.185		
6,900.00	6,514.50	6,497.60	6,516.23	40.28	27.79	-167.97	214.62	498.84	2,474.21	2,412.60	61.61	40.162		
7,000.00	6,608.09	6,591.05	6,609.68	40.90	28.18	-168.14	214.61	498.63	2,508.70	2,446.20	62.50	40.139		
7,100.00	6,701.63	6,684.45	6,703.07	41.51	28.58	-179.01	214.60	498.44	2,543.53	2,480.14	63.39	40.123 SF		
7,200.00	6,793.85	6,776.55	6,795.18	42.10	28.97	-157.89	214.60	498.27	2,581.24	2,516.97	64.28	40.159		
7,300.00	6,882.50	6,865.12	6,883.75	42.64	29.35	141.15	214.59	498.12	2,621.76	2,556.64	65.12	40.260		
7,400.00	6,965.41	6,947.95	6,966.58	43.12	29.70	129.20	214.59	497.99	2,664.44	2,598.53	65.91	40.424		
7,500.00	7,040.53	7,023.01	7,041.64	43.53	30.02	120.20	214.58	497.90	2,708.78	2,642.13	66.65	40.643		
7,600.00	7,106.00	7,088.44	7,107.07	43.89	30.30	112.97	214.58	497.82	2,754.33	2,686.99	67.33	40.906		
7,700.00	7,160.23	7,142.63	7,161.26	44.20	30.53	106.83	214.58	497.76	2,800.66	2,732.68	67.99	41.194		
7,800.00	7,201.86	7,184.25	7,202.88	44.48	30.71	101.37	214.58	497.72	2,847.31	2,778.68	68.63	41.489		
7,900.00	7,229.88	7,212.29	7,230.91	44.73	30.83	96.40	214.57	497.70	2,893.69	2,824.42	69.27	41.773		
8,000.00	7,243.60	7,226.05	7,244.68	44.99	30.89	91.86	214.57	497.69	2,939.10	2,869.18	69.92	42.033		
8,100.00	7,244.73	7,227.26	7,245.89	45.29	30.89	89.88	214.57	497.69	2,983.41	2,912.82	70.59	42.263		
8,200.00	7,244.23	7,226.84	7,245.47	45.74	30.89	89.87	214.57	497.69	3,029.85	2,958.51	71.34	42.471		
8,300.00	7,243.73	7,226.42	7,245.05	46.38	30.89	89.86	214.57	497.69	3,078.84	3,006.68	72.16	42.670		
8,400.00	7,243.23	7,226.00	7,244.63	47.29	30.89	89.85	214.57	497.69	3,130.25	3,057.23	73.02	42.867		
8,500.00	7,242.73	7,225.58	7,244.21	48.46	30.89	89.84	214.57	497.69	3,183.98	3,110.05	73.93	43.068		
8,600.00	7,242.23	7,225.17	7,243.79	49.87	30.88	89.83	214.57	497.69	3,239.90	3,165.04	74.86	43.280		
8,700.00	7,241.73	7,224.75	7,243.38	51.48	30.88	89.83	214.57	497.69	3,297.91	3,222.10	75.80	43.505		
8,800.00	7,241.23	7,224.33	7,242.96	53.24	30.88	89.82	214.57	497.69	3,357.89	3,281.14	76.76	43.748		
8,900.00	7,240.73	7,223.91	7,242.54	55.13	30.88	89.81	214.57	497.69	3,419.75	3,342.04	77.71	44.009		
9,000.00	7,240.23	7,223.49	7,242.12	57.11	30.88	89.80	214.57	497.69	3,483.38	3,404.73	78.65	44.292		
9,100.00	7,239.73	7,223.08	7,241.71	59.19	30.87	89.79	214.57	497.69	3,548.68	3,469.11	79.58	44.595		
9,200.00	7,239.23	7,222.66	7,241.29	61.34	30.87	89.78	214.57	497.69	3,615.58	3,535.09	80.49	44.921		
9,300.00	7,238.72	7,222.24	7,240.87	63.55	30.87	89.77	214.57	497.69	3,683.97	3,602.59	81.38	45.269		
9,400.00	7,238.22	7,221.83	7,240.45	65.81	30.87	89.76	214.57	497.69	3,753.78	3,671.53	82.25	45.639		
9,500.00	7,237.72	7,221.41	7,240.04	68.13	30.87	89.75	214.57	497.69	3,824.93	3,741.84	83.10	46.030		
9,600.00	7,237.22	7,220.99	7,239.62	70.48	30.87	89.74	214.57	497.69	3,897.35	3,813.43	83.92	46.442		
9,700.00	7,236.72	7,220.58	7,239.21	72.88	30.86	89.74	214.57	497.69	3,970.97	3,886.25	84.72	46.874		
9,800.00	7,236.22	7,220.16	7,238.79	75.31	30.86	89.73	214.57	497.69	4,045.72	3,960.23	85.49	47.325		
9,900.00	7,235.72	7,219.75	7,238.37	77.77	30.86	89.72	214.57	497.69	4,121.54	4,035.30	86.23	47.795		
10,000.00	7,235.22	7,219.33	7,237.96	80.26	30.86	89.71	214.57	497.69	4,198.37	4,111.42	86.95	48.282		
10,100.00	7,234.72	7,218.91	7,237.54	82.77	30.86	89.70	214.57	497.69	4,276.16	4,188.51	87.65	48.787		
10,200.00	7,234.22	7,218.50	7,237.13	85.31	30.85	89.69	214.57	497.69	4,354.86	4,266.54	88.32	49.307		
10,300.00	7,233.72	7,218.08	7,236.71	87.86	30.85	89.68	214.57	497.69	4,434.41	4,345.44	88.97	49.842		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 32-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,217.67	7,236.30	90.44	30.85	89.67	214.57	497.69	4,514.78	4,425.19	89.59	50.392		
10,500.00	7,232.72	7,217.25	7,235.88	93.03	30.85	89.66	214.57	497.69	4,595.92	4,505.73	90.19	50.956		
10,600.00	7,232.22	7,216.84	7,235.47	95.64	30.85	89.66	214.57	497.69	4,677.79	4,587.02	90.77	51.532		
10,700.00	7,231.72	7,216.43	7,235.05	98.26	30.85	89.65	214.57	497.70	4,760.35	4,669.02	91.33	52.121		
10,800.00	7,231.21	7,216.01	7,234.64	100.89	30.84	89.64	214.57	497.70	4,843.57	4,751.70	91.87	52.721		
10,900.00	7,230.71	7,215.60	7,234.23	103.54	30.84	89.63	214.57	497.70	4,927.42	4,835.03	92.39	53.332		
11,000.00	7,230.21	7,215.18	7,233.81	106.20	30.84	89.62	214.57	497.70	5,011.85	4,918.96	92.89	53.953		
11,100.00	7,229.71	7,214.77	7,233.40	108.87	30.84	89.61	214.57	497.70	5,096.85	5,003.48	93.38	54.585		
11,200.00	7,229.21	7,214.36	7,232.98	111.54	30.84	89.60	214.57	497.70	5,182.39	5,088.55	93.84	55.225		
11,300.00	7,228.71	7,213.94	7,232.57	114.23	30.84	89.59	214.57	497.70	5,268.43	5,174.14	94.29	55.874		
11,400.00	7,228.21	7,213.53	7,232.16	116.92	30.83	89.58	214.57	497.70	5,354.96	5,260.24	94.72	56.532		
11,500.00	7,227.71	7,213.12	7,231.74	119.63	30.83	89.58	214.57	497.70	5,441.95	5,346.81	95.14	57.197		
11,600.00	7,227.21	7,212.70	7,231.33	122.34	30.83	89.57	214.57	497.70	5,529.38	5,433.83	95.55	57.870		
11,700.00	7,226.71	7,212.29	7,230.92	125.05	30.83	89.56	214.57	497.70	5,617.23	5,521.29	95.94	58.549		
11,800.00	7,226.21	7,211.88	7,230.51	127.78	30.83	89.55	214.57	497.70	5,705.48	5,609.16	96.32	59.236		
11,900.00	7,225.71	7,211.47	7,230.09	130.51	30.82	89.54	214.57	497.70	5,794.11	5,697.43	96.68	59.928		
12,000.00	7,225.21	7,211.05	7,229.68	133.24	30.82	89.53	214.57	497.70	5,883.11	5,786.07	97.04	60.627		
12,100.00	7,224.71	7,210.64	7,229.27	135.98	30.82	89.52	214.57	497.70	5,972.46	5,875.07	97.38	61.331		
12,200.00	7,224.21	7,210.23	7,228.86	138.72	30.82	89.51	214.57	497.70	6,062.13	5,964.42	97.71	62.040		
12,300.00	7,223.70	7,209.82	7,228.45	141.47	30.82	89.50	214.57	497.70	6,152.13	6,054.09	98.03	62.755		
12,400.00	7,223.20	7,209.41	7,228.04	144.23	30.82	89.50	214.57	497.70	6,242.43	6,144.08	98.35	63.474		
12,500.00	7,222.70	7,209.00	7,227.62	146.98	30.81	89.49	214.57	497.70	6,333.02	6,234.37	98.65	64.198		
12,600.00	7,222.20	7,208.59	7,227.21	149.74	30.81	89.48	214.57	497.70	6,423.89	6,324.95	98.94	64.926		
12,700.00	7,221.70	7,208.17	7,226.80	152.51	30.81	89.47	214.57	497.70	6,515.03	6,415.80	99.23	65.658		
12,800.00	7,221.20	7,207.76	7,226.39	155.28	30.81	89.46	214.57	497.70	6,606.42	6,506.92	99.50	66.394		
12,900.00	7,220.70	7,207.35	7,225.98	158.05	30.81	89.45	214.57	497.70	6,698.06	6,598.29	99.77	67.133		
13,000.00	7,220.20	7,206.94	7,225.57	160.82	30.81	89.44	214.57	497.70	6,789.94	6,689.91	100.03	67.876		
13,100.00	7,219.70	7,206.53	7,225.16	163.60	30.80	89.43	214.57	497.70	6,882.04	6,781.75	100.29	68.622		
13,200.00	7,219.20	7,206.12	7,224.75	166.38	30.80	89.42	214.57	497.70	6,974.36	6,873.83	100.54	69.371		
13,300.00	7,218.70	7,205.71	7,224.34	169.16	30.80	89.42	214.57	497.70	7,066.89	6,966.11	100.78	70.124		
13,400.00	7,218.20	7,205.30	7,223.93	171.95	30.80	89.41	214.57	497.70	7,159.62	7,058.61	101.01	70.879		
13,500.00	7,217.70	7,204.89	7,223.52	174.74	30.80	89.40	214.57	497.70	7,252.55	7,151.30	101.24	71.636		
13,600.00	7,217.20	7,204.48	7,223.11	177.53	30.80	89.39	214.57	497.71	7,345.65	7,244.19	101.46	72.396		
13,700.00	7,216.70	7,204.08	7,222.70	180.32	30.79	89.38	214.57	497.71	7,438.94	7,337.26	101.68	73.158		
13,800.00	7,216.19	7,203.67	7,222.29	183.11	30.79	89.37	214.57	497.71	7,532.40	7,430.51	101.90	73.923		
13,900.00	7,215.69	7,203.26	7,221.89	185.91	30.79	89.36	214.57	497.71	7,626.03	7,523.93	102.10	74.690		
14,000.00	7,215.19	7,202.85	7,221.48	188.71	30.79	89.35	214.57	497.71	7,719.81	7,617.51	102.31	75.458		
14,100.00	7,214.69	7,202.44	7,221.07	191.51	30.79	89.35	214.57	497.71	7,813.75	7,711.25	102.50	76.229		
14,200.00	7,214.19	7,202.03	7,220.66	194.31	30.78	89.34	214.57	497.71	7,907.84	7,805.15	102.70	77.001		
14,300.00	7,213.69	7,201.62	7,220.25	197.11	30.78	89.33	214.57	497.71	8,002.08	7,899.19	102.89	77.775		
14,400.00	7,213.19	7,201.22	7,219.84	199.92	30.78	89.32	214.57	497.71	8,096.45	7,993.37	103.07	78.550		
14,500.00	7,212.69	7,200.81	7,219.44	202.72	30.78	89.31	214.57	497.71	8,190.95	8,087.69	103.26	79.327		
14,600.00	7,212.19	7,200.40	7,219.03	205.53	30.78	89.30	214.57	497.71	8,285.58	8,182.15	103.43	80.105		
14,700.00	7,211.69	7,199.99	7,218.62	208.34	30.78	89.29	214.57	497.71	8,380.34	8,276.73	103.61	80.885		
14,800.00	7,211.19	7,199.59	7,218.21	211.15	30.77	89.28	214.57	497.71	8,475.22	8,371.44	103.78	81.665		
14,900.00	7,210.69	7,199.18	7,217.81	213.96	30.77	89.28	214.57	497.71	8,570.21	8,466.26	103.95	82.447		
15,000.00	7,210.19	7,198.77	7,217.40	216.78	30.77	89.27	214.57	497.71	8,665.32	8,561.21	104.11	83.230		
15,100.00	7,209.69	7,198.36	7,216.99	219.59	30.77	89.26	214.57	497.71	8,760.54	8,656.26	104.28	84.014		
15,200.00	7,209.18	7,197.96	7,216.59	222.41	30.77	89.25	214.57	497.71	8,855.86	8,751.42	104.43	84.798		
15,300.00	7,208.68	7,197.55	7,216.18	225.22	30.77	89.24	214.57	497.71	8,951.28	8,846.69	104.59	85.584		
15,400.00	7,208.18	7,197.15	7,215.77	228.04	30.76	89.23	214.57	497.71	9,046.80	8,942.06	104.74	86.370		
15,437.48	7,208.00	7,196.99	7,215.62	229.10	30.76	89.23	214.57	497.71	9,082.63	8,977.83	104.80	86.665		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-303 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.11	0.11	3.28	3.28	8.13	1,730.46	247.25	1,748.03					
100.00	100.00	112.12	111.12	3.28	3.29	8.14	1,730.09	247.32	1,747.71	1,741.14	6.57	265.848		
200.00	200.00	218.49	217.48	3.34	3.34	8.14	1,729.16	247.39	1,746.85	1,740.18	6.68	261.537		
229.81	229.81	249.59	248.58	3.36	3.37	-175.49	1,728.84	247.36	1,746.70	1,739.97	6.73	259.407		
300.00	299.98	321.93	320.92	3.44	3.46	-175.50	1,728.02	247.30	1,747.49	1,740.59	6.90	253.350		
400.00	399.84	412.50	411.48	3.59	3.60	-175.50	1,727.16	247.13	1,751.75	1,744.56	7.19	243.524		
500.00	499.45	507.28	506.27	3.79	3.79	-175.52	1,726.73	246.72	1,759.93	1,752.35	7.58	232.115		
600.00	598.70	615.95	614.93	4.03	4.05	-175.55	1,726.09	246.35	1,771.46	1,763.37	8.08	219.181		
700.00	697.47	709.76	708.74	4.31	4.30	-175.58	1,725.50	245.72	1,786.33	1,777.72	8.61	207.411		
800.00	795.62	807.49	806.46	4.64	4.59	-175.63	1,725.09	244.67	1,804.81	1,795.60	9.21	196.037		
900.00	893.06	909.94	908.90	5.00	4.91	-175.69	1,724.39	243.50	1,826.42	1,816.56	9.86	185.165		
1,000.00	989.64	993.59	992.54	5.40	5.19	-175.73	1,724.00	242.38	1,851.63	1,841.14	10.50	176.405		
1,100.00	1,085.27	1,064.17	1,063.09	5.83	5.43	-175.80	1,724.62	240.54	1,881.29	1,870.18	11.11	169.371		
1,200.00	1,179.82	1,137.33	1,136.17	6.29	5.68	-175.90	1,726.30	237.46	1,915.40	1,903.65	11.75	163.076		
1,300.00	1,273.47	1,204.10	1,202.78	6.79	5.91	-176.07	1,728.75	233.59	1,953.11	1,940.74	12.37	157.845		
1,400.00	1,367.06	1,273.02	1,271.41	7.30	6.16	-176.30	1,732.38	228.48	1,992.25	1,979.24	13.01	153.112		
1,500.00	1,460.64	1,349.74	1,347.62	7.83	6.45	-176.59	1,737.23	221.12	2,032.21	2,018.51	13.70	148.359		
1,600.00	1,554.23	1,418.50	1,415.75	8.38	6.71	-176.89	1,742.34	213.36	2,073.05	2,058.68	14.36	144.324		
1,700.00	1,647.82	1,495.77	1,492.16	8.93	7.03	-177.24	1,748.86	203.89	2,114.78	2,099.69	15.08	140.210		
1,800.00	1,741.41	1,581.51	1,576.88	9.49	7.39	-177.62	1,756.44	193.07	2,156.94	2,141.08	15.86	135.997		
1,900.00	1,835.00	1,687.75	1,681.85	10.05	7.85	-178.07	1,765.65	179.58	2,199.05	2,182.29	16.76	131.170		
2,000.00	1,928.59	1,788.17	1,781.16	10.62	8.29	-178.48	1,773.44	166.89	2,240.38	2,222.73	17.66	126.892		
2,100.00	2,022.18	1,903.36	1,895.18	11.20	8.82	-178.92	1,781.74	152.84	2,281.38	2,262.73	18.65	122.354		
2,200.00	2,115.77	2,007.94	1,998.81	11.78	9.30	-179.29	1,788.21	140.25	2,321.48	2,301.89	19.59	118.516		
2,300.00	2,209.36	2,082.17	2,072.38	12.37	9.64	-179.53	1,792.84	131.52	2,361.72	2,341.36	20.36	116.008		
2,400.00	2,302.95	2,155.36	2,144.85	12.95	9.99	-179.78	1,797.95	122.74	2,402.67	2,381.54	21.13	113.734		
2,500.00	2,396.54	2,239.68	2,228.29	13.54	10.39	179.94	1,804.40	112.42	2,444.25	2,422.28	21.96	111.280		
2,600.00	2,490.13	2,327.92	2,315.66	14.13	10.81	179.67	1,811.00	101.91	2,485.76	2,462.93	22.83	108.868		
2,700.00	2,583.72	2,405.90	2,392.85	14.73	11.19	179.43	1,817.23	92.80	2,527.79	2,504.15	23.64	106.944		
2,800.00	2,677.31	2,500.21	2,486.26	15.32	11.64	179.17	1,824.73	82.16	2,569.84	2,545.29	24.55	104.682		
2,900.00	2,770.90	2,575.04	2,560.37	15.92	12.01	178.97	1,830.91	73.81	2,612.21	2,586.88	25.33	103.111		
3,000.00	2,864.49	2,691.09	2,675.31	16.52	12.57	178.67	1,840.27	60.85	2,654.45	2,628.05	26.40	100.547		
3,100.00	2,958.08	2,779.58	2,762.95	17.12	13.01	178.44	1,847.05	50.67	2,696.35	2,669.07	27.29	98.818		
3,200.00	3,051.67	2,862.21	2,844.73	17.72	13.42	178.23	1,853.48	40.75	2,738.39	2,710.26	28.14	97.327		
3,300.00	3,145.26	2,944.68	2,926.29	18.32	13.83	178.01	1,860.14	30.56	2,780.72	2,751.73	28.99	95.924		
3,400.00	3,238.85	3,062.71	3,043.08	18.92	14.43	177.71	1,869.33	16.21	2,822.85	2,792.75	30.09	93.799		
3,500.00	3,332.44	3,139.36	3,118.98	19.53	14.81	177.53	1,875.10	7.15	2,864.76	2,833.85	30.91	92.688		
3,600.00	3,426.03	3,226.07	3,204.78	20.13	15.25	177.33	1,881.83	-3.39	2,906.91	2,875.12	31.80	91.425		
3,700.00	3,519.62	3,371.84	3,349.15	20.74	15.98	177.00	1,891.71	-20.98	2,948.16	2,915.05	33.11	89.045		
3,800.00	3,613.21	3,466.29	3,442.82	21.34	16.45	176.81	1,897.22	-31.75	2,988.63	2,954.58	34.05	87.770		
3,900.00	3,706.80	3,546.93	3,522.90	21.95	16.85	176.67	1,901.95	-39.92	3,029.17	2,994.28	34.89	86.818		
4,000.00	3,800.39	3,609.29	3,584.82	22.56	17.15	176.57	1,906.07	-46.07	3,070.40	3,034.80	35.60	86.255		
4,100.00	3,893.98	3,680.04	3,655.03	23.16	17.50	176.46	1,911.33	-53.12	3,112.38	3,076.02	36.36	85.599		
4,200.00	3,987.57	3,769.34	3,743.61	23.77	17.94	176.32	1,918.35	-61.93	3,154.78	3,117.52	37.26	84.671		
4,300.00	4,081.16	10,115.84	7,193.66	24.38	74.16	175.41	-1,243.97	-168.17	3,113.79	3,076.10	37.68	82.629		
4,400.00	4,174.75	10,219.29	7,193.12	24.99	76.20	175.25	-1,347.39	-169.89	3,020.05	2,981.69	38.36	78.733		
4,500.00	4,268.34	10,251.61	7,192.59	25.60	76.84	175.19	-1,379.71	-170.48	2,925.89	2,887.07	38.82	75.365		
4,600.00	4,361.93	10,290.88	7,191.89	26.21	77.61	175.09	-1,418.96	-171.42	2,831.68	2,792.38	39.31	72.043		
4,700.00	4,455.52	10,329.94	7,191.11	26.82	78.39	174.98	-1,457.99	-172.54	2,737.41	2,697.63	39.79	68.801		
4,800.00	4,549.11	10,365.36	7,190.33	27.43	79.09	174.86	-1,493.39	-173.63	2,643.08	2,602.81	40.26	65.643		
4,900.00	4,642.70	10,391.31	7,189.79	28.04	79.60	174.77	-1,519.32	-174.47	2,548.79	2,508.05	40.74	62.562		
5,000.00	4,736.29	10,428.02	7,189.05	28.65	80.33	174.62	-1,556.00	-175.76	2,454.53	2,413.30	41.23	59.539		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-303 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	10,457.92	7,188.46	29.26	80.93	174.49	-1,585.87	-176.82	2,360.28	2,318.56	41.72	56.578		
5,200.00	4,923.47	10,490.06	7,187.84	29.87	81.57	174.33	-1,617.98	-178.02	2,266.05	2,223.84	42.21	53.681		
5,300.00	5,017.06	10,516.93	7,187.38	30.48	82.10	174.19	-1,644.83	-179.10	2,171.89	2,129.16	42.73	50.832		
5,400.00	5,110.65	10,537.33	7,187.12	31.09	82.51	174.07	-1,665.22	-179.89	2,077.89	2,034.62	43.27	48.018		
5,500.00	5,204.24	10,559.67	7,186.99	31.70	82.96	173.95	-1,687.55	-180.60	1,984.12	1,940.28	43.84	45.261		
5,600.00	5,297.83	10,586.53	7,186.99	32.32	83.49	173.81	-1,714.39	-181.35	1,890.54	1,846.13	44.41	42.574		
5,700.00	5,391.42	10,621.38	7,187.02	32.93	84.19	173.59	-1,749.22	-182.47	1,797.00	1,752.05	44.95	39.977		
5,800.00	5,485.01	10,658.33	7,187.13	33.54	84.93	173.32	-1,786.15	-183.79	1,703.57	1,658.08	45.49	37.452		
5,900.00	5,578.60	10,717.08	7,186.66	34.15	86.12	172.87	-1,844.88	-185.34	1,609.68	1,563.83	45.85	35.107		
6,000.00	5,672.19	10,754.35	7,186.17	34.77	86.87	172.58	-1,882.14	-185.98	1,515.66	1,469.30	46.35	32.698		
6,100.00	5,765.78	10,793.12	7,185.45	35.38	87.65	172.22	-1,920.89	-186.70	1,421.45	1,374.62	46.84	30.350		
6,200.00	5,859.37	10,823.73	7,184.89	35.99	88.27	171.90	-1,951.49	-187.26	1,327.26	1,279.85	47.41	27.997		
6,300.00	5,952.96	10,856.07	7,184.37	36.60	88.93	171.53	-1,983.82	-187.69	1,233.15	1,185.18	47.97	25.706		
6,400.00	6,046.55	10,892.60	7,183.76	37.22	89.67	171.04	-2,020.34	-188.17	1,139.02	1,090.55	48.48	23.496		
6,500.00	6,140.14	10,930.46	7,182.98	37.83	90.44	170.41	-2,058.19	-188.84	1,044.78	995.83	48.95	21.342		
6,600.00	6,233.73	10,961.92	7,182.30	38.44	91.08	169.78	-2,089.65	-189.33	950.51	900.95	49.56	19.179		
6,700.00	6,327.32	10,996.76	7,181.53	39.06	91.79	168.94	-2,124.47	-189.88	856.25	806.14	50.11	17.088		
6,800.00	6,420.91	11,023.48	7,181.05	39.67	92.33	168.15	-2,151.19	-190.32	762.14	711.21	50.92	14.966		
6,900.00	6,514.50	11,056.47	7,180.59	40.28	93.01	166.91	-2,184.17	-191.00	668.21	616.59	51.63	12.943		
7,000.00	6,608.09	11,088.73	7,180.19	40.90	93.66	165.33	-2,216.41	-191.68	574.40	521.96	52.45	10.952		
7,100.00	6,701.63	11,122.42	7,179.87	41.51	94.35	163.89	-2,250.09	-192.15	480.67	427.39	53.28	9.021		
7,200.00	6,793.85	11,155.76	7,179.61	42.10	95.03	170.08	-2,283.44	-192.53	387.10	333.56	53.55	7.229		
7,300.00	6,882.50	11,188.15	7,179.45	42.64	95.70	-179.92	-2,315.82	-192.92	296.95	243.21	53.74	5.526		
7,400.00	6,965.41	11,220.28	7,179.30	43.12	96.36	-171.61	-2,347.95	-193.32	218.50	156.68	61.82	3.534		
7,500.00	7,040.53	11,249.86	7,179.12	43.53	96.96	-165.75	-2,377.52	-193.74	172.97	75.74	97.23	1.779		
7,525.99	7,058.54	11,257.05	7,179.06	43.63	97.11	-164.47	-2,384.71	-193.86	170.64	61.53	109.11	1.564 CC		
7,600.00	7,106.00	11,276.27	7,178.91	43.89	97.50	-161.04	-2,403.93	-194.20	188.83	55.47	133.36	1.416 Level 3, ES, SF		
7,700.00	7,160.23	11,299.87	7,178.72	44.20	97.99	-155.80	-2,427.53	-194.72	255.62	113.67	141.94	1.801		
7,800.00	7,201.86	11,319.67	7,178.58	44.48	98.39	-147.85	-2,447.31	-195.26	344.58	202.49	142.09	2.425		
7,900.00	7,229.88	11,334.67	7,178.49	44.73	98.70	-128.08	-2,462.31	-195.72	441.62	299.82	141.81	3.114		
8,000.00	7,243.60	11,344.66	7,178.43	44.99	98.91	-48.78	-2,472.30	-196.05	541.09	399.07	142.02	3.810		
8,100.00	7,244.73	11,350.01	7,178.41	45.29	99.02	-20.28	-2,477.64	-196.23	640.45	497.99	142.46	4.496		
8,200.00	7,244.23	11,354.91	7,178.39	45.74	99.12	-23.74	-2,482.54	-196.41	739.86	597.03	142.83	5.180		
8,300.00	7,243.73	11,360.08	7,178.37	46.38	99.22	-27.20	-2,487.70	-196.60	839.38	696.25	143.13	5.864		
8,400.00	7,243.23	11,365.53	7,178.35	47.29	99.33	-30.63	-2,493.15	-196.80	938.98	795.58	143.40	6.548		
8,500.00	7,242.73	11,371.29	7,178.34	48.46	99.45	-34.01	-2,498.90	-197.02	1,038.63	894.98	143.65	7.230		
8,600.00	7,242.23	11,377.38	7,178.33	49.87	99.58	-37.31	-2,504.99	-197.27	1,138.32	994.43	143.89	7.911		
8,700.00	7,241.73	11,380.26	7,178.32	51.48	99.64	-38.77	-2,507.86	-197.38	1,238.04	1,094.02	144.02	8.596		
8,800.00	7,241.23	11,384.20	7,178.31	53.24	99.72	-40.69	-2,511.81	-197.54	1,337.80	1,193.62	144.18	9.279		
8,900.00	7,240.73	11,388.07	7,178.31	55.13	99.80	-42.47	-2,515.67	-197.69	1,437.57	1,293.25	144.33	9.961		
9,000.00	7,240.23	11,391.87	7,178.30	57.11	99.87	-44.12	-2,519.47	-197.83	1,537.36	1,392.90	144.47	10.642		
9,100.00	7,239.73	11,395.60	7,178.28	59.19	99.95	-45.65	-2,523.19	-197.97	1,637.17	1,492.57	144.60	11.322		
9,200.00	7,239.23	11,399.26	7,178.27	61.34	100.03	-47.08	-2,526.85	-198.11	1,736.99	1,592.26	144.74	12.001		
9,300.00	7,238.72	11,402.85	7,178.26	63.55	100.10	-48.41	-2,530.44	-198.24	1,836.82	1,691.96	144.86	12.680		
9,400.00	7,238.22	11,406.47	7,178.25	65.81	100.17	-49.68	-2,534.06	-198.38	1,936.67	1,791.67	144.99	13.357		
9,500.00	7,237.72	11,410.75	7,178.24	68.13	100.26	-51.11	-2,538.33	-198.53	2,036.51	1,891.38	145.14	14.031		
9,600.00	7,237.22	11,415.03	7,178.22	70.48	100.35	-52.45	-2,542.61	-198.69	2,136.37	1,991.08	145.29	14.705		
9,700.00	7,236.72	11,419.31	7,178.21	72.88	100.44	-53.71	-2,546.89	-198.85	2,236.23	2,090.80	145.43	15.376		
9,800.00	7,236.22	11,423.59	7,178.21	75.31	100.52	-54.91	-2,551.16	-199.01	2,336.09	2,190.51	145.58	16.047		
9,900.00	7,235.72	11,427.87	7,178.20	77.77	100.61	-56.03	-2,555.44	-199.16	2,435.96	2,290.23	145.72	16.716		
10,000.00	7,235.22	11,432.14	7,178.20	80.26	100.70	-57.10	-2,559.72	-199.32	2,535.83	2,389.96	145.87	17.384		
10,100.00	7,234.72	11,436.42	7,178.20	82.77	100.79	-58.11	-2,563.99	-199.48	2,635.70	2,489.68	146.02	18.051		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-303 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,234.22	11,441.91	7,178.20	85.31	100.90	-59.32	-2,569.48	-199.68	2,735.58	2,589.38	146.20	18.711		
10,300.00	7,233.72	11,448.28	7,178.20	87.86	101.03	-60.63	-2,575.84	-199.92	2,835.45	2,689.04	146.41	19.367		
10,400.00	7,233.22	11,454.86	7,178.21	90.44	101.17	-61.89	-2,582.42	-200.17	2,935.33	2,788.70	146.62	20.019		
10,500.00	7,232.72	11,461.67	7,178.23	93.03	101.31	-63.09	-2,589.22	-200.43	3,035.20	2,888.35	146.85	20.669		
10,600.00	7,232.22	11,468.71	7,178.25	95.64	101.45	-64.23	-2,596.26	-200.71	3,135.07	2,987.99	147.08	21.316		
10,700.00	7,231.72	11,473.41	7,178.27	98.26	101.55	-64.95	-2,600.96	-200.90	3,234.94	3,087.70	147.24	21.970		
10,800.00	7,231.21	11,478.01	7,178.28	100.89	101.64	-65.62	-2,605.55	-201.08	3,334.81	3,187.41	147.40	22.624		
10,900.00	7,230.71	11,482.61	7,178.30	103.54	101.74	-66.25	-2,610.14	-201.27	3,434.68	3,287.12	147.56	23.276		
11,000.00	7,230.21	11,487.21	7,178.31	106.20	101.83	-66.85	-2,614.74	-201.45	3,534.56	3,386.83	147.73	23.926		
11,100.00	7,229.71	11,491.81	7,178.33	108.87	101.93	-67.43	-2,619.33	-201.64	3,634.43	3,486.54	147.89	24.575		
11,200.00	7,229.21	11,496.40	7,178.35	111.54	102.02	-67.98	-2,623.93	-201.82	3,734.31	3,586.25	148.05	25.222		
11,300.00	7,228.71	11,501.00	7,178.36	114.23	102.11	-68.50	-2,628.52	-202.01	3,834.18	3,685.96	148.22	25.868		
11,400.00	7,228.21	11,509.17	7,178.40	116.92	102.28	-69.38	-2,636.69	-202.34	3,934.06	3,785.57	148.49	26.493		
11,500.00	7,227.71	11,517.67	7,178.44	119.63	102.46	-70.23	-2,645.17	-202.69	4,033.93	3,885.16	148.77	27.114		
11,600.00	7,227.21	11,526.50	7,178.50	122.34	102.64	-71.04	-2,653.99	-203.07	4,133.80	3,984.73	149.07	27.731		
11,700.00	7,226.71	11,535.68	7,178.58	125.05	102.83	-71.83	-2,663.17	-203.46	4,233.67	4,084.29	149.37	28.343		
11,800.00	7,226.21	11,539.37	7,178.61	127.78	102.90	-72.13	-2,666.85	-203.62	4,333.53	4,184.01	149.52	28.983		
11,900.00	7,225.71	11,544.31	7,178.66	130.51	103.00	-72.52	-2,671.79	-203.84	4,433.39	4,283.69	149.70	29.615		
12,000.00	7,225.21	11,549.26	7,178.70	133.24	103.11	-72.89	-2,676.73	-204.06	4,533.26	4,383.38	149.88	30.245		
12,100.00	7,224.71	11,554.20	7,178.74	135.98	103.21	-73.25	-2,681.67	-204.27	4,633.13	4,483.06	150.07	30.874		
12,200.00	7,224.21	11,559.14	7,178.79	138.72	103.31	-73.59	-2,686.61	-204.49	4,732.99	4,582.74	150.25	31.500		
12,300.00	7,223.70	11,564.09	7,178.83	141.47	103.41	-73.92	-2,691.55	-204.70	4,832.86	4,682.42	150.44	32.125		
12,400.00	7,223.20	11,569.03	7,178.87	144.23	103.51	-74.24	-2,696.49	-204.92	4,932.73	4,782.10	150.63	32.748		
12,500.00	7,222.70	11,573.97	7,178.91	146.98	103.61	-74.55	-2,701.42	-205.13	5,032.59	4,881.78	150.81	33.369		
12,600.00	7,222.20	11,578.92	7,178.96	149.74	103.72	-74.84	-2,706.36	-205.35	5,132.46	4,981.46	151.00	33.989		
12,700.00	7,221.70	11,583.86	7,179.00	152.51	103.82	-75.13	-2,711.30	-205.56	5,232.33	5,081.14	151.19	34.607		
12,800.00	7,221.20	11,588.81	7,179.04	155.28	103.92	-75.40	-2,716.24	-205.78	5,332.20	5,180.81	151.38	35.223		
12,900.00	7,220.70	11,587.00	7,179.03	158.05	103.88	-75.30	-2,714.44	-205.70	5,432.07	5,280.70	151.37	35.886		
13,000.00	7,220.20	11,587.00	7,179.03	160.82	103.88	-75.30	-2,714.44	-205.70	5,531.95	5,380.53	151.41	36.535		
13,100.00	7,219.70	11,587.00	7,179.03	163.60	103.88	-75.30	-2,714.44	-205.70	5,631.83	5,480.37	151.46	37.184		
13,200.00	7,219.20	11,587.00	7,179.03	166.38	103.88	-75.30	-2,714.44	-205.70	5,731.72	5,580.21	151.50	37.833		
13,300.00	7,218.70	11,587.00	7,179.03	169.16	103.88	-75.30	-2,714.44	-205.70	5,831.61	5,680.06	151.55	38.481		
13,400.00	7,218.20	11,587.00	7,179.03	171.95	103.88	-75.30	-2,714.44	-205.70	5,931.50	5,779.91	151.59	39.128		
13,500.00	7,217.70	11,587.00	7,179.03	174.74	103.88	-75.30	-2,714.44	-205.70	6,031.40	5,879.76	151.64	39.775		
13,600.00	7,217.20	11,587.00	7,179.03	177.53	103.88	-75.30	-2,714.44	-205.70	6,131.30	5,979.61	151.69	40.421		
13,700.00	7,216.70	11,587.00	7,179.03	180.32	103.88	-75.30	-2,714.44	-205.70	6,231.20	6,079.47	151.73	41.067		
13,800.00	7,216.19	11,587.00	7,179.03	183.11	103.88	-75.30	-2,714.44	-205.70	6,331.11	6,179.33	151.78	41.712		
13,900.00	7,215.69	11,587.00	7,179.03	185.91	103.88	-75.30	-2,714.44	-205.70	6,431.02	6,279.19	151.83	42.357		
14,000.00	7,215.19	11,587.00	7,179.03	188.71	103.88	-75.30	-2,714.44	-205.70	6,530.93	6,379.05	151.88	43.001		
14,100.00	7,214.69	11,587.00	7,179.03	191.51	103.88	-75.30	-2,714.44	-205.70	6,630.84	6,478.91	151.93	43.644		
14,200.00	7,214.19	11,587.00	7,179.03	194.31	103.88	-75.30	-2,714.44	-205.70	6,730.76	6,578.78	151.98	44.287		
14,300.00	7,213.69	11,587.00	7,179.03	197.11	103.88	-75.30	-2,714.44	-205.70	6,830.68	6,678.65	152.03	44.929		
14,400.00	7,213.19	11,587.00	7,179.03	199.92	103.88	-75.30	-2,714.44	-205.70	6,930.60	6,778.52	152.09	45.571		
14,500.00	7,212.69	11,587.00	7,179.03	202.72	103.88	-75.30	-2,714.44	-205.70	7,030.53	6,878.39	152.14	46.211		
14,600.00	7,212.19	11,587.00	7,179.03	205.53	103.88	-75.30	-2,714.44	-205.70	7,130.45	6,978.26	152.19	46.852		
14,700.00	7,211.69	11,587.00	7,179.03	208.34	103.88	-75.30	-2,714.44	-205.70	7,230.38	7,078.14	152.25	47.491		
14,800.00	7,211.19	11,587.00	7,179.03	211.15	103.88	-75.30	-2,714.44	-205.70	7,330.31	7,178.01	152.30	48.130		
14,900.00	7,210.69	11,587.00	7,179.03	213.96	103.88	-75.30	-2,714.44	-205.70	7,430.25	7,277.89	152.36	48.768		
15,000.00	7,210.19	11,587.00	7,179.03	216.78	103.88	-75.30	-2,714.44	-205.70	7,530.18	7,377.77	152.41	49.406		
15,100.00	7,209.69	11,587.00	7,179.03	219.59	103.88	-75.30	-2,714.44	-205.70	7,630.12	7,477.64	152.47	50.043		
15,200.00	7,209.18	11,587.00	7,179.03	222.41	103.88	-75.30	-2,714.44	-205.70	7,730.05	7,577.52	152.53	50.679		
15,300.00	7,208.68	11,587.00	7,179.03	225.22	103.88	-75.30	-2,714.44	-205.70	7,829.99	7,677.40	152.59	51.315		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 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	
15,400.00	7,208.18	11,587.00	7,179.03	228.04	103.88	-75.30	-2,714.44	-205.70	7,929.93	7,777.29	152.65	51.949	
15,437.48	7,208.00	11,587.00	7,179.03	229.10	103.88	-75.30	-2,714.44	-205.70	7,967.39	7,814.72	152.67	52.187	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-423(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 146-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	1.04	0.04	3.28	3.28	9.13	1,731.92	278.40	1,754.15				
100.00	100.00	105.32	104.32	3.28	3.29	9.14	1,731.75	278.61	1,754.03	1,747.45	6.57	266.859	
200.00	200.00	214.48	213.48	3.34	3.34	9.16	1,731.16	279.13	1,753.57	1,746.90	6.68	262.683	
227.75	227.75	245.64	244.63	3.36	3.37	-174.47	1,730.87	279.24	1,753.47	1,746.74	6.73	260.643	
300.00	299.98	317.82	316.81	3.44	3.45	-174.48	1,730.24	278.90	1,754.39	1,747.50	6.89	254.676	
400.00	399.84	422.19	421.17	3.59	3.61	-174.52	1,729.26	277.96	1,758.53	1,751.33	7.20	244.101	
500.00	499.45	525.41	524.38	3.79	3.83	-174.52	1,727.84	277.97	1,765.85	1,758.24	7.62	231.885	
600.00	598.70	617.41	616.38	4.03	4.05	-174.53	1,726.71	278.20	1,776.82	1,768.74	8.08	219.934	
700.00	697.47	720.39	719.34	4.31	4.33	-174.52	1,725.50	278.72	1,791.33	1,782.69	8.64	207.417	
800.00	795.62	822.40	821.35	4.64	4.63	-174.52	1,723.95	279.35	1,808.94	1,799.69	9.25	195.574	
900.00	893.06	915.76	914.69	5.00	4.93	-174.52	1,722.62	280.07	1,830.07	1,820.19	9.88	185.196	
1,000.00	989.64	1,005.56	1,004.47	5.40	5.23	-174.50	1,721.48	281.18	1,854.82	1,844.28	10.54	176.004	
1,100.00	1,085.27	1,091.54	1,090.45	5.83	5.53	-174.49	1,720.93	282.05	1,883.48	1,872.26	11.21	168.006	
1,200.00	1,179.82	1,184.53	1,183.43	6.29	5.86	-174.49	1,720.63	282.71	1,915.69	1,903.76	11.93	160.515	
1,300.00	1,273.47	1,279.85	1,278.75	6.79	6.20	-174.55	1,720.31	283.43	1,950.42	1,937.73	12.69	153.695	
1,400.00	1,367.06	1,373.29	1,372.19	7.30	6.55	-174.62	1,719.91	283.97	1,985.19	1,971.74	13.45	147.612	
1,500.00	1,460.64	1,459.04	1,457.94	7.83	6.88	-174.69	1,719.80	284.52	2,020.26	2,006.07	14.19	142.377	
1,600.00	1,554.23	1,552.66	1,551.56	8.38	7.23	-174.77	1,719.82	285.18	2,055.47	2,040.50	14.98	137.247	
1,700.00	1,647.82	1,645.54	1,644.43	8.93	7.59	-174.83	1,719.86	285.92	2,090.72	2,074.95	15.77	132.545	
1,800.00	1,741.41	1,743.94	1,742.83	9.49	7.98	-174.90	1,719.84	286.56	2,125.90	2,109.29	16.61	127.989	
1,900.00	1,835.00	1,842.07	1,840.96	10.05	8.37	-174.97	1,719.45	287.26	2,160.72	2,143.27	17.46	123.787	
2,000.00	1,928.59	1,917.00	1,915.89	10.62	8.66	-175.03	1,719.53	287.22	2,195.93	2,177.75	18.18	120.756	
2,100.00	2,022.18	1,993.13	1,992.01	11.20	8.94	-175.13	1,720.36	286.35	2,231.91	2,213.00	18.91	118.019	
2,200.00	2,115.77	2,061.58	2,060.43	11.78	9.20	-175.22	1,721.83	285.00	2,268.77	2,249.17	19.60	115.740	
2,300.00	2,209.36	2,126.33	2,125.12	12.37	9.45	-175.33	1,724.04	283.34	2,306.71	2,286.44	20.27	113.778	
2,400.00	2,302.95	2,187.69	2,186.38	12.95	9.69	-175.43	1,726.95	281.59	2,345.84	2,324.92	20.93	112.105	
2,500.00	2,396.54	2,258.63	2,257.17	13.54	9.96	-175.55	1,731.14	279.54	2,386.03	2,364.40	21.63	110.316	
2,600.00	2,490.13	2,332.13	2,330.48	14.13	10.25	-175.67	1,736.01	277.56	2,426.92	2,404.57	22.35	108.595	
2,700.00	2,583.72	2,406.09	2,404.21	14.73	10.55	-175.79	1,741.45	275.61	2,468.48	2,445.41	23.07	106.994	
2,800.00	2,677.31	2,484.33	2,482.16	15.32	10.86	-175.92	1,747.70	273.13	2,510.57	2,486.75	23.82	105.393	
2,900.00	2,770.90	2,555.96	2,553.48	15.92	11.15	-176.05	1,753.90	270.56	2,553.23	2,528.69	24.53	104.077	
3,000.00	2,864.49	2,628.50	2,625.65	16.52	11.45	-176.18	1,760.70	267.99	2,596.55	2,571.30	25.25	102.837	
3,100.00	2,958.08	2,699.28	2,696.02	17.12	11.75	-176.30	1,767.81	265.37	2,640.48	2,614.52	25.96	101.732	
3,200.00	3,051.67	2,765.08	2,761.37	17.72	12.03	-176.42	1,775.00	262.63	2,685.16	2,658.53	26.63	100.841	
3,300.00	3,145.26	2,855.85	2,851.45	18.32	12.42	-176.60	1,785.39	258.42	2,730.27	2,702.80	27.47	99.394	
3,400.00	3,238.85	2,974.07	2,968.83	18.92	12.93	-176.82	1,798.28	252.70	2,774.91	2,746.41	28.50	97.360	
3,500.00	3,332.44	3,060.56	3,054.71	19.53	13.30	-176.99	1,807.36	248.05	2,819.14	2,789.82	29.32	96.139	
3,600.00	3,426.03	3,157.57	3,151.03	20.13	13.73	-177.18	1,817.46	242.42	2,863.28	2,833.06	30.22	94.743	
3,700.00	3,519.62	3,265.47	3,258.25	20.74	14.21	-177.37	1,828.06	236.58	2,906.93	2,875.73	31.20	93.177	
3,800.00	3,613.21	3,345.09	3,337.40	21.34	14.56	-177.50	1,835.78	232.81	2,950.56	2,918.58	31.98	92.260	
3,900.00	3,706.80	3,423.32	3,415.15	21.95	14.91	-177.61	1,843.64	229.25	2,994.53	2,961.78	32.75	91.423	
4,000.00	3,800.39	3,506.28	3,497.58	22.56	15.28	-177.74	1,852.23	225.49	3,038.80	3,005.24	33.56	90.540	
4,100.00	3,893.98	3,596.89	3,587.61	23.16	15.69	-177.86	1,861.70	221.54	3,083.17	3,048.75	34.43	89.555	
4,200.00	3,987.57	3,692.60	3,682.70	23.77	16.13	-178.00	1,871.59	217.03	3,127.43	3,092.10	35.33	88.516	
4,300.00	4,081.16	3,788.40	3,777.80	24.38	16.60	-178.14	1,881.89	212.42	3,171.70	3,135.37	36.25	87.477	
4,400.00	4,174.75	3,884.29	3,873.40	24.99	17.15	-178.29	1,892.60	207.81	3,216.00	3,179.00	37.19	86.440	
4,500.00	4,268.34	3,980.18	3,969.11	25.60	17.76	-178.44	1,903.72	203.20	3,261.15	3,222.15	38.15	85.405	
4,600.00	4,361.93	4,076.07	4,064.84	26.21	18.39	-178.59	1,915.25	198.59	3,306.80	3,266.80	39.13	84.372	
4,700.00	4,455.52	4,171.96	4,160.55	26.82	19.04	-178.74	1,927.19	194.00	3,352.90	3,312.90	40.13	83.340	
4,800.00	4,549.11	4,267.85	4,256.24	27.43	19.71	-178.89	1,939.54	189.41	3,400.00	3,358.00	41.15	82.310	
4,900.00	4,642.70	4,363.74	4,351.93	28.04	20.40	-179.04	1,952.29	184.82	3,448.00	3,404.00	42.19	81.280	
5,000.00	4,736.29	4,459.63	4,447.62	28.65	21.11	-179.19	1,965.44	180.23	3,496.00	3,450.00	43.25	80.250	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 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	
15,400.00	7,208.18	11,433.97	7,232.02	228.04	99.32	-62.90	-2,484.45	167.55	8,300.24	8,153.71	146.53	56.645	
15,437.48	7,208.00	11,433.99	7,232.02	229.10	99.32	-62.92	-2,484.47	167.55	8,337.71	8,191.16	146.56	56.891	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-243(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	11,429.00	7,118.70	87.86	100.69	-48.17	-2,596.14	558.73	3,595.63	3,449.75	145.88	24.648		
10,400.00	7,233.22	11,429.00	7,118.70	90.44	100.69	-48.17	-2,596.14	558.73	3,695.48	3,549.56	145.92	25.325		
10,500.00	7,232.72	11,430.59	7,118.73	93.03	100.72	-48.48	-2,597.73	558.68	3,795.34	3,649.34	146.00	25.995		
10,600.00	7,232.22	11,434.46	7,118.80	95.64	100.80	-49.22	-2,601.59	558.55	3,895.20	3,749.06	146.14	26.654		
10,700.00	7,231.72	11,438.33	7,118.87	98.26	100.88	-49.94	-2,605.46	558.42	3,995.06	3,848.79	146.27	27.312		
10,800.00	7,231.21	11,442.20	7,118.94	100.89	100.96	-50.63	-2,609.32	558.29	4,094.93	3,948.52	146.41	27.968		
10,900.00	7,230.71	11,446.06	7,119.02	103.54	101.04	-51.31	-2,613.19	558.17	4,194.80	4,048.25	146.55	28.623		
11,000.00	7,230.21	11,449.93	7,119.09	106.20	101.12	-51.97	-2,617.06	558.04	4,294.68	4,147.98	146.69	29.277		
11,100.00	7,229.71	11,453.80	7,119.16	108.87	101.20	-52.61	-2,620.92	557.91	4,394.55	4,247.72	146.83	29.929		
11,200.00	7,229.21	11,457.67	7,119.22	111.54	101.28	-53.23	-2,624.79	557.78	4,494.43	4,347.45	146.98	30.579		
11,300.00	7,228.71	11,461.55	7,119.29	114.23	101.36	-53.84	-2,628.67	557.65	4,594.31	4,447.19	147.12	31.229		
11,400.00	7,228.21	11,465.49	7,119.36	116.92	101.44	-54.44	-2,632.60	557.52	4,694.19	4,546.93	147.26	31.876		
11,500.00	7,227.71	11,469.43	7,119.43	119.63	101.52	-55.02	-2,636.54	557.39	4,794.07	4,646.66	147.41	32.522		
11,600.00	7,227.21	11,473.37	7,119.51	122.34	101.60	-55.59	-2,640.48	557.26	4,893.96	4,746.40	147.56	33.166		
11,700.00	7,226.71	11,477.31	7,119.58	125.05	101.68	-56.14	-2,644.41	557.13	4,993.85	4,846.14	147.71	33.809		
11,800.00	7,226.21	11,481.25	7,119.66	127.78	101.76	-56.68	-2,648.35	557.00	5,093.73	4,945.88	147.86	34.451		
11,900.00	7,225.71	11,485.19	7,119.74	130.51	101.85	-57.20	-2,652.29	556.87	5,193.62	5,045.62	148.01	35.091		
12,000.00	7,225.21	11,489.13	7,119.82	133.24	101.93	-57.71	-2,656.22	556.74	5,293.51	5,145.36	148.16	35.729		
12,100.00	7,224.71	11,493.06	7,119.90	135.98	102.01	-58.21	-2,660.16	556.61	5,393.41	5,245.10	148.31	36.366		
12,200.00	7,224.21	11,496.94	7,119.98	138.72	102.09	-58.69	-2,664.03	556.48	5,493.30	5,344.84	148.46	37.002		
12,300.00	7,223.70	11,500.83	7,120.06	141.47	102.17	-59.15	-2,667.92	556.35	5,593.19	5,444.58	148.61	37.636		
12,400.00	7,223.20	11,504.72	7,120.14	144.23	102.25	-59.61	-2,671.81	556.22	5,693.09	5,544.32	148.76	38.269		
12,500.00	7,222.70	11,513.39	7,120.23	146.98	102.43	-60.05	-2,675.69	556.09	5,792.98	5,643.97	149.02	38.875		
12,600.00	7,222.20	11,512.50	7,120.31	149.74	102.41	-60.48	-2,679.58	555.96	5,892.88	5,743.81	149.07	39.530		
12,700.00	7,221.70	11,516.40	7,120.39	152.51	102.49	-60.91	-2,683.47	555.83	5,992.78	5,843.55	149.23	40.158		
12,800.00	7,221.20	11,520.29	7,120.47	155.28	102.57	-61.32	-2,687.36	555.71	6,092.68	5,943.29	149.39	40.785		
12,900.00	7,220.70	11,524.18	7,120.55	158.05	102.65	-61.72	-2,691.24	555.58	6,192.58	6,043.03	149.54	41.410		
13,000.00	7,220.20	11,528.07	7,120.63	160.82	102.73	-62.11	-2,695.13	555.45	6,292.48	6,142.78	149.70	42.033		
13,100.00	7,219.70	11,531.96	7,120.71	163.60	102.81	-62.49	-2,699.02	555.32	6,392.38	6,242.52	149.86	42.655		
13,200.00	7,219.20	11,535.85	7,120.80	166.38	102.89	-62.86	-2,702.91	555.19	6,492.28	6,342.26	150.02	43.276		
13,300.00	7,218.70	11,539.74	7,120.88	169.16	102.97	-63.23	-2,706.80	555.06	6,592.18	6,442.00	150.18	43.894		
13,400.00	7,218.20	11,543.63	7,120.96	171.95	103.05	-63.58	-2,710.68	554.93	6,692.09	6,541.74	150.34	44.512		
13,500.00	7,217.70	11,547.52	7,121.04	174.74	103.13	-63.93	-2,714.57	554.80	6,791.99	6,641.48	150.51	45.127		
13,600.00	7,217.20	11,551.41	7,121.12	177.53	103.21	-64.27	-2,718.46	554.67	6,891.89	6,741.22	150.67	45.741		
13,700.00	7,216.70	11,555.30	7,121.20	180.32	103.29	-64.60	-2,722.35	554.55	6,991.80	6,840.96	150.84	46.354		
13,800.00	7,216.19	11,559.19	7,121.28	183.11	103.37	-64.93	-2,726.23	554.42	7,091.71	6,940.70	151.00	46.965		
13,900.00	7,215.69	11,563.08	7,121.37	185.91	103.45	-65.24	-2,730.12	554.29	7,191.61	7,040.44	151.17	47.574		
14,000.00	7,215.19	11,566.97	7,121.45	188.71	103.53	-65.55	-2,734.01	554.16	7,291.52	7,140.18	151.33	48.181		
14,100.00	7,214.69	11,565.00	7,121.41	191.51	103.49	-65.40	-2,732.04	554.22	7,391.43	7,240.09	151.34	48.840		
14,200.00	7,214.19	11,565.00	7,121.41	194.31	103.49	-65.40	-2,732.04	554.22	7,491.34	7,339.94	151.40	49.481		
14,300.00	7,213.69	11,565.00	7,121.41	197.11	103.49	-65.40	-2,732.04	554.22	7,591.25	7,439.80	151.46	50.122		
14,400.00	7,213.19	11,565.00	7,121.41	199.92	103.49	-65.40	-2,732.04	554.22	7,691.17	7,539.65	151.52	50.761		
14,500.00	7,212.69	11,565.00	7,121.41	202.72	103.49	-65.40	-2,732.04	554.22	7,791.09	7,639.51	151.58	51.400		
14,600.00	7,212.19	11,565.00	7,121.41	205.53	103.49	-65.40	-2,732.04	554.22	7,891.01	7,739.37	151.64	52.038		
14,700.00	7,211.69	11,565.00	7,121.41	208.34	103.49	-65.40	-2,732.04	554.22	7,990.93	7,839.23	151.70	52.676		
14,800.00	7,211.19	11,565.00	7,121.41	211.15	103.49	-65.40	-2,732.04	554.22	8,090.85	7,939.09	151.76	53.313		
14,900.00	7,210.69	11,565.00	7,121.41	213.96	103.49	-65.40	-2,732.04	554.22	8,190.78	8,038.96	151.83	53.949		
15,000.00	7,210.19	11,565.00	7,121.41	216.78	103.49	-65.40	-2,732.04	554.22	8,290.71	8,138.82	151.89	54.584		
15,100.00	7,209.69	11,565.00	7,121.41	219.59	103.49	-65.40	-2,732.04	554.22	8,390.64	8,238.69	151.95	55.219		
15,200.00	7,209.18	11,565.00	7,121.41	222.41	103.49	-65.40	-2,732.04	554.22	8,490.57	8,338.55	152.02	55.853		
15,300.00	7,208.68	11,565.00	7,121.41	225.22	103.49	-65.40	-2,732.04	554.22	8,590.50	8,438.42	152.08	56.486		
15,400.00	7,208.18	11,565.00	7,121.41	228.04	103.49	-65.40	-2,732.04	554.22	8,690.44	8,538.29	152.15	57.119		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-243(PR_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	146-MWD											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth	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)		
15,437.48	7,208.00	11,565.00	7,121.41	229.10	103.49	-65.40	-2,732.04	554.22	8,727.89	8,575.72	152.17	57.356	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-403(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	14.47	3.47	3.28	3.28	44.54	1,723.95	1,696.53	2,418.73					
100.00	100.00	146.00	134.99	3.28	3.30	44.52	1,723.84	1,695.15	2,417.93	2,411.35	6.58	367.567		
200.00	200.00	257.37	246.32	3.34	3.37	44.47	1,724.10	1,692.21	2,416.25	2,409.54	6.71	360.112		
276.98	276.97	343.35	332.24	3.41	3.48	-139.27	1,724.85	1,688.87	2,415.41	2,408.52	6.89	350.463		
300.00	299.98	358.23	347.10	3.44	3.50	-139.29	1,725.06	1,688.25	2,415.49	2,408.55	6.94	347.961		
400.00	399.84	444.58	433.35	3.59	3.66	-139.42	1,726.77	1,684.52	2,417.87	2,410.62	7.24	333.794		
500.00	499.45	541.86	530.50	3.79	3.87	-139.60	1,729.21	1,680.10	2,423.15	2,415.49	7.65	316.619		
600.00	598.70	635.59	624.07	4.03	4.11	-139.80	1,732.22	1,675.40	2,431.32	2,423.18	8.13	298.902		
700.00	697.47	727.25	715.52	4.31	4.37	-140.01	1,735.69	1,670.50	2,442.42	2,433.74	8.68	281.476		
800.00	795.62	821.06	809.09	4.64	4.67	-140.25	1,739.91	1,665.25	2,456.64	2,447.35	9.29	264.571		
900.00	893.06	918.84	906.61	5.00	4.99	-140.53	1,744.21	1,659.56	2,473.46	2,463.50	9.96	248.383		
1,000.00	989.64	997.82	985.38	5.40	5.27	-140.71	1,747.94	1,655.20	2,493.56	2,482.95	10.61	235.027		
1,100.00	1,085.27	1,226.69	1,212.00	5.83	6.20	-142.12	1,765.49	1,629.65	2,516.25	2,504.31	11.94	210.769		
1,200.00	1,179.82	1,362.18	1,344.97	6.29	6.83	-143.03	1,775.38	1,605.63	2,536.65	2,523.66	12.99	195.296		
1,300.00	1,273.47	1,453.23	1,434.24	6.79	7.28	-143.77	1,781.79	1,588.86	2,559.17	2,545.30	13.87	184.474		
1,400.00	1,367.06	1,524.28	1,503.89	7.30	7.65	-144.40	1,787.04	1,575.85	2,582.67	2,567.99	14.68	175.976		
1,500.00	1,460.64	1,732.73	1,708.02	7.83	8.75	-146.19	1,797.33	1,535.06	2,603.45	2,587.24	16.22	160.544		
1,600.00	1,554.23	1,834.79	1,808.00	8.38	9.29	-147.03	1,800.12	1,514.75	2,623.79	2,606.57	17.22	152.370		
1,700.00	1,647.82	1,893.80	1,865.92	8.93	9.61	-147.49	1,801.74	1,503.56	2,645.15	2,627.15	18.00	146.921		
1,800.00	1,741.41	1,957.13	1,928.22	9.49	9.95	-147.98	1,803.79	1,492.40	2,668.02	2,649.21	18.81	141.843		
1,900.00	1,835.00	2,011.00	1,981.31	10.05	10.23	-148.38	1,805.70	1,483.48	2,692.23	2,672.67	19.56	137.617		
2,000.00	1,928.59	2,073.99	2,043.49	10.62	10.56	-148.84	1,808.39	1,473.72	2,717.91	2,697.55	20.36	133.488		
2,100.00	2,022.18	2,138.45	2,107.18	11.20	10.89	-149.30	1,811.87	1,464.39	2,745.19	2,724.02	21.17	129.699		
2,200.00	2,115.77	2,217.78	2,185.50	11.78	11.30	-149.86	1,816.67	1,452.80	2,773.30	2,751.25	22.06	125.733		
2,300.00	2,209.36	2,288.95	2,255.72	12.37	11.68	-150.37	1,821.53	1,442.30	2,802.31	2,779.40	22.91	122.343		
2,400.00	2,302.95	2,360.77	2,326.54	12.95	12.06	-150.88	1,827.03	1,431.67	2,832.27	2,808.51	23.76	119.204		
2,500.00	2,396.54	2,455.79	2,420.23	13.54	12.56	-151.55	1,834.61	1,417.81	2,862.96	2,838.20	24.75	115.652		
2,600.00	2,490.13	2,542.19	2,505.60	14.13	13.01	-152.12	1,840.74	1,405.94	2,893.68	2,867.99	25.69	112.632		
2,700.00	2,583.72	2,628.63	2,591.08	14.73	13.46	-152.67	1,846.91	1,394.64	2,925.02	2,898.40	26.62	109.870		
2,800.00	2,677.31	2,726.50	2,687.93	15.32	13.96	-153.27	1,853.53	1,382.20	2,956.53	2,928.91	27.62	107.034		
2,900.00	2,770.90	2,856.86	2,816.75	15.92	14.65	-154.08	1,862.13	1,364.28	2,987.79	2,958.96	28.84	103.616		
3,000.00	2,864.49	2,975.96	2,933.94	16.52	15.31	-154.85	1,870.01	1,344.51	3,018.07	2,988.06	30.01	100.571		
3,100.00	2,958.08	3,065.35	3,021.91	17.12	15.81	-155.42	1,875.56	1,329.68	3,048.35	3,017.36	31.00	98.349		
3,200.00	3,051.67	3,164.61	3,119.71	17.72	16.35	-156.03	1,881.24	1,313.70	3,078.74	3,046.70	32.04	96.096		
3,300.00	3,145.26	3,245.94	3,199.83	18.32	16.80	-156.52	1,885.98	1,300.52	3,109.46	3,076.49	32.97	94.325		
3,400.00	3,238.85	3,359.15	3,311.68	18.92	17.40	-157.14	1,891.50	1,284.03	3,140.32	3,106.24	34.08	92.144		
3,500.00	3,332.44	3,477.86	3,429.24	19.53	18.01	-157.75	1,895.08	1,267.91	3,170.16	3,134.95	35.21	90.041		
3,600.00	3,426.03	3,545.98	3,496.79	20.13	18.36	-158.08	1,897.03	1,259.35	3,200.55	3,164.53	36.02	88.859		
3,700.00	3,519.62	3,607.45	3,557.75	20.74	18.67	-158.38	1,899.32	1,251.75	3,231.93	3,195.15	36.78	87.868		
3,800.00	3,613.21	3,670.82	3,620.53	21.34	18.99	-158.69	1,902.40	1,243.74	3,264.33	3,226.77	37.56	86.919		
3,900.00	3,706.80	3,738.18	3,687.20	21.95	19.35	-159.02	1,906.38	1,234.99	3,297.67	3,259.31	38.36	85.971		
4,000.00	3,800.39	3,817.83	3,765.84	22.56	19.77	-159.43	1,911.94	1,223.62	3,331.64	3,292.39	39.25	84.880		
4,100.00	3,893.98	3,908.74	3,855.34	23.16	20.28	-159.92	1,918.97	1,209.31	3,365.95	3,325.71	40.24	83.645		
4,200.00	3,987.57	4,037.82	3,982.20	23.77	21.02	-160.61	1,928.74	1,187.60	3,400.01	3,358.48	41.52	81.882		
4,300.00	4,081.16	4,131.14	4,073.58	24.38	21.78	-139.85	-1,188.89	974.58	3,326.91	3,276.40	50.50	65.875		
4,400.00	4,174.75	4,227.36	4,236.36	24.99	22.40	-138.73	-1,236.09	975.23	3,239.74	3,187.94	51.80	62.547		
4,500.00	4,268.34	4,324.22	4,236.89	25.60	23.02	-137.83	-1,272.95	975.81	3,152.85	3,099.79	53.06	59.426		
4,600.00	4,361.93	4,420.55	4,237.34	26.21	23.63	-134.68	-1,395.26	975.44	3,065.51	3,010.40	55.11	55.621		
4,700.00	4,455.52	4,517.80	4,237.11	26.82	24.24	-133.36	-1,443.50	974.58	2,978.32	2,921.74	56.58	52.639		
4,800.00	4,549.11	4,614.65	4,236.67	27.43	24.85	-131.94	-1,493.34	973.43	2,891.35	2,833.22	58.13	49.741		
4,900.00	4,642.70	4,710.23	4,236.08	28.04	25.46	-130.57	-1,539.90	972.23	2,804.66	2,744.94	59.72	46.962		
5,000.00	4,736.29	4,803.10	4,235.35	28.65	26.07	-129.23	-1,583.74	971.01	2,718.31	2,656.93	61.38	44.289		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-403(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 146-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.00	4,829.88	10,609.95	7,234.45	29.26	82.41	-127.80	-1,628.57	969.74	2,632.39	2,569.26	63.13	41.698	
5,200.00	4,923.47	10,656.95	7,233.28	29.87	83.35	-126.25	-1,675.53	968.30	2,546.87	2,481.87	65.00	39.180	
5,300.00	5,017.06	10,714.71	7,231.47	30.48	84.50	-124.26	-1,733.23	966.37	2,461.81	2,394.72	67.09	36.694	
5,400.00	5,110.65	10,740.00	7,230.59	31.09	85.00	-123.36	-1,758.49	965.40	2,377.28	2,308.29	68.99	34.460	
5,500.00	5,204.24	10,754.87	7,230.12	31.70	85.30	-122.83	-1,773.34	964.87	2,293.72	2,222.81	70.91	32.349	
5,600.00	5,297.83	10,772.00	7,229.72	32.32	85.64	-122.20	-1,790.46	964.42	2,211.36	2,138.38	72.97	30.303	
5,700.00	5,391.42	10,786.05	7,229.47	32.93	85.92	-121.68	-1,804.50	964.15	2,130.25	2,055.10	75.15	28.347	
5,800.00	5,485.01	10,804.00	7,229.19	33.54	86.28	-121.00	-1,822.45	963.87	2,050.48	1,972.97	77.51	26.453	
5,900.00	5,578.60	10,821.30	7,229.03	34.15	86.63	-120.34	-1,839.75	963.69	1,972.26	1,892.23	80.03	24.645	
6,000.00	5,672.19	10,835.00	7,229.00	34.77	86.90	-119.82	-1,853.45	963.65	1,895.81	1,813.15	82.66	22.935	
6,100.00	5,765.78	10,859.04	7,229.11	35.38	87.38	-118.88	-1,877.49	963.73	1,821.28	1,735.68	85.60	21.277	
6,200.00	5,859.37	10,886.78	7,229.33	35.99	87.94	-117.77	-1,905.22	964.01	1,748.80	1,660.02	88.78	19.698	
6,300.00	5,952.96	10,924.33	7,229.56	36.60	88.70	-116.24	-1,942.77	964.59	1,678.45	1,586.14	92.32	18.181	
6,400.00	6,046.55	10,967.44	7,229.67	37.22	89.57	-114.45	-1,985.88	965.19	1,610.34	1,514.17	96.16	16.746	
6,500.00	6,140.14	11,009.54	7,229.61	37.83	90.42	-112.65	-2,027.97	965.74	1,544.76	1,444.54	100.22	15.414	
6,600.00	6,233.73	11,050.95	7,229.33	38.44	91.26	-110.84	-2,069.38	966.13	1,481.97	1,377.50	104.48	14.185	
6,700.00	6,327.32	11,087.13	7,228.99	39.06	91.99	-109.24	-2,105.55	966.45	1,422.55	1,313.73	108.82	13.073	
6,800.00	6,420.91	11,140.60	7,228.11	39.67	93.07	-106.82	-2,159.02	966.48	1,366.57	1,252.92	113.65	12.024	
6,900.00	6,514.50	11,170.27	7,227.55	40.28	93.68	-105.46	-2,188.68	966.45	1,314.95	1,196.85	118.09	11.135	
7,000.00	6,608.09	11,200.74	7,226.99	40.90	94.30	-104.04	-2,219.15	966.51	1,268.34	1,145.80	122.53	10.351	
7,100.00	6,701.63	11,230.74	7,226.37	41.51	94.91	-111.83	-2,249.14	966.68	1,228.45	1,101.59	126.86	9.683	
7,200.00	6,793.85	11,261.42	7,225.67	42.10	95.53	-129.84	-2,279.82	966.98	1,207.24	1,076.20	131.04	9.213	
7,243.50	6,832.98	11,275.76	7,225.31	42.33	95.82	-135.68	-2,294.15	967.13	1,205.06	1,072.32	132.74	9.078 CC, ES	
7,300.00	6,882.50	11,289.12	7,224.99	42.64	96.10	-141.91	-2,307.50	967.28	1,208.77	1,074.14	134.63	8.979 SF	
7,400.00	6,965.41	11,311.49	7,224.65	43.12	96.55	-149.59	-2,329.87	967.60	1,233.18	1,095.88	137.30	8.982	
7,500.00	7,040.53	11,337.91	7,224.41	43.53	97.09	-154.16	-2,356.28	968.02	1,278.65	1,139.35	139.30	9.179	
7,600.00	7,106.00	11,367.22	7,224.17	43.89	97.69	-156.67	-2,385.59	968.43	1,342.06	1,201.30	140.76	9.534	
7,700.00	7,160.23	11,389.72	7,223.93	44.20	98.15	-158.14	-2,408.08	968.66	1,419.73	1,278.11	141.62	10.025	
7,800.00	7,201.86	11,406.10	7,223.71	44.48	98.49	-158.83	-2,424.46	968.81	1,507.93	1,365.84	142.09	10.613	
7,900.00	7,229.88	11,415.15	7,223.58	44.73	98.68	-158.97	-2,433.51	968.89	1,603.11	1,460.82	142.28	11.267	
8,000.00	7,243.60	11,419.53	7,223.52	44.99	98.76	-157.09	-2,437.89	968.94	1,702.04	1,559.67	142.37	11.955	
8,100.00	7,244.73	11,419.73	7,223.52	45.29	98.77	13.05	-2,438.09	968.94	1,802.01	1,659.63	142.38	12.656	
8,200.00	7,244.23	11,419.40	7,223.52	45.74	98.76	13.65	-2,437.76	968.93	1,902.00	1,759.61	142.39	13.358	
8,300.00	7,243.73	11,419.08	7,223.52	46.38	98.76	14.23	-2,437.44	968.93	2,001.98	1,859.59	142.39	14.060	
8,400.00	7,243.23	11,418.75	7,223.53	47.29	98.75	14.81	-2,437.11	968.93	2,101.97	1,959.58	142.40	14.761	
8,500.00	7,242.73	11,418.43	7,223.53	48.46	98.74	15.38	-2,436.79	968.92	2,201.96	2,059.56	142.40	15.463	
8,600.00	7,242.23	11,418.12	7,223.54	49.87	98.74	15.94	-2,436.48	968.92	2,301.95	2,159.54	142.41	16.164	
8,700.00	7,241.73	11,417.80	7,223.54	51.48	98.73	16.49	-2,436.16	968.92	2,401.94	2,259.53	142.42	16.866	
8,800.00	7,241.23	11,417.49	7,223.55	53.24	98.72	17.03	-2,435.85	968.92	2,501.93	2,359.51	142.42	17.567	
8,900.00	7,240.73	11,417.18	7,223.55	55.13	98.72	17.57	-2,435.54	968.91	2,601.93	2,459.50	142.43	18.268	
9,000.00	7,240.23	11,416.88	7,223.56	57.11	98.71	18.09	-2,435.24	968.91	2,701.92	2,559.48	142.44	18.969	
9,100.00	7,239.73	11,416.58	7,223.56	59.19	98.70	18.61	-2,434.94	968.91	2,801.91	2,659.46	142.45	19.669	
9,200.00	7,239.23	11,416.28	7,223.57	61.34	98.70	19.12	-2,434.64	968.90	2,901.91	2,759.45	142.46	20.370	
9,300.00	7,238.72	11,415.98	7,223.57	63.55	98.69	19.63	-2,434.34	968.90	3,001.90	2,859.43	142.47	21.070	
9,400.00	7,238.22	11,415.69	7,223.57	65.81	98.69	20.12	-2,434.05	968.90	3,101.90	2,959.41	142.48	21.770	
9,500.00	7,237.72	11,415.39	7,223.58	68.13	98.68	20.61	-2,433.76	968.90	3,201.89	3,059.39	142.50	22.470	
9,600.00	7,237.22	11,415.11	7,223.58	70.48	98.67	21.09	-2,433.47	968.89	3,301.89	3,159.38	142.51	23.170	
9,700.00	7,236.72	11,414.82	7,223.59	72.88	98.67	21.57	-2,433.18	968.89	3,401.88	3,259.36	142.52	23.869	
9,800.00	7,236.22	11,414.54	7,223.59	75.31	98.66	22.03	-2,432.90	968.89	3,501.88	3,359.34	142.54	24.568	
9,900.00	7,235.72	11,414.26	7,223.60	77.77	98.66	22.49	-2,432.62	968.89	3,601.87	3,459.32	142.55	25.267	
10,000.00	7,235.22	11,413.98	7,223.60	80.26	98.65	22.94	-2,432.34	968.88	3,701.87	3,559.30	142.57	25.965	
10,100.00	7,234.72	11,413.70	7,223.60	82.77	98.65	23.39	-2,432.06	968.88	3,801.86	3,659.28	142.59	26.664	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-403(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,234.22	11,413.43	7,223.61	85.31	98.64	23.83	-2,431.79	968.88	3,901.86	3,759.26	142.60	27.361		
10,300.00	7,233.72	11,413.16	7,223.61	87.86	98.63	24.26	-2,431.52	968.88	4,001.86	3,859.23	142.62	28.059		
10,400.00	7,233.22	11,412.89	7,223.62	90.44	98.63	24.69	-2,431.25	968.87	4,101.85	3,959.21	142.64	28.756		
10,500.00	7,232.72	11,412.62	7,223.62	93.03	98.62	25.11	-2,430.98	968.87	4,201.85	4,059.19	142.66	29.453		
10,600.00	7,232.22	11,412.36	7,223.62	95.64	98.62	25.52	-2,430.72	968.87	4,301.85	4,159.16	142.68	30.149		
10,700.00	7,231.72	11,412.10	7,223.63	98.26	98.61	25.92	-2,430.46	968.87	4,401.84	4,259.14	142.71	30.845		
10,800.00	7,231.21	11,411.84	7,223.63	100.89	98.61	26.32	-2,430.20	968.86	4,501.84	4,359.11	142.73	31.541		
10,900.00	7,230.71	11,411.58	7,223.63	103.54	98.60	26.72	-2,429.94	968.86	4,601.84	4,459.09	142.75	32.236		
11,000.00	7,230.21	11,411.33	7,223.64	106.20	98.60	27.11	-2,429.69	968.86	4,701.84	4,559.06	142.78	32.931		
11,100.00	7,229.71	11,411.08	7,223.64	108.87	98.59	27.49	-2,429.44	968.86	4,801.83	4,659.03	142.80	33.625		
11,200.00	7,229.21	11,410.82	7,223.64	111.54	98.59	27.86	-2,429.19	968.85	4,901.83	4,759.00	142.83	34.319		
11,300.00	7,228.71	11,410.58	7,223.65	114.23	98.58	28.23	-2,428.94	968.85	5,001.83	4,858.97	142.86	35.013		
11,400.00	7,228.21	11,410.33	7,223.65	116.92	98.58	28.60	-2,428.69	968.85	5,101.83	4,958.94	142.88	35.706		
11,500.00	7,227.71	11,410.09	7,223.66	119.63	98.57	28.96	-2,428.45	968.85	5,201.82	5,058.91	142.91	36.398		
11,600.00	7,227.21	11,409.84	7,223.66	122.34	98.57	29.31	-2,428.21	968.84	5,301.82	5,158.88	142.94	37.091		
11,700.00	7,226.71	11,409.60	7,223.66	125.05	98.56	29.66	-2,427.97	968.84	5,401.82	5,258.85	142.97	37.782		
11,800.00	7,226.21	11,409.37	7,223.67	127.78	98.56	30.01	-2,427.73	968.84	5,501.82	5,358.81	143.00	38.473		
11,900.00	7,225.71	11,409.13	7,223.67	130.51	98.55	30.34	-2,427.49	968.84	5,601.82	5,458.78	143.04	39.164		
12,000.00	7,225.21	11,408.90	7,223.67	133.24	98.55	30.68	-2,427.26	968.84	5,701.81	5,558.75	143.07	39.854		
12,100.00	7,224.71	11,408.66	7,223.68	135.98	98.54	31.01	-2,427.03	968.83	5,801.81	5,658.71	143.10	40.543		
12,200.00	7,224.21	11,408.43	7,223.68	138.72	98.54	31.33	-2,426.80	968.83	5,901.81	5,758.67	143.14	41.232		
12,300.00	7,223.70	11,408.21	7,223.68	141.47	98.53	31.65	-2,426.57	968.83	6,001.81	5,858.64	143.17	41.920		
12,400.00	7,223.20	11,411.05	7,223.64	144.23	98.59	27.52	-2,429.41	968.85	6,101.81	5,958.52	143.29	42.584		
12,500.00	7,222.70	11,410.67	7,223.65	146.98	98.58	28.10	-2,429.03	968.85	6,201.80	6,058.48	143.32	43.272		
12,600.00	7,222.20	11,410.28	7,223.65	149.74	98.58	28.68	-2,428.64	968.85	6,301.80	6,158.45	143.35	43.960		
12,700.00	7,221.70	11,409.88	7,223.66	152.51	98.57	29.26	-2,428.24	968.84	6,401.80	6,258.41	143.39	44.647		
12,800.00	7,221.20	11,409.47	7,223.66	155.28	98.56	29.85	-2,427.83	968.84	6,501.80	6,358.38	143.42	45.333		
12,900.00	7,220.70	11,409.06	7,223.67	158.05	98.55	30.44	-2,427.42	968.84	6,601.80	6,458.34	143.46	46.019		
13,000.00	7,220.20	11,408.64	7,223.68	160.82	98.54	31.04	-2,427.00	968.83	6,701.80	6,558.31	143.49	46.705		
13,100.00	7,219.70	11,408.21	7,223.68	163.60	98.53	31.64	-2,426.58	968.83	6,801.80	6,658.27	143.53	47.390		
13,200.00	7,219.20	11,407.78	7,223.69	166.38	98.52	32.24	-2,426.14	968.83	6,901.79	6,758.23	143.56	48.075		
13,300.00	7,218.70	11,407.33	7,223.69	169.16	98.52	32.85	-2,425.70	968.82	7,001.79	6,858.19	143.60	48.759		
13,400.00	7,218.20	11,406.88	7,223.70	171.95	98.51	33.46	-2,425.24	968.82	7,101.79	6,958.15	143.64	49.442		
13,500.00	7,217.70	11,406.42	7,223.71	174.74	98.50	34.07	-2,424.78	968.81	7,201.79	7,058.11	143.68	50.125		
13,600.00	7,217.20	11,405.95	7,223.71	177.53	98.49	34.69	-2,424.31	968.81	7,301.79	7,158.07	143.72	50.807		
13,700.00	7,216.70	11,405.47	7,223.72	180.32	98.48	35.31	-2,423.84	968.81	7,401.79	7,258.03	143.75	51.489		
13,800.00	7,216.19	11,404.98	7,223.73	183.11	98.47	35.93	-2,423.35	968.80	7,501.79	7,357.99	143.79	52.170		
13,900.00	7,215.69	11,404.49	7,223.73	185.91	98.46	36.55	-2,422.85	968.80	7,601.79	7,457.95	143.83	52.851		
14,000.00	7,215.19	11,403.98	7,223.74	188.71	98.45	37.18	-2,422.34	968.79	7,701.78	7,557.91	143.87	53.531		
14,100.00	7,214.69	11,403.46	7,223.75	191.51	98.44	37.81	-2,421.82	968.79	7,801.78	7,657.87	143.92	54.211		
14,200.00	7,214.19	11,402.93	7,223.76	194.31	98.42	38.44	-2,421.29	968.78	7,901.78	7,757.83	143.96	54.890		
14,300.00	7,213.69	11,402.39	7,223.76	197.11	98.41	39.07	-2,420.75	968.78	8,001.78	7,857.78	144.00	55.569		
14,400.00	7,213.19	11,401.84	7,223.77	199.92	98.40	39.71	-2,420.20	968.77	8,101.78	7,957.74	144.04	56.246		
14,500.00	7,212.69	11,401.28	7,223.78	202.72	98.39	40.35	-2,419.64	968.77	8,201.78	8,057.70	144.08	56.924		
14,600.00	7,212.19	11,400.70	7,223.79	205.53	98.38	40.99	-2,419.07	968.76	8,301.78	8,157.65	144.13	57.601		
14,700.00	7,211.69	11,400.11	7,223.79	208.34	98.37	41.63	-2,418.48	968.76	8,401.78	8,257.61	144.17	58.277		
14,800.00	7,211.19	11,399.51	7,223.80	211.15	98.35	42.27	-2,417.88	968.75	8,501.78	8,357.56	144.21	58.953		
14,900.00	7,210.69	11,398.90	7,223.81	213.96	98.34	42.92	-2,417.26	968.75	8,601.77	8,457.52	144.26	59.628		
15,000.00	7,210.19	11,398.27	7,223.82	216.78	98.33	43.56	-2,416.64	968.74	8,701.77	8,557.47	144.30	60.302		
15,100.00	7,209.69	11,397.63	7,223.83	219.59	98.32	44.21	-2,416.00	968.74	8,801.77	8,657.42	144.35	60.976		
15,200.00	7,209.18	11,396.98	7,223.84	222.41	98.30	44.85	-2,415.34	968.73	8,901.77	8,757.38	144.39	61.650		
15,300.00	7,208.68	11,396.30	7,223.84	225.22	98.29	45.50	-2,414.67	968.72	9,001.77	8,857.33	144.44	62.323		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

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	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)			
15,400.00	7,208.18	11,395.62	7,223.85	228.04	98.28	46.15	-2,413.98	968.72	9,101.77	8,957.28	144.48	62.995		
15,437.48	7,208.00	11,395.36	7,223.86	229.10	98.27	46.39	-2,413.72	968.71	9,139.25	8,994.74	144.50	63.247		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	3.00	0.00	3.28	3.28	0.49	459.76	3.89	459.77					
100.00	100.00	103.00	100.00	3.28	3.29	0.49	459.76	3.89	459.77	453.20	6.57	69.980		
200.00	200.00	203.00	200.00	3.34	3.34	0.49	459.76	3.89	459.77	453.10	6.68	68.865 CC, ES		
300.00	299.98	288.74	285.72	3.44	3.43	176.84	461.12	3.76	463.10	456.22	6.88	67.306		
400.00	399.84	374.35	371.24	3.59	3.56	176.80	465.03	3.36	472.88	465.69	7.19	65.791		
500.00	499.45	458.92	455.57	3.79	3.73	176.75	471.39	2.73	489.04	481.46	7.58	64.498		
600.00	598.70	541.95	538.14	4.03	3.92	176.69	480.04	1.86	511.47	503.43	8.04	63.584		
700.00	697.47	623.00	618.46	4.31	4.13	176.60	490.77	0.78	540.03	531.48	8.55	63.131		
800.00	795.62	701.64	696.08	4.64	4.36	176.51	503.35	-0.48	574.52	565.43	9.10	63.165		
900.00	893.06	777.53	770.63	5.00	4.59	176.41	517.48	-1.90	614.73	605.08	9.66	63.657		
1,000.00	989.64	850.36	841.79	5.40	4.83	176.31	532.89	-3.45	660.42	650.20	10.22	64.618		
1,100.00	1,085.27	919.88	909.32	5.83	5.08	176.19	549.28	-5.09	711.32	700.53	10.79	65.931		
1,200.00	1,179.82	985.89	973.07	6.29	5.32	176.07	566.34	-6.81	767.16	755.81	11.35	67.611		
1,300.00	1,273.47	1,049.36	1,033.97	6.79	5.57	176.02	584.12	-8.59	826.99	815.10	11.89	69.541		
1,400.00	1,367.06	1,128.78	1,109.95	7.30	5.90	175.98	607.12	-10.90	887.75	875.25	12.51	70.983		
1,500.00	1,460.64	1,208.20	1,185.93	7.83	6.24	175.95	630.13	-13.21	948.52	935.37	13.15	72.152		
1,600.00	1,554.23	1,287.62	1,261.91	8.38	6.59	175.93	653.13	-15.52	1,009.28	995.48	13.81	73.103		
1,700.00	1,647.82	1,367.04	1,337.90	8.93	6.95	175.91	676.13	-17.83	1,070.05	1,055.56	14.48	73.875		
1,800.00	1,741.41	1,446.46	1,413.88	9.49	7.32	175.89	699.13	-20.14	1,130.81	1,115.63	15.18	74.501		
1,900.00	1,835.00	1,525.88	1,489.86	10.05	7.70	175.87	722.14	-22.45	1,191.58	1,175.69	15.89	75.008		
2,000.00	1,928.59	1,605.30	1,565.84	10.62	8.07	175.85	745.14	-24.76	1,252.34	1,235.74	16.61	75.419		
2,100.00	2,022.18	1,684.72	1,641.82	11.20	8.46	175.84	768.14	-27.07	1,313.11	1,295.77	17.33	75.749		
2,200.00	2,115.77	1,764.14	1,717.80	11.78	8.85	175.82	791.14	-29.38	1,373.87	1,355.80	18.07	76.015		
2,300.00	2,209.36	1,843.56	1,793.78	12.37	9.24	175.81	814.15	-31.69	1,434.64	1,415.82	18.82	76.227		
2,400.00	2,302.95	1,922.98	1,869.76	12.95	9.63	175.80	837.15	-33.99	1,495.40	1,475.83	19.57	76.396		
2,500.00	2,396.54	2,002.40	1,945.74	13.54	10.03	175.79	860.15	-36.30	1,556.17	1,535.84	20.33	76.528		
2,600.00	2,490.13	2,081.82	2,021.72	14.13	10.43	175.78	883.15	-38.61	1,616.94	1,595.83	21.10	76.630		
2,700.00	2,583.72	2,161.24	2,097.70	14.73	10.83	175.77	906.16	-40.92	1,677.70	1,655.83	21.87	76.707		
2,800.00	2,677.31	2,240.66	2,173.68	15.32	11.23	175.76	929.16	-43.23	1,738.47	1,715.82	22.65	76.764		
2,900.00	2,770.90	2,320.08	2,249.66	15.92	11.64	175.75	952.16	-45.54	1,799.23	1,775.81	23.43	76.803		
3,000.00	2,864.49	2,400.50	2,325.64	16.52	12.05	175.74	975.16	-47.85	1,860.00	1,835.78	24.21	76.813		
3,100.00	2,958.08	2,478.92	2,401.62	17.12	12.45	175.74	998.17	-50.16	1,920.76	1,895.77	25.00	76.842		
3,200.00	3,051.67	2,558.34	2,477.60	17.72	12.86	175.73	1,021.17	-52.47	1,981.53	1,955.74	25.79	76.845		
3,300.00	3,145.26	2,637.76	2,553.59	18.32	13.27	175.73	1,044.17	-54.78	2,042.29	2,015.72	26.58	76.840		
3,400.00	3,238.85	2,717.18	2,629.57	18.92	13.69	175.72	1,067.17	-57.09	2,103.06	2,075.69	27.37	76.828		
3,500.00	3,332.44	2,803.40	2,705.55	19.53	14.13	175.71	1,090.18	-59.40	2,163.83	2,135.62	28.20	76.720		
3,600.00	3,426.03	2,876.02	2,781.53	20.13	14.51	175.71	1,113.18	-61.71	2,224.59	2,195.62	28.97	76.788		
3,700.00	3,519.62	2,955.44	2,857.51	20.74	14.93	175.70	1,136.18	-64.02	2,285.36	2,255.59	29.77	76.762		
3,800.00	3,613.21	3,034.86	2,933.49	21.34	15.34	175.70	1,159.19	-66.33	2,346.12	2,315.55	30.58	76.732		
3,900.00	3,706.80	3,114.28	3,009.47	21.95	15.76	175.70	1,182.19	-68.64	2,406.89	2,375.51	31.38	76.700		
4,000.00	3,800.39	3,193.70	3,085.45	22.56	16.17	175.69	1,205.19	-70.94	2,467.65	2,435.47	32.19	76.665		
4,100.00	3,893.98	3,273.12	3,161.43	23.16	16.59	175.69	1,228.19	-73.25	2,528.42	2,495.42	33.00	76.629		
4,200.00	3,987.57	3,352.54	3,237.41	23.77	17.01	175.68	1,251.20	-75.56	2,589.19	2,555.38	33.81	76.591		
4,300.00	4,081.16	3,431.96	3,313.39	24.38	17.42	175.68	1,274.20	-77.87	2,649.95	2,615.34	34.62	76.552		
4,400.00	4,174.75	3,511.38	3,389.37	24.99	17.84	175.68	1,297.20	-80.18	2,710.72	2,675.29	35.43	76.513		
4,500.00	4,268.34	3,590.80	3,465.35	25.60	18.26	175.67	1,320.20	-82.49	2,771.48	2,735.24	36.24	76.472		
4,600.00	4,361.93	3,670.22	3,541.33	26.21	18.68	175.67	1,343.21	-84.80	2,832.25	2,795.19	37.06	76.431		
4,700.00	4,455.52	3,749.63	3,617.31	26.82	19.10	175.67	1,366.21	-87.11	2,893.01	2,855.14	37.87	76.390		
4,800.00	4,549.11	3,829.05	3,693.29	27.43	19.52	175.66	1,389.21	-89.42	2,953.78	2,915.09	38.69	76.348		
4,900.00	4,642.70	3,908.47	3,769.28	28.04	19.94	175.66	1,412.21	-91.73	3,014.55	2,975.04	39.51	76.306		
5,000.00	4,736.29	3,987.89	3,845.26	28.65	20.36	175.66	1,435.22	-94.04	3,075.31	3,034.99	40.32	76.264		
5,100.00	4,829.88	4,067.31	3,921.24	29.26	20.78	175.66	1,458.22	-96.35	3,136.08	3,094.93	41.14	76.223		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	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	4,923.47	4,146.73	3,997.22	29.87	21.20	175.65	1,481.22	-98.66	3,196.84	3,154.88	41.96	76.181		
5,300.00	5,017.06	4,226.15	4,073.20	30.48	21.62	175.65	1,504.22	-100.97	3,257.61	3,214.82	42.78	76.139		
5,400.00	5,110.65	4,305.57	4,149.18	31.09	22.04	175.65	1,527.23	-103.28	3,318.38	3,274.77	43.61	76.098		
5,500.00	5,204.24	4,384.99	4,225.16	31.70	22.47	175.65	1,550.23	-105.59	3,379.14	3,334.71	44.43	76.057		
5,600.00	5,297.83	4,464.41	4,301.14	32.32	22.89	175.64	1,573.23	-107.89	3,439.91	3,394.65	45.25	76.016		
5,700.00	5,391.42	4,543.83	4,377.12	32.93	23.31	175.64	1,596.23	-110.20	3,500.67	3,454.60	46.08	75.976		
5,800.00	5,485.01	4,623.25	4,453.10	33.54	23.73	175.64	1,619.24	-112.51	3,561.44	3,514.54	46.90	75.936		
5,900.00	5,578.60	4,702.67	4,529.08	34.15	24.15	175.64	1,642.24	-114.82	3,622.20	3,574.48	47.73	75.896		
6,000.00	5,672.19	4,782.09	4,605.06	34.77	24.58	175.64	1,665.24	-117.13	3,682.97	3,634.42	48.55	75.856		
6,100.00	5,765.78	4,861.51	4,681.04	35.38	25.00	175.64	1,688.24	-119.44	3,743.74	3,694.36	49.38	75.817		
6,200.00	5,859.37	4,940.93	4,757.02	35.99	25.42	175.63	1,711.25	-121.75	3,804.50	3,754.30	50.21	75.778		
6,300.00	5,952.96	5,020.35	4,833.00	36.60	25.85	175.63	1,734.25	-124.06	3,865.27	3,814.23	51.03	75.739		
6,400.00	6,046.55	5,100.23	4,908.99	37.22	26.27	175.63	1,757.25	-126.37	3,926.03	3,874.17	51.86	75.698		
6,500.00	6,140.14	5,179.19	4,984.97	37.83	26.69	175.63	1,780.25	-128.68	3,986.80	3,934.11	52.69	75.663		
6,600.00	6,233.73	5,258.61	5,060.95	38.44	27.11	175.63	1,803.25	-130.99	4,047.57	4,000.00	53.52	75.628		
6,700.00	6,327.32	5,338.03	5,136.93	39.06	27.53	175.63	1,826.25	-133.30	4,108.34	4,064.00	54.35	75.593		
6,800.00	6,420.91	5,417.45	5,212.91	39.67	27.95	175.95	1,849.25	-135.61	4,169.11	4,128.00	55.18	75.558		
6,900.00	6,514.50	5,496.87	5,288.89	40.28	28.37	175.98	1,872.25	-137.92	4,229.88	4,192.00	56.01	75.523		
7,000.00	6,608.09	5,576.29	5,364.87	40.90	28.79	176.02	1,895.00	-140.23	4,290.65	4,256.00	56.84	75.488		
7,100.00	6,701.63	5,655.71	5,440.85	41.51	29.21	165.22	1,914.95	-152.72	4,351.41	4,317.00	57.67	75.453		
7,200.00	6,793.85	5,735.13	5,516.83	42.10	29.63	142.18	1,934.80	-172.78	4,412.19	4,382.00	58.50	75.418		
7,300.00	6,882.50	5,814.55	5,592.81	42.64	30.05	125.69	1,954.53	-207.15	4,472.99	4,441.00	59.33	75.383		
7,400.00	6,965.41	5,893.97	5,668.73	43.12	30.47	114.27	1,974.15	-255.36	4,533.73	4,504.31	60.16	75.348		
7,500.00	7,040.53	5,973.39	5,744.77	43.53	30.89	106.16	1,993.67	-316.70	4,594.51	4,568.63	60.99	75.313		
7,600.00	7,106.00	6,052.81	5,820.75	43.89	31.31	100.29	1,993.10	-390.14	4,655.29	4,632.25	61.82	75.278		
7,700.00	7,160.23	6,132.23	5,896.73	44.20	31.73	96.05	1,962.44	-474.18	4,716.04	4,698.00	62.65	75.243		
7,800.00	7,201.86	6,211.65	5,972.71	44.48	32.15	93.08	1,961.72	-566.78	4,776.81	4,760.00	63.48	75.208		
7,900.00	7,229.88	6,291.07	6,048.69	44.73	32.57	91.19	1,960.94	-665.40	4,837.58	4,824.00	64.31	75.173		
8,000.00	7,243.60	6,302.64	6,059.78	44.99	32.94	90.27	1,960.15	-767.06	4,898.35	4,886.00	65.14	75.138		
8,100.00	7,244.73	6,302.64	6,059.78	45.29	33.31	90.17	1,959.36	-867.44	4,959.12	4,947.00	65.97	75.103		
8,200.00	7,244.23	6,302.64	6,059.78	45.74	33.73	90.17	1,958.58	-967.44	5,019.89	5,007.00	66.80	75.068		
8,300.00	7,243.73	6,302.64	6,059.78	46.38	34.20	90.17	1,957.80	-1,067.43	5,080.66	5,068.00	67.63	75.033		
8,400.00	7,243.23	6,302.64	6,059.78	47.29	34.66	90.17	1,957.02	-1,167.43	5,141.43	5,129.00	68.46	75.000		
8,500.00	7,242.73	6,302.64	6,059.78	48.46	35.44	90.17	1,956.24	-1,267.42	5,202.20	5,190.00	69.29	74.965		
8,600.00	7,242.23	6,302.64	6,059.78	49.87	36.32	90.18	1,955.45	-1,367.42	5,262.97	5,250.00	70.12	74.930		
8,700.00	7,241.73	6,302.64	6,059.78	51.48	37.30	90.18	1,954.67	-1,467.42	5,323.74	5,311.00	70.95	74.895		
8,800.00	7,241.23	6,302.64	6,059.78	53.24	38.36	90.18	1,953.89	-1,567.41	5,384.51	5,372.00	71.78	74.860		
8,900.00	7,240.73	6,302.64	6,059.78	55.13	39.49	90.18	1,953.11	-1,667.41	5,445.28	5,434.00	72.61	74.825		
9,000.00	7,240.23	6,302.64	6,059.78	57.11	40.69	90.18	1,952.33	-1,767.40	5,506.05	5,496.00	73.44	74.790		
9,100.00	7,239.73	6,302.64	6,059.78	59.19	41.95	90.18	1,951.54	-1,867.40	5,566.82	5,558.00	74.27	74.755		
9,200.00	7,239.23	6,302.64	6,059.78	61.34	43.25	90.19	1,950.76	-1,967.40	5,627.59	5,620.00	75.10	74.720		
9,300.00	7,238.72	6,302.64	6,059.78	63.55	44.59	90.19	1,949.98	-2,067.39	5,688.36	5,682.00	75.93	74.685		
9,400.00	7,238.22	6,302.64	6,059.78	65.81	45.80	90.19	1,949.20	-2,167.39	5,749.13	5,744.00	76.76	74.650		
9,500.00	7,237.72	6,302.64	6,059.78	68.13	46.93	90.19	1,948.42	-2,267.38	5,809.90	5,806.00	77.59	74.615		
9,600.00	7,237.22	6,302.64	6,059.78	70.48	47.90	90.19	1,947.63	-2,367.38	5,870.67	5,868.00	78.42	74.580		
9,700.00	7,236.72	6,302.64	6,059.78	72.88	48.73	90.19	1,946.85	-2,467.38	5,931.44	5,930.00	79.25	74.545		
9,800.00	7,236.22	6,302.64	6,059.78	75.31	49.41	90.20	1,946.07	-2,567.37	5,992.21	5,992.00	80.08	74.510		
9,900.00	7,235.72	6,302.64	6,059.78	77.77	49.95	90.20	1,945.29	-2,667.37	6,052.98	6,054.00	80.91	74.475		
10,000.00	7,235.22	6,302.64	6,059.78	80.26	50.31	90.20	1,944.51	-2,767.36	6,113.75	6,116.00	81.74	74.440		
10,100.00	7,234.72	6,302.64	6,059.78	82.77	50.59	90.20	1,943.72	-2,867.36	6,174.52	6,178.00	82.57	74.405		
10,200.00	7,234.22	6,302.64	6,059.78	85.31	50.89	90.20	1,942.94	-2,967.35	6,235.29	6,242.00	83.40	74.370		
10,300.00	7,233.72	6,302.64	6,059.78	87.86	51.19	90.20	1,942.16	-3,067.35	6,296.06	6,300.00	84.23	74.335		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	10,220.63	7,248.96	90.44	90.44	90.21	1,941.38	-3,167.35	4,410.77	4,230.48	180.29	24.465		
10,500.00	7,232.72	10,320.63	7,248.58	93.03	93.08	90.21	1,940.60	-3,267.34	4,410.58	4,225.03	185.55	23.771		
10,600.00	7,232.22	10,420.63	7,248.20	95.64	95.74	90.21	1,939.81	-3,367.34	4,410.39	4,219.56	190.83	23.112		
10,700.00	7,231.72	10,520.63	7,247.82	98.26	98.41	90.21	1,939.03	-3,467.33	4,410.19	4,214.06	196.14	22.485		
10,800.00	7,231.21	10,620.63	7,247.44	100.89	101.09	90.21	1,938.25	-3,567.33	4,410.00	4,208.53	201.47	21.889		
10,900.00	7,230.71	10,720.63	7,247.06	103.54	103.77	90.21	1,937.47	-3,667.33	4,409.81	4,202.99	206.82	21.322		
11,000.00	7,230.21	10,820.63	7,246.68	106.20	106.47	90.21	1,936.69	-3,767.32	4,409.61	4,197.43	212.19	20.782		
11,100.00	7,229.71	10,920.63	7,246.30	108.87	109.17	90.22	1,935.90	-3,867.32	4,409.42	4,191.84	217.57	20.266		
11,200.00	7,229.21	11,020.63	7,245.92	111.54	111.89	90.22	1,935.12	-3,967.31	4,409.23	4,186.25	222.98	19.774		
11,300.00	7,228.71	11,120.63	7,245.54	114.23	114.61	90.22	1,934.34	-4,067.31	4,409.03	4,180.63	228.40	19.304		
11,400.00	7,228.21	11,220.63	7,245.16	116.92	117.33	90.22	1,933.56	-4,167.31	4,408.84	4,175.01	233.83	18.855		
11,500.00	7,227.71	11,320.63	7,244.78	119.63	120.07	90.22	1,932.78	-4,267.30	4,408.65	4,169.37	239.28	18.425		
11,600.00	7,227.21	11,420.63	7,244.40	122.34	122.80	90.22	1,931.99	-4,367.30	4,408.45	4,163.72	244.74	18.013		
11,700.00	7,226.71	11,520.63	7,244.02	125.05	125.55	90.23	1,931.21	-4,467.29	4,408.26	4,158.05	250.21	17.618		
11,800.00	7,226.21	11,620.63	7,243.65	127.78	128.30	90.23	1,930.43	-4,567.29	4,408.07	4,152.38	255.69	17.240		
11,900.00	7,225.71	11,720.63	7,243.27	130.51	131.05	90.23	1,929.65	-4,667.29	4,407.87	4,146.69	261.18	16.877		
12,000.00	7,225.21	11,820.63	7,242.89	133.24	133.81	90.23	1,928.87	-4,767.28	4,407.68	4,141.00	266.68	16.528		
12,100.00	7,224.71	11,920.63	7,242.51	135.98	136.57	90.23	1,928.08	-4,867.28	4,407.49	4,135.29	272.19	16.193		
12,200.00	7,224.21	12,020.63	7,242.13	138.72	139.33	90.23	1,927.30	-4,967.27	4,407.29	4,129.58	277.71	15.870		
12,300.00	7,223.70	12,120.63	7,241.75	141.47	142.10	90.24	1,926.52	-5,067.27	4,407.10	4,123.86	283.23	15.560		
12,400.00	7,223.20	12,220.63	7,241.37	144.23	144.88	90.24	1,925.74	-5,167.27	4,406.91	4,118.14	288.77	15.261		
12,500.00	7,222.70	12,320.63	7,240.99	146.98	147.65	90.24	1,924.96	-5,267.26	4,406.71	4,112.40	294.31	14.973		
12,600.00	7,222.20	12,420.63	7,240.61	149.74	150.43	90.24	1,924.17	-5,367.26	4,406.52	4,106.66	299.86	14.695		
12,700.00	7,221.70	12,520.63	7,240.23	152.51	153.21	90.24	1,923.39	-5,467.25	4,406.33	4,100.92	305.41	14.428		
12,800.00	7,221.20	12,620.63	7,239.85	155.28	156.00	90.24	1,922.61	-5,567.25	4,406.13	4,095.16	310.97	14.169		
12,900.00	7,220.70	12,720.63	7,239.47	158.05	158.78	90.24	1,921.83	-5,667.25	4,405.94	4,089.41	316.53	13.919		
13,000.00	7,220.20	12,820.63	7,239.09	160.82	161.57	90.25	1,921.05	-5,767.24	4,405.75	4,083.64	322.10	13.678		
13,100.00	7,219.70	12,920.63	7,238.71	163.60	164.37	90.25	1,920.26	-5,867.24	4,405.55	4,077.87	327.68	13.445		
13,200.00	7,219.20	13,020.62	7,238.33	166.38	167.16	90.25	1,919.48	-5,967.23	4,405.36	4,072.10	333.26	13.219		
13,300.00	7,218.70	13,120.62	7,237.95	169.16	169.96	90.25	1,918.70	-6,067.23	4,405.17	4,066.32	338.84	13.001		
13,400.00	7,218.20	13,220.62	7,237.57	171.95	172.76	90.25	1,917.92	-6,167.23	4,404.97	4,060.54	344.43	12.789		
13,500.00	7,217.70	13,320.62	7,237.19	174.74	175.56	90.25	1,917.14	-6,267.22	4,404.78	4,054.75	350.03	12.584		
13,600.00	7,217.20	13,420.62	7,236.81	177.53	178.36	90.26	1,916.35	-6,367.22	4,404.59	4,048.96	355.62	12.386		
13,700.00	7,216.70	13,520.62	7,236.43	180.32	181.16	90.26	1,915.57	-6,467.21	4,404.39	4,043.17	361.22	12.193		
13,800.00	7,216.19	13,620.62	7,236.05	183.11	183.97	90.26	1,914.79	-6,567.21	4,404.20	4,037.37	366.83	12.006		
13,900.00	7,215.69	13,720.62	7,235.68	185.91	186.77	90.26	1,914.01	-6,667.21	4,404.01	4,031.57	372.44	11.825		
14,000.00	7,215.19	13,820.62	7,235.30	188.71	189.58	90.26	1,913.23	-6,767.20	4,403.81	4,025.77	378.05	11.649		
14,100.00	7,214.69	13,920.62	7,234.92	191.51	192.39	90.26	1,912.44	-6,867.20	4,403.62	4,019.96	383.66	11.478		
14,200.00	7,214.19	14,020.62	7,234.54	194.31	195.21	90.27	1,911.66	-6,967.19	4,403.43	4,014.15	389.28	11.312		
14,300.00	7,213.69	14,120.62	7,234.16	197.11	198.02	90.27	1,910.88	-7,067.19	4,403.23	4,008.33	394.90	11.150		
14,400.00	7,213.19	14,220.62	7,233.78	199.92	200.83	90.27	1,910.10	-7,167.19	4,403.04	4,002.52	400.52	10.993		
14,500.00	7,212.69	14,320.62	7,233.40	202.72	203.65	90.27	1,909.32	-7,267.18	4,402.85	3,996.70	406.15	10.841		
14,600.00	7,212.19	14,420.62	7,233.02	205.53	206.47	90.27	1,908.53	-7,367.18	4,402.65	3,990.88	411.77	10.692		
14,700.00	7,211.69	14,520.62	7,232.64	208.34	209.28	90.27	1,907.75	-7,467.17	4,402.46	3,985.05	417.40	10.547		
14,800.00	7,211.19	14,620.62	7,232.26	211.15	212.10	90.27	1,906.97	-7,567.17	4,402.27	3,979.23	423.04	10.406		
14,900.00	7,210.69	14,720.62	7,231.88	213.96	214.92	90.28	1,906.19	-7,667.17	4,402.07	3,973.40	428.67	10.269		
15,000.00	7,210.19	14,820.62	7,231.50	216.78	217.74	90.28	1,905.41	-7,767.16	4,401.88	3,967.57	434.31	10.135		
15,100.00	7,209.69	14,920.62	7,231.12	219.59	220.56	90.28	1,904.62	-7,867.16	4,401.69	3,961.74	439.95	10.005		
15,200.00	7,209.18	15,020.62	7,230.74	222.41	223.39	90.28	1,903.84	-7,967.15	4,401.49	3,955.90	445.59	9.878		
15,300.00	7,208.68	15,120.62	7,230.36	225.22	226.21	90.28	1,903.06	-8,067.15	4,401.30	3,950.07	451.23	9.754		
15,400.00	7,208.18	15,216.01	7,230.00	228.04	228.91	90.28	1,902.31	-8,162.54	4,401.11	3,944.36	456.74	9.636		
15,403.90	7,208.16	15,216.01	7,230.00	228.15	228.91	90.28	1,902.31	-8,162.54	4,401.11	3,944.26	456.85	9.634		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	15,216.01	7,230.00	229.10	228.91	90.28	1,902.31	-8,162.54	4,401.24	3,943.47	457.76	9.615 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	3.00	0.00	3.28	3.28	0.51	440.09	3.89	440.11					
100.00	100.00	103.00	100.00	3.28	3.29	0.51	440.09	3.89	440.11	433.54	6.57	66.986		
200.00	200.00	203.00	200.00	3.34	3.34	0.51	440.09	3.89	440.11	433.43	6.68	65.919	CC, ES	
300.00	299.98	302.98	299.98	3.44	3.45	176.88	440.09	3.89	441.85	434.96	6.89	64.138		
400.00	399.84	389.04	386.03	3.59	3.58	176.88	441.46	3.72	448.66	441.47	7.19	62.428		
500.00	499.45	474.68	471.57	3.79	3.75	176.85	445.37	3.22	461.89	454.32	7.58	60.956		
600.00	598.70	558.99	555.63	4.03	3.95	176.79	451.69	2.41	481.46	473.43	8.04	59.889		
700.00	697.47	641.50	637.69	4.31	4.17	176.71	460.25	1.31	507.24	498.69	8.55	59.305		
800.00	795.62	721.77	717.25	4.64	4.40	176.61	470.83	-0.05	539.05	529.95	9.10	59.227		
900.00	893.06	799.43	793.90	5.00	4.64	176.49	483.16	-1.63	576.69	567.02	9.67	59.638		
1,000.00	989.64	874.45	867.60	5.40	4.89	176.36	497.02	-3.40	619.92	609.67	10.25	60.489		
1,100.00	1,085.27	962.47	953.87	5.83	5.19	176.23	514.36	-5.62	667.36	656.49	10.87	61.390		
1,200.00	1,179.82	1,048.79	1,038.47	6.29	5.50	176.12	531.36	-7.80	717.84	706.31	11.53	62.272		
1,300.00	1,273.47	1,133.73	1,121.73	6.79	5.83	176.08	548.09	-9.95	770.60	758.41	12.19	63.192		
1,400.00	1,367.06	1,218.59	1,204.90	7.30	6.16	176.07	564.80	-12.09	823.50	810.64	12.87	63.993		
1,500.00	1,460.64	1,303.45	1,288.07	7.83	6.50	176.06	581.52	-14.23	876.41	862.85	13.56	64.613		
1,600.00	1,554.23	1,388.31	1,371.24	8.38	6.85	176.05	598.23	-16.37	929.31	915.04	14.28	65.090		
1,700.00	1,647.82	1,473.17	1,454.41	8.93	7.21	176.05	614.94	-18.51	982.22	967.21	15.01	65.455		
1,800.00	1,741.41	1,558.03	1,537.58	9.49	7.58	176.04	631.65	-20.65	1,035.12	1,019.38	15.75	65.730		
1,900.00	1,835.00	1,642.89	1,620.75	10.05	7.94	176.03	648.37	-22.80	1,088.03	1,071.53	16.50	65.935		
2,000.00	1,928.59	1,727.75	1,703.92	10.62	8.32	176.03	665.08	-24.94	1,140.94	1,123.67	17.27	66.083		
2,100.00	2,022.18	1,812.61	1,787.08	11.20	8.69	176.02	681.79	-27.08	1,193.84	1,175.80	18.04	66.187		
2,200.00	2,115.77	1,902.54	1,870.25	11.78	9.09	176.02	698.51	-29.22	1,246.75	1,227.91	18.84	66.179		
2,300.00	2,209.36	1,982.32	1,953.42	12.37	9.45	176.01	715.22	-31.36	1,299.65	1,280.05	19.60	66.296		
2,400.00	2,302.95	2,067.18	2,036.59	12.95	9.83	176.01	731.93	-33.50	1,352.56	1,332.16	20.40	66.315		
2,500.00	2,396.54	2,152.04	2,119.76	13.54	10.22	176.01	748.64	-35.65	1,405.46	1,384.27	21.19	66.315		
2,600.00	2,490.13	2,236.90	2,202.93	14.13	10.61	176.00	765.36	-37.79	1,458.37	1,436.37	22.00	66.301		
2,700.00	2,583.72	2,321.76	2,288.10	14.73	11.00	176.00	782.07	-39.93	1,511.27	1,488.47	22.80	66.276		
2,800.00	2,677.31	2,406.62	2,369.27	15.32	11.39	176.00	798.78	-42.07	1,564.18	1,540.56	23.61	66.242		
2,900.00	2,770.90	2,508.52	2,462.44	15.92	11.86	175.99	815.50	-44.21	1,617.08	1,592.58	24.50	65.994		
3,000.00	2,864.49	2,576.34	2,535.61	16.52	12.17	175.99	832.21	-46.35	1,669.99	1,644.74	25.24	66.154		
3,100.00	2,958.08	2,661.20	2,618.78	17.12	12.57	175.99	848.92	-48.50	1,722.89	1,696.83	26.06	66.104		
3,200.00	3,051.67	2,746.05	2,701.95	17.72	12.96	175.99	865.63	-50.64	1,775.80	1,748.91	26.89	66.050		
3,300.00	3,145.26	2,830.91	2,785.12	18.32	13.36	175.99	882.35	-52.78	1,828.70	1,800.99	27.71	65.994		
3,400.00	3,238.85	2,915.77	2,868.29	18.92	13.76	175.98	899.06	-54.92	1,881.61	1,853.07	28.54	65.936		
3,500.00	3,332.44	3,000.63	2,951.45	19.53	14.15	175.98	915.77	-57.06	1,934.51	1,905.15	29.37	65.878		
3,600.00	3,426.03	3,085.49	3,034.62	20.13	14.55	175.98	932.49	-59.20	1,987.42	1,957.22	30.20	65.818		
3,700.00	3,519.62	3,170.35	3,117.79	20.74	14.95	175.98	949.20	-61.35	2,040.32	2,009.30	31.03	65.758		
3,800.00	3,613.21	3,255.21	3,200.96	21.34	15.35	175.98	965.91	-63.49	2,093.23	2,061.37	31.86	65.699		
3,900.00	3,706.80	3,340.07	3,284.13	21.95	15.75	175.98	982.62	-65.63	2,146.13	2,113.44	32.70	65.639		
4,000.00	3,800.39	3,424.93	3,367.30	22.56	16.15	175.97	999.34	-67.77	2,199.04	2,165.51	33.53	65.580		
4,100.00	3,893.98	3,509.78	3,450.47	23.16	16.56	175.97	1,016.05	-69.91	2,251.94	2,217.57	34.37	65.521		
4,200.00	3,987.57	3,605.36	3,533.64	23.77	17.01	175.97	1,032.76	-72.05	2,304.85	2,269.59	35.26	65.371		
4,300.00	4,081.16	3,679.50	3,616.81	24.38	17.36	175.97	1,049.48	-74.20	2,357.75	2,321.71	36.05	65.406		
4,400.00	4,174.75	3,764.36	3,699.98	24.99	17.76	175.97	1,066.19	-76.34	2,410.66	2,373.77	36.89	65.349		
4,500.00	4,268.34	3,849.22	3,783.15	25.60	18.17	175.97	1,082.90	-78.48	2,463.56	2,425.83	37.73	65.293		
4,600.00	4,361.93	3,934.08	3,866.32	26.21	18.57	175.97	1,099.61	-80.62	2,516.47	2,477.90	38.57	65.238		
4,700.00	4,455.52	4,018.94	3,949.49	26.82	18.97	175.97	1,116.33	-82.76	2,569.37	2,529.96	39.42	65.185		
4,800.00	4,549.11	4,103.80	4,032.66	27.43	19.38	175.96	1,133.04	-84.90	2,622.28	2,582.02	40.26	65.132		
4,900.00	4,642.70	4,188.66	4,115.83	28.04	19.78	175.96	1,149.75	-87.05	2,675.19	2,634.08	41.11	65.080		
5,000.00	4,736.29	4,273.52	4,198.99	28.65	20.19	175.96	1,166.47	-89.19	2,728.09	2,686.14	41.95	65.029		
5,100.00	4,829.88	4,358.37	4,282.16	29.26	20.59	175.96	1,183.18	-91.33	2,781.00	2,738.20	42.80	64.978		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,443.23	4,365.33	29.87	21.00	175.96	1,199.89	-93.47	2,833.90	2,790.25	43.65	64.929		
5,300.00	5,017.06	4,528.09	4,448.50	30.48	21.40	175.96	1,216.60	-95.61	2,886.81	2,842.31	44.49	64.881		
5,400.00	5,110.65	4,612.95	4,531.67	31.09	21.81	175.96	1,233.32	-97.75	2,939.71	2,894.37	45.34	64.833		
5,500.00	5,204.24	4,702.19	4,614.84	31.70	22.24	175.96	1,250.03	-99.90	2,992.62	2,946.40	46.21	64.758		
5,600.00	5,297.83	4,782.67	4,698.01	32.32	22.62	175.96	1,266.74	-102.04	3,045.52	2,998.48	47.04	64.741		
5,700.00	5,391.42	4,867.53	4,781.18	32.93	23.03	175.96	1,283.46	-104.18	3,098.43	3,050.53	47.89	64.697		
5,800.00	5,485.01	4,952.39	4,864.35	33.54	23.43	175.96	1,300.17	-106.32	3,151.33	3,102.59	48.74	64.653		
5,900.00	5,578.60	5,037.25	4,947.52	34.15	23.84	175.96	1,316.88	-108.46	3,204.24	3,154.64	49.59	64.609		
6,000.00	5,672.19	5,122.10	5,030.69	34.77	24.25	175.96	1,333.59	-110.60	3,257.14	3,206.70	50.45	64.567		
6,100.00	5,765.78	5,206.96	5,113.86	35.38	24.65	175.95	1,350.31	-112.74	3,310.05	3,258.75	51.30	64.526		
6,200.00	5,859.37	5,308.18	5,197.03	35.99	25.14	175.95	1,367.02	-114.89	3,362.95	3,310.72	52.23	64.390		
6,300.00	5,952.96	5,376.68	5,280.20	36.60	25.47	175.95	1,383.73	-117.03	3,415.86	3,362.85	53.00	64.445		
6,400.00	6,046.55	5,461.54	5,363.36	37.22	25.87	175.95	1,400.45	-119.17	3,468.76	3,414.90	53.86	64.405		
6,500.00	6,140.14	5,546.40	5,446.53	37.83	26.28	175.95	1,417.16	-121.31	3,521.67	3,466.96	54.71	64.366		
6,600.00	6,233.73	5,631.26	5,529.70	38.44	26.69	175.95	1,433.87	-123.45	3,574.57	3,519.01	55.57	64.328		
6,700.00	6,327.32	5,716.12	5,612.87	39.06	27.10	175.95	1,450.58	-125.59	3,627.48	3,571.06	56.42	64.291		
6,800.00	6,420.91	5,800.98	5,696.04	39.67	27.50	175.95	1,467.30	-127.74	3,680.38	3,623.11	57.28	64.254		
6,900.00	6,514.50	5,885.84	5,779.21	40.28	27.91	175.95	1,484.01	-129.88	3,733.29	3,675.15	58.13	64.218		
7,000.00	6,608.09	5,970.69	5,862.38	40.90	28.32	175.95	1,500.72	-132.02	3,786.19	3,727.20	58.99	64.182		
7,100.00	6,701.63	6,055.53	5,945.53	41.51	28.73	164.30	1,517.43	-134.16	3,839.08	3,779.23	59.85	64.147		
7,200.00	6,793.85	6,139.49	6,027.81	42.10	29.13	139.36	1,533.97	-136.28	3,891.38	3,830.69	60.69	64.116		
7,300.00	6,882.50	6,220.57	6,107.28	42.64	29.52	121.31	1,549.93	-138.33	3,942.01	3,880.52	61.49	64.104		
7,400.00	6,965.41	6,303.21	6,181.98	43.12	29.92	108.65	1,564.95	-140.25	3,990.05	3,927.78	62.26	64.084		
7,500.00	7,040.53	6,366.26	6,250.07	43.53	30.22	99.56	1,578.63	-142.00	4,034.74	3,971.83	62.91	64.136		
7,600.00	7,106.00	6,427.28	6,309.87	43.89	30.52	92.86	1,590.65	-143.54	4,075.50	4,011.96	63.54	64.137		
7,700.00	7,160.23	6,478.34	6,359.91	44.20	30.76	87.86	1,600.70	-144.83	4,111.87	4,047.70	64.17	64.079		
7,800.00	7,201.86	6,518.18	6,398.97	44.48	30.95	84.11	1,608.55	-145.84	4,143.46	4,078.63	64.83	63.917		
7,900.00	7,229.88	6,545.83	6,426.07	44.73	31.09	81.35	1,613.99	-146.53	4,169.94	4,104.39	65.55	63.617		
8,000.00	7,243.60	6,560.60	6,440.54	44.99	31.16	79.44	1,616.90	-146.91	4,191.02	4,124.67	66.35	63.168		
8,100.00	7,244.73	7,644.28	7,068.78	45.29	38.29	87.60	1,738.28	-863.92	4,197.78	4,119.69	78.09	53.753		
8,200.00	7,244.23	7,744.28	7,068.50	45.74	39.69	87.60	1,737.52	-963.92	4,197.61	4,116.88	80.73	51.997		
8,300.00	7,243.73	7,844.28	7,068.21	46.38	41.23	87.60	1,736.77	-1,063.91	4,197.44	4,113.77	83.67	50.167		
8,400.00	7,243.23	7,944.28	7,067.93	47.29	42.91	87.61	1,736.02	-1,163.91	4,197.26	4,110.38	86.89	48.307		
8,500.00	7,242.73	8,044.28	7,067.64	48.46	44.72	87.61	1,735.27	-1,263.91	4,197.09	4,106.74	90.35	46.453		
8,600.00	7,242.23	8,144.28	7,067.36	49.87	46.63	87.61	1,734.51	-1,363.90	4,196.92	4,102.88	94.04	44.631		
8,700.00	7,241.73	8,244.28	7,067.07	51.48	48.63	87.62	1,733.76	-1,463.90	4,196.74	4,098.83	97.91	42.862		
8,800.00	7,241.23	8,344.28	7,066.79	53.24	50.72	87.62	1,733.01	-1,563.89	4,196.57	4,094.61	101.96	41.157		
8,900.00	7,240.73	8,444.28	7,066.50	55.13	52.88	87.62	1,732.26	-1,663.89	4,196.40	4,090.23	106.17	39.526		
9,000.00	7,240.23	8,544.27	7,066.22	57.11	55.10	87.62	1,731.50	-1,763.89	4,196.22	4,085.72	110.51	37.972		
9,100.00	7,239.73	8,644.27	7,065.93	59.19	57.38	87.63	1,730.75	-1,863.88	4,196.05	4,081.08	114.97	36.498		
9,200.00	7,239.23	8,744.27	7,065.65	61.34	59.71	87.63	1,730.00	-1,963.88	4,195.88	4,076.35	119.53	35.102		
9,300.00	7,238.72	8,844.27	7,065.37	63.55	62.08	87.63	1,729.25	-2,063.88	4,195.71	4,071.51	124.19	33.784		
9,400.00	7,238.22	8,944.27	7,065.08	65.81	64.49	87.64	1,728.49	-2,163.87	4,195.53	4,066.59	128.94	32.539		
9,500.00	7,237.72	9,044.27	7,064.80	68.13	66.94	87.64	1,727.74	-2,263.87	4,195.36	4,061.60	133.76	31.365		
9,600.00	7,237.22	9,144.27	7,064.51	70.48	69.42	87.64	1,726.99	-2,363.87	4,195.19	4,056.54	138.65	30.257		
9,700.00	7,236.72	9,244.27	7,064.23	72.88	71.93	87.64	1,726.24	-2,463.86	4,195.01	4,051.41	143.60	29.213		
9,800.00	7,236.22	9,344.27	7,063.94	75.31	74.46	87.65	1,725.48	-2,563.86	4,194.84	4,046.24	148.60	28.228		
9,900.00	7,235.72	9,444.27	7,063.66	77.77	77.02	87.65	1,724.73	-2,663.86	4,194.67	4,041.01	153.66	27.298		
10,000.00	7,235.22	9,544.27	7,063.37	80.26	79.60	87.65	1,723.98	-2,763.85	4,194.49	4,035.74	158.76	26.421		
10,100.00	7,234.72	9,644.27	7,063.09	82.77	82.19	87.66	1,723.23	-2,863.85	4,194.32	4,030.42	163.90	25.591		
10,200.00	7,234.22	9,744.27	7,062.80	85.31	84.80	87.66	1,722.47	-2,963.84	4,194.15	4,025.07	169.07	24.806		
10,300.00	7,233.72	9,844.27	7,062.52	87.86	87.43	87.66	1,721.72	-3,063.84	4,193.98	4,019.69	174.28	24.064		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	9,944.27	7,062.23	90.44	90.07	87.66	1,720.97	-3,163.84	4,193.80	4,014.28	179.53	23.360		
10,500.00	7,232.72	10,044.27	7,061.95	93.03	92.73	87.67	1,720.22	-3,263.83	4,193.63	4,008.83	184.79	22.693		
10,600.00	7,232.22	10,144.27	7,061.66	95.64	95.39	87.67	1,719.46	-3,363.83	4,193.46	4,003.37	190.09	22.060		
10,700.00	7,231.72	10,244.27	7,061.38	98.26	98.07	87.67	1,718.71	-3,463.83	4,193.28	3,997.88	195.41	21.459		
10,800.00	7,231.21	10,344.27	7,061.09	100.89	100.76	87.68	1,717.96	-3,563.82	4,193.11	3,992.36	200.75	20.887		
10,900.00	7,230.71	10,444.27	7,060.81	103.54	103.45	87.68	1,717.21	-3,663.82	4,192.94	3,986.83	206.11	20.343		
11,000.00	7,230.21	10,544.27	7,060.52	106.20	106.16	87.68	1,716.45	-3,763.82	4,192.76	3,981.28	211.49	19.825		
11,100.00	7,229.71	10,644.27	7,060.24	108.87	108.87	87.68	1,715.70	-3,863.81	4,192.59	3,975.71	216.88	19.331		
11,200.00	7,229.21	10,744.27	7,059.95	111.54	111.59	87.69	1,714.95	-3,963.81	4,192.42	3,970.12	222.29	18.860		
11,300.00	7,228.71	10,844.27	7,059.67	114.23	114.32	87.69	1,714.20	-4,063.80	4,192.25	3,964.53	227.72	18.410		
11,400.00	7,228.21	10,944.27	7,059.39	116.92	117.05	87.69	1,713.44	-4,163.80	4,192.07	3,958.91	233.16	17.979		
11,500.00	7,227.71	11,044.27	7,059.10	119.63	119.79	87.70	1,712.69	-4,263.80	4,191.90	3,953.29	238.61	17.568		
11,600.00	7,227.21	11,144.27	7,058.82	122.34	122.54	87.70	1,711.94	-4,363.79	4,191.73	3,947.65	244.08	17.174		
11,700.00	7,226.71	11,244.27	7,058.53	125.05	125.28	87.70	1,711.19	-4,463.79	4,191.56	3,942.00	249.56	16.796		
11,800.00	7,226.21	11,344.26	7,058.25	127.78	128.04	87.70	1,710.44	-4,563.79	4,191.38	3,936.34	255.04	16.434		
11,900.00	7,225.71	11,444.26	7,057.96	130.51	130.80	87.71	1,709.68	-4,663.78	4,191.21	3,930.67	260.54	16.087		
12,000.00	7,225.21	11,544.26	7,057.68	133.24	133.56	87.71	1,708.93	-4,763.78	4,191.04	3,924.99	266.05	15.753		
12,100.00	7,224.71	11,644.26	7,057.39	135.98	136.33	87.71	1,708.18	-4,863.78	4,190.86	3,919.30	271.56	15.433		
12,200.00	7,224.21	11,744.26	7,057.11	138.72	139.10	87.72	1,707.43	-4,963.77	4,190.69	3,913.61	277.08	15.124		
12,300.00	7,223.70	11,844.26	7,056.82	141.47	141.87	87.72	1,706.67	-5,063.77	4,190.52	3,907.91	282.61	14.828		
12,400.00	7,223.20	11,944.26	7,056.54	144.23	144.65	87.72	1,705.92	-5,163.76	4,190.35	3,902.20	288.15	14.542		
12,500.00	7,222.70	12,044.26	7,056.25	146.98	147.43	87.72	1,705.17	-5,263.76	4,190.17	3,896.48	293.69	14.267		
12,600.00	7,222.20	12,144.26	7,055.97	149.74	150.21	87.73	1,704.42	-5,363.76	4,190.00	3,890.76	299.25	14.002		
12,700.00	7,221.70	12,244.26	7,055.68	152.51	153.00	87.73	1,703.66	-5,463.75	4,189.83	3,885.03	304.80	13.746		
12,800.00	7,221.20	12,344.26	7,055.40	155.28	155.79	87.73	1,702.91	-5,563.75	4,189.66	3,879.29	310.36	13.499		
12,900.00	7,220.70	12,444.26	7,055.11	158.05	158.58	87.74	1,702.16	-5,663.75	4,189.48	3,873.55	315.93	13.261		
13,000.00	7,220.20	12,544.26	7,054.83	160.82	161.37	87.74	1,701.41	-5,763.74	4,189.31	3,867.80	321.51	13.030		
13,100.00	7,219.70	12,644.26	7,054.54	163.60	164.17	87.74	1,700.65	-5,863.74	4,189.14	3,862.05	327.08	12.808		
13,200.00	7,219.20	12,744.26	7,054.26	166.38	166.97	87.74	1,699.90	-5,963.74	4,188.96	3,856.30	332.67	12.592		
13,300.00	7,218.70	12,844.26	7,053.97	169.16	169.77	87.75	1,699.15	-6,063.73	4,188.79	3,850.54	338.25	12.384		
13,400.00	7,218.20	12,944.26	7,053.69	171.95	172.57	87.75	1,698.40	-6,163.73	4,188.62	3,844.77	343.84	12.182		
13,500.00	7,217.70	13,044.26	7,053.41	174.74	175.37	87.75	1,697.64	-6,263.73	4,188.45	3,839.01	349.44	11.986		
13,600.00	7,217.20	13,144.26	7,053.12	177.53	178.18	87.76	1,696.89	-6,363.72	4,188.27	3,833.24	355.04	11.797		
13,700.00	7,216.70	13,244.26	7,052.84	180.32	180.98	87.76	1,696.14	-6,463.72	4,188.10	3,827.46	360.64	11.613		
13,800.00	7,216.19	13,344.26	7,052.55	183.11	183.79	87.76	1,695.39	-6,563.71	4,187.93	3,821.68	366.25	11.435		
13,900.00	7,215.69	13,444.26	7,052.27	185.91	186.60	87.76	1,694.63	-6,663.71	4,187.76	3,815.90	371.86	11.262		
14,000.00	7,215.19	13,544.26	7,051.98	188.71	189.41	87.77	1,693.88	-6,763.71	4,187.58	3,810.11	377.47	11.094		
14,100.00	7,214.69	13,644.26	7,051.70	191.51	192.23	87.77	1,693.13	-6,863.70	4,187.41	3,804.33	383.09	10.931		
14,200.00	7,214.19	13,744.26	7,051.41	194.31	195.04	87.77	1,692.38	-6,963.70	4,187.24	3,798.53	388.70	10.772		
14,300.00	7,213.69	13,844.26	7,051.13	197.11	197.86	87.78	1,691.62	-7,063.70	4,187.07	3,792.74	394.33	10.618		
14,400.00	7,213.19	13,944.26	7,050.84	199.92	200.67	87.78	1,690.87	-7,163.69	4,186.89	3,786.94	399.95	10.469		
14,500.00	7,212.69	14,044.25	7,050.56	202.72	203.49	87.78	1,690.12	-7,263.69	4,186.72	3,781.14	405.58	10.323		
14,600.00	7,212.19	14,144.25	7,050.27	205.53	206.31	87.78	1,689.37	-7,363.69	4,186.55	3,775.34	411.21	10.181		
14,700.00	7,211.69	14,244.25	7,049.99	208.34	209.13	87.79	1,688.61	-7,463.68	4,186.38	3,769.54	416.84	10.043		
14,800.00	7,211.19	14,344.25	7,049.70	211.15	211.95	87.79	1,687.86	-7,563.68	4,186.20	3,763.73	422.47	9.909		
14,900.00	7,210.69	14,444.25	7,049.42	213.96	214.77	87.79	1,687.11	-7,663.67	4,186.03	3,757.93	428.11	9.778		
15,000.00	7,210.19	14,544.25	7,049.13	216.78	217.60	87.80	1,686.36	-7,763.67	4,185.86	3,752.11	433.74	9.651		
15,100.00	7,209.69	14,644.25	7,048.85	219.59	220.42	87.80	1,685.60	-7,863.67	4,185.69	3,746.30	439.38	9.526		
15,200.00	7,209.18	14,744.25	7,048.56	222.41	223.25	87.80	1,684.85	-7,963.66	4,185.51	3,740.49	445.03	9.405		
15,300.00	7,208.68	14,844.25	7,048.28	225.22	226.07	87.80	1,684.10	-8,063.66	4,185.34	3,734.67	450.67	9.287		
15,400.00	7,208.18	14,944.25	7,047.99	228.04	228.90	87.81	1,683.35	-8,163.66	4,185.17	3,728.85	456.31	9.172		
15,402.36	7,208.17	14,946.61	7,047.99	228.11	228.96	87.81	1,683.33	-8,166.01	4,185.16	3,728.72	456.45	9.169		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30N-16B-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	14,942.37	7,048.00	229.10	228.85	87.81	1,683.36	-8,161.78	4,185.29	3,728.01	457.28	9.153 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 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	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	301.98	299.98	3.44	3.45	176.86	359.94	3.06	361.69	354.81	6.89	52.513		
400.00	399.84	401.84	399.84	3.59	3.61	176.90	359.94	3.06	366.92	359.72	7.20	50.969		
500.00	499.45	501.45	499.45	3.79	3.81	176.97	359.94	3.06	375.62	368.02	7.60	49.413		
600.00	598.70	600.70	598.70	4.03	4.05	177.05	359.94	3.06	387.79	379.71	8.08	47.979		
700.00	697.47	698.08	697.07	4.31	4.28	177.05	361.18	2.53	404.82	396.21	8.60	47.059		
800.00	795.62	773.92	771.82	4.64	4.54	176.93	364.80	1.01	427.97	418.80	9.17	46.678		
900.00	893.06	867.90	865.59	5.00	4.83	176.72	370.44	-1.38	456.22	446.42	9.79	46.594		
1,000.00	989.64	962.76	960.25	5.40	5.14	176.55	376.18	-3.80	487.83	477.37	10.45	46.666		
1,100.00	1,085.27	1,056.46	1,053.75	5.83	5.47	176.42	381.84	-6.19	522.72	511.58	11.14	46.909		
1,200.00	1,179.82	1,148.90	1,145.98	6.29	5.80	176.31	387.42	-8.55	560.87	549.01	11.86	47.299		
1,300.00	1,273.47	1,240.29	1,237.18	6.79	6.13	176.26	392.94	-10.88	601.46	588.87	12.59	47.779		
1,400.00	1,367.06	1,331.61	1,328.30	7.30	6.48	176.24	398.46	-13.21	642.20	628.88	13.33	48.189		
1,500.00	1,460.64	1,422.93	1,419.43	7.83	6.83	176.22	403.97	-15.54	682.95	668.87	14.08	48.492		
1,600.00	1,554.23	1,514.25	1,510.55	8.38	7.18	176.20	409.49	-17.87	723.70	708.84	14.86	48.712		
1,700.00	1,647.82	1,605.57	1,601.68	8.93	7.55	176.18	415.01	-20.20	764.44	748.80	15.64	48.869		
1,800.00	1,741.41	1,703.10	1,699.80	9.49	7.94	176.17	420.52	-22.53	805.19	788.72	16.47	48.902		
1,900.00	1,835.00	1,788.22	1,783.93	10.05	8.28	176.15	426.04	-24.86	845.94	828.69	17.25	49.047		
2,000.00	1,928.59	1,879.54	1,875.05	10.62	8.65	176.14	431.56	-27.19	886.68	868.62	18.06	49.087		
2,100.00	2,022.18	1,970.86	1,966.18	11.20	9.03	176.13	437.07	-29.52	927.43	908.54	18.89	49.105		
2,200.00	2,115.77	2,062.18	2,057.31	11.78	9.40	176.12	442.59	-31.85	968.18	948.46	19.72	49.106		
2,300.00	2,209.36	2,153.50	2,148.43	12.37	9.78	176.11	448.11	-34.18	1,008.92	988.37	20.55	49.093		
2,400.00	2,302.95	2,244.83	2,239.56	12.95	10.16	176.10	453.62	-36.51	1,049.67	1,028.28	21.39	49.070		
2,500.00	2,396.54	2,336.15	2,330.68	13.54	10.55	176.09	459.14	-38.84	1,090.42	1,068.18	22.24	49.038		
2,600.00	2,490.13	2,427.47	2,421.81	14.13	10.93	176.08	464.66	-41.17	1,131.17	1,108.08	23.08	49.001		
2,700.00	2,583.72	2,518.79	2,512.93	14.73	11.32	176.08	470.17	-43.50	1,171.91	1,147.98	23.94	48.959		
2,800.00	2,677.31	2,610.11	2,604.06	15.32	11.70	176.07	475.69	-45.83	1,212.66	1,187.87	24.79	48.914		
2,900.00	2,770.90	2,701.43	2,695.18	15.92	12.09	176.06	481.21	-48.16	1,253.41	1,227.76	25.65	48.866		
3,000.00	2,864.49	2,807.24	2,786.31	16.52	12.54	176.06	486.72	-50.49	1,294.15	1,267.58	26.57	48.703		
3,100.00	2,958.08	2,884.08	2,877.43	17.12	12.87	176.05	492.24	-52.82	1,334.90	1,307.53	27.37	48.767		
3,200.00	3,051.67	2,975.40	2,968.56	17.72	13.26	176.05	497.76	-55.16	1,375.65	1,347.41	28.24	48.716		
3,300.00	3,145.26	3,066.72	3,059.68	18.32	13.66	176.04	503.27	-57.49	1,416.40	1,387.29	29.10	48.665		
3,400.00	3,238.85	3,158.04	3,150.81	18.92	14.05	176.04	508.79	-59.82	1,457.14	1,427.17	29.97	48.614		
3,500.00	3,332.44	3,249.37	3,241.93	19.53	14.44	176.03	514.31	-62.15	1,497.89	1,467.05	30.84	48.564		
3,600.00	3,426.03	3,340.69	3,333.06	20.13	14.84	176.03	519.82	-64.48	1,538.64	1,506.92	31.72	48.514		
3,700.00	3,519.62	3,432.01	3,424.18	20.74	15.23	176.02	525.34	-66.81	1,579.38	1,546.80	32.59	48.464		
3,800.00	3,613.21	3,523.33	3,515.31	21.34	15.62	176.02	530.86	-69.14	1,620.13	1,586.67	33.46	48.416		
3,900.00	3,706.80	3,614.65	3,606.43	21.95	16.02	176.02	536.37	-71.47	1,660.88	1,626.54	34.34	48.368		
4,000.00	3,800.39	3,705.97	3,697.56	22.56	16.42	176.01	541.89	-73.80	1,701.63	1,666.41	35.21	48.321		
4,100.00	3,893.98	3,802.70	3,788.68	23.16	16.84	176.01	547.41	-76.13	1,742.37	1,706.26	36.12	48.244		
4,200.00	3,987.57	3,888.62	3,879.81	23.77	17.21	176.01	552.92	-78.46	1,783.12	1,746.15	36.97	48.230		
4,300.00	4,081.16	3,979.94	3,970.93	24.38	17.61	176.00	558.44	-80.79	1,823.87	1,786.02	37.85	48.186		
4,400.00	4,174.75	4,071.26	4,062.06	24.99	18.00	176.00	563.96	-83.12	1,864.61	1,825.88	38.73	48.143		
4,500.00	4,268.34	4,162.58	4,153.18	25.60	18.40	176.00	569.47	-85.45	1,905.36	1,865.75	39.61	48.101		
4,600.00	4,361.93	4,253.90	4,244.31	26.21	18.80	176.00	574.99	-87.78	1,946.11	1,905.62	40.49	48.060		
4,700.00	4,455.52	4,345.23	4,335.43	26.82	19.20	175.99	580.51	-90.11	1,986.86	1,945.48	41.38	48.020		
4,800.00	4,549.11	4,436.55	4,426.56	27.43	19.59	175.99	586.02	-92.44	2,027.60	1,985.34	42.26	47.980		
4,900.00	4,642.70	4,527.87	4,517.68	28.04	19.99	175.99	591.54	-94.77	2,068.35	2,025.21	43.14	47.942		
5,000.00	4,736.29	4,619.19	4,608.81	28.65	20.39	175.99	597.06	-97.10	2,109.10	2,065.07	44.03	47.905		
5,100.00	4,829.88	4,710.51	4,699.94	29.26	20.79	175.99	602.57	-99.43	2,149.84	2,104.93	44.91	47.868		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 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	4,923.47	4,801.84	4,791.06	29.87	21.19	175.98	608.09	-101.76	2,190.59	2,144.79	45.80	47.832		
5,300.00	5,017.06	4,906.84	4,882.19	30.48	21.65	175.98	613.61	-104.09	2,231.34	2,184.60	46.74	47.736		
5,400.00	5,110.65	4,984.48	4,973.31	31.09	21.99	175.98	619.12	-106.42	2,272.09	2,224.52	47.57	47.763		
5,500.00	5,204.24	5,075.80	5,064.44	31.70	22.39	175.98	624.64	-108.75	2,312.83	2,264.38	48.46	47.730		
5,600.00	5,297.83	5,167.12	5,155.56	32.32	22.79	175.98	630.16	-111.08	2,353.58	2,304.24	49.34	47.697		
5,700.00	5,391.42	5,258.44	5,246.69	32.93	23.19	175.97	635.67	-113.41	2,394.33	2,344.10	50.23	47.666		
5,800.00	5,485.01	5,349.77	5,337.81	33.54	23.59	175.97	641.19	-115.74	2,435.08	2,383.96	51.12	47.635		
5,900.00	5,578.60	5,441.09	5,428.94	34.15	23.99	175.97	646.71	-118.07	2,475.82	2,423.81	52.01	47.604		
6,000.00	5,672.19	5,532.41	5,520.06	34.77	24.39	175.97	652.22	-120.40	2,516.57	2,463.67	52.90	47.575		
6,100.00	5,765.78	5,623.73	5,611.19	35.38	24.79	175.97	657.74	-122.73	2,557.32	2,503.53	53.79	47.545		
6,200.00	5,859.37	5,715.05	5,702.31	35.99	25.19	175.97	663.26	-125.06	2,598.06	2,543.39	54.68	47.517		
6,300.00	5,952.96	5,806.37	5,793.44	36.60	25.59	175.97	668.77	-127.39	2,638.81	2,583.24	55.57	47.489		
6,400.00	6,046.55	5,897.70	5,884.56	37.22	25.99	175.96	674.29	-129.72	2,679.56	2,623.10	56.46	47.462		
6,500.00	6,140.14	5,989.02	5,975.69	37.83	26.39	175.96	679.81	-132.05	2,720.31	2,662.96	57.35	47.435		
6,600.00	6,233.73	6,080.34	6,066.81	38.44	26.80	175.96	685.32	-134.38	2,761.05	2,702.81	58.24	47.409		
6,700.00	6,327.32	6,171.66	6,157.94	39.06	27.20	175.96	690.84	-136.71	2,801.80	2,742.67	59.13	47.383		
6,800.00	6,420.91	6,262.98	6,249.06	39.67	27.60	175.96	696.36	-139.04	2,842.55	2,782.53	60.02	47.358		
6,900.00	6,514.50	6,354.30	6,340.19	40.28	28.00	175.96	701.87	-141.37	2,883.29	2,822.38	60.91	47.334		
7,000.00	6,608.09	6,445.63	6,431.31	40.90	28.40	175.96	707.39	-143.70	2,924.04	2,862.24	61.81	47.310		
7,100.00	6,701.63	6,536.93	6,522.42	41.51	28.80	164.95	712.91	-146.03	2,964.77	2,902.07	62.70	47.286		
7,200.00	6,793.85	6,627.27	6,612.56	42.10	29.20	141.61	718.36	-148.34	3,005.06	2,941.48	63.58	47.265		
7,300.00	6,882.50	6,716.82	6,701.69	42.64	29.60	125.02	723.78	-154.47	3,044.12	2,979.68	64.44	47.240		
7,400.00	6,965.41	6,810.47	6,793.04	43.12	30.01	113.54	729.41	-173.90	3,081.12	3,015.80	65.32	47.168		
7,500.00	7,040.53	6,909.71	6,885.61	43.53	30.45	105.44	735.21	-208.89	3,115.19	3,048.94	66.25	47.020		
7,600.00	7,106.00	7,015.93	6,977.39	43.89	30.94	99.64	741.06	-261.79	3,145.51	3,078.24	67.27	46.757		
7,700.00	7,160.23	7,130.42	7,064.99	44.20	31.51	95.51	746.79	-335.04	3,171.29	3,102.82	68.46	46.322		
7,800.00	7,201.86	7,254.05	7,143.24	44.48	32.25	92.69	752.07	-430.37	3,191.78	3,121.85	69.93	45.645		
7,900.00	7,229.88	7,386.82	7,205.11	44.73	33.26	90.96	756.50	-547.49	3,206.35	3,134.54	71.81	44.651		
8,000.00	7,243.60	7,527.30	7,242.71	44.99	34.64	90.16	759.56	-682.51	3,214.46	3,140.27	74.19	43.328		
8,100.00	7,244.73	7,659.89	7,250.90	45.29	36.21	90.11	760.84	-814.65	3,216.60	3,139.74	76.85	41.854		
8,200.00	7,244.23	7,759.89	7,250.53	45.74	37.58	90.11	761.40	-914.64	3,217.75	3,138.32	79.43	40.509		
8,300.00	7,243.73	7,859.88	7,250.17	46.38	39.11	90.11	761.97	-1,014.63	3,218.91	3,136.59	82.32	39.101		
8,400.00	7,243.23	7,959.87	7,249.80	47.29	40.78	90.11	762.54	-1,114.62	3,220.06	3,134.57	85.50	37.663		
8,500.00	7,242.73	8,059.87	7,249.43	48.46	42.57	90.12	763.10	-1,214.61	3,221.22	3,132.29	88.93	36.224		
8,600.00	7,242.23	8,159.86	7,249.07	49.87	44.48	90.12	763.67	-1,314.61	3,222.37	3,129.79	92.58	34.806		
8,700.00	7,241.73	8,259.85	7,248.70	51.48	46.48	90.12	764.24	-1,414.60	3,223.53	3,127.09	96.44	33.426		
8,800.00	7,241.23	8,359.85	7,248.33	53.24	48.57	90.12	764.80	-1,514.59	3,224.68	3,124.21	100.47	32.096		
8,900.00	7,240.73	8,459.84	7,247.97	55.13	50.74	90.13	765.37	-1,614.58	3,225.84	3,121.18	104.66	30.822		
9,000.00	7,240.23	8,559.83	7,247.60	57.11	52.97	90.13	765.94	-1,714.57	3,226.99	3,118.00	108.99	29.608		
9,100.00	7,239.73	8,659.83	7,247.24	59.19	55.26	90.13	766.51	-1,814.56	3,228.15	3,114.71	113.44	28.456		
9,200.00	7,239.23	8,759.82	7,246.87	61.34	57.60	90.13	767.07	-1,914.55	3,229.31	3,111.30	118.01	27.366		
9,300.00	7,238.72	8,859.81	7,246.50	63.55	59.99	90.13	767.64	-2,014.54	3,230.46	3,107.80	122.66	26.336		
9,400.00	7,238.22	8,959.81	7,246.14	65.81	62.42	90.14	768.21	-2,114.53	3,231.62	3,104.21	127.41	25.364		
9,500.00	7,237.72	9,059.80	7,245.77	68.13	64.88	90.14	768.77	-2,214.52	3,232.77	3,100.54	132.23	24.448		
9,600.00	7,237.22	9,159.79	7,245.40	70.48	67.37	90.14	769.34	-2,314.52	3,233.93	3,096.80	137.12	23.584		
9,700.00	7,236.72	9,259.79	7,245.04	72.88	69.90	90.14	769.91	-2,414.51	3,235.08	3,093.01	142.08	22.770		
9,800.00	7,236.22	9,359.78	7,244.67	75.31	72.44	90.15	770.47	-2,514.50	3,236.24	3,089.15	147.09	22.002		
9,900.00	7,235.72	9,459.77	7,244.31	77.77	75.01	90.15	771.04	-2,614.49	3,237.39	3,085.25	152.14	21.278		
10,000.00	7,235.22	9,559.77	7,243.94	80.26	77.60	90.15	771.61	-2,714.48	3,238.55	3,081.30	157.25	20.595		
10,100.00	7,234.72	9,659.76	7,243.57	82.77	80.21	90.15	772.17	-2,814.47	3,239.70	3,077.31	162.39	19.950		
10,200.00	7,234.22	9,759.75	7,243.21	85.31	82.84	90.16	772.74	-2,914.46	3,240.86	3,073.28	167.58	19.340		
10,300.00	7,233.72	9,859.75	7,242.84	87.86	85.48	90.16	773.31	-3,014.45	3,242.01	3,069.22	172.79	18.762		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 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	7,233.22	9,959.74	7,242.48	90.44	88.14	90.16	773.87	-3,114.44	3,243.17	3,065.13	178.04	18.216		
10,500.00	7,232.72	10,059.73	7,242.11	93.03	90.80	90.16	774.44	-3,214.43	3,244.33	3,061.01	183.32	17.698		
10,600.00	7,232.22	10,159.73	7,241.74	95.64	93.48	90.16	775.01	-3,314.43	3,245.48	3,056.86	188.62	17.207		
10,700.00	7,231.72	10,259.72	7,241.38	98.26	96.17	90.17	775.57	-3,414.42	3,246.64	3,052.69	193.94	16.740		
10,800.00	7,231.21	10,359.71	7,241.01	100.89	98.87	90.17	776.14	-3,514.41	3,247.79	3,048.50	199.29	16.297		
10,900.00	7,230.71	10,459.71	7,240.64	103.54	101.58	90.17	776.71	-3,614.40	3,248.95	3,044.29	204.66	15.875		
11,000.00	7,230.21	10,559.70	7,240.28	106.20	104.30	90.17	777.27	-3,714.39	3,250.10	3,040.06	210.05	15.473		
11,100.00	7,229.71	10,659.69	7,239.91	108.87	107.02	90.18	777.84	-3,814.38	3,251.26	3,035.81	215.45	15.091		
11,200.00	7,229.21	10,759.69	7,239.55	111.54	109.75	90.18	778.41	-3,914.37	3,252.41	3,031.55	220.87	14.726		
11,300.00	7,228.71	10,859.68	7,239.18	114.23	112.49	90.18	778.98	-4,014.36	3,253.57	3,027.27	226.30	14.377		
11,400.00	7,228.21	10,959.67	7,238.81	116.92	115.23	90.18	779.54	-4,114.35	3,254.72	3,022.97	231.75	14.044		
11,500.00	7,227.71	11,059.67	7,238.45	119.63	117.98	90.19	780.11	-4,214.34	3,255.88	3,018.67	237.21	13.726		
11,600.00	7,227.21	11,159.66	7,238.08	122.34	120.74	90.19	780.68	-4,314.33	3,257.04	3,014.35	242.68	13.421		
11,700.00	7,226.71	11,259.65	7,237.72	125.05	123.50	90.19	781.24	-4,414.33	3,258.19	3,010.02	248.17	13.129		
11,800.00	7,226.21	11,359.64	7,237.35	127.78	126.26	90.19	781.81	-4,514.32	3,259.35	3,005.68	253.66	12.849		
11,900.00	7,225.71	11,459.64	7,236.98	130.51	129.03	90.19	782.38	-4,614.31	3,260.50	3,001.34	259.17	12.581		
12,000.00	7,225.21	11,559.63	7,236.62	133.24	131.80	90.20	782.94	-4,714.30	3,261.66	2,996.98	264.68	12.323		
12,100.00	7,224.71	11,659.62	7,236.25	135.98	134.58	90.20	783.51	-4,814.29	3,262.81	2,992.61	270.20	12.075		
12,200.00	7,224.21	11,759.62	7,235.88	138.72	137.36	90.20	784.08	-4,914.28	3,263.97	2,988.24	275.73	11.837		
12,300.00	7,223.70	11,859.61	7,235.52	141.47	140.14	90.20	784.64	-5,014.27	3,265.12	2,983.85	281.27	11.608		
12,400.00	7,223.20	11,959.60	7,235.15	144.23	142.93	90.21	785.21	-5,114.26	3,266.28	2,979.46	286.82	11.388		
12,500.00	7,222.70	12,059.60	7,234.79	146.98	145.72	90.21	785.78	-5,214.25	3,267.43	2,975.07	292.37	11.176		
12,600.00	7,222.20	12,159.59	7,234.42	149.74	148.51	90.21	786.34	-5,314.24	3,268.59	2,970.67	297.93	10.971		
12,700.00	7,221.70	12,259.58	7,234.05	152.51	151.30	90.21	786.91	-5,414.24	3,269.75	2,966.26	303.49	10.774		
12,800.00	7,221.20	12,359.58	7,233.69	155.28	154.10	90.22	787.48	-5,514.23	3,270.90	2,961.84	309.06	10.583		
12,900.00	7,220.70	12,459.57	7,233.32	158.05	156.90	90.22	788.04	-5,614.22	3,272.06	2,957.42	314.63	10.400		
13,000.00	7,220.20	12,559.56	7,232.96	160.82	159.70	90.22	788.61	-5,714.21	3,273.21	2,953.00	320.21	10.222		
13,100.00	7,219.70	12,659.56	7,232.59	163.60	162.50	90.22	789.18	-5,814.20	3,274.37	2,948.57	325.80	10.050		
13,200.00	7,219.20	12,759.55	7,232.22	166.38	165.31	90.22	789.74	-5,914.19	3,275.52	2,944.13	331.39	9.884		
13,300.00	7,218.70	12,859.54	7,231.86	169.16	168.12	90.23	790.31	-6,014.18	3,276.68	2,939.69	336.98	9.724		
13,400.00	7,218.20	12,959.54	7,231.49	171.95	170.93	90.23	790.88	-6,114.17	3,277.83	2,935.25	342.58	9.568		
13,500.00	7,217.70	13,059.53	7,231.12	174.74	173.74	90.23	791.45	-6,214.16	3,278.99	2,930.80	348.19	9.417		
13,600.00	7,217.20	13,159.52	7,230.76	177.53	176.55	90.23	792.01	-6,314.15	3,280.15	2,926.35	353.79	9.271		
13,700.00	7,216.70	13,259.52	7,230.39	180.32	179.36	90.24	792.58	-6,414.15	3,281.30	2,921.90	359.40	9.130		
13,800.00	7,216.19	13,359.51	7,230.03	183.11	182.18	90.24	793.15	-6,514.14	3,282.46	2,917.44	365.02	8.993		
13,900.00	7,215.69	13,459.50	7,229.66	185.91	185.00	90.24	793.71	-6,614.13	3,283.61	2,912.98	370.63	8.859		
14,000.00	7,215.19	13,559.50	7,229.29	188.71	187.82	90.24	794.28	-6,714.12	3,284.77	2,908.52	376.25	8.730		
14,100.00	7,214.69	13,659.49	7,228.93	191.51	190.64	90.24	794.85	-6,814.11	3,285.92	2,904.05	381.87	8.605		
14,200.00	7,214.19	13,759.48	7,228.56	194.31	193.46	90.25	795.41	-6,914.10	3,287.08	2,899.58	387.50	8.483		
14,300.00	7,213.69	13,859.48	7,228.19	197.11	196.28	90.25	795.98	-7,014.09	3,288.23	2,895.11	393.13	8.364		
14,400.00	7,213.19	13,959.47	7,227.83	199.92	199.10	90.25	796.55	-7,114.08	3,289.39	2,890.63	398.76	8.249		
14,500.00	7,212.69	14,059.46	7,227.46	202.72	201.93	90.25	797.11	-7,214.07	3,290.55	2,886.15	404.39	8.137		
14,600.00	7,212.19	14,159.46	7,227.10	205.53	204.75	90.26	797.68	-7,314.06	3,291.70	2,881.67	410.03	8.028		
14,700.00	7,211.69	14,259.45	7,226.73	208.34	207.58	90.26	798.25	-7,414.05	3,292.86	2,877.19	415.67	7.922		
14,800.00	7,211.19	14,359.44	7,226.36	211.15	210.41	90.26	798.81	-7,514.05	3,294.01	2,872.71	421.31	7.819		
14,900.00	7,210.69	14,459.44	7,226.00	213.96	213.24	90.26	799.38	-7,614.04	3,295.17	2,868.22	426.95	7.718		
15,000.00	7,210.19	14,559.43	7,225.63	216.78	216.07	90.27	799.95	-7,714.03	3,296.32	2,863.73	432.59	7.620		
15,100.00	7,209.69	14,659.42	7,225.27	219.59	218.90	90.27	800.51	-7,814.02	3,297.48	2,859.24	438.24	7.524		
15,200.00	7,209.18	14,759.41	7,224.90	222.41	221.73	90.27	801.08	-7,914.01	3,298.64	2,854.75	443.89	7.431		
15,300.00	7,208.68	14,859.41	7,224.53	225.22	224.56	90.27	801.65	-8,014.00	3,299.79	2,850.25	449.54	7.340		
15,400.00	7,208.18	14,959.40	7,224.17	228.04	227.39	90.27	802.22	-8,113.99	3,300.95	2,845.75	455.19	7.252		
15,437.48	7,208.00	14,996.88	7,224.03	229.10	228.45	90.27	802.43	-8,151.47	3,301.38	2,844.07	457.31	7.219 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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.53	60.11	0.56	60.11					
100.00	100.00	101.00	100.00	3.28	3.28	0.53	60.11	0.56	60.11	53.54	6.57	9.150		
200.00	200.00	201.02	200.02	3.34	3.34	0.53	60.11	0.56	60.11	53.44	6.67	9.006		
300.00	299.98	303.16	302.14	3.44	3.44	176.86	58.26	0.40	60.04	53.15	6.89	8.709		
400.00	399.84	405.29	404.11	3.59	3.60	176.75	52.78	-0.05	59.90	52.68	7.23	8.290		
500.00	499.45	507.41	505.83	3.79	3.81	176.56	43.69	-0.81	59.69	52.03	7.66	7.790		
600.00	598.70	609.53	607.14	4.03	4.06	176.31	30.99	-1.87	59.41	51.23	8.19	7.258		
700.00	697.47	711.63	707.92	4.31	4.35	175.98	14.70	-3.22	59.07	50.29	8.78	6.725		
800.00	795.62	813.72	808.04	4.64	4.69	175.57	-5.15	-4.87	58.66	49.22	9.44	6.214		
900.00	893.06	915.79	907.36	5.00	5.06	175.08	-28.54	-6.82	58.19	48.05	10.14	5.737		
990.16	980.18	1,007.47	995.83	5.36	5.43	174.57	-52.51	-8.81	57.75	46.95	10.81	5.344 CC		
1,000.00	989.64	1,017.31	1,005.30	5.40	5.47	174.52	-55.18	-9.03	57.77	46.89	10.88	5.311 ES		
1,100.00	1,085.27	1,117.29	1,101.48	5.83	5.90	174.20	-82.37	-11.29	59.85	48.22	11.63	5.148		
1,200.00	1,179.82	1,217.13	1,197.53	6.29	6.34	174.21	-109.52	-13.55	65.40	52.98	12.42	5.267		
1,300.00	1,273.47	1,316.79	1,293.41	6.79	6.81	174.44	-136.62	-15.80	73.60	60.36	13.25	5.557		
1,400.00	1,367.06	1,416.44	1,389.28	7.30	7.28	174.64	-163.72	-18.06	81.97	67.87	14.10	5.815		
1,500.00	1,460.64	1,516.09	1,485.15	7.83	7.77	174.80	-190.81	-20.31	90.34	75.37	14.97	6.034		
1,600.00	1,554.23	1,615.74	1,581.02	8.38	8.26	174.93	-217.91	-22.56	98.71	82.85	15.86	6.222		
1,700.00	1,647.82	1,715.39	1,676.88	8.93	8.76	175.04	-245.01	-24.82	107.09	90.31	16.77	6.384		
1,800.00	1,741.41	1,815.03	1,772.75	9.49	9.26	175.14	-272.10	-27.07	115.46	97.76	17.70	6.525		
1,900.00	1,835.00	1,914.68	1,868.62	10.05	9.77	175.22	-299.20	-29.32	123.83	105.20	18.63	6.647		
2,000.00	1,928.59	2,014.33	1,964.49	10.62	10.29	175.29	-326.30	-31.58	132.20	112.63	19.57	6.754		
2,100.00	2,022.18	2,113.98	2,060.35	11.20	10.81	175.35	-353.40	-33.83	140.58	120.05	20.52	6.849		
2,200.00	2,115.77	2,213.63	2,156.22	11.78	11.33	175.41	-380.49	-36.09	148.95	127.46	21.48	6.933		
2,300.00	2,209.36	2,313.28	2,252.09	12.37	11.85	175.46	-407.59	-38.34	157.32	134.87	22.45	7.008		
2,400.00	2,302.95	2,412.93	2,347.95	12.95	12.38	175.51	-434.69	-40.59	165.69	142.27	23.42	7.075		
2,500.00	2,396.54	2,512.58	2,443.82	13.54	12.91	175.55	-461.79	-42.85	174.07	149.67	24.40	7.135		
2,600.00	2,490.13	2,612.22	2,539.69	14.13	13.44	175.58	-488.88	-45.10	182.44	157.06	25.38	7.189		
2,700.00	2,583.72	2,711.87	2,635.56	14.73	13.97	175.62	-515.98	-47.35	190.81	164.45	26.36	7.239		
2,800.00	2,677.31	2,811.52	2,731.42	15.32	14.50	175.65	-543.08	-49.61	199.19	171.84	27.35	7.283		
2,900.00	2,770.90	2,911.17	2,827.29	15.92	15.04	175.68	-570.18	-51.86	207.56	179.22	28.34	7.324		
3,000.00	2,864.49	3,010.82	2,923.16	16.52	15.58	175.70	-597.27	-54.11	215.94	186.60	29.33	7.362		
3,100.00	2,958.08	3,110.47	3,019.03	17.12	16.11	175.73	-624.37	-56.37	224.31	193.98	30.33	7.396		
3,200.00	3,051.67	3,210.12	3,114.89	17.72	16.65	175.75	-651.47	-58.62	232.68	201.36	31.33	7.428		
3,300.00	3,145.26	3,309.77	3,210.76	18.32	17.19	175.77	-678.56	-60.87	241.06	208.73	32.33	7.457		
3,400.00	3,238.85	3,409.41	3,306.63	18.92	17.73	175.79	-705.66	-63.13	249.43	216.10	33.33	7.484		
3,500.00	3,332.44	3,509.06	3,402.49	19.53	18.27	175.81	-732.76	-65.38	257.80	223.47	34.33	7.509		
3,600.00	3,426.03	3,608.71	3,498.36	20.13	18.81	175.83	-759.86	-67.63	266.18	230.84	35.34	7.532		
3,700.00	3,519.62	3,708.36	3,594.23	20.74	19.35	175.84	-786.95	-69.89	274.55	238.21	36.35	7.554		
3,800.00	3,613.21	3,808.01	3,690.10	21.34	19.89	175.86	-814.05	-72.14	282.93	245.57	37.35	7.574		
3,900.00	3,706.80	3,907.66	3,785.96	21.95	20.43	175.87	-841.15	-74.39	291.30	252.94	38.36	7.593		
4,000.00	3,800.39	4,007.31	3,881.83	22.56	20.98	175.89	-868.25	-76.65	299.67	260.30	39.37	7.611		
4,100.00	3,893.98	4,106.96	3,977.70	23.16	21.52	175.90	-895.34	-78.90	308.05	267.66	40.39	7.628		
4,200.00	3,987.57	4,206.60	4,073.57	23.77	22.06	175.91	-922.44	-81.15	316.42	275.02	41.40	7.643		
4,300.00	4,081.16	4,306.25	4,169.43	24.38	22.61	175.92	-949.54	-83.41	324.80	282.38	42.41	7.658		
4,400.00	4,174.75	4,405.90	4,265.30	24.99	23.15	175.93	-976.64	-85.66	333.17	289.74	43.43	7.672		
4,500.00	4,268.34	4,505.55	4,361.17	25.60	23.70	175.94	-1,003.73	-87.92	341.54	297.10	44.44	7.685		
4,600.00	4,361.93	4,605.20	4,457.03	26.21	24.24	175.95	-1,030.83	-90.17	349.92	304.46	45.46	7.698		
4,700.00	4,455.52	4,704.85	4,552.90	26.82	24.79	175.96	-1,057.93	-92.42	358.29	311.82	46.47	7.710		
4,800.00	4,549.11	4,804.50	4,648.77	27.43	25.33	175.97	-1,085.02	-94.68	366.66	319.18	47.49	7.721		
4,900.00	4,642.70	4,904.15	4,744.64	28.04	25.88	175.98	-1,112.12	-96.93	375.04	326.53	48.51	7.732		
5,000.00	4,736.29	5,003.79	4,840.50	28.65	26.43	175.99	-1,139.22	-99.18	383.41	333.89	49.53	7.742		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	4,829.88	5,103.44	4,936.37	29.26	26.97	176.00	-1,166.32	-101.44	391.79	341.24	50.54	7.751	
5,200.00	4,923.47	5,203.09	5,032.24	29.87	27.52	176.00	-1,193.41	-103.69	400.16	348.60	51.56	7.761	
5,300.00	5,017.06	5,302.74	5,128.11	30.48	28.06	176.01	-1,220.51	-105.94	408.53	355.95	52.58	7.769	
5,400.00	5,110.65	5,402.39	5,223.97	31.09	28.61	176.02	-1,247.61	-108.20	416.91	363.31	53.60	7.778	
5,500.00	5,204.24	5,502.04	5,319.84	31.70	29.16	176.03	-1,274.71	-110.45	425.28	370.66	54.62	7.786	
5,600.00	5,297.83	5,601.69	5,415.71	32.32	29.71	176.03	-1,301.80	-112.70	433.66	378.01	55.64	7.793	
5,700.00	5,391.42	5,701.34	5,511.57	32.93	30.25	176.04	-1,328.90	-114.96	442.03	385.37	56.67	7.801	
5,800.00	5,485.01	5,800.98	5,607.44	33.54	30.80	176.04	-1,356.00	-117.21	450.40	392.72	57.69	7.808	
5,900.00	5,578.60	5,900.63	5,703.31	34.15	31.35	176.05	-1,383.10	-119.46	458.78	400.07	58.71	7.814	
6,000.00	5,672.19	6,000.28	5,799.18	34.77	31.90	176.06	-1,410.19	-121.72	467.15	407.42	59.73	7.821	
6,100.00	5,765.78	6,099.93	5,895.04	35.38	32.44	176.06	-1,437.29	-123.97	475.53	414.77	60.75	7.827	
6,200.00	5,859.37	6,200.42	5,990.91	35.99	33.00	176.07	-1,464.39	-126.22	483.90	422.12	61.78	7.833	
6,300.00	5,952.96	6,299.23	6,086.78	36.60	33.54	176.07	-1,491.48	-128.48	492.28	429.48	62.80	7.839	
6,400.00	6,046.55	6,401.12	6,182.64	37.22	34.10	176.08	-1,518.58	-130.73	500.65	436.82	63.83	7.843	
6,500.00	6,140.14	6,501.47	6,278.51	37.83	34.65	176.08	-1,545.68	-132.98	509.02	444.16	64.86	7.848	
6,600.00	6,233.73	6,601.83	6,374.38	38.44	35.20	176.08	-1,572.78	-135.24	517.40	451.51	65.89	7.853	
6,700.00	6,327.32	6,702.18	6,470.25	39.06	35.76	176.09	-1,599.87	-137.49	525.77	458.86	66.92	7.857	
6,800.00	6,420.91	6,797.47	6,566.11	39.67	36.28	176.09	-1,626.97	-139.74	534.15	466.23	67.92	7.865	
6,900.00	6,514.50	6,897.12	6,661.98	40.28	36.83	176.09	-1,654.07	-142.11	542.52	473.58	68.94	7.869	
7,000.00	6,608.09	6,995.69	6,756.05	40.90	37.36	175.10	-1,680.73	-153.78	550.97	480.99	69.99	7.872	
7,100.00	6,701.63	7,089.59	6,843.01	41.51	37.84	163.11	-1,705.48	-178.81	560.21	489.18	71.04	7.886	
7,200.00	6,793.85	7,179.79	6,922.32	42.10	38.25	140.31	-1,728.16	-215.11	570.40	498.38	72.01	7.921	
7,300.00	6,882.50	7,267.35	6,993.83	42.64	38.62	124.13	-1,748.70	-261.15	581.01	508.16	72.85	7.975	
7,400.00	6,965.41	7,352.73	7,057.04	43.12	38.94	113.05	-1,766.97	-315.46	591.55	518.04	73.51	8.047	
7,500.00	7,040.53	7,436.32	7,111.60	43.53	39.22	105.28	-1,782.84	-376.68	601.56	527.53	74.03	8.126	
7,600.00	7,106.00	7,518.47	7,157.23	43.89	39.47	99.73	-1,796.23	-443.59	610.60	536.12	74.48	8.199	
7,700.00	7,160.23	7,600.00	7,193.95	44.20	39.71	95.74	-1,807.15	-515.51	618.30	543.33	74.97	8.247	
7,800.00	7,201.86	7,679.65	7,220.98	44.48	39.94	92.98	-1,815.34	-589.92	624.36	548.75	75.62	8.257	
7,900.00	7,229.88	7,759.21	7,238.85	44.73	40.21	91.23	-1,820.97	-667.20	628.55	552.00	76.55	8.211	
8,000.00	7,243.60	7,838.41	7,247.28	44.99	40.54	90.38	-1,823.94	-745.84	630.70	552.86	77.84	8.103	
8,100.00	7,244.73	7,929.15	7,247.67	45.29	41.07	90.27	-1,824.74	-836.56	630.98	551.20	79.79	7.909	
8,200.00	7,244.23	8,029.15	7,247.07	45.74	41.91	90.26	-1,825.32	-936.56	630.99	548.71	82.28	7.669	
8,300.00	7,243.73	8,129.15	7,246.47	46.38	43.03	90.25	-1,825.90	-1,036.56	630.99	545.91	85.09	7.416	
8,400.00	7,243.23	8,229.15	7,245.88	47.29	44.39	90.24	-1,826.49	-1,136.55	631.00	542.82	88.17	7.156	
8,500.00	7,242.73	8,329.15	7,245.28	48.46	45.94	90.23	-1,827.07	-1,236.55	631.00	539.49	91.51	6.895	
8,600.00	7,242.23	8,429.15	7,244.69	49.87	47.65	90.22	-1,827.65	-1,336.55	631.00	535.92	95.08	6.637	
8,700.00	7,241.73	8,529.15	7,244.09	51.48	49.48	90.21	-1,828.24	-1,436.54	631.01	532.16	98.85	6.384	
8,800.00	7,241.23	8,629.15	7,243.50	53.24	51.42	90.21	-1,828.82	-1,536.54	631.01	528.21	102.80	6.138	
8,900.00	7,240.73	8,729.15	7,242.90	55.13	53.45	90.20	-1,829.41	-1,636.54	631.02	524.11	106.91	5.902	
9,000.00	7,240.23	8,829.15	7,242.30	57.11	55.56	90.19	-1,829.99	-1,736.53	631.02	519.86	111.16	5.677	
9,100.00	7,239.73	8,929.15	7,241.71	59.19	57.74	90.18	-1,830.57	-1,836.53	631.03	515.49	115.54	5.462	
9,200.00	7,239.23	9,029.15	7,241.11	61.34	59.98	90.17	-1,831.16	-1,936.52	631.03	511.00	120.03	5.257	
9,300.00	7,238.72	9,129.15	7,240.52	63.55	62.28	90.16	-1,831.74	-2,036.52	631.03	506.42	124.62	5.064	
9,400.00	7,238.22	9,229.15	7,239.92	65.81	64.61	90.15	-1,832.32	-2,136.52	631.04	501.74	129.30	4.881	
9,500.00	7,237.72	9,329.15	7,239.32	68.13	66.99	90.15	-1,832.91	-2,236.51	631.04	496.99	134.06	4.707	
9,600.00	7,237.22	9,429.15	7,238.73	70.48	69.41	90.14	-1,833.49	-2,336.51	631.05	492.16	138.89	4.544	
9,700.00	7,236.72	9,529.15	7,238.13	72.88	71.86	90.13	-1,834.08	-2,436.51	631.05	487.26	143.79	4.389	
9,800.00	7,236.22	9,629.15	7,237.54	75.31	74.34	90.12	-1,834.66	-2,536.50	631.05	482.31	148.74	4.243	
9,900.00	7,235.72	9,729.15	7,236.94	77.77	76.85	90.11	-1,835.24	-2,636.50	631.06	477.31	153.75	4.104	
10,000.00	7,235.22	9,829.15	7,236.35	80.26	79.38	90.10	-1,835.83	-2,736.50	631.06	472.26	158.81	3.974	
10,100.00	7,234.72	9,929.15	7,235.75	82.77	81.93	90.09	-1,836.41	-2,836.49	631.07	467.16	163.90	3.850	
10,200.00	7,234.22	10,029.15	7,235.15	85.31	84.51	90.08	-1,837.00	-2,936.49	631.07	462.03	169.04	3.733	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	10,129.15	7,234.56	87.86	87.10	90.08	-1,837.58	-3,036.49	631.08	456.86	174.22	3.622		
10,400.00	7,233.22	10,229.15	7,233.96	90.44	89.71	90.07	-1,838.16	-3,136.48	631.08	451.65	179.43	3.517		
10,500.00	7,232.72	10,329.15	7,233.37	93.03	92.33	90.06	-1,838.75	-3,236.48	631.08	446.42	184.66	3.417		
10,600.00	7,232.22	10,429.15	7,232.77	95.64	94.97	90.05	-1,839.33	-3,336.48	631.09	441.16	189.93	3.323		
10,700.00	7,231.72	10,529.15	7,232.17	98.26	97.62	90.04	-1,839.91	-3,436.47	631.09	435.87	195.22	3.233		
10,800.00	7,231.21	10,629.15	7,231.58	100.89	100.28	90.03	-1,840.50	-3,536.47	631.10	430.56	200.53	3.147		
10,900.00	7,230.71	10,729.15	7,230.98	103.54	102.95	90.02	-1,841.08	-3,636.46	631.10	425.23	205.87	3.066		
11,000.00	7,230.21	10,829.15	7,230.39	106.20	105.63	90.02	-1,841.67	-3,736.46	631.11	419.88	211.23	2.988		
11,100.00	7,229.71	10,929.15	7,229.79	108.87	108.32	90.01	-1,842.25	-3,836.46	631.11	414.51	216.60	2.914		
11,200.00	7,229.21	11,029.15	7,229.19	111.54	111.02	90.00	-1,842.83	-3,936.45	631.11	409.12	221.99	2.843		
11,300.00	7,228.71	11,129.15	7,228.60	114.23	113.72	89.99	-1,843.42	-4,036.45	631.12	403.72	227.40	2.775		
11,400.00	7,228.21	11,229.15	7,228.00	116.92	116.44	89.98	-1,844.00	-4,136.45	631.12	398.30	232.82	2.711		
11,500.00	7,227.71	11,329.15	7,227.41	119.63	119.16	89.97	-1,844.58	-4,236.44	631.13	392.87	238.25	2.649		
11,600.00	7,227.21	11,429.15	7,226.81	122.34	121.89	89.96	-1,845.17	-4,336.44	631.13	387.43	243.70	2.590		
11,700.00	7,226.71	11,529.15	7,226.22	125.05	124.62	89.96	-1,845.75	-4,436.44	631.14	381.97	249.16	2.533		
11,800.00	7,226.21	11,629.15	7,225.62	127.78	127.36	89.95	-1,846.34	-4,536.43	631.14	376.51	254.63	2.479		
11,900.00	7,225.71	11,729.15	7,225.02	130.51	130.10	89.94	-1,846.92	-4,636.43	631.15	371.03	260.12	2.426		
12,000.00	7,225.21	11,829.15	7,224.43	133.24	132.85	89.93	-1,847.50	-4,736.43	631.15	365.54	265.61	2.376		
12,100.00	7,224.71	11,929.15	7,223.83	135.98	135.61	89.92	-1,848.09	-4,836.42	631.15	360.05	271.11	2.328		
12,200.00	7,224.21	12,029.15	7,223.24	138.72	138.36	89.91	-1,848.67	-4,936.42	631.16	354.54	276.62	2.282		
12,300.00	7,223.70	12,129.15	7,222.64	141.47	141.13	89.90	-1,849.25	-5,036.42	631.16	349.03	282.14	2.237		
12,400.00	7,223.20	12,229.15	7,222.04	144.23	143.89	89.89	-1,849.84	-5,136.41	631.17	343.51	287.66	2.194		
12,500.00	7,222.70	12,329.15	7,221.45	146.98	146.66	89.89	-1,850.42	-5,236.41	631.17	337.98	293.19	2.153		
12,600.00	7,222.20	12,429.15	7,220.85	149.74	149.43	89.88	-1,851.01	-5,336.40	631.18	332.44	298.73	2.113		
12,700.00	7,221.70	12,529.15	7,220.26	152.51	152.21	89.87	-1,851.59	-5,436.40	631.18	326.90	304.28	2.074		
12,800.00	7,221.20	12,629.15	7,219.66	155.28	154.99	89.86	-1,852.17	-5,536.40	631.19	321.35	309.83	2.037		
12,900.00	7,220.70	12,729.15	7,219.07	158.05	157.77	89.85	-1,852.76	-5,636.39	631.19	315.80	315.39	2.001		
13,000.00	7,220.20	12,829.15	7,218.47	160.82	160.55	89.84	-1,853.34	-5,736.39	631.20	310.24	320.96	1.967		
13,100.00	7,219.70	12,929.15	7,217.87	163.60	163.34	89.83	-1,853.92	-5,836.39	631.20	304.68	326.52	1.933		
13,200.00	7,219.20	13,029.15	7,217.28	166.38	166.13	89.83	-1,854.51	-5,936.38	631.21	299.11	332.10	1.901		
13,300.00	7,218.70	13,129.15	7,216.68	169.16	168.92	89.82	-1,855.09	-6,036.38	631.21	293.53	337.68	1.869		
13,400.00	7,218.20	13,229.15	7,216.09	171.95	171.71	89.81	-1,855.68	-6,136.38	631.21	287.95	343.26	1.839		
13,500.00	7,217.70	13,329.15	7,215.49	174.74	174.51	89.80	-1,856.26	-6,236.37	631.22	282.37	348.85	1.809		
13,600.00	7,217.20	13,429.15	7,214.89	177.53	177.31	89.79	-1,856.84	-6,336.37	631.22	276.78	354.44	1.781		
13,700.00	7,216.70	13,529.15	7,214.30	180.32	180.11	89.78	-1,857.43	-6,436.37	631.23	271.19	360.03	1.753		
13,800.00	7,216.19	13,629.15	7,213.70	183.11	182.91	89.77	-1,858.01	-6,536.36	631.23	265.60	365.63	1.726		
13,900.00	7,215.69	13,729.15	7,213.11	185.91	185.71	89.77	-1,858.60	-6,636.36	631.24	260.00	371.24	1.700		
14,000.00	7,215.19	13,829.15	7,212.51	188.71	188.52	89.76	-1,859.18	-6,736.36	631.24	254.40	376.84	1.675		
14,100.00	7,214.69	13,929.15	7,211.92	191.51	191.33	89.75	-1,859.76	-6,836.35	631.25	248.80	382.45	1.651		
14,200.00	7,214.19	14,029.15	7,211.32	194.31	194.13	89.74	-1,860.35	-6,936.35	631.25	243.19	388.06	1.627		
14,300.00	7,213.69	14,129.15	7,210.72	197.11	196.94	89.73	-1,860.93	-7,036.34	631.26	237.58	393.68	1.603		
14,400.00	7,213.19	14,229.15	7,210.13	199.92	199.76	89.72	-1,861.51	-7,136.34	631.26	231.96	399.30	1.581		
14,500.00	7,212.69	14,329.15	7,209.53	202.72	202.57	89.71	-1,862.10	-7,236.34	631.27	226.35	404.92	1.559		
14,600.00	7,212.19	14,429.15	7,208.94	205.53	205.38	89.70	-1,862.68	-7,336.33	631.27	220.73	410.54	1.538		
14,700.00	7,211.69	14,529.15	7,208.34	208.34	208.20	89.70	-1,863.27	-7,436.33	631.28	215.11	416.17	1.517		
14,800.00	7,211.19	14,629.15	7,207.74	211.15	211.01	89.69	-1,863.85	-7,536.33	631.28	209.48	421.80	1.497 Level 3		
14,900.00	7,210.69	14,729.15	7,207.15	213.96	213.83	89.68	-1,864.43	-7,636.32	631.29	203.86	427.43	1.477 Level 3		
15,000.00	7,210.19	14,829.15	7,206.55	216.78	216.65	89.67	-1,865.02	-7,736.32	631.29	198.23	433.06	1.458 Level 3		
15,100.00	7,209.69	14,929.15	7,205.96	219.59	219.47	89.66	-1,865.60	-7,836.32	631.30	192.60	438.70	1.439 Level 3		
15,200.00	7,209.18	15,029.15	7,205.36	222.41	222.29	89.65	-1,866.18	-7,936.31	631.30	186.97	444.33	1.421 Level 3		
15,300.00	7,208.68	15,129.15	7,204.76	225.22	225.11	89.64	-1,866.77	-8,036.31	631.31	181.33	449.97	1.403 Level 3		
15,400.00	7,208.18	15,229.15	7,204.17	228.04	227.93	89.64	-1,867.35	-8,136.31	631.31	175.70	455.61	1.386 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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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
15,400.35	7,208.18	15,229.50	7,204.17	228.05	227.94	89.64	-1,867.35	-8,136.65	631.31	175.68	455.63	1.386	Level 3
15,437.48	7,208.00	15,258.04	7,204.00	229.10	228.75	89.63	-1,867.52	-8,165.20	631.37	174.13	457.24	1.381	Level 3, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.73	-60.10	-0.28	60.10					
100.00	100.00	100.00	100.00	3.28	3.28	-179.73	-60.10	-0.28	60.10	53.53	6.57	9.149		
200.00	200.00	200.00	200.00	3.34	3.34	-179.73	-60.10	-0.28	60.10	53.43	6.67	9.005		
300.00	299.98	297.95	297.93	3.44	3.44	-3.40	-61.77	-0.36	60.07	53.18	6.89	8.722		
400.00	399.84	395.90	395.74	3.59	3.59	-3.49	-66.79	-0.59	59.97	52.76	7.21	8.321		
500.00	499.45	493.85	493.34	3.79	3.78	-3.64	-75.14	-0.97	59.80	52.17	7.63	7.839		
600.00	598.70	591.81	590.59	4.03	4.01	-3.85	-86.83	-1.51	59.56	51.42	8.13	7.322		
700.00	697.47	689.78	687.40	4.31	4.28	-4.12	-101.82	-2.21	59.25	50.54	8.71	6.803		
800.00	795.62	787.76	783.65	4.64	4.60	-4.45	-120.12	-3.05	58.88	49.54	9.35	6.300		
900.00	893.06	885.76	879.23	5.00	4.95	-4.85	-141.70	-4.05	58.45	48.42	10.03	5.829		
1,000.00	989.64	983.77	974.03	5.40	5.33	-5.32	-166.54	-5.20	57.96	47.20	10.75	5.389		
1,100.00	1,085.27	1,081.80	1,067.94	5.83	5.75	-5.86	-194.60	-6.50	57.40	45.88	11.52	4.984		
1,200.00	1,179.82	1,179.85	1,160.86	6.29	6.20	-6.47	-225.87	-7.94	56.79	44.48	12.31	4.613		
1,227.42	1,205.57	1,206.74	1,186.15	6.43	6.33	-6.64	-235.00	-8.37	56.70	44.17	12.53	4.524 CC		
1,300.00	1,273.47	1,277.92	1,252.66	6.79	6.68	-7.05	-260.30	-9.54	56.94	43.81	13.13	4.336 ES		
1,400.00	1,367.06	1,375.87	1,343.13	7.30	7.20	-7.28	-297.80	-11.27	60.33	46.36	13.97	4.318		
1,500.00	1,460.64	1,473.49	1,431.96	7.83	7.74	-7.16	-338.23	-13.14	67.11	52.29	14.82	4.528		
1,600.00	1,554.23	1,570.54	1,518.86	8.38	8.32	-6.80	-381.39	-15.14	77.25	61.58	15.67	4.929		
1,700.00	1,647.82	1,666.82	1,603.57	8.93	8.92	-6.32	-427.10	-17.25	90.73	74.21	16.53	5.490		
1,800.00	1,741.41	1,762.12	1,685.85	9.49	9.54	-5.81	-475.11	-19.47	107.51	90.14	17.38	6.188		
1,900.00	1,835.00	1,857.41	1,766.56	10.05	10.19	-5.33	-525.71	-21.81	127.42	109.16	18.25	6.981		
2,000.00	1,928.59	1,955.23	1,848.96	10.62	10.88	-4.94	-578.36	-24.25	148.16	128.92	19.24	7.701		
2,100.00	2,022.18	2,053.05	1,931.37	11.20	11.59	-4.65	-631.01	-26.68	168.90	148.66	20.24	8.345		
2,200.00	2,115.77	2,150.87	2,013.78	11.78	12.30	-4.42	-683.66	-29.12	189.66	168.40	21.26	8.921		
2,300.00	2,209.36	2,248.69	2,096.19	12.37	13.02	-4.24	-736.31	-31.55	210.41	188.12	22.29	9.439		
2,400.00	2,302.95	2,346.51	2,178.60	12.95	13.74	-4.09	-788.96	-33.99	231.16	207.83	23.33	9.907		
2,500.00	2,396.54	2,444.33	2,261.01	13.54	14.47	-3.96	-841.60	-36.42	251.92	227.53	24.39	10.330		
2,600.00	2,490.13	2,542.16	2,343.41	14.13	15.21	-3.86	-894.25	-38.86	272.67	247.23	25.45	10.715		
2,700.00	2,583.72	2,639.98	2,425.82	14.73	15.95	-3.77	-946.90	-41.29	293.43	266.92	26.52	11.066		
2,800.00	2,677.31	2,737.80	2,508.23	15.32	16.69	-3.69	-999.55	-43.73	314.19	286.60	27.59	11.388		
2,900.00	2,770.90	2,835.62	2,590.64	15.92	17.44	-3.62	-1,052.20	-46.16	334.95	306.28	28.67	11.682		
3,000.00	2,864.49	2,933.44	2,673.05	16.52	18.19	-3.56	-1,104.85	-48.60	355.71	325.95	29.76	11.953		
3,100.00	2,958.08	3,031.26	2,755.46	17.12	18.94	-3.50	-1,157.50	-51.03	376.47	345.62	30.85	12.204		
3,200.00	3,051.67	3,129.08	2,837.86	17.72	19.70	-3.45	-1,210.14	-53.47	397.23	365.28	31.94	12.435		
3,300.00	3,145.26	3,226.90	2,920.27	18.32	20.45	-3.41	-1,262.79	-55.90	417.99	384.94	33.04	12.650		
3,400.00	3,238.85	3,324.72	3,002.68	18.92	21.21	-3.37	-1,315.44	-58.34	438.75	404.60	34.15	12.849		
3,500.00	3,332.44	3,422.54	3,085.09	19.53	21.97	-3.33	-1,368.09	-60.77	459.51	424.26	35.25	13.035		
3,600.00	3,426.03	3,520.37	3,167.50	20.13	22.73	-3.30	-1,420.74	-63.21	480.27	443.91	36.36	13.209		
3,700.00	3,519.62	3,618.19	3,249.91	20.74	23.50	-3.27	-1,473.39	-65.64	501.03	463.56	37.47	13.371		
3,800.00	3,613.21	3,716.01	3,332.31	21.34	24.26	-3.24	-1,526.04	-68.08	521.79	483.20	38.58	13.524		
3,900.00	3,706.80	3,813.83	3,414.72	21.95	25.02	-3.21	-1,578.68	-70.51	542.55	502.85	39.70	13.667		
4,000.00	3,800.39	3,911.65	3,497.13	22.56	25.79	-3.19	-1,631.33	-72.95	563.31	522.49	40.82	13.801		
4,100.00	3,893.98	4,009.47	3,579.54	23.16	26.56	-3.17	-1,683.98	-75.38	584.07	542.14	41.93	13.928		
4,200.00	3,987.57	4,107.29	3,661.95	23.77	27.32	-3.15	-1,736.63	-77.82	604.83	561.78	43.06	14.048		
4,300.00	4,081.16	4,205.11	3,744.36	24.38	28.09	-3.13	-1,789.28	-80.25	625.59	581.41	44.18	14.161		
4,400.00	4,174.75	4,302.93	3,826.76	24.99	28.86	-3.11	-1,841.93	-82.69	646.35	601.05	45.30	14.268		
4,500.00	4,268.34	4,400.75	3,909.17	25.60	29.63	-3.09	-1,894.58	-85.12	667.11	620.69	46.43	14.369		
4,600.00	4,361.93	4,498.57	3,991.58	26.21	30.40	-3.08	-1,947.22	-87.56	687.88	640.32	47.55	14.465		
4,700.00	4,455.52	4,603.60	4,073.99	26.82	31.22	-3.06	-1,999.87	-89.99	708.64	659.91	48.73	14.543		
4,800.00	4,549.11	4,694.22	4,156.40	27.43	31.94	-3.05	-2,052.52	-92.43	729.40	679.59	49.81	14.644		
4,900.00	4,642.70	4,807.96	4,238.81	28.04	32.84	-3.04	-2,105.17	-94.86	750.16	699.12	51.04	14.698		
5,000.00	4,736.29	4,889.86	4,321.21	28.65	33.48	-3.02	-2,157.82	-97.30	770.92	718.85	52.07	14.806		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	4,987.68	4,403.62	29.26	34.25	-3.01	-2,210.47	-99.73	791.68	738.48	53.20	14.881		
5,200.00	4,923.47	5,085.50	4,486.03	29.87	35.03	-3.00	-2,263.12	-102.17	812.44	758.11	54.33	14.953		
5,300.00	5,017.06	5,183.32	4,568.44	30.48	35.80	-2.99	-2,315.76	-104.60	833.21	777.74	55.46	15.022		
5,400.00	5,110.65	5,281.14	4,650.85	31.09	36.57	-2.98	-2,368.41	-107.04	853.97	797.37	56.60	15.088		
5,500.00	5,204.24	5,378.96	4,733.26	31.70	37.34	-2.97	-2,421.06	-109.47	874.73	817.00	57.73	15.151		
5,600.00	5,297.83	5,476.78	4,815.66	32.32	38.12	-2.96	-2,473.71	-111.91	895.49	836.62	58.87	15.212		
5,700.00	5,391.42	5,574.60	4,898.07	32.93	38.89	-2.95	-2,526.36	-114.34	916.25	856.25	60.00	15.270		
5,800.00	5,485.01	5,672.43	4,980.48	33.54	39.67	-2.94	-2,579.01	-116.78	937.01	875.87	61.14	15.326		
5,900.00	5,578.60	5,772.04	5,064.40	34.15	40.45	-2.93	-2,632.62	-119.26	957.77	895.47	62.31	15.372		
6,000.00	5,672.19	5,920.47	5,191.61	34.77	41.59	-2.93	-2,709.00	-122.79	975.82	911.66	64.16	15.209		
6,100.00	5,765.78	6,071.35	5,324.79	35.38	42.68	-2.94	-2,779.78	-126.06	988.70	922.87	65.83	15.018		
6,200.00	5,859.37	6,223.88	5,463.03	35.99	43.71	-2.97	-2,844.13	-129.04	996.32	929.02	67.30	14.803		
6,300.00	5,952.96	6,377.22	5,605.27	36.60	44.68	-3.02	-2,901.31	-131.68	998.61	930.06	68.55	14.568		
6,400.00	6,046.55	6,530.49	5,750.29	37.22	45.56	-3.08	-2,950.79	-133.97	995.55	926.00	69.55	14.314		
6,500.00	6,140.14	6,682.83	5,896.85	37.83	46.37	-3.17	-2,992.22	-135.89	987.17	916.86	70.31	14.040		
6,600.00	6,233.73	6,833.38	6,043.67	38.44	47.08	-3.27	-3,025.47	-137.43	973.54	902.72	70.83	13.745		
6,700.00	6,327.32	6,981.38	6,189.49	39.06	47.72	-3.39	-3,050.60	-138.59	954.78	883.67	71.10	13.428		
6,800.00	6,420.91	7,126.11	6,333.17	39.67	48.27	-3.54	-3,067.86	-139.39	931.02	859.87	71.15	13.085		
6,900.00	6,514.50	7,266.97	6,473.68	40.28	48.74	-3.72	-3,077.69	-139.84	902.47	831.48	70.99	12.713		
7,000.00	6,608.09	7,401.40	6,608.06	40.90	49.10	-3.92	-3,080.62	-140.00	869.32	798.63	70.69	12.298		
7,100.00	6,701.63	7,494.04	6,700.32	41.51	49.33	-14.41	-3,080.67	-147.40	834.23	762.73	71.50	11.668		
7,200.00	6,793.85	7,586.15	6,790.03	42.10	49.56	-37.04	-3,080.79	-167.95	799.64	727.30	72.34	11.054		
7,300.00	6,882.50	7,678.31	6,875.87	42.64	49.77	-53.27	-3,081.00	-201.24	766.35	693.17	73.18	10.472		
7,400.00	6,965.41	7,770.98	6,956.46	43.12	49.97	-64.60	-3,081.28	-246.85	735.17	661.18	74.00	9.935		
7,500.00	7,040.53	7,864.56	7,030.23	43.53	50.15	-72.74	-3,081.63	-304.27	706.86	632.08	74.78	9.452		
7,600.00	7,106.00	7,959.27	7,095.53	43.89	50.30	-78.74	-3,082.05	-372.76	682.13	606.54	75.59	9.024		
7,700.00	7,160.23	8,055.25	7,150.60	44.20	50.42	-83.18	-3,082.53	-451.25	661.60	585.10	76.50	8.648		
7,800.00	7,201.86	8,152.43	7,193.71	44.48	50.52	-86.35	-3,083.06	-538.24	645.79	568.18	77.60	8.322		
7,900.00	7,229.88	8,250.64	7,223.32	44.73	50.58	-88.40	-3,083.63	-631.77	635.09	556.10	78.99	8.040		
8,000.00	7,243.60	8,349.54	7,238.26	44.99	50.63	-89.42	-3,084.23	-729.44	629.76	549.06	80.71	7.803		
8,096.70	7,246.58	8,445.79	7,239.82	45.28	50.66	-89.38	-3,084.82	-825.64	628.50	545.69	82.81	7.590		
8,100.00	7,244.73	8,449.13	7,239.80	45.29	50.67	-89.55	-3,084.84	-828.99	629.17	546.39	82.78	7.600		
8,200.00	7,244.23	8,549.13	7,239.40	45.74	50.72	-89.56	-3,085.45	-928.99	629.19	544.01	85.18	7.386		
8,300.00	7,243.73	8,649.13	7,238.99	46.38	50.80	-89.57	-3,086.07	-1,028.98	629.22	541.33	87.89	7.159		
8,400.00	7,243.23	8,749.13	7,238.59	47.29	50.92	-89.58	-3,086.68	-1,128.98	629.24	538.37	90.87	6.924		
8,500.00	7,242.73	8,849.13	7,238.18	48.46	51.14	-89.59	-3,087.29	-1,228.98	629.27	535.15	94.11	6.686		
8,600.00	7,242.23	8,949.13	7,237.77	49.87	51.58	-89.59	-3,087.90	-1,328.98	629.29	531.71	97.58	6.449		
8,700.00	7,241.73	9,049.13	7,237.37	51.48	52.45	-89.60	-3,088.52	-1,428.97	629.31	528.06	101.25	6.215		
8,800.00	7,241.23	9,149.13	7,236.96	53.24	53.84	-89.61	-3,089.13	-1,528.97	629.34	524.23	105.10	5.988		
8,900.00	7,240.73	9,249.13	7,236.56	55.13	55.58	-89.62	-3,089.74	-1,628.97	629.36	520.24	109.12	5.768		
9,000.00	7,240.23	9,349.13	7,236.15	57.11	57.50	-89.63	-3,090.35	-1,728.96	629.38	516.10	113.28	5.556		
9,100.00	7,239.73	9,449.13	7,235.75	59.19	59.55	-89.64	-3,090.97	-1,828.96	629.41	511.83	117.57	5.353		
9,200.00	7,239.23	9,549.13	7,235.34	61.34	61.69	-89.65	-3,091.58	-1,928.96	629.43	507.45	121.98	5.160		
9,300.00	7,238.72	9,649.13	7,234.93	63.55	63.89	-89.65	-3,092.19	-2,028.96	629.45	502.96	126.50	4.976		
9,400.00	7,238.22	9,749.13	7,234.53	65.81	66.16	-89.66	-3,092.80	-2,128.95	629.48	498.37	131.11	4.801		
9,500.00	7,237.72	9,849.13	7,234.12	68.13	68.47	-89.67	-3,093.42	-2,228.95	629.50	493.70	135.80	4.636		
9,600.00	7,237.22	9,949.13	7,233.72	70.48	70.82	-89.68	-3,094.03	-2,328.95	629.53	488.96	140.57	4.479		
9,700.00	7,236.72	10,049.13	7,233.31	72.88	73.22	-89.69	-3,094.64	-2,428.94	629.55	484.15	145.40	4.330		
9,800.00	7,236.22	10,149.13	7,232.90	75.31	75.65	-89.70	-3,095.25	-2,528.94	629.57	479.27	150.30	4.189		
9,900.00	7,235.72	10,249.13	7,232.50	77.77	78.10	-89.71	-3,095.87	-2,628.94	629.60	474.34	155.25	4.055		
10,000.00	7,235.22	10,349.13	7,232.09	80.26	80.59	-89.72	-3,096.48	-2,728.94	629.62	469.36	160.26	3.929		
10,100.00	7,234.72	10,449.13	7,231.69	82.77	83.10	-89.72	-3,097.09	-2,828.93	629.64	464.34	165.31	3.809		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,234.22	10,549.13	7,231.28	85.31	85.63	-89.73	-3,097.70	-2,928.93	629.67	459.27	170.40	3.695		
10,300.00	7,233.72	10,649.13	7,230.88	87.86	88.19	-89.74	-3,098.32	-3,028.93	629.69	454.16	175.53	3.587		
10,400.00	7,233.22	10,749.13	7,230.47	90.44	90.76	-89.75	-3,098.93	-3,128.93	629.72	449.02	180.70	3.485		
10,500.00	7,232.72	10,849.13	7,230.06	93.03	93.35	-89.76	-3,099.54	-3,228.92	629.74	443.84	185.90	3.388		
10,600.00	7,232.22	10,949.13	7,229.66	95.64	95.95	-89.77	-3,100.15	-3,328.92	629.76	438.64	191.13	3.295		
10,700.00	7,231.72	11,049.13	7,229.25	98.26	98.57	-89.78	-3,100.77	-3,428.92	629.79	433.41	196.38	3.207		
10,800.00	7,231.21	11,149.13	7,228.85	100.89	101.20	-89.78	-3,101.38	-3,528.91	629.81	428.15	201.66	3.123		
10,900.00	7,230.71	11,249.13	7,228.44	103.54	103.84	-89.79	-3,101.99	-3,628.91	629.84	422.87	206.96	3.043		
11,000.00	7,230.21	11,349.13	7,228.04	106.20	106.50	-89.80	-3,102.60	-3,728.91	629.86	417.57	212.29	2.967		
11,100.00	7,229.71	11,449.13	7,227.63	108.87	109.16	-89.81	-3,103.22	-3,828.91	629.88	412.25	217.63	2.894		
11,200.00	7,229.21	11,549.13	7,227.22	111.54	111.84	-89.82	-3,103.83	-3,928.90	629.91	406.91	223.00	2.825		
11,300.00	7,228.71	11,649.13	7,226.82	114.23	114.52	-89.83	-3,104.44	-4,028.90	629.93	401.56	228.38	2.758		
11,400.00	7,228.21	11,749.13	7,226.41	116.92	117.22	-89.84	-3,105.05	-4,128.90	629.96	396.18	233.77	2.695		
11,500.00	7,227.71	11,849.13	7,226.01	119.63	119.92	-89.85	-3,105.67	-4,228.90	629.98	390.80	239.18	2.634		
11,600.00	7,227.21	11,949.13	7,225.60	122.34	122.62	-89.85	-3,106.28	-4,328.89	630.00	385.40	244.61	2.576		
11,700.00	7,226.71	12,049.13	7,225.20	125.05	125.34	-89.86	-3,106.89	-4,428.89	630.03	379.98	250.04	2.520		
11,800.00	7,226.21	12,149.13	7,224.79	127.78	128.06	-89.87	-3,107.50	-4,528.89	630.05	374.56	255.49	2.466		
11,900.00	7,225.71	12,249.13	7,224.38	130.51	130.78	-89.88	-3,108.12	-4,628.88	630.08	369.12	260.96	2.414		
12,000.00	7,225.21	12,349.13	7,223.98	133.24	133.52	-89.89	-3,108.73	-4,728.88	630.10	363.67	266.43	2.365		
12,100.00	7,224.71	12,449.13	7,223.57	135.98	136.25	-89.90	-3,109.34	-4,828.88	630.12	358.22	271.91	2.317		
12,200.00	7,224.21	12,549.13	7,223.17	138.72	139.00	-89.91	-3,109.95	-4,928.88	630.15	352.75	277.40	2.272		
12,300.00	7,223.70	12,649.13	7,222.76	141.47	141.74	-89.91	-3,110.57	-5,028.87	630.17	347.27	282.90	2.228		
12,400.00	7,223.20	12,749.13	7,222.36	144.23	144.49	-89.92	-3,111.18	-5,128.87	630.20	341.79	288.41	2.185		
12,500.00	7,222.70	12,849.13	7,221.95	146.98	147.25	-89.93	-3,111.79	-5,228.87	630.22	336.30	293.92	2.144		
12,600.00	7,222.20	12,949.13	7,221.54	149.74	150.01	-89.94	-3,112.40	-5,328.87	630.24	330.80	299.45	2.105		
12,700.00	7,221.70	13,049.13	7,221.14	152.51	152.77	-89.95	-3,113.02	-5,428.86	630.27	325.29	304.98	2.067		
12,800.00	7,221.20	13,149.13	7,220.73	155.28	155.54	-89.96	-3,113.63	-5,528.86	630.29	319.78	310.52	2.030		
12,900.00	7,220.70	13,249.13	7,220.33	158.05	158.31	-89.97	-3,114.24	-5,628.86	630.32	314.26	316.06	1.994		
13,000.00	7,220.20	13,349.13	7,219.92	160.82	161.08	-89.97	-3,114.85	-5,728.85	630.34	308.73	321.61	1.960		
13,100.00	7,219.70	13,449.13	7,219.52	163.60	163.85	-89.98	-3,115.47	-5,828.85	630.37	303.20	327.17	1.927		
13,200.00	7,219.20	13,549.13	7,219.11	166.38	166.63	-89.99	-3,116.08	-5,928.85	630.39	297.66	332.73	1.895		
13,300.00	7,218.70	13,649.13	7,218.70	169.16	169.41	-90.00	-3,116.69	-6,028.85	630.41	292.12	338.29	1.864		
13,400.00	7,218.20	13,749.13	7,218.30	171.95	172.20	-90.01	-3,117.30	-6,128.84	630.44	286.57	343.86	1.833		
13,500.00	7,217.70	13,849.13	7,217.89	174.74	174.98	-90.02	-3,117.92	-6,228.84	630.46	281.02	349.44	1.804		
13,600.00	7,217.20	13,949.13	7,217.49	177.53	177.77	-90.03	-3,118.53	-6,328.84	630.49	275.47	355.02	1.776		
13,700.00	7,216.70	14,049.13	7,217.08	180.32	180.56	-90.03	-3,119.14	-6,428.84	630.51	269.91	360.60	1.748		
13,800.00	7,216.19	14,149.13	7,216.68	183.11	183.35	-90.04	-3,119.75	-6,528.83	630.54	264.34	366.19	1.722		
13,900.00	7,215.69	14,249.13	7,216.27	185.91	186.15	-90.05	-3,120.37	-6,628.83	630.56	258.78	371.79	1.696		
14,000.00	7,215.19	14,349.13	7,215.86	188.71	188.95	-90.06	-3,120.98	-6,728.83	630.59	253.20	377.38	1.671		
14,100.00	7,214.69	14,449.13	7,215.46	191.51	191.74	-90.07	-3,121.59	-6,828.82	630.61	247.63	382.98	1.647		
14,200.00	7,214.19	14,549.13	7,215.05	194.31	194.54	-90.08	-3,122.20	-6,928.82	630.63	242.05	388.58	1.623		
14,300.00	7,213.69	14,649.13	7,214.65	197.11	197.35	-90.09	-3,122.82	-7,028.82	630.66	236.47	394.19	1.600		
14,400.00	7,213.19	14,749.13	7,214.24	199.92	200.15	-90.10	-3,123.43	-7,128.82	630.68	230.88	399.80	1.578		
14,500.00	7,212.69	14,849.13	7,213.84	202.72	202.96	-90.10	-3,124.04	-7,228.81	630.71	225.30	405.41	1.556		
14,600.00	7,212.19	14,949.13	7,213.43	205.53	205.76	-90.11	-3,124.65	-7,328.81	630.73	219.71	411.03	1.535		
14,700.00	7,211.69	15,049.13	7,213.02	208.34	208.57	-90.12	-3,125.27	-7,428.81	630.76	214.11	416.64	1.514		
14,800.00	7,211.19	15,149.13	7,212.62	211.15	211.38	-90.13	-3,125.88	-7,528.80	630.78	208.52	422.26	1.494 Level 3		
14,900.00	7,210.69	15,249.13	7,212.21	213.96	214.19	-90.14	-3,126.49	-7,628.80	630.81	202.92	427.89	1.474 Level 3		
15,000.00	7,210.19	15,349.13	7,211.81	216.78	217.00	-90.15	-3,127.10	-7,728.80	630.83	197.32	433.51	1.455 Level 3		
15,100.00	7,209.69	15,449.13	7,211.40	219.59	219.81	-90.16	-3,127.72	-7,828.80	630.85	191.72	439.14	1.437 Level 3		
15,200.00	7,209.18	15,549.13	7,210.99	222.41	222.63	-90.16	-3,128.33	-7,928.79	630.88	186.11	444.77	1.418 Level 3		
15,300.00	7,208.68	15,649.13	7,210.59	225.22	225.44	-90.17	-3,128.94	-8,028.79	630.90	180.50	450.40	1.401 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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						
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)		
15,400.00	7,208.18	15,749.13	7,210.18	228.04	228.26	-90.18	-3,129.55	-8,128.79	630.93	174.89	456.03	1.384	Level 3
15,437.48	7,208.00	15,786.61	7,210.03	229.10	229.32	-90.18	-3,129.78	-8,166.27	630.94	172.79	458.15	1.377	Level 3, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.50	319.86	2.78	319.88					
100.00	100.00	102.00	100.00	3.28	3.29	0.50	319.86	2.78	319.88	313.31	6.57	48.688		
200.00	200.00	202.00	200.00	3.34	3.34	0.50	319.86	2.78	319.88	313.20	6.68	47.917 CC, ES		
300.00	299.98	301.98	299.98	3.44	3.45	176.88	319.86	2.78	321.62	314.73	6.89	46.695		
400.00	399.84	401.84	399.84	3.59	3.61	176.92	319.86	2.78	326.84	319.65	7.20	45.402		
500.00	499.45	501.45	499.45	3.79	3.81	176.99	319.86	2.78	335.55	327.95	7.60	44.141		
600.00	598.70	600.70	598.70	4.03	4.05	177.08	319.86	2.78	347.72	339.64	8.08	43.021		
700.00	697.47	706.14	691.85	4.31	4.33	176.98	320.67	1.49	364.17	355.53	8.65	42.117		
800.00	795.62	808.29	789.65	4.64	4.63	176.73	322.21	-0.97	384.74	375.49	9.25	41.572		
900.00	893.06	888.78	886.68	5.00	4.89	176.53	323.74	-3.42	408.72	398.87	9.84	41.531		
1,000.00	989.64	984.96	982.82	5.40	5.20	176.37	325.25	-5.84	436.06	425.54	10.51	41.471		
1,100.00	1,085.27	1,080.13	1,077.94	5.83	5.53	176.24	326.74	-8.23	466.73	455.51	11.22	41.605		
1,200.00	1,179.82	1,174.18	1,171.95	6.29	5.87	176.15	328.22	-10.60	500.71	488.76	11.95	41.913		
1,300.00	1,273.47	1,267.29	1,265.02	6.79	6.21	176.12	329.69	-12.94	537.17	524.48	12.69	42.323		
1,400.00	1,367.06	1,360.34	1,358.03	7.30	6.56	176.11	331.15	-15.28	573.79	560.35	13.45	42.670		
1,500.00	1,460.64	1,453.40	1,451.05	7.83	6.91	176.09	332.61	-17.62	610.42	596.20	14.22	42.924		
1,600.00	1,554.23	1,546.45	1,544.06	8.38	7.28	176.08	334.08	-19.96	647.04	632.03	15.01	43.107		
1,700.00	1,647.82	1,639.50	1,637.07	8.93	7.64	176.08	335.54	-22.30	683.66	667.85	15.81	43.237		
1,800.00	1,741.41	1,732.55	1,730.08	9.49	8.01	176.07	337.00	-24.65	720.29	703.66	16.63	43.324		
1,900.00	1,835.00	1,825.60	1,823.09	10.05	8.39	176.06	338.47	-26.99	756.91	739.46	17.45	43.379		
2,000.00	1,928.59	1,918.66	1,916.10	10.62	8.77	176.05	339.93	-29.33	793.53	775.25	18.28	43.410		
2,100.00	2,022.18	2,011.71	2,009.11	11.20	9.15	176.05	341.39	-31.67	830.16	811.04	19.12	43.422		
2,200.00	2,115.77	2,104.76	2,102.12	11.78	9.53	176.04	342.85	-34.01	866.78	846.82	19.96	43.419		
2,300.00	2,209.36	2,202.19	2,195.14	12.37	9.93	176.04	344.32	-36.35	903.40	882.57	20.83	43.366		
2,400.00	2,302.95	2,309.13	2,288.15	12.95	10.38	176.03	345.78	-38.69	940.03	918.28	21.75	43.229		
2,500.00	2,396.54	2,383.92	2,381.16	13.54	10.69	176.03	347.24	-41.04	976.65	954.12	22.53	43.352		
2,600.00	2,490.13	2,476.97	2,474.17	14.13	11.08	176.02	348.71	-43.38	1,013.28	989.88	23.39	43.317		
2,700.00	2,583.72	2,570.02	2,567.18	14.73	11.47	176.02	350.17	-45.72	1,049.90	1,025.64	24.26	43.279		
2,800.00	2,677.31	2,663.07	2,660.19	15.32	11.86	176.01	351.63	-48.06	1,086.52	1,061.39	25.13	43.238		
2,900.00	2,770.90	2,756.13	2,753.20	15.92	12.25	176.01	353.10	-50.40	1,123.15	1,097.14	26.00	43.196		
3,000.00	2,864.49	2,849.18	2,846.21	16.52	12.65	176.01	354.56	-52.74	1,159.77	1,132.89	26.88	43.152		
3,100.00	2,958.08	2,942.23	2,939.23	17.12	13.05	176.01	356.02	-55.08	1,196.39	1,168.64	27.75	43.107		
3,200.00	3,051.67	3,035.28	3,032.24	17.72	13.44	176.00	357.48	-57.42	1,233.02	1,204.38	28.63	43.063		
3,300.00	3,145.26	3,128.34	3,125.25	18.32	13.84	176.00	358.95	-59.77	1,269.64	1,240.13	29.51	43.018		
3,400.00	3,238.85	3,221.39	3,218.26	18.92	14.24	176.00	360.41	-62.11	1,306.26	1,275.87	30.40	42.973		
3,500.00	3,332.44	3,314.44	3,311.27	19.53	14.63	176.00	361.87	-64.45	1,342.89	1,311.61	31.28	42.929		
3,600.00	3,426.03	3,407.49	3,404.28	20.13	15.03	175.99	363.34	-66.79	1,379.51	1,347.34	32.17	42.885		
3,700.00	3,519.62	3,500.54	3,497.29	20.74	15.43	175.99	364.80	-69.13	1,416.13	1,383.08	33.06	42.841		
3,800.00	3,613.21	3,606.40	3,590.30	21.34	15.89	175.99	366.26	-71.47	1,452.76	1,418.76	34.00	42.730		
3,900.00	3,706.80	3,686.65	3,683.31	21.95	16.23	175.99	367.73	-73.81	1,489.38	1,454.55	34.83	42.757		
4,000.00	3,800.39	3,779.70	3,776.33	22.56	16.64	175.99	369.19	-76.15	1,526.01	1,490.28	35.72	42.716		
4,100.00	3,893.98	3,872.75	3,869.34	23.16	17.04	175.98	370.65	-78.50	1,562.63	1,526.01	36.62	42.676		
4,200.00	3,987.57	3,965.81	3,962.35	23.77	17.44	175.98	372.11	-80.84	1,599.25	1,561.74	37.51	42.637		
4,300.00	4,081.16	4,058.86	4,055.36	24.38	17.84	175.98	373.58	-83.18	1,635.88	1,597.47	38.40	42.599		
4,400.00	4,174.75	4,151.91	4,148.37	24.99	18.24	175.98	375.04	-85.52	1,672.50	1,633.20	39.30	42.561		
4,500.00	4,268.34	4,244.96	4,241.38	25.60	18.65	175.98	376.50	-87.86	1,709.12	1,668.93	40.19	42.525		
4,600.00	4,361.93	4,338.01	4,334.39	26.21	19.05	175.98	377.97	-90.20	1,745.75	1,704.66	41.09	42.489		
4,700.00	4,455.52	4,431.07	4,427.40	26.82	19.45	175.97	379.43	-92.54	1,782.37	1,740.39	41.98	42.454		
4,800.00	4,549.11	4,524.12	4,520.42	27.43	19.86	175.97	380.89	-94.89	1,818.99	1,776.11	42.88	42.420		
4,900.00	4,642.70	4,617.17	4,613.43	28.04	20.26	175.97	382.36	-97.23	1,855.62	1,811.84	43.78	42.387		
5,000.00	4,736.29	4,710.22	4,706.44	28.65	20.66	175.97	383.82	-99.57	1,892.24	1,847.57	44.68	42.355		
5,100.00	4,829.88	4,803.28	4,799.45	29.26	21.07	175.97	385.28	-101.91	1,928.86	1,883.29	45.57	42.323		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,903.67	4,892.46	29.87	21.50	175.97	386.75	-104.25	1,965.49	1,918.98	46.51	42.263		
5,300.00	5,017.06	4,989.38	4,985.47	30.48	21.88	175.97	388.21	-106.59	2,002.11	1,954.74	47.37	42.262		
5,400.00	5,110.65	5,082.43	5,078.48	31.09	22.28	175.97	389.67	-108.93	2,038.74	1,990.46	48.27	42.233		
5,500.00	5,204.24	5,175.48	5,171.49	31.70	22.69	175.97	391.13	-111.27	2,075.36	2,026.18	49.17	42.204		
5,600.00	5,297.83	5,268.54	5,264.51	32.32	23.09	175.96	392.60	-113.62	2,111.98	2,061.91	50.08	42.176		
5,700.00	5,391.42	5,361.59	5,357.52	32.93	23.50	175.96	394.06	-115.96	2,148.61	2,097.63	50.98	42.149		
5,800.00	5,485.01	5,454.64	5,450.53	33.54	23.90	175.96	395.52	-118.30	2,185.23	2,133.35	51.88	42.122		
5,900.00	5,578.60	5,547.69	5,543.54	34.15	24.31	175.96	396.99	-120.64	2,221.85	2,169.07	52.78	42.096		
6,000.00	5,672.19	5,640.75	5,636.55	34.77	24.71	175.96	398.45	-122.98	2,258.48	2,204.79	53.68	42.070		
6,100.00	5,765.78	5,733.80	5,729.56	35.38	25.12	175.96	399.91	-125.32	2,295.10	2,240.51	54.59	42.045		
6,200.00	5,859.37	5,826.85	5,822.57	35.99	25.53	175.96	401.38	-127.66	2,331.72	2,276.23	55.49	42.021		
6,300.00	5,952.96	5,919.90	5,915.58	36.60	25.93	175.96	402.84	-130.01	2,368.35	2,311.95	56.39	41.997		
6,400.00	6,046.55	6,012.95	6,008.60	37.22	26.34	175.96	404.30	-132.35	2,404.97	2,347.67	57.30	41.974		
6,500.00	6,140.14	6,106.01	6,101.61	37.83	26.75	175.96	405.76	-134.69	2,441.60	2,383.39	58.20	41.951		
6,600.00	6,233.73	6,200.94	6,194.62	38.44	27.16	175.96	407.23	-137.03	2,478.22	2,419.10	59.11	41.923		
6,700.00	6,327.32	6,307.89	6,287.63	39.06	27.63	175.96	408.69	-139.37	2,514.84	2,454.76	60.08	41.858		
6,800.00	6,420.91	6,385.16	6,380.64	39.67	27.96	175.96	410.15	-141.71	2,551.47	2,490.55	60.92	41.885		
6,900.00	6,514.50	6,478.21	6,473.65	40.28	28.37	175.96	411.62	-144.05	2,588.09	2,526.27	61.82	41.864		
7,000.00	6,608.09	6,571.27	6,566.66	40.90	28.78	175.95	413.08	-146.39	2,624.71	2,561.99	62.73	41.843		
7,100.00	6,701.63	6,665.17	6,660.47	41.51	29.19	165.12	414.55	-149.84	2,661.32	2,597.68	63.64	41.817		
7,200.00	6,793.85	6,760.71	6,754.72	42.10	29.61	142.00	415.93	-164.91	2,697.42	2,632.85	64.57	41.775		
7,300.00	6,882.50	6,857.18	6,846.52	42.64	30.04	125.46	417.17	-194.25	2,732.14	2,666.65	65.49	41.718		
7,400.00	6,965.41	6,955.07	6,934.05	43.12	30.49	114.01	418.23	-237.84	2,764.62	2,698.22	66.40	41.634		
7,500.00	7,040.53	7,054.77	7,015.27	43.53	30.97	105.89	419.08	-295.48	2,794.08	2,726.74	67.33	41.496		
7,600.00	7,106.00	7,156.50	7,087.84	43.89	31.51	100.03	419.70	-366.61	2,819.77	2,751.42	68.35	41.256		
7,700.00	7,160.23	7,260.27	7,149.25	44.20	32.17	95.81	420.04	-450.12	2,841.06	2,771.53	69.53	40.859		
7,800.00	7,201.86	7,365.85	7,196.98	44.48	32.99	92.86	420.08	-544.16	2,857.42	2,786.43	70.98	40.256		
7,900.00	7,229.88	7,472.76	7,228.82	44.73	34.01	90.99	419.81	-646.09	2,868.42	2,795.67	72.75	39.426		
8,000.00	7,243.60	7,580.33	7,243.21	44.99	35.20	90.08	419.23	-752.56	2,873.80	2,798.94	74.86	38.391		
8,100.00	7,244.73	7,682.71	7,243.78	45.29	36.50	89.98	418.46	-854.92	2,874.24	2,797.05	77.20	37.233		
8,200.00	7,244.23	7,782.71	7,243.47	45.74	37.93	89.99	417.69	-954.92	2,874.06	2,794.22	79.85	35.995		
8,300.00	7,243.73	7,882.71	7,243.16	46.38	39.52	89.99	416.92	-1,054.91	2,873.89	2,791.08	82.80	34.708		
8,400.00	7,243.23	7,982.71	7,242.85	47.29	41.24	89.99	416.15	-1,154.91	2,873.71	2,787.67	86.04	33.400		
8,500.00	7,242.73	8,082.71	7,242.53	48.46	43.09	90.00	415.39	-1,254.91	2,873.53	2,784.00	89.52	32.099		
8,600.00	7,242.23	8,182.71	7,242.22	49.87	45.04	90.00	414.62	-1,354.90	2,873.35	2,780.12	93.22	30.822		
8,700.00	7,241.73	8,282.71	7,241.91	51.48	47.08	90.00	413.85	-1,454.90	2,873.17	2,776.04	97.12	29.583		
8,800.00	7,241.23	8,382.71	7,241.60	53.24	49.21	90.01	413.08	-1,554.90	2,872.99	2,771.79	101.19	28.391		
8,900.00	7,240.73	8,482.71	7,241.29	55.13	51.40	90.01	412.32	-1,654.89	2,872.81	2,767.39	105.42	27.252		
9,000.00	7,240.23	8,582.71	7,240.98	57.11	53.66	90.02	411.55	-1,754.89	2,872.63	2,762.85	109.77	26.168		
9,100.00	7,239.73	8,682.71	7,240.66	59.19	55.97	90.02	410.78	-1,854.88	2,872.45	2,758.20	114.25	25.141		
9,200.00	7,239.23	8,782.71	7,240.35	61.34	58.34	90.02	410.01	-1,954.88	2,872.27	2,753.43	118.84	24.170		
9,300.00	7,238.72	8,882.71	7,240.04	63.55	60.74	90.03	409.25	-2,054.88	2,872.09	2,748.58	123.51	23.253		
9,400.00	7,238.22	8,982.71	7,239.73	65.81	63.18	90.03	408.48	-2,154.87	2,871.91	2,743.64	128.28	22.388		
9,500.00	7,237.72	9,082.71	7,239.42	68.13	65.66	90.03	407.71	-2,254.87	2,871.73	2,738.62	133.11	21.574		
9,600.00	7,237.22	9,182.71	7,239.10	70.48	68.16	90.04	406.94	-2,354.87	2,871.55	2,733.54	138.02	20.806		
9,700.00	7,236.72	9,282.71	7,238.79	72.88	70.70	90.04	406.18	-2,454.86	2,871.37	2,728.39	142.98	20.082		
9,800.00	7,236.22	9,382.70	7,238.48	75.31	73.25	90.05	405.41	-2,554.86	2,871.19	2,723.19	148.00	19.400		
9,900.00	7,235.72	9,482.70	7,238.17	77.77	75.83	90.05	404.64	-2,654.85	2,871.02	2,717.95	153.07	18.756		
10,000.00	7,235.22	9,582.70	7,237.86	80.26	78.43	90.05	403.87	-2,754.85	2,870.84	2,712.66	158.18	18.149		
10,100.00	7,234.72	9,682.70	7,237.54	82.77	81.04	90.06	403.10	-2,854.85	2,870.66	2,707.32	163.33	17.576		
10,200.00	7,234.22	9,782.70	7,237.23	85.31	83.67	90.06	402.34	-2,954.84	2,870.48	2,701.96	168.52	17.033		
10,300.00	7,233.72	9,882.70	7,236.92	87.86	86.32	90.06	401.57	-3,054.84	2,870.30	2,696.56	173.74	16.520		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	9,982.70	7,236.61	90.44	88.98	90.07	400.80	-3,154.84	2,870.12	2,691.13	178.99	16.035		
10,500.00	7,232.72	10,082.70	7,236.30	93.03	91.65	90.07	400.03	-3,254.83	2,869.94	2,685.67	184.27	15.574		
10,600.00	7,232.22	10,182.70	7,235.98	95.64	94.33	90.08	399.27	-3,354.83	2,869.76	2,680.18	189.58	15.138		
10,700.00	7,231.72	10,282.70	7,235.67	98.26	97.02	90.08	398.50	-3,454.82	2,869.58	2,674.68	194.91	14.723		
10,800.00	7,231.21	10,382.70	7,235.36	100.89	99.72	90.08	397.73	-3,554.82	2,869.40	2,669.15	200.26	14.329		
10,900.00	7,230.71	10,482.70	7,235.05	103.54	102.43	90.09	396.96	-3,654.82	2,869.22	2,663.60	205.63	13.954		
11,000.00	7,230.21	10,582.70	7,234.74	106.20	105.15	90.09	396.20	-3,754.81	2,869.04	2,658.03	211.01	13.596		
11,100.00	7,229.71	10,682.70	7,234.43	108.87	107.88	90.09	395.43	-3,854.81	2,868.87	2,652.45	216.42	13.256		
11,200.00	7,229.21	10,782.70	7,234.11	111.54	110.61	90.10	394.66	-3,954.80	2,868.69	2,646.85	221.84	12.931		
11,300.00	7,228.71	10,882.70	7,233.80	114.23	113.34	90.10	393.89	-4,054.80	2,868.51	2,641.23	227.27	12.621		
11,400.00	7,228.21	10,982.70	7,233.49	116.92	116.09	90.11	393.13	-4,154.80	2,868.33	2,635.61	232.72	12.325		
11,500.00	7,227.71	11,082.70	7,233.18	119.63	118.84	90.11	392.36	-4,254.79	2,868.15	2,629.97	238.18	12.042		
11,600.00	7,227.21	11,182.70	7,232.87	122.34	121.59	90.11	391.59	-4,354.79	2,867.97	2,624.31	243.66	11.771		
11,700.00	7,226.71	11,282.70	7,232.55	125.05	124.35	90.12	390.82	-4,454.79	2,867.79	2,618.65	249.14	11.511		
11,800.00	7,226.21	11,382.70	7,232.24	127.78	127.11	90.12	390.06	-4,554.78	2,867.61	2,612.98	254.63	11.262		
11,900.00	7,225.71	11,482.70	7,231.93	130.51	129.88	90.12	389.29	-4,654.78	2,867.43	2,607.30	260.14	11.023		
12,000.00	7,225.21	11,582.70	7,231.62	133.24	132.65	90.13	388.52	-4,754.77	2,867.25	2,601.61	265.65	10.793		
12,100.00	7,224.71	11,682.70	7,231.31	135.98	135.43	90.13	387.75	-4,854.77	2,867.08	2,595.91	271.17	10.573		
12,200.00	7,224.21	11,782.70	7,230.99	138.72	138.20	90.14	386.99	-4,954.77	2,866.90	2,590.20	276.70	10.361		
12,300.00	7,223.70	11,882.70	7,230.68	141.47	140.99	90.14	386.22	-5,054.76	2,866.72	2,584.48	282.24	10.157		
12,400.00	7,223.20	11,982.70	7,230.37	144.23	143.77	90.14	385.45	-5,154.76	2,866.54	2,578.76	287.78	9.961		
12,500.00	7,222.70	12,082.70	7,230.06	146.98	146.56	90.15	384.68	-5,254.76	2,866.36	2,573.03	293.33	9.772		
12,600.00	7,222.20	12,182.70	7,229.75	149.74	149.35	90.15	383.92	-5,354.75	2,866.18	2,567.29	298.89	9.590		
12,700.00	7,221.70	12,282.70	7,229.43	152.51	152.14	90.16	383.15	-5,454.75	2,866.00	2,561.55	304.45	9.414		
12,800.00	7,221.20	12,382.69	7,229.12	155.28	154.93	90.16	382.38	-5,554.74	2,865.82	2,555.81	310.02	9.244		
12,900.00	7,220.70	12,482.69	7,228.81	158.05	157.73	90.16	381.61	-5,654.74	2,865.64	2,550.05	315.59	9.080		
13,000.00	7,220.20	12,582.69	7,228.50	160.82	160.53	90.17	380.84	-5,754.74	2,865.47	2,544.30	321.17	8.922		
13,100.00	7,219.70	12,682.69	7,228.19	163.60	163.33	90.17	380.08	-5,854.73	2,865.29	2,538.53	326.75	8.769		
13,200.00	7,219.20	12,782.69	7,227.87	166.38	166.13	90.17	379.31	-5,954.73	2,865.11	2,532.77	332.34	8.621		
13,300.00	7,218.70	12,882.69	7,227.56	169.16	168.94	90.18	378.54	-6,054.73	2,864.93	2,527.00	337.93	8.478		
13,400.00	7,218.20	12,982.69	7,227.25	171.95	171.75	90.18	377.77	-6,154.72	2,864.75	2,521.22	343.53	8.339		
13,500.00	7,217.70	13,082.69	7,226.94	174.74	174.56	90.19	377.01	-6,254.72	2,864.57	2,515.44	349.13	8.205		
13,600.00	7,217.20	13,182.69	7,226.63	177.53	177.37	90.19	376.24	-6,354.71	2,864.39	2,509.66	354.73	8.075		
13,700.00	7,216.70	13,282.69	7,226.32	180.32	180.18	90.19	375.47	-6,454.71	2,864.21	2,503.87	360.34	7.949		
13,800.00	7,216.19	13,382.69	7,226.00	183.11	182.99	90.20	374.70	-6,554.71	2,864.03	2,498.08	365.95	7.826		
13,900.00	7,215.69	13,482.69	7,225.69	185.91	185.80	90.20	373.94	-6,654.70	2,863.86	2,492.29	371.56	7.708		
14,000.00	7,215.19	13,582.69	7,225.38	188.71	188.62	90.20	373.17	-6,754.70	2,863.68	2,486.49	377.18	7.592		
14,100.00	7,214.69	13,682.69	7,225.07	191.51	191.44	90.21	372.40	-6,854.70	2,863.50	2,480.70	382.80	7.480		
14,200.00	7,214.19	13,782.69	7,224.76	194.31	194.26	90.21	371.63	-6,954.69	2,863.32	2,474.89	388.43	7.372		
14,300.00	7,213.69	13,882.69	7,224.44	197.11	197.07	90.22	370.87	-7,054.69	2,863.14	2,469.09	394.05	7.266		
14,400.00	7,213.19	13,982.69	7,224.13	199.92	199.90	90.22	370.10	-7,154.68	2,862.96	2,463.28	399.68	7.163		
14,500.00	7,212.69	14,082.69	7,223.82	202.72	202.72	90.22	369.33	-7,254.68	2,862.78	2,457.47	405.31	7.063		
14,600.00	7,212.19	14,182.69	7,223.51	205.53	205.54	90.23	368.56	-7,354.68	2,862.61	2,451.66	410.94	6.966		
14,700.00	7,211.69	14,282.69	7,223.20	208.34	208.36	90.23	367.80	-7,454.67	2,862.43	2,445.85	416.58	6.871		
14,800.00	7,211.19	14,382.69	7,222.88	211.15	211.19	90.23	367.03	-7,554.67	2,862.25	2,440.03	422.22	6.779		
14,900.00	7,210.69	14,482.69	7,222.57	213.96	214.01	90.24	366.26	-7,654.67	2,862.07	2,434.21	427.86	6.689		
15,000.00	7,210.19	14,582.69	7,222.26	216.78	216.84	90.24	365.49	-7,754.66	2,861.89	2,428.39	433.50	6.602		
15,100.00	7,209.69	14,682.69	7,221.95	219.59	219.67	90.25	364.73	-7,854.66	2,861.71	2,422.57	439.14	6.517		
15,200.00	7,209.18	14,782.69	7,221.64	222.41	222.49	90.25	363.96	-7,954.65	2,861.53	2,416.75	444.79	6.433		
15,300.00	7,208.68	14,882.69	7,221.32	225.22	225.32	90.25	363.19	-8,054.65	2,861.35	2,410.92	450.43	6.352		
15,400.00	7,208.18	14,982.69	7,221.01	228.04	228.15	90.26	362.42	-8,154.65	2,861.18	2,405.09	456.08	6.273		
15,412.60	7,208.12	14,995.28	7,220.97	228.40	228.51	90.26	362.33	-8,167.24	2,861.15	2,404.36	456.80	6.264		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	14,987.41	7,221.00	229.10	228.28	90.26	362.39	-8,159.37	2,861.30	2,404.14	457.16	6.259 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.60	79.79	0.83	79.80					
100.00	100.00	101.00	100.00	3.28	3.28	0.60	79.79	0.83	79.80	73.23	6.57	12.146		
200.00	200.00	201.03	200.03	3.34	3.34	0.60	79.79	0.83	79.80	73.12	6.67	11.955		
300.00	299.98	303.88	302.86	3.44	3.44	176.92	77.92	0.66	79.71	72.82	6.90	11.560		
400.00	399.84	406.73	405.55	3.59	3.60	176.79	72.37	0.14	79.54	72.31	7.23	11.003		
500.00	499.45	509.57	507.97	3.79	3.81	176.57	63.15	-0.73	79.28	71.61	7.67	10.338		
600.00	598.70	612.40	609.97	4.03	4.07	176.27	50.29	-1.94	78.92	70.73	8.20	9.630		
700.00	697.47	715.20	711.43	4.31	4.36	175.88	33.79	-3.50	78.48	69.69	8.80	8.923		
800.00	795.62	817.99	812.21	4.64	4.70	175.40	13.69	-5.39	77.96	68.50	9.45	8.246		
900.00	893.06	920.75	912.17	5.00	5.08	174.83	-10.00	-7.62	77.36	67.19	10.16	7.613		
942.55	934.26	963.95	953.95	5.17	5.25	174.56	-20.96	-8.66	77.14	66.67	10.47	7.371	CC, ES	
1,000.00	989.64	1,021.40	1,009.46	5.40	5.48	174.27	-35.67	-10.04	77.71	66.84	10.88	7.146		
1,100.00	1,085.27	1,121.32	1,106.02	5.83	5.91	173.97	-61.25	-12.45	81.45	69.82	11.63	7.006		
1,200.00	1,179.82	1,221.06	1,202.40	6.29	6.35	173.94	-86.78	-14.86	88.65	76.23	12.42	7.139		
1,300.00	1,273.47	1,320.57	1,298.57	6.79	6.80	174.08	-112.26	-17.26	98.50	85.25	13.24	7.437		
1,400.00	1,367.06	1,420.07	1,394.72	7.30	7.27	174.22	-137.73	-19.66	108.51	94.42	14.09	7.700		
1,500.00	1,460.64	1,519.56	1,490.87	7.83	7.74	174.33	-163.20	-22.06	118.53	103.57	14.96	7.921		
1,600.00	1,554.23	1,619.06	1,587.03	8.38	8.23	174.42	-188.67	-24.45	128.55	112.69	15.85	8.109		
1,700.00	1,647.82	1,718.56	1,683.18	8.93	8.71	174.50	-214.14	-26.85	138.56	121.81	16.76	8.269		
1,800.00	1,741.41	1,818.05	1,779.33	9.49	9.21	174.57	-239.62	-29.25	148.58	130.91	17.68	8.406		
1,900.00	1,835.00	1,917.55	1,875.48	10.05	9.71	174.63	-265.09	-31.65	158.60	140.00	18.60	8.525		
2,000.00	1,928.59	2,017.05	1,971.63	10.62	10.21	174.68	-290.56	-34.05	168.62	149.07	19.54	8.628		
2,100.00	2,022.18	2,116.54	2,067.78	11.20	10.72	174.73	-316.03	-36.45	178.63	158.15	20.49	8.719		
2,200.00	2,115.77	2,216.04	2,163.93	11.78	11.23	174.77	-341.50	-38.85	188.65	167.21	21.44	8.798		
2,300.00	2,209.36	2,315.54	2,260.08	12.37	11.74	174.81	-366.97	-41.25	198.67	176.27	22.40	8.869		
2,400.00	2,302.95	2,415.04	2,356.24	12.95	12.26	174.84	-392.45	-43.65	208.69	185.32	23.37	8.931		
2,500.00	2,396.54	2,514.53	2,452.39	13.54	12.78	174.87	-417.92	-46.05	218.71	194.37	24.34	8.987		
2,600.00	2,490.13	2,614.03	2,548.54	14.13	13.30	174.90	-443.39	-48.45	228.72	203.41	25.31	9.037		
2,700.00	2,583.72	2,713.53	2,644.69	14.73	13.82	174.93	-468.86	-50.85	238.74	212.45	26.29	9.082		
2,800.00	2,677.31	2,813.02	2,740.84	15.32	14.34	174.95	-494.33	-53.25	248.76	221.49	27.27	9.122		
2,900.00	2,770.90	2,912.52	2,836.99	15.92	14.86	174.97	-519.80	-55.65	258.78	230.52	28.25	9.159		
3,000.00	2,864.49	3,012.02	2,933.14	16.52	15.39	174.99	-545.28	-58.05	268.80	239.56	29.24	9.193		
3,100.00	2,958.08	3,111.51	3,029.29	17.12	15.91	175.01	-570.75	-60.45	278.81	248.58	30.23	9.223		
3,200.00	3,051.67	3,211.01	3,125.45	17.72	16.44	175.03	-596.22	-62.84	288.83	257.61	31.22	9.251		
3,300.00	3,145.26	3,310.51	3,221.60	18.32	16.96	175.05	-621.69	-65.24	298.85	266.64	32.21	9.277		
3,400.00	3,238.85	3,410.00	3,317.75	18.92	17.49	175.06	-647.16	-67.64	308.87	275.66	33.21	9.300		
3,500.00	3,332.44	3,509.50	3,413.90	19.53	18.02	175.08	-672.63	-70.04	318.89	284.68	34.21	9.322		
3,600.00	3,426.03	3,609.00	3,510.05	20.13	18.55	175.09	-698.11	-72.44	328.90	293.70	35.21	9.342		
3,700.00	3,519.62	3,708.49	3,606.20	20.74	19.08	175.10	-723.58	-74.84	338.92	302.72	36.21	9.361		
3,800.00	3,613.21	3,807.99	3,702.35	21.34	19.61	175.11	-749.05	-77.24	348.94	311.73	37.21	9.378		
3,900.00	3,706.80	3,907.49	3,798.51	21.95	20.14	175.12	-774.52	-79.64	358.96	320.75	38.21	9.395		
4,000.00	3,800.39	4,006.99	3,894.66	22.56	20.67	175.14	-799.99	-82.04	368.98	329.77	39.21	9.410		
4,100.00	3,893.98	4,106.48	3,990.81	23.16	21.20	175.15	-825.46	-84.44	379.00	338.78	40.22	9.424		
4,200.00	3,987.57	4,205.98	4,086.96	23.77	21.73	175.16	-850.94	-86.84	389.01	347.79	41.22	9.437		
4,300.00	4,081.16	4,305.48	4,183.11	24.38	22.27	175.16	-876.41	-89.24	399.03	356.80	42.23	9.449		
4,400.00	4,174.75	4,404.97	4,279.26	24.99	22.80	175.17	-901.88	-91.64	409.05	365.82	43.24	9.461		
4,500.00	4,268.34	4,504.47	4,375.41	25.60	23.33	175.18	-927.35	-94.04	419.07	374.83	44.24	9.472		
4,600.00	4,361.93	4,603.97	4,471.56	26.21	23.86	175.19	-952.82	-96.44	429.09	383.84	45.25	9.482		
4,700.00	4,455.52	4,703.46	4,567.72	26.82	24.40	175.20	-978.29	-98.84	439.11	392.85	46.26	9.492		
4,800.00	4,549.11	4,802.96	4,663.87	27.43	24.93	175.20	-1,003.77	-101.23	449.13	401.85	47.27	9.501		
4,900.00	4,642.70	4,902.46	4,760.02	28.04	25.46	175.21	-1,029.24	-103.63	459.14	410.86	48.28	9.510		
5,000.00	4,736.29	5,001.95	4,856.17	28.65	26.00	175.22	-1,054.71	-106.03	469.16	419.87	49.29	9.518		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16A-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.00	4,829.88	5,101.45	4,952.32	29.26	26.53	175.22	-1,080.18	-108.43	479.18	428.88	50.30	9.526	
5,200.00	4,923.47	5,200.95	5,048.47	29.87	27.07	175.23	-1,105.65	-110.83	489.20	437.88	51.32	9.533	
5,300.00	5,017.06	5,300.44	5,144.62	30.48	27.60	175.24	-1,131.12	-113.23	499.22	446.89	52.33	9.540	
5,400.00	5,110.65	5,400.06	5,240.77	31.09	28.14	175.24	-1,156.60	-115.63	509.24	455.89	53.34	9.547	
5,500.00	5,204.24	5,500.56	5,336.93	31.70	28.68	175.25	-1,182.07	-118.03	519.25	464.89	54.36	9.552	
5,600.00	5,297.83	5,601.06	5,433.08	32.32	29.22	175.25	-1,207.54	-120.43	529.27	473.89	55.38	9.557	
5,700.00	5,391.42	5,701.57	5,529.23	32.93	29.76	175.26	-1,233.01	-122.83	539.29	482.89	56.40	9.562	
5,800.00	5,485.01	5,802.07	5,625.38	33.54	30.30	175.26	-1,258.48	-125.23	549.31	491.89	57.42	9.567	
5,900.00	5,578.60	5,902.57	5,721.53	34.15	30.84	175.27	-1,283.95	-127.63	559.33	500.89	58.44	9.572	
6,000.00	5,672.19	6,003.08	5,817.68	34.77	31.38	175.27	-1,309.43	-130.03	569.35	509.89	59.46	9.576	
6,100.00	5,765.78	6,103.58	5,913.83	35.38	31.92	175.27	-1,334.90	-132.43	579.37	518.89	60.48	9.580	
6,200.00	5,859.37	6,204.08	6,009.98	35.99	32.46	175.28	-1,360.37	-134.83	589.38	527.89	61.50	9.584	
6,300.00	5,952.96	6,295.41	6,106.14	36.60	32.96	175.28	-1,385.84	-137.23	599.40	536.93	62.47	9.595	
6,400.00	6,046.55	6,405.09	6,202.29	37.22	33.55	175.29	-1,411.31	-139.63	609.42	545.88	63.54	9.591	
6,500.00	6,140.14	6,494.41	6,298.44	37.83	34.03	175.29	-1,436.78	-142.02	619.44	554.93	64.51	9.603	
6,600.00	6,233.73	6,593.21	6,393.83	38.44	34.56	175.14	-1,462.07	-146.06	629.48	563.96	65.52	9.607	
6,700.00	6,327.32	6,689.05	6,485.01	39.06	35.06	173.88	-1,486.32	-162.41	639.91	573.36	66.55	9.616	
6,800.00	6,420.91	6,778.79	6,567.32	39.67	35.49	171.61	-1,508.30	-190.38	651.67	584.13	67.54	9.648	
6,900.00	6,514.50	6,859.86	6,637.72	40.28	35.86	168.73	-1,527.19	-225.72	666.31	597.88	68.43	9.738	
7,000.00	6,608.09	6,931.23	6,695.67	40.90	36.15	165.64	-1,542.80	-264.29	685.47	616.42	69.06	9.926	
7,100.00	6,701.63	6,993.67	6,742.66	41.51	36.39	152.26	-1,555.51	-303.35	710.24	640.95	69.29	10.250	
7,200.00	6,793.85	7,050.00	6,781.69	42.10	36.59	127.64	-1,566.12	-342.53	738.01	669.00	69.01	10.694	
7,300.00	6,882.50	7,111.96	6,820.56	42.64	36.79	109.60	-1,576.74	-389.57	766.50	697.94	68.56	11.180	
7,400.00	6,965.41	7,169.79	6,852.69	43.12	36.98	97.04	-1,585.58	-436.81	794.25	726.53	67.72	11.729	
7,500.00	7,040.53	7,227.03	6,880.27	43.53	37.16	88.09	-1,593.22	-486.35	820.02	753.31	66.71	12.293	
7,600.00	7,106.00	7,283.81	6,903.28	43.89	37.34	81.61	-1,599.67	-537.85	842.83	777.15	65.69	12.831	
7,700.00	7,160.23	7,340.27	6,921.66	44.20	37.53	76.96	-1,604.91	-590.95	861.92	797.10	64.82	13.297	
7,800.00	7,201.86	7,400.00	6,936.07	44.48	37.76	73.71	-1,609.13	-648.74	876.71	812.32	64.38	13.617	
7,900.00	7,229.88	7,450.00	6,944.06	44.73	37.99	71.72	-1,611.59	-698.02	886.76	822.63	64.13	13.828	
8,000.00	7,243.60	7,508.50	6,948.63	44.99	38.32	70.74	-1,613.21	-756.31	891.81	827.14	64.68	13.789	
8,100.00	7,244.73	7,588.98	6,948.79	45.29	38.92	70.63	-1,613.81	-836.78	892.40	826.12	66.27	13.465	
8,200.00	7,244.23	7,688.98	6,948.41	45.74	39.93	70.64	-1,614.41	-936.78	892.35	823.65	68.70	12.989	
8,300.00	7,243.73	7,788.98	6,948.03	46.38	41.20	70.65	-1,615.01	-1,036.77	892.30	820.84	71.46	12.487	
8,400.00	7,243.23	7,888.98	6,947.65	47.29	42.69	70.65	-1,615.61	-1,136.77	892.25	817.74	74.51	11.975	
8,500.00	7,242.73	7,988.98	6,947.27	48.46	44.34	70.66	-1,616.21	-1,236.77	892.20	814.38	77.82	11.465	
8,600.00	7,242.23	8,088.98	6,946.90	49.87	46.14	70.67	-1,616.81	-1,336.77	892.15	810.78	81.36	10.965	
8,700.00	7,241.73	8,188.98	6,946.52	51.48	48.05	70.68	-1,617.41	-1,436.76	892.10	806.99	85.11	10.482	
8,800.00	7,241.23	8,288.98	6,946.14	53.24	50.06	70.68	-1,618.00	-1,536.76	892.05	803.02	89.02	10.020	
8,900.00	7,240.73	8,388.98	6,945.76	55.13	52.16	70.69	-1,618.60	-1,636.76	892.00	798.90	93.10	9.581	
9,000.00	7,240.23	8,488.98	6,945.38	57.11	54.32	70.70	-1,619.20	-1,736.76	891.95	794.64	97.30	9.167	
9,100.00	7,239.73	8,588.98	6,945.00	59.19	56.56	70.70	-1,619.80	-1,836.75	891.90	790.27	101.63	8.776	
9,200.00	7,239.23	8,688.98	6,944.62	61.34	58.84	70.71	-1,620.40	-1,936.75	891.85	785.79	106.05	8.409	
9,300.00	7,238.72	8,788.98	6,944.24	63.55	61.18	70.72	-1,621.00	-2,036.75	891.80	781.23	110.57	8.065	
9,400.00	7,238.22	8,888.98	6,943.86	65.81	63.56	70.73	-1,621.60	-2,136.75	891.75	776.58	115.17	7.743	
9,500.00	7,237.72	8,988.98	6,943.48	68.13	65.98	70.73	-1,622.19	-2,236.74	891.70	771.86	119.84	7.441	
9,600.00	7,237.22	9,088.98	6,943.10	70.48	68.44	70.74	-1,622.79	-2,336.74	891.65	767.07	124.57	7.158	
9,700.00	7,236.72	9,188.98	6,942.72	72.88	70.93	70.75	-1,623.39	-2,436.74	891.60	762.23	129.36	6.892	
9,800.00	7,236.22	9,288.98	6,942.34	75.31	73.44	70.75	-1,623.99	-2,536.74	891.55	757.34	134.20	6.643	
9,900.00	7,235.72	9,388.98	6,941.96	77.77	75.98	70.76	-1,624.59	-2,636.73	891.50	752.41	139.09	6.410	
10,000.00	7,235.22	9,488.98	6,941.58	80.26	78.54	70.77	-1,625.19	-2,736.73	891.45	747.43	144.01	6.190	
10,100.00	7,234.72	9,588.98	6,941.21	82.77	81.12	70.78	-1,625.79	-2,836.73	891.40	742.42	148.98	5.983	
10,200.00	7,234.22	9,688.98	6,940.83	85.31	83.72	70.78	-1,626.39	-2,936.73	891.35	737.38	153.97	5.789	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	9,788.98	6,940.45	87.86	86.33	70.79	-1,626.98	-3,036.72	891.30	732.30	159.00	5.606		
10,400.00	7,233.22	9,888.98	6,940.07	90.44	88.96	70.80	-1,627.58	-3,136.72	891.25	727.20	164.05	5.433		
10,500.00	7,232.72	9,988.98	6,939.69	93.03	91.61	70.80	-1,628.18	-3,236.72	891.20	722.07	169.13	5.269		
10,600.00	7,232.22	10,088.98	6,939.31	95.64	94.26	70.81	-1,628.78	-3,336.72	891.15	716.92	174.23	5.115		
10,700.00	7,231.72	10,188.98	6,938.93	98.26	96.93	70.82	-1,629.38	-3,436.71	891.10	711.75	179.35	4.968		
10,800.00	7,231.21	10,288.98	6,938.55	100.89	99.61	70.83	-1,629.98	-3,536.71	891.05	706.56	184.49	4.830		
10,900.00	7,230.71	10,388.98	6,938.17	103.54	102.30	70.83	-1,630.58	-3,636.71	891.00	701.35	189.65	4.698		
11,000.00	7,230.21	10,488.98	6,937.79	106.20	105.00	70.84	-1,631.17	-3,736.70	890.95	696.12	194.83	4.573		
11,100.00	7,229.71	10,588.98	6,937.41	108.87	107.71	70.85	-1,631.77	-3,836.70	890.90	690.89	200.02	4.454		
11,200.00	7,229.21	10,688.98	6,937.03	111.54	110.42	70.85	-1,632.37	-3,936.70	890.85	685.63	205.22	4.341		
11,300.00	7,228.71	10,788.98	6,936.65	114.23	113.14	70.86	-1,632.97	-4,036.70	890.80	680.37	210.44	4.233		
11,400.00	7,228.21	10,888.98	6,936.27	116.92	115.87	70.87	-1,633.57	-4,136.69	890.75	675.09	215.66	4.130		
11,500.00	7,227.71	10,988.98	6,935.89	119.63	118.60	70.88	-1,634.17	-4,236.69	890.70	669.80	220.90	4.032		
11,600.00	7,227.21	11,088.98	6,935.52	122.34	121.34	70.88	-1,634.77	-4,336.69	890.65	664.50	226.15	3.938		
11,700.00	7,226.71	11,188.98	6,935.14	125.05	124.09	70.89	-1,635.37	-4,436.69	890.60	659.19	231.41	3.849		
11,800.00	7,226.21	11,288.98	6,934.76	127.78	126.84	70.90	-1,635.96	-4,536.68	890.55	653.87	236.68	3.763		
11,900.00	7,225.71	11,388.98	6,934.38	130.51	129.59	70.90	-1,636.56	-4,636.68	890.50	648.54	241.96	3.680		
12,000.00	7,225.21	11,488.98	6,934.00	133.24	132.35	70.91	-1,637.16	-4,736.68	890.45	643.21	247.25	3.601		
12,100.00	7,224.71	11,588.98	6,933.62	135.98	135.12	70.92	-1,637.76	-4,836.68	890.40	637.86	252.54	3.526		
12,200.00	7,224.21	11,688.98	6,933.24	138.72	137.88	70.93	-1,638.36	-4,936.67	890.35	632.51	257.84	3.453		
12,300.00	7,223.70	11,788.98	6,932.86	141.47	140.66	70.93	-1,638.96	-5,036.67	890.31	627.16	263.15	3.383		
12,400.00	7,223.20	11,888.98	6,932.48	144.23	143.43	70.94	-1,639.56	-5,136.67	890.26	621.79	268.46	3.316		
12,500.00	7,222.70	11,988.98	6,932.10	146.98	146.21	70.95	-1,640.15	-5,236.67	890.21	616.42	273.78	3.252		
12,600.00	7,222.20	12,088.98	6,931.72	149.74	148.99	70.95	-1,640.75	-5,336.66	890.16	611.05	279.11	3.189		
12,700.00	7,221.70	12,188.98	6,931.34	152.51	151.77	70.96	-1,641.35	-5,436.66	890.11	605.67	284.44	3.129		
12,800.00	7,221.20	12,288.98	6,930.96	155.28	154.56	70.97	-1,641.95	-5,536.66	890.06	600.28	289.78	3.072		
12,900.00	7,220.70	12,388.98	6,930.58	158.05	157.35	70.98	-1,642.55	-5,636.66	890.01	594.89	295.12	3.016		
13,000.00	7,220.20	12,488.98	6,930.20	160.82	160.14	70.98	-1,643.15	-5,736.65	889.96	589.50	300.46	2.962		
13,100.00	7,219.70	12,588.98	6,929.83	163.60	162.93	70.99	-1,643.75	-5,836.65	889.91	584.10	305.81	2.910		
13,200.00	7,219.20	12,688.98	6,929.45	166.38	165.73	71.00	-1,644.34	-5,936.65	889.86	578.69	311.17	2.860		
13,300.00	7,218.70	12,788.98	6,929.07	169.16	168.53	71.00	-1,644.94	-6,036.65	889.81	573.29	316.52	2.811		
13,400.00	7,218.20	12,888.98	6,928.69	171.95	171.33	71.01	-1,645.54	-6,136.64	889.76	567.88	321.89	2.764		
13,500.00	7,217.70	12,988.98	6,928.31	174.74	174.13	71.02	-1,646.14	-6,236.64	889.71	562.46	327.25	2.719		
13,600.00	7,217.20	13,088.98	6,927.93	177.53	176.94	71.03	-1,646.74	-6,336.64	889.66	557.04	332.62	2.675		
13,700.00	7,216.70	13,188.98	6,927.55	180.32	179.74	71.03	-1,647.34	-6,436.63	889.61	551.62	337.99	2.632		
13,800.00	7,216.19	13,288.98	6,927.17	183.11	182.55	71.04	-1,647.94	-6,536.63	889.56	546.20	343.37	2.591		
13,900.00	7,215.69	13,388.98	6,926.79	185.91	185.36	71.05	-1,648.54	-6,636.63	889.51	540.77	348.75	2.551		
14,000.00	7,215.19	13,488.98	6,926.41	188.71	188.17	71.05	-1,649.13	-6,736.63	889.47	535.34	354.13	2.512		
14,100.00	7,214.69	13,588.98	6,926.03	191.51	190.98	71.06	-1,649.73	-6,836.62	889.42	529.90	359.51	2.474		
14,200.00	7,214.19	13,688.98	6,925.65	194.31	193.79	71.07	-1,650.33	-6,936.62	889.37	524.47	364.90	2.437		
14,300.00	7,213.69	13,788.98	6,925.27	197.11	196.61	71.08	-1,650.93	-7,036.62	889.32	519.03	370.29	2.402		
14,400.00	7,213.19	13,888.98	6,924.89	199.92	199.42	71.08	-1,651.53	-7,136.62	889.27	513.59	375.68	2.367		
14,500.00	7,212.69	13,988.98	6,924.51	202.72	202.24	71.09	-1,652.13	-7,236.61	889.22	508.14	381.08	2.333		
14,600.00	7,212.19	14,088.98	6,924.14	205.53	205.06	71.10	-1,652.73	-7,336.61	889.17	502.69	386.47	2.301		
14,700.00	7,211.69	14,188.98	6,923.76	208.34	207.88	71.10	-1,653.32	-7,436.61	889.12	497.25	391.87	2.269		
14,800.00	7,211.19	14,288.98	6,923.38	211.15	210.70	71.11	-1,653.92	-7,536.61	889.07	491.80	397.28	2.238		
14,900.00	7,210.69	14,388.98	6,923.00	213.96	213.52	71.12	-1,654.52	-7,636.60	889.02	486.34	402.68	2.208		
15,000.00	7,210.19	14,488.98	6,922.62	216.78	216.34	71.13	-1,655.12	-7,736.60	888.97	480.89	408.09	2.178		
15,100.00	7,209.69	14,588.98	6,922.24	219.59	219.17	71.13	-1,655.72	-7,836.60	888.92	475.43	413.49	2.150		
15,200.00	7,209.18	14,688.98	6,921.86	222.41	221.99	71.14	-1,656.32	-7,936.60	888.87	469.97	418.90	2.122		
15,300.00	7,208.68	14,788.98	6,921.48	225.22	224.82	71.15	-1,656.92	-8,036.59	888.83	464.51	424.32	2.095		
15,400.00	7,208.18	14,888.98	6,921.10	228.04	227.64	71.15	-1,657.52	-8,136.59	888.78	459.05	429.73	2.068		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 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
15,426.75	7,208.05	14,915.72	6,921.00	228.79	228.40	71.16	-1,657.68	-8,163.34	888.76	457.59	431.18	2.061	
15,437.48	7,208.00	14,915.55	6,921.00	229.10	228.39	71.16	-1,657.67	-8,163.16	888.83	457.58	431.24	2.061 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.48	99.82	0.83	99.82					
100.00	100.00	101.00	100.00	3.28	3.28	0.48	99.82	0.83	99.82	93.25	6.57	15.195		
200.00	200.00	201.04	200.04	3.34	3.34	0.48	99.82	0.83	99.82	93.15	6.67	14.955		
300.00	299.98	304.63	303.60	3.44	3.45	176.79	97.92	0.63	99.73	92.83	6.90	14.460		
400.00	399.84	408.21	407.03	3.59	3.61	176.65	92.30	0.03	99.52	92.29	7.23	13.762		
500.00	499.45	511.78	510.17	3.79	3.82	176.40	82.97	-0.96	99.21	91.53	7.67	12.929		
600.00	598.70	615.34	612.89	4.03	4.08	176.06	69.93	-2.35	98.78	90.58	8.20	12.040		
700.00	697.47	718.87	715.04	4.31	4.37	175.62	53.22	-4.13	98.25	89.44	8.81	11.155		
800.00	795.62	822.38	816.49	4.64	4.72	175.08	32.86	-6.31	97.62	88.15	9.47	10.309		
846.52	841.05	869.81	862.74	4.80	4.89	174.80	22.38	-7.42	97.37	87.59	9.78	9.958 CC, ES		
900.00	893.06	923.29	914.85	5.00	5.09	174.52	10.43	-8.70	97.87	87.73	10.14	9.654		
1,000.00	989.64	1,023.22	1,012.22	5.40	5.48	174.16	-11.91	-11.08	101.47	90.62	10.84	9.356		
1,100.00	1,085.27	1,122.96	1,109.41	5.83	5.89	174.02	-34.21	-13.46	108.54	96.94	11.60	9.360		
1,200.00	1,179.82	1,222.40	1,206.30	6.29	6.31	174.07	-56.44	-15.83	119.07	106.68	12.39	9.613		
1,300.00	1,273.47	1,321.53	1,302.90	6.79	6.75	174.23	-78.60	-18.19	132.23	119.02	13.21	10.013		
1,400.00	1,367.06	1,420.64	1,399.47	7.30	7.20	174.38	-100.75	-20.55	145.56	131.52	14.05	10.363		
1,500.00	1,460.64	1,519.74	1,496.03	7.83	7.65	174.51	-122.91	-22.92	158.90	143.99	14.91	10.659		
1,600.00	1,554.23	1,618.85	1,592.60	8.38	8.12	174.61	-145.06	-25.28	172.23	156.45	15.79	10.910		
1,700.00	1,647.82	1,717.95	1,689.17	8.93	8.59	174.70	-167.22	-27.64	185.57	168.89	16.68	11.125		
1,800.00	1,741.41	1,817.06	1,785.74	9.49	9.06	174.78	-189.37	-30.01	198.91	181.32	17.59	11.311		
1,900.00	1,835.00	1,916.17	1,882.31	10.05	9.54	174.85	-211.53	-32.37	212.24	193.74	18.50	11.471		
2,000.00	1,928.59	2,015.27	1,978.88	10.62	10.02	174.91	-233.68	-34.73	225.58	206.15	19.43	11.611		
2,100.00	2,022.18	2,114.38	2,075.45	11.20	10.51	174.96	-255.84	-37.09	238.91	218.55	20.36	11.734		
2,200.00	2,115.77	2,213.49	2,172.02	11.78	11.00	175.01	-277.99	-39.46	252.25	230.95	21.30	11.842		
2,300.00	2,209.36	2,312.59	2,268.59	12.37	11.49	175.05	-300.15	-41.82	265.59	243.34	22.25	11.938		
2,400.00	2,302.95	2,411.70	2,365.16	12.95	11.98	175.09	-322.30	-44.18	278.93	255.73	23.20	12.024		
2,500.00	2,396.54	2,510.81	2,461.73	13.54	12.47	175.13	-344.46	-46.54	292.26	268.11	24.15	12.100		
2,600.00	2,490.13	2,609.91	2,558.30	14.13	12.97	175.16	-366.61	-48.91	305.60	280.49	25.11	12.169		
2,700.00	2,583.72	2,709.02	2,654.87	14.73	13.47	175.19	-388.77	-51.27	318.94	292.86	26.08	12.231		
2,800.00	2,677.31	2,808.13	2,751.44	15.32	13.97	175.22	-410.92	-53.63	332.28	305.23	27.04	12.287		
2,900.00	2,770.90	2,907.23	2,848.01	15.92	14.47	175.24	-433.08	-55.99	345.61	317.60	28.01	12.338		
3,000.00	2,864.49	3,006.34	2,944.58	16.52	14.97	175.27	-455.23	-58.36	358.95	329.97	28.98	12.384		
3,100.00	2,958.08	3,105.44	3,041.15	17.12	15.47	175.29	-477.39	-60.72	372.29	342.33	29.96	12.427		
3,200.00	3,051.67	3,204.55	3,137.72	17.72	15.97	175.31	-499.54	-63.08	385.63	354.69	30.94	12.465		
3,300.00	3,145.26	3,303.66	3,234.28	18.32	16.48	175.33	-521.70	-65.44	398.97	367.05	31.91	12.501		
3,400.00	3,238.85	3,402.76	3,330.85	18.92	16.98	175.34	-543.85	-67.81	412.30	379.41	32.89	12.534		
3,500.00	3,332.44	3,501.87	3,427.42	19.53	17.49	175.36	-566.01	-70.17	425.64	391.77	33.88	12.565		
3,600.00	3,426.03	3,600.98	3,523.99	20.13	17.99	175.38	-588.16	-72.53	438.98	404.12	34.86	12.593		
3,700.00	3,519.62	3,700.08	3,620.56	20.74	18.50	175.39	-610.32	-74.89	452.32	416.47	35.84	12.619		
3,800.00	3,613.21	3,800.81	3,717.13	21.34	19.01	175.40	-632.47	-77.26	465.66	428.82	36.84	12.641		
3,900.00	3,706.80	3,901.70	3,813.70	21.95	19.53	175.42	-654.63	-79.62	478.99	441.16	37.83	12.661		
4,000.00	3,800.39	4,002.60	3,910.27	22.56	20.05	175.43	-676.78	-81.98	492.33	453.50	38.83	12.679		
4,100.00	3,893.98	4,103.49	4,006.84	23.16	20.56	175.44	-698.94	-84.34	505.67	465.84	39.83	12.697		
4,200.00	3,987.57	4,195.62	4,103.41	23.77	21.04	175.45	-721.09	-86.71	519.01	478.22	40.78	12.726		
4,300.00	4,081.16	4,305.28	4,199.98	24.38	21.60	175.46	-743.25	-89.07	532.35	490.52	41.82	12.728		
4,400.00	4,174.75	4,406.17	4,296.55	24.99	22.12	175.47	-765.40	-91.43	545.68	502.86	42.82	12.742		
4,500.00	4,268.34	4,492.93	4,393.12	25.60	22.56	175.48	-787.56	-93.80	559.02	515.26	43.76	12.775		
4,600.00	4,361.93	4,607.96	4,489.69	26.21	23.15	175.49	-809.71	-96.16	572.36	527.53	44.83	12.768		
4,700.00	4,455.52	4,691.15	4,586.26	26.82	23.58	175.50	-831.87	-98.52	585.70	539.95	45.75	12.803		
4,800.00	4,549.11	4,790.25	4,682.83	27.43	24.09	175.51	-854.02	-100.88	599.04	552.30	46.74	12.816		
4,900.00	4,642.70	4,889.36	4,779.40	28.04	24.60	175.51	-876.18	-103.25	612.38	564.64	47.73	12.829		
5,000.00	4,736.29	4,988.47	4,875.97	28.65	25.11	175.52	-898.33	-105.61	625.71	576.98	48.73	12.840		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	5,087.57	4,972.53	29.26	25.62	175.53	-920.49	-107.97	639.05	589.33	49.73	12.852		
5,200.00	4,923.47	5,186.68	5,069.10	29.87	26.14	175.54	-942.64	-110.33	652.39	601.67	50.72	12.862		
5,300.00	5,017.06	5,285.79	5,165.67	30.48	26.65	175.54	-964.80	-112.70	665.73	614.01	51.72	12.872		
5,400.00	5,110.65	5,384.89	5,262.24	31.09	27.16	175.55	-986.95	-115.06	679.07	626.35	52.72	12.882		
5,500.00	5,204.24	5,484.00	5,358.81	31.70	27.67	175.56	-1,009.11	-117.42	692.41	638.69	53.71	12.891		
5,600.00	5,297.83	5,583.11	5,455.38	32.32	28.18	175.56	-1,031.26	-119.78	705.74	651.03	54.71	12.899		
5,700.00	5,391.42	5,682.21	5,551.95	32.93	28.69	175.57	-1,053.42	-122.15	719.08	663.37	55.71	12.908		
5,800.00	5,485.01	5,781.32	5,648.52	33.54	29.21	175.57	-1,075.57	-124.51	732.42	675.71	56.71	12.916		
5,900.00	5,578.60	5,880.42	5,745.09	34.15	29.72	175.58	-1,097.73	-126.87	745.76	688.05	57.71	12.923		
6,000.00	5,672.19	5,979.53	5,841.66	34.77	30.23	175.58	-1,119.88	-129.23	759.10	700.39	58.71	12.930		
6,100.00	5,765.78	6,078.64	5,938.23	35.38	30.74	175.59	-1,142.04	-131.60	772.44	712.73	59.71	12.937		
6,200.00	5,859.37	6,177.74	6,034.80	35.99	31.25	175.59	-1,164.19	-133.96	785.77	725.07	60.71	12.944		
6,300.00	5,952.96	6,276.85	6,131.37	36.60	31.77	175.60	-1,186.35	-136.32	799.11	737.41	61.71	12.950		
6,400.00	6,046.55	6,375.96	6,227.94	37.22	32.28	175.60	-1,208.50	-138.68	812.45	749.75	62.71	12.957		
6,500.00	6,140.14	6,475.06	6,324.51	37.83	32.79	175.61	-1,230.66	-141.05	825.79	762.08	63.71	12.962		
6,600.00	6,233.73	6,574.17	6,421.08	38.44	33.30	175.61	-1,252.81	-143.41	839.13	774.42	64.71	12.968		
6,700.00	6,327.32	6,672.50	6,516.74	39.06	33.81	175.43	-1,274.78	-148.50	852.49	786.79	65.71	12.974		
6,800.00	6,420.91	6,767.66	6,607.68	39.67	34.29	174.37	-1,295.75	-166.61	866.17	799.47	66.70	12.986		
6,900.00	6,514.50	6,856.30	6,689.15	40.28	34.70	172.60	-1,314.61	-195.81	880.93	813.30	67.64	13.025		
7,000.00	6,608.09	6,936.07	6,758.43	40.90	35.04	170.42	-1,330.73	-231.78	897.96	829.50	68.46	13.116		
7,100.00	6,701.63	7,006.69	6,815.69	41.51	35.32	157.92	-1,344.11	-270.84	918.31	849.21	69.10	13.290		
7,200.00	6,793.85	7,073.73	6,865.81	42.10	35.56	134.18	-1,355.89	-313.73	940.69	871.16	69.53	13.529		
7,300.00	6,882.50	7,139.02	6,910.13	42.64	35.79	117.12	-1,366.35	-360.47	963.63	893.89	69.74	13.817		
7,400.00	6,965.41	7,200.00	6,947.11	43.12	35.99	105.30	-1,375.14	-408.12	986.05	916.35	69.70	14.148		
7,500.00	7,040.53	7,265.94	6,981.89	43.53	36.19	96.80	-1,383.47	-463.48	1,006.96	937.28	69.67	14.453		
7,600.00	7,106.00	7,328.14	7,009.42	43.89	36.39	90.68	-1,390.14	-518.84	1,025.58	956.01	69.57	14.742		
7,700.00	7,160.23	7,389.78	7,031.37	44.20	36.61	86.27	-1,395.55	-576.16	1,041.23	971.67	69.57	14.967		
7,800.00	7,201.86	7,450.00	7,047.50	44.48	36.87	83.21	-1,399.63	-634.01	1,053.42	983.64	69.78	15.097		
7,900.00	7,229.88	7,511.98	7,058.46	44.73	37.20	81.26	-1,402.54	-694.92	1,061.74	991.37	70.38	15.087		
8,000.00	7,243.60	7,572.79	7,063.55	44.99	37.62	80.33	-1,404.10	-755.47	1,065.96	994.61	71.35	14.939		
8,100.00	7,244.73	7,656.07	7,063.87	45.29	38.36	80.24	-1,404.71	-838.74	1,066.45	993.25	73.20	14.569		
8,200.00	7,244.23	7,756.07	7,063.64	45.74	39.50	80.25	-1,405.31	-938.74	1,066.40	990.68	75.72	14.083		
8,300.00	7,243.73	7,856.07	7,063.41	46.38	40.87	80.26	-1,405.91	-1,038.73	1,066.34	987.77	78.57	13.572		
8,400.00	7,243.23	7,956.07	7,063.18	47.29	42.42	80.28	-1,406.51	-1,138.73	1,066.28	984.58	81.71	13.050		
8,500.00	7,242.73	8,056.07	7,062.95	48.46	44.12	80.29	-1,407.11	-1,238.73	1,066.23	981.12	85.11	12.528		
8,600.00	7,242.23	8,156.07	7,062.72	49.87	45.95	80.31	-1,407.71	-1,338.73	1,066.17	977.44	88.73	12.015		
8,700.00	7,241.73	8,256.07	7,062.49	51.48	47.89	80.32	-1,408.31	-1,438.72	1,066.12	973.55	92.57	11.517		
8,800.00	7,241.23	8,356.07	7,062.26	53.24	49.92	80.34	-1,408.91	-1,538.72	1,066.06	969.48	96.58	11.038		
8,900.00	7,240.73	8,456.07	7,062.03	55.13	52.03	80.35	-1,409.50	-1,638.72	1,066.01	965.26	100.75	10.581		
9,000.00	7,240.23	8,556.07	7,061.80	57.11	54.21	80.36	-1,410.10	-1,738.72	1,065.95	960.89	105.06	10.147		
9,100.00	7,239.73	8,656.06	7,061.57	59.19	56.46	80.38	-1,410.70	-1,838.72	1,065.89	956.41	109.49	9.735		
9,200.00	7,239.23	8,756.06	7,061.34	61.34	58.76	80.39	-1,411.30	-1,938.71	1,065.84	951.81	114.03	9.347		
9,300.00	7,238.72	8,856.06	7,061.11	63.55	61.10	80.41	-1,411.90	-2,038.71	1,065.78	947.12	118.66	8.982		
9,400.00	7,238.22	8,956.06	7,060.88	65.81	63.49	80.42	-1,412.50	-2,138.71	1,065.73	942.34	123.38	8.638		
9,500.00	7,237.72	9,056.06	7,060.65	68.13	65.92	80.44	-1,413.10	-2,238.71	1,065.67	937.49	128.18	8.314		
9,600.00	7,237.22	9,156.06	7,060.42	70.48	68.38	80.45	-1,413.70	-2,338.70	1,065.62	932.57	133.05	8.009		
9,700.00	7,236.72	9,256.06	7,060.19	72.88	70.88	80.46	-1,414.30	-2,438.70	1,065.56	927.59	137.97	7.723		
9,800.00	7,236.22	9,356.06	7,059.96	75.31	73.40	80.48	-1,414.89	-2,538.70	1,065.51	922.55	142.95	7.454		
9,900.00	7,235.72	9,456.06	7,059.72	77.77	75.94	80.49	-1,415.49	-2,638.70	1,065.45	917.47	147.98	7.200		
10,000.00	7,235.22	9,556.06	7,059.49	80.26	78.50	80.51	-1,416.09	-2,738.69	1,065.40	912.34	153.05	6.961		
10,100.00	7,234.72	9,656.06	7,059.26	82.77	81.09	80.52	-1,416.69	-2,838.69	1,065.34	907.17	158.17	6.736		
10,200.00	7,234.22	9,756.06	7,059.03	85.31	83.69	80.53	-1,417.29	-2,938.69	1,065.29	901.97	163.32	6.523		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth	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)			
10,300.00	7,233.72	9,856.06	7,058.80	87.86	86.31	80.55	-1,417.89	-3,038.69	1,065.23	896.73	168.50	6.322		
10,400.00	7,233.22	9,956.06	7,058.57	90.44	88.95	80.56	-1,418.49	-3,138.68	1,065.18	891.46	173.71	6.132		
10,500.00	7,232.72	10,056.06	7,058.34	93.03	91.59	80.58	-1,419.09	-3,238.68	1,065.12	886.17	178.95	5.952		
10,600.00	7,232.22	10,156.06	7,058.11	95.64	94.25	80.59	-1,419.68	-3,338.68	1,065.07	880.85	184.22	5.782		
10,700.00	7,231.72	10,256.06	7,057.88	98.26	96.93	80.61	-1,420.28	-3,438.68	1,065.01	875.50	189.51	5.620		
10,800.00	7,231.21	10,356.06	7,057.65	100.89	99.61	80.62	-1,420.88	-3,538.67	1,064.96	870.14	194.82	5.466		
10,900.00	7,230.71	10,456.06	7,057.42	103.54	102.30	80.63	-1,421.48	-3,638.67	1,064.90	864.75	200.15	5.321		
11,000.00	7,230.21	10,556.06	7,057.19	106.20	105.00	80.65	-1,422.08	-3,738.67	1,064.85	859.35	205.50	5.182		
11,100.00	7,229.71	10,656.06	7,056.96	108.87	107.71	80.66	-1,422.68	-3,838.67	1,064.79	853.93	210.86	5.050		
11,200.00	7,229.21	10,756.06	7,056.73	111.54	110.42	80.68	-1,423.28	-3,938.66	1,064.74	848.50	216.24	4.924		
11,300.00	7,228.71	10,856.06	7,056.50	114.23	113.15	80.69	-1,423.88	-4,038.66	1,064.68	843.05	221.64	4.804		
11,400.00	7,228.21	10,956.06	7,056.27	116.92	115.88	80.71	-1,424.48	-4,138.66	1,064.63	837.59	227.04	4.689		
11,500.00	7,227.71	11,056.06	7,056.04	119.63	118.61	80.72	-1,425.07	-4,238.66	1,064.58	832.11	232.46	4.580		
11,600.00	7,227.21	11,156.06	7,055.81	122.34	121.35	80.73	-1,425.67	-4,338.65	1,064.52	826.63	237.90	4.475		
11,700.00	7,226.71	11,256.06	7,055.58	125.05	124.10	80.75	-1,426.27	-4,438.65	1,064.47	821.13	243.34	4.374		
11,800.00	7,226.21	11,356.05	7,055.35	127.78	126.85	80.76	-1,426.87	-4,538.65	1,064.41	815.62	248.79	4.278		
11,900.00	7,225.71	11,456.05	7,055.12	130.51	129.61	80.78	-1,427.47	-4,638.65	1,064.36	810.10	254.26	4.186		
12,000.00	7,225.21	11,556.05	7,054.89	133.24	132.37	80.79	-1,428.07	-4,738.64	1,064.31	804.58	259.73	4.098		
12,100.00	7,224.71	11,656.05	7,054.66	135.98	135.14	80.81	-1,428.67	-4,838.64	1,064.25	799.04	265.21	4.013		
12,200.00	7,224.21	11,756.05	7,054.43	138.72	137.91	80.82	-1,429.27	-4,938.64	1,064.20	793.50	270.70	3.931		
12,300.00	7,223.70	11,856.05	7,054.20	141.47	140.68	80.83	-1,429.86	-5,038.64	1,064.15	787.95	276.20	3.853		
12,400.00	7,223.20	11,956.05	7,053.97	144.23	143.45	80.85	-1,430.46	-5,138.64	1,064.09	782.39	281.70	3.777		
12,500.00	7,222.70	12,056.05	7,053.73	146.98	146.23	80.86	-1,431.06	-5,238.63	1,064.04	776.83	287.21	3.705		
12,600.00	7,222.20	12,156.05	7,053.50	149.74	149.01	80.88	-1,431.66	-5,338.63	1,063.99	771.26	292.73	3.635		
12,700.00	7,221.70	12,256.05	7,053.27	152.51	151.80	80.89	-1,432.26	-5,438.63	1,063.93	765.68	298.25	3.567		
12,800.00	7,221.20	12,356.05	7,053.04	155.28	154.59	80.91	-1,432.86	-5,538.63	1,063.88	760.10	303.78	3.502		
12,900.00	7,220.70	12,456.05	7,052.81	158.05	157.38	80.92	-1,433.46	-5,638.62	1,063.83	754.51	309.31	3.439		
13,000.00	7,220.20	12,556.05	7,052.58	160.82	160.17	80.93	-1,434.06	-5,738.62	1,063.77	748.92	314.85	3.379		
13,100.00	7,219.70	12,656.05	7,052.35	163.60	162.96	80.95	-1,434.66	-5,838.62	1,063.72	743.32	320.39	3.320		
13,200.00	7,219.20	12,756.05	7,052.12	166.38	165.76	80.96	-1,435.25	-5,938.62	1,063.67	737.72	325.94	3.263		
13,300.00	7,218.70	12,856.05	7,051.89	169.16	168.56	80.98	-1,435.85	-6,038.61	1,063.61	732.12	331.50	3.209		
13,400.00	7,218.20	12,956.05	7,051.66	171.95	171.36	80.99	-1,436.45	-6,138.61	1,063.56	726.51	337.05	3.155		
13,500.00	7,217.70	13,056.05	7,051.43	174.74	174.16	81.01	-1,437.05	-6,238.61	1,063.51	720.89	342.62	3.104		
13,600.00	7,217.20	13,156.05	7,051.20	177.53	176.97	81.02	-1,437.65	-6,338.61	1,063.45	715.27	348.18	3.054		
13,700.00	7,216.70	13,256.05	7,050.97	180.32	179.78	81.03	-1,438.25	-6,438.60	1,063.40	709.65	353.75	3.006		
13,800.00	7,216.19	13,356.05	7,050.74	183.11	182.58	81.05	-1,438.85	-6,538.60	1,063.35	704.03	359.32	2.959		
13,900.00	7,215.69	13,456.05	7,050.51	185.91	185.39	81.06	-1,439.45	-6,638.60	1,063.30	698.40	364.90	2.914		
14,000.00	7,215.19	13,556.05	7,050.28	188.71	188.21	81.08	-1,440.05	-6,738.60	1,063.24	692.76	370.48	2.870		
14,100.00	7,214.69	13,656.05	7,050.05	191.51	191.02	81.09	-1,440.64	-6,838.59	1,063.19	687.13	376.06	2.827		
14,200.00	7,214.19	13,756.05	7,049.82	194.31	193.83	81.11	-1,441.24	-6,938.59	1,063.14	681.49	381.65	2.786		
14,300.00	7,213.69	13,856.05	7,049.59	197.11	196.65	81.12	-1,441.84	-7,038.59	1,063.09	675.85	387.24	2.745		
14,400.00	7,213.19	13,956.05	7,049.36	199.92	199.46	81.13	-1,442.44	-7,138.59	1,063.04	670.21	392.83	2.706		
14,500.00	7,212.69	14,056.05	7,049.13	202.72	202.28	81.15	-1,443.04	-7,238.58	1,062.98	664.56	398.42	2.668		
14,600.00	7,212.19	14,156.04	7,048.90	205.53	205.10	81.16	-1,443.64	-7,338.58	1,062.93	658.91	404.02	2.631		
14,700.00	7,211.69	14,256.04	7,048.67	208.34	207.92	81.18	-1,444.24	-7,438.58	1,062.88	653.26	409.62	2.595		
14,800.00	7,211.19	14,356.04	7,048.44	211.15	210.74	81.19	-1,444.84	-7,538.58	1,062.83	647.61	415.22	2.560		
14,900.00	7,210.69	14,456.04	7,048.21	213.96	213.56	81.21	-1,445.43	-7,638.57	1,062.78	641.95	420.83	2.525		
15,000.00	7,210.19	14,556.04	7,047.98	216.78	216.39	81.22	-1,446.03	-7,738.57	1,062.72	636.29	426.43	2.492		
15,100.00	7,209.69	14,656.04	7,047.74	219.59	219.21	81.23	-1,446.63	-7,838.57	1,062.67	630.63	432.04	2.460		
15,200.00	7,209.18	14,756.04	7,047.51	222.41	222.03	81.25	-1,447.23	-7,938.57	1,062.62	624.97	437.65	2.428		
15,300.00	7,208.68	14,856.04	7,047.28	225.22	224.86	81.26	-1,447.83	-8,038.57	1,062.57	619.30	443.26	2.397		
15,400.00	7,208.18	14,956.04	7,047.05	228.04	227.69	81.28	-1,448.43	-8,138.56	1,062.52	613.64	448.88	2.367		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
15,430.97	7,208.03	14,987.01	7,046.98	228.91	228.56	81.28	-1,448.61	-8,169.53	1,062.50	611.88	450.62	2.358 SF	
15,437.48	7,208.00	14,979.18	7,047.00	229.10	228.34	81.28	-1,448.57	-8,161.70	1,062.59	612.24	450.35	2.359	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16C-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	1.00	0.00	3.28	3.28	0.53	119.87	1.11	119.87				
100.00	100.00	101.00	100.00	3.28	3.28	0.53	119.87	1.11	119.87	113.30	6.57	18.247	
200.00	200.00	201.04	200.04	3.34	3.34	0.53	119.87	1.11	119.87	113.20	6.67	17.959	
300.00	299.98	305.38	304.35	3.44	3.45	176.83	117.95	0.86	119.77	112.87	6.90	17.363	
400.00	399.84	409.70	408.51	3.59	3.61	176.65	112.26	0.13	119.54	112.31	7.23	16.523	
500.00	499.45	514.01	512.38	3.79	3.82	176.34	102.82	-1.09	119.18	111.50	7.68	15.519	
600.00	598.70	618.30	615.81	4.03	4.08	175.91	89.63	-2.79	118.70	110.49	8.21	14.453	
700.00	697.47	722.56	718.67	4.31	4.38	175.35	72.73	-4.97	118.11	109.29	8.82	13.393	
723.57	720.66	746.33	742.04	4.39	4.46	175.21	68.42	-5.52	118.01	109.05	8.96	13.171	CC, ES
800.00	795.62	822.74	817.16	4.64	4.71	174.81	54.54	-7.31	119.03	109.61	9.42	12.633	
900.00	893.06	922.64	915.36	5.00	5.07	174.44	36.40	-9.65	123.44	113.35	10.08	12.243	
1,000.00	989.64	1,022.32	1,013.36	5.40	5.45	174.24	18.30	-11.99	131.31	120.52	10.79	12.171	
1,100.00	1,085.27	1,121.67	1,111.03	5.83	5.84	174.20	0.26	-14.32	142.64	131.11	11.54	12.364	
1,200.00	1,179.82	1,220.57	1,208.26	6.29	6.25	174.28	-17.70	-16.63	157.42	145.10	12.32	12.778	
1,300.00	1,273.47	1,319.04	1,305.07	6.79	6.66	174.45	-35.58	-18.94	174.81	161.68	13.13	13.314	
1,400.00	1,367.06	1,417.49	1,401.85	7.30	7.08	174.60	-53.46	-21.24	192.38	178.42	13.96	13.783	
1,500.00	1,460.64	1,515.93	1,498.63	7.83	7.52	174.73	-71.33	-23.55	209.94	195.14	14.81	14.180	
1,600.00	1,554.23	1,614.38	1,595.41	8.38	7.96	174.84	-89.21	-25.86	227.51	211.84	15.67	14.519	
1,700.00	1,647.82	1,712.82	1,692.19	8.93	8.40	174.93	-107.08	-28.16	245.08	228.53	16.55	14.810	
1,800.00	1,741.41	1,811.26	1,788.97	9.49	8.85	175.01	-124.96	-30.47	262.65	245.21	17.44	15.062	
1,900.00	1,835.00	1,909.71	1,885.75	10.05	9.30	175.08	-142.84	-32.77	280.22	261.88	18.34	15.281	
2,000.00	1,928.59	2,008.15	1,982.53	10.62	9.76	175.14	-160.71	-35.08	297.78	278.54	19.25	15.473	
2,100.00	2,022.18	2,106.60	2,079.31	11.20	10.21	175.20	-178.59	-37.39	315.35	295.19	20.16	15.641	
2,200.00	2,115.77	2,205.04	2,176.09	11.78	10.68	175.25	-196.47	-39.69	332.92	311.84	21.08	15.790	
2,300.00	2,209.36	2,303.48	2,272.87	12.37	11.14	175.29	-214.34	-42.00	350.49	328.48	22.01	15.923	
2,400.00	2,302.95	2,401.93	2,369.65	12.95	11.61	175.33	-232.22	-44.30	368.06	345.12	22.95	16.041	
2,500.00	2,396.54	2,500.37	2,466.43	13.54	12.07	175.37	-250.10	-46.61	385.63	361.75	23.88	16.147	
2,600.00	2,490.13	2,601.18	2,563.21	14.13	12.55	175.40	-267.97	-48.91	403.20	378.37	24.83	16.235	
2,700.00	2,583.72	2,702.74	2,659.99	14.73	13.04	175.43	-285.85	-51.22	420.77	394.98	25.79	16.313	
2,800.00	2,677.31	2,795.71	2,756.77	15.32	13.48	175.46	-303.72	-53.53	438.34	411.63	26.72	16.407	
2,900.00	2,770.90	2,905.85	2,853.55	15.92	14.01	175.49	-321.60	-55.83	455.91	428.19	27.72	16.447	
3,000.00	2,864.49	3,007.41	2,950.33	16.52	14.50	175.51	-339.48	-58.14	473.49	444.80	28.69	16.505	
3,100.00	2,958.08	3,091.04	3,047.11	17.12	14.91	175.53	-357.35	-60.44	491.06	461.48	29.58	16.603	
3,200.00	3,051.67	3,189.48	3,143.89	17.72	15.38	175.55	-375.23	-62.75	508.63	478.09	30.53	16.658	
3,300.00	3,145.26	3,287.93	3,240.67	18.32	15.86	175.57	-393.11	-65.06	526.20	494.70	31.49	16.708	
3,400.00	3,238.85	3,386.37	3,337.45	18.92	16.33	175.59	-410.98	-67.36	543.77	511.31	32.45	16.755	
3,500.00	3,332.44	3,484.81	3,434.23	19.53	16.81	175.61	-428.86	-69.67	561.34	527.92	33.42	16.798	
3,600.00	3,426.03	3,583.26	3,531.01	20.13	17.29	175.62	-446.74	-71.97	578.91	544.53	34.38	16.838	
3,700.00	3,519.62	3,681.70	3,627.79	20.74	17.77	175.64	-464.61	-74.28	596.48	561.13	35.35	16.875	
3,800.00	3,613.21	3,780.15	3,724.57	21.34	18.25	175.65	-482.49	-76.59	614.05	577.74	36.31	16.910	
3,900.00	3,706.80	3,878.59	3,821.35	21.95	18.73	175.67	-500.36	-78.89	631.62	594.34	37.28	16.942	
4,000.00	3,800.39	3,977.03	3,918.13	22.56	19.21	175.68	-518.24	-81.20	649.19	610.95	38.25	16.973	
4,100.00	3,893.98	4,075.48	4,014.91	23.16	19.69	175.69	-536.12	-83.50	666.77	627.55	39.22	17.001	
4,200.00	3,987.57	4,173.92	4,111.69	23.77	20.17	175.70	-553.99	-85.81	684.34	644.15	40.19	17.028	
4,300.00	4,081.16	4,272.37	4,208.47	24.38	20.65	175.71	-571.87	-88.11	701.91	660.75	41.16	17.053	
4,400.00	4,174.75	4,370.81	4,305.25	24.99	21.13	175.72	-589.75	-90.42	719.48	677.35	42.13	17.077	
4,500.00	4,268.34	4,469.25	4,402.03	25.60	21.61	175.73	-607.62	-92.73	737.05	693.94	43.11	17.099	
4,600.00	4,361.93	4,567.70	4,498.81	26.21	22.09	175.74	-625.50	-95.03	754.62	710.54	44.08	17.120	
4,700.00	4,455.52	4,666.14	4,595.59	26.82	22.58	175.75	-643.38	-97.34	772.19	727.14	45.05	17.140	
4,800.00	4,549.11	4,764.59	4,692.37	27.43	23.06	175.76	-661.25	-99.64	789.76	743.74	46.03	17.159	
4,900.00	4,642.70	4,863.03	4,789.15	28.04	23.54	175.77	-679.13	-101.95	807.34	760.33	47.00	17.176	
5,000.00	4,736.29	4,961.47	4,885.93	28.65	24.02	175.77	-697.00	-104.26	824.91	776.93	47.98	17.193	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	5,059.92	4,982.71	29.26	24.51	175.78	-714.88	-106.56	842.48	793.52	48.95	17.209		
5,200.00	4,923.47	5,158.36	5,079.49	29.87	24.99	175.79	-732.76	-108.87	860.05	810.12	49.93	17.225		
5,300.00	5,017.06	5,256.81	5,176.27	30.48	25.47	175.80	-750.63	-111.17	877.62	826.71	50.91	17.239		
5,400.00	5,110.65	5,355.25	5,273.05	31.09	25.96	175.80	-768.51	-113.48	895.19	843.31	51.89	17.253		
5,500.00	5,204.24	5,453.70	5,369.83	31.70	26.44	175.81	-786.39	-115.79	912.76	859.90	52.86	17.266		
5,600.00	5,297.83	5,552.14	5,466.61	32.32	26.93	175.81	-804.26	-118.09	930.33	876.49	53.84	17.279		
5,700.00	5,391.42	5,650.58	5,563.39	32.93	27.41	175.82	-822.14	-120.40	947.91	893.09	54.82	17.291		
5,800.00	5,485.01	5,749.03	5,660.17	33.54	27.89	175.83	-840.02	-122.70	965.48	909.68	55.80	17.303		
5,900.00	5,578.60	5,847.47	5,756.95	34.15	28.38	175.83	-857.89	-125.01	983.05	926.27	56.78	17.314		
6,000.00	5,672.19	5,945.92	5,853.73	34.77	28.86	175.84	-875.77	-127.31	1,000.62	942.86	57.76	17.324		
6,100.00	5,765.78	6,044.36	5,950.51	35.38	29.35	175.84	-893.64	-129.62	1,018.19	959.45	58.74	17.334		
6,200.00	5,859.37	6,142.80	6,047.29	35.99	29.83	175.85	-911.52	-131.93	1,035.76	976.04	59.72	17.344		
6,300.00	5,952.96	6,241.25	6,144.07	36.60	30.32	175.85	-929.40	-134.23	1,053.33	992.64	60.70	17.354		
6,400.00	6,046.55	6,339.69	6,240.85	37.22	30.80	175.86	-947.27	-136.54	1,070.91	1,009.23	61.68	17.363		
6,500.00	6,140.14	6,438.14	6,337.63	37.83	31.29	175.86	-965.15	-138.84	1,088.48	1,025.82	62.66	17.371		
6,600.00	6,233.73	6,536.58	6,434.40	38.44	31.77	175.87	-983.03	-141.15	1,106.05	1,042.41	63.64	17.379		
6,700.00	6,327.32	6,635.05	6,531.21	39.06	32.26	175.87	-1,000.91	-143.46	1,123.62	1,059.00	64.62	17.387		
6,800.00	6,420.91	6,734.06	6,627.93	39.67	32.74	175.47	-1,018.91	-153.72	1,141.16	1,075.54	65.62	17.391		
6,900.00	6,514.50	6,828.49	6,717.62	40.28	33.18	174.38	-1,035.84	-177.59	1,158.92	1,092.35	66.57	17.408		
7,000.00	6,608.09	6,914.92	6,795.81	40.90	33.55	172.84	-1,050.81	-211.05	1,177.69	1,110.24	67.45	17.460		
7,100.00	6,701.63	6,992.16	6,861.34	41.51	33.86	160.89	-1,063.53	-249.84	1,198.33	1,130.11	68.21	17.568		
7,200.00	6,793.85	7,065.26	6,918.63	42.10	34.14	137.66	-1,074.82	-293.72	1,220.12	1,151.26	68.86	17.719		
7,300.00	6,882.50	7,136.10	6,969.08	42.64	34.39	121.04	-1,084.94	-342.38	1,241.98	1,172.59	69.39	17.898		
7,400.00	6,965.41	7,205.25	7,012.88	43.12	34.62	109.54	-1,093.89	-395.08	1,263.04	1,193.22	69.82	18.091		
7,500.00	7,040.53	7,273.10	7,050.13	43.53	34.84	101.39	-1,101.69	-451.21	1,282.50	1,212.31	70.19	18.272		
7,600.00	7,106.00	7,339.96	7,080.88	43.89	35.08	95.51	-1,108.34	-510.17	1,299.67	1,229.10	70.57	18.417		
7,700.00	7,160.23	7,406.07	7,105.13	44.20	35.37	91.27	-1,113.84	-571.40	1,313.98	1,242.93	71.06	18.492		
7,800.00	7,201.86	7,471.63	7,122.88	44.48	35.73	88.31	-1,118.16	-634.34	1,324.97	1,253.23	71.74	18.468		
7,900.00	7,229.88	7,536.80	7,134.11	44.73	36.20	86.44	-1,121.30	-698.43	1,332.29	1,259.59	72.69	18.327		
8,000.00	7,243.60	7,600.00	7,138.80	44.99	36.76	85.55	-1,123.21	-761.39	1,335.71	1,261.78	73.93	18.068		
8,100.00	7,244.73	7,708.19	7,138.61	45.29	37.96	85.44	-1,124.71	-853.19	1,335.37	1,259.14	76.23	17.517		
8,200.00	7,244.23	7,808.20	7,138.07	45.74	39.29	85.44	-1,126.28	-953.17	1,334.39	1,255.54	78.85	16.923		
8,300.00	7,243.73	7,908.20	7,137.52	46.38	40.80	85.43	-1,127.85	-1,053.15	1,333.42	1,251.63	81.78	16.304		
8,400.00	7,243.23	8,008.21	7,136.98	47.29	42.46	85.43	-1,129.42	-1,153.13	1,332.44	1,247.45	85.00	15.677		
8,500.00	7,242.73	8,108.21	7,136.44	48.46	44.25	85.42	-1,130.99	-1,253.11	1,331.47	1,243.01	88.46	15.052		
8,600.00	7,242.23	8,208.22	7,135.90	49.87	46.15	85.42	-1,132.56	-1,353.09	1,330.49	1,238.35	92.14	14.439		
8,700.00	7,241.73	8,308.22	7,135.36	51.48	48.15	85.41	-1,134.13	-1,453.08	1,329.52	1,233.49	96.03	13.845		
8,800.00	7,241.23	8,408.23	7,134.81	53.24	50.23	85.41	-1,135.70	-1,553.06	1,328.54	1,228.46	100.08	13.275		
8,900.00	7,240.73	8,508.23	7,134.27	55.13	52.39	85.40	-1,137.27	-1,653.04	1,327.56	1,223.28	104.29	12.730		
9,000.00	7,240.23	8,591.76	7,133.73	57.11	54.25	85.40	-1,138.84	-1,753.02	1,326.59	1,218.33	108.26	12.254		
9,100.00	7,239.73	8,708.24	7,133.19	59.19	56.90	85.39	-1,140.41	-1,853.00	1,325.61	1,212.52	113.10	11.721		
9,200.00	7,239.23	8,808.25	7,132.65	61.34	59.23	85.39	-1,141.98	-1,952.98	1,324.64	1,206.97	117.67	11.258		
9,300.00	7,238.72	8,908.25	7,132.10	63.55	61.60	85.38	-1,143.55	-2,052.96	1,323.66	1,201.33	122.33	10.820		
9,400.00	7,238.22	9,008.26	7,131.56	65.81	64.02	85.38	-1,145.12	-2,152.94	1,322.69	1,195.61	127.08	10.408		
9,500.00	7,237.72	9,108.26	7,131.02	68.13	66.47	85.37	-1,146.69	-2,252.93	1,321.71	1,189.81	131.90	10.020		
9,600.00	7,237.22	9,208.26	7,130.48	70.48	68.95	85.37	-1,148.26	-2,352.91	1,320.74	1,183.94	136.79	9.655		
9,700.00	7,236.72	9,308.27	7,129.94	72.88	71.46	85.36	-1,149.83	-2,452.89	1,319.76	1,178.02	141.74	9.311		
9,800.00	7,236.22	9,408.27	7,129.39	75.31	74.00	85.36	-1,151.40	-2,552.87	1,318.79	1,172.04	146.75	8.987		
9,900.00	7,235.72	9,508.28	7,128.85	77.77	76.56	85.35	-1,152.97	-2,652.85	1,317.81	1,166.01	151.80	8.681		
10,000.00	7,235.22	9,608.28	7,128.31	80.26	79.13	85.35	-1,154.54	-2,752.83	1,316.84	1,159.93	156.90	8.393		
10,100.00	7,234.72	9,708.29	7,127.77	82.77	81.73	85.34	-1,156.11	-2,852.81	1,315.86	1,153.82	162.04	8.121		
10,200.00	7,234.22	9,808.29	7,127.23	85.31	84.35	85.34	-1,157.68	-2,952.80	1,314.89	1,147.67	167.21	7.864		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	9,908.30	7,126.68	87.86	86.97	85.33	-1,159.25	-3,052.78	1,313.91	1,141.49	172.42	7.620		
10,400.00	7,233.22	10,008.30	7,126.14	90.44	89.62	85.32	-1,160.82	-3,152.76	1,312.93	1,135.28	177.66	7.390		
10,500.00	7,232.72	10,108.31	7,125.60	93.03	92.27	85.32	-1,162.39	-3,252.74	1,311.96	1,129.04	182.92	7.172		
10,600.00	7,232.22	10,208.31	7,125.06	95.64	94.94	85.31	-1,163.96	-3,352.72	1,310.98	1,122.78	188.21	6.966		
10,700.00	7,231.72	10,308.32	7,124.52	98.26	97.62	85.31	-1,165.53	-3,452.70	1,310.01	1,116.49	193.52	6.769		
10,800.00	7,231.21	10,408.32	7,123.97	100.89	100.31	85.30	-1,167.10	-3,552.68	1,309.03	1,110.18	198.85	6.583		
10,900.00	7,230.71	10,508.33	7,123.43	103.54	103.00	85.30	-1,168.67	-3,652.67	1,308.06	1,103.85	204.21	6.406		
11,000.00	7,230.21	10,591.67	7,122.89	106.20	105.26	85.29	-1,170.24	-3,752.65	1,307.08	1,097.96	209.13	6.250		
11,100.00	7,229.71	10,708.34	7,122.35	108.87	108.42	85.29	-1,171.81	-3,852.63	1,306.11	1,091.14	214.97	6.076		
11,200.00	7,229.21	10,808.34	7,121.81	111.54	111.14	85.28	-1,173.38	-3,952.61	1,305.13	1,084.76	220.37	5.922		
11,300.00	7,228.71	10,908.35	7,121.27	114.23	113.87	85.28	-1,174.95	-4,052.59	1,304.16	1,078.37	225.79	5.776		
11,400.00	7,228.21	11,008.35	7,120.72	116.92	116.60	85.27	-1,176.52	-4,152.57	1,303.18	1,071.97	231.22	5.636		
11,500.00	7,227.71	11,108.36	7,120.18	119.63	119.34	85.27	-1,178.09	-4,252.55	1,302.21	1,065.55	236.66	5.502		
11,600.00	7,227.21	11,208.36	7,119.64	122.34	122.08	85.26	-1,179.66	-4,352.54	1,301.23	1,059.12	242.11	5.374		
11,700.00	7,226.71	11,308.37	7,119.10	125.05	124.83	85.26	-1,181.23	-4,452.52	1,300.26	1,052.68	247.58	5.252		
11,800.00	7,226.21	11,408.37	7,118.56	127.78	127.59	85.25	-1,182.80	-4,552.50	1,299.28	1,046.23	253.06	5.134		
11,900.00	7,225.71	11,508.38	7,118.01	130.51	130.35	85.24	-1,184.37	-4,652.48	1,298.31	1,039.77	258.54	5.022		
12,000.00	7,225.21	11,608.38	7,117.47	133.24	133.11	85.24	-1,185.94	-4,752.46	1,297.33	1,033.30	264.03	4.913		
12,100.00	7,224.71	11,708.39	7,116.93	135.98	135.87	85.23	-1,187.51	-4,852.44	1,296.36	1,026.82	269.54	4.810		
12,200.00	7,224.21	11,808.39	7,116.39	138.72	138.64	85.23	-1,189.08	-4,952.42	1,295.38	1,020.33	275.05	4.710		
12,300.00	7,223.70	11,908.40	7,115.85	141.47	141.42	85.22	-1,190.65	-5,052.40	1,294.41	1,013.84	280.56	4.614		
12,400.00	7,223.20	12,008.40	7,115.30	144.23	144.19	85.22	-1,192.22	-5,152.39	1,293.43	1,007.34	286.09	4.521		
12,500.00	7,222.70	12,108.41	7,114.76	146.98	146.97	85.21	-1,193.79	-5,252.37	1,292.46	1,000.84	291.62	4.432		
12,600.00	7,222.20	12,208.41	7,114.22	149.74	149.76	85.21	-1,195.36	-5,352.35	1,291.48	994.33	297.16	4.346		
12,700.00	7,221.70	12,308.41	7,113.68	152.51	152.54	85.20	-1,196.93	-5,452.33	1,290.51	987.81	302.70	4.263		
12,800.00	7,221.20	12,408.42	7,113.14	155.28	155.33	85.20	-1,198.50	-5,552.31	1,289.53	981.29	308.25	4.183		
12,900.00	7,220.70	12,508.42	7,112.59	158.05	158.12	85.19	-1,200.07	-5,652.29	1,288.56	974.76	313.80	4.106		
13,000.00	7,220.20	12,608.43	7,112.05	160.82	160.91	85.18	-1,201.64	-5,752.27	1,287.58	968.22	319.36	4.032		
13,100.00	7,219.70	12,691.57	7,111.51	163.60	163.23	85.18	-1,203.21	-5,852.26	1,286.61	962.16	324.45	3.966		
13,200.00	7,219.20	12,808.44	7,110.97	166.38	166.50	85.17	-1,204.78	-5,952.24	1,285.63	955.14	330.49	3.890		
13,300.00	7,218.70	12,908.44	7,110.43	169.16	169.30	85.17	-1,206.35	-6,052.22	1,284.66	948.60	336.06	3.823		
13,400.00	7,218.20	13,008.45	7,109.88	171.95	172.10	85.16	-1,207.92	-6,152.20	1,283.68	942.05	341.63	3.757		
13,500.00	7,217.70	13,108.45	7,109.34	174.74	174.90	85.16	-1,209.49	-6,252.18	1,282.71	935.49	347.21	3.694		
13,600.00	7,217.20	13,208.46	7,108.80	177.53	177.71	85.15	-1,211.06	-6,352.16	1,281.73	928.94	352.80	3.633		
13,700.00	7,216.70	13,308.46	7,108.26	180.32	180.51	85.15	-1,212.63	-6,452.14	1,280.76	922.38	358.38	3.574		
13,800.00	7,216.19	13,408.47	7,107.72	183.11	183.32	85.14	-1,214.20	-6,552.13	1,279.78	915.81	363.97	3.516		
13,900.00	7,215.69	13,508.47	7,107.17	185.91	186.13	85.13	-1,215.77	-6,652.11	1,278.81	909.24	369.56	3.460		
14,000.00	7,215.19	13,608.48	7,106.63	188.71	188.94	85.13	-1,217.34	-6,752.09	1,277.83	902.67	375.16	3.406		
14,100.00	7,214.69	13,708.48	7,106.09	191.51	191.75	85.12	-1,218.91	-6,852.07	1,276.86	896.10	380.76	3.353		
14,200.00	7,214.19	13,791.51	7,105.55	194.31	194.09	85.12	-1,220.48	-6,952.05	1,275.88	890.00	385.88	3.306		
14,300.00	7,213.69	13,908.49	7,105.01	197.11	197.38	85.11	-1,222.05	-7,052.03	1,274.91	882.95	391.96	3.253		
14,400.00	7,213.19	14,008.50	7,104.47	199.92	200.19	85.11	-1,223.62	-7,152.01	1,273.93	876.37	397.57	3.204		
14,500.00	7,212.69	14,108.50	7,103.92	202.72	203.01	85.10	-1,225.19	-7,252.00	1,272.96	869.78	403.18	3.157		
14,600.00	7,212.19	14,208.51	7,103.38	205.53	205.83	85.10	-1,226.76	-7,351.98	1,271.98	863.20	408.79	3.112		
14,700.00	7,211.69	14,308.51	7,102.84	208.34	208.64	85.09	-1,228.33	-7,451.96	1,271.01	856.61	414.40	3.067		
14,800.00	7,211.19	14,408.52	7,102.30	211.15	211.46	85.08	-1,229.90	-7,551.94	1,270.03	850.02	420.01	3.024		
14,900.00	7,210.69	14,508.52	7,101.76	213.96	214.28	85.08	-1,231.47	-7,651.92	1,269.06	843.43	425.63	2.982		
15,000.00	7,210.19	14,608.53	7,101.21	216.78	217.11	85.07	-1,233.04	-7,751.90	1,268.08	836.83	431.25	2.940		
15,100.00	7,209.69	14,708.53	7,100.67	219.59	219.93	85.07	-1,234.61	-7,851.88	1,267.11	830.24	436.87	2.900		
15,200.00	7,209.18	14,808.54	7,100.13	222.41	222.75	85.06	-1,236.18	-7,951.86	1,266.13	823.64	442.49	2.861		
15,300.00	7,208.68	14,908.54	7,099.59	225.22	225.57	85.06	-1,237.75	-8,051.85	1,265.16	817.04	448.12	2.823		
15,400.00	7,208.18	14,991.46	7,099.05	228.04	227.92	85.05	-1,239.32	-8,151.83	1,264.19	810.92	453.26	2.789		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												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)		
15,417.36	7,208.10	15,008.82	7,098.95	228.53	228.41	85.05	-1,239.59	-8,169.19	1,264.02	809.78	454.24	2.783 SF	
15,437.48	7,208.00	15,000.73	7,099.00	229.10	228.18	85.05	-1,239.47	-8,161.10	1,264.13	809.92	454.22	2.783	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-180.00	-20.02	0.00	20.02					
100.00	100.00	100.00	100.00	3.28	3.28	-180.00	-20.02	0.00	20.02	13.46	6.57	3.048		
200.00	200.00	200.00	200.00	3.34	3.34	-180.00	-20.02	0.00	20.02	13.35	6.67	3.000		
300.00	299.98	299.31	299.29	3.44	3.44	-3.66	-21.74	-0.10	20.01	13.12	6.89	2.905		
400.00	399.84	398.62	398.46	3.59	3.59	-3.72	-26.89	-0.41	19.98	12.77	7.21	2.770		
500.00	499.45	497.92	497.39	3.79	3.79	-3.83	-35.47	-0.92	19.92	12.28	7.64	2.608		
600.00	598.70	597.24	595.97	4.03	4.03	-3.99	-47.47	-1.64	19.84	11.69	8.15	2.434		
700.00	697.47	696.55	694.07	4.31	4.30	-4.18	-62.87	-2.55	19.74	11.00	8.73	2.260		
800.00	795.62	795.87	791.58	4.64	4.62	-4.43	-81.66	-3.67	19.61	10.23	9.37	2.092		
900.00	893.06	895.20	888.39	5.00	4.98	-4.72	-103.81	-4.99	19.46	9.40	10.06	1.934		
1,000.00	989.64	994.53	984.38	5.40	5.37	-5.07	-129.30	-6.51	19.29	8.49	10.80	1.787		
1,100.00	1,085.27	1,093.86	1,079.43	5.83	5.80	-5.46	-158.10	-8.23	19.10	7.53	11.57	1.651		
1,200.00	1,179.82	1,193.21	1,173.43	6.29	6.26	-5.91	-190.18	-10.14	18.89	6.52	12.37	1.527		
1,209.40	1,188.64	1,202.54	1,182.21	6.34	6.31	-5.95	-193.36	-10.33	18.88	6.43	12.44	1.517 CC		
1,300.00	1,273.47	1,292.55	1,266.26	6.79	6.76	-6.15	-225.48	-12.24	19.47	6.28	13.19	1.476 Level 3		
1,400.00	1,367.06	1,392.16	1,358.23	7.30	7.28	-5.62	-263.65	-14.52	22.87	8.82	14.04	1.628		
1,500.00	1,460.64	1,507.91	1,450.35	7.83	7.92	-5.15	-302.31	-16.82	26.66	11.66	15.00	1.777		
1,600.00	1,554.23	1,607.99	1,542.47	8.38	8.48	-4.79	-340.96	-19.12	30.45	14.53	15.92	1.913		
1,700.00	1,647.82	1,708.06	1,634.59	8.93	9.06	-4.52	-379.62	-21.43	34.24	17.39	16.85	2.032		
1,800.00	1,741.41	1,808.13	1,726.71	9.49	9.64	-4.30	-418.27	-23.73	38.04	20.23	17.80	2.137		
1,900.00	1,835.00	1,891.80	1,818.83	10.05	10.14	-4.12	-456.93	-26.03	41.83	23.14	18.69	2.238		
2,000.00	1,928.59	2,008.27	1,910.95	10.62	10.83	-3.97	-495.58	-28.33	45.63	25.88	19.75	2.310		
2,100.00	2,022.18	2,091.65	2,003.07	11.20	11.34	-3.84	-534.24	-30.64	49.42	28.77	20.66	2.393		
2,200.00	2,115.77	2,208.42	2,095.19	11.78	12.05	-3.73	-572.89	-32.94	53.22	31.48	21.74	2.448		
2,300.00	2,209.36	2,308.49	2,187.31	12.37	12.66	-3.64	-611.55	-35.24	57.01	34.26	22.75	2.506		
2,400.00	2,302.95	2,408.56	2,279.43	12.95	13.27	-3.56	-650.20	-37.55	60.81	37.05	23.76	2.559		
2,500.00	2,396.54	2,508.64	2,371.55	13.54	13.89	-3.48	-688.86	-39.85	64.60	39.82	24.78	2.607		
2,600.00	2,490.13	2,608.71	2,463.67	14.13	14.51	-3.42	-727.51	-42.15	68.40	42.59	25.81	2.650		
2,700.00	2,583.72	2,708.78	2,555.79	14.73	15.14	-3.36	-766.17	-44.46	72.19	45.35	26.84	2.690		
2,800.00	2,677.31	2,791.15	2,647.91	15.32	15.65	-3.31	-804.82	-46.76	75.99	48.21	27.78	2.735		
2,900.00	2,770.90	2,891.08	2,740.03	15.92	16.28	-3.26	-843.48	-49.06	79.78	50.96	28.82	2.768		
3,000.00	2,864.49	3,009.00	2,832.15	16.52	17.02	-3.22	-882.13	-51.37	83.58	53.62	29.96	2.790		
3,100.00	2,958.08	3,090.93	2,924.27	17.12	17.54	-3.18	-920.79	-53.67	87.38	56.47	30.91	2.827		
3,200.00	3,051.67	3,209.14	3,016.39	17.72	18.28	-3.14	-959.44	-55.97	91.17	59.12	32.05	2.844		
3,300.00	3,145.26	3,290.79	3,108.51	18.32	18.80	-3.11	-998.10	-58.28	94.97	61.96	33.01	2.877		
3,400.00	3,238.85	3,409.28	3,200.63	18.92	19.55	-3.08	-1,036.75	-60.58	98.76	64.61	34.16	2.891		
3,500.00	3,332.44	3,509.36	3,292.75	19.53	20.18	-3.05	-1,075.41	-62.88	102.56	67.35	35.21	2.913		
3,600.00	3,426.03	3,590.57	3,384.87	20.13	20.70	-3.03	-1,114.07	-65.19	106.36	70.19	36.17	2.940		
3,700.00	3,519.62	3,690.50	3,476.99	20.74	21.33	-3.00	-1,152.72	-67.49	110.15	72.92	37.23	2.959		
3,800.00	3,613.21	3,809.57	3,569.11	21.34	22.09	-2.98	-1,191.38	-69.79	113.95	75.56	38.39	2.968		
3,900.00	3,706.80	3,909.64	3,661.23	21.95	22.73	-2.96	-1,230.03	-72.10	117.74	78.29	39.45	2.984		
4,000.00	3,800.39	4,009.72	3,753.35	22.56	23.36	-2.94	-1,268.69	-74.40	121.54	81.02	40.52	3.000		
4,100.00	3,893.98	4,109.79	3,845.47	23.16	24.00	-2.92	-1,307.34	-76.70	125.34	83.75	41.58	3.014		
4,200.00	3,987.57	4,209.86	3,937.59	23.77	24.64	-2.90	-1,346.00	-79.00	129.13	86.48	42.65	3.028		
4,300.00	4,081.16	4,290.07	4,029.71	24.38	25.15	-2.88	-1,384.65	-81.31	132.93	89.32	43.61	3.048		
4,400.00	4,174.75	4,390.00	4,121.83	24.99	25.79	-2.87	-1,423.31	-83.61	136.72	92.05	44.68	3.060		
4,500.00	4,268.34	4,489.92	4,213.95	25.60	26.43	-2.85	-1,461.96	-85.91	140.52	94.78	45.74	3.072		
4,600.00	4,361.93	4,589.85	4,306.07	26.21	27.07	-2.84	-1,500.62	-88.22	144.32	97.50	46.81	3.083		
4,700.00	4,455.52	4,689.78	4,398.19	26.82	27.71	-2.83	-1,539.27	-90.52	148.11	100.23	47.88	3.093		
4,800.00	4,549.11	4,789.71	4,490.31	27.43	28.35	-2.81	-1,577.93	-92.82	151.91	102.96	48.95	3.103		
4,900.00	4,642.70	4,889.63	4,582.43	28.04	28.99	-2.80	-1,616.58	-95.13	155.70	105.68	50.02	3.113		
5,000.00	4,736.29	4,989.56	4,674.55	28.65	29.63	-2.79	-1,655.24	-97.43	159.50	108.40	51.10	3.122		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	5,089.49	4,766.67	29.26	30.27	-2.78	-1,693.89	-99.73	163.30	111.13	52.17	3.130		
5,200.00	4,923.47	5,189.42	4,858.79	29.87	30.92	-2.77	-1,732.55	-102.04	167.09	113.85	53.24	3.138		
5,300.00	5,017.06	5,289.35	4,950.90	30.48	31.56	-2.76	-1,771.20	-104.34	170.89	116.57	54.32	3.146		
5,400.00	5,110.65	5,389.27	5,043.02	31.09	32.20	-2.75	-1,809.86	-106.64	174.69	119.29	55.39	3.154		
5,500.00	5,204.24	5,489.20	5,135.14	31.70	32.84	-2.74	-1,848.51	-108.95	178.48	122.02	56.47	3.161		
5,600.00	5,297.83	5,589.13	5,227.26	32.32	33.48	-2.73	-1,887.17	-111.25	182.28	124.74	57.54	3.168		
5,700.00	5,391.42	5,689.06	5,319.38	32.93	34.13	-2.72	-1,925.83	-113.55	186.07	127.46	58.62	3.174		
5,800.00	5,485.01	5,788.99	5,411.50	33.54	34.77	-2.71	-1,964.48	-115.86	189.87	130.18	59.69	3.181		
5,900.00	5,578.60	5,888.91	5,503.62	34.15	35.41	-2.71	-2,003.14	-118.16	193.67	132.90	60.77	3.187		
6,000.00	5,672.19	5,988.84	5,595.74	34.77	36.05	-2.70	-2,041.79	-120.46	197.46	135.62	61.85	3.193		
6,100.00	5,765.78	6,088.77	5,687.86	35.38	36.70	-2.69	-2,080.45	-122.77	201.26	138.33	62.92	3.198		
6,200.00	5,859.37	6,188.70	5,779.98	35.99	37.34	-2.68	-2,119.10	-125.07	205.05	141.05	64.00	3.204		
6,300.00	5,952.96	6,288.63	5,872.10	36.60	37.98	-2.68	-2,157.76	-127.37	208.85	143.77	65.08	3.209		
6,400.00	6,046.55	6,388.55	5,964.22	37.22	38.63	-2.67	-2,196.41	-129.67	212.65	146.49	66.16	3.214		
6,500.00	6,140.14	6,488.48	6,056.34	37.83	39.27	-2.67	-2,235.07	-131.98	216.44	149.21	67.24	3.219		
6,600.00	6,233.73	6,588.41	6,148.46	38.44	39.91	-2.66	-2,273.72	-134.28	220.24	151.92	68.32	3.224		
6,700.00	6,327.32	6,688.34	6,240.58	39.06	40.56	-2.65	-2,312.38	-136.58	224.04	154.64	69.39	3.228		
6,800.00	6,420.91	6,788.27	6,332.70	39.67	41.20	-2.65	-2,351.03	-138.89	227.83	157.36	70.47	3.233		
6,900.00	6,514.50	6,888.19	6,424.82	40.28	41.84	-2.64	-2,389.69	-141.19	231.63	160.07	71.55	3.237		
7,000.00	6,608.09	6,987.96	6,516.78	40.90	42.49	-2.55	-2,428.28	-143.85	235.43	162.80	72.63	3.242		
7,100.00	6,701.63	7,085.97	6,606.24	41.51	43.10	-9.51	-2,465.89	-156.89	239.63	166.01	73.62	3.255		
7,200.00	6,793.85	7,182.01	6,691.05	42.10	43.66	-26.07	-2,501.66	-183.96	244.39	169.87	74.53	3.279		
7,300.00	6,882.50	7,276.44	6,769.83	42.64	44.15	-36.54	-2,534.99	-223.76	249.45	174.16	75.29	3.313		
7,400.00	6,965.41	7,369.46	6,841.25	43.12	44.57	-42.54	-2,565.32	-274.91	254.54	178.67	75.88	3.355		
7,500.00	7,040.53	7,461.27	6,904.24	43.53	44.93	-45.91	-2,592.18	-335.94	259.42	183.11	76.30	3.400		
7,600.00	7,106.00	7,552.07	6,957.92	43.89	45.25	-47.79	-2,615.20	-405.37	263.83	187.17	76.65	3.442		
7,700.00	7,160.23	7,642.06	7,001.59	44.20	45.51	-48.82	-2,634.07	-481.67	267.57	190.49	77.08	3.471		
7,800.00	7,201.86	7,731.43	7,034.69	44.48	45.75	-49.40	-2,648.54	-563.33	270.47	192.74	77.73	3.480		
7,900.00	7,229.88	7,820.38	7,056.85	44.73	45.96	-49.71	-2,658.45	-648.83	272.40	193.63	78.77	3.458		
8,000.00	7,243.60	7,909.09	7,067.78	44.99	46.18	-49.87	-2,663.67	-736.64	273.28	192.99	80.29	3.404		
8,100.00	7,244.73	8,003.58	7,068.84	45.29	46.43	-49.93	-2,664.80	-831.09	273.24	190.98	82.26	3.322		
8,200.00	7,244.23	8,103.58	7,068.55	45.74	46.79	-49.97	-2,665.40	-931.09	273.12	188.67	84.45	3.234		
8,300.00	7,243.73	8,203.58	7,068.25	46.38	47.32	-50.00	-2,666.00	-1,031.08	273.00	186.17	86.83	3.144		
8,400.00	7,243.23	8,303.58	7,067.95	47.29	48.06	-50.03	-2,666.60	-1,131.08	272.88	183.50	89.38	3.053		
8,500.00	7,242.73	8,403.58	7,067.65	48.46	49.06	-50.07	-2,667.19	-1,231.08	272.75	180.67	92.08	2.962		
8,600.00	7,242.23	8,503.58	7,067.36	49.87	50.32	-50.10	-2,667.79	-1,331.08	272.63	177.70	94.93	2.872		
8,700.00	7,241.73	8,603.58	7,067.06	51.48	51.81	-50.14	-2,668.39	-1,431.07	272.51	174.60	97.91	2.783		
8,800.00	7,241.23	8,703.58	7,066.76	53.24	53.49	-50.17	-2,668.99	-1,531.07	272.38	171.38	101.01	2.697		
8,900.00	7,240.73	8,803.58	7,066.46	55.13	55.31	-50.20	-2,669.59	-1,631.07	272.26	168.05	104.22	2.612		
9,000.00	7,240.23	8,903.58	7,066.17	57.11	57.25	-50.24	-2,670.18	-1,731.07	272.14	164.61	107.53	2.531		
9,100.00	7,239.73	9,003.58	7,065.87	59.19	59.28	-50.27	-2,670.78	-1,831.06	272.02	161.09	110.93	2.452		
9,200.00	7,239.23	9,103.58	7,065.57	61.34	61.41	-50.31	-2,671.38	-1,931.06	271.89	157.48	114.41	2.376		
9,300.00	7,238.72	9,203.58	7,065.27	63.55	63.59	-50.34	-2,671.98	-2,031.06	271.77	153.79	117.98	2.304		
9,400.00	7,238.22	9,303.58	7,064.98	65.81	65.84	-50.37	-2,672.58	-2,131.06	271.65	150.04	121.61	2.234		
9,500.00	7,237.72	9,403.58	7,064.68	68.13	68.14	-50.41	-2,673.17	-2,231.05	271.53	146.22	125.31	2.167		
9,600.00	7,237.22	9,503.58	7,064.38	70.48	70.48	-50.44	-2,673.77	-2,331.05	271.41	142.33	129.07	2.103		
9,700.00	7,236.72	9,603.58	7,064.08	72.88	72.87	-50.48	-2,674.37	-2,431.05	271.28	138.40	132.89	2.041		
9,800.00	7,236.22	9,703.58	7,063.78	75.31	75.29	-50.51	-2,674.97	-2,531.05	271.16	134.41	136.75	1.983		
9,900.00	7,235.72	9,803.58	7,063.49	77.77	77.74	-50.55	-2,675.56	-2,631.04	271.04	130.37	140.67	1.927		
10,000.00	7,235.22	9,903.57	7,063.19	80.26	80.22	-50.58	-2,676.16	-2,731.04	270.92	126.29	144.63	1.873		
10,100.00	7,234.72	10,003.57	7,062.89	82.77	82.73	-50.62	-2,676.76	-2,831.04	270.80	122.18	148.62	1.822		
10,200.00	7,234.22	10,103.57	7,062.59	85.31	85.26	-50.65	-2,677.36	-2,931.04	270.68	118.02	152.66	1.773		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.00	7,233.72	10,203.57	7,062.30	87.86	87.81	-50.68	-2,677.96	-3,031.03	270.56	113.83	156.73	1.726	
10,400.00	7,233.22	10,303.57	7,062.00	90.44	90.38	-50.72	-2,678.55	-3,131.03	270.43	109.60	160.83	1.681	
10,500.00	7,232.72	10,403.57	7,061.70	93.03	92.96	-50.75	-2,679.15	-3,231.03	270.31	105.35	164.97	1.639	
10,600.00	7,232.22	10,503.57	7,061.40	95.64	95.57	-50.79	-2,679.75	-3,331.03	270.19	101.06	169.13	1.598	
10,700.00	7,231.72	10,603.57	7,061.11	98.26	98.19	-50.82	-2,680.35	-3,431.03	270.07	96.75	173.32	1.558	
10,800.00	7,231.21	10,703.57	7,060.81	100.89	100.82	-50.86	-2,680.95	-3,531.02	269.95	92.42	177.54	1.521	
10,900.00	7,230.71	10,803.57	7,060.51	103.54	103.46	-50.89	-2,681.54	-3,631.02	269.83	88.06	181.77	1.484	Level 3
11,000.00	7,230.21	10,903.57	7,060.21	106.20	106.12	-50.93	-2,682.14	-3,731.02	269.71	83.67	186.04	1.450	Level 3
11,100.00	7,229.71	11,003.57	7,059.92	108.87	108.78	-50.96	-2,682.74	-3,831.02	269.59	79.27	190.32	1.417	Level 3
11,200.00	7,229.21	11,103.57	7,059.62	111.54	111.46	-51.00	-2,683.34	-3,931.01	269.47	74.85	194.62	1.385	Level 3
11,300.00	7,228.71	11,203.57	7,059.32	114.23	114.14	-51.03	-2,683.94	-4,031.01	269.35	70.40	198.95	1.354	Level 3
11,400.00	7,228.21	11,303.57	7,059.02	116.92	116.83	-51.07	-2,684.53	-4,131.01	269.23	65.94	203.29	1.324	Level 3
11,500.00	7,227.71	11,403.57	7,058.73	119.63	119.53	-51.10	-2,685.13	-4,231.01	269.11	61.47	207.64	1.296	Level 3
11,600.00	7,227.21	11,503.57	7,058.43	122.34	122.24	-51.14	-2,685.73	-4,331.00	268.99	56.97	212.02	1.269	Level 3
11,700.00	7,226.71	11,603.57	7,058.13	125.05	124.96	-51.17	-2,686.33	-4,431.00	268.87	52.46	216.41	1.242	Level 2
11,800.00	7,226.21	11,703.57	7,057.83	127.78	127.68	-51.21	-2,686.93	-4,531.00	268.75	47.94	220.81	1.217	Level 2
11,900.00	7,225.71	11,803.57	7,057.54	130.51	130.41	-51.24	-2,687.52	-4,631.00	268.63	43.40	225.23	1.193	Level 2
12,000.00	7,225.21	11,903.57	7,057.24	133.24	133.14	-51.28	-2,688.12	-4,730.99	268.51	38.85	229.67	1.169	Level 2
12,100.00	7,224.71	12,003.57	7,056.94	135.98	135.88	-51.31	-2,688.72	-4,830.99	268.39	34.28	234.11	1.146	Level 2
12,200.00	7,224.21	12,103.57	7,056.64	138.72	138.62	-51.35	-2,689.32	-4,930.99	268.27	29.70	238.57	1.124	Level 2
12,300.00	7,223.70	12,203.57	7,056.35	141.47	141.37	-51.38	-2,689.92	-5,030.99	268.15	25.11	243.04	1.103	Level 2
12,400.00	7,223.20	12,303.57	7,056.05	144.23	144.12	-51.42	-2,690.51	-5,130.98	268.03	20.51	247.52	1.083	Level 2
12,500.00	7,222.70	12,403.57	7,055.75	146.98	146.88	-51.45	-2,691.11	-5,230.98	267.92	15.90	252.02	1.063	Level 2
12,600.00	7,222.20	12,503.57	7,055.45	149.74	149.64	-51.49	-2,691.71	-5,330.98	267.80	11.27	256.52	1.044	Level 2
12,700.00	7,221.70	12,603.57	7,055.15	152.51	152.40	-51.52	-2,692.31	-5,430.98	267.68	6.64	261.04	1.025	Level 2
12,800.00	7,221.20	12,703.57	7,054.86	155.28	155.17	-51.56	-2,692.90	-5,530.97	267.56	1.99	265.57	1.008	Level 2
12,900.00	7,220.70	12,803.57	7,054.56	158.05	157.94	-51.59	-2,693.50	-5,630.97	267.44	-2.66	270.10	0.990	Level 1
13,000.00	7,220.20	12,903.57	7,054.26	160.82	160.71	-51.63	-2,694.10	-5,730.97	267.32	-7.33	274.65	0.973	Level 1
13,100.00	7,219.70	13,003.57	7,053.96	163.60	163.49	-51.66	-2,694.70	-5,830.97	267.20	-12.00	279.20	0.957	Level 1
13,200.00	7,219.20	13,103.57	7,053.67	166.38	166.27	-51.70	-2,695.30	-5,930.96	267.09	-16.68	283.77	0.941	Level 1
13,300.00	7,218.70	13,203.57	7,053.37	169.16	169.05	-51.74	-2,695.89	-6,030.96	266.97	-21.37	288.34	0.926	Level 1
13,400.00	7,218.20	13,303.57	7,053.07	171.95	171.83	-51.77	-2,696.49	-6,130.96	266.85	-26.07	292.92	0.911	Level 1
13,500.00	7,217.70	13,403.57	7,052.77	174.74	174.62	-51.81	-2,697.09	-6,230.96	266.73	-30.78	297.51	0.897	Level 1
13,600.00	7,217.20	13,503.57	7,052.48	177.53	177.41	-51.84	-2,697.69	-6,330.95	266.61	-35.50	302.11	0.882	Level 1
13,700.00	7,216.70	13,603.57	7,052.18	180.32	180.20	-51.88	-2,698.29	-6,430.95	266.50	-40.22	306.72	0.869	Level 1
13,800.00	7,216.19	13,703.57	7,051.88	183.11	183.00	-51.91	-2,698.88	-6,530.95	266.38	-44.95	311.33	0.856	Level 1
13,900.00	7,215.69	13,803.57	7,051.58	185.91	185.79	-51.95	-2,699.48	-6,630.95	266.26	-49.69	315.95	0.843	Level 1
14,000.00	7,215.19	13,903.57	7,051.29	188.71	188.59	-51.99	-2,700.08	-6,730.94	266.14	-54.44	320.58	0.830	Level 1
14,100.00	7,214.69	14,003.57	7,050.99	191.51	191.39	-52.02	-2,700.68	-6,830.94	266.03	-59.20	325.22	0.818	Level 1
14,200.00	7,214.19	14,103.57	7,050.69	194.31	194.19	-52.06	-2,701.28	-6,930.94	265.91	-63.96	329.86	0.806	Level 1
14,300.00	7,213.69	14,203.57	7,050.39	197.11	196.99	-52.09	-2,701.87	-7,030.94	265.79	-68.72	334.52	0.795	Level 1
14,400.00	7,213.19	14,303.57	7,050.10	199.92	199.80	-52.13	-2,702.47	-7,130.94	265.67	-73.50	339.17	0.783	Level 1
14,500.00	7,212.69	14,403.57	7,049.80	202.72	202.60	-52.16	-2,703.07	-7,230.93	265.56	-78.28	343.84	0.772	Level 1
14,600.00	7,212.19	14,503.57	7,049.50	205.53	205.41	-52.20	-2,703.67	-7,330.93	265.44	-83.07	348.51	0.762	Level 1
14,700.00	7,211.69	14,603.57	7,049.20	208.34	208.22	-52.24	-2,704.27	-7,430.93	265.32	-87.86	353.19	0.751	Level 1
14,800.00	7,211.19	14,703.57	7,048.91	211.15	211.03	-52.27	-2,704.86	-7,530.93	265.21	-92.67	357.87	0.741	Level 1
14,900.00	7,210.69	14,803.56	7,048.61	213.96	213.84	-52.31	-2,705.46	-7,630.92	265.09	-97.47	362.56	0.731	Level 1
15,000.00	7,210.19	14,903.56	7,048.31	216.78	216.65	-52.34	-2,706.06	-7,730.92	264.97	-102.29	367.26	0.721	Level 1
15,100.00	7,209.69	15,003.56	7,048.01	219.59	219.47	-52.38	-2,706.66	-7,830.92	264.86	-107.11	371.96	0.712	Level 1
15,200.00	7,209.18	15,103.56	7,047.71	222.41	222.28	-52.42	-2,707.25	-7,930.92	264.74	-111.93	376.67	0.703	Level 1
15,300.00	7,208.68	15,203.56	7,047.42	225.22	225.10	-52.45	-2,707.85	-8,030.91	264.63	-116.76	381.39	0.694	Level 1
15,400.00	7,208.18	15,303.56	7,047.12	228.04	227.91	-52.49	-2,708.45	-8,130.91	264.51	-121.60	386.11	0.685	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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	15,341.04	7,047.01	229.10	228.97	-52.50	-2,708.67	-8,168.39	264.47	-123.42	387.88	0.682 Level 1, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.52	339.91	3.06	339.93					
100.00	100.00	102.00	100.00	3.28	3.29	0.52	339.91	3.06	339.93	333.36	6.57	51.740		
200.00	200.00	202.00	200.00	3.34	3.34	0.52	339.91	3.06	339.93	333.25	6.68	50.920	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.89	339.91	3.06	341.67	334.78	6.89	49.606		
400.00	399.84	401.84	399.84	3.59	3.61	176.93	339.91	3.06	346.90	339.70	7.20	48.187		
500.00	499.45	501.45	499.45	3.79	3.81	177.00	339.91	3.06	355.60	348.00	7.60	46.779		
600.00	598.70	590.43	588.42	4.03	4.02	176.97	341.18	2.40	369.17	361.11	8.06	45.782		
700.00	697.47	681.45	679.34	4.31	4.27	176.77	344.87	0.49	388.74	380.15	8.59	45.250		
800.00	795.62	778.61	776.36	4.64	4.55	176.55	349.42	-1.86	412.35	403.17	9.18	44.922		
900.00	893.06	874.89	872.51	5.00	4.85	176.37	353.93	-4.20	439.34	429.53	9.81	44.779		
1,000.00	989.64	970.17	967.66	5.40	5.17	176.23	358.39	-6.51	469.66	459.18	10.48	44.822		
1,100.00	1,085.27	1,064.34	1,061.70	5.83	5.49	176.13	362.80	-8.79	503.28	492.11	11.17	45.038		
1,200.00	1,179.82	1,157.29	1,154.51	6.29	5.83	176.05	367.15	-11.05	540.16	528.27	11.89	45.414		
1,300.00	1,273.47	1,249.22	1,246.32	6.79	6.17	176.04	371.46	-13.28	579.51	566.88	12.63	45.882		
1,400.00	1,367.06	1,341.09	1,338.06	7.30	6.51	176.04	375.76	-15.50	619.01	605.63	13.37	46.281		
1,500.00	1,460.64	1,432.96	1,429.80	7.83	6.87	176.04	380.06	-17.73	658.51	644.37	14.14	46.578		
1,600.00	1,554.23	1,524.83	1,521.54	8.38	7.22	176.04	384.36	-19.96	698.01	683.09	14.92	46.795		
1,700.00	1,647.82	1,616.69	1,613.28	8.93	7.59	176.04	388.66	-22.19	737.51	721.80	15.71	46.952		
1,800.00	1,741.41	1,708.56	1,705.02	9.49	7.95	176.04	392.96	-24.41	777.01	760.50	16.51	47.061		
1,900.00	1,835.00	1,800.43	1,796.76	10.05	8.32	176.04	397.26	-26.64	816.51	799.19	17.32	47.134		
2,000.00	1,928.59	1,907.70	1,888.50	10.62	8.76	176.04	401.57	-28.87	856.01	837.81	18.21	47.015		
2,100.00	2,022.18	1,984.17	1,980.24	11.20	9.07	176.04	405.87	-31.10	895.51	876.54	18.97	47.201		
2,200.00	2,115.77	2,076.03	2,071.98	11.78	9.45	176.04	410.17	-33.32	935.01	915.21	19.81	47.207		
2,300.00	2,209.36	2,167.90	2,163.72	12.37	9.83	176.04	414.47	-35.55	974.51	953.87	20.65	47.199		
2,400.00	2,302.95	2,259.77	2,255.46	12.95	10.22	176.04	418.77	-37.78	1,014.01	992.52	21.49	47.182		
2,500.00	2,396.54	2,351.64	2,347.20	13.54	10.60	176.04	423.07	-40.01	1,053.52	1,031.17	22.34	47.156		
2,600.00	2,490.13	2,443.51	2,438.94	14.13	10.99	176.04	427.37	-42.24	1,093.02	1,069.82	23.19	47.125		
2,700.00	2,583.72	2,535.37	2,530.68	14.73	11.38	176.05	431.68	-44.46	1,132.52	1,108.47	24.05	47.089		
2,800.00	2,677.31	2,627.24	2,622.42	15.32	11.76	176.05	435.98	-46.69	1,172.02	1,147.11	24.91	47.049		
2,900.00	2,770.90	2,719.11	2,714.16	15.92	12.15	176.05	440.28	-48.92	1,211.52	1,185.74	25.77	47.008		
3,000.00	2,864.49	2,810.98	2,805.90	16.52	12.54	176.05	444.58	-51.15	1,251.02	1,224.38	26.64	46.964		
3,100.00	2,958.08	2,902.84	2,897.64	17.12	12.94	176.05	448.88	-53.37	1,290.52	1,263.01	27.51	46.919		
3,200.00	3,051.67	3,005.29	2,989.38	17.72	13.37	176.05	453.18	-55.60	1,330.02	1,301.60	28.42	46.799		
3,300.00	3,145.26	3,086.58	3,081.12	18.32	13.72	176.05	457.48	-57.83	1,369.52	1,340.27	29.25	46.828		
3,400.00	3,238.85	3,178.45	3,172.86	18.92	14.12	176.05	461.79	-60.06	1,409.02	1,378.90	30.12	46.783		
3,500.00	3,332.44	3,270.32	3,264.60	19.53	14.51	176.05	466.09	-62.28	1,448.52	1,417.53	30.99	46.737		
3,600.00	3,426.03	3,362.18	3,356.34	20.13	14.91	176.05	470.39	-64.51	1,488.02	1,456.15	31.87	46.692		
3,700.00	3,519.62	3,454.05	3,448.08	20.74	15.30	176.05	474.69	-66.74	1,527.52	1,494.78	32.75	46.647		
3,800.00	3,613.21	3,545.92	3,539.82	21.34	15.70	176.05	478.99	-68.97	1,567.02	1,533.40	33.62	46.603		
3,900.00	3,706.80	3,637.79	3,631.56	21.95	16.09	176.05	483.29	-71.19	1,606.52	1,572.02	34.50	46.560		
4,000.00	3,800.39	3,729.66	3,723.30	22.56	16.49	176.05	487.59	-73.42	1,646.02	1,610.64	35.39	46.517		
4,100.00	3,893.98	3,821.52	3,815.04	23.16	16.89	176.05	491.90	-75.65	1,685.53	1,649.26	36.27	46.475		
4,200.00	3,987.57	3,913.39	3,906.78	23.77	17.29	176.05	496.20	-77.88	1,725.03	1,687.88	37.15	46.434		
4,300.00	4,081.16	4,005.26	3,998.52	24.38	17.69	176.05	500.50	-80.11	1,764.53	1,726.49	38.03	46.394		
4,400.00	4,174.75	4,097.13	4,090.26	24.99	18.08	176.05	504.80	-82.33	1,804.03	1,765.11	38.92	46.355		
4,500.00	4,268.34	4,188.99	4,182.00	25.60	18.48	176.05	509.10	-84.56	1,843.53	1,803.72	39.80	46.316		
4,600.00	4,361.93	4,280.86	4,273.74	26.21	18.88	176.05	513.40	-86.79	1,883.03	1,842.34	40.69	46.279		
4,700.00	4,455.52	4,372.73	4,365.48	26.82	19.28	176.05	517.70	-89.02	1,922.53	1,880.95	41.58	46.242		
4,800.00	4,549.11	4,464.60	4,457.22	27.43	19.68	176.05	522.01	-91.24	1,962.03	1,919.57	42.46	46.206		
4,900.00	4,642.70	4,556.47	4,548.96	28.04	20.08	176.05	526.31	-93.47	2,001.53	1,958.18	43.35	46.171		
5,000.00	4,736.29	4,648.33	4,640.70	28.65	20.48	176.05	530.61	-95.70	2,041.03	1,996.79	44.24	46.137		
5,100.00	4,829.88	4,740.20	4,732.44	29.26	20.88	176.05	534.91	-97.93	2,080.53	2,035.40	45.13	46.103		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,832.07	4,824.18	29.87	21.28	176.05	539.21	-100.15	2,120.03	2,074.01	46.02	46.071		
5,300.00	5,017.06	4,923.94	4,915.92	30.48	21.68	176.05	543.51	-102.38	2,159.53	2,112.63	46.91	46.039		
5,400.00	5,110.65	5,015.81	5,007.66	31.09	22.08	176.05	547.81	-104.61	2,199.03	2,151.24	47.80	46.007		
5,500.00	5,204.24	5,107.67	5,099.40	31.70	22.48	176.05	552.12	-106.84	2,238.53	2,189.85	48.69	45.977		
5,600.00	5,297.83	5,200.46	5,191.14	32.32	22.89	176.05	556.42	-109.06	2,278.03	2,228.45	49.58	45.943		
5,700.00	5,391.42	5,291.41	5,282.88	32.93	23.29	176.05	560.72	-111.29	2,317.53	2,267.06	50.47	45.918		
5,800.00	5,485.01	5,383.28	5,374.62	33.54	23.69	176.05	565.02	-113.52	2,357.04	2,305.67	51.36	45.889		
5,900.00	5,578.60	5,475.14	5,466.36	34.15	24.09	176.05	569.32	-115.75	2,396.54	2,344.28	52.26	45.862		
6,000.00	5,672.19	5,567.01	5,558.10	34.77	24.49	176.05	573.62	-117.98	2,436.04	2,382.89	53.15	45.834		
6,100.00	5,765.78	5,658.88	5,649.84	35.38	24.89	176.05	577.92	-120.20	2,475.54	2,421.50	54.04	45.808		
6,200.00	5,859.37	5,750.75	5,741.58	35.99	25.30	176.05	582.22	-122.43	2,515.04	2,460.10	54.94	45.781		
6,300.00	5,952.96	5,842.62	5,833.32	36.60	25.70	176.05	586.53	-124.66	2,554.54	2,498.71	55.83	45.756		
6,400.00	6,046.55	5,934.48	5,925.06	37.22	26.10	176.05	590.83	-126.89	2,594.04	2,537.32	56.72	45.731		
6,500.00	6,140.14	6,026.35	6,016.80	37.83	26.50	176.05	595.13	-129.11	2,633.54	2,575.92	57.62	45.706		
6,600.00	6,233.73	6,118.22	6,108.54	38.44	26.90	176.05	599.43	-131.34	2,673.04	2,614.53	58.51	45.682		
6,700.00	6,327.32	6,210.09	6,200.28	39.06	27.31	176.05	603.73	-133.57	2,712.54	2,653.13	59.41	45.659		
6,800.00	6,420.91	6,301.96	6,292.02	39.67	27.71	176.05	608.03	-135.80	2,752.04	2,691.74	60.30	45.636		
6,900.00	6,514.50	6,393.82	6,383.76	40.28	28.11	176.05	612.33	-138.02	2,791.54	2,730.34	61.20	45.613		
7,000.00	6,608.09	6,486.80	6,476.57	40.90	28.52	176.03	616.68	-141.43	2,831.04	2,768.93	62.11	45.583		
7,100.00	6,701.63	6,579.99	6,568.42	41.51	28.93	164.82	620.90	-156.04	2,870.46	2,807.45	63.02	45.551		
7,200.00	6,793.85	6,671.66	6,655.75	42.10	29.34	141.10	624.83	-163.34	2,909.40	2,845.49	63.90	45.528		
7,300.00	6,882.50	6,762.75	6,737.78	42.64	29.74	124.01	628.42	-222.62	2,946.87	2,882.11	64.76	45.503		
7,400.00	6,965.41	6,853.85	6,813.37	43.12	30.17	112.06	631.64	-273.21	2,981.94	2,916.34	65.60	45.454		
7,500.00	7,040.53	6,945.35	6,881.27	43.53	30.64	103.53	634.43	-334.37	3,013.74	2,947.28	66.47	45.342		
7,600.00	7,106.00	7,037.52	6,940.12	43.89	31.19	97.32	636.72	-405.17	3,041.48	2,974.06	67.42	45.114		
7,700.00	7,160.23	7,130.44	6,988.48	44.20	31.86	92.82	638.46	-484.39	3,064.48	2,995.94	68.54	44.713		
7,800.00	7,201.86	7,224.04	7,025.05	44.48	32.66	89.67	639.61	-570.45	3,082.17	3,012.27	69.90	44.096		
7,900.00	7,229.88	7,318.09	7,048.71	44.73	33.61	87.66	640.11	-661.39	3,094.13	3,022.58	71.55	43.245		
8,000.00	7,243.60	7,412.27	7,058.75	44.99	34.70	86.68	639.96	-754.95	3,100.05	3,026.56	73.49	42.182		
8,100.00	7,244.73	7,510.23	7,057.85	45.29	35.98	86.54	639.26	-852.89	3,100.66	3,024.87	75.79	40.912		
8,200.00	7,244.23	7,610.22	7,056.10	45.74	37.44	86.52	638.50	-952.86	3,100.57	3,022.12	78.45	39.521		
8,300.00	7,243.73	7,710.21	7,054.35	46.38	39.06	86.50	637.75	-1,052.84	3,100.49	3,019.05	81.43	38.074		
8,400.00	7,243.23	7,810.21	7,052.60	47.29	40.82	86.48	637.00	-1,152.81	3,100.40	3,015.71	84.69	36.609		
8,500.00	7,242.73	7,910.20	7,050.85	48.46	42.70	86.45	636.25	-1,252.79	3,100.31	3,012.12	88.19	35.153		
8,600.00	7,242.23	8,010.19	7,049.10	49.87	44.68	86.43	635.49	-1,352.76	3,100.22	3,008.31	91.92	33.728		
8,700.00	7,241.73	8,110.18	7,047.35	51.48	46.75	86.41	634.74	-1,452.73	3,100.14	3,004.30	95.84	32.348		
8,800.00	7,241.23	8,210.17	7,045.60	53.24	48.90	86.38	633.99	-1,552.71	3,100.05	3,000.13	99.93	31.023		
8,900.00	7,240.73	8,310.17	7,043.85	55.13	51.12	86.36	633.24	-1,652.68	3,099.97	2,995.80	104.17	29.760		
9,000.00	7,240.23	8,410.16	7,042.10	57.11	53.40	86.34	632.48	-1,752.66	3,099.88	2,991.34	108.54	28.560		
9,100.00	7,239.73	8,510.15	7,040.35	59.19	55.73	86.31	631.73	-1,852.63	3,099.80	2,986.77	113.03	27.424		
9,200.00	7,239.23	8,610.14	7,038.60	61.34	58.11	86.29	630.98	-1,952.60	3,099.71	2,982.09	117.63	26.352		
9,300.00	7,238.72	8,710.13	7,036.86	63.55	60.53	86.27	630.23	-2,052.58	3,099.63	2,977.31	122.32	25.341		
9,400.00	7,238.22	8,810.13	7,035.11	65.81	62.99	86.24	629.47	-2,152.55	3,099.55	2,972.46	127.09	24.389		
9,500.00	7,237.72	8,910.12	7,033.36	68.13	65.48	86.22	628.72	-2,252.53	3,099.47	2,967.53	131.93	23.493		
9,600.00	7,237.22	9,010.11	7,031.61	70.48	68.00	86.20	627.97	-2,352.50	3,099.38	2,962.54	136.84	22.649		
9,700.00	7,236.72	9,110.10	7,029.86	72.88	70.55	86.17	627.22	-2,452.47	3,099.30	2,957.49	141.81	21.855		
9,800.00	7,236.22	9,210.10	7,028.11	75.31	73.11	86.15	626.46	-2,552.45	3,099.22	2,952.39	146.84	21.107		
9,900.00	7,235.72	9,310.09	7,026.36	77.77	75.70	86.13	625.71	-2,652.42	3,099.14	2,947.24	151.91	20.402		
10,000.00	7,235.22	9,410.08	7,024.61	80.26	78.31	86.10	624.96	-2,752.39	3,099.06	2,942.05	157.02	19.737		
10,100.00	7,234.72	9,510.07	7,022.86	82.77	80.94	86.08	624.21	-2,852.37	3,098.98	2,936.81	162.17	19.110		
10,200.00	7,234.22	9,610.06	7,021.11	85.31	83.58	86.06	623.45	-2,952.34	3,098.91	2,931.55	167.36	18.517		
10,300.00	7,233.72	9,710.06	7,019.36	87.86	86.23	86.03	622.70	-3,052.32	3,098.83	2,926.25	172.58	17.956		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	9,810.05	7,017.61	90.44	88.90	86.01	621.95	-3,152.29	3,098.75	2,920.93	177.82	17.426		
10,500.00	7,232.72	9,910.04	7,015.86	93.03	91.57	85.99	621.20	-3,252.26	3,098.67	2,915.58	183.10	16.924		
10,600.00	7,232.22	10,010.03	7,014.11	95.64	94.26	85.96	620.44	-3,352.24	3,098.60	2,910.20	188.40	16.447		
10,700.00	7,231.72	10,110.02	7,012.36	98.26	96.96	85.94	619.69	-3,452.21	3,098.52	2,904.80	193.72	15.995		
10,800.00	7,231.21	10,210.02	7,010.61	100.89	99.67	85.92	618.94	-3,552.19	3,098.45	2,899.39	199.06	15.565		
10,900.00	7,230.71	10,310.01	7,008.86	103.54	102.38	85.89	618.19	-3,652.16	3,098.37	2,893.95	204.42	15.157		
11,000.00	7,230.21	10,410.00	7,007.12	106.20	105.11	85.87	617.43	-3,752.13	3,098.30	2,888.50	209.80	14.768		
11,100.00	7,229.71	10,509.99	7,005.37	108.87	107.84	85.85	616.68	-3,852.11	3,098.22	2,883.03	215.19	14.397		
11,200.00	7,229.21	10,609.98	7,003.62	111.54	110.57	85.82	615.93	-3,952.08	3,098.15	2,877.54	220.60	14.044		
11,300.00	7,228.71	10,709.98	7,001.87	114.23	113.32	85.80	615.18	-4,052.06	3,098.08	2,872.05	226.03	13.707		
11,400.00	7,228.21	10,809.97	7,000.12	116.92	116.06	85.78	614.42	-4,152.03	3,098.00	2,866.54	231.46	13.384		
11,500.00	7,227.71	10,909.96	6,998.37	119.63	118.82	85.75	613.67	-4,252.00	3,097.93	2,861.02	236.91	13.076		
11,600.00	7,227.21	11,009.95	6,996.62	122.34	121.57	85.73	612.92	-4,351.98	3,097.86	2,855.49	242.37	12.782		
11,700.00	7,226.71	11,109.94	6,994.87	125.05	124.34	85.71	612.16	-4,451.95	3,097.79	2,849.95	247.84	12.499		
11,800.00	7,226.21	11,209.94	6,993.12	127.78	127.10	85.68	611.41	-4,551.93	3,097.72	2,844.40	253.32	12.229		
11,900.00	7,225.71	11,309.93	6,991.37	130.51	129.87	85.66	610.66	-4,651.90	3,097.65	2,838.84	258.81	11.969		
12,000.00	7,225.21	11,409.92	6,989.62	133.24	132.65	85.64	609.91	-4,751.87	3,097.58	2,833.28	264.30	11.720		
12,100.00	7,224.71	11,509.91	6,987.87	135.98	135.43	85.62	609.15	-4,851.85	3,097.51	2,827.70	269.81	11.480		
12,200.00	7,224.21	11,609.90	6,986.12	138.72	138.21	85.59	608.40	-4,951.82	3,097.44	2,822.12	275.32	11.250		
12,300.00	7,223.70	11,709.90	6,984.37	141.47	140.99	85.57	607.65	-5,051.80	3,097.37	2,816.54	280.84	11.029		
12,400.00	7,223.20	11,809.89	6,982.62	144.23	143.78	85.55	606.90	-5,151.77	3,097.31	2,810.95	286.36	10.816		
12,500.00	7,222.70	11,909.88	6,980.87	146.98	146.57	85.52	606.14	-5,251.74	3,097.24	2,805.35	291.89	10.611		
12,600.00	7,222.20	12,009.87	6,979.13	149.74	149.36	85.50	605.39	-5,351.72	3,097.17	2,799.74	297.43	10.413		
12,700.00	7,221.70	12,109.87	6,977.38	152.51	152.16	85.48	604.64	-5,451.69	3,097.11	2,794.14	302.97	10.222		
12,800.00	7,221.20	12,209.86	6,975.63	155.28	154.95	85.45	603.89	-5,551.66	3,097.04	2,788.52	308.52	10.038		
12,900.00	7,220.70	12,309.85	6,973.88	158.05	157.75	85.43	603.13	-5,651.64	3,096.98	2,782.91	314.07	9.861		
13,000.00	7,220.20	12,409.84	6,972.13	160.82	160.55	85.41	602.38	-5,751.61	3,096.91	2,777.29	319.63	9.689		
13,100.00	7,219.70	12,509.83	6,970.38	163.60	163.36	85.38	601.63	-5,851.59	3,096.85	2,771.66	325.19	9.523		
13,200.00	7,219.20	12,609.83	6,968.63	166.38	166.16	85.36	600.88	-5,951.56	3,096.79	2,766.03	330.76	9.363		
13,300.00	7,218.70	12,709.82	6,966.88	169.16	168.97	85.34	600.12	-6,051.53	3,096.72	2,760.40	336.32	9.208		
13,400.00	7,218.20	12,809.81	6,965.13	171.95	171.78	85.31	599.37	-6,151.51	3,096.66	2,754.77	341.90	9.057		
13,500.00	7,217.70	12,909.80	6,963.38	174.74	174.59	85.29	598.62	-6,251.48	3,096.60	2,749.13	347.47	8.912		
13,600.00	7,217.20	13,009.79	6,961.63	177.53	177.40	85.27	597.87	-6,351.46	3,096.54	2,743.49	353.05	8.771		
13,700.00	7,216.70	13,109.79	6,959.88	180.32	180.21	85.24	597.11	-6,451.43	3,096.48	2,737.85	358.63	8.634		
13,800.00	7,216.19	13,209.78	6,958.13	183.11	183.03	85.22	596.36	-6,551.40	3,096.42	2,732.20	364.22	8.502		
13,900.00	7,215.69	13,309.77	6,956.38	185.91	185.84	85.20	595.61	-6,651.38	3,096.36	2,726.55	369.81	8.373		
14,000.00	7,215.19	13,409.76	6,954.63	188.71	188.66	85.17	594.86	-6,751.35	3,096.30	2,720.90	375.40	8.248		
14,100.00	7,214.69	13,509.75	6,952.88	191.51	191.48	85.15	594.10	-6,851.33	3,096.24	2,715.25	380.99	8.127		
14,200.00	7,214.19	13,609.75	6,951.13	194.31	194.30	85.13	593.35	-6,951.30	3,096.18	2,709.60	386.59	8.009		
14,300.00	7,213.69	13,709.74	6,949.39	197.11	197.12	85.10	592.60	-7,051.27	3,096.13	2,703.94	392.18	7.895		
14,400.00	7,213.19	13,809.73	6,947.64	199.92	199.94	85.08	591.85	-7,151.25	3,096.07	2,698.29	397.78	7.783		
14,500.00	7,212.69	13,909.72	6,945.89	202.72	202.76	85.06	591.09	-7,251.22	3,096.01	2,692.63	403.38	7.675		
14,600.00	7,212.19	14,009.71	6,944.14	205.53	205.59	85.03	590.34	-7,351.20	3,095.96	2,686.97	408.99	7.570		
14,700.00	7,211.69	14,109.71	6,942.39	208.34	208.41	85.01	589.59	-7,451.17	3,095.90	2,681.31	414.59	7.467		
14,800.00	7,211.19	14,209.70	6,940.64	211.15	211.24	84.99	588.83	-7,551.14	3,095.85	2,675.65	420.20	7.368		
14,900.00	7,210.69	14,309.69	6,938.89	213.96	214.06	84.96	588.08	-7,651.12	3,095.79	2,669.98	425.81	7.270		
15,000.00	7,210.19	14,409.68	6,937.14	216.78	216.89	84.94	587.33	-7,751.09	3,095.74	2,664.32	431.42	7.176		
15,100.00	7,209.69	14,509.67	6,935.39	219.59	219.72	84.92	586.58	-7,851.07	3,095.68	2,658.65	437.03	7.083		
15,200.00	7,209.18	14,609.67	6,933.64	222.41	222.55	84.89	585.82	-7,951.04	3,095.63	2,652.99	442.64	6.993		
15,300.00	7,208.68	14,709.66	6,931.89	225.22	225.38	84.87	585.07	-8,051.01	3,095.58	2,647.32	448.26	6.906		
15,400.00	7,208.18	14,809.65	6,930.14	228.04	228.21	84.85	584.32	-8,150.99	3,095.53	2,641.65	453.87	6.820		
15,409.77	7,208.13	14,819.42	6,929.97	228.32	228.48	84.84	584.25	-8,160.75	3,095.52	2,641.10	454.42	6.812		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31N-16B-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	14,817.75	6,930.00	229.10	228.43	84.84	584.26	-8,159.08	3,095.65	2,640.58	455.07	6.803 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.57	139.91	1.39	139.91					
100.00	100.00	101.00	100.00	3.28	3.28	0.57	139.91	1.39	139.91	133.34	6.57	21.297		
200.00	200.00	201.05	200.05	3.34	3.34	0.57	139.91	1.39	139.91	133.24	6.67	20.961		
300.00	299.98	306.14	305.11	3.44	3.45	176.87	137.96	1.12	139.80	132.90	6.90	20.264		
400.00	399.84	411.21	410.02	3.59	3.61	176.68	132.20	0.30	139.54	132.30	7.24	19.279		
500.00	499.45	516.27	514.63	3.79	3.84	176.36	122.64	-1.05	139.13	131.44	7.69	18.102		
600.00	598.70	621.31	618.79	4.03	4.12	175.92	109.29	-2.93	138.58	130.36	8.22	16.853		
667.86	665.78	708.42	688.18	4.22	4.41	175.55	98.31	-4.49	138.20	129.53	8.67	15.947	CC, ES	
700.00	697.47	723.72	719.89	4.31	4.46	175.39	93.09	-5.22	138.38	129.58	8.80	15.723		
800.00	795.62	823.67	818.48	4.64	4.84	174.97	76.86	-7.52	141.24	131.84	9.40	15.023		
900.00	893.06	923.46	916.92	5.00	5.25	174.68	60.65	-9.81	147.59	137.52	10.07	14.663		
1,000.00	989.64	1,022.97	1,015.09	5.40	5.68	174.54	44.49	-12.09	157.40	146.62	10.77	14.609		
1,100.00	1,085.27	1,122.08	1,112.85	5.83	6.13	174.51	28.39	-14.36	170.66	159.13	11.52	14.812		
1,200.00	1,179.82	1,220.67	1,210.11	6.29	6.60	174.59	12.38	-16.62	187.35	175.05	12.30	15.229		
1,300.00	1,273.47	1,318.79	1,306.90	6.79	7.07	174.73	-3.56	-18.88	206.66	193.55	13.11	15.765		
1,400.00	1,367.06	1,416.87	1,403.65	7.30	7.56	174.87	-19.48	-21.13	226.14	212.21	13.93	16.231		
1,500.00	1,460.64	1,514.96	1,500.41	7.83	8.05	174.98	-35.41	-23.38	245.62	230.84	14.78	16.624		
1,600.00	1,554.23	1,613.04	1,597.16	8.38	8.55	175.08	-51.34	-25.63	265.10	249.47	15.63	16.957		
1,700.00	1,647.82	1,711.12	1,693.92	8.93	9.06	175.16	-67.27	-27.88	284.58	268.07	16.51	17.241		
1,800.00	1,741.41	1,809.21	1,790.67	9.49	9.57	175.23	-83.20	-30.13	304.06	286.67	17.39	17.484		
1,900.00	1,835.00	1,907.29	1,887.43	10.05	10.08	175.30	-99.13	-32.38	323.54	305.26	18.28	17.695		
2,000.00	1,928.59	2,005.37	1,984.18	10.62	10.60	175.35	-115.06	-34.63	343.03	323.84	19.19	17.878		
2,100.00	2,022.18	2,103.46	2,080.94	11.20	11.13	175.40	-130.99	-36.88	362.51	342.41	20.10	18.038		
2,200.00	2,115.77	2,201.54	2,177.69	11.78	11.65	175.45	-146.92	-39.13	381.99	360.98	21.01	18.179		
2,300.00	2,209.36	2,300.38	2,274.45	12.37	12.18	175.49	-162.85	-41.38	401.47	379.54	21.94	18.301		
2,400.00	2,302.95	2,402.29	2,371.20	12.95	12.73	175.53	-178.78	-43.63	420.96	398.08	22.88	18.397		
2,500.00	2,396.54	2,504.21	2,467.96	13.54	13.28	175.56	-194.71	-45.88	440.44	416.61	23.83	18.483		
2,600.00	2,490.13	2,606.13	2,564.71	14.13	13.84	175.59	-210.64	-48.13	459.92	435.14	24.78	18.559		
2,700.00	2,583.72	2,691.96	2,661.47	14.73	14.30	175.62	-226.57	-50.38	479.41	453.74	25.66	18.680		
2,800.00	2,677.31	2,809.96	2,758.22	15.32	14.95	175.65	-242.50	-52.63	498.89	472.19	26.69	18.689		
2,900.00	2,770.90	2,888.12	2,854.98	15.92	15.37	175.67	-258.43	-54.88	518.37	490.82	27.55	18.816		
3,000.00	2,864.49	2,986.21	2,951.73	16.52	15.91	175.69	-274.36	-57.13	537.86	509.36	28.50	18.875		
3,100.00	2,958.08	3,084.29	3,048.49	17.12	16.45	175.71	-290.29	-59.38	557.34	527.90	29.44	18.928		
3,200.00	3,051.67	3,182.37	3,145.24	17.72	16.99	175.73	-306.22	-61.63	576.82	546.43	30.40	18.977		
3,300.00	3,145.26	3,280.46	3,242.00	18.32	17.53	175.75	-322.15	-63.88	596.31	564.96	31.35	19.022		
3,400.00	3,238.85	3,378.54	3,338.75	18.92	18.07	175.77	-338.08	-66.14	615.79	583.49	32.30	19.064		
3,500.00	3,332.44	3,476.62	3,435.51	19.53	18.61	175.79	-354.01	-68.39	635.28	602.02	33.26	19.102		
3,600.00	3,426.03	3,574.71	3,532.26	20.13	19.15	175.80	-369.94	-70.64	654.76	620.55	34.21	19.137		
3,700.00	3,519.62	3,672.79	3,629.02	20.74	19.69	175.81	-385.87	-72.89	674.24	639.07	35.17	19.169		
3,800.00	3,613.21	3,770.87	3,725.77	21.34	20.23	175.83	-401.80	-75.14	693.73	657.60	36.13	19.200		
3,900.00	3,706.80	3,868.96	3,822.53	21.95	20.77	175.84	-417.73	-77.39	713.21	676.12	37.09	19.228		
4,000.00	3,800.39	3,967.04	3,919.28	22.56	21.32	175.85	-433.66	-79.64	732.70	694.64	38.05	19.254		
4,100.00	3,893.98	4,065.12	4,016.04	23.16	21.86	175.86	-449.59	-81.89	752.18	713.16	39.02	19.278		
4,200.00	3,987.57	4,163.21	4,112.79	23.77	22.40	175.88	-465.52	-84.14	771.66	731.68	39.98	19.301		
4,300.00	4,081.16	4,261.29	4,209.55	24.38	22.95	175.89	-481.45	-86.39	791.15	750.20	40.94	19.322		
4,400.00	4,174.75	4,359.37	4,306.30	24.99	23.49	175.90	-497.38	-88.64	810.63	768.72	41.91	19.342		
4,500.00	4,268.34	4,457.46	4,403.06	25.60	24.04	175.90	-513.31	-90.89	830.12	787.24	42.88	19.361		
4,600.00	4,361.93	4,555.54	4,499.81	26.21	24.58	175.91	-529.24	-93.14	849.60	805.76	43.84	19.379		
4,700.00	4,455.52	4,653.62	4,596.56	26.82	25.13	175.92	-545.17	-95.39	869.09	824.28	44.81	19.395		
4,800.00	4,549.11	4,751.71	4,693.32	27.43	25.67	175.93	-561.10	-97.64	888.57	842.79	45.78	19.411		
4,900.00	4,642.70	4,849.79	4,790.07	28.04	26.22	175.94	-577.03	-99.89	908.05	861.31	46.74	19.426		
5,000.00	4,736.29	4,947.87	4,886.83	28.65	26.76	175.95	-592.96	-102.14	927.54	879.83	47.71	19.440		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWID													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (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	4,829.88	5,045.96	4,983.58	29.26	27.31	175.95	-608.89	-104.39	947.02	898.34	48.68	19.453		
5,200.00	4,923.47	5,144.04	5,080.34	29.87	27.86	175.96	-624.82	-106.64	966.51	916.86	49.65	19.466		
5,300.00	5,017.06	5,242.12	5,177.09	30.48	28.40	175.97	-640.75	-108.89	985.99	935.37	50.62	19.478		
5,400.00	5,110.65	5,340.21	5,273.85	31.09	28.95	175.97	-656.68	-111.14	1,005.48	953.88	51.59	19.489		
5,500.00	5,204.24	5,438.29	5,370.60	31.70	29.50	175.98	-672.61	-113.39	1,024.96	972.40	52.56	19.500		
5,600.00	5,297.83	5,536.37	5,467.36	32.32	30.04	175.98	-688.54	-115.64	1,044.45	990.91	53.53	19.510		
5,700.00	5,391.42	5,634.46	5,564.11	32.93	30.59	175.99	-704.47	-117.90	1,063.93	1,009.42	54.51	19.520		
5,800.00	5,485.01	5,732.54	5,660.87	33.54	31.14	176.00	-720.40	-120.15	1,083.41	1,027.94	55.48	19.529		
5,900.00	5,578.60	5,830.62	5,757.62	34.15	31.68	176.00	-736.33	-122.40	1,102.90	1,046.45	56.45	19.538		
6,000.00	5,672.19	5,928.71	5,854.38	34.77	32.23	176.01	-752.26	-124.65	1,122.38	1,064.96	57.42	19.546		
6,100.00	5,765.78	6,026.79	5,951.13	35.38	32.78	176.01	-768.19	-126.90	1,141.87	1,083.47	58.39	19.554		
6,200.00	5,859.37	6,124.87	6,047.89	35.99	33.32	176.02	-784.12	-129.15	1,161.35	1,101.98	59.37	19.562		
6,300.00	5,952.96	6,222.96	6,144.64	36.60	33.87	176.02	-800.05	-131.40	1,180.84	1,120.50	60.34	19.569		
6,400.00	6,046.55	6,321.04	6,241.40	37.22	34.42	176.02	-815.98	-133.65	1,200.32	1,139.01	61.31	19.576		
6,500.00	6,140.14	6,419.12	6,338.15	37.83	34.97	176.03	-831.91	-135.90	1,219.81	1,157.52	62.29	19.583		
6,600.00	6,233.73	6,517.21	6,434.91	38.44	35.52	176.03	-847.84	-138.15	1,239.29	1,176.03	63.26	19.590		
6,700.00	6,327.32	6,615.29	6,531.66	39.06	36.06	176.04	-863.77	-140.40	1,258.77	1,194.54	64.24	19.596		
6,800.00	6,420.91	6,713.37	6,628.42	39.67	36.61	176.04	-879.70	-142.65	1,278.26	1,213.05	65.21	19.602		
6,900.00	6,514.50	6,811.07	6,724.28	40.28	37.16	175.73	-895.53	-151.83	1,297.75	1,231.55	66.21	19.602		
7,000.00	6,608.09	6,904.56	6,813.69	40.90	37.69	174.83	-910.39	-174.41	1,317.49	1,250.29	67.20	19.604		
7,100.00	6,701.63	6,990.94	6,892.58	41.51	38.16	163.37	-923.58	-206.87	1,338.05	1,269.87	68.18	19.626		
7,200.00	6,793.85	7,073.19	6,963.00	42.10	38.61	140.56	-935.44	-247.56	1,359.14	1,290.03	69.11	19.666		
7,300.00	6,882.50	7,152.89	7,025.75	42.64	39.06	124.34	-946.08	-295.46	1,380.01	1,310.01	70.00	19.715		
7,400.00	6,965.41	7,230.63	7,080.79	43.12	39.49	113.18	-955.50	-349.47	1,399.94	1,329.09	70.85	19.759		
7,500.00	7,040.53	7,306.85	7,128.05	43.53	39.94	105.32	-963.67	-408.65	1,418.30	1,346.61	71.69	19.783		
7,600.00	7,106.00	7,381.91	7,167.44	43.89	40.43	99.67	-970.58	-472.12	1,434.51	1,361.92	72.59	19.761		
7,700.00	7,160.23	7,456.10	7,198.87	44.20	40.96	95.61	-976.19	-539.04	1,448.09	1,374.48	73.61	19.672		
7,800.00	7,201.86	7,529.66	7,222.23	44.48	41.56	92.77	-980.50	-608.61	1,458.63	1,383.79	74.84	19.491		
7,900.00	7,229.88	7,600.00	7,237.02	44.73	42.22	90.98	-983.40	-677.29	1,465.84	1,389.60	76.24	19.227		
8,000.00	7,243.60	7,675.63	7,244.49	44.99	43.03	90.10	-985.13	-752.48	1,469.50	1,391.43	78.07	18.822		
8,100.00	7,244.73	7,764.61	7,244.69	45.29	44.16	90.00	-985.76	-841.45	1,469.97	1,389.39	80.57	18.244		
8,200.00	7,244.23	7,864.61	7,244.16	45.74	45.64	90.00	-986.35	-941.45	1,469.97	1,386.27	83.70	17.562		
8,300.00	7,243.73	7,964.61	7,243.63	46.38	47.34	90.00	-986.93	-1,041.45	1,469.97	1,382.82	87.15	16.866		
8,400.00	7,243.23	8,064.61	7,243.10	47.29	49.25	89.99	-987.51	-1,141.44	1,469.98	1,379.08	90.89	16.172		
8,500.00	7,242.73	8,164.61	7,242.57	48.46	51.33	89.99	-988.10	-1,241.44	1,469.98	1,375.09	94.89	15.492		
8,600.00	7,242.23	8,264.61	7,242.04	49.87	53.57	89.99	-988.68	-1,341.44	1,469.99	1,370.88	99.11	14.832		
8,700.00	7,241.73	8,364.61	7,241.52	51.48	55.93	89.99	-989.27	-1,441.43	1,469.99	1,366.47	103.52	14.200		
8,800.00	7,241.23	8,464.61	7,240.99	53.24	58.39	89.99	-989.85	-1,541.43	1,469.99	1,361.88	108.11	13.597		
8,900.00	7,240.73	8,564.61	7,240.46	55.13	60.95	89.99	-990.44	-1,641.43	1,470.00	1,357.15	112.85	13.026		
9,000.00	7,240.23	8,664.61	7,239.93	57.11	63.59	89.99	-991.02	-1,741.42	1,470.00	1,352.28	117.72	12.487		
9,100.00	7,239.73	8,764.61	7,239.40	59.19	66.30	89.99	-991.61	-1,841.42	1,470.00	1,347.30	122.71	11.980		
9,200.00	7,239.23	8,864.61	7,238.87	61.34	69.07	89.99	-992.19	-1,941.42	1,470.01	1,342.21	127.80	11.502		
9,300.00	7,238.72	8,964.61	7,238.34	63.55	71.89	89.99	-992.77	-2,041.41	1,470.01	1,337.02	132.99	11.054		
9,400.00	7,238.22	9,064.61	7,237.81	65.81	74.75	89.98	-993.36	-2,141.41	1,470.02	1,331.76	138.26	10.632		
9,500.00	7,237.72	9,164.61	7,237.29	68.13	77.66	89.98	-993.94	-2,241.41	1,470.02	1,326.42	143.60	10.237		
9,600.00	7,237.22	9,264.61	7,236.76	70.48	80.60	89.98	-994.53	-2,341.41	1,470.02	1,321.02	149.01	9.865		
9,700.00	7,236.72	9,364.61	7,236.23	72.88	83.57	89.98	-995.11	-2,441.40	1,470.03	1,315.55	154.47	9.516		
9,800.00	7,236.22	9,464.61	7,235.70	75.31	86.57	89.98	-995.70	-2,541.40	1,470.03	1,310.04	159.99	9.188		
9,900.00	7,235.72	9,564.61	7,235.17	77.77	89.59	89.98	-996.28	-2,641.40	1,470.04	1,304.48	165.56	8.879		
10,000.00	7,235.22	9,664.61	7,234.64	80.26	92.63	89.98	-996.86	-2,741.39	1,470.04	1,298.87	171.17	8.588		
10,100.00	7,234.72	9,764.61	7,234.11	82.77	95.70	89.98	-997.45	-2,841.39	1,470.04	1,293.23	176.81	8.314		
10,200.00	7,234.22	9,864.61	7,233.58	85.31	98.78	89.98	-998.03	-2,941.39	1,470.05	1,287.55	182.49	8.055		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	9,964.61	7,233.06	87.86	101.88	89.97	-998.62	-3,041.38	1,470.05	1,281.84	188.21	7.811		
10,400.00	7,233.22	10,064.61	7,232.53	90.44	105.00	89.97	-999.20	-3,141.38	1,470.05	1,276.10	193.95	7.579		
10,500.00	7,232.72	10,164.61	7,232.00	93.03	108.12	89.97	-999.79	-3,241.38	1,470.06	1,270.33	199.72	7.360		
10,600.00	7,232.22	10,264.61	7,231.47	95.64	111.26	89.97	-1,000.37	-3,341.37	1,470.06	1,264.54	205.52	7.153		
10,700.00	7,231.72	10,364.61	7,230.94	98.26	114.42	89.97	-1,000.95	-3,441.37	1,470.07	1,258.73	211.34	6.956		
10,800.00	7,231.21	10,464.61	7,230.41	100.89	117.58	89.97	-1,001.54	-3,541.37	1,470.07	1,252.90	217.17	6.769		
10,900.00	7,230.71	10,564.61	7,229.88	103.54	120.75	89.97	-1,002.12	-3,641.37	1,470.07	1,247.04	223.03	6.591		
11,000.00	7,230.21	10,664.61	7,229.35	106.20	123.93	89.97	-1,002.71	-3,741.36	1,470.08	1,241.17	228.91	6.422		
11,100.00	7,229.71	10,764.61	7,228.83	108.87	127.12	89.97	-1,003.29	-3,841.36	1,470.08	1,235.28	234.80	6.261		
11,200.00	7,229.21	10,864.61	7,228.30	111.54	130.31	89.96	-1,003.88	-3,941.36	1,470.09	1,229.38	240.70	6.107		
11,300.00	7,228.71	10,964.61	7,227.77	114.23	133.51	89.96	-1,004.46	-4,041.35	1,470.09	1,223.47	246.62	5.961		
11,400.00	7,228.21	11,064.61	7,227.24	116.92	136.72	89.96	-1,005.05	-4,141.35	1,470.09	1,217.54	252.56	5.821		
11,500.00	7,227.71	11,164.61	7,226.71	119.63	139.94	89.96	-1,005.63	-4,241.35	1,470.10	1,211.60	258.50	5.687		
11,600.00	7,227.21	11,264.61	7,226.18	122.34	143.16	89.96	-1,006.21	-4,341.34	1,470.10	1,205.64	264.46	5.559		
11,700.00	7,226.71	11,364.61	7,225.65	125.05	146.38	89.96	-1,006.80	-4,441.34	1,470.10	1,199.68	270.42	5.436		
11,800.00	7,226.21	11,464.61	7,225.13	127.78	149.61	89.96	-1,007.38	-4,541.34	1,470.11	1,193.71	276.40	5.319		
11,900.00	7,225.71	11,564.61	7,224.60	130.51	152.85	89.96	-1,007.97	-4,641.33	1,470.11	1,187.72	282.39	5.206		
12,000.00	7,225.21	11,664.61	7,224.07	133.24	156.09	89.96	-1,008.55	-4,741.33	1,470.12	1,181.73	288.38	5.098		
12,100.00	7,224.71	11,764.61	7,223.54	135.98	159.33	89.95	-1,009.14	-4,841.33	1,470.12	1,175.73	294.39	4.994		
12,200.00	7,224.21	11,864.61	7,223.01	138.72	162.57	89.95	-1,009.72	-4,941.32	1,470.12	1,169.73	300.40	4.894		
12,300.00	7,223.70	11,964.61	7,222.48	141.47	165.82	89.95	-1,010.30	-5,041.32	1,470.13	1,163.71	306.41	4.798		
12,400.00	7,223.20	12,064.61	7,221.95	144.23	169.08	89.95	-1,010.89	-5,141.32	1,470.13	1,157.69	312.44	4.705		
12,500.00	7,222.70	12,164.61	7,221.42	146.98	172.33	89.95	-1,011.47	-5,241.32	1,470.14	1,151.66	318.47	4.616		
12,600.00	7,222.20	12,264.61	7,220.90	149.74	175.59	89.95	-1,012.06	-5,341.31	1,470.14	1,145.63	324.51	4.530		
12,700.00	7,221.70	12,364.61	7,220.37	152.51	178.86	89.95	-1,012.64	-5,441.31	1,470.14	1,139.59	330.55	4.448		
12,800.00	7,221.20	12,464.61	7,219.84	155.28	182.12	89.95	-1,013.23	-5,541.31	1,470.15	1,133.55	336.60	4.368		
12,900.00	7,220.70	12,564.61	7,219.31	158.05	185.39	89.95	-1,013.81	-5,641.30	1,470.15	1,127.50	342.65	4.290		
13,000.00	7,220.20	12,664.61	7,218.78	160.82	188.66	89.94	-1,014.40	-5,741.30	1,470.15	1,121.44	348.71	4.216		
13,100.00	7,219.70	12,764.61	7,218.25	163.60	191.93	89.94	-1,014.98	-5,841.30	1,470.16	1,115.38	354.77	4.144		
13,200.00	7,219.20	12,864.61	7,217.72	166.38	195.20	89.94	-1,015.56	-5,941.29	1,470.16	1,109.32	360.84	4.074		
13,300.00	7,218.70	12,964.61	7,217.19	169.16	198.48	89.94	-1,016.15	-6,041.29	1,470.17	1,103.25	366.91	4.007		
13,400.00	7,218.20	13,064.61	7,216.67	171.95	201.76	89.94	-1,016.73	-6,141.29	1,470.17	1,097.18	372.99	3.942		
13,500.00	7,217.70	13,164.61	7,216.14	174.74	205.04	89.94	-1,017.32	-6,241.28	1,470.17	1,091.11	379.07	3.878		
13,600.00	7,217.20	13,264.61	7,215.61	177.53	208.32	89.94	-1,017.90	-6,341.28	1,470.18	1,085.03	385.15	3.817		
13,700.00	7,216.70	13,364.61	7,215.08	180.32	211.60	89.94	-1,018.49	-6,441.28	1,470.18	1,078.94	391.24	3.758		
13,800.00	7,216.19	13,464.61	7,214.55	183.11	214.89	89.94	-1,019.07	-6,541.27	1,470.19	1,072.86	397.33	3.700		
13,900.00	7,215.69	13,564.61	7,214.02	185.91	218.17	89.93	-1,019.65	-6,641.27	1,470.19	1,066.77	403.42	3.644		
14,000.00	7,215.19	13,664.61	7,213.49	188.71	221.46	89.93	-1,020.24	-6,741.27	1,470.19	1,060.68	409.52	3.590		
14,100.00	7,214.69	13,764.61	7,212.96	191.51	224.75	89.93	-1,020.82	-6,841.27	1,470.20	1,054.58	415.61	3.537		
14,200.00	7,214.19	13,864.61	7,212.44	194.31	228.04	89.93	-1,021.41	-6,941.26	1,470.20	1,048.49	421.72	3.486		
14,300.00	7,213.69	13,964.61	7,211.91	197.11	231.33	89.93	-1,021.99	-7,041.26	1,470.20	1,042.39	427.82	3.437		
14,400.00	7,213.19	14,064.61	7,211.38	199.92	234.62	89.93	-1,022.58	-7,141.26	1,470.21	1,036.28	433.93	3.388		
14,500.00	7,212.69	14,164.61	7,210.85	202.72	237.92	89.93	-1,023.16	-7,241.25	1,470.21	1,030.18	440.03	3.341		
14,600.00	7,212.19	14,264.61	7,210.32	205.53	241.21	89.93	-1,023.75	-7,341.25	1,470.22	1,024.07	446.15	3.295		
14,700.00	7,211.69	14,364.61	7,209.79	208.34	244.51	89.93	-1,024.33	-7,441.25	1,470.22	1,017.96	452.26	3.251		
14,800.00	7,211.19	14,464.61	7,209.26	211.15	247.80	89.93	-1,024.91	-7,541.24	1,470.22	1,011.85	458.37	3.207		
14,900.00	7,210.69	14,564.61	7,208.74	213.96	251.10	89.92	-1,025.50	-7,641.24	1,470.23	1,005.74	464.49	3.165		
15,000.00	7,210.19	14,664.61	7,208.21	216.78	254.40	89.92	-1,026.08	-7,741.24	1,470.23	999.62	470.61	3.124		
15,100.00	7,209.69	14,764.61	7,207.68	219.59	257.70	89.92	-1,026.67	-7,841.23	1,470.24	993.50	476.73	3.084		
15,200.00	7,209.18	14,864.61	7,207.15	222.41	261.00	89.92	-1,027.25	-7,941.23	1,470.24	987.38	482.86	3.045		
15,300.00	7,208.68	14,964.61	7,206.62	225.22	264.30	89.92	-1,027.84	-8,041.23	1,470.24	981.26	488.98	3.007		
15,400.00	7,208.18	15,064.61	7,206.09	228.04	267.60	89.92	-1,028.42	-8,141.23	1,470.25	975.14	495.11	2.970		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	3.28 ft
HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													
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)		
15,400.52	7,208.18	15,065.13	7,206.09	228.06	267.62	89.92	-1,028.42	-8,141.75	1,470.25	975.11	495.14	2.969	
15,437.48	7,208.00	15,081.89	7,206.00	229.10	268.17	89.92	-1,028.52	-8,158.50	1,470.39	974.00	496.39	2.962 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.49	259.76	2.23	259.77					
100.00	100.00	102.00	100.00	3.28	3.29	0.49	259.76	2.23	259.77	253.20	6.57	39.540		
200.00	200.00	202.00	200.00	3.34	3.34	0.49	259.76	2.23	259.77	253.10	6.68	38.913 CC, ES		
300.00	299.98	301.98	299.98	3.44	3.45	176.87	259.76	2.23	261.51	254.63	6.89	37.969		
400.00	399.84	401.84	399.84	3.59	3.61	176.93	259.76	2.23	266.74	259.54	7.20	37.053		
500.00	499.45	501.60	499.60	3.79	3.81	177.02	259.76	2.22	275.44	267.84	7.60	36.234		
600.00	598.70	611.32	609.29	4.03	4.06	177.02	257.71	1.55	285.75	277.65	8.10	35.276		
700.00	697.47	721.46	719.24	4.31	4.35	176.81	251.63	-0.44	295.88	287.20	8.67	34.111		
800.00	795.62	821.11	818.58	4.64	4.63	176.55	244.21	-2.88	307.54	298.27	9.27	33.185		
900.00	893.06	919.95	917.12	5.00	4.94	176.34	236.84	-5.30	322.66	312.75	9.91	32.561		
1,000.00	989.64	1,018.21	1,015.07	5.40	5.26	176.18	229.51	-7.70	341.21	330.62	10.59	32.212		
1,100.00	1,085.27	1,115.76	1,112.32	5.83	5.60	176.07	222.24	-10.09	363.18	351.87	11.31	32.106		
1,200.00	1,179.82	1,212.49	1,208.75	6.29	5.95	176.00	215.03	-12.45	388.53	376.47	12.06	32.216		
1,300.00	1,273.47	1,308.51	1,304.48	6.79	6.31	175.99	207.87	-14.80	416.44	403.61	12.83	32.457		
1,400.00	1,367.06	1,404.49	1,400.16	7.30	6.67	175.99	200.71	-17.15	444.52	430.91	13.61	32.650		
1,500.00	1,460.64	1,500.47	1,495.84	7.83	7.05	175.99	193.56	-19.50	472.60	458.18	14.42	32.780		
1,600.00	1,554.23	1,603.56	1,591.53	8.38	7.46	175.99	186.40	-21.84	500.68	485.42	15.26	32.800		
1,700.00	1,647.82	1,707.58	1,687.21	8.93	7.88	175.99	179.25	-24.19	528.76	512.63	16.13	32.782		
1,800.00	1,741.41	1,788.40	1,782.89	9.49	8.21	175.99	172.09	-26.54	556.84	539.92	16.91	32.924		
1,900.00	1,835.00	1,884.37	1,878.57	10.05	8.60	175.99	164.94	-28.89	584.92	567.15	17.77	32.921		
2,000.00	1,928.59	1,980.35	1,974.25	10.62	9.00	175.99	157.78	-31.23	613.00	594.37	18.63	32.905		
2,100.00	2,022.18	2,076.33	2,069.93	11.20	9.40	175.99	150.63	-33.58	641.07	621.57	19.50	32.877		
2,200.00	2,115.77	2,172.30	2,165.61	11.78	9.81	175.99	143.47	-35.93	669.15	648.78	20.38	32.841		
2,300.00	2,209.36	2,268.28	2,261.29	12.37	10.21	175.99	136.31	-38.28	697.23	675.97	21.26	32.799		
2,400.00	2,302.95	2,364.26	2,356.97	12.95	10.62	175.99	129.16	-40.62	725.31	703.17	22.14	32.754		
2,500.00	2,396.54	2,460.24	2,452.66	13.54	11.03	175.99	122.00	-42.97	753.39	730.35	23.04	32.705		
2,600.00	2,490.13	2,556.21	2,548.34	14.13	11.45	175.99	114.85	-45.32	781.47	757.54	23.93	32.655		
2,700.00	2,583.72	2,652.19	2,644.02	14.73	11.86	175.99	107.69	-47.67	809.55	784.72	24.83	32.604		
2,800.00	2,677.31	2,748.17	2,739.70	15.32	12.27	175.98	100.54	-50.01	837.63	811.89	25.73	32.553		
2,900.00	2,770.90	2,844.14	2,835.38	15.92	12.69	175.98	93.38	-52.36	865.70	839.07	26.64	32.502		
3,000.00	2,864.49	2,940.12	2,931.06	16.52	13.11	175.98	86.23	-54.71	893.78	866.24	27.54	32.451		
3,100.00	2,958.08	3,036.10	3,026.74	17.12	13.53	175.98	79.07	-57.06	921.86	893.41	28.45	32.401		
3,200.00	3,051.67	3,132.07	3,122.42	17.72	13.95	175.98	71.92	-59.40	949.94	920.58	29.36	32.352		
3,300.00	3,145.26	3,228.05	3,218.10	18.32	14.37	175.98	64.76	-61.75	978.02	947.74	30.28	32.303		
3,400.00	3,238.85	3,324.03	3,313.79	18.92	14.79	175.98	57.61	-64.10	1,006.10	974.91	31.19	32.256		
3,500.00	3,332.44	3,420.01	3,409.47	19.53	15.21	175.98	50.45	-66.45	1,034.18	1,002.07	32.11	32.210		
3,600.00	3,426.03	3,515.98	3,505.15	20.13	15.63	175.98	43.30	-68.79	1,062.26	1,029.23	33.03	32.165		
3,700.00	3,519.62	3,611.96	3,600.83	20.74	16.06	175.98	36.14	-71.14	1,090.33	1,056.39	33.94	32.121		
3,800.00	3,613.21	3,707.94	3,696.51	21.34	16.48	175.98	28.98	-73.49	1,118.41	1,083.55	34.87	32.078		
3,900.00	3,706.80	3,803.91	3,792.19	21.95	16.91	175.98	21.83	-75.84	1,146.49	1,110.70	35.79	32.037		
4,000.00	3,800.39	3,900.11	3,887.87	22.56	17.33	175.98	14.67	-78.18	1,174.57	1,137.86	36.71	31.996		
4,100.00	3,893.98	4,004.13	3,983.55	23.16	17.79	175.98	7.52	-80.53	1,202.65	1,164.98	37.67	31.927		
4,200.00	3,987.57	4,108.16	4,079.23	23.77	18.25	175.98	0.36	-82.88	1,230.73	1,192.10	38.63	31.861		
4,300.00	4,081.16	4,187.82	4,174.92	24.38	18.61	175.98	-6.79	-85.23	1,258.81	1,219.32	39.48	31.882		
4,400.00	4,174.75	4,283.80	4,270.60	24.99	19.03	175.98	-13.95	-87.58	1,286.88	1,246.48	40.41	31.847		
4,500.00	4,268.34	4,379.78	4,366.28	25.60	19.46	175.98	-21.10	-89.92	1,314.96	1,273.63	41.34	31.812		
4,600.00	4,361.93	4,475.75	4,461.96	26.21	19.89	175.98	-28.26	-92.27	1,343.04	1,300.78	42.26	31.778		
4,700.00	4,455.52	4,571.73	4,557.64	26.82	20.31	175.98	-35.41	-94.62	1,371.12	1,327.93	43.19	31.745		
4,800.00	4,549.11	4,667.71	4,653.32	27.43	20.74	175.98	-42.57	-96.97	1,399.20	1,355.08	44.12	31.713		
4,900.00	4,642.70	4,763.68	4,749.00	28.04	21.17	175.98	-49.72	-99.31	1,427.28	1,382.23	45.05	31.682		
5,000.00	4,736.29	4,859.66	4,844.68	28.65	21.60	175.98	-56.88	-101.66	1,455.36	1,409.38	45.98	31.652		
5,100.00	4,829.88	4,955.64	4,940.36	29.26	22.03	175.98	-64.03	-104.01	1,483.44	1,436.53	46.91	31.623		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	5,051.62	5,036.05	29.87	22.45	175.98	-71.19	-106.36	1,511.51	1,463.67	47.84	31.595		
5,300.00	5,017.06	5,147.59	5,131.73	30.48	22.88	175.98	-78.35	-108.70	1,539.59	1,490.82	48.77	31.567		
5,400.00	5,110.65	5,243.57	5,227.41	31.09	23.31	175.98	-85.50	-111.05	1,567.67	1,517.97	49.70	31.540		
5,500.00	5,204.24	5,339.55	5,323.09	31.70	23.74	175.98	-92.66	-113.40	1,595.75	1,545.11	50.64	31.514		
5,600.00	5,297.83	5,435.52	5,418.77	32.32	24.17	175.98	-99.81	-115.75	1,623.83	1,572.26	51.57	31.488		
5,700.00	5,391.42	5,531.50	5,514.45	32.93	24.60	175.98	-106.97	-118.09	1,651.91	1,599.41	52.50	31.464		
5,800.00	5,485.01	5,627.48	5,610.13	33.54	25.03	175.98	-114.12	-120.44	1,679.99	1,626.55	53.44	31.440		
5,900.00	5,578.60	5,723.45	5,705.81	34.15	25.46	175.98	-121.28	-122.79	1,708.07	1,653.70	54.37	31.416		
6,000.00	5,672.19	5,819.43	5,801.49	34.77	25.89	175.98	-128.43	-125.14	1,736.14	1,680.84	55.30	31.393		
6,100.00	5,765.78	5,915.41	5,897.18	35.38	26.32	175.98	-135.59	-127.48	1,764.22	1,707.99	56.24	31.371		
6,200.00	5,859.37	6,011.39	5,992.86	35.99	26.75	175.98	-142.74	-129.83	1,792.30	1,735.13	57.17	31.349		
6,300.00	5,952.96	6,107.36	6,088.54	36.60	27.18	175.98	-149.90	-132.18	1,820.38	1,762.27	58.11	31.328		
6,400.00	6,046.55	6,203.34	6,184.22	37.22	27.61	175.98	-157.05	-134.53	1,848.46	1,789.42	59.04	31.307		
6,500.00	6,140.14	6,300.68	6,279.90	37.83	28.04	175.98	-164.21	-136.87	1,876.54	1,816.55	59.98	31.284		
6,600.00	6,233.73	6,404.71	6,375.58	38.44	28.51	175.98	-171.36	-139.22	1,904.62	1,843.66	60.96	31.246		
6,700.00	6,327.32	6,508.73	6,471.26	39.06	28.98	175.98	-178.52	-141.57	1,932.70	1,870.77	61.93	31.209		
6,800.00	6,420.91	6,587.25	6,566.94	39.67	29.33	175.98	-185.68	-143.92	1,960.77	1,897.99	62.79	31.229		
6,900.00	6,514.50	6,683.69	6,663.03	40.28	29.76	175.94	-192.87	-147.61	1,988.85	1,925.12	63.73	31.209		
7,000.00	6,608.09	6,778.87	6,756.58	40.90	30.18	175.55	-199.97	-163.12	2,016.93	1,952.27	64.65	31.196		
7,100.00	6,701.63	6,868.71	6,841.83	41.51	30.57	164.37	-206.56	-190.43	2,045.23	1,979.71	65.52	31.214		
7,200.00	6,793.85	6,955.06	6,919.38	42.10	30.92	141.38	-212.64	-227.77	2,073.46	2,007.12	66.34	31.256		
7,300.00	6,882.50	7,039.29	6,989.49	42.64	31.25	124.97	-218.25	-274.00	2,100.81	2,033.71	67.11	31.305		
7,400.00	6,965.41	7,121.95	7,051.78	43.12	31.56	113.63	-223.33	-328.00	2,126.55	2,058.70	67.85	31.342		
7,500.00	7,040.53	7,203.46	7,105.87	43.53	31.90	105.61	-227.86	-388.74	2,149.96	2,081.36	68.60	31.340		
7,600.00	7,106.00	7,284.14	7,151.35	43.89	32.32	99.83	-231.79	-455.20	2,170.43	2,101.01	69.43	31.263		
7,700.00	7,160.23	7,364.24	7,187.86	44.20	32.85	95.65	-235.09	-526.36	2,187.43	2,117.04	70.39	31.075		
7,800.00	7,201.86	7,443.92	7,215.05	44.48	33.51	92.74	-237.72	-601.16	2,200.52	2,128.96	71.56	30.749		
7,900.00	7,229.88	7,523.31	7,232.67	44.73	34.29	90.89	-239.67	-678.49	2,209.37	2,136.36	73.00	30.264		
8,000.00	7,243.60	7,602.49	7,240.55	44.99	35.16	90.00	-240.89	-757.22	2,213.74	2,139.04	74.70	29.634		
8,100.00	7,244.73	7,704.55	7,240.74	45.29	36.45	89.90	-241.66	-850.17	2,214.11	2,137.09	77.02	28.746		
8,200.00	7,244.23	7,804.55	7,240.35	45.74	37.89	89.90	-242.44	-950.16	2,213.92	2,134.23	79.68	27.784		
8,300.00	7,243.73	7,904.55	7,239.95	46.38	39.48	89.90	-243.23	-1,050.16	2,213.72	2,131.07	82.65	26.783		
8,400.00	7,243.23	8,004.55	7,239.56	47.29	41.21	89.91	-244.01	-1,150.15	2,213.53	2,127.63	85.90	25.768		
8,500.00	7,242.73	8,104.55	7,239.17	48.46	43.06	89.91	-244.79	-1,250.15	2,213.34	2,123.94	89.40	24.758		
8,600.00	7,242.23	8,204.55	7,238.77	49.87	45.02	89.91	-245.57	-1,350.15	2,213.14	2,120.03	93.11	23.769		
8,700.00	7,241.73	8,304.55	7,238.38	51.48	47.07	89.91	-246.35	-1,450.14	2,212.95	2,115.93	97.02	22.809		
8,800.00	7,241.23	8,404.55	7,237.99	53.24	49.20	89.92	-247.14	-1,550.14	2,212.75	2,111.65	101.10	21.887		
8,900.00	7,240.73	8,504.55	7,237.59	55.13	51.40	89.92	-247.92	-1,650.13	2,212.56	2,107.23	105.33	21.006		
9,000.00	7,240.23	8,604.55	7,237.20	57.11	53.66	89.92	-248.70	-1,750.13	2,212.36	2,102.67	109.70	20.168		
9,100.00	7,239.73	8,704.55	7,236.81	59.19	55.98	89.92	-249.48	-1,850.13	2,212.17	2,097.99	114.18	19.374		
9,200.00	7,239.23	8,804.55	7,236.41	61.34	58.34	89.93	-250.27	-1,950.12	2,211.98	2,093.20	118.77	18.623		
9,300.00	7,238.72	8,904.55	7,236.02	63.55	60.75	89.93	-251.05	-2,050.12	2,211.78	2,088.32	123.46	17.915		
9,400.00	7,238.22	9,004.55	7,235.63	65.81	63.20	89.93	-251.83	-2,150.11	2,211.59	2,083.36	128.23	17.248		
9,500.00	7,237.72	9,104.55	7,235.23	68.13	65.68	89.94	-252.61	-2,250.11	2,211.39	2,078.33	133.07	16.618		
9,600.00	7,237.22	9,204.55	7,234.84	70.48	68.19	89.94	-253.39	-2,350.10	2,211.20	2,073.22	137.98	16.026		
9,700.00	7,236.72	9,304.55	7,234.45	72.88	70.72	89.94	-254.18	-2,450.10	2,211.01	2,068.06	142.95	15.467		
9,800.00	7,236.22	9,404.55	7,234.05	75.31	73.28	89.94	-254.96	-2,550.10	2,210.81	2,062.84	147.97	14.941		
9,900.00	7,235.72	9,504.55	7,233.66	77.77	75.86	89.95	-255.74	-2,650.09	2,210.62	2,057.57	153.04	14.444		
10,000.00	7,235.22	9,604.55	7,233.27	80.26	78.46	89.95	-256.52	-2,750.09	2,210.42	2,052.26	158.16	13.976		
10,100.00	7,234.72	9,704.55	7,232.87	82.77	81.08	89.95	-257.31	-2,850.08	2,210.23	2,046.92	163.31	13.534		
10,200.00	7,234.22	9,804.55	7,232.48	85.31	83.71	89.96	-258.09	-2,950.08	2,210.03	2,041.53	168.51	13.115		
10,300.00	7,233.72	9,904.55	7,232.09	87.86	86.36	89.96	-258.87	-3,050.08	2,209.84	2,036.11	173.73	12.720		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	10,004.55	7,231.69	90.44	89.02	89.96	-259.65	-3,150.07	2,209.65	2,030.66	178.99	12.345		
10,500.00	7,232.72	10,104.55	7,231.30	93.03	91.69	89.96	-260.43	-3,250.07	2,209.45	2,025.18	184.27	11.990		
10,600.00	7,232.22	10,204.55	7,230.91	95.64	94.38	89.97	-261.22	-3,350.06	2,209.26	2,019.68	189.58	11.654		
10,700.00	7,231.72	10,304.55	7,230.51	98.26	97.07	89.97	-262.00	-3,450.06	2,209.06	2,014.16	194.91	11.334		
10,800.00	7,231.21	10,404.56	7,230.12	100.89	99.77	89.97	-262.78	-3,550.06	2,208.87	2,008.61	200.26	11.030		
10,900.00	7,230.71	10,504.56	7,229.73	103.54	102.48	89.97	-263.56	-3,650.05	2,208.68	2,003.05	205.63	10.741		
11,000.00	7,230.21	10,604.56	7,229.33	106.20	105.20	89.98	-264.35	-3,750.05	2,208.48	1,997.46	211.02	10.466		
11,100.00	7,229.71	10,704.56	7,228.94	108.87	107.93	89.98	-265.13	-3,850.04	2,208.29	1,991.86	216.43	10.203		
11,200.00	7,229.21	10,804.56	7,228.55	111.54	110.66	89.98	-265.91	-3,950.04	2,208.09	1,986.25	221.85	9.953		
11,300.00	7,228.71	10,904.56	7,228.15	114.23	113.40	89.99	-266.69	-4,050.04	2,207.90	1,980.62	227.28	9.714		
11,400.00	7,228.21	11,004.56	7,227.76	116.92	116.14	89.99	-267.47	-4,150.03	2,207.71	1,974.97	232.73	9.486		
11,500.00	7,227.71	11,104.56	7,227.37	119.63	118.89	89.99	-268.26	-4,250.03	2,207.51	1,969.31	238.20	9.268		
11,600.00	7,227.21	11,204.56	7,226.97	122.34	121.65	89.99	-269.04	-4,350.02	2,207.32	1,963.65	243.67	9.059		
11,700.00	7,226.71	11,304.56	7,226.58	125.05	124.41	90.00	-269.82	-4,450.02	2,207.12	1,957.97	249.16	8.858		
11,800.00	7,226.21	11,404.56	7,226.19	127.78	127.17	90.00	-270.60	-4,550.02	2,206.93	1,952.28	254.65	8.666		
11,900.00	7,225.71	11,504.56	7,225.79	130.51	129.94	90.00	-271.39	-4,650.01	2,206.74	1,946.58	260.16	8.482		
12,000.00	7,225.21	11,604.56	7,225.40	133.24	132.71	90.01	-272.17	-4,750.01	2,206.54	1,940.87	265.67	8.306		
12,100.00	7,224.71	11,704.56	7,225.01	135.98	135.49	90.01	-272.95	-4,850.00	2,206.35	1,935.15	271.19	8.136		
12,200.00	7,224.21	11,804.56	7,224.61	138.72	138.26	90.01	-273.73	-4,950.00	2,206.15	1,929.43	276.72	7.972		
12,300.00	7,223.70	11,904.56	7,224.22	141.47	141.05	90.01	-274.51	-5,049.99	2,205.96	1,923.70	282.26	7.815		
12,400.00	7,223.20	12,004.56	7,223.83	144.23	143.83	90.02	-275.30	-5,149.99	2,205.77	1,917.96	287.81	7.664		
12,500.00	7,222.70	12,104.56	7,223.43	146.98	146.62	90.02	-276.08	-5,249.99	2,205.57	1,912.21	293.36	7.518		
12,600.00	7,222.20	12,204.56	7,223.04	149.74	149.41	90.02	-276.86	-5,349.98	2,205.38	1,906.46	298.92	7.378		
12,700.00	7,221.70	12,304.56	7,222.65	152.51	152.20	90.03	-277.64	-5,449.98	2,205.18	1,900.70	304.48	7.242		
12,800.00	7,221.20	12,404.56	7,222.25	155.28	155.00	90.03	-278.43	-5,549.97	2,204.99	1,894.94	310.05	7.112		
12,900.00	7,220.70	12,504.56	7,221.86	158.05	157.80	90.03	-279.21	-5,649.97	2,204.80	1,889.17	315.62	6.986		
13,000.00	7,220.20	12,604.56	7,221.47	160.82	160.60	90.03	-279.99	-5,749.97	2,204.60	1,883.40	321.20	6.864		
13,100.00	7,219.70	12,704.56	7,221.07	163.60	163.40	90.04	-280.77	-5,849.96	2,204.41	1,877.62	326.79	6.746		
13,200.00	7,219.20	12,804.56	7,220.68	166.38	166.20	90.04	-281.55	-5,949.96	2,204.21	1,871.84	332.37	6.632		
13,300.00	7,218.70	12,904.56	7,220.29	169.16	169.01	90.04	-282.34	-6,049.95	2,204.02	1,866.05	337.97	6.521		
13,400.00	7,218.20	13,004.56	7,219.89	171.95	171.81	90.04	-283.12	-6,149.95	2,203.83	1,860.26	343.56	6.415		
13,500.00	7,217.70	13,095.44	7,219.50	174.74	174.37	90.05	-283.90	-6,249.95	2,203.63	1,854.72	348.91	6.316		
13,600.00	7,217.20	13,204.56	7,219.11	177.53	177.43	90.05	-284.68	-6,349.94	2,203.44	1,848.67	354.77	6.211		
13,700.00	7,216.70	13,304.56	7,218.71	180.32	180.24	90.05	-285.47	-6,449.94	2,203.24	1,842.86	360.38	6.114		
13,800.00	7,216.19	13,404.56	7,218.32	183.11	183.06	90.06	-286.25	-6,549.93	2,203.05	1,837.06	365.99	6.019		
13,900.00	7,215.69	13,504.56	7,217.93	185.91	185.87	90.06	-287.03	-6,649.93	2,202.86	1,831.25	371.61	5.928		
14,000.00	7,215.19	13,604.56	7,217.53	188.71	188.69	90.06	-287.81	-6,749.93	2,202.66	1,825.44	377.22	5.839		
14,100.00	7,214.69	13,704.56	7,217.14	191.51	191.51	90.06	-288.59	-6,849.92	2,202.47	1,819.62	382.84	5.753		
14,200.00	7,214.19	13,804.56	7,216.75	194.31	194.32	90.07	-289.38	-6,949.92	2,202.27	1,813.81	388.47	5.669		
14,300.00	7,213.69	13,904.56	7,216.35	197.11	197.14	90.07	-290.16	-7,049.91	2,202.08	1,807.99	394.09	5.588		
14,400.00	7,213.19	14,004.56	7,215.96	199.92	199.97	90.07	-290.94	-7,149.91	2,201.89	1,802.16	399.72	5.509		
14,500.00	7,212.69	14,104.56	7,215.57	202.72	202.79	90.08	-291.72	-7,249.90	2,201.69	1,796.34	405.35	5.432		
14,600.00	7,212.19	14,204.56	7,215.17	205.53	205.61	90.08	-292.51	-7,349.90	2,201.50	1,790.51	410.99	5.357		
14,700.00	7,211.69	14,304.56	7,214.78	208.34	208.43	90.08	-293.29	-7,449.90	2,201.30	1,784.68	416.62	5.284		
14,800.00	7,211.19	14,404.57	7,214.39	211.15	211.26	90.08	-294.07	-7,549.89	2,201.11	1,778.85	422.26	5.213		
14,900.00	7,210.69	14,504.57	7,213.99	213.96	214.08	90.09	-294.85	-7,649.89	2,200.92	1,773.01	427.90	5.143		
15,000.00	7,210.19	14,604.57	7,213.60	216.78	216.91	90.09	-295.63	-7,749.88	2,200.72	1,767.18	433.55	5.076		
15,100.00	7,209.69	14,704.57	7,213.21	219.59	219.74	90.09	-296.42	-7,849.88	2,200.53	1,761.34	439.19	5.010		
15,200.00	7,209.18	14,804.57	7,212.81	222.41	222.57	90.10	-297.20	-7,949.88	2,200.34	1,755.50	444.84	4.946		
15,300.00	7,208.68	14,904.57	7,212.42	225.22	225.39	90.10	-297.98	-8,049.87	2,200.14	1,749.66	450.48	4.884		
15,400.00	7,208.18	14,995.43	7,212.03	228.04	227.97	90.10	-298.76	-8,149.87	2,199.95	1,744.07	455.88	4.826		
15,417.17	7,208.10	15,012.60	7,211.96	228.52	228.45	90.10	-298.90	-8,167.04	2,199.91	1,743.07	456.85	4.815		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	15,002.44	7,212.00	229.10	228.16	90.10	-298.82	-8,156.87	2,200.09	1,743.14	456.95	4.815 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	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	301.04	300.04	3.44	3.45	176.89	159.94	1.39	161.69	154.80	6.89	23.480		
400.00	399.84	406.94	405.92	3.59	3.61	176.88	157.98	1.05	165.06	157.85	7.21	22.900		
500.00	499.45	512.98	511.78	3.79	3.82	176.72	152.15	0.04	168.26	160.63	7.63	22.044		
600.00	598.70	619.13	617.47	4.03	4.07	176.42	142.45	-1.65	171.30	163.15	8.16	21.006		
700.00	697.47	724.27	721.73	4.31	4.36	176.00	129.10	-3.96	174.23	165.49	8.74	19.930		
800.00	795.62	824.13	820.58	4.64	4.67	175.62	115.18	-6.38	179.42	170.07	9.34	19.201		
900.00	893.06	923.74	919.19	5.00	5.00	175.34	101.29	-8.79	188.07	178.08	10.00	18.815		
1,000.00	989.64	1,023.00	1,017.45	5.40	5.36	175.16	87.46	-11.19	200.19	189.50	10.70	18.716		
1,100.00	1,085.27	1,121.77	1,115.23	5.83	5.72	175.08	73.69	-13.58	215.76	204.33	11.43	18.870		
1,200.00	1,179.82	1,219.95	1,212.42	6.29	6.11	175.07	60.00	-15.96	234.75	222.55	12.20	19.235		
1,300.00	1,273.47	1,317.59	1,309.08	6.79	6.50	175.13	46.39	-18.32	256.34	243.34	13.00	19.719		
1,400.00	1,367.06	1,415.19	1,405.70	7.30	6.89	175.20	32.79	-20.69	278.11	264.29	13.81	20.136		
1,500.00	1,460.64	1,512.79	1,502.32	7.83	7.30	175.25	19.18	-23.05	299.87	285.22	14.64	20.480		
1,600.00	1,554.23	1,610.40	1,598.94	8.38	7.71	175.30	5.57	-25.41	321.63	306.14	15.49	20.766		
1,700.00	1,647.82	1,708.00	1,695.56	8.93	8.13	175.34	-8.03	-27.77	343.39	327.04	16.35	21.004		
1,800.00	1,741.41	1,805.60	1,792.19	9.49	8.56	175.38	-21.64	-30.13	365.15	347.93	17.22	21.204		
1,900.00	1,835.00	1,903.21	1,888.81	10.05	8.98	175.41	-35.24	-32.50	386.91	368.81	18.10	21.373		
2,000.00	1,928.59	2,000.81	1,985.43	10.62	9.41	175.44	-48.85	-34.86	408.68	389.68	18.99	21.517		
2,100.00	2,022.18	2,098.41	2,082.05	11.20	9.85	175.47	-62.45	-37.22	430.44	410.55	19.89	21.640		
2,200.00	2,115.77	2,203.98	2,178.67	11.78	10.32	175.49	-76.06	-39.58	452.20	431.37	20.83	21.710		
2,300.00	2,209.36	2,293.62	2,275.29	12.37	10.72	175.52	-89.66	-41.94	473.96	452.26	21.70	21.837		
2,400.00	2,302.95	2,408.78	2,371.91	12.95	11.24	175.54	-103.27	-44.31	495.72	473.03	22.70	21.843		
2,500.00	2,396.54	2,488.83	2,468.54	13.54	11.60	175.55	-116.88	-46.67	517.49	493.95	23.54	21.985		
2,600.00	2,490.13	2,586.43	2,565.16	14.13	12.05	175.57	-130.48	-49.03	539.25	514.79	24.46	22.045		
2,700.00	2,583.72	2,684.03	2,661.78	14.73	12.49	175.59	-144.09	-51.39	561.01	535.62	25.39	22.098		
2,800.00	2,677.31	2,781.64	2,758.40	15.32	12.94	175.60	-157.69	-53.75	582.77	556.46	26.32	22.145		
2,900.00	2,770.90	2,879.24	2,855.02	15.92	13.39	175.61	-171.30	-56.12	604.54	577.29	27.25	22.186		
3,000.00	2,864.49	2,976.84	2,951.64	16.52	13.84	175.62	-184.90	-58.48	626.30	598.12	28.18	22.223		
3,100.00	2,958.08	3,074.45	3,048.26	17.12	14.29	175.64	-198.51	-60.84	648.06	618.94	29.12	22.255		
3,200.00	3,051.67	3,172.05	3,144.88	17.72	14.74	175.65	-212.11	-63.20	669.82	639.76	30.06	22.284		
3,300.00	3,145.26	3,269.65	3,241.51	18.32	15.19	175.66	-225.72	-65.56	691.59	660.59	31.00	22.310		
3,400.00	3,238.85	3,367.26	3,338.13	18.92	15.64	175.67	-239.33	-67.93	713.35	681.41	31.94	22.333		
3,500.00	3,332.44	3,464.86	3,434.75	19.53	16.09	175.68	-252.93	-70.29	735.11	702.23	32.89	22.354		
3,600.00	3,426.03	3,562.46	3,531.37	20.13	16.55	175.68	-266.54	-72.65	756.87	723.04	33.83	22.373		
3,700.00	3,519.62	3,660.06	3,627.99	20.74	17.00	175.69	-280.14	-75.01	778.64	743.86	34.78	22.390		
3,800.00	3,613.21	3,757.67	3,724.61	21.34	17.46	175.70	-293.75	-77.37	800.40	764.67	35.72	22.405		
3,900.00	3,706.80	3,855.27	3,821.23	21.95	17.91	175.71	-307.35	-79.74	822.16	785.49	36.67	22.419		
4,000.00	3,800.39	3,952.87	3,917.86	22.56	18.37	175.71	-320.96	-82.10	843.92	806.30	37.62	22.431		
4,100.00	3,893.98	4,050.48	4,014.48	23.16	18.82	175.72	-334.56	-84.46	865.69	827.11	38.57	22.442		
4,200.00	3,987.57	4,148.08	4,111.10	23.77	19.28	175.73	-348.17	-86.82	887.45	847.92	39.53	22.453		
4,300.00	4,081.16	4,245.68	4,207.72	24.38	19.73	175.73	-361.78	-89.19	909.21	868.73	40.48	22.462		
4,400.00	4,174.75	4,343.29	4,304.34	24.99	20.19	175.74	-375.38	-91.55	930.97	889.54	41.43	22.470		
4,500.00	4,268.34	4,440.89	4,400.96	25.60	20.65	175.74	-388.99	-93.91	952.74	910.35	42.39	22.478		
4,600.00	4,361.93	4,538.49	4,497.58	26.21	21.10	175.75	-402.59	-96.27	974.50	931.16	43.34	22.485		
4,700.00	4,455.52	4,636.10	4,594.21	26.82	21.56	175.75	-416.20	-98.63	996.26	951.97	44.30	22.491		
4,800.00	4,549.11	4,733.70	4,690.83	27.43	22.02	175.76	-429.80	-101.00	1,018.03	972.77	45.25	22.497		
4,900.00	4,642.70	4,831.30	4,787.45	28.04	22.48	175.76	-443.41	-103.36	1,039.79	993.58	46.21	22.503		
5,000.00	4,736.29	4,928.91	4,884.07	28.65	22.94	175.76	-457.01	-105.72	1,061.55	1,014.39	47.16	22.508		
5,100.00	4,829.88	5,026.51	4,980.69	29.26	23.39	175.77	-470.62	-108.08	1,083.31	1,035.19	48.12	22.512		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	5,124.11	5,077.31	29.87	23.85	175.77	-484.23	-110.44	1,105.08	1,056.00	49.08	22.516		
5,300.00	5,017.06	5,221.72	5,173.93	30.48	24.31	175.78	-497.83	-112.81	1,126.84	1,076.80	50.04	22.520		
5,400.00	5,110.65	5,319.32	5,270.55	31.09	24.77	175.78	-511.44	-115.17	1,148.60	1,097.61	51.00	22.523		
5,500.00	5,204.24	5,416.92	5,367.18	31.70	25.23	175.78	-525.04	-117.53	1,170.36	1,118.41	51.96	22.526		
5,600.00	5,297.83	5,514.52	5,463.80	32.32	25.69	175.79	-538.65	-119.89	1,192.13	1,139.21	52.92	22.529		
5,700.00	5,391.42	5,612.13	5,560.42	32.93	26.15	175.79	-552.25	-122.25	1,213.89	1,160.02	53.88	22.532		
5,800.00	5,485.01	5,709.73	5,657.04	33.54	26.61	175.79	-565.86	-124.62	1,235.65	1,180.82	54.84	22.534		
5,900.00	5,578.60	5,807.33	5,753.66	34.15	27.07	175.80	-579.46	-126.98	1,257.42	1,201.62	55.80	22.536		
6,000.00	5,672.19	5,904.94	5,850.28	34.77	27.53	175.80	-593.07	-129.34	1,279.18	1,222.42	56.76	22.538		
6,100.00	5,765.78	6,002.54	5,946.90	35.38	27.99	175.80	-606.68	-131.70	1,300.94	1,243.22	57.72	22.540		
6,200.00	5,859.37	6,100.14	6,043.53	35.99	28.45	175.80	-620.28	-134.06	1,322.70	1,264.02	58.68	22.541		
6,300.00	5,952.96	6,202.25	6,140.15	36.60	28.93	175.81	-633.89	-136.43	1,344.47	1,284.81	59.66	22.535		
6,400.00	6,046.55	6,304.65	6,236.77	37.22	29.41	175.81	-647.49	-138.79	1,366.23	1,305.58	60.64	22.528		
6,500.00	6,140.14	6,407.05	6,333.39	37.83	29.90	175.81	-661.10	-141.15	1,387.99	1,326.36	61.63	22.522		
6,600.00	6,233.73	6,490.56	6,430.01	38.44	30.29	175.81	-674.70	-143.51	1,409.76	1,347.23	62.53	22.546		
6,700.00	6,327.32	6,587.81	6,525.98	39.06	30.75	175.62	-688.26	-150.57	1,431.52	1,368.04	63.49	22.547		
6,800.00	6,420.91	6,681.60	6,616.52	39.67	31.17	174.89	-701.16	-170.97	1,453.47	1,389.05	64.42	22.562		
6,900.00	6,514.50	6,768.40	6,696.82	40.28	31.55	173.76	-712.72	-201.64	1,476.10	1,410.82	65.28	22.613		
7,000.00	6,608.09	6,846.17	6,764.66	40.90	31.86	172.41	-722.58	-238.26	1,500.12	1,434.09	66.03	22.718		
7,100.00	6,701.63	6,914.89	6,820.53	41.51	32.12	160.59	-730.77	-277.36	1,526.16	1,459.50	66.67	22.892		
7,200.00	6,793.85	6,980.33	6,869.56	42.10	32.36	137.15	-738.04	-320.05	1,553.25	1,486.04	67.21	23.110		
7,300.00	6,882.50	7,044.33	6,913.06	42.64	32.58	120.32	-744.55	-366.51	1,580.14	1,512.48	67.67	23.352		
7,400.00	6,965.41	7,107.28	6,951.13	43.12	32.80	108.61	-750.34	-416.28	1,605.88	1,537.82	68.06	23.596		
7,500.00	7,040.53	7,169.47	6,983.77	43.53	33.04	100.29	-755.38	-468.94	1,629.56	1,561.13	68.43	23.815		
7,600.00	7,106.00	7,231.10	7,010.94	43.89	33.34	94.25	-759.68	-524.06	1,650.44	1,581.61	68.83	23.977		
7,700.00	7,160.23	7,292.33	7,032.58	44.20	33.71	89.89	-763.22	-581.21	1,667.89	1,598.53	69.36	24.047		
7,800.00	7,201.86	7,350.00	7,047.91	44.48	34.15	86.85	-765.86	-636.72	1,681.39	1,611.36	70.03	24.009		
7,900.00	7,229.88	7,414.04	7,059.02	44.73	34.75	84.91	-767.96	-699.73	1,690.56	1,619.48	71.08	23.784		
8,000.00	7,243.60	7,474.68	7,063.71	44.99	35.39	83.98	-769.15	-760.15	1,695.15	1,622.77	72.37	23.422		
8,100.00	7,244.73	7,560.37	7,063.75	45.29	36.44	83.87	-769.90	-845.84	1,695.54	1,621.13	74.41	22.786		
8,200.00	7,244.23	7,660.37	7,063.35	45.74	37.82	83.88	-770.71	-945.83	1,695.31	1,618.29	77.02	22.011		
8,300.00	7,243.73	7,760.37	7,062.96	46.38	39.36	83.88	-771.52	-1,045.83	1,695.08	1,615.12	79.95	21.201		
8,400.00	7,243.23	7,860.37	7,062.57	47.29	41.06	83.88	-772.33	-1,145.82	1,694.84	1,611.68	83.17	20.379		
8,500.00	7,242.73	7,960.37	7,062.17	48.46	42.88	83.88	-773.14	-1,245.82	1,694.61	1,607.97	86.64	19.560		
8,600.00	7,242.23	8,060.37	7,061.78	49.87	44.81	83.89	-773.96	-1,345.81	1,694.37	1,604.04	90.33	18.757		
8,700.00	7,241.73	8,160.37	7,061.39	51.48	46.83	83.89	-774.77	-1,445.81	1,694.14	1,599.92	94.22	17.980		
8,800.00	7,241.23	8,260.37	7,060.99	53.24	48.94	83.89	-775.58	-1,545.80	1,693.91	1,595.61	98.29	17.233		
8,900.00	7,240.73	8,360.37	7,060.60	55.13	51.12	83.90	-776.39	-1,645.80	1,693.67	1,591.16	102.52	16.521		
9,000.00	7,240.23	8,460.37	7,060.21	57.11	53.37	83.90	-777.20	-1,745.80	1,693.44	1,586.57	106.87	15.845		
9,100.00	7,239.73	8,560.37	7,059.81	59.19	55.67	83.90	-778.01	-1,845.79	1,693.21	1,581.85	111.35	15.206		
9,200.00	7,239.23	8,660.37	7,059.42	61.34	58.03	83.90	-778.83	-1,945.79	1,692.97	1,577.04	115.94	14.603		
9,300.00	7,238.72	8,760.37	7,059.03	63.55	60.42	83.91	-779.64	-2,045.78	1,692.74	1,572.12	120.62	14.034		
9,400.00	7,238.22	8,860.37	7,058.64	65.81	62.86	83.91	-780.45	-2,145.78	1,692.50	1,567.13	125.38	13.499		
9,500.00	7,237.72	8,960.37	7,058.24	68.13	65.33	83.91	-781.26	-2,245.77	1,692.27	1,562.06	130.22	12.996		
9,600.00	7,237.22	9,060.37	7,057.85	70.48	67.83	83.92	-782.07	-2,345.77	1,692.04	1,556.92	135.12	12.523		
9,700.00	7,236.72	9,160.37	7,057.46	72.88	70.36	83.92	-782.88	-2,445.77	1,691.80	1,551.72	140.08	12.077		
9,800.00	7,236.22	9,260.37	7,057.06	75.31	72.91	83.92	-783.70	-2,545.76	1,691.57	1,546.47	145.10	11.658		
9,900.00	7,235.72	9,360.37	7,056.67	77.77	75.49	83.92	-784.51	-2,645.76	1,691.34	1,541.17	150.16	11.263		
10,000.00	7,235.22	9,460.37	7,056.28	80.26	78.08	83.93	-785.32	-2,745.75	1,691.10	1,535.83	155.27	10.891		
10,100.00	7,234.72	9,560.37	7,055.88	82.77	80.69	83.93	-786.13	-2,845.75	1,690.87	1,530.45	160.42	10.540		
10,200.00	7,234.22	9,660.37	7,055.49	85.31	83.32	83.93	-786.94	-2,945.74	1,690.64	1,525.04	165.60	10.209		
10,300.00	7,233.72	9,760.37	7,055.10	87.86	85.96	83.93	-787.75	-3,045.74	1,690.40	1,519.59	170.82	9.896		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16B-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,233.22	9,860.37	7,054.70	90.44	88.62	83.94	-788.57	-3,145.73	1,690.17	1,514.11	176.06	9.600	
10,500.00	7,232.72	9,960.37	7,054.31	93.03	91.29	83.94	-789.38	-3,245.73	1,689.93	1,508.60	181.33	9.320	
10,600.00	7,232.22	10,060.36	7,053.92	95.64	93.97	83.94	-790.19	-3,345.73	1,689.70	1,503.07	186.63	9.054	
10,700.00	7,231.72	10,160.36	7,053.52	98.26	96.66	83.95	-791.00	-3,445.72	1,689.47	1,497.52	191.95	8.802	
10,800.00	7,231.21	10,260.36	7,053.13	100.89	99.36	83.95	-791.81	-3,545.72	1,689.23	1,491.95	197.29	8.562	
10,900.00	7,230.71	10,360.36	7,052.74	103.54	102.07	83.95	-792.63	-3,645.71	1,689.00	1,486.35	202.65	8.335	
11,000.00	7,230.21	10,460.36	7,052.34	106.20	104.78	83.95	-793.44	-3,745.71	1,688.77	1,480.74	208.02	8.118	
11,100.00	7,229.71	10,560.36	7,051.95	108.87	107.51	83.96	-794.25	-3,845.70	1,688.53	1,475.12	213.42	7.912	
11,200.00	7,229.21	10,660.36	7,051.56	111.54	110.24	83.96	-795.06	-3,945.70	1,688.30	1,469.48	218.82	7.715	
11,300.00	7,228.71	10,760.36	7,051.17	114.23	112.97	83.96	-795.87	-4,045.70	1,688.07	1,463.82	224.25	7.528	
11,400.00	7,228.21	10,860.36	7,050.77	116.92	115.72	83.97	-796.68	-4,145.69	1,687.83	1,458.15	229.68	7.349	
11,500.00	7,227.71	10,960.36	7,050.38	119.63	118.46	83.97	-797.50	-4,245.69	1,687.60	1,452.47	235.13	7.177	
11,600.00	7,227.21	11,060.36	7,049.99	122.34	121.22	83.97	-798.31	-4,345.68	1,687.36	1,446.78	240.59	7.013	
11,700.00	7,226.71	11,160.36	7,049.59	125.05	123.98	83.97	-799.12	-4,445.68	1,687.13	1,441.07	246.06	6.857	
11,800.00	7,226.21	11,260.36	7,049.20	127.78	126.74	83.98	-799.93	-4,545.67	1,686.90	1,435.36	251.54	6.706	
11,900.00	7,225.71	11,360.36	7,048.81	130.51	129.50	83.98	-800.74	-4,645.67	1,686.66	1,429.64	257.03	6.562	
12,000.00	7,225.21	11,460.36	7,048.41	133.24	132.27	83.98	-801.55	-4,745.66	1,686.43	1,423.91	262.52	6.424	
12,100.00	7,224.71	11,560.36	7,048.02	135.98	135.05	83.99	-802.37	-4,845.66	1,686.20	1,418.17	268.03	6.291	
12,200.00	7,224.21	11,660.36	7,047.63	138.72	137.83	83.99	-803.18	-4,945.66	1,685.96	1,412.42	273.54	6.163	
12,300.00	7,223.70	11,760.36	7,047.23	141.47	140.61	83.99	-803.99	-5,045.65	1,685.73	1,406.67	279.06	6.041	
12,400.00	7,223.20	11,860.36	7,046.84	144.23	143.39	83.99	-804.80	-5,145.65	1,685.50	1,400.90	284.59	5.923	
12,500.00	7,222.70	11,960.36	7,046.45	146.98	146.18	84.00	-805.61	-5,245.64	1,685.26	1,395.14	290.12	5.809	
12,600.00	7,222.20	12,060.36	7,046.05	149.74	148.97	84.00	-806.42	-5,345.64	1,685.03	1,389.36	295.66	5.699	
12,700.00	7,221.70	12,160.36	7,045.66	152.51	151.76	84.00	-807.24	-5,445.63	1,684.80	1,383.58	301.21	5.593	
12,800.00	7,221.20	12,260.36	7,045.27	155.28	154.55	84.01	-808.05	-5,545.63	1,684.56	1,377.80	306.76	5.491	
12,900.00	7,220.70	12,360.36	7,044.87	158.05	157.35	84.01	-808.86	-5,645.63	1,684.33	1,372.01	312.32	5.393	
13,000.00	7,220.20	12,460.36	7,044.48	160.82	160.15	84.01	-809.67	-5,745.62	1,684.09	1,366.22	317.88	5.298	
13,100.00	7,219.70	12,560.36	7,044.09	163.60	162.95	84.01	-810.48	-5,845.62	1,683.86	1,360.42	323.44	5.206	
13,200.00	7,219.20	12,660.36	7,043.70	166.38	165.75	84.02	-811.29	-5,945.61	1,683.63	1,354.61	329.01	5.117	
13,300.00	7,218.70	12,760.36	7,043.30	169.16	168.56	84.02	-812.11	-6,045.61	1,683.39	1,348.80	334.59	5.031	
13,400.00	7,218.20	12,860.36	7,042.91	171.95	171.36	84.02	-812.92	-6,145.60	1,683.16	1,342.99	340.17	4.948	
13,500.00	7,217.70	12,960.36	7,042.52	174.74	174.17	84.03	-813.73	-6,245.60	1,682.93	1,337.18	345.75	4.867	
13,600.00	7,217.20	13,060.36	7,042.12	177.53	176.98	84.03	-814.54	-6,345.59	1,682.69	1,331.36	351.34	4.789	
13,700.00	7,216.70	13,160.36	7,041.73	180.32	179.79	84.03	-815.35	-6,445.59	1,682.46	1,325.54	356.92	4.714	
13,800.00	7,216.19	13,260.35	7,041.34	183.11	182.60	84.03	-816.17	-6,545.59	1,682.23	1,319.71	362.52	4.640	
13,900.00	7,215.69	13,360.35	7,040.94	185.91	185.42	84.04	-816.98	-6,645.58	1,681.99	1,313.88	368.11	4.569	
14,000.00	7,215.19	13,460.35	7,040.55	188.71	188.23	84.04	-817.79	-6,745.58	1,681.76	1,308.05	373.71	4.500	
14,100.00	7,214.69	13,560.35	7,040.16	191.51	191.05	84.04	-818.60	-6,845.57	1,681.53	1,302.21	379.31	4.433	
14,200.00	7,214.19	13,660.35	7,039.76	194.31	193.87	84.05	-819.41	-6,945.57	1,681.29	1,296.38	384.92	4.368	
14,300.00	7,213.69	13,760.35	7,039.37	197.11	196.69	84.05	-820.22	-7,045.56	1,681.06	1,290.54	390.52	4.305	
14,400.00	7,213.19	13,860.35	7,038.98	199.92	199.51	84.05	-821.04	-7,145.56	1,680.83	1,284.69	396.13	4.243	
14,500.00	7,212.69	13,960.35	7,038.58	202.72	202.33	84.05	-821.85	-7,245.56	1,680.59	1,278.85	401.74	4.183	
14,600.00	7,212.19	14,060.35	7,038.19	205.53	205.15	84.06	-822.66	-7,345.55	1,680.36	1,273.00	407.36	4.125	
14,700.00	7,211.69	14,160.35	7,037.80	208.34	207.97	84.06	-823.47	-7,445.55	1,680.12	1,267.15	412.98	4.068	
14,800.00	7,211.19	14,260.35	7,037.40	211.15	210.80	84.06	-824.28	-7,545.54	1,679.89	1,261.30	418.59	4.013	
14,900.00	7,210.69	14,360.35	7,037.01	213.96	213.62	84.07	-825.09	-7,645.54	1,679.66	1,255.44	424.21	3.959	
15,000.00	7,210.19	14,460.35	7,036.62	216.78	216.45	84.07	-825.91	-7,745.53	1,679.42	1,249.59	429.84	3.907	
15,100.00	7,209.69	14,560.35	7,036.22	219.59	219.28	84.07	-826.72	-7,845.53	1,679.19	1,243.73	435.46	3.856	
15,200.00	7,209.18	14,660.35	7,035.83	222.41	222.10	84.07	-827.53	-7,945.52	1,678.96	1,237.87	441.09	3.806	
15,300.00	7,208.68	14,760.35	7,035.44	225.22	224.93	84.08	-828.34	-8,045.52	1,678.72	1,232.01	446.72	3.758	
15,400.00	7,208.18	14,860.35	7,035.05	228.04	227.76	84.08	-829.15	-8,145.52	1,678.49	1,226.15	452.34	3.711	
15,418.71	7,208.09	14,879.06	7,034.97	228.57	228.29	84.08	-829.30	-8,164.23	1,678.45	1,225.05	453.40	3.702	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16B-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	14,871.88	7,035.00	229.10	228.09	84.08	-829.25	-8,157.05	1,678.60	1,225.12	453.49	3.702 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.53	240.09	2.23	240.10					
100.00	100.00	102.00	100.00	3.28	3.29	0.53	240.09	2.23	240.10	233.53	6.57	36.546		
200.00	200.00	202.00	200.00	3.34	3.34	0.53	240.09	2.23	240.10	233.43	6.68	35.967	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.91	240.09	2.23	241.85	234.96	6.89	35.113		
400.00	399.84	401.84	399.84	3.59	3.61	176.97	240.09	2.23	247.07	239.87	7.20	34.321		
500.00	499.45	501.45	499.45	3.79	3.81	177.07	240.09	2.23	255.78	248.17	7.60	33.647		
600.00	598.70	602.78	600.78	4.03	4.05	177.19	240.01	2.20	267.87	259.78	8.08	33.134		
700.00	697.47	712.17	710.12	4.31	4.32	177.22	237.12	1.53	280.88	272.24	8.64	32.506		
800.00	795.62	822.13	819.84	4.64	4.64	177.11	230.14	-0.10	293.64	284.36	9.28	31.658		
900.00	893.06	929.05	926.20	5.00	4.97	176.88	219.57	-2.57	306.31	296.36	9.95	30.775		
1,000.00	989.64	1,027.87	1,024.42	5.40	5.29	176.69	208.90	-5.06	321.55	310.91	10.64	30.225		
1,100.00	1,085.27	1,126.10	1,122.04	5.83	5.63	176.54	198.30	-7.54	340.23	328.87	11.36	29.951		
1,200.00	1,179.82	1,223.63	1,218.97	6.29	5.99	176.43	187.77	-10.00	362.31	350.20	12.11	29.910		
1,300.00	1,273.47	1,320.53	1,315.28	6.79	6.36	176.38	177.31	-12.45	386.99	374.10	12.89	30.017		
1,400.00	1,367.06	1,417.40	1,411.54	7.30	6.73	176.34	166.85	-14.89	411.83	398.15	13.69	30.092		
1,500.00	1,460.64	1,514.26	1,507.81	7.83	7.12	176.31	156.39	-17.33	436.68	422.18	14.50	30.118		
1,600.00	1,554.23	1,611.13	1,604.08	8.38	7.51	176.28	145.94	-19.78	461.52	446.19	15.33	30.109		
1,700.00	1,647.82	1,707.99	1,700.35	8.93	7.90	176.26	135.48	-22.22	486.36	470.19	16.17	30.074		
1,800.00	1,741.41	1,804.86	1,796.61	9.49	8.31	176.23	125.02	-24.66	511.21	494.18	17.03	30.022		
1,900.00	1,835.00	1,901.72	1,892.88	10.05	8.71	176.21	114.57	-27.11	536.05	518.16	17.89	29.959		
2,000.00	1,928.59	2,001.41	1,989.15	10.62	9.14	176.19	104.11	-29.55	560.89	542.12	18.78	29.868		
2,100.00	2,022.18	2,104.55	2,085.42	11.20	9.58	176.17	93.65	-31.99	585.74	566.05	19.69	29.752		
2,200.00	2,115.77	2,207.69	2,181.68	11.78	10.02	176.16	83.19	-34.44	610.58	589.98	20.60	29.636		
2,300.00	2,209.36	2,289.18	2,277.95	12.37	10.37	176.14	72.74	-36.88	635.43	613.99	21.43	29.648		
2,400.00	2,302.95	2,386.04	2,374.22	12.95	10.80	176.13	62.28	-39.33	660.27	637.94	22.33	29.567		
2,500.00	2,396.54	2,482.91	2,470.49	13.54	11.22	176.11	51.82	-41.77	685.11	661.88	23.24	29.486		
2,600.00	2,490.13	2,579.77	2,566.75	14.13	11.64	176.10	41.37	-44.21	709.96	685.81	24.14	29.406		
2,700.00	2,583.72	2,676.64	2,663.02	14.73	12.07	176.09	30.91	-46.66	734.80	709.75	25.05	29.328		
2,800.00	2,677.31	2,773.50	2,759.29	15.32	12.50	176.08	20.45	-49.10	759.64	733.68	25.97	29.252		
2,900.00	2,770.90	2,870.37	2,855.56	15.92	12.93	176.07	9.99	-51.54	784.49	757.60	26.89	29.178		
3,000.00	2,864.49	2,967.23	2,951.82	16.52	13.36	176.06	-0.46	-53.99	809.33	781.53	27.81	29.106		
3,100.00	2,958.08	3,064.10	3,048.09	17.12	13.79	176.05	-10.92	-56.43	834.18	805.45	28.73	29.036		
3,200.00	3,051.67	3,160.96	3,144.36	17.72	14.23	176.04	-21.38	-58.87	859.02	829.37	29.65	28.969		
3,300.00	3,145.26	3,257.83	3,240.63	18.32	14.66	176.04	-31.84	-61.32	883.86	853.28	30.58	28.904		
3,400.00	3,238.85	3,354.69	3,336.89	18.92	15.10	176.03	-42.29	-63.76	908.71	877.20	31.51	28.841		
3,500.00	3,332.44	3,451.56	3,433.16	19.53	15.53	176.02	-52.75	-66.21	933.55	901.12	32.44	28.781		
3,600.00	3,426.03	3,548.42	3,529.43	20.13	15.97	176.02	-63.21	-68.65	958.40	925.03	33.37	28.722		
3,700.00	3,519.62	3,645.28	3,625.70	20.74	16.40	176.01	-73.66	-71.09	983.24	948.94	34.30	28.666		
3,800.00	3,613.21	3,742.15	3,721.96	21.34	16.84	176.00	-84.12	-73.54	1,008.08	972.85	35.23	28.611		
3,900.00	3,706.80	3,839.01	3,818.23	21.95	17.28	176.00	-94.58	-75.98	1,032.93	996.76	36.17	28.559		
4,000.00	3,800.39	3,935.88	3,914.50	22.56	17.72	175.99	-105.04	-78.42	1,057.77	1,020.67	37.10	28.508		
4,100.00	3,893.98	4,032.74	4,010.77	23.16	18.16	175.99	-115.49	-80.87	1,082.62	1,044.58	38.04	28.459		
4,200.00	3,987.57	4,129.61	4,107.03	23.77	18.60	175.98	-125.95	-83.31	1,107.46	1,068.48	38.98	28.412		
4,300.00	4,081.16	4,226.47	4,203.30	24.38	19.04	175.98	-136.41	-85.75	1,132.30	1,092.39	39.92	28.366		
4,400.00	4,174.75	4,323.34	4,299.57	24.99	19.48	175.97	-146.86	-88.20	1,157.15	1,116.29	40.86	28.322		
4,500.00	4,268.34	4,420.20	4,395.84	25.60	19.92	175.97	-157.32	-90.64	1,181.99	1,140.20	41.80	28.279		
4,600.00	4,361.93	4,517.07	4,492.10	26.21	20.36	175.97	-167.78	-93.08	1,206.84	1,164.10	42.74	28.238		
4,700.00	4,455.52	4,613.93	4,588.37	26.82	20.80	175.96	-178.24	-95.53	1,231.68	1,188.00	43.68	28.198		
4,800.00	4,549.11	4,710.80	4,684.64	27.43	21.24	175.96	-188.69	-97.97	1,256.53	1,211.90	44.62	28.159		
4,900.00	4,642.70	4,807.66	4,780.91	28.04	21.68	175.95	-199.15	-100.42	1,281.37	1,235.80	45.56	28.122		
5,000.00	4,736.29	4,904.53	4,877.17	28.65	22.12	175.95	-209.61	-102.86	1,306.21	1,259.71	46.51	28.086		
5,100.00	4,829.88	5,001.39	4,973.44	29.26	22.57	175.95	-220.07	-105.30	1,331.06	1,283.61	47.45	28.051		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	5,098.25	5,069.71	29.87	23.01	175.94	-230.52	-107.75	1,355.90	1,307.51	48.40	28.017		
5,300.00	5,017.06	5,204.88	5,165.98	30.48	23.50	175.94	-240.98	-110.19	1,380.75	1,331.36	49.38	27.959		
5,400.00	5,110.65	5,291.98	5,262.24	31.09	23.89	175.94	-251.44	-112.63	1,405.59	1,355.30	50.29	27.952		
5,500.00	5,204.24	5,388.85	5,358.51	31.70	24.34	175.93	-261.89	-115.08	1,430.43	1,379.20	51.23	27.921		
5,600.00	5,297.83	5,485.71	5,454.78	32.32	24.78	175.93	-272.35	-117.52	1,455.28	1,403.10	52.18	27.891		
5,700.00	5,391.42	5,582.58	5,551.05	32.93	25.22	175.93	-282.81	-119.96	1,480.12	1,427.00	53.12	27.862		
5,800.00	5,485.01	5,679.44	5,647.31	33.54	25.67	175.93	-293.27	-122.41	1,504.97	1,450.90	54.07	27.834		
5,900.00	5,578.60	5,776.31	5,743.58	34.15	26.11	175.92	-303.72	-124.85	1,529.81	1,474.79	55.02	27.806		
6,000.00	5,672.19	5,873.17	5,839.85	34.77	26.56	175.92	-314.18	-127.29	1,554.65	1,498.69	55.96	27.779		
6,100.00	5,765.78	5,970.04	5,936.12	35.38	27.00	175.92	-324.64	-129.74	1,579.50	1,522.59	56.91	27.753		
6,200.00	5,859.37	6,066.90	6,032.38	35.99	27.44	175.92	-335.09	-132.18	1,604.34	1,546.48	57.86	27.728		
6,300.00	5,952.96	6,163.77	6,128.65	36.60	27.89	175.91	-345.55	-134.63	1,629.19	1,570.38	58.81	27.703		
6,400.00	6,046.55	6,260.63	6,224.92	37.22	28.33	175.91	-356.01	-137.07	1,654.03	1,594.27	59.76	27.679		
6,500.00	6,140.14	6,357.50	6,321.19	37.83	28.78	175.91	-366.47	-139.51	1,678.88	1,618.17	60.71	27.656		
6,600.00	6,233.73	6,454.36	6,417.45	38.44	29.22	175.91	-376.92	-141.96	1,703.72	1,642.06	61.65	27.633		
6,700.00	6,327.32	6,551.23	6,513.73	39.06	29.67	175.91	-387.38	-144.40	1,728.56	1,665.96	62.60	27.611		
6,800.00	6,420.91	6,647.87	6,609.20	39.67	30.11	175.65	-397.81	-154.32	1,753.41	1,689.86	63.55	27.589		
6,900.00	6,514.50	6,740.20	6,698.01	40.28	30.51	174.96	-407.63	-177.26	1,778.43	1,713.98	64.46	27.590		
7,000.00	6,608.09	6,825.01	6,775.89	40.90	30.87	173.98	-416.34	-209.51	1,804.10	1,738.82	65.29	27.634		
7,100.00	6,701.63	6,901.14	6,841.62	41.51	31.17	162.42	-423.78	-247.10	1,830.94	1,764.92	66.02	27.733		
7,200.00	6,793.85	6,973.50	6,899.53	42.10	31.45	139.18	-430.41	-289.91	1,858.32	1,791.63	66.69	27.864		
7,300.00	6,882.50	7,043.92	6,950.90	42.64	31.70	122.54	-436.37	-337.66	1,885.24	1,817.94	67.31	28.010		
7,400.00	6,965.41	7,112.94	6,995.86	43.12	31.96	111.00	-441.67	-389.71	1,910.82	1,842.94	67.88	28.150		
7,500.00	7,040.53	7,180.93	7,034.40	43.53	32.26	102.80	-446.31	-445.49	1,934.26	1,865.81	68.45	28.257		
7,600.00	7,106.00	7,250.00	7,067.28	43.89	32.64	96.86	-450.38	-506.06	1,954.87	1,885.78	69.10	28.291		
7,700.00	7,160.23	7,314.87	7,092.05	44.20	33.10	92.59	-453.56	-565.90	1,972.06	1,902.23	69.83	28.241		
7,800.00	7,201.86	7,381.19	7,110.98	44.48	33.66	89.59	-456.13	-629.38	1,985.34	1,914.56	70.77	28.052		
7,900.00	7,229.88	7,450.00	7,123.57	44.73	34.35	87.69	-458.05	-696.96	1,994.36	1,922.35	72.00	27.698		
8,000.00	7,243.60	7,513.16	7,128.68	44.99	35.05	86.78	-459.13	-759.88	1,998.86	1,925.43	73.43	27.222		
8,100.00	7,244.73	7,601.16	7,128.71	45.29	36.15	86.67	-459.86	-847.87	1,999.27	1,923.74	75.53	26.470		
8,200.00	7,244.23	7,701.16	7,128.28	45.74	37.56	86.68	-460.63	-947.87	1,999.08	1,920.91	78.17	25.574		
8,300.00	7,243.73	7,801.16	7,127.85	46.38	39.14	86.68	-461.41	-1,047.87	1,998.89	1,917.76	81.12	24.641		
8,400.00	7,243.23	7,901.16	7,127.41	47.29	40.85	86.68	-462.19	-1,147.86	1,998.69	1,914.33	84.36	23.693		
8,500.00	7,242.73	8,001.16	7,126.98	48.46	42.70	86.68	-462.97	-1,247.86	1,998.50	1,910.65	87.85	22.750		
8,600.00	7,242.23	8,101.16	7,126.54	49.87	44.64	86.68	-463.74	-1,347.85	1,998.31	1,906.75	91.56	21.825		
8,700.00	7,241.73	8,201.16	7,126.11	51.48	46.69	86.68	-464.52	-1,447.85	1,998.12	1,902.65	95.47	20.930		
8,800.00	7,241.23	8,301.16	7,125.68	53.24	48.81	86.68	-465.30	-1,547.85	1,997.92	1,898.37	99.55	20.070		
8,900.00	7,240.73	8,401.16	7,125.24	55.13	51.01	86.69	-466.08	-1,647.84	1,997.73	1,893.95	103.78	19.249		
9,000.00	7,240.23	8,501.16	7,124.81	57.11	53.27	86.69	-466.85	-1,747.84	1,997.54	1,889.38	108.15	18.469		
9,100.00	7,239.73	8,601.16	7,124.38	59.19	55.58	86.69	-467.63	-1,847.83	1,997.34	1,884.70	112.64	17.732		
9,200.00	7,239.23	8,701.16	7,123.94	61.34	57.95	86.69	-468.41	-1,947.83	1,997.15	1,879.91	117.24	17.035		
9,300.00	7,238.72	8,801.16	7,123.51	63.55	60.35	86.69	-469.18	-2,047.82	1,996.96	1,875.03	121.93	16.378		
9,400.00	7,238.22	8,901.16	7,123.07	65.81	62.80	86.69	-469.96	-2,147.82	1,996.77	1,870.07	126.70	15.760		
9,500.00	7,237.72	9,001.16	7,122.64	68.13	65.28	86.70	-470.74	-2,247.82	1,996.57	1,865.02	131.55	15.177		
9,600.00	7,237.22	9,101.16	7,122.21	70.48	67.79	86.70	-471.52	-2,347.81	1,996.38	1,859.92	136.46	14.629		
9,700.00	7,236.72	9,201.16	7,121.77	72.88	70.32	86.70	-472.29	-2,447.81	1,996.19	1,854.75	141.44	14.114		
9,800.00	7,236.22	9,301.16	7,121.34	75.31	72.88	86.70	-473.07	-2,547.80	1,996.00	1,849.53	146.46	13.628		
9,900.00	7,235.72	9,401.16	7,120.90	77.77	75.46	86.70	-473.85	-2,647.80	1,995.80	1,844.26	151.54	13.170		
10,000.00	7,235.22	9,501.16	7,120.47	80.26	78.06	86.70	-474.63	-2,747.80	1,995.61	1,838.95	156.66	12.739		
10,100.00	7,234.72	9,601.16	7,120.04	82.77	80.68	86.71	-475.40	-2,847.79	1,995.42	1,833.60	161.82	12.331		
10,200.00	7,234.22	9,701.16	7,119.60	85.31	83.31	86.71	-476.18	-2,947.79	1,995.22	1,828.21	167.01	11.947		
10,300.00	7,233.72	9,801.16	7,119.17	87.86	85.96	86.71	-476.96	-3,047.78	1,995.03	1,822.79	172.24	11.583		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	9,901.16	7,118.73	90.44	88.62	86.71	-477.74	-3,147.78	1,994.84	1,817.34	177.50	11.239		
10,500.00	7,232.72	10,001.16	7,118.30	93.03	91.29	86.71	-478.51	-3,247.77	1,994.65	1,811.87	182.78	10.913		
10,600.00	7,232.22	10,101.16	7,117.87	95.64	93.98	86.71	-479.29	-3,347.77	1,994.45	1,806.37	188.09	10.604		
10,700.00	7,231.72	10,201.16	7,117.43	98.26	96.67	86.72	-480.07	-3,447.77	1,994.26	1,800.84	193.42	10.311		
10,800.00	7,231.21	10,301.16	7,117.00	100.89	99.37	86.72	-480.85	-3,547.76	1,994.07	1,795.30	198.77	10.032		
10,900.00	7,230.71	10,401.16	7,116.56	103.54	102.08	86.72	-481.62	-3,647.76	1,993.88	1,789.73	204.14	9.767		
11,000.00	7,230.21	10,501.16	7,116.13	106.20	104.80	86.72	-482.40	-3,747.75	1,993.68	1,784.15	209.53	9.515		
11,100.00	7,229.71	10,601.16	7,115.70	108.87	107.53	86.72	-483.18	-3,847.75	1,993.49	1,778.55	214.94	9.275		
11,200.00	7,229.21	10,701.16	7,115.26	111.54	110.26	86.72	-483.95	-3,947.75	1,993.30	1,772.93	220.36	9.046		
11,300.00	7,228.71	10,801.16	7,114.83	114.23	113.00	86.72	-484.73	-4,047.74	1,993.10	1,767.31	225.80	8.827		
11,400.00	7,228.21	10,901.16	7,114.40	116.92	115.75	86.73	-485.51	-4,147.74	1,992.91	1,761.66	231.25	8.618		
11,500.00	7,227.71	11,001.16	7,113.96	119.63	118.50	86.73	-486.29	-4,247.73	1,992.72	1,756.01	236.71	8.418		
11,600.00	7,227.21	11,101.16	7,113.53	122.34	121.25	86.73	-487.06	-4,347.73	1,992.53	1,750.34	242.18	8.227		
11,700.00	7,226.71	11,201.16	7,113.09	125.05	124.01	86.73	-487.84	-4,447.72	1,992.33	1,744.67	247.67	8.044		
11,800.00	7,226.21	11,301.16	7,112.66	127.78	126.78	86.73	-488.62	-4,547.72	1,992.14	1,738.98	253.16	7.869		
11,900.00	7,225.71	11,401.16	7,112.23	130.51	129.55	86.73	-489.40	-4,647.72	1,991.95	1,733.28	258.66	7.701		
12,000.00	7,225.21	11,501.15	7,111.79	133.24	132.32	86.74	-490.17	-4,747.71	1,991.76	1,727.58	264.18	7.540		
12,100.00	7,224.71	11,601.15	7,111.36	135.98	135.09	86.74	-490.95	-4,847.71	1,991.56	1,721.87	269.70	7.384		
12,200.00	7,224.21	11,701.15	7,110.92	138.72	137.87	86.74	-491.73	-4,947.70	1,991.37	1,716.15	275.22	7.235		
12,300.00	7,223.70	11,801.15	7,110.49	141.47	140.66	86.74	-492.51	-5,047.70	1,991.18	1,710.42	280.76	7.092		
12,400.00	7,223.20	11,901.15	7,110.06	144.23	143.44	86.74	-493.28	-5,147.70	1,990.99	1,704.68	286.30	6.954		
12,500.00	7,222.70	12,001.15	7,109.62	146.98	146.23	86.74	-494.06	-5,247.69	1,990.79	1,698.94	291.85	6.821		
12,600.00	7,222.20	12,101.15	7,109.19	149.74	149.02	86.75	-494.84	-5,347.69	1,990.60	1,693.19	297.41	6.693		
12,700.00	7,221.70	12,201.15	7,108.75	152.51	151.81	86.75	-495.62	-5,447.68	1,990.41	1,687.44	302.97	6.570		
12,800.00	7,221.20	12,301.15	7,108.32	155.28	154.61	86.75	-496.39	-5,547.68	1,990.21	1,681.68	308.53	6.451		
12,900.00	7,220.70	12,401.15	7,107.89	158.05	157.41	86.75	-497.17	-5,647.67	1,990.02	1,675.92	314.10	6.336		
13,000.00	7,220.20	12,501.15	7,107.45	160.82	160.21	86.75	-497.95	-5,747.67	1,989.83	1,670.15	319.68	6.224		
13,100.00	7,219.70	12,601.15	7,107.02	163.60	163.01	86.75	-498.73	-5,847.67	1,989.64	1,664.38	325.26	6.117		
13,200.00	7,219.20	12,701.15	7,106.58	166.38	165.81	86.76	-499.50	-5,947.66	1,989.44	1,658.60	330.85	6.013		
13,300.00	7,218.70	12,801.15	7,106.15	169.16	168.62	86.76	-500.28	-6,047.66	1,989.25	1,652.82	336.44	5.913		
13,400.00	7,218.20	12,901.15	7,105.72	171.95	171.43	86.76	-501.06	-6,147.65	1,989.06	1,647.03	342.03	5.815		
13,500.00	7,217.70	13,001.15	7,105.28	174.74	174.24	86.76	-501.83	-6,247.65	1,988.87	1,641.24	347.63	5.721		
13,600.00	7,217.20	13,101.15	7,104.85	177.53	177.05	86.76	-502.61	-6,347.65	1,988.67	1,635.45	353.23	5.630		
13,700.00	7,216.70	13,201.15	7,104.42	180.32	179.86	86.76	-503.39	-6,447.64	1,988.48	1,629.65	358.83	5.542		
13,800.00	7,216.19	13,301.15	7,103.98	183.11	182.67	86.77	-504.17	-6,547.64	1,988.29	1,623.85	364.44	5.456		
13,900.00	7,215.69	13,401.15	7,103.55	185.91	185.49	86.77	-504.94	-6,647.63	1,988.10	1,618.04	370.05	5.372		
14,000.00	7,215.19	13,501.15	7,103.11	188.71	188.30	86.77	-505.72	-6,747.63	1,987.90	1,612.24	375.66	5.292		
14,100.00	7,214.69	13,601.15	7,102.68	191.51	191.12	86.77	-506.50	-6,847.62	1,987.71	1,606.43	381.28	5.213		
14,200.00	7,214.19	13,701.15	7,102.25	194.31	193.94	86.77	-507.28	-6,947.62	1,987.52	1,600.62	386.90	5.137		
14,300.00	7,213.69	13,801.15	7,101.81	197.11	196.76	86.77	-508.05	-7,047.62	1,987.32	1,594.80	392.52	5.063		
14,400.00	7,213.19	13,901.15	7,101.38	199.92	199.58	86.77	-508.83	-7,147.61	1,987.13	1,588.98	398.15	4.991		
14,500.00	7,212.69	14,001.15	7,100.94	202.72	202.40	86.78	-509.61	-7,247.61	1,986.94	1,583.16	403.78	4.921		
14,600.00	7,212.19	14,101.15	7,100.51	205.53	205.23	86.78	-510.39	-7,347.60	1,986.75	1,577.34	409.41	4.853		
14,700.00	7,211.69	14,201.15	7,100.08	208.34	208.05	86.78	-511.16	-7,447.60	1,986.55	1,571.52	415.04	4.786		
14,800.00	7,211.19	14,301.15	7,099.64	211.15	210.88	86.78	-511.94	-7,547.60	1,986.36	1,565.69	420.67	4.722		
14,900.00	7,210.69	14,401.15	7,099.21	213.96	213.70	86.78	-512.72	-7,647.59	1,986.17	1,559.86	426.31	4.659		
15,000.00	7,210.19	14,501.15	7,098.77	216.78	216.53	86.78	-513.50	-7,747.59	1,985.98	1,554.03	431.95	4.598		
15,100.00	7,209.69	14,601.15	7,098.34	219.59	219.36	86.79	-514.27	-7,847.58	1,985.78	1,548.20	437.58	4.538		
15,200.00	7,209.18	14,701.15	7,097.91	222.41	222.18	86.79	-515.05	-7,947.58	1,985.59	1,542.36	443.23	4.480		
15,300.00	7,208.68	14,801.15	7,097.47	225.22	225.01	86.79	-515.83	-8,047.57	1,985.40	1,536.53	448.87	4.423		
15,400.00	7,208.18	14,901.15	7,097.04	228.04	227.84	86.79	-516.60	-8,147.57	1,985.21	1,530.69	454.52	4.368		
15,419.64	7,208.09	14,920.79	7,096.95	228.59	228.40	86.79	-516.76	-8,167.21	1,985.17	1,529.54	455.62	4.357 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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	14,909.96	7,097.00	229.10	228.09	86.79	-516.67	-8,156.39	1,985.34	1,529.72	455.62	4.357	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.79	40.09	0.56	40.09					
100.00	100.00	101.00	100.00	3.28	3.28	0.79	40.09	0.56	40.09	33.52	6.57	6.103		
200.00	200.00	201.01	200.01	3.34	3.34	0.79	40.09	0.56	40.09	33.42	6.67	6.007		
300.00	299.98	302.43	301.41	3.44	3.44	177.12	38.26	0.42	40.03	33.14	6.89	5.808		
400.00	399.84	403.84	402.67	3.59	3.60	177.01	32.86	0.00	39.93	32.71	7.22	5.528		
500.00	499.45	505.25	503.67	3.79	3.80	176.83	23.89	-0.69	39.78	32.12	7.66	5.195		
600.00	598.70	606.65	604.29	4.03	4.05	176.57	11.36	-1.65	39.58	31.40	8.18	4.840		
700.00	697.47	708.04	704.38	4.31	4.34	176.24	-4.71	-2.88	39.34	30.57	8.77	4.485		
800.00	795.62	809.42	803.84	4.64	4.67	175.84	-24.30	-4.38	39.05	29.63	9.42	4.144		
900.00	893.06	910.79	902.52	5.00	5.04	175.35	-47.38	-6.16	38.73	28.60	10.12	3.825		
1,000.00	989.64	1,012.15	1,000.32	5.40	5.45	174.79	-73.93	-8.19	38.36	27.49	10.87	3.530		
1,092.91	1,078.53	1,106.15	1,090.12	5.80	5.85	174.19	-101.59	-10.31	38.01	26.42	11.59	3.281 CC		
1,100.00	1,085.27	1,113.23	1,096.87	5.83	5.89	174.14	-103.76	-10.48	38.02	26.38	11.64	3.266		
1,200.00	1,179.82	1,213.21	1,192.01	6.29	6.35	173.85	-134.37	-12.83	40.01	27.57	12.43	3.218		
1,300.00	1,273.47	1,313.10	1,287.08	6.79	6.83	173.97	-164.95	-15.18	44.64	31.38	13.26	3.367		
1,400.00	1,367.06	1,412.99	1,382.14	7.30	7.32	174.09	-195.53	-17.52	49.45	35.33	14.12	3.503		
1,500.00	1,460.64	1,512.87	1,477.20	7.83	7.83	174.19	-226.11	-19.87	54.26	39.26	15.00	3.617		
1,600.00	1,554.23	1,612.75	1,572.26	8.38	8.34	174.27	-256.68	-22.22	59.06	43.16	15.90	3.714		
1,700.00	1,647.82	1,712.64	1,667.32	8.93	8.86	174.34	-287.26	-24.56	63.87	47.05	16.82	3.797		
1,800.00	1,741.41	1,812.52	1,762.37	9.49	9.39	174.40	-317.84	-26.91	68.68	50.92	17.75	3.868		
1,900.00	1,835.00	1,912.41	1,857.43	10.05	9.93	174.45	-348.42	-29.25	73.49	54.79	18.70	3.930		
2,000.00	1,928.59	2,012.29	1,952.49	10.62	10.47	174.50	-379.00	-31.60	78.29	58.64	19.66	3.983		
2,100.00	2,022.18	2,112.18	2,047.55	11.20	11.01	174.54	-409.58	-33.95	83.10	62.48	20.62	4.030		
2,200.00	2,115.77	2,212.06	2,142.61	11.78	11.56	174.58	-440.16	-36.29	87.91	66.31	21.59	4.071		
2,300.00	2,209.36	2,311.94	2,237.67	12.37	12.10	174.61	-470.74	-38.64	92.72	70.14	22.57	4.107		
2,400.00	2,302.95	2,411.83	2,332.73	12.95	12.66	174.64	-501.32	-40.99	97.52	73.96	23.56	4.139		
2,500.00	2,396.54	2,511.71	2,427.79	13.54	13.21	174.66	-531.90	-43.33	102.33	77.78	24.55	4.168		
2,600.00	2,490.13	2,611.60	2,522.85	14.13	13.77	174.69	-562.48	-45.68	107.14	81.59	25.55	4.194		
2,700.00	2,583.72	2,711.48	2,617.91	14.73	14.33	174.71	-593.06	-48.03	111.95	85.40	26.55	4.217		
2,800.00	2,677.31	2,811.37	2,712.97	15.32	14.88	174.73	-623.64	-50.37	116.75	89.21	27.55	4.238		
2,900.00	2,770.90	2,911.25	2,808.03	15.92	15.45	174.75	-654.22	-52.72	121.56	93.01	28.55	4.257		
3,000.00	2,864.49	3,011.14	2,903.09	16.52	16.01	174.77	-684.80	-55.06	126.37	96.81	29.56	4.274		
3,100.00	2,958.08	3,111.02	2,998.15	17.12	16.57	174.78	-715.38	-57.41	131.18	100.60	30.58	4.290		
3,200.00	3,051.67	3,210.90	3,093.21	17.72	17.14	174.80	-745.95	-59.76	135.99	104.39	31.59	4.305		
3,300.00	3,145.26	3,310.79	3,188.26	18.32	17.70	174.81	-776.53	-62.10	140.79	108.19	32.61	4.318		
3,400.00	3,238.85	3,410.67	3,283.32	18.92	18.27	174.82	-807.11	-64.45	145.60	111.98	33.63	4.330		
3,500.00	3,332.44	3,510.56	3,378.38	19.53	18.83	174.83	-837.69	-66.80	150.41	115.76	34.65	4.341		
3,600.00	3,426.03	3,610.44	3,473.44	20.13	19.40	174.85	-868.27	-69.14	155.22	119.55	35.67	4.352		
3,700.00	3,519.62	3,710.33	3,568.50	20.74	19.97	174.86	-898.85	-71.49	160.02	123.33	36.69	4.361		
3,800.00	3,613.21	3,810.21	3,663.56	21.34	20.54	174.87	-929.43	-73.83	164.83	127.12	37.72	4.370		
3,900.00	3,706.80	3,910.09	3,758.62	21.95	21.11	174.88	-960.01	-76.18	169.64	130.90	38.74	4.379		
4,000.00	3,800.39	4,009.98	3,853.68	22.56	21.68	174.88	-990.59	-78.53	174.45	134.68	39.77	4.386		
4,100.00	3,893.98	4,109.86	3,948.74	23.16	22.25	174.89	-1,021.17	-80.87	179.26	138.46	40.80	4.394		
4,200.00	3,987.57	4,209.75	4,043.80	23.77	22.82	174.90	-1,051.75	-83.22	184.06	142.24	41.83	4.401		
4,300.00	4,081.16	4,309.63	4,138.86	24.38	23.39	174.91	-1,082.33	-85.57	188.87	146.01	42.86	4.407		
4,400.00	4,174.75	4,409.52	4,233.92	24.99	23.96	174.92	-1,112.91	-87.91	193.68	149.79	43.89	4.413		
4,500.00	4,268.34	4,509.40	4,328.98	25.60	24.53	174.92	-1,143.49	-90.26	198.49	153.57	44.92	4.419		
4,600.00	4,361.93	4,609.29	4,424.04	26.21	25.10	174.93	-1,174.07	-92.61	203.30	157.34	45.95	4.424		
4,700.00	4,455.52	4,709.17	4,519.10	26.82	25.68	174.94	-1,204.65	-94.95	208.10	161.12	46.99	4.429		
4,800.00	4,549.11	4,809.05	4,614.16	27.43	26.25	174.94	-1,235.22	-97.30	212.91	164.89	48.02	4.434		
4,900.00	4,642.70	4,908.94	4,709.21	28.04	26.82	174.95	-1,265.80	-99.64	217.72	168.66	49.06	4.438		
5,000.00	4,736.29	5,008.82	4,804.27	28.65	27.39	174.95	-1,296.38	-101.99	222.53	172.44	50.09	4.442		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	5,108.71	4,899.33	29.26	27.97	174.96	-1,326.96	-104.34	227.33	176.21	51.13	4.447		
5,200.00	4,923.47	5,208.59	4,994.39	29.87	28.54	174.96	-1,357.54	-106.68	232.14	179.98	52.16	4.450		
5,300.00	5,017.06	5,308.48	5,089.45	30.48	29.11	174.97	-1,388.12	-109.03	236.95	183.75	53.20	4.454		
5,400.00	5,110.65	5,408.36	5,184.51	31.09	29.69	174.97	-1,418.70	-111.38	241.76	187.52	54.24	4.457		
5,500.00	5,204.24	5,508.24	5,279.57	31.70	30.26	174.98	-1,449.28	-113.72	246.57	191.29	55.27	4.461		
5,600.00	5,297.83	5,608.13	5,374.63	32.32	30.84	174.98	-1,479.86	-116.07	251.37	195.06	56.31	4.464		
5,700.00	5,391.42	5,708.01	5,469.69	32.93	31.41	174.98	-1,510.44	-118.42	256.18	198.83	57.35	4.467		
5,800.00	5,485.01	5,807.90	5,564.75	33.54	31.98	174.99	-1,541.02	-120.76	260.99	202.60	58.39	4.470		
5,900.00	5,578.60	5,907.78	5,659.81	34.15	32.56	174.99	-1,571.60	-123.11	265.80	206.37	59.43	4.473		
6,000.00	5,672.19	6,007.67	5,754.87	34.77	33.13	175.00	-1,602.18	-125.45	270.61	210.14	60.47	4.475		
6,100.00	5,765.78	6,107.55	5,849.93	35.38	33.71	175.00	-1,632.76	-127.80	275.41	213.91	61.51	4.478		
6,200.00	5,859.37	6,207.43	5,944.99	35.99	34.28	175.00	-1,663.34	-130.15	280.22	217.67	62.55	4.480		
6,300.00	5,952.96	6,307.32	6,040.05	36.60	34.86	175.01	-1,693.92	-132.49	285.03	221.44	63.59	4.482		
6,400.00	6,046.55	6,407.20	6,135.10	37.22	35.43	175.01	-1,724.49	-134.84	289.84	225.21	64.63	4.485		
6,500.00	6,140.14	6,507.09	6,230.16	37.83	36.01	175.01	-1,755.07	-137.19	294.64	228.97	65.67	4.487		
6,600.00	6,233.73	6,606.97	6,325.22	38.44	36.58	175.02	-1,785.65	-139.53	299.45	232.74	66.71	4.489		
6,700.00	6,327.32	6,706.86	6,420.28	39.06	37.16	175.02	-1,816.23	-141.88	304.26	236.51	67.75	4.491		
6,800.00	6,420.91	6,806.41	6,514.99	39.67	37.73	174.86	-1,846.71	-145.07	309.09	240.29	68.80	4.493		
6,900.00	6,514.50	6,903.55	6,606.28	40.28	38.28	172.60	-1,876.17	-159.73	314.43	244.51	69.92	4.497		
7,000.00	6,608.09	6,994.92	6,689.27	40.90	38.75	168.19	-1,903.06	-186.69	322.08	250.96	71.11	4.529		
7,100.00	6,701.63	7,078.21	6,760.98	41.51	39.14	152.76	-1,926.38	-221.90	334.70	262.56	72.14	4.640		
7,200.00	6,793.85	7,157.11	6,824.31	42.10	39.48	126.82	-1,947.07	-264.07	351.17	278.60	72.57	4.839		
7,300.00	6,882.50	7,233.32	6,880.31	42.64	39.78	108.10	-1,965.45	-312.32	369.46	297.24	72.22	5.116		
7,400.00	6,965.41	7,307.41	6,929.09	43.12	40.04	95.03	-1,981.54	-365.65	388.10	316.97	71.14	5.456		
7,500.00	7,040.53	7,379.83	6,970.75	43.53	40.27	85.77	-1,995.38	-423.20	405.91	336.39	69.52	5.839		
7,600.00	7,106.00	7,450.00	7,004.92	43.89	40.48	79.15	-2,006.83	-483.37	421.95	354.39	67.56	6.246		
7,700.00	7,160.23	7,521.08	7,032.88	44.20	40.68	74.40	-2,016.32	-547.99	435.51	369.73	65.78	6.620		
7,800.00	7,201.86	7,590.48	7,053.40	44.48	40.89	71.14	-2,023.42	-613.86	446.06	381.79	64.28	6.940		
7,900.00	7,229.88	7,659.38	7,066.90	44.73	41.10	69.10	-2,028.28	-681.22	453.25	389.86	63.39	7.150		
8,000.00	7,243.60	7,727.99	7,073.38	44.99	41.35	68.14	-2,030.89	-749.44	456.83	393.49	63.34	7.212		
8,100.00	7,244.73	7,813.70	7,073.82	45.29	41.76	68.05	-2,031.69	-835.14	457.16	392.40	64.76	7.059		
8,200.00	7,244.23	7,913.70	7,073.50	45.74	42.45	68.06	-2,032.36	-935.13	457.03	389.92	67.11	6.810		
8,300.00	7,243.73	8,013.70	7,073.17	46.38	43.42	68.08	-2,033.03	-1,035.13	456.89	387.10	69.79	6.547		
8,400.00	7,243.23	8,113.70	7,072.85	47.29	44.66	68.10	-2,033.70	-1,135.13	456.75	383.98	72.77	6.277		
8,500.00	7,242.73	8,213.70	7,072.52	48.46	46.13	68.11	-2,034.36	-1,235.13	456.61	380.60	76.01	6.007		
8,600.00	7,242.23	8,313.70	7,072.20	49.87	47.77	68.13	-2,035.03	-1,335.12	456.47	376.99	79.48	5.743		
8,700.00	7,241.73	8,413.70	7,071.87	51.48	49.56	68.15	-2,035.70	-1,435.12	456.33	373.17	83.16	5.488		
8,800.00	7,241.23	8,513.70	7,071.55	53.24	51.47	68.16	-2,036.37	-1,535.12	456.19	369.18	87.01	5.243		
8,900.00	7,240.73	8,613.70	7,071.22	55.13	53.48	68.18	-2,037.03	-1,635.11	456.05	365.04	91.02	5.011		
9,000.00	7,240.23	8,713.70	7,070.90	57.11	55.57	68.20	-2,037.70	-1,735.11	455.91	360.75	95.16	4.791		
9,100.00	7,239.73	8,813.70	7,070.57	59.19	57.73	68.21	-2,038.37	-1,835.11	455.77	356.35	99.42	4.584		
9,200.00	7,239.23	8,913.70	7,070.25	61.34	59.95	68.23	-2,039.04	-1,935.10	455.63	351.85	103.78	4.390		
9,300.00	7,238.72	9,013.70	7,069.92	63.55	62.23	68.25	-2,039.70	-2,035.10	455.50	347.25	108.24	4.208		
9,400.00	7,238.22	9,113.70	7,069.60	65.81	64.56	68.26	-2,040.37	-2,135.10	455.36	342.58	112.78	4.038		
9,500.00	7,237.72	9,213.70	7,069.27	68.13	66.94	68.28	-2,041.04	-2,235.10	455.22	337.83	117.39	3.878		
9,600.00	7,237.22	9,313.70	7,068.95	70.48	69.35	68.30	-2,041.71	-2,335.09	455.08	333.02	122.06	3.728		
9,700.00	7,236.72	9,413.70	7,068.62	72.88	71.79	68.32	-2,042.37	-2,435.09	454.94	328.15	126.79	3.588		
9,800.00	7,236.22	9,513.70	7,068.30	75.31	74.27	68.33	-2,043.04	-2,535.09	454.80	323.23	131.57	3.457		
9,900.00	7,235.72	9,613.70	7,067.97	77.77	76.77	68.35	-2,043.71	-2,635.08	454.66	318.26	136.40	3.333		
10,000.00	7,235.22	9,713.70	7,067.65	80.26	79.29	68.37	-2,044.38	-2,735.08	454.53	313.26	141.27	3.217		
10,100.00	7,234.72	9,813.70	7,067.32	82.77	81.84	68.38	-2,045.04	-2,835.08	454.39	308.21	146.17	3.109		
10,200.00	7,234.22	9,913.70	7,067.00	85.31	84.41	68.40	-2,045.71	-2,935.08	454.25	303.13	151.11	3.006		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	10,013.70	7,066.67	87.86	87.00	68.42	-2,046.38	-3,035.07	454.11	298.03	156.08	2.909		
10,400.00	7,233.22	10,113.70	7,066.35	90.44	89.61	68.43	-2,047.05	-3,135.07	453.97	292.89	161.08	2.818		
10,500.00	7,232.72	10,213.70	7,066.02	93.03	92.23	68.45	-2,047.71	-3,235.07	453.83	287.73	166.10	2.732		
10,600.00	7,232.22	10,313.70	7,065.70	95.64	94.86	68.47	-2,048.38	-3,335.06	453.70	282.55	171.15	2.651		
10,700.00	7,231.72	10,413.70	7,065.37	98.26	97.51	68.48	-2,049.05	-3,435.06	453.56	277.34	176.22	2.574		
10,800.00	7,231.21	10,513.70	7,065.05	100.89	100.16	68.50	-2,049.72	-3,535.06	453.42	272.12	181.30	2.501		
10,900.00	7,230.71	10,613.70	7,064.72	103.54	102.83	68.52	-2,050.38	-3,635.05	453.28	266.87	186.41	2.432		
11,000.00	7,230.21	10,713.70	7,064.40	106.20	105.51	68.54	-2,051.05	-3,735.05	453.14	261.61	191.53	2.366		
11,100.00	7,229.71	10,813.70	7,064.07	108.87	108.20	68.55	-2,051.72	-3,835.05	453.00	256.34	196.67	2.303		
11,200.00	7,229.21	10,913.70	7,063.75	111.54	110.90	68.57	-2,052.39	-3,935.05	452.87	251.05	201.82	2.244		
11,300.00	7,228.71	11,013.70	7,063.42	114.23	113.60	68.59	-2,053.05	-4,035.04	452.73	245.74	206.98	2.187		
11,400.00	7,228.21	11,113.70	7,063.10	116.92	116.32	68.60	-2,053.72	-4,135.04	452.59	240.43	212.16	2.133		
11,500.00	7,227.71	11,213.69	7,062.77	119.63	119.04	68.62	-2,054.39	-4,235.04	452.45	235.10	217.35	2.082		
11,600.00	7,227.21	11,313.69	7,062.45	122.34	121.76	68.64	-2,055.06	-4,335.03	452.31	229.76	222.55	2.032		
11,700.00	7,226.71	11,413.69	7,062.12	125.05	124.49	68.66	-2,055.72	-4,435.03	452.18	224.41	227.76	1.985		
11,800.00	7,226.21	11,513.69	7,061.80	127.78	127.23	68.67	-2,056.39	-4,535.03	452.04	219.05	232.98	1.940		
11,900.00	7,225.71	11,613.69	7,061.47	130.51	129.97	68.69	-2,057.06	-4,635.03	451.90	213.69	238.21	1.897		
12,000.00	7,225.21	11,713.69	7,061.15	133.24	132.72	68.71	-2,057.73	-4,735.02	451.76	208.31	243.45	1.856		
12,100.00	7,224.71	11,813.69	7,060.82	135.98	135.47	68.72	-2,058.39	-4,835.02	451.63	202.93	248.70	1.816		
12,200.00	7,224.21	11,913.69	7,060.50	138.72	138.23	68.74	-2,059.06	-4,935.02	451.49	197.53	253.95	1.778		
12,300.00	7,223.70	12,013.69	7,060.17	141.47	140.99	68.76	-2,059.73	-5,035.01	451.35	192.14	259.21	1.741		
12,400.00	7,223.20	12,113.69	7,059.85	144.23	143.76	68.77	-2,060.40	-5,135.01	451.21	186.73	264.48	1.706		
12,500.00	7,222.70	12,213.69	7,059.52	146.98	146.53	68.79	-2,061.06	-5,235.01	451.07	181.32	269.76	1.672		
12,600.00	7,222.20	12,313.69	7,059.20	149.74	149.30	68.81	-2,061.73	-5,335.00	450.94	175.90	275.04	1.640		
12,700.00	7,221.70	12,413.69	7,058.87	152.51	152.07	68.83	-2,062.40	-5,435.00	450.80	170.47	280.33	1.608		
12,800.00	7,221.20	12,513.69	7,058.55	155.28	154.85	68.84	-2,063.07	-5,535.00	450.66	165.04	285.62	1.578		
12,900.00	7,220.70	12,613.69	7,058.22	158.05	157.63	68.86	-2,063.73	-5,635.00	450.53	159.61	290.92	1.549		
13,000.00	7,220.20	12,713.69	7,057.90	160.82	160.41	68.88	-2,064.40	-5,734.99	450.39	154.16	296.22	1.520		
13,100.00	7,219.70	12,813.69	7,057.58	163.60	163.20	68.90	-2,065.07	-5,834.99	450.25	148.72	301.53	1.493 Level 3		
13,200.00	7,219.20	12,913.69	7,057.25	166.38	165.99	68.91	-2,065.74	-5,934.99	450.11	143.27	306.85	1.467 Level 3		
13,300.00	7,218.70	13,013.69	7,056.93	169.16	168.78	68.93	-2,066.40	-6,034.98	449.98	137.81	312.17	1.441 Level 3		
13,400.00	7,218.20	13,113.69	7,056.60	171.95	171.57	68.95	-2,067.07	-6,134.98	449.84	132.35	317.49	1.417 Level 3		
13,500.00	7,217.70	13,213.69	7,056.28	174.74	174.37	68.96	-2,067.74	-6,234.98	449.70	126.89	322.82	1.393 Level 3		
13,600.00	7,217.20	13,313.69	7,055.95	177.53	177.17	68.98	-2,068.41	-6,334.98	449.56	121.42	328.15	1.370 Level 3		
13,700.00	7,216.70	13,413.69	7,055.63	180.32	179.96	69.00	-2,069.07	-6,434.97	449.43	115.95	333.48	1.348 Level 3		
13,800.00	7,216.19	13,513.69	7,055.30	183.11	182.77	69.02	-2,069.74	-6,534.97	449.29	110.47	338.82	1.326 Level 3		
13,900.00	7,215.69	13,613.69	7,054.98	185.91	185.57	69.03	-2,070.41	-6,634.97	449.15	104.99	344.16	1.305 Level 3		
14,000.00	7,215.19	13,713.69	7,054.65	188.71	188.37	69.05	-2,071.08	-6,734.96	449.02	99.51	349.51	1.285 Level 3		
14,100.00	7,214.69	13,813.69	7,054.33	191.51	191.18	69.07	-2,071.74	-6,834.96	448.88	94.02	354.86	1.265 Level 3		
14,200.00	7,214.19	13,913.69	7,054.00	194.31	193.99	69.09	-2,072.41	-6,934.96	448.74	88.53	360.21	1.246 Level 2		
14,300.00	7,213.69	14,013.69	7,053.68	197.11	196.80	69.10	-2,073.08	-7,034.95	448.61	83.04	365.57	1.227 Level 2		
14,400.00	7,213.19	14,113.69	7,053.35	199.92	199.61	69.12	-2,073.75	-7,134.95	448.47	77.54	370.93	1.209 Level 2		
14,500.00	7,212.69	14,213.69	7,053.03	202.72	202.42	69.14	-2,074.41	-7,234.95	448.33	72.04	376.29	1.191 Level 2		
14,600.00	7,212.19	14,313.69	7,052.70	205.53	205.23	69.16	-2,075.08	-7,334.95	448.20	66.54	381.66	1.174 Level 2		
14,700.00	7,211.69	14,413.69	7,052.38	208.34	208.05	69.17	-2,075.75	-7,434.94	448.06	61.03	387.03	1.158 Level 2		
14,800.00	7,211.19	14,513.69	7,052.05	211.15	210.86	69.19	-2,076.42	-7,534.94	447.92	55.52	392.40	1.141 Level 2		
14,900.00	7,210.69	14,613.69	7,051.73	213.96	213.68	69.21	-2,077.08	-7,634.94	447.79	50.01	397.77	1.126 Level 2		
15,000.00	7,210.19	14,713.69	7,051.40	216.78	216.50	69.22	-2,077.75	-7,734.93	447.65	44.50	403.15	1.110 Level 2		
15,100.00	7,209.69	14,813.69	7,051.08	219.59	219.32	69.24	-2,078.42	-7,834.93	447.51	38.98	408.53	1.095 Level 2		
15,200.00	7,209.18	14,913.69	7,050.75	222.41	222.14	69.26	-2,079.09	-7,934.93	447.38	33.46	413.91	1.081 Level 2		
15,300.00	7,208.68	15,013.69	7,050.43	225.22	224.96	69.28	-2,079.75	-8,034.93	447.24	27.94	419.30	1.067 Level 2		
15,400.00	7,208.18	15,113.69	7,050.10	228.04	227.78	69.29	-2,080.42	-8,134.92	447.10	22.42	424.69	1.053 Level 2		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 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
15,434.24	7,208.01	15,147.92	7,049.99	229.01	228.75	69.30	-2,080.65	-8,169.16	447.06	20.53	426.53	1.048	Level 2, ES, SF
15,437.48	7,208.00	15,145.13	7,050.00	229.10	228.67	69.30	-2,080.63	-8,166.36	447.09	20.81	426.28	1.049	Level 2



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	0.80	20.04	0.28	20.04					
100.00	100.00	100.00	100.00	3.28	3.28	0.80	20.04	0.28	20.04	13.47	6.57	3.050		
200.00	200.00	200.00	200.00	3.34	3.34	0.80	20.04	0.28	20.04	13.36	6.67	3.002		
300.00	299.98	300.70	300.68	3.44	3.44	177.13	18.27	0.16	20.03	13.14	6.89	2.906		
400.00	399.84	401.41	401.24	3.59	3.59	177.04	12.98	-0.21	19.99	12.77	7.22	2.770		
500.00	499.45	502.11	501.55	3.79	3.80	176.89	4.16	-0.82	19.93	12.28	7.65	2.606		
600.00	598.70	602.80	601.48	4.03	4.04	176.68	-8.17	-1.67	19.85	11.69	8.17	2.431		
700.00	697.47	703.50	700.91	4.31	4.32	176.40	-23.99	-2.77	19.75	10.99	8.76	2.255		
800.00	795.62	804.19	799.72	4.64	4.65	176.06	-43.29	-4.10	19.62	10.22	9.40	2.087		
900.00	893.06	904.87	897.78	5.00	5.02	175.65	-66.04	-5.68	19.47	9.37	10.10	1.928		
1,000.00	989.64	1,005.55	994.98	5.40	5.42	175.18	-92.21	-7.49	19.30	8.46	10.84	1.781		
1,100.00	1,085.27	1,106.22	1,091.19	5.83	5.86	174.63	-121.77	-9.53	19.11	7.50	11.62	1.646		
1,165.38	1,147.21	1,172.03	1,153.49	6.13	6.16	174.24	-142.91	-10.99	18.98	6.84	12.14	1.563 CC		
1,200.00	1,179.82	1,206.62	1,186.13	6.29	6.32	174.11	-154.31	-11.78	19.20	6.78	12.42	1.546		
1,300.00	1,273.47	1,306.59	1,280.48	6.79	6.81	174.20	-187.29	-14.06	21.33	8.08	13.24	1.610		
1,400.00	1,367.06	1,406.57	1,374.83	7.30	7.32	174.31	-220.28	-16.35	23.63	9.52	14.10	1.675		
1,500.00	1,460.64	1,506.54	1,469.17	7.83	7.84	174.41	-253.26	-18.63	25.93	10.94	14.99	1.730		
1,600.00	1,554.23	1,606.51	1,563.52	8.38	8.36	174.49	-286.25	-20.91	28.23	12.33	15.90	1.776		
1,700.00	1,647.82	1,706.49	1,657.87	8.93	8.90	174.56	-319.23	-23.19	30.53	13.71	16.82	1.815		
1,800.00	1,741.41	1,806.46	1,752.22	9.49	9.45	174.62	-352.22	-25.47	32.83	15.07	17.76	1.848		
1,900.00	1,835.00	1,906.43	1,846.57	10.05	10.00	174.67	-385.20	-27.75	35.13	16.42	18.71	1.877		
2,000.00	1,928.59	2,006.41	1,940.91	10.62	10.56	174.71	-418.18	-30.03	37.43	17.75	19.68	1.902		
2,100.00	2,022.18	2,106.38	2,035.26	11.20	11.12	174.75	-451.17	-32.32	39.73	19.08	20.65	1.924		
2,200.00	2,115.77	2,206.35	2,129.61	11.78	11.68	174.79	-484.15	-34.60	42.03	20.40	21.63	1.943		
2,300.00	2,209.36	2,306.33	2,223.96	12.37	12.25	174.82	-517.14	-36.88	44.33	21.71	22.62	1.960		
2,400.00	2,302.95	2,406.30	2,318.31	12.95	12.82	174.85	-550.12	-39.16	46.63	23.02	23.61	1.975		
2,500.00	2,396.54	2,506.27	2,412.65	13.54	13.39	174.87	-583.11	-41.44	48.93	24.32	24.61	1.988		
2,600.00	2,490.13	2,606.25	2,507.00	14.13	13.97	174.89	-616.09	-43.72	51.23	25.61	25.62	2.000		
2,700.00	2,583.72	2,706.22	2,601.35	14.73	14.54	174.92	-649.08	-46.01	53.53	26.90	26.63	2.010		
2,800.00	2,677.31	2,806.20	2,695.70	15.32	15.12	174.94	-682.06	-48.29	55.83	28.19	27.64	2.020		
2,900.00	2,770.90	2,906.17	2,790.05	15.92	15.70	174.95	-715.04	-50.57	58.13	29.47	28.66	2.029		
3,000.00	2,864.49	3,006.14	2,884.39	16.52	16.28	174.97	-748.03	-52.85	60.43	30.75	29.68	2.036		
3,100.00	2,958.08	3,106.12	2,978.74	17.12	16.86	174.99	-781.01	-55.13	62.73	32.03	30.70	2.043		
3,200.00	3,051.67	3,206.09	3,073.09	17.72	17.45	175.00	-814.00	-57.41	65.03	33.31	31.72	2.050		
3,300.00	3,145.26	3,306.06	3,167.44	18.32	18.03	175.01	-846.98	-59.70	67.33	34.58	32.75	2.056		
3,400.00	3,238.85	3,406.04	3,261.78	18.92	18.62	175.03	-879.97	-61.98	69.63	35.85	33.78	2.061		
3,500.00	3,332.44	3,506.01	3,356.13	19.53	19.20	175.04	-912.95	-64.26	71.93	37.12	34.81	2.066		
3,600.00	3,426.03	3,605.98	3,450.48	20.13	19.79	175.05	-945.94	-66.54	74.23	38.39	35.84	2.071		
3,700.00	3,519.62	3,705.96	3,544.83	20.74	20.38	175.06	-978.92	-68.82	76.53	39.66	36.88	2.075		
3,800.00	3,613.21	3,805.93	3,639.18	21.34	20.96	175.07	-1,011.91	-71.10	78.83	40.92	37.91	2.079		
3,900.00	3,706.80	3,905.90	3,733.52	21.95	21.55	175.08	-1,044.89	-73.39	81.13	42.18	38.95	2.083		
4,000.00	3,800.39	4,005.88	3,827.87	22.56	22.14	175.09	-1,077.87	-75.67	83.43	43.45	39.99	2.086		
4,100.00	3,893.98	4,105.85	3,922.22	23.16	22.73	175.09	-1,110.86	-77.95	85.74	44.71	41.03	2.090		
4,200.00	3,987.57	4,205.82	4,016.57	23.77	23.32	175.10	-1,143.84	-80.23	88.04	45.97	42.07	2.093		
4,300.00	4,081.16	4,305.80	4,110.92	24.38	23.91	175.11	-1,176.83	-82.51	90.34	47.23	43.11	2.096		
4,400.00	4,174.75	4,405.77	4,205.26	24.99	24.50	175.12	-1,209.81	-84.79	92.64	48.48	44.15	2.098		
4,500.00	4,268.34	4,505.75	4,299.61	25.60	25.09	175.12	-1,242.80	-87.08	94.94	49.74	45.19	2.101		
4,600.00	4,361.93	4,605.72	4,393.96	26.21	25.68	175.13	-1,275.78	-89.36	97.24	51.00	46.24	2.103		
4,700.00	4,455.52	4,705.69	4,488.31	26.82	26.28	175.13	-1,308.77	-91.64	99.54	52.25	47.28	2.105		
4,800.00	4,549.11	4,805.67	4,582.66	27.43	26.87	175.14	-1,341.75	-93.92	101.84	53.51	48.33	2.107		
4,900.00	4,642.70	4,905.64	4,677.00	28.04	27.46	175.15	-1,374.73	-96.20	104.14	54.76	49.37	2.109		
5,000.00	4,736.29	5,005.61	4,771.35	28.65	28.05	175.15	-1,407.72	-98.48	106.44	56.02	50.42	2.111		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16C-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.00	4,829.88	5,105.59	4,865.70	29.26	28.65	175.16	-1,440.70	-100.77	108.74	57.27	51.47	2.113	
5,200.00	4,923.47	5,205.56	4,960.05	29.87	29.24	175.16	-1,473.69	-103.05	111.04	58.52	52.52	2.114	
5,300.00	5,017.06	5,305.53	5,054.40	30.48	29.83	175.17	-1,506.67	-105.33	113.34	59.78	53.56	2.116	
5,400.00	5,110.65	5,405.51	5,148.74	31.09	30.42	175.17	-1,539.66	-107.61	115.64	61.03	54.61	2.117	
5,500.00	5,204.24	5,505.48	5,243.09	31.70	31.02	175.17	-1,572.64	-109.89	117.94	62.28	55.66	2.119	
5,600.00	5,297.83	5,605.45	5,337.44	32.32	31.61	175.18	-1,605.63	-112.17	120.24	63.53	56.71	2.120	
5,700.00	5,391.42	5,705.43	5,431.79	32.93	32.21	175.18	-1,638.61	-114.45	122.54	64.78	57.76	2.122	
5,800.00	5,485.01	5,805.40	5,526.13	33.54	32.80	175.19	-1,671.59	-116.74	124.84	66.03	58.81	2.123	
5,900.00	5,578.60	5,905.38	5,620.48	34.15	33.39	175.19	-1,704.58	-119.02	127.14	67.28	59.86	2.124	
6,000.00	5,672.19	6,005.35	5,714.83	34.77	33.99	175.19	-1,737.56	-121.30	129.44	68.53	60.91	2.125	
6,100.00	5,765.78	6,105.32	5,809.18	35.38	34.58	175.20	-1,770.55	-123.58	131.74	69.78	61.96	2.126	
6,200.00	5,859.37	6,205.30	5,903.53	35.99	35.18	175.20	-1,803.53	-125.86	134.04	71.03	63.01	2.127	
6,300.00	5,952.96	6,305.27	5,997.87	36.60	35.77	175.20	-1,836.52	-128.14	136.34	72.28	64.07	2.128	
6,400.00	6,046.55	6,405.24	6,092.22	37.22	36.37	175.21	-1,869.50	-130.43	138.64	73.52	65.12	2.129	
6,500.00	6,140.14	6,505.22	6,186.57	37.83	36.96	175.21	-1,902.49	-132.71	140.94	74.77	66.17	2.130	
6,600.00	6,233.73	6,605.19	6,280.92	38.44	37.56	175.21	-1,935.47	-134.99	143.24	76.02	67.22	2.131	
6,700.00	6,327.32	6,705.16	6,375.27	39.06	38.15	175.22	-1,968.45	-137.27	145.54	77.27	68.28	2.132	
6,800.00	6,420.91	6,805.14	6,469.61	39.67	38.75	175.22	-2,001.44	-139.55	147.85	78.52	69.33	2.133	
6,900.00	6,514.50	6,905.11	6,563.96	40.28	39.34	175.22	-2,034.42	-141.83	150.15	79.76	70.38	2.133	
7,000.00	6,608.09	7,003.73	6,656.39	40.90	39.92	172.01	-2,066.80	-152.64	152.83	81.25	71.58	2.135	
7,100.00	6,701.63	7,097.94	6,742.16	41.51	40.43	154.74	-2,096.97	-176.94	158.32	85.22	73.10	2.166	
7,200.00	6,793.85	7,188.50	6,820.55	42.10	40.88	127.09	-2,124.65	-212.69	167.20	92.92	74.28	2.251	
7,300.00	6,882.50	7,276.45	6,891.31	42.64	41.27	107.08	-2,149.75	-258.35	178.07	103.61	74.46	2.391	
7,400.00	6,965.41	7,362.20	6,953.93	43.12	41.61	93.11	-2,172.07	-312.42	189.76	116.31	73.45	2.583	
7,500.00	7,040.53	7,446.14	7,008.02	43.53	41.90	83.27	-2,191.46	-373.52	201.30	129.86	71.43	2.818	
7,600.00	7,106.00	7,528.62	7,053.31	43.89	42.16	76.25	-2,207.83	-440.41	211.90	143.14	68.76	3.082	
7,700.00	7,160.23	7,609.94	7,089.60	44.20	42.39	71.29	-2,221.09	-511.90	220.99	155.11	65.89	3.354	
7,800.00	7,201.86	7,690.39	7,116.73	44.48	42.61	67.89	-2,231.18	-586.91	228.14	164.85	63.28	3.605	
7,900.00	7,229.88	7,770.23	7,134.62	44.73	42.83	65.77	-2,238.06	-664.36	233.05	171.62	61.43	3.794	
8,000.00	7,243.60	7,850.00	7,143.20	44.99	43.07	64.76	-2,241.70	-743.53	235.54	174.81	60.73	3.879	
8,100.00	7,244.73	7,940.09	7,143.69	45.29	43.42	64.63	-2,242.60	-833.59	235.84	173.94	61.91	3.810	
8,200.00	7,244.23	8,040.09	7,143.12	45.74	43.97	64.61	-2,243.21	-933.59	235.85	171.70	64.15	3.676	
8,300.00	7,243.73	8,140.09	7,142.56	46.38	44.78	64.60	-2,243.83	-1,033.59	235.86	169.12	66.74	3.534	
8,400.00	7,243.23	8,240.09	7,141.99	47.29	45.86	64.58	-2,244.44	-1,133.58	235.86	166.25	69.62	3.388	
8,500.00	7,242.73	8,340.09	7,141.42	48.46	47.20	64.56	-2,245.05	-1,233.58	235.87	163.11	72.76	3.242	
8,600.00	7,242.23	8,440.09	7,140.85	49.87	48.74	64.55	-2,245.67	-1,333.58	235.88	159.75	76.13	3.098	
8,700.00	7,241.73	8,540.09	7,140.28	51.48	50.45	64.53	-2,246.28	-1,433.57	235.88	156.19	79.70	2.960	
8,800.00	7,241.23	8,640.09	7,139.71	53.24	52.29	64.51	-2,246.89	-1,533.57	235.89	152.45	83.44	2.827	
8,900.00	7,240.73	8,740.09	7,139.15	55.13	54.25	64.49	-2,247.50	-1,633.57	235.90	148.56	87.33	2.701	
9,000.00	7,240.23	8,840.09	7,138.58	57.11	56.29	64.48	-2,248.12	-1,733.56	235.90	144.54	91.36	2.582	
9,100.00	7,239.73	8,940.09	7,138.01	59.19	58.41	64.46	-2,248.73	-1,833.56	235.91	140.41	95.50	2.470	
9,200.00	7,239.23	9,040.09	7,137.44	61.34	60.60	64.44	-2,249.34	-1,933.56	235.92	136.18	99.74	2.365	
9,300.00	7,238.72	9,140.09	7,136.87	63.55	62.85	64.42	-2,249.96	-2,033.55	235.92	131.85	104.07	2.267	
9,400.00	7,238.22	9,240.08	7,136.30	65.81	65.15	64.41	-2,250.57	-2,133.55	235.93	127.45	108.48	2.175	
9,500.00	7,237.72	9,340.08	7,135.73	68.13	67.50	64.39	-2,251.18	-2,233.54	235.94	122.99	112.95	2.089	
9,600.00	7,237.22	9,440.08	7,135.17	70.48	69.88	64.37	-2,251.80	-2,333.54	235.95	118.46	117.49	2.008	
9,700.00	7,236.72	9,540.08	7,134.60	72.88	72.31	64.35	-2,252.41	-2,433.54	235.95	113.88	122.07	1.933	
9,800.00	7,236.22	9,640.08	7,134.03	75.31	74.76	64.34	-2,253.02	-2,533.53	235.96	109.25	126.71	1.862	
9,900.00	7,235.72	9,740.08	7,133.46	77.77	77.24	64.32	-2,253.63	-2,633.53	235.97	104.58	131.38	1.796	
10,000.00	7,235.22	9,840.08	7,132.89	80.26	79.75	64.30	-2,254.25	-2,733.53	235.97	99.88	136.10	1.734	
10,100.00	7,234.72	9,940.08	7,132.32	82.77	82.29	64.28	-2,254.86	-2,833.52	235.98	95.14	140.84	1.675	
10,200.00	7,234.22	10,040.08	7,131.76	85.31	84.84	64.27	-2,255.47	-2,933.52	235.99	90.36	145.62	1.621	

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16C-M - OH - PLAN #1													Offset Site Error: 0.00 ft	
Survey Program: 0-MWD+IFR1													Offset Well Error: 3.28 ft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	10,140.08	7,131.19	87.86	87.41	64.25	-2,256.09	-3,033.52	235.99	85.57	150.43	1.569		
10,400.00	7,233.22	10,240.08	7,130.62	90.44	90.00	64.23	-2,256.70	-3,133.51	236.00	80.74	155.26	1.520		
10,500.00	7,232.72	10,340.08	7,130.05	93.03	92.61	64.21	-2,257.31	-3,233.51	236.01	75.90	160.11	1.474	Level 3	
10,600.00	7,232.22	10,440.08	7,129.48	95.64	95.23	64.20	-2,257.93	-3,333.51	236.02	71.04	164.98	1.431	Level 3	
10,700.00	7,231.72	10,540.08	7,128.91	98.26	97.87	64.18	-2,258.54	-3,433.50	236.02	66.15	169.87	1.389	Level 3	
10,800.00	7,231.21	10,640.08	7,128.34	100.89	100.51	64.16	-2,259.15	-3,533.50	236.03	61.25	174.78	1.350	Level 3	
10,900.00	7,230.71	10,740.08	7,127.78	103.54	103.17	64.14	-2,259.76	-3,633.50	236.04	56.34	179.70	1.314	Level 3	
11,000.00	7,230.21	10,840.08	7,127.21	106.20	105.84	64.13	-2,260.38	-3,733.49	236.04	51.41	184.63	1.278	Level 3	
11,100.00	7,229.71	10,940.08	7,126.64	108.87	108.52	64.11	-2,260.99	-3,833.49	236.05	46.47	189.58	1.245	Level 2	
11,200.00	7,229.21	11,040.08	7,126.07	111.54	111.21	64.09	-2,261.60	-3,933.49	236.06	41.52	194.54	1.213	Level 2	
11,300.00	7,228.71	11,140.08	7,125.50	114.23	113.91	64.07	-2,262.22	-4,033.48	236.07	36.56	199.51	1.183	Level 2	
11,400.00	7,228.21	11,240.08	7,124.93	116.92	116.61	64.06	-2,262.83	-4,133.48	236.07	31.58	204.49	1.154	Level 2	
11,500.00	7,227.71	11,340.08	7,124.37	119.63	119.32	64.04	-2,263.44	-4,233.47	236.08	26.60	209.48	1.127	Level 2	
11,600.00	7,227.21	11,440.08	7,123.80	122.34	122.04	64.02	-2,264.05	-4,333.47	236.09	21.61	214.48	1.101	Level 2	
11,700.00	7,226.71	11,540.08	7,123.23	125.05	124.77	64.00	-2,264.67	-4,433.47	236.10	16.62	219.48	1.076	Level 2	
11,800.00	7,226.21	11,640.08	7,122.66	127.78	127.50	63.99	-2,265.28	-4,533.46	236.10	11.61	224.49	1.052	Level 2	
11,900.00	7,225.71	11,740.08	7,122.09	130.51	130.24	63.97	-2,265.89	-4,633.46	236.11	6.60	229.51	1.029	Level 2	
12,000.00	7,225.21	11,840.08	7,121.52	133.24	132.98	63.95	-2,266.51	-4,733.46	236.12	1.59	234.53	1.007	Level 2	
12,100.00	7,224.71	11,940.08	7,120.96	135.98	135.72	63.93	-2,267.12	-4,833.45	236.13	-3.44	239.56	0.986	Level 1	
12,200.00	7,224.21	12,040.08	7,120.39	138.72	138.47	63.92	-2,267.73	-4,933.45	236.13	-8.46	244.60	0.965	Level 1	
12,300.00	7,223.70	12,140.08	7,119.82	141.47	141.23	63.90	-2,268.35	-5,033.45	236.14	-13.49	249.63	0.946	Level 1	
12,400.00	7,223.20	12,240.08	7,119.25	144.23	143.99	63.88	-2,268.96	-5,133.44	236.15	-18.53	254.68	0.927	Level 1	
12,500.00	7,222.70	12,340.08	7,118.68	146.98	146.75	63.87	-2,269.57	-5,233.44	236.16	-23.57	259.72	0.909	Level 1	
12,600.00	7,222.20	12,440.08	7,118.11	149.74	149.52	63.85	-2,270.18	-5,333.44	236.16	-28.61	264.77	0.892	Level 1	
12,700.00	7,221.70	12,540.08	7,117.54	152.51	152.29	63.83	-2,270.80	-5,433.43	236.17	-33.66	269.83	0.875	Level 1	
12,800.00	7,221.20	12,640.08	7,116.98	155.28	155.06	63.81	-2,271.41	-5,533.43	236.18	-38.71	274.89	0.859	Level 1	
12,900.00	7,220.70	12,740.08	7,116.41	158.05	157.84	63.80	-2,272.02	-5,633.43	236.19	-43.76	279.94	0.844	Level 1	
13,000.00	7,220.20	12,840.08	7,115.84	160.82	160.62	63.78	-2,272.64	-5,733.42	236.19	-48.81	285.01	0.829	Level 1	
13,100.00	7,219.70	12,940.08	7,115.27	163.60	163.40	63.76	-2,273.25	-5,833.42	236.20	-53.87	290.07	0.814	Level 1	
13,200.00	7,219.20	13,040.08	7,114.70	166.38	166.19	63.74	-2,273.86	-5,933.41	236.21	-58.93	295.14	0.800	Level 1	
13,300.00	7,218.70	13,140.08	7,114.13	169.16	168.97	63.73	-2,274.48	-6,033.41	236.22	-63.99	300.21	0.787	Level 1	
13,400.00	7,218.20	13,240.08	7,113.57	171.95	171.76	63.71	-2,275.09	-6,133.41	236.23	-69.05	305.28	0.774	Level 1	
13,500.00	7,217.70	13,340.08	7,113.00	174.74	174.56	63.69	-2,275.70	-6,233.40	236.23	-74.12	310.35	0.761	Level 1	
13,600.00	7,217.20	13,440.08	7,112.43	177.53	177.35	63.67	-2,276.31	-6,333.40	236.24	-79.18	315.42	0.749	Level 1	
13,700.00	7,216.70	13,540.08	7,111.86	180.32	180.15	63.66	-2,276.93	-6,433.40	236.25	-84.25	320.50	0.737	Level 1	
13,800.00	7,216.19	13,640.08	7,111.29	183.11	182.94	63.64	-2,277.54	-6,533.39	236.26	-89.32	325.58	0.726	Level 1	
13,900.00	7,215.69	13,740.08	7,110.72	185.91	185.74	63.62	-2,278.15	-6,633.39	236.26	-94.39	330.65	0.715	Level 1	
14,000.00	7,215.19	13,840.08	7,110.15	188.71	188.55	63.60	-2,278.77	-6,733.39	236.27	-99.46	335.73	0.704	Level 1	
14,100.00	7,214.69	13,940.08	7,109.59	191.51	191.35	63.59	-2,279.38	-6,833.38	236.28	-104.53	340.81	0.693	Level 1	
14,200.00	7,214.19	14,040.08	7,109.02	194.31	194.15	63.57	-2,279.99	-6,933.38	236.29	-109.61	345.89	0.683	Level 1	
14,300.00	7,213.69	14,140.08	7,108.45	197.11	196.96	63.55	-2,280.61	-7,033.38	236.30	-114.68	350.98	0.673	Level 1	
14,400.00	7,213.19	14,240.08	7,107.88	199.92	199.77	63.53	-2,281.22	-7,133.37	236.30	-119.75	356.06	0.664	Level 1	
14,500.00	7,212.69	14,340.08	7,107.31	202.72	202.58	63.52	-2,281.83	-7,233.37	236.31	-124.83	361.14	0.654	Level 1	
14,600.00	7,212.19	14,440.08	7,106.74	205.53	205.39	63.50	-2,282.44	-7,333.37	236.32	-129.90	366.22	0.645	Level 1	
14,700.00	7,211.69	14,540.08	7,106.18	208.34	208.20	63.48	-2,283.06	-7,433.36	236.33	-134.98	371.31	0.636	Level 1	
14,800.00	7,211.19	14,640.08	7,105.61	211.15	211.01	63.46	-2,283.67	-7,533.36	236.34	-140.05	376.39	0.628	Level 1	
14,900.00	7,210.69	14,740.08	7,105.04	213.96	213.83	63.45	-2,284.28	-7,633.35	236.34	-145.13	381.47	0.620	Level 1	
15,000.00	7,210.19	14,840.08	7,104.47	216.78	216.65	63.43	-2,284.90	-7,733.35	236.35	-150.21	386.56	0.611	Level 1	
15,100.00	7,209.69	14,940.08	7,103.90	219.59	219.46	63.41	-2,285.51	-7,833.35	236.36	-155.28	391.64	0.604	Level 1	
15,200.00	7,209.18	15,040.08	7,103.33	222.41	222.28	63.40	-2,286.12	-7,933.34	236.37	-160.36	396.73	0.596	Level 1	
15,300.00	7,208.68	15,140.08	7,102.76	225.22	225.10	63.38	-2,286.74	-8,033.34	236.38	-165.43	401.81	0.588	Level 1	
15,400.00	7,208.18	15,240.08	7,102.20	228.04	227.92	63.36	-2,287.35	-8,133.34	236.39	-170.51	406.89	0.581	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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16C-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	15,277.56	7,101.98	229.10	228.98	63.35	-2,287.58	-8,170.81	236.39	-172.41	408.80	0.578 Level 1, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.60	-40.06	-0.28	40.06					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-40.06	-0.28	40.06	33.49	6.57	6.098		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-40.06	-0.28	40.06	33.39	6.67	6.003		
300.00	299.98	298.62	298.60	3.44	3.44	-3.26	-41.76	-0.37	40.04	33.15	6.89	5.813		
400.00	399.84	397.25	397.09	3.59	3.59	-3.33	-46.84	-0.65	39.97	32.76	7.21	5.544		
500.00	499.45	495.87	495.35	3.79	3.78	-3.45	-55.30	-1.11	39.85	32.22	7.63	5.221		
600.00	598.70	594.51	593.26	4.03	4.02	-3.61	-67.14	-1.76	39.69	31.55	8.14	4.875		
700.00	697.47	693.15	690.71	4.31	4.29	-3.83	-82.34	-2.59	39.49	30.76	8.72	4.527		
800.00	795.62	791.79	787.59	4.64	4.61	-4.09	-100.88	-3.61	39.23	29.87	9.36	4.192		
900.00	893.06	890.45	883.78	5.00	4.96	-4.40	-122.74	-4.80	38.94	28.89	10.05	3.876		
1,000.00	989.64	989.11	979.17	5.40	5.35	-4.77	-147.90	-6.18	38.60	27.82	10.78	3.582		
1,100.00	1,085.27	1,087.79	1,073.65	5.83	5.77	-5.20	-176.32	-7.74	38.22	26.68	11.54	3.312		
1,200.00	1,179.82	1,186.49	1,167.11	6.29	6.23	-5.68	-207.99	-9.47	37.80	25.46	12.34	3.064		
1,218.80	1,197.48	1,205.05	1,184.56	6.39	6.32	-5.77	-214.30	-9.82	37.76	25.27	12.49	3.023 CC		
1,300.00	1,273.47	1,285.19	1,259.42	6.79	6.72	-6.09	-242.85	-11.38	38.16	25.00	13.16	2.899		
1,400.00	1,367.06	1,383.76	1,350.36	7.30	7.24	-6.03	-280.81	-13.46	41.77	27.77	14.00	2.983		
1,500.00	1,460.64	1,483.26	1,441.21	7.83	7.79	-5.70	-321.32	-15.68	47.77	32.89	14.88	3.211		
1,600.00	1,554.23	1,583.07	1,532.31	8.38	8.36	-5.44	-362.04	-17.91	53.86	38.07	15.79	3.411		
1,700.00	1,647.82	1,682.88	1,623.41	8.93	8.95	-5.23	-402.76	-20.14	59.95	43.23	16.73	3.585		
1,800.00	1,741.41	1,782.70	1,714.52	9.49	9.55	-5.06	-443.48	-22.37	66.05	48.37	17.68	3.736		
1,900.00	1,835.00	1,882.51	1,805.62	10.05	10.15	-4.91	-484.20	-24.60	72.14	53.49	18.65	3.869		
2,000.00	1,928.59	1,982.33	1,896.72	10.62	10.76	-4.79	-524.92	-26.82	78.23	58.60	19.63	3.985		
2,100.00	2,022.18	2,082.14	1,987.83	11.20	11.38	-4.69	-565.64	-29.05	84.32	63.70	20.62	4.089		
2,200.00	2,115.77	2,181.96	2,078.93	11.78	12.00	-4.60	-606.36	-31.28	90.41	68.79	21.63	4.181		
2,300.00	2,209.36	2,281.77	2,170.03	12.37	12.63	-4.52	-647.08	-33.51	96.51	73.87	22.64	4.263		
2,400.00	2,302.95	2,381.58	2,261.14	12.95	13.26	-4.46	-687.80	-35.74	102.60	78.94	23.66	4.336		
2,500.00	2,396.54	2,481.40	2,352.24	13.54	13.89	-4.40	-728.52	-37.97	108.69	84.01	24.69	4.403		
2,600.00	2,490.13	2,581.21	2,443.34	14.13	14.53	-4.34	-769.24	-40.20	114.79	89.07	25.72	4.463		
2,700.00	2,583.72	2,681.03	2,534.45	14.73	15.17	-4.29	-809.96	-42.43	120.88	94.12	26.76	4.518		
2,800.00	2,677.31	2,780.84	2,625.55	15.32	15.81	-4.25	-850.68	-44.66	126.97	99.17	27.80	4.567		
2,900.00	2,770.90	2,880.65	2,716.65	15.92	16.45	-4.21	-891.40	-46.89	133.07	104.22	28.85	4.613		
3,000.00	2,864.49	2,980.47	2,807.76	16.52	17.10	-4.17	-932.12	-49.12	139.16	109.26	29.90	4.655		
3,100.00	2,958.08	3,080.28	2,898.86	17.12	17.75	-4.14	-972.84	-51.35	145.25	114.30	30.95	4.693		
3,200.00	3,051.67	3,180.10	2,989.96	17.72	18.39	-4.11	-1,013.56	-53.58	151.35	119.34	32.01	4.729		
3,300.00	3,145.26	3,279.91	3,081.07	18.32	19.04	-4.08	-1,054.28	-55.81	157.44	124.38	33.07	4.762		
3,400.00	3,238.85	3,379.72	3,172.17	18.92	19.69	-4.05	-1,095.00	-58.04	163.53	129.41	34.13	4.792		
3,500.00	3,332.44	3,479.54	3,263.27	19.53	20.35	-4.03	-1,135.72	-60.27	169.63	134.44	35.19	4.820		
3,600.00	3,426.03	3,579.35	3,354.38	20.13	21.00	-4.01	-1,176.43	-62.50	175.72	139.47	36.26	4.847		
3,700.00	3,519.62	3,679.17	3,445.48	20.74	21.65	-3.98	-1,217.15	-64.73	181.82	144.49	37.32	4.871		
3,800.00	3,613.21	3,778.98	3,536.58	21.34	22.30	-3.96	-1,257.87	-66.96	187.91	149.52	38.39	4.894		
3,900.00	3,706.80	3,878.80	3,627.69	21.95	22.96	-3.95	-1,298.59	-69.18	194.00	154.54	39.46	4.916		
4,000.00	3,800.39	3,978.61	3,718.79	22.56	23.61	-3.93	-1,339.31	-71.41	200.10	159.56	40.54	4.936		
4,100.00	3,893.98	4,078.42	3,809.89	23.16	24.27	-3.91	-1,380.03	-73.64	206.19	164.58	41.61	4.955		
4,200.00	3,987.57	4,178.24	3,901.00	23.77	24.92	-3.90	-1,420.75	-75.87	212.28	169.60	42.68	4.973		
4,300.00	4,081.16	4,278.05	3,992.10	24.38	25.58	-3.88	-1,461.47	-78.10	218.38	174.62	43.76	4.990		
4,400.00	4,174.75	4,377.87	4,083.20	24.99	26.24	-3.87	-1,502.19	-80.33	224.47	179.63	44.84	5.006		
4,500.00	4,268.34	4,477.68	4,174.31	25.60	26.90	-3.85	-1,542.91	-82.56	230.57	184.65	45.92	5.022		
4,600.00	4,361.93	4,577.49	4,265.41	26.21	27.55	-3.84	-1,583.63	-84.79	236.66	189.67	46.99	5.036		
4,700.00	4,455.52	4,677.31	4,356.51	26.82	28.21	-3.83	-1,624.35	-87.02	242.75	194.68	48.07	5.050		
4,800.00	4,549.11	4,777.12	4,447.62	27.43	28.87	-3.82	-1,665.07	-89.25	248.85	199.69	49.15	5.063		
4,900.00	4,642.70	4,876.94	4,538.72	28.04	29.53	-3.81	-1,705.79	-91.48	254.94	204.71	50.24	5.075		
5,000.00	4,736.29	4,976.75	4,629.82	28.65	30.19	-3.80	-1,746.51	-93.71	261.04	209.72	51.32	5.087		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	5,076.57	4,720.93	29.26	30.85	-3.79	-1,787.23	-95.94	267.13	214.73	52.40	5.098		
5,200.00	4,923.47	5,176.38	4,812.03	29.87	31.51	-3.78	-1,827.95	-98.17	273.22	219.74	53.48	5.109		
5,300.00	5,017.06	5,276.19	4,903.13	30.48	32.17	-3.77	-1,868.67	-100.40	279.32	224.75	54.57	5.119		
5,400.00	5,110.65	5,376.01	4,994.24	31.09	32.83	-3.76	-1,909.39	-102.63	285.41	229.76	55.65	5.129		
5,500.00	5,204.24	5,475.82	5,085.34	31.70	33.49	-3.75	-1,950.11	-104.86	291.50	234.77	56.74	5.138		
5,600.00	5,297.83	5,575.64	5,176.44	32.32	34.15	-3.75	-1,990.83	-107.09	297.60	239.78	57.82	5.147		
5,700.00	5,391.42	5,675.45	5,267.55	32.93	34.81	-3.74	-2,031.55	-109.31	303.69	244.79	58.91	5.155		
5,800.00	5,485.01	5,775.26	5,358.65	33.54	35.47	-3.73	-2,072.26	-111.54	309.79	249.79	59.99	5.164		
5,900.00	5,578.60	5,875.08	5,449.75	34.15	36.13	-3.72	-2,112.98	-113.77	315.88	254.80	61.08	5.172		
6,000.00	5,672.19	5,974.89	5,540.86	34.77	36.79	-3.72	-2,153.70	-116.00	321.97	259.81	62.17	5.179		
6,100.00	5,765.78	6,074.71	5,631.96	35.38	37.45	-3.71	-2,194.42	-118.23	328.07	264.81	63.25	5.187		
6,200.00	5,859.37	6,174.52	5,723.06	35.99	38.12	-3.71	-2,235.14	-120.46	334.16	269.82	64.34	5.194		
6,300.00	5,952.96	6,274.33	5,814.17	36.60	38.78	-3.70	-2,275.86	-122.69	340.26	274.83	65.43	5.200		
6,400.00	6,046.55	6,374.15	5,905.27	37.22	39.44	-3.69	-2,316.58	-124.92	346.35	279.83	66.52	5.207		
6,500.00	6,140.14	6,473.96	5,996.37	37.83	40.10	-3.69	-2,357.30	-127.15	352.44	284.84	67.61	5.213		
6,600.00	6,233.73	6,573.78	6,087.48	38.44	40.76	-3.68	-2,398.02	-129.38	358.54	289.84	68.70	5.219		
6,700.00	6,327.32	6,673.59	6,178.58	39.06	41.42	-3.68	-2,438.74	-131.61	364.63	294.85	69.78	5.225		
6,800.00	6,420.91	6,773.41	6,269.68	39.67	42.09	-3.67	-2,479.46	-133.84	370.73	299.85	70.87	5.231		
6,900.00	6,514.50	6,873.22	6,360.79	40.28	42.75	-3.67	-2,520.18	-136.07	376.82	304.86	71.96	5.236		
7,000.00	6,608.09	6,973.03	6,451.89	40.90	43.41	-3.66	-2,560.90	-138.30	382.91	309.86	73.05	5.242		
7,100.00	6,701.63	7,072.82	6,542.97	41.51	44.07	-13.04	-2,601.61	-140.53	389.01	314.86	74.15	5.246		
7,200.00	6,793.85	7,172.77	6,634.04	42.10	44.73	-33.78	-2,642.34	-145.76	395.19	319.87	75.32	5.247		
7,300.00	6,882.50	7,274.72	6,725.11	42.64	45.37	-48.27	-2,683.19	-165.96	401.51	324.96	76.55	5.245		
7,400.00	6,965.41	7,378.75	6,813.74	43.12	45.96	-57.88	-2,723.10	-202.70	407.78	329.99	77.79	5.242		
7,500.00	7,040.53	7,484.89	6,897.27	43.53	46.47	-64.41	-2,760.85	-255.97	413.77	334.80	78.97	5.240		
7,600.00	7,106.00	7,593.07	6,972.84	43.89	46.92	-68.95	-2,795.19	-325.14	419.24	339.17	80.07	5.236		
7,700.00	7,160.23	7,703.14	7,037.59	44.20	47.31	-72.14	-2,824.81	-408.90	423.98	342.84	81.13	5.226		
7,800.00	7,201.86	7,814.85	7,088.83	44.48	47.63	-74.33	-2,848.50	-505.13	427.76	345.49	82.27	5.199		
7,900.00	7,229.88	7,927.84	7,124.21	44.73	47.90	-75.71	-2,865.18	-610.97	430.42	346.80	83.62	5.148		
8,000.00	7,243.60	8,041.67	7,142.01	44.99	48.15	-76.39	-2,874.07	-722.90	431.81	346.54	85.26	5.064		
8,100.00	7,244.73	8,148.69	7,143.73	45.29	48.39	-76.48	-2,875.72	-829.85	432.00	344.68	87.32	4.947		
8,200.00	7,244.23	8,248.69	7,143.19	45.74	48.70	-76.47	-2,876.31	-929.84	432.01	342.30	89.71	4.815		
8,300.00	7,243.73	8,348.69	7,142.65	46.38	49.12	-76.47	-2,876.90	-1,029.84	432.02	339.64	92.38	4.677		
8,400.00	7,243.23	8,448.69	7,142.11	47.29	49.72	-76.46	-2,877.49	-1,129.84	432.03	336.73	95.30	4.533		
8,500.00	7,242.73	8,548.69	7,141.57	48.46	50.56	-76.46	-2,878.07	-1,229.83	432.04	333.60	98.44	4.389		
8,600.00	7,242.23	8,648.69	7,141.03	49.87	51.65	-76.45	-2,878.66	-1,329.83	432.05	330.25	101.80	4.244		
8,700.00	7,241.73	8,748.69	7,140.48	51.48	52.99	-76.45	-2,879.25	-1,429.83	432.06	326.72	105.34	4.101		
8,800.00	7,241.23	8,848.69	7,139.94	53.24	54.54	-76.44	-2,879.84	-1,529.82	432.07	323.01	109.06	3.962		
8,900.00	7,240.73	8,948.69	7,139.40	55.13	56.27	-76.44	-2,880.43	-1,629.82	432.08	319.16	112.92	3.826		
9,000.00	7,240.23	9,048.69	7,138.86	57.11	58.13	-76.43	-2,881.01	-1,729.82	432.09	315.16	116.93	3.695		
9,100.00	7,239.73	9,148.69	7,138.32	59.19	60.11	-76.43	-2,881.60	-1,829.81	432.10	311.04	121.05	3.569		
9,200.00	7,239.23	9,248.69	7,137.78	61.34	62.18	-76.42	-2,882.19	-1,929.81	432.11	306.81	125.29	3.449		
9,300.00	7,238.72	9,348.69	7,137.24	63.55	64.32	-76.42	-2,882.78	-2,029.81	432.11	302.48	129.63	3.333		
9,400.00	7,238.22	9,448.69	7,136.70	65.81	66.53	-76.41	-2,883.37	-2,129.80	432.12	298.06	134.06	3.223		
9,500.00	7,237.72	9,548.69	7,136.16	68.13	68.79	-76.41	-2,883.95	-2,229.80	432.13	293.56	138.58	3.118		
9,600.00	7,237.22	9,648.69	7,135.61	70.48	71.11	-76.40	-2,884.54	-2,329.80	432.14	288.98	143.17	3.018		
9,700.00	7,236.72	9,748.69	7,135.07	72.88	73.46	-76.40	-2,885.13	-2,429.79	432.15	284.33	147.82	2.923		
9,800.00	7,236.22	9,848.69	7,134.53	75.31	75.86	-76.39	-2,885.72	-2,529.79	432.16	279.62	152.54	2.833		
9,900.00	7,235.72	9,948.69	7,133.99	77.77	78.29	-76.39	-2,886.31	-2,629.79	432.17	274.86	157.31	2.747		
10,000.00	7,235.22	10,048.69	7,133.45	80.26	80.75	-76.38	-2,886.89	-2,729.79	432.18	270.05	162.13	2.666		
10,100.00	7,234.72	10,148.69	7,132.91	82.77	83.23	-76.37	-2,887.48	-2,829.78	432.19	265.19	167.00	2.588		
10,200.00	7,234.22	10,248.69	7,132.37	85.31	85.75	-76.37	-2,888.07	-2,929.78	432.20	260.29	171.91	2.514		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34N-16C-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.00	7,233.72	10,348.69	7,131.83	87.86	88.28	-76.36	-2,888.66	-3,029.78	432.21	255.34	176.86	2.444	
10,400.00	7,233.22	10,448.69	7,131.29	90.44	90.83	-76.36	-2,889.25	-3,129.77	432.22	250.37	181.85	2.377	
10,500.00	7,232.72	10,548.69	7,130.75	93.03	93.40	-76.35	-2,889.83	-3,229.77	432.23	245.36	186.87	2.313	
10,600.00	7,232.22	10,648.69	7,130.20	95.64	95.99	-76.35	-2,890.42	-3,329.77	432.23	240.32	191.92	2.252	
10,700.00	7,231.72	10,748.69	7,129.66	98.26	98.60	-76.34	-2,891.01	-3,429.76	432.24	235.25	196.99	2.194	
10,800.00	7,231.21	10,848.69	7,129.12	100.89	101.22	-76.34	-2,891.60	-3,529.76	432.25	230.16	202.10	2.139	
10,900.00	7,230.71	10,948.69	7,128.58	103.54	103.85	-76.33	-2,892.18	-3,629.76	432.26	225.04	207.22	2.086	
11,000.00	7,230.21	11,048.69	7,128.04	106.20	106.49	-76.33	-2,892.77	-3,729.75	432.27	219.90	212.37	2.035	
11,100.00	7,229.71	11,148.69	7,127.50	108.87	109.15	-76.32	-2,893.36	-3,829.75	432.28	214.74	217.54	1.987	
11,200.00	7,229.21	11,248.69	7,126.96	111.54	111.81	-76.32	-2,893.95	-3,929.75	432.29	209.56	222.73	1.941	
11,300.00	7,228.71	11,348.69	7,126.42	114.23	114.49	-76.31	-2,894.54	-4,029.74	432.30	204.37	227.93	1.897	
11,400.00	7,228.21	11,448.69	7,125.88	116.92	117.17	-76.31	-2,895.12	-4,129.74	432.31	199.15	233.16	1.854	
11,500.00	7,227.71	11,548.69	7,125.33	119.63	119.86	-76.30	-2,895.71	-4,229.74	432.32	193.93	238.39	1.813	
11,600.00	7,227.21	11,648.69	7,124.79	122.34	122.56	-76.30	-2,896.30	-4,329.73	432.33	188.68	243.65	1.774	
11,700.00	7,226.71	11,748.69	7,124.25	125.05	125.27	-76.29	-2,896.89	-4,429.73	432.34	183.43	248.91	1.737	
11,800.00	7,226.21	11,848.69	7,123.71	127.78	127.98	-76.29	-2,897.48	-4,529.73	432.35	178.16	254.19	1.701	
11,900.00	7,225.71	11,948.69	7,123.17	130.51	130.70	-76.28	-2,898.06	-4,629.72	432.36	172.88	259.48	1.666	
12,000.00	7,225.21	12,048.69	7,122.63	133.24	133.43	-76.28	-2,898.65	-4,729.72	432.37	167.59	264.78	1.633	
12,100.00	7,224.71	12,148.69	7,122.09	135.98	136.16	-76.27	-2,899.24	-4,829.72	432.37	162.28	270.09	1.601	
12,200.00	7,224.21	12,248.69	7,121.55	138.72	138.90	-76.27	-2,899.83	-4,929.72	432.38	156.97	275.41	1.570	
12,300.00	7,223.70	12,348.69	7,121.01	141.47	141.64	-76.26	-2,900.42	-5,029.71	432.39	151.65	280.74	1.540	
12,400.00	7,223.20	12,448.69	7,120.46	144.23	144.39	-76.25	-2,901.00	-5,129.71	432.40	146.32	286.08	1.511	
12,500.00	7,222.70	12,548.69	7,119.92	146.98	147.14	-76.25	-2,901.59	-5,229.71	432.41	140.98	291.43	1.484 Level 3	
12,600.00	7,222.20	12,648.69	7,119.38	149.74	149.89	-76.24	-2,902.18	-5,329.70	432.42	135.64	296.79	1.457 Level 3	
12,700.00	7,221.70	12,748.69	7,118.84	152.51	152.65	-76.24	-2,902.77	-5,429.70	432.43	130.28	302.15	1.431 Level 3	
12,800.00	7,221.20	12,848.69	7,118.30	155.28	155.41	-76.23	-2,903.36	-5,529.70	432.44	124.92	307.52	1.406 Level 3	
12,900.00	7,220.70	12,948.69	7,117.76	158.05	158.18	-76.23	-2,903.94	-5,629.69	432.45	119.56	312.89	1.382 Level 3	
13,000.00	7,220.20	13,048.69	7,117.22	160.82	160.95	-76.22	-2,904.53	-5,729.69	432.46	114.18	318.28	1.359 Level 3	
13,100.00	7,219.70	13,148.69	7,116.68	163.60	163.72	-76.22	-2,905.12	-5,829.69	432.47	108.80	323.66	1.336 Level 3	
13,200.00	7,219.20	13,248.69	7,116.14	166.38	166.49	-76.21	-2,905.71	-5,929.68	432.48	103.42	329.06	1.314 Level 3	
13,300.00	7,218.70	13,348.69	7,115.59	169.16	169.27	-76.21	-2,906.30	-6,029.68	432.49	98.03	334.46	1.293 Level 3	
13,400.00	7,218.20	13,448.69	7,115.05	171.95	172.05	-76.20	-2,906.88	-6,129.68	432.50	92.63	339.86	1.273 Level 3	
13,500.00	7,217.70	13,548.69	7,114.51	174.74	174.83	-76.20	-2,907.47	-6,229.67	432.51	87.23	345.27	1.253 Level 3	
13,600.00	7,217.20	13,648.69	7,113.97	177.53	177.62	-76.19	-2,908.06	-6,329.67	432.52	81.83	350.69	1.233 Level 2	
13,700.00	7,216.70	13,748.69	7,113.43	180.32	180.41	-76.19	-2,908.65	-6,429.67	432.52	76.42	356.10	1.215 Level 2	
13,800.00	7,216.19	13,848.69	7,112.89	183.11	183.20	-76.18	-2,909.23	-6,529.66	432.53	71.01	361.53	1.196 Level 2	
13,900.00	7,215.69	13,948.69	7,112.35	185.91	185.99	-76.18	-2,909.82	-6,629.66	432.54	65.59	366.95	1.179 Level 2	
14,000.00	7,215.19	14,048.69	7,111.81	188.71	188.78	-76.17	-2,910.41	-6,729.66	432.55	60.17	372.38	1.162 Level 2	
14,100.00	7,214.69	14,148.69	7,111.27	191.51	191.58	-76.17	-2,911.00	-6,829.65	432.56	54.75	377.82	1.145 Level 2	
14,200.00	7,214.19	14,248.69	7,110.73	194.31	194.38	-76.16	-2,911.59	-6,929.65	432.57	49.32	383.25	1.129 Level 2	
14,300.00	7,213.69	14,348.69	7,110.18	197.11	197.18	-76.16	-2,912.17	-7,029.65	432.58	43.89	388.69	1.113 Level 2	
14,400.00	7,213.19	14,448.69	7,109.64	199.92	199.98	-76.15	-2,912.76	-7,129.64	432.59	38.45	394.14	1.098 Level 2	
14,500.00	7,212.69	14,548.69	7,109.10	202.72	202.78	-76.15	-2,913.35	-7,229.64	432.60	33.02	399.58	1.083 Level 2	
14,600.00	7,212.19	14,648.69	7,108.56	205.53	205.59	-76.14	-2,913.94	-7,329.64	432.61	27.58	405.03	1.068 Level 2	
14,700.00	7,211.69	14,748.69	7,108.02	208.34	208.39	-76.14	-2,914.53	-7,429.64	432.62	22.13	410.49	1.054 Level 2	
14,800.00	7,211.19	14,848.69	7,107.48	211.15	211.20	-76.13	-2,915.11	-7,529.63	432.63	16.69	415.94	1.040 Level 2	
14,900.00	7,210.69	14,948.69	7,106.94	213.96	214.01	-76.12	-2,915.70	-7,629.63	432.64	11.24	421.40	1.027 Level 2	
15,000.00	7,210.19	15,048.69	7,106.40	216.78	216.82	-76.12	-2,916.29	-7,729.63	432.65	5.79	426.86	1.014 Level 2	
15,100.00	7,209.69	15,148.69	7,105.86	219.59	219.63	-76.11	-2,916.88	-7,829.62	432.66	0.34	432.32	1.001 Level 2	
15,200.00	7,209.18	15,248.69	7,105.31	222.41	222.44	-76.11	-2,917.47	-7,929.62	432.67	-5.12	437.78	0.988 Level 1	
15,300.00	7,208.68	15,348.69	7,104.77	225.22	225.26	-76.10	-2,918.05	-8,029.62	432.68	-10.57	443.25	0.976 Level 1	
15,400.00	7,208.18	15,448.69	7,104.23	228.04	228.07	-76.10	-2,918.64	-8,129.61	432.69	-16.03	448.72	0.964 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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34N-16C-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	15,486.17	7,104.03	229.10	229.13	-76.10	-2,918.86	-8,167.09	432.69	-18.08	450.77	0.960 Level 1, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	3.00	0.00	3.28	0.01	0.49	420.05	3.62	420.06					
100.00	100.00	103.00	100.00	3.28	0.19	0.49	420.05	3.62	420.06	416.59	3.47	120.939		
200.00	200.00	203.00	200.00	3.34	0.63	0.49	420.05	3.62	420.06	416.10	3.96	105.957 CC, ES		
300.00	299.98	302.98	299.98	3.44	1.07	176.87	420.05	3.62	421.81	417.30	4.51	93.606		
400.00	399.84	402.84	399.84	3.59	1.50	176.90	420.05	3.62	427.03	421.94	5.10	83.789		
500.00	499.45	502.45	499.45	3.79	1.94	176.95	420.05	3.62	435.73	430.00	5.73	75.994		
600.00	598.70	588.05	585.04	4.03	2.32	176.98	421.39	3.43	449.45	443.09	6.36	70.617		
700.00	697.47	672.60	669.50	4.31	2.69	176.98	425.20	2.92	469.50	462.47	7.03	66.739		
800.00	795.62	755.31	751.97	4.64	3.06	176.94	431.31	2.08	495.75	488.03	7.73	64.171		
900.00	893.06	835.74	831.97	5.00	3.42	176.88	439.52	0.97	528.03	519.60	8.42	62.684		
1,000.00	989.64	913.51	909.07	5.40	3.76	176.79	449.57	-0.40	566.12	557.00	9.12	62.080		
1,100.00	1,085.27	988.28	982.92	5.83	4.10	176.69	461.18	-1.98	609.80	600.00	9.80	62.195		
1,200.00	1,179.82	1,065.98	1,059.35	6.29	4.45	176.57	475.08	-3.87	658.65	648.15	10.50	62.742		
1,300.00	1,273.47	1,151.67	1,143.55	6.79	4.83	176.50	490.77	-6.00	710.20	698.97	11.23	63.221		
1,400.00	1,367.06	1,237.26	1,227.67	7.30	5.21	176.46	506.44	-8.14	761.91	749.94	11.97	63.647		
1,500.00	1,460.64	1,322.86	1,311.80	7.83	5.61	176.43	522.12	-10.27	813.61	800.89	12.72	63.950		
1,600.00	1,554.23	1,408.45	1,395.92	8.38	6.00	176.40	537.79	-12.40	865.31	851.83	13.49	64.159		
1,700.00	1,647.82	1,494.05	1,480.04	8.93	6.40	176.38	553.47	-14.53	917.02	902.75	14.26	64.297		
1,800.00	1,741.41	1,579.65	1,564.16	9.49	6.80	176.35	569.14	-16.67	968.72	953.67	15.05	64.380		
1,900.00	1,835.00	1,665.24	1,648.28	10.05	7.20	176.33	584.81	-18.80	1,020.43	1,004.59	15.84	64.423		
2,000.00	1,928.59	1,750.84	1,732.40	10.62	7.60	176.32	600.49	-20.93	1,072.13	1,055.49	16.64	64.436		
2,100.00	2,022.18	1,836.43	1,816.52	11.20	8.00	176.30	616.16	-23.06	1,123.83	1,106.39	17.44	64.425		
2,200.00	2,115.77	1,922.03	1,900.64	11.78	8.41	176.28	631.84	-25.20	1,175.54	1,157.28	18.25	64.396		
2,300.00	2,209.36	2,007.62	1,984.77	12.37	8.81	176.27	647.51	-27.33	1,227.24	1,208.17	19.07	64.355		
2,400.00	2,302.95	2,093.22	2,068.89	12.95	9.21	176.26	663.19	-29.46	1,278.95	1,259.06	19.89	64.304		
2,500.00	2,396.54	2,178.81	2,153.01	13.54	9.62	176.25	678.86	-31.59	1,330.65	1,309.94	20.71	64.246		
2,600.00	2,490.13	2,264.41	2,237.13	14.13	10.02	176.23	694.54	-33.73	1,382.35	1,360.82	21.54	64.184		
2,700.00	2,583.72	2,350.01	2,321.25	14.73	10.43	176.22	710.21	-35.86	1,434.06	1,411.69	22.37	64.118		
2,800.00	2,677.31	2,435.60	2,405.37	15.32	10.83	176.21	725.88	-37.99	1,485.76	1,462.57	23.20	64.049		
2,900.00	2,770.90	2,521.20	2,489.49	15.92	11.24	176.21	741.56	-40.12	1,537.47	1,513.44	24.03	63.979		
3,000.00	2,864.49	2,606.79	2,573.61	16.52	11.64	176.20	757.23	-42.26	1,589.17	1,564.31	24.87	63.909		
3,100.00	2,958.08	2,707.61	2,657.73	17.12	12.12	176.19	772.91	-44.39	1,640.88	1,615.10	25.77	63.664		
3,200.00	3,051.67	2,777.98	2,741.86	17.72	12.46	176.18	788.58	-46.52	1,692.58	1,666.04	26.54	63.769		
3,300.00	3,145.26	2,863.58	2,825.98	18.32	12.86	176.18	804.26	-48.65	1,744.29	1,716.90	27.38	63.700		
3,400.00	3,238.85	2,949.18	2,910.10	18.92	13.27	176.17	819.93	-50.78	1,795.99	1,767.77	28.22	63.632		
3,500.00	3,332.44	3,034.77	2,994.22	19.53	13.68	176.16	835.61	-52.92	1,847.70	1,818.63	29.07	63.565		
3,600.00	3,426.03	3,120.37	3,078.34	20.13	14.08	176.16	851.28	-55.05	1,899.40	1,869.49	29.91	63.499		
3,700.00	3,519.62	3,205.96	3,162.46	20.74	14.49	176.15	866.95	-57.18	1,951.10	1,920.35	30.76	63.434		
3,800.00	3,613.21	3,308.44	3,246.58	21.34	14.98	176.15	882.63	-59.31	2,002.81	1,971.13	31.68	63.214		
3,900.00	3,706.80	3,377.15	3,330.70	21.95	15.30	176.14	898.30	-61.45	2,054.51	2,022.06	32.45	63.310		
4,000.00	3,800.39	3,462.75	3,414.83	22.56	15.71	176.14	913.98	-63.58	2,106.22	2,072.92	33.30	63.250		
4,100.00	3,893.98	3,548.34	3,498.95	23.16	16.12	176.13	929.65	-65.71	2,157.92	2,123.77	34.15	63.191		
4,200.00	3,987.57	3,633.94	3,583.07	23.77	16.53	176.13	945.33	-67.84	2,209.63	2,174.63	35.00	63.134		
4,300.00	4,081.16	3,719.54	3,667.19	24.38	16.93	176.13	961.00	-69.98	2,261.33	2,225.48	35.85	63.078		
4,400.00	4,174.75	3,805.13	3,751.31	24.99	17.34	176.12	976.68	-72.11	2,313.04	2,276.34	36.70	63.024		
4,500.00	4,268.34	3,909.27	3,835.43	25.60	17.84	176.12	992.35	-74.24	2,364.74	2,327.10	37.64	62.826		
4,600.00	4,361.93	3,976.32	3,919.55	26.21	18.16	176.11	1,008.02	-76.37	2,416.45	2,378.04	38.41	62.919		
4,700.00	4,455.52	4,061.92	4,003.67	26.82	18.56	176.11	1,023.70	-78.51	2,468.15	2,428.89	39.26	62.869		
4,800.00	4,549.11	4,147.51	4,087.79	27.43	18.97	176.11	1,039.37	-80.64	2,519.86	2,479.74	40.11	62.820		
4,900.00	4,642.70	4,233.11	4,171.92	28.04	19.38	176.10	1,055.05	-82.77	2,571.56	2,530.59	40.97	62.772		
5,000.00	4,736.29	4,318.71	4,256.04	28.65	19.79	176.10	1,070.72	-84.90	2,623.26	2,581.44	41.82	62.725		
5,100.00	4,829.88	4,404.30	4,340.16	29.26	20.20	176.10	1,086.40	-87.03	2,674.97	2,632.29	42.68	62.680		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,489.90	4,424.28	29.87	20.60	176.10	1,102.07	-89.17	2,726.67	2,683.14	43.53	62.635		
5,300.00	5,017.06	4,575.49	4,508.40	30.48	21.01	176.09	1,117.75	-91.30	2,778.38	2,733.99	44.39	62.592		
5,400.00	5,110.65	4,661.09	4,592.52	31.09	21.42	176.09	1,133.42	-93.43	2,830.08	2,784.84	45.25	62.550		
5,500.00	5,204.24	4,746.68	4,676.64	31.70	21.83	176.09	1,149.09	-95.56	2,881.79	2,835.69	46.10	62.508		
5,600.00	5,297.83	4,832.28	4,760.76	32.32	22.24	176.09	1,164.77	-97.70	2,933.49	2,886.53	46.96	62.468		
5,700.00	5,391.42	4,917.87	4,844.89	32.93	22.65	176.08	1,180.44	-99.83	2,985.20	2,937.38	47.82	62.428		
5,800.00	5,485.01	5,003.47	4,929.01	33.54	23.05	176.08	1,196.12	-101.96	3,036.90	2,988.23	48.68	62.390		
5,900.00	5,578.60	5,089.07	5,013.13	34.15	23.46	176.08	1,211.79	-104.09	3,088.61	3,039.07	49.53	62.352		
6,000.00	5,672.19	5,174.66	5,097.25	34.77	23.87	176.08	1,227.47	-106.23	3,140.31	3,089.92	50.39	62.315		
6,100.00	5,765.78	5,260.26	5,181.37	35.38	24.28	176.08	1,243.14	-108.36	3,192.02	3,140.76	51.25	62.279		
6,200.00	5,859.37	5,345.85	5,265.49	35.99	24.69	176.07	1,258.82	-110.49	3,243.72	3,191.61	52.11	62.244		
6,300.00	5,952.96	5,431.45	5,349.61	36.60	25.09	176.07	1,274.49	-112.62	3,295.43	3,242.45	52.97	62.209		
6,400.00	6,046.55	5,517.04	5,433.73	37.22	25.50	176.07	1,290.17	-114.76	3,347.13	3,293.30	53.83	62.175		
6,500.00	6,140.14	5,602.64	5,517.86	37.83	25.91	176.07	1,305.84	-116.89	3,398.84	3,344.14	54.69	62.142		
6,600.00	6,233.73	5,688.23	5,601.98	38.44	26.32	176.07	1,321.51	-119.02	3,450.54	3,394.98	55.56	62.109		
6,700.00	6,327.32	5,773.83	5,686.10	39.06	26.73	176.06	1,337.19	-121.15	3,502.25	3,445.83	56.42	62.077		
6,800.00	6,420.91	5,859.43	5,770.22	39.67	27.14	176.06	1,352.86	-123.29	3,553.95	3,496.67	57.28	62.045		
6,900.00	6,514.50	5,945.02	5,854.34	40.28	27.55	176.06	1,368.54	-125.42	3,605.66	3,547.51	58.14	62.014		
7,000.00	6,608.09	6,030.62	5,938.46	40.90	27.95	176.06	1,384.21	-127.55	3,657.36	3,598.35	59.00	61.984		
7,100.00	6,701.63	6,116.19	6,022.56	41.51	28.36	164.48	1,399.88	-129.68	3,709.05	3,649.18	59.87	61.954		
7,200.00	6,793.85	6,200.87	6,105.78	42.10	28.77	139.71	1,415.39	-131.79	3,760.19	3,699.47	60.72	61.929		
7,300.00	6,882.50	6,282.64	6,186.15	42.64	29.16	121.82	1,430.36	-133.83	3,809.73	3,748.20	61.52	61.922		
7,400.00	6,965.41	6,359.50	6,261.68	43.12	29.52	109.28	1,444.44	-135.74	3,856.77	3,794.51	62.27	61.937		
7,500.00	7,040.53	6,429.55	6,330.53	43.53	29.86	100.30	1,457.27	-137.49	3,900.63	3,837.68	62.95	61.962		
7,600.00	7,106.00	6,508.93	6,390.98	43.89	30.24	93.68	1,468.53	-139.02	3,940.74	3,877.07	63.68	61.888		
7,700.00	7,160.23	6,542.54	6,441.57	44.20	30.40	88.72	1,477.96	-140.30	3,976.68	3,912.46	64.22	61.920		
7,800.00	7,201.86	6,582.69	6,481.03	44.48	30.59	84.99	1,485.31	-141.30	4,008.09	3,943.20	64.88	61.773		
7,900.00	7,229.88	6,610.54	6,508.40	44.73	30.72	82.22	1,490.41	-142.00	4,034.65	3,969.04	65.61	61.497		
8,000.00	7,243.60	6,625.40	6,523.00	44.99	30.79	80.27	1,493.13	-142.37	4,056.08	3,989.67	66.41	61.079		
8,100.00	7,244.73	6,628.79	6,526.32	45.29	30.81	79.63	1,493.75	-142.45	4,073.20	4,005.91	67.29	60.532		
8,200.00	7,244.23	7,954.35	7,258.10	45.74	40.41	90.20	1,616.84	-1,000.49	4,073.71	3,991.72	81.99	49.687		
8,300.00	7,243.73	8,054.35	7,257.68	46.38	42.00	90.20	1,615.18	-1,100.47	4,072.64	3,987.67	84.97	47.931		
8,400.00	7,243.23	8,154.34	7,257.26	47.29	43.72	90.20	1,613.52	-1,200.45	4,071.57	3,983.35	88.22	46.153		
8,500.00	7,242.73	8,254.34	7,256.84	48.46	45.55	90.20	1,611.86	-1,300.42	4,070.50	3,978.79	91.71	44.384		
8,600.00	7,242.23	8,354.33	7,256.42	49.87	47.48	90.20	1,610.20	-1,400.40	4,069.43	3,974.02	95.41	42.650		
8,700.00	7,241.73	8,454.33	7,256.00	51.48	49.51	90.20	1,608.54	-1,500.38	4,068.36	3,969.05	99.31	40.966		
8,800.00	7,241.23	8,554.32	7,255.58	53.24	51.61	90.21	1,606.88	-1,600.36	4,067.29	3,963.92	103.37	39.345		
8,900.00	7,240.73	8,654.31	7,255.16	55.13	53.79	90.21	1,605.23	-1,700.34	4,066.22	3,958.63	107.59	37.794		
9,000.00	7,240.23	8,754.31	7,254.74	57.11	56.02	90.21	1,603.57	-1,800.32	4,065.15	3,953.22	111.93	36.317		
9,100.00	7,239.73	8,854.30	7,254.32	59.19	58.31	90.21	1,601.91	-1,900.30	4,064.08	3,947.68	116.40	34.915		
9,200.00	7,239.23	8,954.30	7,253.90	61.34	60.64	90.21	1,600.25	-2,000.28	4,063.01	3,942.04	120.97	33.587		
9,300.00	7,238.72	9,054.29	7,253.48	63.55	63.02	90.21	1,598.59	-2,100.26	4,061.94	3,936.31	125.63	32.332		
9,400.00	7,238.22	9,154.29	7,253.06	65.81	65.44	90.21	1,596.93	-2,200.24	4,060.87	3,930.49	130.38	31.147		
9,500.00	7,237.72	9,254.28	7,252.64	68.13	67.89	90.21	1,595.28	-2,300.22	4,059.80	3,924.60	135.20	30.028		
9,600.00	7,237.22	9,354.27	7,252.22	70.48	70.38	90.21	1,593.62	-2,400.20	4,058.73	3,918.64	140.09	28.972		
9,700.00	7,236.72	9,454.27	7,251.80	72.88	72.89	90.22	1,591.96	-2,500.18	4,057.66	3,912.62	145.04	27.976		
9,800.00	7,236.22	9,554.26	7,251.38	75.31	75.42	90.22	1,590.30	-2,600.16	4,056.59	3,906.55	150.04	27.036		
9,900.00	7,235.72	9,654.26	7,250.96	77.77	77.98	90.22	1,588.64	-2,700.14	4,055.52	3,900.42	155.09	26.149		
10,000.00	7,235.22	9,754.25	7,250.54	80.26	80.55	90.22	1,586.98	-2,800.12	4,054.45	3,894.26	160.19	25.310		
10,100.00	7,234.72	9,854.25	7,250.12	82.77	83.15	90.22	1,585.32	-2,900.10	4,053.38	3,888.05	165.33	24.517		
10,200.00	7,234.22	9,954.24	7,249.70	85.31	85.76	90.22	1,583.67	-3,000.08	4,052.31	3,881.81	170.50	23.767		
10,300.00	7,233.72	10,054.23	7,249.28	87.86	88.39	90.22	1,582.01	-3,100.06	4,051.24	3,875.53	175.71	23.056		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	10,154.23	7,248.86	90.44	91.03	90.22	1,580.35	-3,200.04	4,050.17	3,869.22	180.95	22.383		
10,500.00	7,232.72	10,254.22	7,248.44	93.03	93.68	90.23	1,578.69	-3,300.02	4,049.10	3,862.88	186.21	21.744		
10,600.00	7,232.22	10,354.22	7,248.02	95.64	96.34	90.23	1,577.03	-3,400.00	4,048.03	3,856.52	191.51	21.138		
10,700.00	7,231.72	10,454.21	7,247.60	98.26	99.02	90.23	1,575.37	-3,499.98	4,046.96	3,850.14	196.82	20.562		
10,800.00	7,231.21	10,554.20	7,247.17	100.89	101.70	90.23	1,573.71	-3,599.96	4,045.89	3,843.73	202.16	20.014		
10,900.00	7,230.71	10,654.20	7,246.75	103.54	104.40	90.23	1,572.06	-3,699.94	4,044.82	3,837.30	207.51	19.492		
11,000.00	7,230.21	10,754.19	7,246.33	106.20	107.10	90.23	1,570.40	-3,799.91	4,043.75	3,830.86	212.89	18.995		
11,100.00	7,229.71	10,854.19	7,245.91	108.87	109.81	90.23	1,568.74	-3,899.89	4,042.68	3,824.39	218.28	18.520		
11,200.00	7,229.21	10,954.18	7,245.49	111.54	112.53	90.23	1,567.08	-3,999.87	4,041.61	3,817.91	223.69	18.068		
11,300.00	7,228.71	11,054.18	7,245.07	114.23	115.25	90.24	1,565.42	-4,099.85	4,040.54	3,811.42	229.11	17.635		
11,400.00	7,228.21	11,154.17	7,244.65	116.92	117.98	90.24	1,563.76	-4,199.83	4,039.47	3,804.91	234.55	17.222		
11,500.00	7,227.71	11,254.16	7,244.23	119.63	120.72	90.24	1,562.10	-4,299.81	4,038.40	3,798.39	240.00	16.826		
11,600.00	7,227.21	11,354.16	7,243.81	122.34	123.46	90.24	1,560.45	-4,399.79	4,037.33	3,791.86	245.46	16.448		
11,700.00	7,226.71	11,454.15	7,243.39	125.05	126.20	90.24	1,558.79	-4,499.77	4,036.26	3,785.32	250.94	16.085		
11,800.00	7,226.21	11,554.15	7,242.97	127.78	128.96	90.24	1,557.13	-4,599.75	4,035.19	3,778.76	256.42	15.737		
11,900.00	7,225.71	11,654.14	7,242.55	130.51	131.71	90.24	1,555.47	-4,699.73	4,034.12	3,772.20	261.92	15.402		
12,000.00	7,225.21	11,754.14	7,242.13	133.24	134.47	90.24	1,553.81	-4,799.71	4,033.05	3,765.63	267.42	15.081		
12,100.00	7,224.71	11,854.13	7,241.71	135.98	137.23	90.24	1,552.15	-4,899.69	4,031.97	3,759.05	272.93	14.773		
12,200.00	7,224.21	11,954.12	7,241.29	138.72	140.00	90.25	1,550.49	-4,999.67	4,030.90	3,752.46	278.45	14.476		
12,300.00	7,223.70	12,054.12	7,240.87	141.47	142.77	90.25	1,548.84	-5,099.65	4,029.83	3,745.86	283.98	14.191		
12,400.00	7,223.20	12,154.11	7,240.45	144.23	145.55	90.25	1,547.18	-5,199.63	4,028.76	3,739.25	289.51	13.916		
12,500.00	7,222.70	12,254.11	7,240.03	146.98	148.32	90.25	1,545.52	-5,299.61	4,027.69	3,732.64	295.05	13.651		
12,600.00	7,222.20	12,354.10	7,239.61	149.74	151.10	90.25	1,543.86	-5,399.59	4,026.62	3,726.02	300.60	13.395		
12,700.00	7,221.70	12,454.10	7,239.19	152.51	153.89	90.25	1,542.20	-5,499.57	4,025.55	3,719.40	306.15	13.149		
12,800.00	7,221.20	12,554.09	7,238.77	155.28	156.67	90.25	1,540.54	-5,599.55	4,024.48	3,712.77	311.71	12.911		
12,900.00	7,220.70	12,654.08	7,238.35	158.05	159.46	90.25	1,538.88	-5,699.53	4,023.41	3,706.13	317.28	12.681		
13,000.00	7,220.20	12,754.08	7,237.93	160.82	162.25	90.26	1,537.23	-5,799.51	4,022.34	3,699.49	322.85	12.459		
13,100.00	7,219.70	12,854.07	7,237.51	163.60	165.04	90.26	1,535.57	-5,899.49	4,021.27	3,692.85	328.43	12.244		
13,200.00	7,219.20	12,954.07	7,237.09	166.38	167.84	90.26	1,533.91	-5,999.47	4,020.20	3,686.20	334.01	12.036		
13,300.00	7,218.70	13,054.06	7,236.67	169.16	170.63	90.26	1,532.25	-6,099.45	4,019.13	3,679.54	339.59	11.835		
13,400.00	7,218.20	13,154.05	7,236.25	171.95	173.43	90.26	1,530.59	-6,199.43	4,018.06	3,672.88	345.18	11.641		
13,500.00	7,217.70	13,254.05	7,235.83	174.74	176.23	90.26	1,528.93	-6,299.40	4,016.99	3,666.22	350.77	11.452		
13,600.00	7,217.20	13,354.04	7,235.41	177.53	179.03	90.26	1,527.27	-6,399.38	4,015.92	3,659.55	356.37	11.269		
13,700.00	7,216.70	13,454.04	7,234.99	180.32	181.84	90.26	1,525.62	-6,499.36	4,014.85	3,652.88	361.97	11.092		
13,800.00	7,216.19	13,554.03	7,234.57	183.11	184.64	90.27	1,523.96	-6,599.34	4,013.78	3,646.21	367.57	10.920		
13,900.00	7,215.69	13,654.03	7,234.15	185.91	187.45	90.27	1,522.30	-6,699.32	4,012.71	3,639.53	373.18	10.753		
14,000.00	7,215.19	13,754.02	7,233.73	188.71	190.26	90.27	1,520.64	-6,799.30	4,011.64	3,632.85	378.79	10.591		
14,100.00	7,214.69	13,854.01	7,233.31	191.51	193.07	90.27	1,518.98	-6,899.28	4,010.57	3,626.17	384.40	10.433		
14,200.00	7,214.19	13,954.01	7,232.89	194.31	195.88	90.27	1,517.32	-6,999.26	4,009.50	3,619.48	390.02	10.280		
14,300.00	7,213.69	14,054.00	7,232.46	197.11	198.69	90.27	1,515.67	-7,099.24	4,008.43	3,612.79	395.64	10.132		
14,400.00	7,213.19	14,154.00	7,232.04	199.92	201.50	90.27	1,514.01	-7,199.22	4,007.36	3,606.10	401.26	9.987		
14,500.00	7,212.69	14,253.99	7,231.62	202.72	204.32	90.27	1,512.35	-7,299.20	4,006.29	3,599.41	406.88	9.846		
14,600.00	7,212.19	14,353.99	7,231.20	205.53	207.13	90.28	1,510.69	-7,399.18	4,005.22	3,592.71	412.51	9.709		
14,700.00	7,211.69	14,453.98	7,230.78	208.34	209.95	90.28	1,509.03	-7,499.16	4,004.15	3,586.01	418.14	9.576		
14,800.00	7,211.19	14,553.97	7,230.36	211.15	212.77	90.28	1,507.37	-7,599.14	4,003.08	3,579.31	423.77	9.446		
14,900.00	7,210.69	14,653.97	7,229.94	213.96	215.58	90.28	1,505.71	-7,699.12	4,002.01	3,572.61	429.40	9.320		
15,000.00	7,210.19	14,753.96	7,229.52	216.78	218.40	90.28	1,504.06	-7,799.10	4,000.94	3,565.90	435.04	9.197		
15,100.00	7,209.69	14,853.96	7,229.10	219.59	221.23	90.28	1,502.40	-7,899.08	3,999.87	3,559.19	440.68	9.077		
15,200.00	7,209.18	14,953.95	7,228.68	222.41	224.05	90.28	1,500.74	-7,999.06	3,998.80	3,552.48	446.32	8.960		
15,300.00	7,208.68	15,053.95	7,228.26	225.22	226.87	90.28	1,499.08	-8,099.04	3,997.73	3,545.77	451.96	8.845		
15,400.00	7,208.18	15,153.94	7,227.84	228.04	229.69	90.28	1,497.42	-8,199.02	3,996.66	3,539.06	457.60	8.730		
15,405.04	7,208.16	15,116.21	7,228.00	228.18	228.63	90.28	1,498.05	-8,161.29	3,996.84	3,540.19	456.65	8.753		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	15,116.21	7,228.00	229.10	228.63	90.28	1,498.05	-8,161.29	3,996.97	3,539.46	457.51	8.736 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.50	379.98	3.34	379.99					
100.00	100.00	102.00	100.00	3.28	3.29	0.50	379.98	3.34	379.99	373.42	6.57	57.839		
200.00	200.00	202.00	200.00	3.34	3.34	0.50	379.98	3.34	379.99	373.32	6.68	56.922	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.88	379.98	3.34	381.74	374.85	6.89	55.423		
400.00	399.84	401.84	399.84	3.59	3.61	176.92	379.98	3.34	386.96	379.76	7.20	53.753		
500.00	499.45	501.45	499.45	3.79	3.81	176.97	379.98	3.34	395.66	388.06	7.60	52.049		
600.00	598.70	600.70	598.70	4.03	4.05	177.05	379.98	3.34	407.83	399.75	8.08	50.458		
700.00	697.47	698.98	697.47	4.31	4.28	177.09	381.26	3.03	424.92	416.32	8.60	49.410		
800.00	795.62	797.10	795.62	4.64	4.53	177.05	384.98	2.14	448.26	439.09	9.16	48.917		
900.00	893.06	894.52	893.06	5.00	4.79	176.94	390.95	0.71	477.68	467.93	9.76	48.958		
1,000.00	989.64	991.10	989.64	5.40	5.06	176.79	398.96	-1.21	513.01	502.65	10.37	49.487		
1,100.00	1,085.27	1,086.73	1,085.27	5.83	5.37	176.62	409.32	-3.69	552.80	541.76	11.04	50.088		
1,200.00	1,179.82	1,181.28	1,179.82	6.29	5.69	176.48	419.52	-6.13	595.76	584.03	11.73	50.809		
1,300.00	1,273.47	1,274.93	1,273.47	6.79	6.02	176.41	429.58	-8.54	641.10	628.67	12.43	51.568		
1,400.00	1,367.06	1,368.52	1,367.06	7.30	6.39	176.36	439.64	-10.95	686.61	673.42	13.19	52.070		
1,500.00	1,460.64	1,462.10	1,460.64	7.83	6.69	176.32	449.69	-13.36	732.11	718.23	13.88	52.744		
1,600.00	1,554.23	1,555.77	1,554.23	8.38	7.04	176.28	459.75	-15.77	777.61	762.98	14.63	53.149		
1,700.00	1,647.82	1,649.18	1,647.82	8.93	7.40	176.25	469.81	-18.18	823.11	807.72	15.40	53.466		
1,800.00	1,741.41	1,742.59	1,741.41	9.49	7.76	176.22	479.86	-20.59	868.62	852.44	16.17	53.712		
1,900.00	1,835.00	1,836.00	1,835.00	10.05	8.12	176.19	489.92	-23.00	914.12	897.16	16.96	53.904		
2,000.00	1,928.59	1,929.41	1,928.59	10.62	8.49	176.17	499.98	-25.41	959.62	941.87	17.75	54.050		
2,100.00	2,022.18	2,023.82	2,022.18	11.20	8.86	176.15	510.03	-27.81	1,005.12	986.57	18.56	54.162		
2,200.00	2,115.77	2,117.23	2,115.77	11.78	9.23	176.13	520.09	-30.22	1,050.63	1,031.26	19.37	54.245		
2,300.00	2,209.36	2,210.64	2,209.36	12.37	9.64	176.11	530.14	-32.63	1,096.13	1,075.91	20.22	54.220		
2,400.00	2,302.95	2,304.05	2,302.95	12.95	9.99	176.09	540.20	-35.04	1,141.63	1,120.63	21.01	54.347		
2,500.00	2,396.54	2,397.46	2,396.54	13.54	10.37	176.08	550.26	-37.45	1,187.14	1,165.30	21.83	54.374		
2,600.00	2,490.13	2,491.87	2,490.13	14.13	10.75	176.07	560.31	-39.86	1,232.64	1,209.98	22.66	54.389		
2,700.00	2,583.72	2,585.28	2,583.72	14.73	11.13	176.05	570.37	-42.27	1,278.14	1,254.65	23.50	54.394		
2,800.00	2,677.31	2,678.69	2,677.31	15.32	11.51	176.04	580.43	-44.68	1,323.65	1,299.31	24.34	54.391		
2,900.00	2,770.90	2,772.10	2,770.90	15.92	11.90	176.03	590.48	-47.09	1,369.15	1,343.98	25.18	54.382		
3,000.00	2,864.49	2,865.51	2,864.49	16.52	12.29	176.02	600.54	-49.49	1,414.66	1,388.64	26.02	54.368		
3,100.00	2,958.08	2,959.92	2,958.08	17.12	12.67	176.01	610.59	-51.90	1,460.16	1,433.29	26.87	54.350		
3,200.00	3,051.67	3,053.33	3,051.67	17.72	13.06	176.00	620.65	-54.31	1,505.66	1,477.95	27.71	54.328		
3,300.00	3,145.26	3,146.74	3,145.26	18.32	13.45	175.99	630.71	-56.72	1,551.17	1,522.60	28.56	54.304		
3,400.00	3,238.85	3,239.15	3,238.85	18.92	13.84	175.98	640.76	-59.13	1,596.67	1,567.25	29.42	54.278		
3,500.00	3,332.44	3,332.56	3,332.44	19.53	14.24	175.97	650.82	-61.54	1,642.17	1,611.90	30.27	54.250		
3,600.00	3,426.03	3,426.97	3,426.03	20.13	14.63	175.97	660.88	-63.95	1,687.68	1,656.55	31.13	54.221		
3,700.00	3,519.62	3,520.38	3,519.62	20.74	15.02	175.96	670.93	-66.36	1,733.18	1,701.20	31.98	54.191		
3,800.00	3,613.21	3,613.79	3,613.21	21.34	15.41	175.95	680.99	-68.76	1,778.69	1,745.85	32.84	54.160		
3,900.00	3,706.80	3,707.20	3,706.80	21.95	15.81	175.95	691.04	-71.17	1,824.19	1,790.49	33.70	54.129		
4,000.00	3,800.39	3,800.61	3,800.39	22.56	16.20	175.94	701.10	-73.58	1,869.69	1,835.13	34.56	54.098		
4,100.00	3,893.98	3,894.02	3,893.98	23.16	16.60	175.93	711.16	-75.99	1,915.20	1,879.77	35.43	54.053		
4,200.00	3,987.57	3,987.43	3,987.57	23.77	16.99	175.93	721.21	-78.40	1,960.70	1,924.42	36.29	54.034		
4,300.00	4,081.16	4,080.84	4,081.16	24.38	17.38	175.92	731.27	-80.81	2,006.21	1,969.06	37.15	54.003		
4,400.00	4,174.75	4,174.25	4,174.75	24.99	17.78	175.92	741.33	-83.22	2,051.71	2,013.70	38.01	53.972		
4,500.00	4,268.34	4,267.66	4,268.34	25.60	18.18	175.91	751.38	-85.63	2,097.21	2,058.33	38.88	53.940		
4,600.00	4,361.93	4,361.07	4,361.93	26.21	18.57	175.91	761.44	-88.03	2,142.72	2,102.97	39.75	53.910		
4,700.00	4,455.52	4,454.48	4,455.52	26.82	18.97	175.90	771.49	-90.44	2,188.22	2,147.61	40.61	53.879		
4,800.00	4,549.11	4,547.89	4,549.11	27.43	19.37	175.90	781.55	-92.85	2,233.73	2,192.24	41.48	53.849		
4,900.00	4,642.70	4,641.30	4,642.70	28.04	19.76	175.90	791.61	-95.26	2,279.23	2,236.88	42.35	53.819		
5,000.00	4,736.29	4,734.71	4,736.29	28.65	20.16	175.89	801.66	-97.67	2,324.73	2,281.52	43.22	53.790		
5,100.00	4,829.88	4,828.12	4,829.88	29.26	20.56	175.89	811.72	-100.08	2,370.24	2,326.15	44.09	53.761		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,678.59	4,650.50	29.87	20.95	175.88	821.77	-102.49	2,415.74	2,370.78	44.96	53.732		
5,300.00	5,017.06	4,767.64	4,738.94	30.48	21.35	175.88	831.83	-104.90	2,461.25	2,415.42	45.83	53.704		
5,400.00	5,110.65	4,856.68	4,827.39	31.09	21.75	175.88	841.89	-107.31	2,506.75	2,460.05	46.70	53.676		
5,500.00	5,204.24	4,945.73	4,915.83	31.70	22.15	175.87	851.94	-109.71	2,552.25	2,504.68	47.57	53.649		
5,600.00	5,297.83	5,034.78	5,004.28	32.32	22.55	175.87	862.00	-112.12	2,597.76	2,549.31	48.45	53.622		
5,700.00	5,391.42	5,123.83	5,092.72	32.93	22.95	175.87	872.06	-114.53	2,643.26	2,593.94	49.32	53.596		
5,800.00	5,485.01	5,212.87	5,181.17	33.54	23.35	175.86	882.11	-116.94	2,688.77	2,638.58	50.19	53.570		
5,900.00	5,578.60	5,301.92	5,269.61	34.15	23.74	175.86	892.17	-119.35	2,734.27	2,683.21	51.07	53.544		
6,000.00	5,672.19	5,409.03	5,358.06	34.77	24.22	175.86	902.22	-121.76	2,779.78	2,727.75	52.02	53.436		
6,100.00	5,765.78	5,480.01	5,446.50	35.38	24.54	175.86	912.28	-124.17	2,825.28	2,772.46	52.81	53.494		
6,200.00	5,859.37	5,569.06	5,534.95	35.99	24.94	175.85	922.34	-126.58	2,870.78	2,817.09	53.69	53.470		
6,300.00	5,952.96	5,658.11	5,623.39	36.60	25.34	175.85	932.39	-128.98	2,916.29	2,861.72	54.57	53.446		
6,400.00	6,046.55	5,747.15	5,711.83	37.22	25.74	175.85	942.45	-131.39	2,961.79	2,906.35	55.44	53.422		
6,500.00	6,140.14	5,836.20	5,800.28	37.83	26.14	175.85	952.51	-133.80	3,007.30	2,950.98	56.32	53.399		
6,600.00	6,233.73	5,925.25	5,888.72	38.44	26.54	175.84	962.56	-136.21	3,052.80	2,995.61	57.19	53.376		
6,700.00	6,327.32	6,014.29	5,977.17	39.06	26.94	175.84	972.62	-138.62	3,098.30	3,040.23	58.07	53.354		
6,800.00	6,420.91	6,103.34	6,065.61	39.67	27.34	175.84	982.67	-141.03	3,143.81	3,084.86	58.95	53.331		
6,900.00	6,514.50	6,207.61	6,154.06	40.28	27.81	175.84	992.73	-143.44	3,189.31	3,129.42	59.89	53.249		
7,000.00	6,608.09	6,281.44	6,242.50	40.90	28.14	175.84	1,002.79	-145.85	3,234.82	3,174.11	60.70	53.288		
7,100.00	6,701.63	6,370.46	6,330.93	41.51	28.54	164.60	1,012.84	-148.25	3,280.30	3,218.72	61.58	53.267		
7,200.00	6,793.85	6,462.67	6,422.05	42.10	28.96	140.56	1,023.16	-151.10	3,325.21	3,262.72	62.49	53.213		
7,300.00	6,882.50	6,557.01	6,512.97	42.64	29.38	123.20	1,033.35	-179.74	3,368.43	3,305.04	63.40	53.133		
7,400.00	6,965.41	6,654.34	6,602.24	43.12	29.80	111.03	1,043.26	-216.98	3,408.94	3,344.63	64.31	53.011		
7,500.00	7,040.53	6,755.46	6,687.90	43.53	30.25	102.34	1,052.64	-269.69	3,445.72	3,380.47	65.25	52.811		
7,600.00	7,106.00	6,860.97	6,767.28	43.89	30.76	96.03	1,061.20	-338.49	3,477.87	3,411.59	66.28	52.472		
7,700.00	7,160.23	6,971.09	6,836.92	44.20	31.41	91.48	1,068.53	-423.29	3,504.58	3,437.08	67.50	51.919		
7,800.00	7,201.86	7,085.50	6,892.79	44.48	32.27	88.31	1,074.20	-522.80	3,525.13	3,456.12	69.01	51.078		
7,900.00	7,229.88	7,203.30	6,930.91	44.73	33.38	86.30	1,077.76	-634.02	3,538.99	3,468.09	70.90	49.915		
8,000.00	7,243.60	7,322.98	6,948.16	44.99	34.73	85.33	1,078.89	-752.27	3,545.77	3,472.61	73.17	48.462		
8,100.00	7,244.73	7,428.78	6,948.79	45.29	36.11	85.21	1,078.22	-858.05	3,546.38	3,470.80	75.58	46.924		
8,200.00	7,244.23	7,528.78	6,948.49	45.74	37.57	85.22	1,077.48	-958.05	3,546.21	3,467.96	78.25	45.321		
8,300.00	7,243.73	7,628.78	6,948.19	46.38	39.19	85.22	1,076.74	-1,058.05	3,546.05	3,464.82	81.23	43.655		
8,400.00	7,243.23	7,728.78	6,947.89	47.29	40.94	85.22	1,076.00	-1,158.04	3,545.88	3,461.39	84.49	41.968		
8,500.00	7,242.73	7,828.78	6,947.60	48.46	42.81	85.23	1,075.26	-1,258.04	3,545.71	3,457.72	88.00	40.293		
8,600.00	7,242.23	7,928.78	6,947.30	49.87	44.79	85.23	1,074.53	-1,358.03	3,545.55	3,453.82	91.73	38.653		
8,700.00	7,241.73	8,028.78	6,947.00	51.48	46.85	85.23	1,073.79	-1,458.03	3,545.38	3,449.73	95.65	37.067		
8,800.00	7,241.23	8,128.78	6,946.70	53.24	49.00	85.23	1,073.05	-1,558.03	3,545.22	3,445.47	99.74	35.544		
8,900.00	7,240.73	8,228.78	6,946.40	55.13	51.21	85.24	1,072.31	-1,658.02	3,545.05	3,441.06	103.99	34.091		
9,000.00	7,240.23	8,328.77	6,946.10	57.11	53.49	85.24	1,071.58	-1,758.02	3,544.88	3,436.52	108.37	32.712		
9,100.00	7,239.73	8,428.77	6,945.81	59.19	55.82	85.24	1,070.84	-1,858.02	3,544.72	3,431.86	112.86	31.408		
9,200.00	7,239.23	8,528.77	6,945.51	61.34	58.20	85.25	1,070.10	-1,958.01	3,544.55	3,427.09	117.46	30.176		
9,300.00	7,238.72	8,628.77	6,945.21	63.55	60.61	85.25	1,069.36	-2,058.01	3,544.39	3,422.23	122.16	29.015		
9,400.00	7,238.22	8,728.77	6,944.91	65.81	63.07	85.25	1,068.62	-2,158.01	3,544.22	3,417.29	126.93	27.922		
9,500.00	7,237.72	8,828.77	6,944.61	68.13	65.56	85.26	1,067.89	-2,258.00	3,544.06	3,412.27	131.78	26.893		
9,600.00	7,237.22	8,928.77	6,944.31	70.48	68.08	85.26	1,067.15	-2,358.00	3,543.89	3,407.19	136.70	25.925		
9,700.00	7,236.72	9,028.77	6,944.01	72.88	70.62	85.26	1,066.41	-2,458.00	3,543.72	3,402.05	141.67	25.014		
9,800.00	7,236.22	9,128.77	6,943.72	75.31	73.19	85.27	1,065.67	-2,557.99	3,543.56	3,396.86	146.70	24.156		
9,900.00	7,235.72	9,228.77	6,943.42	77.77	75.77	85.27	1,064.94	-2,657.99	3,543.39	3,391.62	151.77	23.347		
10,000.00	7,235.22	9,328.77	6,943.12	80.26	78.38	85.27	1,064.20	-2,757.99	3,543.23	3,386.34	156.89	22.584		
10,100.00	7,234.72	9,428.77	6,942.82	82.77	81.00	85.27	1,063.46	-2,857.98	3,543.06	3,381.01	162.05	21.864		
10,200.00	7,234.22	9,528.77	6,942.52	85.31	83.64	85.28	1,062.72	-2,957.98	3,542.90	3,375.66	167.24	21.185		
10,300.00	7,233.72	9,628.77	6,942.22	87.86	86.29	85.28	1,061.98	-3,057.98	3,542.73	3,370.27	172.46	20.542		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	9,728.77	6,941.93	90.44	88.96	85.28	1,061.25	-3,157.97	3,542.56	3,364.85	177.72	19.934		
10,500.00	7,232.72	9,828.77	6,941.63	93.03	91.64	85.29	1,060.51	-3,257.97	3,542.40	3,359.40	183.00	19.358		
10,600.00	7,232.22	9,928.77	6,941.33	95.64	94.32	85.29	1,059.77	-3,357.97	3,542.23	3,353.93	188.30	18.811		
10,700.00	7,231.72	10,028.77	6,941.03	98.26	97.02	85.29	1,059.03	-3,457.96	3,542.07	3,348.44	193.63	18.293		
10,800.00	7,231.21	10,128.77	6,940.73	100.89	99.73	85.30	1,058.30	-3,557.96	3,541.90	3,342.92	198.98	17.800		
10,900.00	7,230.71	10,228.77	6,940.43	103.54	102.44	85.30	1,057.56	-3,657.95	3,541.74	3,337.39	204.35	17.332		
11,000.00	7,230.21	10,328.77	6,940.14	106.20	105.17	85.30	1,056.82	-3,757.95	3,541.57	3,331.84	209.73	16.886		
11,100.00	7,229.71	10,428.77	6,939.84	108.87	107.90	85.31	1,056.08	-3,857.95	3,541.40	3,326.27	215.14	16.461		
11,200.00	7,229.21	10,528.77	6,939.54	111.54	110.63	85.31	1,055.34	-3,957.94	3,541.24	3,320.69	220.55	16.056		
11,300.00	7,228.71	10,628.77	6,939.24	114.23	113.37	85.31	1,054.61	-4,057.94	3,541.07	3,315.09	225.98	15.670		
11,400.00	7,228.21	10,728.77	6,938.94	116.92	116.12	85.31	1,053.87	-4,157.94	3,540.91	3,309.48	231.43	15.300		
11,500.00	7,227.71	10,828.77	6,938.64	119.63	118.87	85.32	1,053.13	-4,257.93	3,540.74	3,303.86	236.88	14.947		
11,600.00	7,227.21	10,928.77	6,938.35	122.34	121.63	85.32	1,052.39	-4,357.93	3,540.58	3,298.22	242.35	14.609		
11,700.00	7,226.71	11,028.77	6,938.05	125.05	124.39	85.32	1,051.66	-4,457.93	3,540.41	3,292.58	247.83	14.286		
11,800.00	7,226.21	11,128.77	6,937.75	127.78	127.16	85.33	1,050.92	-4,557.92	3,540.24	3,286.93	253.32	13.975		
11,900.00	7,225.71	11,228.77	6,937.45	130.51	129.93	85.33	1,050.18	-4,657.92	3,540.08	3,281.26	258.82	13.678		
12,000.00	7,225.21	11,328.77	6,937.15	133.24	132.70	85.33	1,049.44	-4,757.92	3,539.91	3,275.59	264.32	13.392		
12,100.00	7,224.71	11,428.77	6,936.85	135.98	135.48	85.34	1,048.70	-4,857.91	3,539.75	3,269.91	269.84	13.118		
12,200.00	7,224.21	11,528.76	6,936.56	138.72	138.26	85.34	1,047.97	-4,957.91	3,539.58	3,264.22	275.36	12.854		
12,300.00	7,223.70	11,628.76	6,936.26	141.47	141.05	85.34	1,047.23	-5,057.91	3,539.42	3,258.53	280.89	12.601		
12,400.00	7,223.20	11,728.76	6,935.96	144.23	143.83	85.35	1,046.49	-5,157.90	3,539.25	3,252.82	286.43	12.357		
12,500.00	7,222.70	11,828.76	6,935.66	146.98	146.62	85.35	1,045.75	-5,257.90	3,539.09	3,247.12	291.97	12.121		
12,600.00	7,222.20	11,928.76	6,935.36	149.74	149.42	85.35	1,045.02	-5,357.90	3,538.92	3,241.40	297.52	11.895		
12,700.00	7,221.70	12,028.76	6,935.06	152.51	152.21	85.35	1,044.28	-5,457.89	3,538.76	3,235.68	303.07	11.676		
12,800.00	7,221.20	12,128.76	6,934.77	155.28	155.01	85.36	1,043.54	-5,557.89	3,538.59	3,229.96	308.63	11.465		
12,900.00	7,220.70	12,228.76	6,934.47	158.05	157.81	85.36	1,042.80	-5,657.89	3,538.42	3,224.22	314.20	11.262		
13,000.00	7,220.20	12,328.76	6,934.17	160.82	160.61	85.36	1,042.06	-5,757.88	3,538.26	3,218.49	319.77	11.065		
13,100.00	7,219.70	12,428.76	6,933.87	163.60	163.41	85.37	1,041.33	-5,857.88	3,538.09	3,212.75	325.34	10.875		
13,200.00	7,219.20	12,528.76	6,933.57	166.38	166.22	85.37	1,040.59	-5,957.87	3,537.93	3,207.00	330.92	10.691		
13,300.00	7,218.70	12,628.76	6,933.27	169.16	169.02	85.37	1,039.85	-6,057.87	3,537.76	3,201.25	336.51	10.513		
13,400.00	7,218.20	12,728.76	6,932.98	171.95	171.83	85.38	1,039.11	-6,157.87	3,537.60	3,195.50	342.10	10.341		
13,500.00	7,217.70	12,828.76	6,932.68	174.74	174.64	85.38	1,038.38	-6,257.86	3,537.43	3,189.74	347.69	10.174		
13,600.00	7,217.20	12,928.76	6,932.38	177.53	177.45	85.38	1,037.64	-6,357.86	3,537.27	3,183.98	353.28	10.013		
13,700.00	7,216.70	13,028.76	6,932.08	180.32	180.27	85.39	1,036.90	-6,457.86	3,537.10	3,178.22	358.88	9.856		
13,800.00	7,216.19	13,128.76	6,931.78	183.11	183.08	85.39	1,036.16	-6,557.85	3,536.94	3,172.45	364.48	9.704		
13,900.00	7,215.69	13,228.76	6,931.48	185.91	185.90	85.39	1,035.42	-6,657.85	3,536.77	3,166.68	370.09	9.557		
14,000.00	7,215.19	13,328.76	6,931.18	188.71	188.72	85.39	1,034.69	-6,757.85	3,536.60	3,160.91	375.70	9.413		
14,100.00	7,214.69	13,428.76	6,930.89	191.51	191.53	85.40	1,033.95	-6,857.84	3,536.44	3,155.13	381.31	9.275		
14,200.00	7,214.19	13,528.76	6,930.59	194.31	194.35	85.40	1,033.21	-6,957.84	3,536.27	3,149.35	386.92	9.140		
14,300.00	7,213.69	13,628.76	6,930.29	197.11	197.18	85.40	1,032.47	-7,057.84	3,536.11	3,143.57	392.54	9.008		
14,400.00	7,213.19	13,728.76	6,929.99	199.92	200.00	85.41	1,031.74	-7,157.83	3,535.94	3,137.79	398.15	8.881		
14,500.00	7,212.69	13,828.76	6,929.69	202.72	202.82	85.41	1,031.00	-7,257.83	3,535.78	3,132.00	403.78	8.757		
14,600.00	7,212.19	13,928.76	6,929.39	205.53	205.64	85.41	1,030.26	-7,357.83	3,535.61	3,126.21	409.40	8.636		
14,700.00	7,211.69	14,028.76	6,929.10	208.34	208.47	85.42	1,029.52	-7,457.82	3,535.45	3,120.42	415.02	8.519		
14,800.00	7,211.19	14,128.76	6,928.80	211.15	211.29	85.42	1,028.79	-7,557.82	3,535.28	3,114.63	420.65	8.404		
14,900.00	7,210.69	14,228.76	6,928.50	213.96	214.12	85.42	1,028.05	-7,657.82	3,535.12	3,108.83	426.28	8.293		
15,000.00	7,210.19	14,328.76	6,928.20	216.78	216.95	85.43	1,027.31	-7,757.81	3,534.95	3,103.04	431.91	8.184		
15,100.00	7,209.69	14,428.76	6,927.90	219.59	219.78	85.43	1,026.57	-7,857.81	3,534.79	3,097.24	437.55	8.079		
15,200.00	7,209.18	14,528.76	6,927.60	222.41	222.61	85.43	1,025.83	-7,957.81	3,534.62	3,091.44	443.18	7.976		
15,300.00	7,208.68	14,628.76	6,927.31	225.22	225.44	85.43	1,025.10	-8,057.80	3,534.46	3,085.63	448.82	7.875		
15,400.00	7,208.18	14,728.75	6,927.01	228.04	228.27	85.44	1,024.36	-8,157.80	3,534.29	3,079.83	454.46	7.777		
15,409.21	7,208.14	14,732.12	6,927.00	228.30	228.36	85.44	1,024.33	-8,161.17	3,534.28	3,079.47	454.81	7.771		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	14,732.12	6,927.00	229.10	228.36	85.44	1,024.33	-8,161.17	3,534.39	3,078.85	455.54	7.759 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.48	400.02	3.34	400.04					
100.00	100.00	102.00	100.00	3.28	3.29	0.48	400.02	3.34	400.04	393.47	6.57	60.890		
200.00	200.00	202.00	200.00	3.34	3.34	0.48	400.02	3.34	400.04	393.36	6.68	59.925 CC, ES		
300.00	299.98	301.98	299.98	3.44	3.45	176.85	400.02	3.34	401.78	394.89	6.89	58.334		
400.00	399.84	401.84	399.84	3.59	3.61	176.89	400.02	3.34	407.01	399.81	7.20	56.537		
500.00	499.45	501.45	499.45	3.79	3.81	176.94	400.02	3.34	415.71	408.11	7.60	54.686		
600.00	598.70	600.70	598.70	4.03	4.05	177.02	400.02	3.34	427.88	419.80	8.08	52.938		
700.00	697.47	698.28	684.27	4.31	4.28	177.06	401.31	3.13	444.98	436.38	8.60	51.753		
800.00	795.62	770.31	768.21	4.64	4.53	177.06	405.02	2.53	468.34	459.18	9.16	51.131		
900.00	893.06	852.26	849.93	5.00	4.78	177.02	410.98	1.57	497.83	488.08	9.75	51.055		
1,000.00	989.64	931.70	928.95	5.40	5.05	176.94	418.96	0.29	533.23	522.87	10.36	51.480		
1,100.00	1,085.27	1,008.27	1,004.89	5.83	5.31	176.84	428.70	-1.28	574.33	563.36	10.97	52.354		
1,200.00	1,179.82	1,085.14	1,080.83	6.29	5.59	176.71	440.42	-3.17	620.83	609.23	11.59	53.548		
1,300.00	1,273.47	1,172.02	1,166.57	6.79	5.90	176.63	454.29	-5.40	670.33	658.06	12.27	54.627		
1,400.00	1,367.06	1,258.82	1,252.23	7.30	6.22	176.58	468.16	-7.64	719.99	707.02	12.96	55.543		
1,500.00	1,460.64	1,345.62	1,337.88	7.83	6.56	176.53	482.02	-9.87	769.64	755.97	13.67	56.292		
1,600.00	1,554.23	1,432.42	1,423.54	8.38	6.90	176.49	495.88	-12.10	819.30	804.90	14.40	56.898		
1,700.00	1,647.82	1,519.22	1,509.20	8.93	7.25	176.45	509.75	-14.34	868.95	853.81	15.14	57.389		
1,800.00	1,741.41	1,606.02	1,594.85	9.49	7.61	176.42	523.61	-16.57	918.61	902.71	15.90	57.786		
1,900.00	1,835.00	1,707.18	1,680.51	10.05	8.03	176.39	537.47	-18.80	968.26	951.54	16.72	57.902		
2,000.00	1,928.59	1,779.62	1,766.16	10.62	8.33	176.37	551.34	-21.03	1,017.92	1,000.48	17.44	58.370		
2,100.00	2,022.18	1,866.42	1,851.82	11.20	8.70	176.35	565.20	-23.27	1,067.57	1,049.35	18.22	58.582		
2,200.00	2,115.77	1,953.22	1,937.48	11.78	9.07	176.32	579.06	-25.50	1,117.23	1,098.21	19.02	58.754		
2,300.00	2,209.36	2,040.02	2,023.13	12.37	9.45	176.30	592.93	-27.73	1,166.88	1,147.07	19.81	58.893		
2,400.00	2,302.95	2,126.81	2,108.79	12.95	9.83	176.29	606.79	-29.97	1,216.54	1,195.92	20.62	59.004		
2,500.00	2,396.54	2,213.61	2,194.45	13.54	10.21	176.27	620.65	-32.20	1,266.20	1,244.77	21.43	59.093		
2,600.00	2,490.13	2,300.41	2,280.10	14.13	10.59	176.25	634.52	-34.43	1,315.85	1,293.61	22.24	59.163		
2,700.00	2,583.72	2,387.21	2,365.76	14.73	10.97	176.24	648.38	-36.67	1,365.51	1,342.45	23.06	59.218		
2,800.00	2,677.31	2,474.01	2,451.41	15.32	11.36	176.23	662.24	-38.90	1,415.17	1,391.29	23.88	59.260		
2,900.00	2,770.90	2,560.81	2,537.07	15.92	11.74	176.21	676.11	-41.13	1,464.82	1,440.12	24.71	59.292		
3,000.00	2,864.49	2,647.61	2,622.73	16.52	12.13	176.20	689.97	-43.36	1,514.48	1,488.95	25.53	59.314		
3,100.00	2,958.08	2,734.41	2,708.38	17.12	12.52	176.19	703.83	-45.60	1,564.14	1,537.77	26.36	59.329		
3,200.00	3,051.67	2,821.21	2,794.04	17.72	12.91	176.18	717.70	-47.83	1,613.79	1,586.60	27.20	59.338		
3,300.00	3,145.26	2,908.01	2,879.69	18.32	13.30	176.17	731.56	-50.06	1,663.45	1,635.42	28.03	59.341		
3,400.00	3,238.85	3,005.19	2,965.35	18.92	13.74	176.16	745.42	-52.30	1,713.11	1,684.19	28.92	59.246		
3,500.00	3,332.44	3,081.61	3,051.01	19.53	14.08	176.16	759.29	-54.53	1,762.76	1,733.05	29.71	59.336		
3,600.00	3,426.03	3,168.41	3,136.66	20.13	14.48	176.15	773.15	-56.76	1,812.42	1,781.87	30.55	59.328		
3,700.00	3,519.62	3,255.21	3,222.32	20.74	14.87	176.14	787.01	-58.99	1,862.08	1,830.68	31.39	59.318		
3,800.00	3,613.21	3,342.01	3,307.98	21.34	15.27	176.13	800.88	-61.23	1,911.73	1,879.50	32.24	59.305		
3,900.00	3,706.80	3,428.81	3,393.63	21.95	15.66	176.13	814.74	-63.46	1,961.39	1,928.31	33.08	59.291		
4,000.00	3,800.39	3,515.61	3,479.29	22.56	16.06	176.12	828.60	-65.69	2,011.05	1,977.12	33.93	59.275		
4,100.00	3,893.98	3,602.41	3,564.94	23.16	16.46	176.11	842.47	-67.93	2,060.70	2,025.93	34.78	59.258		
4,200.00	3,987.57	3,689.21	3,650.60	23.77	16.85	176.11	856.33	-70.16	2,110.36	2,074.74	35.62	59.240		
4,300.00	4,081.16	3,776.01	3,736.26	24.38	17.25	176.10	870.20	-72.39	2,160.02	2,123.54	36.47	59.221		
4,400.00	4,174.75	3,862.81	3,821.91	24.99	17.65	176.10	884.06	-74.63	2,209.67	2,172.35	37.32	59.201		
4,500.00	4,268.34	3,949.61	3,907.57	25.60	18.05	176.09	897.92	-76.86	2,259.33	2,221.15	38.18	59.181		
4,600.00	4,361.93	4,036.41	3,993.23	26.21	18.44	176.09	911.79	-79.09	2,308.99	2,269.96	39.03	59.160		
4,700.00	4,455.52	4,123.21	4,078.88	26.82	18.84	176.08	925.65	-81.32	2,358.64	2,318.76	39.88	59.139		
4,800.00	4,549.11	4,210.00	4,164.54	27.43	19.24	176.08	939.51	-83.56	2,408.30	2,367.56	40.74	59.118		
4,900.00	4,642.70	4,303.20	4,250.19	28.04	19.67	176.07	953.38	-85.79	2,457.96	2,416.34	41.62	59.055		
5,000.00	4,736.29	4,383.60	4,335.85	28.65	20.04	176.07	967.24	-88.02	2,507.61	2,465.17	42.45	59.075		
5,100.00	4,829.88	4,470.40	4,421.51	29.26	20.44	176.07	981.10	-90.26	2,557.27	2,513.97	43.30	59.053		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,557.20	4,507.16	29.87	20.84	176.06	994.97	-92.49	2,606.93	2,562.77	44.16	59.031		
5,300.00	5,017.06	4,644.00	4,592.82	30.48	21.24	176.06	1,008.83	-94.72	2,656.58	2,611.57	45.02	59.010		
5,400.00	5,110.65	4,730.80	4,678.48	31.09	21.64	176.05	1,022.69	-96.96	2,706.24	2,660.36	45.88	58.988		
5,500.00	5,204.24	4,817.60	4,764.13	31.70	22.04	176.05	1,036.56	-99.19	2,755.90	2,709.16	46.74	58.966		
5,600.00	5,297.83	4,904.40	4,849.79	32.32	22.44	176.05	1,050.42	-101.42	2,805.56	2,757.96	47.60	58.945		
5,700.00	5,391.42	5,008.80	4,935.44	32.93	22.93	176.04	1,064.28	-103.65	2,855.21	2,806.68	48.54	58.826		
5,800.00	5,485.01	5,078.00	5,021.10	33.54	23.25	176.04	1,078.15	-105.89	2,904.87	2,855.55	49.32	58.902		
5,900.00	5,578.60	5,164.80	5,106.76	34.15	23.65	176.04	1,092.01	-108.12	2,954.53	2,904.35	50.18	58.881		
6,000.00	5,672.19	5,251.60	5,192.41	34.77	24.05	176.04	1,105.87	-110.35	3,004.18	2,953.14	51.04	58.860		
6,100.00	5,765.78	5,338.40	5,278.07	35.38	24.45	176.03	1,119.74	-112.59	3,053.84	3,001.94	51.90	58.840		
6,200.00	5,859.37	5,425.20	5,363.73	35.99	24.85	176.03	1,133.60	-114.82	3,103.50	3,050.73	52.76	58.819		
6,300.00	5,952.96	5,512.00	5,449.38	36.60	25.26	176.03	1,147.46	-117.05	3,153.15	3,099.53	53.63	58.798		
6,400.00	6,046.55	5,598.80	5,535.04	37.22	25.66	176.03	1,161.33	-119.29	3,202.81	3,148.32	54.49	58.778		
6,500.00	6,140.14	5,685.60	5,620.69	37.83	26.06	176.02	1,175.19	-121.52	3,252.47	3,197.12	55.35	58.758		
6,600.00	6,233.73	5,772.40	5,706.35	38.44	26.46	176.02	1,189.05	-123.75	3,302.13	3,245.91	56.22	58.738		
6,700.00	6,327.32	5,859.20	5,792.01	39.06	26.87	176.02	1,202.92	-125.98	3,351.78	3,294.70	57.08	58.718		
6,800.00	6,420.91	5,946.00	5,877.66	39.67	27.27	176.02	1,216.78	-128.22	3,401.44	3,343.49	57.95	58.699		
6,900.00	6,514.50	6,032.80	5,963.32	40.28	27.67	176.01	1,230.64	-130.45	3,451.10	3,392.28	58.81	58.679		
7,000.00	6,608.09	6,119.60	6,048.97	40.90	28.08	176.01	1,244.51	-132.68	3,500.75	3,441.08	59.68	58.660		
7,100.00	6,701.63	6,206.38	6,134.61	41.51	28.48	164.55	1,258.37	-134.92	3,550.39	3,489.85	60.54	58.641		
7,200.00	6,793.85	6,307.75	6,219.36	42.10	28.95	140.06	1,272.08	-137.12	3,599.50	3,538.03	61.47	58.557		
7,300.00	6,882.50	6,375.20	6,301.21	42.64	29.26	122.44	1,285.33	-139.26	3,647.07	3,584.86	62.21	58.626		
7,400.00	6,965.41	6,453.17	6,378.15	43.12	29.63	110.15	1,297.78	-141.26	3,692.28	3,629.32	62.96	58.646		
7,500.00	7,040.53	6,524.24	6,448.29	43.53	29.96	101.36	1,309.14	-143.09	3,734.49	3,670.85	63.65	58.675		
7,600.00	7,106.00	6,586.67	6,509.90	43.89	30.25	94.90	1,319.11	-144.70	3,773.22	3,708.93	64.29	58.687		
7,700.00	7,160.23	7,700.00	6,610.61	44.20	30.43	90.69	1,335.19	-153.84	3,807.69	3,737.59	70.10	54.320		
7,800.00	7,201.86	6,979.50	6,873.63	44.48	31.99	89.77	1,374.26	-263.75	3,835.57	3,767.28	68.29	56.164		
7,900.00	7,229.88	7,900.00	7,120.20	44.73	39.56	89.47	1,401.90	-631.76	3,852.05	3,774.34	77.72	49.566		
8,000.00	7,243.60	7,668.72	7,138.66	44.99	37.58	88.43	1,396.97	-865.80	3,855.19	3,778.39	76.80	50.199		
8,100.00	7,244.73	7,768.65	7,138.23	45.29	38.99	88.42	1,393.51	-965.68	3,852.98	3,773.71	79.27	48.605		
8,200.00	7,244.23	7,868.61	7,137.80	45.74	40.55	88.42	1,390.05	-1,065.58	3,850.10	3,768.04	82.07	46.913		
8,300.00	7,243.73	7,968.57	7,137.36	46.38	42.25	88.42	1,386.59	-1,165.47	3,847.23	3,762.08	85.16	45.179		
8,400.00	7,243.23	8,068.53	7,136.93	47.29	44.07	88.42	1,383.14	-1,265.37	3,844.36	3,755.86	88.50	43.439		
8,500.00	7,242.73	8,168.49	7,136.50	48.46	45.99	88.42	1,379.68	-1,365.27	3,841.48	3,749.41	92.08	41.720		
8,600.00	7,242.23	8,268.45	7,136.06	49.87	48.00	88.42	1,376.22	-1,465.17	3,838.61	3,742.75	95.86	40.045		
8,700.00	7,241.73	8,368.40	7,135.63	51.48	50.10	88.42	1,372.76	-1,565.07	3,835.74	3,735.92	99.82	38.426		
8,800.00	7,241.23	8,468.36	7,135.19	53.24	52.26	88.42	1,369.30	-1,664.96	3,832.87	3,728.92	103.95	36.873		
8,900.00	7,240.73	8,568.32	7,134.76	55.13	54.49	88.42	1,365.84	-1,764.86	3,829.99	3,721.78	108.22	35.392		
9,000.00	7,240.23	8,668.28	7,134.33	57.11	56.77	88.42	1,362.38	-1,864.76	3,827.12	3,714.51	112.61	33.985		
9,100.00	7,239.73	8,768.24	7,133.89	59.19	59.11	88.42	1,358.92	-1,964.66	3,824.25	3,707.13	117.12	32.652		
9,200.00	7,239.23	8,868.20	7,133.46	61.34	61.48	88.42	1,355.46	-2,064.55	3,821.37	3,699.64	121.73	31.393		
9,300.00	7,238.72	8,968.16	7,133.03	63.55	63.90	88.42	1,352.00	-2,164.45	3,818.50	3,692.07	126.43	30.203		
9,400.00	7,238.22	9,068.12	7,132.59	65.81	66.35	88.42	1,348.55	-2,264.35	3,815.63	3,684.42	131.20	29.082		
9,500.00	7,237.72	9,168.07	7,132.16	68.13	68.83	88.42	1,345.09	-2,364.25	3,812.75	3,676.70	136.05	28.024		
9,600.00	7,237.22	9,268.03	7,131.73	70.48	71.34	88.42	1,341.63	-2,464.15	3,809.88	3,668.91	140.97	27.027		
9,700.00	7,236.72	9,367.99	7,131.29	72.88	73.87	88.42	1,338.17	-2,564.04	3,807.01	3,661.07	145.94	26.087		
9,800.00	7,236.22	9,467.95	7,130.86	75.31	76.42	88.42	1,334.71	-2,663.94	3,804.13	3,653.17	150.96	25.200		
9,900.00	7,235.72	9,567.91	7,130.43	77.77	79.00	88.42	1,331.25	-2,763.84	3,801.26	3,645.23	156.03	24.363		
10,000.00	7,235.22	9,667.87	7,129.99	80.26	81.59	88.42	1,327.79	-2,863.74	3,798.39	3,637.25	161.14	23.572		
10,100.00	7,234.72	9,767.83	7,129.56	82.77	84.20	88.42	1,324.33	-2,963.64	3,795.51	3,629.22	166.29	22.825		
10,200.00	7,234.22	9,867.79	7,129.12	85.31	86.82	88.42	1,320.87	-3,063.53	3,792.64	3,621.16	171.48	22.118		
10,300.00	7,233.72	9,967.74	7,128.69	87.86	89.46	88.42	1,317.42	-3,163.43	3,789.77	3,613.07	176.69	21.448		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	10,067.70	7,128.26	90.44	92.11	88.42	1,313.96	-3,263.33	3,786.89	3,604.95	181.94	20.814		
10,500.00	7,232.72	10,167.66	7,127.82	93.03	94.77	88.42	1,310.50	-3,363.23	3,784.02	3,596.81	187.21	20.212		
10,600.00	7,232.22	10,267.62	7,127.39	95.64	97.44	88.42	1,307.04	-3,463.13	3,781.15	3,588.64	192.51	19.641		
10,700.00	7,231.72	10,367.58	7,126.96	98.26	100.13	88.42	1,303.58	-3,563.02	3,778.27	3,580.44	197.83	19.098		
10,800.00	7,231.21	10,467.54	7,126.52	100.89	102.82	88.42	1,300.12	-3,662.92	3,775.40	3,572.23	203.17	18.582		
10,900.00	7,230.71	10,567.50	7,126.09	103.54	105.52	88.42	1,296.66	-3,762.82	3,772.53	3,563.99	208.53	18.091		
11,000.00	7,230.21	10,667.46	7,125.66	106.20	108.22	88.42	1,293.20	-3,862.72	3,769.65	3,555.74	213.91	17.622		
11,100.00	7,229.71	10,767.41	7,125.22	108.87	110.94	88.42	1,289.74	-3,962.62	3,766.78	3,547.47	219.31	17.176		
11,200.00	7,229.21	10,867.37	7,124.79	111.54	113.66	88.42	1,286.28	-4,062.51	3,763.91	3,539.19	224.72	16.750		
11,300.00	7,228.71	10,967.33	7,124.35	114.23	116.38	88.42	1,282.83	-4,162.41	3,761.03	3,530.89	230.14	16.342		
11,400.00	7,228.21	11,067.29	7,123.92	116.92	119.11	88.42	1,279.37	-4,262.31	3,758.16	3,522.58	235.58	15.953		
11,500.00	7,227.71	11,167.25	7,123.49	119.63	121.85	88.42	1,275.91	-4,362.21	3,755.29	3,514.26	241.03	15.580		
11,600.00	7,227.21	11,267.21	7,123.05	122.34	124.59	88.42	1,272.45	-4,462.10	3,752.41	3,505.93	246.49	15.223		
11,700.00	7,226.71	11,367.17	7,122.62	125.05	127.34	88.42	1,268.99	-4,562.00	3,749.54	3,497.58	251.96	14.881		
11,800.00	7,226.21	11,467.12	7,122.19	127.78	130.09	88.42	1,265.53	-4,661.90	3,746.67	3,489.23	257.44	14.553		
11,900.00	7,225.71	11,567.08	7,121.75	130.51	132.85	88.42	1,262.07	-4,761.80	3,743.80	3,480.86	262.94	14.238		
12,000.00	7,225.21	11,667.04	7,121.32	133.24	135.61	88.42	1,258.61	-4,861.70	3,740.92	3,472.49	268.44	13.936		
12,100.00	7,224.71	11,767.00	7,120.89	135.98	138.37	88.42	1,255.15	-4,961.59	3,738.05	3,464.11	273.94	13.645		
12,200.00	7,224.21	11,866.96	7,120.45	138.72	141.13	88.42	1,251.70	-5,061.49	3,735.18	3,455.72	279.46	13.366		
12,300.00	7,223.70	11,966.92	7,120.02	141.47	143.90	88.42	1,248.24	-5,161.39	3,732.30	3,447.32	284.98	13.097		
12,400.00	7,223.20	12,066.88	7,119.59	144.23	146.68	88.42	1,244.78	-5,261.29	3,729.43	3,438.91	290.52	12.837		
12,500.00	7,222.70	12,166.84	7,119.15	146.98	149.45	88.42	1,241.32	-5,361.19	3,726.56	3,430.50	296.05	12.587		
12,600.00	7,222.20	12,266.79	7,118.72	149.74	152.23	88.42	1,237.86	-5,461.08	3,723.68	3,422.09	301.60	12.347		
12,700.00	7,221.70	12,366.75	7,118.28	152.51	155.01	88.41	1,234.40	-5,560.98	3,720.81	3,413.66	307.15	12.114		
12,800.00	7,221.20	12,466.71	7,117.85	155.28	157.79	88.41	1,230.94	-5,660.88	3,717.94	3,405.24	312.70	11.890		
12,900.00	7,220.70	12,566.67	7,117.42	158.05	160.58	88.41	1,227.48	-5,760.78	3,715.06	3,396.80	318.26	11.673		
13,000.00	7,220.20	12,666.63	7,116.98	160.82	163.36	88.41	1,224.02	-5,860.68	3,712.19	3,388.36	323.83	11.464		
13,100.00	7,219.70	12,766.59	7,116.55	163.60	166.15	88.41	1,220.56	-5,960.57	3,709.32	3,379.92	329.40	11.261		
13,200.00	7,219.20	12,866.55	7,116.12	166.38	168.94	88.41	1,217.11	-6,060.47	3,706.44	3,371.47	334.97	11.065		
13,300.00	7,218.70	12,966.51	7,115.68	169.16	171.74	88.41	1,213.65	-6,160.37	3,703.57	3,363.02	340.55	10.875		
13,400.00	7,218.20	13,066.46	7,115.25	171.95	174.53	88.41	1,210.19	-6,260.27	3,700.70	3,354.56	346.13	10.692		
13,500.00	7,217.70	13,166.42	7,114.82	174.74	177.33	88.41	1,206.73	-6,360.17	3,697.82	3,346.10	351.72	10.514		
13,600.00	7,217.20	13,266.38	7,114.38	177.53	180.12	88.41	1,203.27	-6,460.06	3,694.95	3,337.64	357.31	10.341		
13,700.00	7,216.70	13,366.34	7,113.95	180.32	182.92	88.41	1,199.81	-6,559.96	3,692.08	3,329.17	362.90	10.174		
13,800.00	7,216.19	13,466.30	7,113.51	183.11	185.73	88.41	1,196.35	-6,659.86	3,689.20	3,320.70	368.50	10.011		
13,900.00	7,215.69	13,566.26	7,113.08	185.91	188.53	88.41	1,192.89	-6,759.76	3,686.33	3,312.23	374.10	9.854		
14,000.00	7,215.19	13,666.22	7,112.65	188.71	191.33	88.41	1,189.43	-6,859.65	3,683.46	3,303.75	379.71	9.701		
14,100.00	7,214.69	13,766.18	7,112.21	191.51	194.14	88.41	1,185.98	-6,959.55	3,680.58	3,295.27	385.31	9.552		
14,200.00	7,214.19	13,866.13	7,111.78	194.31	196.94	88.41	1,182.52	-7,059.45	3,677.71	3,286.79	390.92	9.408		
14,300.00	7,213.69	13,966.09	7,111.35	197.11	199.75	88.41	1,179.06	-7,159.35	3,674.84	3,278.30	396.53	9.267		
14,400.00	7,213.19	14,066.05	7,110.91	199.92	202.56	88.41	1,175.60	-7,259.25	3,671.96	3,269.82	402.15	9.131		
14,500.00	7,212.69	14,166.01	7,110.48	202.72	205.37	88.41	1,172.14	-7,359.14	3,669.09	3,261.33	407.76	8.998		
14,600.00	7,212.19	14,265.97	7,110.05	205.53	208.18	88.41	1,168.68	-7,459.04	3,666.22	3,252.83	413.38	8.869		
14,700.00	7,211.69	14,365.93	7,109.61	208.34	210.99	88.41	1,165.22	-7,558.94	3,663.35	3,244.34	419.01	8.743		
14,800.00	7,211.19	14,465.89	7,109.18	211.15	213.80	88.41	1,161.76	-7,658.84	3,660.47	3,235.84	424.63	8.620		
14,900.00	7,210.69	14,565.85	7,108.75	213.96	216.62	88.41	1,158.30	-7,758.74	3,657.60	3,227.34	430.26	8.501		
15,000.00	7,210.19	14,665.80	7,108.31	216.78	219.43	88.41	1,154.85	-7,858.63	3,654.73	3,218.84	435.88	8.385		
15,100.00	7,209.69	14,765.76	7,107.88	219.59	222.24	88.41	1,151.39	-7,958.53	3,651.85	3,210.34	441.51	8.271		
15,200.00	7,209.18	14,865.72	7,107.44	222.41	225.06	88.41	1,147.93	-8,058.43	3,648.98	3,201.83	447.15	8.161		
15,300.00	7,208.68	14,965.68	7,107.01	225.22	227.88	88.41	1,144.47	-8,158.33	3,646.11	3,193.33	452.78	8.053		
15,400.00	7,208.18	14,969.16	7,107.00	228.04	227.97	88.41	1,144.35	-8,161.81	3,644.51	3,188.90	455.61	7.999		
15,408.24	7,208.14	14,969.16	7,107.00	228.27	227.97	88.41	1,144.35	-8,161.81	3,644.50	3,188.68	455.82	7.995		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,437.48	7,208.00	14,969.16	7,107.00	229.10	227.97	88.41	1,144.35	-8,161.81	3,644.62	3,188.07	456.55	7.983 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.51	279.80	2.50	279.81					
100.00	100.00	102.00	100.00	3.28	3.29	0.51	279.80	2.50	279.81	273.24	6.57	42.591		
200.00	200.00	202.00	200.00	3.34	3.34	0.51	279.80	2.50	279.81	273.14	6.68	41.915 CC, ES		
300.00	299.98	301.98	299.98	3.44	3.45	176.89	279.80	2.50	281.56	274.67	6.89	40.879		
400.00	399.84	402.00	400.00	3.59	3.61	176.94	279.80	2.50	286.78	279.58	7.20	39.836		
500.00	499.45	510.44	508.41	3.79	3.82	176.78	278.13	1.19	293.94	286.32	7.61	38.603		
600.00	598.70	610.38	608.27	4.03	4.05	176.43	274.98	-1.29	302.96	294.87	8.08	37.477		
700.00	697.47	709.58	707.39	4.31	4.31	176.15	271.85	-3.75	315.45	306.83	8.62	36.594		
800.00	795.62	808.29	806.02	4.64	4.59	175.91	268.74	-6.20	331.39	322.17	9.21	35.964		
900.00	893.06	906.39	904.04	5.00	4.90	175.74	265.65	-8.64	350.76	340.90	9.86	35.589		
1,000.00	989.64	1,003.75	1,001.33	5.40	5.22	175.62	262.57	-11.05	373.53	363.00	10.54	35.452		
1,100.00	1,085.27	1,100.27	1,097.76	5.83	5.55	175.54	259.53	-13.45	399.68	388.43	11.25	35.529		
1,200.00	1,179.82	1,204.19	1,193.23	6.29	5.92	175.49	256.52	-15.82	429.18	417.16	12.02	35.706		
1,300.00	1,273.47	1,309.45	1,287.89	6.79	6.31	175.51	253.53	-18.17	461.20	448.38	12.82	35.976		
1,400.00	1,367.06	1,385.22	1,382.49	7.30	6.60	175.53	250.54	-20.52	493.38	479.86	13.52	36.492		
1,500.00	1,460.64	1,479.90	1,477.10	7.83	6.96	175.56	247.56	-22.87	525.57	511.26	14.31	36.728		
1,600.00	1,554.23	1,574.58	1,571.70	8.38	7.33	175.58	244.57	-25.22	557.75	542.64	15.11	36.901		
1,700.00	1,647.82	1,669.26	1,666.30	8.93	7.71	175.60	241.59	-27.57	589.94	574.01	15.93	37.026		
1,800.00	1,741.41	1,763.94	1,760.90	9.49	8.09	175.62	238.60	-29.92	622.13	605.36	16.76	37.113		
1,900.00	1,835.00	1,858.62	1,855.50	10.05	8.47	175.64	235.61	-32.27	654.31	636.71	17.60	37.172		
2,000.00	1,928.59	1,953.30	1,950.11	10.62	8.86	175.65	232.63	-34.62	686.50	668.05	18.45	37.208		
2,100.00	2,022.18	2,047.98	2,044.71	11.20	9.25	175.66	229.64	-36.97	718.68	699.38	19.31	37.228		
2,200.00	2,115.77	2,142.65	2,139.31	11.78	9.64	175.67	226.66	-39.32	750.87	730.70	20.17	37.234		
2,300.00	2,209.36	2,237.33	2,233.91	12.37	10.03	175.69	223.67	-41.67	783.05	762.02	21.03	37.230		
2,400.00	2,302.95	2,332.01	2,328.52	12.95	10.43	175.70	220.68	-44.02	815.24	793.34	21.90	37.218		
2,500.00	2,396.54	2,426.69	2,423.12	13.54	10.83	175.71	217.70	-46.37	847.43	824.64	22.78	37.199		
2,600.00	2,490.13	2,521.37	2,517.72	14.13	11.23	175.71	214.71	-48.72	879.61	855.95	23.66	37.177		
2,700.00	2,583.72	2,616.05	2,612.32	14.73	11.63	175.72	211.73	-51.07	911.80	887.25	24.54	37.150		
2,800.00	2,677.31	2,710.73	2,706.93	15.32	12.03	175.73	208.74	-53.42	943.98	918.55	25.43	37.121		
2,900.00	2,770.90	2,805.41	2,801.53	15.92	12.43	175.74	205.75	-55.77	976.17	949.85	26.32	37.090		
3,000.00	2,864.49	2,900.08	2,896.13	16.52	12.84	175.74	202.77	-58.12	1,008.35	981.14	27.21	37.058		
3,100.00	2,958.08	3,005.24	2,990.73	17.12	13.29	175.75	199.78	-60.47	1,040.54	1,012.39	28.15	36.966		
3,200.00	3,051.67	3,089.44	3,085.34	17.72	13.65	175.76	196.80	-62.82	1,072.73	1,043.73	29.00	36.991		
3,300.00	3,145.26	3,184.12	3,179.94	18.32	14.06	175.76	193.81	-65.17	1,104.91	1,075.02	29.90	36.957		
3,400.00	3,238.85	3,278.80	3,274.54	18.92	14.46	175.77	190.82	-67.52	1,137.10	1,106.30	30.80	36.923		
3,500.00	3,332.44	3,373.48	3,369.14	19.53	14.87	175.77	187.84	-69.87	1,169.28	1,137.59	31.70	36.890		
3,600.00	3,426.03	3,468.16	3,463.75	20.13	15.28	175.78	184.85	-72.21	1,201.47	1,168.87	32.60	36.856		
3,700.00	3,519.62	3,562.84	3,558.35	20.74	15.69	175.78	181.87	-74.56	1,233.66	1,200.15	33.50	36.823		
3,800.00	3,613.21	3,657.51	3,652.95	21.34	16.10	175.78	178.88	-76.91	1,265.84	1,231.43	34.41	36.790		
3,900.00	3,706.80	3,752.19	3,747.55	21.95	16.51	175.79	175.89	-79.26	1,298.03	1,262.71	35.31	36.758		
4,000.00	3,800.39	3,846.87	3,842.16	22.56	16.92	175.79	172.91	-81.61	1,330.21	1,293.99	36.22	36.726		
4,100.00	3,893.98	3,941.55	3,936.76	23.16	17.33	175.80	169.92	-83.96	1,362.40	1,325.27	37.13	36.695		
4,200.00	3,987.57	4,036.23	4,031.36	23.77	17.75	175.80	166.94	-86.31	1,394.59	1,356.55	38.04	36.664		
4,300.00	4,081.16	4,130.91	4,125.96	24.38	18.16	175.80	163.95	-88.66	1,426.77	1,387.83	38.95	36.635		
4,400.00	4,174.75	4,225.59	4,220.57	24.99	18.57	175.81	160.97	-91.01	1,458.96	1,419.10	39.86	36.605		
4,500.00	4,268.34	4,320.26	4,315.17	25.60	18.98	175.81	157.98	-93.36	1,491.14	1,450.38	40.77	36.577		
4,600.00	4,361.93	4,414.94	4,409.77	26.21	19.40	175.81	154.99	-95.71	1,523.33	1,481.65	41.68	36.549		
4,700.00	4,455.52	4,509.62	4,504.37	26.82	19.81	175.81	152.01	-98.06	1,555.52	1,512.92	42.59	36.522		
4,800.00	4,549.11	4,604.30	4,598.98	27.43	20.22	175.82	149.02	-100.41	1,587.70	1,544.20	43.50	36.495		
4,900.00	4,642.70	4,701.02	4,693.58	28.04	20.64	175.82	146.04	-102.76	1,619.89	1,575.46	44.43	36.462		
5,000.00	4,736.29	4,806.34	4,788.18	28.65	21.11	175.82	143.05	-105.11	1,652.07	1,606.69	45.39	36.399		
5,100.00	4,829.88	4,888.34	4,882.78	29.26	21.46	175.82	140.06	-107.46	1,684.26	1,638.01	46.25	36.419		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,983.02	4,977.39	29.87	21.88	175.83	137.08	-109.81	1,716.45	1,669.28	47.16	36.395		
5,300.00	5,017.06	5,077.69	5,071.99	30.48	22.29	175.83	134.09	-112.16	1,748.63	1,700.55	48.08	36.371		
5,400.00	5,110.65	5,172.37	5,166.59	31.09	22.71	175.83	131.11	-114.51	1,780.82	1,731.82	48.99	36.348		
5,500.00	5,204.24	5,267.05	5,261.19	31.70	23.12	175.83	128.12	-116.86	1,813.00	1,763.09	49.91	36.325		
5,600.00	5,297.83	5,361.73	5,355.80	32.32	23.54	175.83	125.13	-119.21	1,845.19	1,794.36	50.83	36.303		
5,700.00	5,391.42	5,456.41	5,450.40	32.93	23.95	175.84	122.15	-121.56	1,877.38	1,825.63	51.74	36.282		
5,800.00	5,485.01	5,551.09	5,545.00	33.54	24.37	175.84	119.16	-123.91	1,909.56	1,856.90	52.66	36.261		
5,900.00	5,578.60	5,645.77	5,639.60	34.15	24.78	175.84	116.18	-126.26	1,941.75	1,888.17	53.58	36.240		
6,000.00	5,672.19	5,740.45	5,734.21	34.77	25.20	175.84	113.19	-128.61	1,973.93	1,919.43	54.50	36.220		
6,100.00	5,765.78	5,835.12	5,828.81	35.38	25.62	175.84	110.20	-130.96	2,006.12	1,950.70	55.42	36.200		
6,200.00	5,859.37	5,929.80	5,923.41	35.99	26.03	175.84	107.22	-133.31	2,038.31	1,981.97	56.34	36.181		
6,300.00	5,952.96	6,024.48	6,018.01	36.60	26.45	175.85	104.23	-135.66	2,070.49	2,013.24	57.26	36.162		
6,400.00	6,046.55	6,119.16	6,112.61	37.22	26.86	175.85	101.25	-138.01	2,102.68	2,044.50	58.18	36.144		
6,500.00	6,140.14	6,213.84	6,207.22	37.83	27.28	175.85	98.26	-140.36	2,134.86	2,075.77	59.10	36.126		
6,600.00	6,233.73	6,308.52	6,301.82	38.44	27.70	175.85	95.27	-142.71	2,167.05	2,107.03	60.02	36.108		
6,700.00	6,327.32	6,403.20	6,396.42	39.06	28.11	175.85	92.29	-145.06	2,199.24	2,138.30	60.94	36.091		
6,800.00	6,420.91	6,497.95	6,490.98	39.67	28.53	175.79	89.29	-149.57	2,231.42	2,169.56	61.86	36.073		
6,900.00	6,514.50	6,590.55	6,581.96	40.28	28.94	175.41	86.33	-166.14	2,263.65	2,200.89	62.76	36.070		
7,000.00	6,608.09	6,677.35	6,664.21	40.90	29.31	174.75	83.58	-193.50	2,296.18	2,232.58	63.60	36.105		
7,100.00	6,701.63	6,756.55	6,735.40	41.51	29.65	163.24	81.13	-228.02	2,329.34	2,264.98	64.36	36.194		
7,200.00	6,793.85	6,832.23	6,798.91	42.10	29.96	139.66	78.89	-269.03	2,362.59	2,297.52	65.07	36.309		
7,300.00	6,882.50	6,906.16	6,855.84	42.64	30.29	122.71	76.81	-316.09	2,394.91	2,329.16	65.74	36.428		
7,400.00	6,965.41	6,978.87	6,906.14	43.12	30.65	110.88	74.91	-368.51	2,425.37	2,358.97	66.40	36.527		
7,500.00	7,040.53	7,050.00	6,949.26	43.53	31.05	102.46	73.21	-425.01	2,453.12	2,386.06	67.06	36.583		
7,600.00	7,106.00	7,122.16	6,986.28	43.89	31.54	96.34	71.67	-486.88	2,477.41	2,409.60	67.81	36.534		
7,700.00	7,160.23	7,193.22	7,015.68	44.20	32.11	91.90	70.35	-551.51	2,497.62	2,428.93	68.69	36.362		
7,800.00	7,201.86	7,264.06	7,037.64	44.48	32.77	88.81	69.25	-618.83	2,513.21	2,443.44	69.77	36.020		
7,900.00	7,229.88	7,334.79	7,051.97	44.73	33.51	86.84	68.37	-688.04	2,523.81	2,452.71	71.11	35.494		
8,000.00	7,243.60	7,405.43	7,058.55	44.99	34.33	85.89	67.73	-758.34	2,529.14	2,456.44	72.70	34.787		
8,100.00	7,244.73	7,505.74	7,058.73	45.29	35.64	85.78	67.18	-847.16	2,529.78	2,454.76	75.01	33.725		
8,200.00	7,244.23	7,605.74	7,058.29	45.74	37.11	85.78	66.59	-947.16	2,529.76	2,452.07	77.69	32.561		
8,300.00	7,243.73	7,694.26	7,057.86	46.38	38.55	85.79	65.99	-1,047.16	2,529.74	2,449.25	80.49	31.428		
8,400.00	7,243.23	7,805.74	7,057.42	47.29	40.51	85.79	65.39	-1,147.15	2,529.73	2,445.77	83.96	30.129		
8,500.00	7,242.73	7,894.26	7,056.99	48.46	42.18	85.79	64.79	-1,247.15	2,529.71	2,442.45	87.26	28.989		
8,600.00	7,242.23	8,005.74	7,056.56	49.87	44.39	85.79	64.19	-1,347.15	2,529.70	2,438.47	91.23	27.729		
8,700.00	7,241.73	8,105.74	7,056.12	51.48	46.47	85.79	63.59	-1,447.15	2,529.68	2,434.51	95.17	26.581		
8,800.00	7,241.23	8,205.74	7,055.69	53.24	48.63	85.79	62.99	-1,547.14	2,529.67	2,430.39	99.28	25.481		
8,900.00	7,240.73	8,305.74	7,055.25	55.13	50.86	85.80	62.39	-1,647.14	2,529.65	2,426.12	103.54	24.433		
9,000.00	7,240.23	8,405.74	7,054.82	57.11	53.15	85.80	61.80	-1,747.14	2,529.64	2,421.71	107.93	23.438		
9,100.00	7,239.73	8,505.74	7,054.39	59.19	55.49	85.80	61.20	-1,847.13	2,529.62	2,417.18	112.44	22.498		
9,200.00	7,239.23	8,605.74	7,053.95	61.34	57.88	85.80	60.60	-1,947.13	2,529.61	2,412.55	117.05	21.611		
9,300.00	7,238.72	8,705.74	7,053.52	63.55	60.31	85.80	60.00	-2,047.13	2,529.59	2,407.83	121.76	20.775		
9,400.00	7,238.22	8,805.74	7,053.08	65.81	62.78	85.80	59.40	-2,147.13	2,529.57	2,403.03	126.55	19.989		
9,500.00	7,237.72	8,905.74	7,052.65	68.13	65.28	85.80	58.80	-2,247.12	2,529.56	2,398.15	131.41	19.250		
9,600.00	7,237.22	9,005.74	7,052.22	70.48	67.80	85.81	58.20	-2,347.12	2,529.54	2,393.21	136.34	18.554		
9,700.00	7,236.72	9,105.74	7,051.78	72.88	70.36	85.81	57.60	-2,447.12	2,529.53	2,388.21	141.32	17.899		
9,800.00	7,236.22	9,205.74	7,051.35	75.31	72.93	85.81	57.01	-2,547.11	2,529.51	2,383.15	146.36	17.283		
9,900.00	7,235.72	9,305.74	7,050.91	77.77	75.53	85.81	56.41	-2,647.11	2,529.50	2,378.05	151.44	16.703		
10,000.00	7,235.22	9,405.74	7,050.48	80.26	78.14	85.81	55.81	-2,747.11	2,529.48	2,372.91	156.57	16.156		
10,100.00	7,234.72	9,505.74	7,050.05	82.77	80.77	85.81	55.21	-2,847.11	2,529.47	2,367.73	161.74	15.639		
10,200.00	7,234.22	9,605.74	7,049.61	85.31	83.42	85.81	54.61	-2,947.10	2,529.45	2,362.51	166.94	15.152		
10,300.00	7,233.72	9,705.74	7,049.18	87.86	86.08	85.82	54.01	-3,047.10	2,529.44	2,357.26	172.17	14.691		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	9,805.74	7,048.74	90.44	88.75	85.82	53.41	-3,147.10	2,529.42	2,351.99	177.43	14.256		
10,500.00	7,232.72	9,905.74	7,048.31	93.03	91.43	85.82	52.81	-3,247.10	2,529.40	2,346.68	182.72	13.843		
10,600.00	7,232.22	10,005.74	7,047.88	95.64	94.12	85.82	52.22	-3,347.09	2,529.39	2,341.35	188.04	13.452		
10,700.00	7,231.72	10,105.74	7,047.44	98.26	96.83	85.82	51.62	-3,447.09	2,529.37	2,336.00	193.37	13.080		
10,800.00	7,231.21	10,205.74	7,047.01	100.89	99.54	85.82	51.02	-3,547.09	2,529.36	2,330.63	198.73	12.728		
10,900.00	7,230.71	10,305.74	7,046.57	103.54	102.26	85.83	50.42	-3,647.08	2,529.34	2,325.24	204.10	12.392		
11,000.00	7,230.21	10,405.74	7,046.14	106.20	104.98	85.83	49.82	-3,747.08	2,529.33	2,319.83	209.50	12.073		
11,100.00	7,229.71	10,505.74	7,045.71	108.87	107.72	85.83	49.22	-3,847.08	2,529.31	2,314.41	214.91	11.769		
11,200.00	7,229.21	10,605.74	7,045.27	111.54	110.46	85.83	48.62	-3,947.08	2,529.30	2,308.97	220.33	11.480		
11,300.00	7,228.71	10,705.74	7,044.84	114.23	113.20	85.83	48.02	-4,047.07	2,529.28	2,303.51	225.77	11.203		
11,400.00	7,228.21	10,805.74	7,044.40	116.92	115.95	85.83	47.42	-4,147.07	2,529.27	2,298.05	231.22	10.939		
11,500.00	7,227.71	10,905.74	7,043.97	119.63	118.71	85.83	46.83	-4,247.07	2,529.25	2,292.57	236.68	10.686		
11,600.00	7,227.21	11,005.74	7,043.54	122.34	121.47	85.84	46.23	-4,347.07	2,529.24	2,287.08	242.15	10.445		
11,700.00	7,226.71	11,105.74	7,043.10	125.05	124.24	85.84	45.63	-4,447.06	2,529.22	2,281.58	247.64	10.213		
11,800.00	7,226.21	11,205.74	7,042.67	127.78	127.01	85.84	45.03	-4,547.06	2,529.20	2,276.07	253.13	9.992		
11,900.00	7,225.71	11,305.74	7,042.23	130.51	129.78	85.84	44.43	-4,647.06	2,529.19	2,270.55	258.64	9.779		
12,000.00	7,225.21	11,405.74	7,041.80	133.24	132.56	85.84	43.83	-4,747.05	2,529.17	2,265.02	264.15	9.575		
12,100.00	7,224.71	11,505.74	7,041.37	135.98	135.34	85.84	43.23	-4,847.05	2,529.16	2,259.49	269.67	9.379		
12,200.00	7,224.21	11,594.26	7,040.93	138.72	137.80	85.84	42.63	-4,947.05	2,529.14	2,254.26	274.88	9.201		
12,300.00	7,223.70	11,705.74	7,040.50	141.47	140.91	85.85	42.04	-5,047.05	2,529.13	2,248.40	280.73	9.009		
12,400.00	7,223.20	11,805.74	7,040.07	144.23	143.70	85.85	41.44	-5,147.04	2,529.11	2,242.84	286.27	8.835		
12,500.00	7,222.70	11,905.74	7,039.63	146.98	146.49	85.85	40.84	-5,247.04	2,529.10	2,237.28	291.82	8.667		
12,600.00	7,222.20	12,005.74	7,039.20	149.74	149.29	85.85	40.24	-5,347.04	2,529.08	2,231.71	297.38	8.505		
12,700.00	7,221.70	12,105.74	7,038.76	152.51	152.08	85.85	39.64	-5,447.03	2,529.07	2,226.13	302.94	8.349		
12,800.00	7,221.20	12,205.74	7,038.33	155.28	154.88	85.85	39.04	-5,547.03	2,529.05	2,220.55	308.50	8.198		
12,900.00	7,220.70	12,305.74	7,037.90	158.05	157.69	85.85	38.44	-5,647.03	2,529.04	2,214.96	314.07	8.052		
13,000.00	7,220.20	12,405.74	7,037.46	160.82	160.49	85.86	37.84	-5,747.03	2,529.02	2,209.37	319.65	7.912		
13,100.00	7,219.70	12,505.74	7,037.03	163.60	163.29	85.86	37.25	-5,847.02	2,529.00	2,203.78	325.23	7.776		
13,200.00	7,219.20	12,605.74	7,036.59	166.38	166.10	85.86	36.65	-5,947.02	2,528.99	2,198.18	330.81	7.645		
13,300.00	7,218.70	12,705.74	7,036.16	169.16	168.91	85.86	36.05	-6,047.02	2,528.97	2,192.58	336.40	7.518		
13,400.00	7,218.20	12,805.74	7,035.73	171.95	171.72	85.86	35.45	-6,147.02	2,528.96	2,186.97	341.99	7.395		
13,500.00	7,217.70	12,905.74	7,035.29	174.74	174.53	85.86	34.85	-6,247.01	2,528.94	2,181.36	347.58	7.276		
13,600.00	7,217.20	13,005.74	7,034.86	177.53	177.35	85.87	34.25	-6,347.01	2,528.93	2,175.74	353.18	7.160		
13,700.00	7,216.70	13,105.74	7,034.42	180.32	180.16	85.87	33.65	-6,447.01	2,528.91	2,170.13	358.79	7.049		
13,800.00	7,216.19	13,205.74	7,033.99	183.11	182.98	85.87	33.05	-6,547.00	2,528.90	2,164.50	364.39	6.940		
13,900.00	7,215.69	13,305.74	7,033.56	185.91	185.80	85.87	32.46	-6,647.00	2,528.88	2,158.88	370.00	6.835		
14,000.00	7,215.19	13,405.74	7,033.12	188.71	188.62	85.87	31.86	-6,747.00	2,528.87	2,153.25	375.61	6.733		
14,100.00	7,214.69	13,505.74	7,032.69	191.51	191.44	85.87	31.26	-6,847.00	2,528.85	2,147.62	381.23	6.633		
14,200.00	7,214.19	13,605.74	7,032.25	194.31	194.26	85.87	30.66	-6,946.99	2,528.84	2,141.99	386.85	6.537		
14,300.00	7,213.69	13,705.74	7,031.82	197.11	197.08	85.88	30.06	-7,046.99	2,528.82	2,136.35	392.47	6.443		
14,400.00	7,213.19	13,805.74	7,031.39	199.92	199.90	85.88	29.46	-7,146.99	2,528.80	2,130.72	398.09	6.352		
14,500.00	7,212.69	13,905.74	7,030.95	202.72	202.73	85.88	28.86	-7,246.99	2,528.79	2,125.08	403.71	6.264		
14,600.00	7,212.19	14,005.74	7,030.52	205.53	205.55	85.88	28.26	-7,346.98	2,528.77	2,119.43	409.34	6.178		
14,700.00	7,211.69	14,105.74	7,030.08	208.34	208.38	85.88	27.67	-7,446.98	2,528.76	2,113.79	414.97	6.094		
14,800.00	7,211.19	14,205.74	7,029.65	211.15	211.21	85.88	27.07	-7,546.98	2,528.74	2,108.14	420.60	6.012		
14,900.00	7,210.69	14,305.74	7,029.22	213.96	214.04	85.88	26.47	-7,646.97	2,528.73	2,102.49	426.23	5.933		
15,000.00	7,210.19	14,405.74	7,028.78	216.78	216.87	85.89	25.87	-7,746.97	2,528.71	2,096.84	431.87	5.855		
15,100.00	7,209.69	14,505.74	7,028.35	219.59	219.69	85.89	25.27	-7,846.97	2,528.70	2,091.19	437.51	5.780		
15,200.00	7,209.18	14,605.74	7,027.91	222.41	222.53	85.89	24.67	-7,946.97	2,528.68	2,085.54	443.15	5.706		
15,300.00	7,208.68	14,705.74	7,027.48	225.22	225.36	85.89	24.07	-8,046.96	2,528.67	2,079.88	448.79	5.634		
15,400.00	7,208.18	14,794.26	7,027.05	228.04	227.86	85.89	23.47	-8,146.96	2,528.65	2,074.55	454.10	5.568		
15,419.60	7,208.09	14,813.86	7,026.96	228.59	228.42	85.89	23.36	-8,166.56	2,528.65	2,073.44	455.21	5.555		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16B-M - OH - PLAN #1											Offset Site Error:	0.00 ft
Survey Program:	0-MWD+IFR1											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	14,805.04	7,027.00	229.10	228.17	85.89	23.41	-8,157.74	2,528.79	2,073.45	455.34	5.554 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.48	299.84	2.50	299.85					
100.00	100.00	102.00	100.00	3.28	3.29	0.48	299.84	2.50	299.85	293.28	6.57	45.640		
200.00	200.00	202.00	200.00	3.34	3.34	0.48	299.84	2.50	299.85	293.17	6.68	44.916	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.86	299.84	2.50	301.59	294.70	6.89	43.787		
400.00	399.84	401.84	399.84	3.59	3.61	176.91	299.84	2.50	306.81	299.62	7.20	42.620		
500.00	499.45	501.45	499.45	3.79	3.81	176.98	299.84	2.50	315.52	307.92	7.60	41.506		
600.00	598.70	600.78	598.77	4.03	4.04	176.80	299.84	0.88	327.67	319.59	8.08	40.575		
700.00	697.47	700.46	697.49	4.31	4.30	176.51	299.84	-1.59	343.27	334.66	8.61	39.847		
800.00	795.62	802.30	795.62	4.64	4.60	176.27	299.84	-4.04	362.31	353.09	9.22	39.304		
900.00	893.06	904.86	893.03	5.00	4.92	176.09	299.84	-6.48	384.76	374.89	9.87	38.970		
1,000.00	989.64	1,008.26	989.60	5.40	5.26	175.95	299.84	-8.89	410.59	400.02	10.57	38.832		
1,100.00	1,085.27	1,087.38	1,085.21	5.83	5.53	175.85	299.84	-11.28	439.77	428.55	11.22	39.182		
1,200.00	1,179.82	1,181.95	1,179.75	6.29	5.87	175.78	299.84	-13.64	472.26	460.31	11.96	39.502		
1,300.00	1,273.47	1,275.62	1,273.40	6.79	6.21	175.78	299.84	-15.98	507.26	494.55	12.71	39.924		
1,400.00	1,367.06	1,369.24	1,366.98	7.30	6.56	175.79	299.84	-18.32	542.41	528.95	13.47	40.281		
1,500.00	1,460.64	1,462.86	1,460.57	7.83	6.92	175.80	299.84	-20.66	577.57	563.33	14.24	40.548		
1,600.00	1,554.23	1,556.47	1,554.16	8.38	7.29	175.80	299.84	-23.00	612.73	597.69	15.04	40.744		
1,700.00	1,647.82	1,650.09	1,647.74	8.93	7.65	175.81	299.84	-25.34	647.88	632.04	15.85	40.887		
1,800.00	1,741.41	1,743.71	1,741.33	9.49	8.03	175.82	299.84	-27.68	683.04	666.37	16.66	40.988		
1,900.00	1,835.00	1,837.32	1,834.92	10.05	8.40	175.82	299.84	-30.02	718.19	700.70	17.49	41.058		
2,000.00	1,928.59	1,930.94	1,928.51	10.62	8.78	175.83	299.84	-32.36	753.35	735.02	18.33	41.102		
2,100.00	2,022.18	2,024.55	2,022.09	11.20	9.17	175.83	299.84	-34.70	788.51	769.33	19.17	41.127		
2,200.00	2,115.77	2,118.17	2,115.68	11.78	9.55	175.84	299.84	-37.04	823.66	803.64	20.02	41.136		
2,300.00	2,209.36	2,211.79	2,209.27	12.37	9.94	175.84	299.84	-39.37	858.82	837.94	20.88	41.134		
2,400.00	2,302.95	2,305.40	2,302.86	12.95	10.33	175.84	299.84	-41.71	893.97	872.24	21.74	41.124		
2,500.00	2,396.54	2,400.98	2,396.44	13.54	10.72	175.85	299.84	-44.05	929.13	906.52	22.61	41.091		
2,600.00	2,490.13	2,507.36	2,490.03	14.13	11.17	175.85	299.84	-46.39	964.29	940.75	23.53	40.974		
2,700.00	2,583.72	2,586.25	2,583.62	14.73	11.50	175.85	299.84	-48.73	999.44	975.10	24.34	41.055		
2,800.00	2,677.31	2,679.87	2,677.20	15.32	11.90	175.86	299.84	-51.07	1,034.60	1,009.38	25.22	41.024		
2,900.00	2,770.90	2,773.49	2,770.79	15.92	12.29	175.86	299.84	-53.41	1,069.75	1,043.66	26.10	40.991		
3,000.00	2,864.49	2,867.10	2,864.38	16.52	12.69	175.86	299.84	-55.75	1,104.91	1,077.93	26.98	40.957		
3,100.00	2,958.08	2,960.72	2,957.97	17.12	13.09	175.86	299.84	-58.09	1,140.07	1,112.21	27.86	40.921		
3,200.00	3,051.67	3,054.34	3,051.55	17.72	13.49	175.87	299.84	-60.43	1,175.22	1,146.48	28.74	40.885		
3,300.00	3,145.26	3,147.95	3,145.14	18.32	13.89	175.87	299.84	-62.77	1,210.38	1,180.75	29.63	40.848		
3,400.00	3,238.85	3,241.57	3,238.73	18.92	14.29	175.87	299.84	-65.11	1,245.53	1,215.02	30.52	40.812		
3,500.00	3,332.44	3,335.19	3,332.32	19.53	14.69	175.87	299.84	-67.45	1,280.69	1,249.28	31.41	40.775		
3,600.00	3,426.03	3,428.80	3,425.90	20.13	15.09	175.87	299.84	-69.78	1,315.85	1,283.55	32.30	40.738		
3,700.00	3,519.62	3,522.42	3,519.49	20.74	15.49	175.87	299.84	-72.12	1,351.00	1,317.81	33.19	40.702		
3,800.00	3,613.21	3,616.04	3,613.08	21.34	15.89	175.88	299.84	-74.46	1,386.16	1,352.07	34.09	40.666		
3,900.00	3,706.80	3,709.65	3,706.66	21.95	16.30	175.88	299.84	-76.80	1,421.31	1,386.33	34.98	40.631		
4,000.00	3,800.39	3,803.27	3,800.25	22.56	16.70	175.88	299.84	-79.14	1,456.47	1,420.59	35.88	40.596		
4,100.00	3,893.98	3,903.11	3,893.84	23.16	17.13	175.88	299.84	-81.48	1,491.63	1,454.83	36.80	40.533		
4,200.00	3,987.57	4,009.50	3,987.43	23.77	17.59	175.88	299.84	-83.82	1,526.78	1,489.03	37.75	40.441		
4,300.00	4,081.16	4,084.12	4,081.01	24.38	17.91	175.88	299.84	-86.16	1,561.94	1,523.37	38.57	40.496		
4,400.00	4,174.75	4,177.73	4,174.60	24.99	18.32	175.88	299.84	-88.50	1,597.09	1,557.63	39.47	40.464		
4,500.00	4,268.34	4,271.35	4,268.19	25.60	18.73	175.88	299.84	-90.84	1,632.25	1,591.88	40.37	40.433		
4,600.00	4,361.93	4,364.97	4,361.78	26.21	19.13	175.89	299.84	-93.18	1,667.41	1,626.14	41.27	40.402		
4,700.00	4,455.52	4,458.58	4,455.36	26.82	19.54	175.89	299.84	-95.52	1,702.56	1,660.39	42.17	40.372		
4,800.00	4,549.11	4,552.20	4,548.95	27.43	19.94	175.89	299.84	-97.85	1,737.72	1,694.64	43.07	40.342		
4,900.00	4,642.70	4,645.82	4,642.54	28.04	20.35	175.89	299.84	-100.19	1,772.87	1,728.90	43.98	40.314		
5,000.00	4,736.29	4,739.43	4,736.13	28.65	20.76	175.89	299.84	-102.53	1,808.03	1,763.15	44.88	40.286		
5,100.00	4,829.88	4,833.05	4,829.71	29.26	21.16	175.89	299.84	-104.87	1,843.19	1,797.40	45.78	40.258		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,926.67	4,923.30	29.87	21.57	175.89	299.84	-107.21	1,878.34	1,831.65	46.69	40.231		
5,300.00	5,017.06	5,020.28	5,016.89	30.48	21.98	175.89	299.84	-109.55	1,913.50	1,865.91	47.59	40.205		
5,400.00	5,110.65	5,113.90	5,110.47	31.09	22.38	175.89	299.84	-111.89	1,948.65	1,900.16	48.50	40.180		
5,500.00	5,204.24	5,207.52	5,204.06	31.70	22.79	175.89	299.84	-114.23	1,983.81	1,934.41	49.40	40.155		
5,600.00	5,297.83	5,301.13	5,297.65	32.32	23.20	175.89	299.84	-116.57	2,018.97	1,968.66	50.31	40.130		
5,700.00	5,391.42	5,405.25	5,391.24	32.93	23.65	175.89	299.84	-118.91	2,054.12	2,002.86	51.26	40.071		
5,800.00	5,485.01	5,488.37	5,484.82	33.54	24.02	175.89	299.84	-121.25	2,089.28	2,037.16	52.12	40.083		
5,900.00	5,578.60	5,581.98	5,578.41	34.15	24.42	175.90	299.84	-123.59	2,124.43	2,071.40	53.03	40.060		
6,000.00	5,672.19	5,675.60	5,672.00	34.77	24.83	175.90	299.84	-125.93	2,159.59	2,105.65	53.94	40.038		
6,100.00	5,765.78	5,769.22	5,765.59	35.38	25.24	175.90	299.84	-128.26	2,194.75	2,139.90	54.85	40.016		
6,200.00	5,859.37	5,862.83	5,859.17	35.99	25.65	175.90	299.84	-130.60	2,229.90	2,174.15	55.75	39.995		
6,300.00	5,952.96	5,956.45	5,952.76	36.60	26.06	175.90	299.84	-132.94	2,265.06	2,208.40	56.66	39.974		
6,400.00	6,046.55	6,050.07	6,046.35	37.22	26.47	175.90	299.84	-135.28	2,300.21	2,242.64	57.57	39.953		
6,500.00	6,140.14	6,143.68	6,139.93	37.83	26.88	175.90	299.84	-137.62	2,335.37	2,276.89	58.48	39.933		
6,600.00	6,233.73	6,237.30	6,233.52	38.44	27.29	175.90	299.84	-139.96	2,370.53	2,311.14	59.39	39.914		
6,700.00	6,327.32	6,330.92	6,327.11	39.06	27.69	175.90	299.84	-142.30	2,405.68	2,345.38	60.30	39.895		
6,800.00	6,420.91	6,424.53	6,420.70	39.67	28.10	175.90	299.84	-144.64	2,440.84	2,379.63	61.21	39.876		
6,900.00	6,514.50	6,518.55	6,514.68	40.28	28.51	175.90	299.83	-147.02	2,475.99	2,413.87	62.13	39.855		
7,000.00	6,608.09	6,612.53	6,612.94	40.90	28.95	175.69	299.67	-158.15	2,511.03	2,447.94	63.09	39.801		
7,100.00	6,701.63	6,712.22	6,704.24	41.51	29.38	164.42	299.23	-182.91	2,545.97	2,481.95	64.02	39.771		
7,200.00	6,793.85	6,803.75	6,788.07	42.10	29.79	140.95	298.55	-219.45	2,580.43	2,515.53	64.90	39.759		
7,300.00	6,882.50	6,893.43	6,864.30	42.64	30.20	124.09	297.67	-266.54	2,613.53	2,547.78	65.75	39.749		
7,400.00	6,965.41	6,981.82	6,932.23	43.12	30.64	112.36	296.60	-322.98	2,644.39	2,577.81	66.58	39.717		
7,500.00	7,040.53	7,069.33	6,991.14	43.53	31.13	104.01	295.36	-387.58	2,672.22	2,604.79	67.43	39.628		
7,600.00	7,106.00	7,156.22	7,040.34	43.89	31.70	97.96	293.99	-459.10	2,696.33	2,627.96	68.37	39.439		
7,700.00	7,160.23	7,242.63	7,079.15	44.20	32.38	93.59	292.50	-536.22	2,716.09	2,646.63	69.46	39.105		
7,800.00	7,201.86	7,328.62	7,107.06	44.48	33.18	90.53	290.92	-617.47	2,731.02	2,660.26	70.77	38.591		
7,900.00	7,229.88	7,414.14	7,123.72	44.73	34.09	88.59	289.29	-701.27	2,740.76	2,668.42	72.34	37.889		
8,000.00	7,243.60	7,499.23	7,129.00	44.99	35.09	87.66	287.64	-786.12	2,745.05	2,670.88	74.16	37.013		
8,100.00	7,244.73	7,600.81	7,128.63	45.29	36.45	87.58	285.68	-886.06	2,744.36	2,667.80	76.56	35.848		
8,200.00	7,244.23	7,700.82	7,128.27	45.74	37.95	87.58	283.73	-986.03	2,742.98	2,663.71	79.27	34.601		
8,300.00	7,243.73	7,800.83	7,127.90	46.38	39.61	87.58	281.77	-1,086.00	2,741.61	2,659.31	82.30	33.312		
8,400.00	7,243.23	7,900.84	7,127.53	47.29	41.39	87.58	279.81	-1,185.97	2,740.24	2,654.64	85.60	32.013		
8,500.00	7,242.73	8,000.85	7,127.17	48.46	43.29	87.59	277.86	-1,285.94	2,738.87	2,649.73	89.14	30.726		
8,600.00	7,242.23	8,100.86	7,126.80	49.87	45.29	87.59	275.90	-1,385.91	2,737.50	2,644.60	92.89	29.469		
8,700.00	7,241.73	8,200.87	7,126.44	51.48	47.38	87.59	273.95	-1,485.88	2,736.13	2,639.28	96.84	28.254		
8,800.00	7,241.23	8,300.88	7,126.07	53.24	49.54	87.59	271.99	-1,585.85	2,734.75	2,633.80	100.96	27.089		
8,900.00	7,240.73	8,400.89	7,125.70	55.13	51.77	87.59	270.04	-1,685.82	2,733.38	2,628.16	105.22	25.978		
9,000.00	7,240.23	8,500.89	7,125.34	57.11	54.06	87.59	268.08	-1,785.79	2,732.01	2,622.40	109.61	24.924		
9,100.00	7,239.73	8,600.90	7,124.97	59.19	56.40	87.60	266.13	-1,885.76	2,730.64	2,616.52	114.12	23.927		
9,200.00	7,239.23	8,700.91	7,124.61	61.34	58.79	87.60	264.17	-1,985.74	2,729.27	2,610.53	118.73	22.986		
9,300.00	7,238.72	8,800.92	7,124.24	63.55	61.21	87.60	262.22	-2,085.71	2,727.89	2,604.46	123.44	22.099		
9,400.00	7,238.22	8,900.93	7,123.87	65.81	63.68	87.60	260.26	-2,185.68	2,726.52	2,598.30	128.22	21.264		
9,500.00	7,237.72	9,000.94	7,123.51	68.13	66.17	87.60	258.31	-2,285.65	2,725.15	2,592.07	133.08	20.477		
9,600.00	7,237.22	9,100.95	7,123.14	70.48	68.69	87.60	256.35	-2,385.62	2,723.78	2,585.77	138.01	19.737		
9,700.00	7,236.72	9,200.96	7,122.77	72.88	71.24	87.60	254.39	-2,485.59	2,722.41	2,579.42	142.99	19.039		
9,800.00	7,236.22	9,300.97	7,122.41	75.31	73.81	87.61	252.44	-2,585.56	2,721.03	2,573.01	148.02	18.383		
9,900.00	7,235.72	9,400.98	7,122.04	77.77	76.40	87.61	250.48	-2,685.53	2,719.66	2,566.56	153.10	17.763		
10,000.00	7,235.22	9,500.99	7,121.68	80.26	79.01	87.61	248.53	-2,785.50	2,718.29	2,560.06	158.23	17.180		
10,100.00	7,234.72	9,601.00	7,121.31	82.77	81.63	87.61	246.57	-2,885.47	2,716.92	2,553.53	163.39	16.628		
10,200.00	7,234.22	9,701.01	7,120.94	85.31	84.27	87.61	244.62	-2,985.44	2,715.55	2,546.96	168.59	16.107		
10,300.00	7,233.72	9,801.02	7,120.58	87.86	86.92	87.61	242.66	-3,085.41	2,714.18	2,540.35	173.82	15.615		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	9,901.03	7,120.21	90.44	89.59	87.62	240.71	-3,185.38	2,712.80	2,533.72	179.08	15.149		
10,500.00	7,232.72	10,001.04	7,119.85	93.03	92.26	87.62	238.75	-3,285.36	2,711.43	2,527.07	184.37	14.707		
10,600.00	7,232.22	10,101.05	7,119.48	95.64	94.95	87.62	236.80	-3,385.33	2,710.06	2,520.38	189.68	14.288		
10,700.00	7,231.72	10,201.06	7,119.11	98.26	97.65	87.62	234.84	-3,485.30	2,708.69	2,513.68	195.01	13.890		
10,800.00	7,231.21	10,301.06	7,118.75	100.89	100.35	87.62	232.89	-3,585.27	2,707.32	2,506.95	200.37	13.512		
10,900.00	7,230.71	10,401.07	7,118.38	103.54	103.07	87.62	230.93	-3,685.24	2,705.94	2,500.21	205.74	13.152		
11,000.00	7,230.21	10,501.08	7,118.01	106.20	105.79	87.63	228.97	-3,785.21	2,704.57	2,493.44	211.13	12.810		
11,100.00	7,229.71	10,601.09	7,117.65	108.87	108.51	87.63	227.02	-3,885.18	2,703.20	2,486.66	216.54	12.484		
11,200.00	7,229.21	10,698.90	7,117.28	111.54	111.19	87.63	225.06	-3,985.15	2,701.83	2,479.93	221.90	12.176		
11,300.00	7,228.71	10,798.89	7,116.92	114.23	113.93	87.63	223.11	-4,085.12	2,700.46	2,473.12	227.33	11.879		
11,400.00	7,228.21	10,901.12	7,116.55	116.92	116.73	87.63	221.15	-4,185.09	2,699.08	2,466.24	232.85	11.592		
11,500.00	7,227.71	11,001.13	7,116.18	119.63	119.48	87.63	219.20	-4,285.06	2,697.71	2,459.41	238.31	11.320		
11,600.00	7,227.21	11,101.14	7,115.82	122.34	122.24	87.64	217.24	-4,385.03	2,696.34	2,452.56	243.78	11.061		
11,700.00	7,226.71	11,201.15	7,115.45	125.05	125.00	87.64	215.29	-4,485.00	2,694.97	2,445.70	249.26	10.812		
11,800.00	7,226.21	11,301.16	7,115.09	127.78	127.76	87.64	213.33	-4,584.98	2,693.60	2,438.84	254.76	10.573		
11,900.00	7,225.71	11,401.17	7,114.72	130.51	130.53	87.64	211.38	-4,684.95	2,692.23	2,431.96	260.26	10.344		
12,000.00	7,225.21	11,501.18	7,114.35	133.24	133.30	87.64	209.42	-4,784.92	2,690.85	2,425.08	265.77	10.125		
12,100.00	7,224.71	11,601.19	7,113.99	135.98	136.08	87.64	207.47	-4,884.89	2,689.48	2,418.19	271.29	9.914		
12,200.00	7,224.21	11,701.20	7,113.62	138.72	138.85	87.65	205.51	-4,984.86	2,688.11	2,411.29	276.82	9.711		
12,300.00	7,223.70	11,801.21	7,113.26	141.47	141.64	87.65	203.56	-5,084.83	2,686.74	2,404.38	282.36	9.515		
12,400.00	7,223.20	11,901.22	7,112.89	144.23	144.42	87.65	201.60	-5,184.80	2,685.37	2,397.47	287.90	9.328		
12,500.00	7,222.70	12,001.23	7,112.52	146.98	147.21	87.65	199.64	-5,284.77	2,683.99	2,390.55	293.45	9.146		
12,600.00	7,222.20	12,101.23	7,112.16	149.74	150.00	87.65	197.69	-5,384.74	2,682.62	2,383.62	299.00	8.972		
12,700.00	7,221.70	12,201.24	7,111.79	152.51	152.79	87.65	195.73	-5,484.71	2,681.25	2,376.69	304.56	8.804		
12,800.00	7,221.20	12,301.25	7,111.42	155.28	155.58	87.66	193.78	-5,584.68	2,679.88	2,369.75	310.13	8.641		
12,900.00	7,220.70	12,401.26	7,111.06	158.05	158.38	87.66	191.82	-5,684.65	2,678.51	2,362.81	315.70	8.484		
13,000.00	7,220.20	12,501.27	7,110.69	160.82	161.18	87.66	189.87	-5,784.62	2,677.14	2,355.86	321.27	8.333		
13,100.00	7,219.70	12,601.28	7,110.33	163.60	163.98	87.66	187.91	-5,884.60	2,675.76	2,348.91	326.85	8.186		
13,200.00	7,219.20	12,701.29	7,109.96	166.38	166.78	87.66	185.96	-5,984.57	2,674.39	2,341.95	332.44	8.045		
13,300.00	7,218.70	12,801.30	7,109.59	169.16	169.58	87.66	184.00	-6,084.54	2,673.02	2,334.99	338.03	7.908		
13,400.00	7,218.20	12,901.31	7,109.23	171.95	172.39	87.67	182.05	-6,184.51	2,671.65	2,328.03	343.62	7.775		
13,500.00	7,217.70	13,001.32	7,108.86	174.74	175.19	87.67	180.09	-6,284.48	2,670.28	2,321.06	349.22	7.646		
13,600.00	7,217.20	13,101.33	7,108.50	177.53	178.00	87.67	178.14	-6,384.45	2,668.90	2,314.09	354.82	7.522		
13,700.00	7,216.70	13,201.34	7,108.13	180.32	180.81	87.67	176.18	-6,484.42	2,667.53	2,307.11	360.42	7.401		
13,800.00	7,216.19	13,301.35	7,107.76	183.11	183.62	87.67	174.22	-6,584.39	2,666.16	2,300.13	366.03	7.284		
13,900.00	7,215.69	13,401.36	7,107.40	185.91	186.44	87.67	172.27	-6,684.36	2,664.79	2,293.15	371.64	7.170		
14,000.00	7,215.19	13,501.37	7,107.03	188.71	189.25	87.68	170.31	-6,784.33	2,663.42	2,286.17	377.25	7.060		
14,100.00	7,214.69	13,601.38	7,106.66	191.51	192.06	87.68	168.36	-6,884.30	2,662.05	2,279.18	382.87	6.953		
14,200.00	7,214.19	13,701.39	7,106.30	194.31	194.88	87.68	166.40	-6,984.27	2,660.67	2,272.19	388.49	6.849		
14,300.00	7,213.69	13,801.40	7,105.93	197.11	197.70	87.68	164.45	-7,084.24	2,659.30	2,265.19	394.11	6.748		
14,400.00	7,213.19	13,901.40	7,105.57	199.92	200.52	87.68	162.49	-7,184.22	2,657.93	2,258.20	399.73	6.649		
14,500.00	7,212.69	14,001.41	7,105.20	202.72	203.34	87.68	160.54	-7,284.19	2,656.56	2,251.20	405.36	6.554		
14,600.00	7,212.19	14,101.42	7,104.83	205.53	206.16	87.69	158.58	-7,384.16	2,655.19	2,244.20	410.99	6.461		
14,700.00	7,211.69	14,201.43	7,104.47	208.34	208.98	87.69	156.63	-7,484.13	2,653.82	2,237.20	416.62	6.370		
14,800.00	7,211.19	14,301.44	7,104.10	211.15	211.80	87.69	154.67	-7,584.10	2,652.44	2,230.19	422.25	6.282		
14,900.00	7,210.69	14,401.45	7,103.74	213.96	214.62	87.69	152.72	-7,684.07	2,651.07	2,223.19	427.89	6.196		
15,000.00	7,210.19	14,501.46	7,103.37	216.78	217.45	87.69	150.76	-7,784.04	2,649.70	2,216.18	433.52	6.112		
15,100.00	7,209.69	14,601.47	7,103.00	219.59	220.27	87.70	148.80	-7,884.01	2,648.33	2,209.17	439.16	6.030		
15,200.00	7,209.18	14,701.48	7,102.64	222.41	223.10	87.70	146.85	-7,983.98	2,646.96	2,202.15	444.80	5.951		
15,300.00	7,208.68	14,801.49	7,102.27	225.22	225.92	87.70	144.89	-8,083.95	2,645.58	2,195.14	450.45	5.873		
15,400.00	7,208.18	14,872.41	7,102.00	228.04	227.93	87.70	143.45	-8,157.84	2,644.34	2,189.15	455.19	5.809		
15,410.18	7,208.13	14,872.41	7,102.00	228.33	227.93	87.70	143.45	-8,157.84	2,644.32	2,188.88	455.44	5.806		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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
15,437.48	7,208.00	14,872.41	7,102.00	229.10	227.93	87.70	143.45	-8,157.84	2,644.46	2,188.39	456.07	5.798 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 41-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	59.00	3.28	3.28	-113.85	-3,975.83	-8,992.37	9,832.26					
100.00	100.00	41.00	100.00	3.28	3.36	-113.85	-3,975.83	-8,992.37	9,832.09	9,825.44	6.64	1,480.315		
200.00	200.00	141.00	200.00	3.34	4.57	-113.85	-3,975.83	-8,992.37	9,832.09	9,824.18	7.90	1,244.053		
300.00	299.98	240.98	299.98	3.44	7.43	62.53	-3,975.83	-8,992.37	9,831.28	9,820.41	10.87	904.465		
400.00	399.84	340.84	399.84	3.59	10.67	62.60	-3,975.83	-8,992.37	9,828.87	9,814.61	14.26	689.313		
500.00	499.45	440.45	499.45	3.79	14.02	62.72	-3,975.83	-8,992.37	9,824.85	9,807.04	17.81	551.736		
600.00	598.70	539.70	598.70	4.03	17.41	62.88	-3,975.83	-8,992.37	9,819.25	9,797.81	21.44	458.045		
700.00	697.47	638.47	697.47	4.31	20.80	63.09	-3,975.83	-8,992.37	9,812.07	9,786.96	25.12	390.660		
800.00	795.62	736.62	795.62	4.64	24.19	63.35	-3,975.83	-8,992.37	9,803.35	9,774.52	28.83	340.074		
900.00	893.06	834.06	893.06	5.00	27.57	63.65	-3,975.83	-8,992.37	9,793.10	9,760.54	32.56	300.804		
1,000.00	989.64	930.64	989.64	5.40	30.92	63.99	-3,975.83	-8,992.37	9,781.36	9,745.06	36.30	269.492		
1,100.00	1,085.27	1,026.27	1,085.27	5.83	34.24	64.38	-3,975.83	-8,992.37	9,768.16	9,728.12	40.04	243.976		
1,200.00	1,179.82	1,120.82	1,179.82	6.29	37.53	64.81	-3,975.83	-8,992.37	9,753.55	9,709.77	43.78	222.806		
1,300.00	1,273.47	1,214.47	1,273.47	6.79	40.78	65.08	-3,975.83	-8,992.37	9,737.90	9,690.39	47.51	204.959		
1,400.00	1,367.06	1,308.06	1,367.06	7.30	44.04	65.26	-3,975.83	-8,992.37	9,722.29	9,671.02	51.26	189.650		
1,500.00	1,460.64	1,401.64	1,460.64	7.83	47.30	65.43	-3,975.83	-8,992.37	9,706.78	9,651.74	55.03	176.379		
1,600.00	1,554.23	1,504.77	1,554.23	8.38	50.89	65.61	-3,975.83	-8,992.37	9,691.37	9,632.22	59.15	163.849		
1,700.00	1,647.82	1,588.82	1,647.82	8.93	53.82	65.79	-3,975.83	-8,992.37	9,676.06	9,613.45	62.61	154.547		
1,800.00	1,741.41	1,682.41	1,741.41	9.49	57.08	65.97	-3,975.83	-8,992.37	9,660.86	9,594.45	66.41	145.469		
1,900.00	1,835.00	1,776.00	1,835.00	10.05	60.34	66.16	-3,975.83	-8,992.37	9,645.77	9,575.55	70.22	137.361		
2,000.00	1,928.59	1,869.59	1,928.59	10.62	63.61	66.34	-3,975.83	-8,992.37	9,630.78	9,556.74	74.04	130.077		
2,100.00	2,022.18	1,963.18	2,022.18	11.20	66.87	66.52	-3,975.83	-8,992.37	9,615.89	9,538.03	77.86	123.500		
2,200.00	2,115.77	2,056.77	2,115.77	11.78	70.13	66.70	-3,975.83	-8,992.37	9,601.12	9,519.43	81.69	117.532		
2,300.00	2,209.36	2,150.36	2,209.36	12.37	73.40	66.88	-3,975.83	-8,992.37	9,586.44	9,500.92	85.52	112.095		
2,400.00	2,302.95	2,243.95	2,302.95	12.95	76.66	67.07	-3,975.83	-8,992.37	9,571.88	9,482.52	89.36	107.120		
2,500.00	2,396.54	2,337.54	2,396.54	13.54	79.93	67.25	-3,975.83	-8,992.37	9,557.42	9,464.23	93.20	102.552		
2,600.00	2,490.13	2,431.13	2,490.13	14.13	83.19	67.44	-3,975.83	-8,992.37	9,543.07	9,446.04	97.04	98.343		
2,700.00	2,583.72	2,524.72	2,583.72	14.73	86.46	67.62	-3,975.83	-8,992.37	9,528.83	9,427.95	100.88	94.454		
2,800.00	2,677.31	2,618.31	2,677.31	15.32	89.72	67.81	-3,975.83	-8,992.37	9,514.70	9,409.97	104.73	90.849		
2,900.00	2,770.90	2,711.90	2,770.90	15.92	92.99	67.99	-3,975.83	-8,992.37	9,500.68	9,392.10	108.58	87.499		
3,000.00	2,864.49	2,805.49	2,864.49	16.52	96.25	68.18	-3,975.83	-8,992.37	9,486.77	9,374.34	112.43	84.377		
3,100.00	2,958.08	2,900.92	2,958.08	17.12	99.58	68.37	-3,975.83	-8,992.37	9,472.97	9,356.62	116.35	81.418		
3,200.00	3,051.67	3,007.33	3,051.67	17.72	103.29	68.55	-3,975.83	-8,992.37	9,459.28	9,338.63	120.65	78.400		
3,300.00	3,145.26	3,086.26	3,145.26	18.32	106.05	68.74	-3,975.83	-8,992.37	9,445.70	9,321.70	124.00	76.175		
3,400.00	3,238.85	3,179.85	3,238.85	18.92	109.31	68.93	-3,975.83	-8,992.37	9,432.24	9,304.38	127.86	73.771		
3,500.00	3,332.44	3,273.44	3,332.44	19.53	112.58	69.12	-3,975.83	-8,992.37	9,418.88	9,287.16	131.72	71.508		
3,600.00	3,426.03	3,367.03	3,426.03	20.13	115.84	69.31	-3,975.83	-8,992.37	9,405.64	9,270.06	135.58	69.373		
3,700.00	3,519.62	3,460.62	3,519.62	20.74	119.11	69.50	-3,975.83	-8,992.37	9,392.51	9,253.07	139.44	67.357		
3,800.00	3,613.21	3,554.21	3,613.21	21.34	122.38	69.69	-3,975.83	-8,992.37	9,379.50	9,236.19	143.31	65.450		
3,900.00	3,706.80	3,647.80	3,706.80	21.95	125.64	69.88	-3,975.83	-8,992.37	9,366.60	9,219.43	147.17	63.644		
4,000.00	3,800.39	3,741.39	3,800.39	22.56	128.91	70.07	-3,975.83	-8,992.37	9,353.82	9,202.78	151.04	61.930		
4,100.00	3,893.98	3,834.98	3,893.98	23.16	132.17	70.26	-3,975.83	-8,992.37	9,341.15	9,186.24	154.91	60.302		
4,200.00	3,987.57	3,928.57	3,987.57	23.77	135.44	70.45	-3,975.83	-8,992.37	9,328.60	9,169.82	158.77	58.754		
4,300.00	4,081.16	4,022.16	4,081.16	24.38	138.71	70.65	-3,975.83	-8,992.37	9,316.16	9,153.52	162.64	57.280		
4,400.00	4,174.75	4,115.75	4,174.75	24.99	141.97	70.84	-3,975.83	-8,992.37	9,303.84	9,137.33	166.51	55.874		
4,500.00	4,268.34	4,209.34	4,268.34	25.60	145.24	71.03	-3,975.83	-8,992.37	9,291.64	9,121.25	170.38	54.533		
4,600.00	4,361.93	4,302.93	4,361.93	26.21	148.51	71.23	-3,975.83	-8,992.37	9,279.55	9,105.30	174.26	53.252		
4,700.00	4,455.52	4,403.48	4,455.52	26.82	152.02	71.42	-3,975.83	-8,992.37	9,267.59	9,089.21	178.37	51.957		
4,800.00	4,549.11	4,509.89	4,549.11	27.43	155.73	71.62	-3,975.83	-8,992.37	9,255.74	9,073.05	182.69	50.663		
4,900.00	4,642.70	4,583.70	4,642.70	28.04	158.31	71.81	-3,975.83	-8,992.37	9,244.01	9,058.13	186.88	49.732		
5,000.00	4,736.29	4,677.29	4,736.29	28.65	161.57	72.01	-3,975.83	-8,992.37	9,232.40	9,042.65	189.75	48.655		
5,100.00	4,829.88	4,770.88	4,829.88	29.26	164.84	72.20	-3,975.83	-8,992.37	9,220.91	9,027.28	193.63	47.622		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 41-20(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	4,923.47	4,864.47	4,923.47	29.87	168.11	72.40	-3,975.83	-8,992.37	9,209.54	9,012.04	197.50	46.630	
5,300.00	5,017.06	4,958.06	5,017.06	30.48	171.37	72.60	-3,975.83	-8,992.37	9,198.29	8,996.91	201.38	45.676	
5,400.00	5,110.65	5,051.65	5,110.65	31.09	174.64	72.79	-3,975.83	-8,992.37	9,187.17	8,981.91	205.26	44.759	
5,500.00	5,204.24	5,145.24	5,204.24	31.70	177.91	72.99	-3,975.83	-8,992.37	9,176.16	8,967.02	209.14	43.877	
5,600.00	5,297.83	5,238.83	5,297.83	32.32	181.17	73.19	-3,975.83	-8,992.37	9,165.28	8,952.26	213.01	43.027	
5,700.00	5,391.42	5,332.42	5,391.42	32.93	184.44	73.39	-3,975.83	-8,992.37	9,154.52	8,937.62	216.89	42.207	
5,800.00	5,485.01	5,426.01	5,485.01	33.54	187.71	73.59	-3,975.83	-8,992.37	9,143.88	8,923.11	220.77	41.418	
5,900.00	5,578.60	5,519.60	5,578.60	34.15	190.97	73.79	-3,975.83	-8,992.37	9,133.36	8,908.71	224.65	40.655	
6,000.00	5,672.19	5,613.19	5,672.19	34.77	194.24	73.99	-3,975.83	-8,992.37	9,122.97	8,894.44	228.53	39.920	
6,100.00	5,765.78	5,706.78	5,765.78	35.38	197.51	74.19	-3,975.83	-8,992.37	9,112.71	8,880.29	232.42	39.209	
6,200.00	5,859.37	5,800.37	5,859.37	35.99	200.77	74.39	-3,975.83	-8,992.37	9,102.57	8,866.27	236.30	38.522	
6,300.00	5,952.96	5,906.04	5,952.96	36.60	204.46	74.59	-3,975.83	-8,992.37	9,092.55	8,851.95	240.60	37.791	
6,400.00	6,046.55	5,987.55	6,046.55	37.22	207.31	74.79	-3,975.83	-8,992.37	9,082.66	8,838.60	244.06	37.214	
6,500.00	6,140.14	6,081.14	6,140.14	37.83	210.57	74.99	-3,975.83	-8,992.37	9,072.90	8,824.95	247.95	36.592	
6,600.00	6,233.73	6,174.73	6,233.73	38.44	213.84	75.19	-3,975.83	-8,992.37	9,063.26	8,811.43	251.83	35.990	
6,700.00	6,327.32	6,268.32	6,327.32	39.06	217.11	75.40	-3,975.83	-8,992.37	9,053.75	8,798.04	255.71	35.406	
6,800.00	6,420.91	6,361.91	6,420.91	39.67	220.37	75.60	-3,975.83	-8,992.37	9,044.37	8,784.77	259.60	34.840	
6,900.00	6,514.50	6,455.50	6,514.50	40.28	223.64	75.80	-3,975.83	-8,992.37	9,035.11	8,771.63	263.48	34.291	
7,000.00	6,608.09	6,549.09	6,608.09	40.90	226.91	76.01	-3,975.83	-8,992.37	9,025.98	8,758.61	267.37	33.759	
7,100.00	6,701.63	6,642.63	6,701.63	41.51	230.17	76.22	-3,975.83	-8,992.37	9,015.73	8,744.48	271.25	33.238	
7,200.00	6,793.85	6,734.85	6,793.85	42.10	233.39	76.46	-3,975.83	-8,992.37	8,993.09	8,718.04	275.05	32.696	
7,300.00	6,882.50	6,823.50	6,882.50	42.64	236.49	76.66	-3,975.83	-8,992.37	8,955.83	8,677.17	278.66	32.138	
7,400.00	6,965.41	6,906.41	6,965.41	43.12	239.38	76.86	-3,975.83	-8,992.37	8,904.83	8,622.83	282.00	31.577	
7,500.00	7,040.53	6,981.53	7,040.53	43.53	242.00	77.07	-3,975.83	-8,992.37	8,841.32	8,556.32	285.00	31.023	
7,600.00	7,106.00	7,047.00	7,106.00	43.89	244.29	77.27	-3,975.83	-8,992.37	8,766.81	8,479.24	287.57	30.485	
7,700.00	7,160.23	7,101.23	7,160.23	44.20	246.18	77.47	-3,975.83	-8,992.37	8,683.13	8,393.45	289.68	29.975	
7,800.00	7,201.86	7,142.86	7,201.86	44.48	247.63	77.67	-3,975.83	-8,992.37	8,592.32	8,301.06	291.27	29.500	
7,900.00	7,229.88	7,170.88	7,229.88	44.73	248.61	77.87	-3,975.83	-8,992.37	8,496.62	8,204.33	292.30	29.068	
8,000.00	7,243.60	7,184.60	7,243.60	44.99	249.09	78.07	-3,975.83	-8,992.37	8,398.40	8,105.64	292.76	28.687	
8,100.00	7,244.73	7,185.73	7,244.73	45.29	249.13	78.27	-3,975.83	-8,992.37	8,299.90	8,007.16	292.74	28.352	
8,200.00	7,244.23	7,185.23	7,244.23	45.74	249.11	78.47	-3,975.83	-8,992.37	8,201.50	7,908.84	292.66	28.024	
8,300.00	7,243.73	7,184.73	7,243.73	46.38	249.10	78.67	-3,975.83	-8,992.37	8,103.15	7,810.56	292.59	27.694	
8,400.00	7,243.23	7,184.23	7,243.23	47.29	249.08	78.87	-3,975.83	-8,992.37	8,004.84	7,712.31	292.53	27.364	
8,500.00	7,242.73	7,183.73	7,242.73	48.46	249.06	79.07	-3,975.83	-8,992.37	7,906.56	7,614.09	292.47	27.034	
8,600.00	7,242.23	7,183.23	7,242.23	49.87	249.04	79.27	-3,975.83	-8,992.37	7,808.34	7,515.92	292.42	26.703	
8,700.00	7,241.73	7,182.73	7,241.73	51.48	249.03	79.47	-3,975.83	-8,992.37	7,710.15	7,417.78	292.38	26.370	
8,800.00	7,241.23	7,182.23	7,241.23	53.24	249.01	79.67	-3,975.83	-8,992.37	7,612.02	7,319.67	292.35	26.038	
8,900.00	7,240.73	7,181.73	7,240.73	55.13	248.99	79.87	-3,975.83	-8,992.37	7,513.93	7,221.61	292.32	25.704	
9,000.00	7,240.23	7,181.23	7,240.23	57.11	248.97	80.07	-3,975.83	-8,992.37	7,415.90	7,123.58	292.31	25.370	
9,100.00	7,239.73	7,180.73	7,239.73	59.19	248.96	80.27	-3,975.83	-8,992.37	7,317.92	7,025.60	292.31	25.035	
9,200.00	7,239.23	7,180.23	7,239.23	61.34	248.94	80.47	-3,975.83	-8,992.37	7,219.99	6,927.66	292.32	24.699	
9,300.00	7,238.72	7,179.72	7,238.72	63.55	248.92	80.67	-3,975.83	-8,992.37	7,122.12	6,829.77	292.35	24.362	
9,400.00	7,238.22	7,179.22	7,238.22	65.81	248.90	80.87	-3,975.83	-8,992.37	7,024.31	6,731.92	292.39	24.024	
9,500.00	7,237.72	7,178.72	7,237.72	68.13	248.89	81.07	-3,975.83	-8,992.37	6,926.56	6,634.12	292.44	23.685	
9,600.00	7,237.22	7,178.22	7,237.22	70.48	248.87	81.27	-3,975.83	-8,992.37	6,828.88	6,536.37	292.51	23.346	
9,700.00	7,236.72	7,177.72	7,236.72	72.88	248.85	81.47	-3,975.83	-8,992.37	6,731.27	6,438.67	292.60	23.005	
9,800.00	7,236.22	7,177.22	7,236.22	75.31	248.83	81.67	-3,975.83	-8,992.37	6,633.73	6,341.02	292.71	22.663	
9,900.00	7,235.72	7,176.72	7,235.72	77.77	248.82	81.87	-3,975.83	-8,992.37	6,536.26	6,243.43	292.84	22.321	
10,000.00	7,235.22	7,176.22	7,235.22	80.26	248.80	82.07	-3,975.83	-8,992.37	6,438.87	6,145.89	292.98	21.977	
10,100.00	7,234.72	7,175.72	7,234.72	82.77	248.78	82.27	-3,975.83	-8,992.37	6,341.56	6,048.41	293.16	21.632	
10,200.00	7,234.22	7,175.22	7,234.22	85.31	248.76	82.47	-3,975.83	-8,992.37	6,244.34	5,950.99	293.35	21.286	
10,300.00	7,233.72	7,174.72	7,233.72	87.86	248.75	82.67	-3,975.83	-8,992.37	6,147.20	5,853.63	293.57	20.939	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 41-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,174.22	7,233.22	90.44	248.73	-91.14	-3,975.83	-8,992.37	6,050.16	5,756.34	293.83	20.591		
10,500.00	7,232.72	7,173.72	7,232.72	93.03	248.71	-91.12	-3,975.83	-8,992.37	5,953.22	5,659.11	294.11	20.242		
10,600.00	7,232.22	7,173.22	7,232.22	95.64	248.69	-91.10	-3,975.83	-8,992.37	5,856.38	5,561.96	294.42	19.891		
10,700.00	7,231.72	7,172.72	7,231.72	98.26	248.68	-91.08	-3,975.83	-8,992.37	5,759.64	5,464.88	294.77	19.540		
10,800.00	7,231.21	7,172.21	7,231.21	100.89	248.66	-91.07	-3,975.83	-8,992.37	5,663.02	5,367.87	295.15	19.187		
10,900.00	7,230.71	7,171.71	7,230.71	103.54	248.64	-91.05	-3,975.83	-8,992.37	5,566.52	5,270.95	295.58	18.833		
11,000.00	7,230.21	7,171.21	7,230.21	106.20	248.62	-91.03	-3,975.83	-8,992.37	5,470.15	5,174.11	296.04	18.478		
11,100.00	7,229.71	7,170.71	7,229.71	108.87	248.61	-91.01	-3,975.83	-8,992.37	5,373.91	5,077.35	296.55	18.121		
11,200.00	7,229.21	7,170.21	7,229.21	111.54	248.59	-90.99	-3,975.83	-8,992.37	5,277.80	4,980.69	297.11	17.764		
11,300.00	7,228.71	7,169.71	7,228.71	114.23	248.57	-90.97	-3,975.83	-8,992.37	5,181.85	4,884.13	297.72	17.405		
11,400.00	7,228.21	7,169.21	7,228.21	116.92	248.55	-90.95	-3,975.83	-8,992.37	5,086.05	4,787.67	298.38	17.046		
11,500.00	7,227.71	7,168.71	7,227.71	119.63	248.54	-90.93	-3,975.83	-8,992.37	4,990.42	4,691.32	299.10	16.685		
11,600.00	7,227.21	7,168.21	7,227.21	122.34	248.52	-90.91	-3,975.83	-8,992.37	4,894.96	4,595.08	299.88	16.323		
11,700.00	7,226.71	7,167.71	7,226.71	125.05	248.50	-90.89	-3,975.83	-8,992.37	4,799.68	4,498.96	300.72	15.960		
11,800.00	7,226.21	7,167.21	7,226.21	127.78	248.48	-90.87	-3,975.83	-8,992.37	4,704.60	4,402.97	301.64	15.597		
11,900.00	7,225.71	7,166.71	7,225.71	130.51	248.47	-90.85	-3,975.83	-8,992.37	4,609.73	4,307.11	302.62	15.233		
12,000.00	7,225.21	7,166.21	7,225.21	133.24	248.45	-90.83	-3,975.83	-8,992.37	4,515.08	4,211.40	303.68	14.868		
12,100.00	7,224.71	7,165.71	7,224.71	135.98	248.43	-90.81	-3,975.83	-8,992.37	4,420.67	4,115.84	304.83	14.502		
12,200.00	7,224.21	7,165.21	7,224.21	138.72	248.41	-90.79	-3,975.83	-8,992.37	4,326.50	4,020.44	306.06	14.136		
12,300.00	7,223.70	7,164.70	7,223.70	141.47	248.40	-90.77	-3,975.83	-8,992.37	4,232.61	3,925.22	307.39	13.770		
12,400.00	7,223.20	7,164.20	7,223.20	144.23	248.38	-90.75	-3,975.83	-8,992.37	4,139.00	3,830.19	308.81	13.403		
12,500.00	7,222.70	7,163.70	7,222.70	146.98	248.36	-90.73	-3,975.83	-8,992.37	4,045.69	3,735.36	310.33	13.037		
12,600.00	7,222.20	7,163.20	7,222.20	149.74	248.34	-90.71	-3,975.83	-8,992.37	3,952.72	3,640.75	311.97	12.670		
12,700.00	7,221.70	7,162.70	7,221.70	152.51	248.33	-90.70	-3,975.83	-8,992.37	3,860.09	3,546.37	313.72	12.304		
12,800.00	7,221.20	7,162.20	7,221.20	155.28	248.31	-90.68	-3,975.83	-8,992.37	3,767.85	3,452.24	315.60	11.939		
12,900.00	7,220.70	7,161.70	7,220.70	158.05	248.29	-90.66	-3,975.83	-8,992.37	3,676.00	3,358.39	317.61	11.574		
13,000.00	7,220.20	7,161.20	7,220.20	160.82	248.27	-90.64	-3,975.83	-8,992.37	3,584.60	3,264.83	319.76	11.210		
13,100.00	7,219.70	7,160.70	7,219.70	163.60	248.26	-90.62	-3,975.83	-8,992.37	3,493.66	3,171.60	322.06	10.848		
13,200.00	7,219.20	7,160.20	7,219.20	166.38	248.24	-90.60	-3,975.83	-8,992.37	3,403.23	3,078.71	324.52	10.487		
13,300.00	7,218.70	7,159.70	7,218.70	169.16	248.22	-90.58	-3,975.83	-8,992.37	3,313.36	2,986.21	327.15	10.128		
13,400.00	7,218.20	7,159.20	7,218.20	171.95	248.20	-90.56	-3,975.83	-8,992.37	3,224.08	2,894.12	329.95	9.771		
13,500.00	7,217.70	7,158.70	7,217.70	174.74	248.19	-90.54	-3,975.83	-8,992.37	3,135.44	2,802.49	332.95	9.417		
13,600.00	7,217.20	7,158.20	7,217.20	177.53	248.17	-90.52	-3,975.83	-8,992.37	3,047.51	2,711.37	336.14	9.066		
13,700.00	7,216.70	7,157.70	7,216.70	180.32	248.15	-90.50	-3,975.83	-8,992.37	2,960.35	2,620.79	339.56	8.718		
13,800.00	7,216.19	7,157.19	7,216.19	183.11	248.13	-90.48	-3,975.83	-8,992.37	2,874.02	2,530.82	343.20	8.374		
13,900.00	7,215.69	7,156.69	7,215.69	185.91	248.12	-90.46	-3,975.83	-8,992.37	2,788.61	2,441.53	347.08	8.034		
14,000.00	7,215.19	7,156.19	7,215.19	188.71	248.10	-90.44	-3,975.83	-8,992.37	2,704.19	2,352.97	351.22	7.699		
14,100.00	7,214.69	7,155.69	7,214.69	191.51	248.08	-90.42	-3,975.83	-8,992.37	2,620.87	2,265.25	355.63	7.370		
14,200.00	7,214.19	7,155.19	7,214.19	194.31	248.06	-90.40	-3,975.83	-8,992.37	2,538.76	2,178.44	360.32	7.046		
14,300.00	7,213.69	7,154.69	7,213.69	197.11	248.05	-90.38	-3,975.83	-8,992.37	2,457.97	2,092.66	365.32	6.728		
14,400.00	7,213.19	7,154.19	7,213.19	199.92	248.03	-90.36	-3,975.83	-8,992.37	2,378.65	2,008.02	370.62	6.418		
14,500.00	7,212.69	7,153.69	7,212.69	202.72	248.01	-90.34	-3,975.83	-8,992.37	2,300.93	1,924.67	376.26	6.115		
14,600.00	7,212.19	7,153.19	7,212.19	205.53	247.99	-90.33	-3,975.83	-8,992.37	2,225.00	1,842.77	382.23	5.821		
14,700.00	7,211.69	7,152.69	7,211.69	208.34	247.98	-90.31	-3,975.83	-8,992.37	2,151.03	1,762.49	388.54	5.536		
14,800.00	7,211.19	7,152.19	7,211.19	211.15	247.96	-90.29	-3,975.83	-8,992.37	2,079.25	1,684.04	395.20	5.261		
14,900.00	7,210.69	7,151.69	7,210.69	213.96	247.94	-90.27	-3,975.83	-8,992.37	2,009.88	1,607.67	402.20	4.997		
15,000.00	7,210.19	7,151.19	7,210.19	216.78	247.92	-90.25	-3,975.83	-8,992.37	1,943.17	1,533.64	409.53	4.745		
15,100.00	7,209.69	7,150.69	7,209.69	219.59	247.91	-90.23	-3,975.83	-8,992.37	1,879.43	1,462.26	417.16	4.505		
15,200.00	7,209.18	7,150.18	7,209.18	222.41	247.89	-90.21	-3,975.83	-8,992.37	1,818.95	1,393.88	425.06	4.279		
15,300.00	7,208.68	7,149.68	7,208.68	225.22	247.87	-90.19	-3,975.83	-8,992.37	1,762.07	1,328.89	433.18	4.068		
15,400.00	7,208.18	7,149.18	7,208.18	228.04	247.85	-90.17	-3,975.83	-8,992.37	1,709.16	1,267.73	441.43	3.872		
15,437.48	7,208.00	7,149.00	7,208.00	229.10	247.85	-90.16	-3,975.83	-8,992.37	1,690.42	1,245.88	444.54	3.803	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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 6-2-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-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	684.39	716.12	3.28	4.37	-106.52	-2,650.13	-8,932.96	9,345.25					
100.00	100.00	724.00	755.32	3.28	4.49	-106.55	-2,654.03	-8,928.78	9,337.90	9,330.15	7.75	1,205.248		
200.00	200.00	724.00	755.32	3.34	4.49	-106.55	-2,654.03	-8,928.78	9,331.42	9,323.63	7.79	1,198.119		
300.00	299.98	724.00	755.32	3.44	4.49	69.92	-2,654.03	-8,928.78	9,325.40	9,317.52	7.88	1,183.106		
400.00	399.84	769.89	800.67	3.59	4.64	70.02	-2,659.55	-8,924.44	9,318.51	9,310.33	8.18	1,139.837		
500.00	499.45	818.00	848.05	3.79	4.81	70.12	-2,667.04	-8,920.81	9,312.06	9,303.53	8.53	1,091.287		
600.00	598.70	818.00	848.05	4.03	4.81	70.26	-2,667.04	-8,920.81	9,304.67	9,295.90	8.77	1,060.850		
700.00	697.47	818.00	848.05	4.31	4.81	70.40	-2,667.04	-8,920.81	9,297.18	9,288.13	9.05	1,027.133		
800.00	795.62	818.00	848.05	4.64	4.81	70.55	-2,667.04	-8,920.81	9,289.59	9,280.22	9.37	991.218		
900.00	893.06	818.00	848.05	5.00	4.81	70.69	-2,667.04	-8,920.81	9,281.91	9,272.18	9.73	953.998		
1,000.00	989.64	860.41	889.71	5.40	4.96	70.86	-2,674.63	-8,918.53	9,273.52	9,263.24	10.28	902.490		
1,100.00	1,085.27	912.00	940.33	5.83	5.15	71.05	-2,684.47	-8,917.10	9,265.63	9,254.73	10.89	850.505		
1,200.00	1,179.82	912.00	940.33	6.29	5.15	71.22	-2,684.47	-8,917.10	9,256.73	9,245.38	11.35	815.347		
1,300.00	1,273.47	912.00	940.33	6.79	5.15	71.27	-2,684.47	-8,917.10	9,248.06	9,236.22	11.84	781.093		
1,400.00	1,367.06	912.00	940.33	7.30	5.15	71.27	-2,684.47	-8,917.10	9,240.40	9,228.05	12.35	748.390		
1,500.00	1,460.64	912.00	940.33	7.83	5.15	71.27	-2,684.47	-8,917.10	9,233.82	9,220.95	12.87	717.514		
1,600.00	1,554.23	912.00	940.33	8.38	5.15	71.27	-2,684.47	-8,917.10	9,228.31	9,214.91	13.40	688.508		
1,700.00	1,647.82	962.57	989.92	8.93	5.34	71.32	-2,694.36	-8,917.30	9,222.93	9,208.79	14.14	652.237		
1,800.00	1,741.41	1,006.00	1,032.51	9.49	5.50	71.36	-2,702.72	-8,918.88	9,219.29	9,204.43	14.86	620.351		
1,900.00	1,835.00	1,006.00	1,032.51	10.05	5.50	71.36	-2,702.72	-8,918.88	9,216.03	9,200.61	15.42	597.743		
2,000.00	1,928.59	1,006.00	1,032.51	10.62	5.50	71.36	-2,702.72	-8,918.88	9,213.85	9,197.87	15.98	576.600		
2,100.00	2,022.18	1,006.00	1,032.51	11.20	5.50	71.36	-2,702.72	-8,918.88	9,212.76	9,196.21	16.54	556.831		
2,150.73	2,069.66	1,006.00	1,032.51	11.50	5.50	71.36	-2,702.72	-8,918.88	9,212.62	9,195.78	16.83	547.292		
2,200.00	2,115.77	1,006.00	1,032.51	11.78	5.50	71.36	-2,702.72	-8,918.88	9,212.75	9,195.64	17.11	538.339		
2,300.00	2,209.36	1,059.97	1,085.43	12.37	5.70	71.42	-2,712.65	-8,922.45	9,212.98	9,195.08	17.89	514.836		
2,400.00	2,302.95	1,101.00	1,125.68	12.95	5.85	71.47	-2,719.69	-8,926.25	9,214.62	9,195.99	18.63	494.586		
2,500.00	2,396.54	1,101.00	1,125.68	13.54	5.85	71.47	-2,719.69	-8,926.25	9,216.85	9,197.65	19.20	479.953		
2,600.00	2,490.13	1,101.00	1,125.68	14.13	5.85	71.47	-2,719.69	-8,926.25	9,220.17	9,200.40	19.78	466.214		
2,700.00	2,583.72	1,101.00	1,125.68	14.73	5.85	71.47	-2,719.69	-8,926.25	9,224.57	9,204.23	20.35	453.307		
2,800.00	2,677.31	1,151.71	1,175.26	15.32	6.04	71.53	-2,728.58	-8,932.01	9,229.32	9,208.19	21.13	436.753		
2,900.00	2,770.90	1,197.00	1,219.30	15.92	6.23	71.59	-2,737.31	-8,938.00	9,235.45	9,213.56	21.89	421.808		
3,000.00	2,864.49	1,197.00	1,219.30	16.52	6.23	71.59	-2,737.31	-8,938.00	9,242.08	9,219.61	22.47	411.385		
3,100.00	2,958.08	1,197.00	1,219.30	17.12	6.23	71.59	-2,737.31	-8,938.00	9,249.77	9,226.74	23.03	401.555		
3,200.00	3,051.67	1,197.00	1,219.30	17.72	6.23	71.59	-2,737.31	-8,938.00	9,258.55	9,234.95	23.60	392.278		
3,300.00	3,145.26	1,249.45	1,269.99	18.32	6.45	71.64	-2,748.26	-8,945.84	9,267.68	9,243.28	24.41	379.700		
3,400.00	3,238.85	1,292.00	1,310.86	18.92	6.64	71.69	-2,757.76	-8,952.89	9,278.06	9,252.89	25.17	368.601		
3,500.00	3,332.44	1,292.00	1,310.86	19.53	6.64	71.69	-2,757.76	-8,952.89	9,289.03	9,263.30	25.73	360.990		
3,600.00	3,426.03	1,292.00	1,310.86	20.13	6.64	71.69	-2,757.76	-8,952.89	9,301.06	9,274.77	26.29	353.786		
3,700.00	3,519.62	1,331.94	1,349.00	20.74	6.84	71.72	-2,767.18	-8,960.04	9,313.75	9,286.71	27.04	344.404		
3,800.00	3,613.21	1,387.00	1,401.23	21.34	7.12	71.77	-2,780.94	-8,970.78	9,327.67	9,299.79	27.88	334.505		
3,900.00	3,706.80	1,387.00	1,401.23	21.95	7.12	71.77	-2,780.94	-8,970.78	9,341.87	9,313.44	28.43	328.537		
4,000.00	3,800.39	1,417.04	1,429.59	22.56	7.29	71.80	-2,788.76	-8,976.89	9,357.07	9,327.91	29.15	320.983		
4,100.00	3,893.98	1,481.00	1,489.84	23.16	7.66	71.84	-2,805.87	-8,989.81	9,372.61	9,342.56	30.05	311.879		
4,200.00	3,987.57	1,534.34	1,539.89	23.77	8.00	71.88	-2,820.80	-9,000.65	9,388.59	9,357.67	30.92	303.639		
4,300.00	4,081.16	1,694.91	1,689.38	24.38	9.11	71.97	-2,869.85	-9,032.65	9,404.87	9,372.38	32.49	289.438		
4,400.00	4,174.75	1,760.00	1,749.48	24.99	9.60	71.99	-2,891.60	-9,044.95	9,420.74	9,387.25	33.49	281.326		
4,500.00	4,268.34	2,472.15	2,390.42	25.60	16.03	71.82	-3,184.84	-9,140.28	9,431.96	9,391.88	40.08	235.324		
4,600.00	4,361.93	2,513.00	2,427.24	26.21	16.42	71.81	-3,201.99	-9,144.61	9,441.92	9,400.91	41.01	230.224		
4,700.00	4,455.52	2,541.03	2,452.50	26.82	16.69	71.80	-3,213.70	-9,147.79	9,452.55	9,410.72	41.82	226.004		
4,800.00	4,549.11	2,581.45	2,488.95	27.43	17.07	71.79	-3,230.48	-9,152.63	9,463.81	9,421.06	42.75	221.392		
4,900.00	4,642.70	2,608.00	2,512.91	28.04	17.33	71.78	-3,241.42	-9,155.96	9,475.72	9,432.18	43.54	217.627		
5,000.00	4,736.29	2,674.69	2,573.00	28.65	17.97	71.76	-3,269.00	-9,164.70	9,488.11	9,443.41	44.70	212.259		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 6-2-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	2,703.00	2,598.44	29.26	18.24	71.76	-3,280.82	-9,168.52	9,501.09	9,455.59	45.51	208.784		
5,200.00	4,923.47	2,745.65	2,636.61	29.87	18.67	71.74	-3,298.87	-9,174.48	9,514.71	9,468.26	46.45	204.829		
5,300.00	5,017.06	2,798.00	2,683.12	30.48	19.20	71.73	-3,321.62	-9,182.24	9,529.17	9,481.68	47.49	200.668		
5,400.00	5,110.65	2,812.61	2,696.04	31.09	19.35	71.72	-3,328.09	-9,184.47	9,544.15	9,495.99	48.17	198.154		
5,500.00	5,204.24	3,106.81	2,956.95	31.70	22.37	71.60	-3,457.28	-9,226.20	9,557.95	9,506.38	51.57	185.341		
5,600.00	5,297.83	3,147.08	2,993.07	32.32	22.77	71.59	-3,474.12	-9,231.96	9,571.60	9,519.11	52.49	182.348		
5,700.00	5,391.42	3,471.56	3,282.63	32.93	26.08	71.48	-3,614.54	-9,273.42	9,583.76	9,527.58	56.18	170.582		
5,800.00	5,485.01	3,533.95	3,338.32	33.54	26.71	71.45	-3,641.67	-9,280.86	9,595.59	9,538.25	57.34	167.348		
5,900.00	5,578.60	3,586.83	3,385.48	34.15	27.26	71.43	-3,664.70	-9,287.37	9,607.83	9,549.43	58.40	164.513		
6,000.00	5,672.19	3,831.00	3,605.48	34.77	29.69	71.37	-3,766.22	-9,317.22	9,619.14	9,557.87	61.27	156.991		
6,100.00	5,765.78	3,847.07	3,620.01	35.38	29.85	71.36	-3,772.76	-9,319.27	9,630.64	9,568.66	61.97	155.401		
6,200.00	5,859.37	3,903.49	3,670.95	35.99	30.41	71.35	-3,795.92	-9,326.55	9,642.72	9,579.67	63.05	152.933		
6,300.00	5,952.96	3,925.00	3,690.33	36.60	30.62	71.35	-3,804.82	-9,329.37	9,655.36	9,591.56	63.80	151.348		
6,400.00	6,046.55	3,962.76	3,724.13	37.22	31.02	71.33	-3,820.86	-9,334.47	9,668.66	9,603.95	64.71	149.421		
6,500.00	6,140.14	4,020.00	3,774.58	37.83	31.62	71.31	-3,846.61	-9,342.69	9,683.03	9,617.22	65.81	147.135		
6,600.00	6,233.73	4,020.00	3,774.58	38.44	31.62	71.31	-3,846.61	-9,342.69	9,697.70	9,631.37	66.33	146.197		
6,700.00	6,327.32	4,066.09	3,814.64	39.06	32.14	71.28	-3,868.38	-9,349.43	9,713.25	9,645.91	67.34	144.232		
6,800.00	6,420.91	6,810.26	6,397.30	39.67	51.95	72.76	-4,600.92	-9,542.47	9,722.76	9,636.33	86.43	112.493		
6,900.00	6,514.50	6,830.51	6,417.54	40.28	52.01	72.80	-4,601.37	-9,542.73	9,712.58	9,625.38	87.21	111.373		
7,000.00	6,608.09	6,886.93	6,473.95	40.90	52.17	72.91	-4,602.33	-9,543.18	9,702.81	9,614.75	88.06	110.185		
7,100.00	6,701.63	6,943.43	6,530.44	41.51	52.33	73.50	-4,603.45	-9,543.82	9,692.28	9,603.37	88.91	109.015		
7,200.00	6,793.85	7,037.00	6,623.97	42.10	52.59	43.50	-4,605.62	-9,545.29	9,669.96	9,580.16	89.80	107.685		
7,300.00	6,882.50	7,065.64	6,652.59	42.64	52.67	29.37	-4,606.33	-9,545.82	9,633.25	9,542.78	90.47	106.486		
7,400.00	6,965.41	7,153.74	6,740.66	43.12	52.92	19.63	-4,608.31	-9,547.48	9,583.09	9,491.90	91.19	105.093		
7,500.00	7,040.53	7,233.78	6,820.66	43.53	53.15	12.14	-4,609.84	-9,549.02	9,520.48	9,428.68	91.80	103.706		
7,600.00	7,106.00	7,303.84	6,890.70	43.89	53.36	5.32	-4,610.96	-9,550.41	9,446.95	9,354.65	92.30	102.349		
7,700.00	7,160.23	7,356.32	6,943.17	44.20	53.50	-2.38	-4,611.68	-9,551.47	9,364.33	9,271.67	92.66	101.065		
7,800.00	7,201.86	7,395.60	6,982.44	44.48	53.61	-13.40	-4,612.16	-9,552.30	9,274.66	9,181.78	92.88	99.855		
7,900.00	7,229.88	7,422.78	7,009.61	44.73	53.68	-32.88	-4,612.46	-9,552.89	9,180.15	9,087.17	92.98	98.728		
8,000.00	7,243.60	7,437.17	7,024.00	44.99	53.72	-67.16	-4,612.61	-9,553.21	9,083.15	8,990.17	92.97	97.696		
8,100.00	7,244.73	7,440.23	7,027.05	45.29	53.73	-85.28	-4,612.65	-9,553.28	8,985.85	8,892.97	92.88	96.747		
8,200.00	7,244.23	7,441.81	7,028.64	45.74	53.74	-85.32	-4,612.66	-9,553.32	8,888.68	8,795.90	92.79	95.798		
8,300.00	7,243.73	7,443.40	7,030.23	46.38	53.74	-85.36	-4,612.68	-9,553.35	8,791.58	8,698.88	92.70	94.838		
8,400.00	7,243.23	7,445.00	7,031.82	47.29	53.74	-85.41	-4,612.69	-9,553.39	8,694.55	8,601.92	92.63	93.865		
8,500.00	7,242.73	7,446.60	7,033.42	48.46	53.75	-85.45	-4,612.71	-9,553.43	8,597.58	8,505.01	92.57	92.878		
8,600.00	7,242.23	7,448.21	7,035.03	49.87	53.75	-85.49	-4,612.72	-9,553.46	8,500.68	8,408.16	92.52	91.879		
8,700.00	7,241.73	7,449.82	7,036.64	51.48	53.76	-85.54	-4,612.74	-9,553.50	8,403.85	8,311.36	92.49	90.865		
8,800.00	7,241.23	7,451.44	7,038.26	53.24	53.76	-85.58	-4,612.76	-9,553.54	8,307.10	8,214.63	92.47	89.837		
8,900.00	7,240.73	7,453.07	7,039.89	55.13	53.77	-85.62	-4,612.77	-9,553.57	8,210.42	8,117.96	92.47	88.793		
9,000.00	7,240.23	7,454.70	7,041.52	57.11	53.77	-85.67	-4,612.79	-9,553.61	8,113.83	8,021.35	92.48	87.735		
9,100.00	7,239.73	7,456.34	7,043.16	59.19	53.78	-85.71	-4,612.80	-9,553.65	8,017.32	7,924.80	92.51	86.660		
9,200.00	7,239.23	7,457.98	7,044.80	61.34	53.78	-85.76	-4,612.82	-9,553.68	7,920.89	7,828.32	92.57	85.569		
9,300.00	7,238.72	7,459.63	7,046.45	63.55	53.78	-85.80	-4,612.84	-9,553.72	7,824.55	7,731.91	92.64	84.462		
9,400.00	7,238.22	7,461.29	7,048.10	65.81	53.79	-85.85	-4,612.85	-9,553.76	7,728.31	7,635.58	92.73	83.338		
9,500.00	7,237.72	7,462.95	7,049.77	68.13	53.79	-85.89	-4,612.87	-9,553.80	7,632.16	7,539.31	92.85	82.196		
9,600.00	7,237.22	7,464.62	7,051.43	70.48	53.80	-85.94	-4,612.88	-9,553.84	7,536.12	7,443.12	93.00	81.038		
9,700.00	7,236.72	7,466.29	7,053.11	72.88	53.80	-85.98	-4,612.90	-9,553.87	7,440.17	7,347.01	93.16	79.861		
9,800.00	7,236.22	7,467.97	7,054.79	75.31	53.81	-86.03	-4,612.91	-9,553.91	7,344.34	7,250.98	93.36	78.667		
9,900.00	7,235.72	7,469.66	7,056.47	77.77	53.81	-86.07	-4,612.93	-9,553.95	7,248.61	7,155.03	93.59	77.454		
10,000.00	7,235.22	7,471.35	7,058.17	80.26	53.82	-86.12	-4,612.94	-9,553.99	7,153.01	7,059.17	93.84	76.224		
10,100.00	7,234.72	7,473.05	7,059.87	82.77	53.82	-86.17	-4,612.96	-9,554.03	7,057.52	6,963.39	94.13	74.976		
10,200.00	7,234.22	7,474.76	7,061.57	85.31	53.83	-86.21	-4,612.98	-9,554.07	6,962.16	6,867.71	94.45	73.711		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 6-2-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-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		
10,300.00	7,233.72	7,476.47	7,063.28	87.86	53.83	-86.26	-4,612.99	-9,554.11	6,866.93	6,772.12	94.81	72.428		
10,400.00	7,233.22	7,478.19	7,065.00	90.44	53.84	-86.31	-4,613.01	-9,554.15	6,771.84	6,676.64	95.21	71.128		
10,500.00	7,232.72	7,479.92	7,066.73	93.03	53.84	-86.35	-4,613.02	-9,554.19	6,676.90	6,581.25	95.64	69.811		
10,600.00	7,232.22	7,481.65	7,068.46	95.64	53.85	-86.40	-4,613.04	-9,554.23	6,582.10	6,485.98	96.12	68.479		
10,700.00	7,231.72	7,483.39	7,070.20	98.26	53.85	-86.45	-4,613.05	-9,554.27	6,487.46	6,390.82	96.64	67.131		
10,800.00	7,231.21	7,485.13	7,071.94	100.89	53.85	-86.49	-4,613.07	-9,554.31	6,392.97	6,295.77	97.20	65.769		
10,900.00	7,230.71	7,486.88	7,073.69	103.54	53.86	-86.54	-4,613.08	-9,554.35	6,298.66	6,200.85	97.82	64.393		
11,000.00	7,230.21	7,488.64	7,075.45	106.20	53.86	-86.59	-4,613.10	-9,554.39	6,204.53	6,106.06	98.48	63.005		
11,100.00	7,229.71	7,490.41	7,077.22	108.87	53.87	-86.64	-4,613.11	-9,554.43	6,110.59	6,011.40	99.19	61.605		
11,200.00	7,229.21	7,492.18	7,078.99	111.54	53.87	-86.68	-4,613.13	-9,554.48	6,016.83	5,916.88	99.96	60.195		
11,300.00	7,228.71	7,493.96	7,080.77	114.23	53.88	-86.73	-4,613.14	-9,554.52	5,923.28	5,822.51	100.78	58.775		
11,400.00	7,228.21	7,495.75	7,082.55	116.92	53.88	-86.78	-4,613.16	-9,554.56	5,829.95	5,728.29	101.66	57.348		
11,500.00	7,227.71	7,497.54	7,084.35	119.63	53.89	-86.83	-4,613.17	-9,554.60	5,736.84	5,634.24	102.60	55.914		
11,600.00	7,227.21	7,499.34	7,086.14	122.34	53.89	-86.88	-4,613.19	-9,554.64	5,643.96	5,540.36	103.60	54.476		
11,700.00	7,226.71	7,501.15	7,087.95	125.05	53.90	-86.93	-4,613.20	-9,554.69	5,551.34	5,446.66	104.67	53.034		
11,800.00	7,226.21	7,502.96	7,089.76	127.78	53.90	-86.98	-4,613.22	-9,554.73	5,458.97	5,353.15	105.81	51.591		
11,900.00	7,225.71	7,504.78	7,091.58	130.51	53.91	-87.03	-4,613.23	-9,554.77	5,366.87	5,259.85	107.02	50.148		
12,000.00	7,225.21	7,506.61	7,093.41	133.24	53.91	-87.08	-4,613.24	-9,554.82	5,275.06	5,166.76	108.30	48.707		
12,100.00	7,224.71	7,508.44	7,095.25	135.98	53.92	-87.13	-4,613.26	-9,554.86	5,183.55	5,073.89	109.66	47.269		
12,200.00	7,224.21	7,510.29	7,097.09	138.72	53.92	-87.18	-4,613.27	-9,554.90	5,092.37	4,981.27	111.10	45.837		
12,300.00	7,223.70	7,512.14	7,098.94	141.47	53.93	-87.23	-4,613.29	-9,554.95	5,001.52	4,888.90	112.62	44.412		
12,400.00	7,223.20	7,513.99	7,100.79	144.23	53.93	-87.28	-4,613.30	-9,554.99	4,911.02	4,796.80	114.22	42.996		
12,500.00	7,222.70	7,515.86	7,102.66	146.98	53.94	-87.33	-4,613.32	-9,555.04	4,820.90	4,704.98	115.91	41.590		
12,600.00	7,222.20	7,517.73	7,104.53	149.74	53.94	-87.38	-4,613.33	-9,555.08	4,731.17	4,613.47	117.70	40.197		
12,700.00	7,221.70	7,519.61	7,106.41	152.51	53.95	-87.43	-4,613.35	-9,555.13	4,641.86	4,522.28	119.58	38.817		
12,800.00	7,221.20	7,521.50	7,108.29	155.28	53.95	-87.48	-4,613.36	-9,555.17	4,553.00	4,431.44	121.56	37.454		
12,900.00	7,220.70	7,523.39	7,110.19	158.05	53.96	-87.53	-4,613.37	-9,555.22	4,464.61	4,340.96	123.65	36.107		
13,000.00	7,220.20	7,525.29	7,112.09	160.82	53.96	-87.58	-4,613.39	-9,555.27	4,376.71	4,250.87	125.84	34.780		
13,100.00	7,219.70	7,527.20	7,114.00	163.60	53.97	-87.63	-4,613.40	-9,555.31	4,289.35	4,161.21	128.15	33.472		
13,200.00	7,219.20	7,529.12	7,115.91	166.38	53.98	-87.69	-4,613.42	-9,555.36	4,202.55	4,071.98	130.57	32.187		
13,300.00	7,218.70	7,531.04	7,117.84	169.16	53.98	-87.74	-4,613.43	-9,555.40	4,116.35	3,983.24	133.11	30.925		
13,400.00	7,218.20	7,532.97	7,119.77	171.95	53.99	-87.79	-4,613.44	-9,555.45	4,030.78	3,895.00	135.78	29.687		
13,500.00	7,217.70	7,534.91	7,121.71	174.74	53.99	-87.84	-4,613.46	-9,555.50	3,945.89	3,807.32	138.57	28.475		
13,600.00	7,217.20	7,536.86	7,123.66	177.53	54.00	-87.90	-4,613.47	-9,555.55	3,861.72	3,720.21	141.51	27.290		
13,700.00	7,216.70	7,538.82	7,125.61	180.32	54.00	-87.95	-4,613.48	-9,555.59	3,778.33	3,633.74	144.58	26.133		
13,800.00	7,216.19	7,540.78	7,127.57	183.11	54.01	-88.00	-4,613.50	-9,555.64	3,695.75	3,547.95	147.80	25.005		
13,900.00	7,215.69	7,542.75	7,129.55	185.91	54.01	-88.06	-4,613.51	-9,555.69	3,614.06	3,462.89	151.18	23.906		
14,000.00	7,215.19	7,544.73	7,131.52	188.71	54.02	-88.11	-4,613.52	-9,555.74	3,533.31	3,378.60	154.70	22.839		
14,100.00	7,214.69	7,546.72	7,133.51	191.51	54.02	-88.17	-4,613.54	-9,555.79	3,453.56	3,295.17	158.39	21.804		
14,200.00	7,214.19	7,548.72	7,135.51	194.31	54.03	-88.22	-4,613.55	-9,555.84	3,374.89	3,212.64	162.25	20.800		
14,300.00	7,213.69	7,550.72	7,137.51	197.11	54.03	-88.27	-4,613.56	-9,555.89	3,297.38	3,131.10	166.28	19.830		
14,400.00	7,213.19	7,552.73	7,139.52	199.92	54.04	-88.33	-4,613.58	-9,555.94	3,221.10	3,050.62	170.49	18.894		
14,500.00	7,212.69	7,554.75	7,141.54	202.72	54.05	-88.38	-4,613.59	-9,555.99	3,146.15	2,971.28	174.87	17.991		
14,600.00	7,212.19	7,556.78	7,143.57	205.53	54.05	-88.44	-4,613.60	-9,556.04	3,072.63	2,893.20	179.44	17.124		
14,700.00	7,211.69	7,558.82	7,145.61	208.34	54.06	-88.49	-4,613.62	-9,556.09	3,000.64	2,816.45	184.19	16.291		
14,800.00	7,211.19	7,560.86	7,147.65	211.15	54.06	-88.55	-4,613.63	-9,556.14	2,930.29	2,741.16	189.13	15.494		
14,900.00	7,210.69	7,562.92	7,149.70	213.96	54.07	-88.61	-4,613.64	-9,556.19	2,861.71	2,667.46	194.25	14.732		
15,000.00	7,210.19	7,564.98	7,151.77	216.78	54.07	-88.66	-4,613.65	-9,556.24	2,795.02	2,595.46	199.56	14.006		
15,100.00	7,209.69	7,567.05	7,153.84	219.59	54.08	-88.72	-4,613.67	-9,556.29	2,730.36	2,525.32	205.04	13.316		
15,200.00	7,209.18	7,569.13	7,155.92	222.41	54.08	-88.77	-4,613.68	-9,556.35	2,667.88	2,457.18	210.70	12.662		
15,300.00	7,208.68	7,571.22	7,158.00	225.22	54.09	-88.83	-4,613.69	-9,556.40	2,607.74	2,391.22	216.52	12.044		
15,400.00	7,208.18	7,573.32	7,160.10	228.04	54.10	-88.89	-4,613.70	-9,556.45	2,550.10	2,327.62	222.48	11.462		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - HOOD 6-2-20(PR_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	82-MWVD											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)		
15,437.48	7,208.00	7,574.11	7,160.89	229.10	54.10	-88.91	-4,613.71	-9,556.47	2,529.18	2,304.43	224.75	11.253	CC, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 1 21-2(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	62.00	3.28	3.28	-128.46	-3,903.03	-4,914.14	6,275.85					
100.00	100.00	48.29	110.29	3.28	3.28	-128.46	-3,902.87	-4,914.22	6,275.51	6,268.95	6.57	955.688		
200.00	200.00	176.86	238.84	3.34	3.33	-128.44	-3,901.11	-4,914.98	6,275.12	6,268.46	6.67	941.477		
300.00	299.98	274.30	336.27	3.44	3.43	47.98	-3,899.22	-4,915.67	6,273.31	6,266.45	6.86	913.834		
400.00	399.84	372.30	434.25	3.59	3.57	48.09	-3,897.65	-4,916.24	6,269.26	6,262.10	7.16	875.769		
500.00	499.45	475.67	537.61	3.79	3.76	48.26	-3,896.20	-4,916.63	6,262.86	6,255.31	7.55	829.244		
600.00	598.70	592.49	654.41	4.03	4.03	48.50	-3,894.62	-4,916.79	6,254.01	6,245.95	8.06	775.706		
700.00	697.47	681.93	743.85	4.31	4.26	48.78	-3,893.48	-4,916.74	6,242.77	6,234.19	8.58	727.934		
800.00	795.62	781.07	842.98	4.64	4.54	49.12	-3,892.43	-4,916.63	6,229.37	6,220.20	9.17	679.020		
900.00	893.06	869.15	931.06	5.00	4.81	49.51	-3,891.51	-4,916.56	6,213.78	6,203.99	9.79	634.671		
1,000.00	989.64	958.84	1,020.74	5.40	5.10	49.95	-3,890.65	-4,916.61	6,196.17	6,185.71	10.46	592.570		
1,100.00	1,085.27	1,059.49	1,121.39	5.83	5.44	50.48	-3,889.68	-4,916.70	6,176.45	6,165.25	11.20	551.467		
1,200.00	1,179.82	1,151.55	1,213.45	6.29	5.76	51.06	-3,888.74	-4,916.71	6,154.56	6,142.61	11.95	514.865		
1,300.00	1,273.47	1,233.26	1,295.15	6.79	6.05	51.39	-3,887.92	-4,916.87	6,131.29	6,118.59	12.70	482.693		
1,400.00	1,367.06	1,314.70	1,376.59	7.30	6.34	51.62	-3,887.32	-4,917.06	6,108.22	6,094.75	13.47	453.462		
1,500.00	1,460.64	1,399.28	1,461.17	7.83	6.66	51.85	-3,886.92	-4,917.27	6,085.44	6,071.17	14.27	426.470		
1,600.00	1,554.23	1,504.27	1,566.15	8.38	7.05	52.13	-3,886.47	-4,917.47	6,062.75	6,047.59	15.16	399.913		
1,700.00	1,647.82	1,593.73	1,655.61	8.93	7.39	52.38	-3,886.14	-4,917.53	6,040.14	6,024.13	16.01	377.263		
1,800.00	1,741.41	1,692.24	1,754.12	9.49	7.77	52.65	-3,885.85	-4,917.54	6,017.64	6,000.74	16.91	355.925		
1,900.00	1,835.00	1,781.39	1,843.28	10.05	8.12	52.90	-3,885.54	-4,917.57	5,995.26	5,977.48	17.78	337.185		
2,000.00	1,928.59	1,856.94	1,918.83	10.62	8.42	53.11	-3,885.43	-4,917.63	5,973.16	5,954.55	18.61	320.933		
2,100.00	2,022.18	1,933.69	1,995.58	11.20	8.72	53.32	-3,885.47	-4,917.91	5,951.50	5,932.05	19.46	305.903		
2,200.00	2,115.77	2,018.62	2,080.50	11.78	9.06	53.56	-3,885.60	-4,918.37	5,930.16	5,909.83	20.34	291.598		
2,300.00	2,209.36	2,109.46	2,171.34	12.37	9.42	53.81	-3,885.84	-4,918.89	5,909.04	5,887.79	21.25	278.110		
2,400.00	2,302.95	2,201.99	2,263.87	12.95	9.79	54.08	-3,886.06	-4,919.47	5,888.08	5,865.91	22.17	265.585		
2,500.00	2,396.54	2,287.23	2,349.11	13.54	10.13	54.32	-3,886.22	-4,920.12	5,867.32	5,844.25	23.07	254.308		
2,600.00	2,490.13	2,381.73	2,443.60	14.13	10.52	54.60	-3,886.39	-4,920.93	5,846.78	5,822.77	24.01	243.480		
2,700.00	2,583.72	2,471.36	2,533.23	14.73	10.88	54.86	-3,886.54	-4,921.71	5,826.38	5,801.44	24.94	233.602		
2,800.00	2,677.31	2,557.95	2,619.82	15.32	11.23	55.11	-3,886.72	-4,922.55	5,806.21	5,780.35	25.86	224.504		
2,900.00	2,770.90	2,640.60	2,702.46	15.92	11.57	55.36	-3,886.77	-4,923.57	5,786.33	5,759.56	26.77	216.129		
3,000.00	2,864.49	2,722.00	2,783.85	16.52	11.91	55.60	-3,886.93	-4,924.73	5,766.80	5,739.12	27.68	208.325		
3,100.00	2,958.08	2,808.57	2,870.41	17.12	12.26	55.86	-3,887.22	-4,926.04	5,747.56	5,718.95	28.61	200.865		
3,200.00	3,051.67	2,897.21	2,959.04	17.72	12.63	56.13	-3,887.71	-4,927.38	5,728.58	5,699.02	29.56	193.812		
3,300.00	3,145.26	2,983.74	3,045.56	18.32	12.99	56.39	-3,888.31	-4,928.71	5,709.83	5,679.34	30.50	187.234		
3,400.00	3,238.85	3,069.91	3,147.71	18.92	13.41	56.70	-3,888.98	-4,930.34	5,691.26	5,659.76	31.50	180.695		
3,500.00	3,332.44	3,239.60	3,301.39	19.53	14.05	57.17	-3,889.55	-4,931.65	5,672.01	5,639.32	32.69	173.491		
3,600.00	3,426.03	3,328.30	3,390.10	20.13	14.42	57.44	-3,889.71	-4,932.23	5,652.75	5,619.10	33.65	167.995		
3,700.00	3,519.62	3,432.16	3,493.94	20.74	14.85	57.76	-3,889.75	-4,932.81	5,633.49	5,598.83	34.66	162.525		
3,800.00	3,613.21	3,516.90	3,578.69	21.34	15.21	58.02	-3,889.90	-4,933.22	5,614.40	5,578.79	35.61	157.676		
3,900.00	3,706.80	3,589.73	3,651.52	21.95	15.51	58.25	-3,890.07	-4,933.79	5,595.74	5,559.23	36.51	153.265		
4,000.00	3,800.39	3,664.22	3,726.00	22.56	15.82	58.49	-3,890.23	-4,934.70	5,577.57	5,540.15	37.42	149.047		
4,100.00	3,893.98	3,744.25	3,806.02	23.16	16.16	58.74	-3,890.42	-4,935.95	5,559.86	5,521.50	38.36	144.955		
4,200.00	3,987.57	3,830.31	3,892.06	23.77	16.52	59.02	-3,890.74	-4,937.41	5,542.47	5,503.16	39.31	140.978		
4,300.00	4,081.16	3,914.27	3,976.01	24.38	16.87	59.29	-3,891.30	-4,938.80	5,525.36	5,485.10	40.27	137.218		
4,400.00	4,174.75	3,981.78	4,043.51	24.99	17.16	59.50	-3,892.00	-4,940.07	5,508.76	5,467.60	41.16	133.840		
4,500.00	4,268.34	4,054.14	4,115.84	25.60	17.46	59.73	-3,893.04	-4,941.64	5,492.74	5,450.67	42.07	130.559		
4,600.00	4,361.93	4,126.86	4,188.53	26.21	17.77	59.96	-3,894.46	-4,943.33	5,477.23	5,434.24	42.99	127.421		
4,700.00	4,455.52	4,200.01	4,261.63	26.82	18.08	60.19	-3,896.18	-4,945.23	5,462.28	5,418.37	43.90	124.419		
4,800.00	4,549.11	4,321.86	4,383.42	27.43	18.59	60.58	-3,898.90	-4,948.36	5,447.41	5,402.40	45.01	121.030		
4,900.00	4,642.70	4,425.42	4,486.92	28.04	19.03	60.92	-3,900.63	-4,950.90	5,432.37	5,386.33	46.05	117.976		
5,000.00	4,736.29	4,537.07	4,598.54	28.65	19.50	61.28	-3,901.98	-4,953.70	5,417.37	5,370.26	47.12	114.979		
5,100.00	4,829.88	4,674.90	4,736.33	29.26	20.08	61.74	-3,903.25	-4,956.29	5,401.85	5,353.57	48.28	111.875		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 1 21-2(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,801.33	4,862.76	29.87	20.62	62.17	-3,904.02	-4,957.93	5,385.91	5,336.50	49.41	109.005		
5,300.00	5,017.06	4,890.73	4,952.15	30.48	20.99	62.46	-3,904.59	-4,958.82	5,369.90	5,319.50	50.40	106.546		
5,400.00	5,110.65	4,988.51	5,049.92	31.09	21.41	62.80	-3,905.06	-4,959.87	5,354.08	5,302.65	51.42	104.121		
5,500.00	5,204.24	5,093.26	5,154.66	31.70	21.85	63.16	-3,905.23	-4,960.99	5,338.30	5,285.83	52.47	101.739		
5,600.00	5,297.83	5,182.69	5,244.09	32.32	22.23	63.47	-3,905.06	-4,962.01	5,322.63	5,269.16	53.46	99.554		
5,700.00	5,391.42	5,281.75	5,343.13	32.93	22.65	63.82	-3,904.55	-4,963.30	5,307.16	5,252.67	54.50	97.387		
5,800.00	5,485.01	5,363.02	5,424.40	33.54	22.99	64.11	-3,904.18	-4,964.34	5,291.90	5,236.44	55.46	95.413		
5,900.00	5,578.60	5,470.25	5,531.62	34.15	23.45	64.49	-3,903.95	-4,965.77	5,276.98	5,220.45	56.53	93.354		
6,000.00	5,672.19	5,558.62	5,619.99	34.77	23.83	64.81	-3,903.60	-4,966.72	5,261.96	5,204.44	57.52	91.477		
6,100.00	5,765.78	5,635.23	5,696.59	35.38	24.15	65.08	-3,903.76	-4,967.62	5,247.43	5,188.95	58.48	89.736		
6,200.00	5,859.37	5,716.40	5,777.75	35.99	24.50	65.37	-3,903.99	-4,968.81	5,233.37	5,173.92	59.45	88.033		
6,300.00	5,952.96	5,809.77	5,871.10	36.60	24.89	65.70	-3,904.40	-4,970.19	5,219.58	5,159.11	60.47	86.323		
6,400.00	6,046.55	5,881.05	5,942.38	37.22	25.19	65.96	-3,904.67	-4,971.46	5,206.21	5,144.81	61.40	84.788		
6,500.00	6,140.14	5,966.46	6,027.77	37.83	25.56	66.27	-3,904.79	-4,973.35	5,193.35	5,130.96	62.39	83.237		
6,600.00	6,233.73	6,072.83	6,134.10	38.44	26.01	66.66	-3,904.88	-4,975.70	5,180.68	5,117.22	63.46	81.634		
6,700.00	6,327.32	6,153.77	6,215.03	39.06	26.35	66.96	-3,905.03	-4,977.33	5,168.09	5,103.65	64.44	80.202		
6,800.00	6,420.91	6,228.87	6,290.11	39.67	26.67	67.24	-3,904.92	-4,979.29	5,156.09	5,090.70	65.39	78.848		
6,900.00	6,514.50	6,315.67	6,376.88	40.28	27.04	67.56	-3,905.23	-4,981.60	5,144.52	5,078.13	66.39	77.488		
7,000.00	6,608.09	6,410.75	6,471.91	40.90	27.45	67.91	-3,905.44	-4,984.21	5,133.20	5,065.78	67.42	76.134		
7,100.00	6,701.63	6,501.39	6,562.52	41.51	27.84	68.28	-3,905.47	-4,986.78	5,120.91	5,052.47	68.44	74.828		
7,200.00	6,793.85	6,598.20	6,659.29	42.10	28.25	68.62	-3,905.90	-4,989.37	5,096.75	5,027.32	69.43	73.407		
7,300.00	6,882.50	6,663.34	6,724.41	42.64	28.53	68.96	-3,906.31	-4,991.21	5,058.78	4,988.54	70.24	72.026		
7,400.00	6,965.41	6,723.69	6,784.72	43.12	28.78	69.30	-3,906.46	-4,993.30	5,008.06	4,937.12	70.94	70.594		
7,500.00	7,040.53	6,778.32	6,839.31	43.53	29.02	69.64	-3,906.40	-4,995.52	4,945.73	4,874.18	71.55	69.126		
7,600.00	7,106.00	6,827.42	6,888.36	43.89	29.22	69.98	-3,906.26	-4,997.77	4,873.17	4,801.12	72.04	67.641		
7,700.00	7,160.23	6,869.57	6,930.45	44.20	29.40	70.32	-3,906.22	-4,999.84	4,792.03	4,719.60	72.43	66.164		
7,800.00	7,201.86	6,900.01	6,960.86	44.48	29.53	70.66	-3,906.26	-5,001.40	4,704.22	4,631.55	72.67	64.730		
7,900.00	7,229.88	6,923.45	6,984.26	44.73	29.63	70.99	-3,906.33	-5,002.65	4,611.87	4,539.06	72.81	63.340		
8,000.00	7,243.60	6,935.53	6,996.32	44.99	29.69	71.32	-3,906.39	-5,003.32	4,517.26	4,444.42	72.83	62.023		
8,100.00	7,244.73	6,939.82	7,000.60	45.29	29.70	71.65	-3,906.41	-5,003.57	4,422.55	4,349.77	72.78	60.768		
8,200.00	7,244.23	6,943.12	7,003.90	45.74	29.72	71.98	-3,906.43	-5,003.75	4,328.14	4,255.41	72.74	59.504		
8,300.00	7,243.73	6,946.47	7,007.24	46.38	29.73	72.31	-3,906.45	-5,003.94	4,233.99	4,161.27	72.72	58.222		
8,400.00	7,243.23	6,949.87	7,010.63	47.29	29.75	72.64	-3,906.47	-5,004.14	4,140.12	4,067.38	72.74	56.919		
8,500.00	7,242.73	6,953.31	7,014.07	48.46	29.76	72.97	-3,906.49	-5,004.34	4,046.53	3,973.74	72.79	55.595		
8,600.00	7,242.23	6,956.81	7,017.56	49.87	29.78	73.30	-3,906.51	-5,004.54	3,953.24	3,880.37	72.87	54.247		
8,700.00	7,241.73	6,960.35	7,021.10	51.48	29.79	73.63	-3,906.54	-5,004.75	3,860.30	3,787.29	73.01	52.876		
8,800.00	7,241.23	6,963.95	7,024.69	53.24	29.81	73.96	-3,906.56	-5,004.96	3,767.70	3,694.51	73.19	51.479		
8,900.00	7,240.73	6,967.60	7,028.33	55.13	29.82	74.29	-3,906.59	-5,005.18	3,675.49	3,602.06	73.43	50.056		
9,000.00	7,240.23	6,971.30	7,032.03	57.11	29.84	74.62	-3,906.62	-5,005.40	3,583.69	3,509.96	73.73	48.606		
9,100.00	7,239.73	6,975.06	7,035.78	59.19	29.85	74.95	-3,906.65	-5,005.63	3,492.34	3,418.24	74.10	47.129		
9,200.00	7,239.23	6,978.87	7,039.59	61.34	29.87	75.28	-3,906.68	-5,005.86	3,401.46	3,326.91	74.55	45.624		
9,300.00	7,238.72	6,982.75	7,043.45	63.55	29.89	75.61	-3,906.72	-5,006.09	3,311.11	3,236.02	75.10	44.092		
9,400.00	7,238.22	6,986.68	7,047.38	65.81	29.90	75.94	-3,906.75	-5,006.33	3,221.32	3,145.58	75.74	42.534		
9,500.00	7,237.72	6,990.67	7,051.36	68.13	29.92	76.27	-3,906.79	-5,006.58	3,132.14	3,055.66	76.49	40.951		
9,600.00	7,237.22	7,000.01	7,060.69	70.48	29.96	76.60	-3,906.88	-5,007.17	3,043.63	2,966.27	77.36	39.342		
9,700.00	7,236.72	7,000.01	7,060.69	72.88	29.96	76.93	-3,906.88	-5,007.17	2,955.84	2,877.48	78.36	37.720		
9,800.00	7,236.22	7,003.84	7,064.51	75.31	29.98	77.26	-3,906.92	-5,007.41	2,868.84	2,789.33	79.51	36.081		
9,900.00	7,235.72	7,009.18	7,069.83	77.77	30.00	77.59	-3,906.98	-5,007.74	2,782.70	2,701.88	80.82	34.430		
10,000.00	7,235.22	7,014.52	7,075.17	80.26	30.02	77.92	-3,907.04	-5,008.08	2,697.51	2,615.21	82.31	32.774		
10,100.00	7,234.72	7,019.87	7,080.51	82.77	30.05	78.25	-3,907.10	-5,008.42	2,613.36	2,529.38	83.98	31.120		
10,200.00	7,234.22	7,025.23	7,085.85	85.31	30.07	78.58	-3,907.16	-5,008.76	2,530.35	2,444.49	85.85	29.474		
10,300.00	7,233.72	7,030.59	7,091.20	87.86	30.09	78.91	-3,907.23	-5,009.10	2,448.59	2,360.65	87.94	27.843		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 1 21-2(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,035.95	7,096.55	90.44	30.11	-84.91	-3,907.29	-5,009.44	2,368.22	2,277.96	90.26	26.237		
10,500.00	7,232.72	7,041.32	7,101.91	93.03	30.14	-85.12	-3,907.36	-5,009.78	2,289.39	2,196.56	92.83	24.662		
10,600.00	7,232.22	7,046.69	7,107.27	95.64	30.16	-85.33	-3,907.43	-5,010.12	2,212.25	2,116.59	95.66	23.126		
10,700.00	7,231.72	7,052.07	7,112.64	98.26	30.18	-85.55	-3,907.50	-5,010.46	2,137.00	2,038.24	98.76	21.638		
10,800.00	7,231.21	7,057.46	7,118.01	100.89	30.21	-85.76	-3,907.57	-5,010.80	2,063.83	1,961.69	102.14	20.206		
10,900.00	7,230.71	7,062.84	7,123.39	103.54	30.23	-85.98	-3,907.64	-5,011.14	1,992.98	1,887.17	105.81	18.835		
11,000.00	7,230.21	7,068.24	7,128.77	106.20	30.25	-86.19	-3,907.72	-5,011.48	1,924.70	1,814.93	109.77	17.534		
11,100.00	7,229.71	7,073.64	7,134.16	108.87	30.28	-86.41	-3,907.79	-5,011.82	1,859.28	1,745.26	114.02	16.307		
11,200.00	7,229.21	7,079.04	7,139.55	111.54	30.30	-86.62	-3,907.87	-5,012.17	1,797.03	1,678.48	118.54	15.159		
11,300.00	7,228.71	7,084.45	7,144.95	114.23	30.32	-86.84	-3,907.95	-5,012.51	1,738.28	1,614.96	123.33	14.095		
11,400.00	7,228.21	7,089.86	7,150.35	116.92	30.35	-87.06	-3,908.03	-5,012.85	1,683.41	1,555.08	128.34	13.117		
11,500.00	7,227.71	7,095.28	7,155.76	119.63	30.37	-87.27	-3,908.12	-5,013.20	1,632.81	1,499.28	133.53	12.228		
11,600.00	7,227.21	7,100.76	7,161.22	122.34	30.39	-87.49	-3,908.20	-5,013.54	1,586.88	1,448.04	138.85	11.429		
11,700.00	7,226.71	7,106.63	7,167.08	125.05	30.42	-87.73	-3,908.30	-5,013.92	1,546.05	1,401.83	144.21	10.720		
11,800.00	7,226.21	7,112.49	7,172.93	127.78	30.44	-87.96	-3,908.39	-5,014.29	1,510.71	1,361.17	149.54	10.102		
11,900.00	7,225.71	7,118.36	7,178.78	130.51	30.47	-88.20	-3,908.48	-5,014.66	1,481.28	1,326.55	154.73	9.574		
12,000.00	7,225.21	7,124.22	7,184.63	133.24	30.49	-88.43	-3,908.57	-5,015.04	1,458.09	1,298.43	159.66	9.132		
12,100.00	7,224.71	7,130.09	7,190.49	135.98	30.52	-88.67	-3,908.67	-5,015.41	1,441.47	1,277.23	164.24	8.777		
12,200.00	7,224.21	7,135.95	7,196.34	138.72	30.54	-88.90	-3,908.76	-5,015.78	1,431.62	1,263.28	168.35	8.504		
12,291.90	7,223.75	7,141.34	7,201.71	141.25	30.57	-89.12	-3,908.84	-5,016.12	1,428.68	1,257.04	171.64	8.324 CC		
12,300.00	7,223.70	7,141.81	7,202.19	141.47	30.57	-89.14	-3,908.85	-5,016.15	1,428.70	1,256.80	171.91	8.311 ES		
12,400.00	7,223.20	7,147.68	7,208.04	144.23	30.59	-89.37	-3,908.94	-5,016.53	1,432.75	1,257.90	174.85	8.194		
12,500.00	7,222.70	7,153.54	7,213.89	146.98	30.62	-89.60	-3,909.04	-5,016.90	1,443.70	1,266.56	177.15	8.150 SF		
12,600.00	7,222.20	7,159.40	7,219.74	149.74	30.64	-89.84	-3,909.13	-5,017.27	1,461.41	1,282.63	178.79	8.174		
12,700.00	7,221.70	7,165.26	7,225.59	152.51	30.67	-90.07	-3,909.22	-5,017.64	1,485.63	1,305.84	179.79	8.263		
12,800.00	7,221.20	7,171.13	7,231.44	155.28	30.69	-90.31	-3,909.31	-5,018.02	1,516.05	1,335.84	180.21	8.413		
12,900.00	7,220.70	7,176.99	7,237.29	158.05	30.72	-90.54	-3,909.41	-5,018.39	1,552.30	1,372.21	180.09	8.619		
13,000.00	7,220.20	7,182.85	7,243.14	160.82	30.74	-90.78	-3,909.50	-5,018.76	1,593.99	1,414.47	179.53	8.879		
13,100.00	7,219.70	7,188.71	7,248.98	163.60	30.77	-91.01	-3,909.59	-5,019.13	1,640.70	1,462.13	178.58	9.188		
13,200.00	7,219.20	7,194.57	7,254.83	166.38	30.80	-91.25	-3,909.68	-5,019.50	1,692.02	1,514.70	177.32	9.542		
13,300.00	7,218.70	7,200.43	7,260.68	169.16	30.82	-91.48	-3,909.77	-5,019.88	1,747.54	1,571.71	175.83	9.939		
13,400.00	7,218.20	7,206.29	7,266.53	171.95	30.85	-91.71	-3,909.87	-5,020.25	1,806.87	1,632.72	174.16	10.375		
13,500.00	7,217.70	7,212.15	7,272.37	174.74	30.87	-91.95	-3,909.96	-5,020.62	1,869.66	1,697.29	172.36	10.847		
13,600.00	7,217.20	7,218.01	7,278.22	177.53	30.90	-92.18	-3,910.05	-5,020.99	1,935.56	1,765.06	170.49	11.353		
13,700.00	7,216.70	7,223.87	7,284.07	180.32	30.92	-92.42	-3,910.14	-5,021.37	2,004.26	1,835.68	168.58	11.889		
13,800.00	7,216.19	7,229.73	7,289.91	183.11	30.95	-92.65	-3,910.24	-5,021.74	2,075.50	1,908.85	166.65	12.454		
13,900.00	7,215.69	7,235.58	7,295.76	185.91	30.97	-92.88	-3,910.33	-5,022.11	2,149.01	1,984.28	164.73	13.046		
14,000.00	7,215.19	7,241.44	7,301.60	188.71	31.00	-93.12	-3,910.42	-5,022.48	2,224.57	2,061.73	162.84	13.661		
14,100.00	7,214.69	7,247.30	7,307.45	191.51	31.02	-93.35	-3,910.51	-5,022.85	2,301.98	2,141.00	160.99	14.299		
14,200.00	7,214.19	7,253.16	7,313.29	194.31	31.05	-93.58	-3,910.61	-5,023.23	2,381.06	2,221.88	159.19	14.958		
14,300.00	7,213.69	7,259.01	7,319.14	197.11	31.07	-93.82	-3,910.70	-5,023.60	2,461.65	2,304.22	157.44	15.636		
14,400.00	7,213.19	7,264.87	7,324.98	199.92	31.10	-94.05	-3,910.79	-5,023.97	2,543.61	2,387.86	155.75	16.331		
14,500.00	7,212.69	7,270.73	7,330.83	202.72	31.12	-94.28	-3,910.88	-5,024.34	2,626.80	2,472.67	154.13	17.043		
14,600.00	7,212.19	7,276.58	7,336.67	205.53	31.15	-94.51	-3,910.97	-5,024.71	2,711.12	2,558.55	152.57	17.769		
14,700.00	7,211.69	7,282.44	7,342.51	208.34	31.17	-94.75	-3,911.07	-5,025.08	2,796.45	2,645.38	151.08	18.510		
14,800.00	7,211.19	7,288.29	7,348.35	211.15	31.20	-94.98	-3,911.16	-5,025.46	2,882.72	2,733.08	149.64	19.264		
14,900.00	7,210.69	7,294.15	7,354.20	213.96	31.22	-95.21	-3,911.25	-5,025.83	2,969.84	2,821.57	148.27	20.029		
15,000.00	7,210.19	7,300.00	7,360.04	216.78	31.25	-95.44	-3,911.34	-5,026.20	3,057.74	2,910.77	146.96	20.806		
15,100.00	7,209.69	7,305.86	7,365.88	219.59	31.27	-95.67	-3,911.44	-5,026.57	3,146.34	3,000.63	145.71	21.593		
15,200.00	7,209.18	7,311.71	7,371.72	222.41	31.30	-95.91	-3,911.53	-5,026.94	3,235.60	3,091.09	144.52	22.389		
15,300.00	7,208.68	7,317.56	7,377.56	225.22	31.33	-96.14	-3,911.62	-5,027.31	3,325.47	3,182.09	143.38	23.194		
15,400.00	7,208.18	7,323.42	7,383.40	228.04	31.35	-96.37	-3,911.71	-5,027.69	3,415.88	3,273.59	142.29	24.007		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - LEFFLER 1 21-2(SI_75CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-GYRO-NS											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,325.61	7,385.59	229.10	31.36	-96.45	-3,911.75	-5,027.83	3,449.90	3,308.01	141.89	24.314	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER PLAN												Offset Site Error:	0.00 ft
Survey Program: 25-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	25.00	71.00	3.28	3.28	-146.82	-5,033.32	-3,291.08	6,014.20				
100.00	100.00	91.43	137.43	3.28	3.28	-146.82	-5,033.16	-3,290.95	6,013.69	6,007.12	6.57	915.585	
200.00	200.00	192.17	238.17	3.34	3.33	-146.82	-5,032.41	-3,290.76	6,012.96	6,006.30	6.67	902.073	
300.00	299.98	263.87	309.87	3.44	3.39	29.57	-5,031.90	-3,290.98	6,011.03	6,004.19	6.83	879.609	
400.00	399.84	355.06	401.05	3.59	3.51	29.64	-5,031.81	-3,291.10	6,006.46	5,999.35	7.11	845.286	
500.00	499.45	1,486.66	1,519.19	3.79	7.58	31.31	-4,890.25	-3,322.13	5,985.93	5,974.65	11.28	530.750	
600.00	598.70	1,544.63	1,575.63	4.03	7.89	31.73	-4,877.19	-3,324.28	5,959.01	5,947.24	11.77	506.187	
700.00	697.47	1,624.17	1,653.11	4.31	8.32	32.25	-4,859.50	-3,327.51	5,929.73	5,917.32	12.42	477.620	
800.00	795.62	1,687.46	1,714.74	4.64	8.67	32.78	-4,845.38	-3,330.47	5,898.01	5,884.99	13.02	453.111	
900.00	893.06	1,801.84	1,822.59	5.00	9.31	33.51	-4,821.04	-3,335.84	5,864.01	5,850.10	13.91	421.567	
1,000.00	989.64	1,886.40	1,908.46	5.40	9.80	34.24	-4,801.16	-3,340.15	5,826.98	5,812.30	14.69	396.734	
1,100.00	1,085.27	1,972.97	1,992.69	5.83	10.30	35.04	-4,781.65	-3,344.38	5,787.44	5,771.93	15.50	373.291	
1,200.00	1,179.82	2,057.75	2,075.18	6.29	10.79	35.91	-4,762.55	-3,348.52	5,745.46	5,729.12	16.34	351.665	
1,300.00	1,273.47	2,141.09	2,156.29	6.79	11.29	36.44	-4,743.77	-3,352.59	5,701.71	5,684.53	17.19	331.764	
1,400.00	1,367.06	2,224.35	2,237.30	7.30	11.78	36.79	-4,725.00	-3,356.66	5,658.04	5,640.00	18.05	313.541	
1,500.00	1,460.64	2,307.61	2,318.31	7.83	12.28	37.15	-4,706.24	-3,360.73	5,614.58	5,595.66	18.93	296.672	
1,600.00	1,554.23	2,390.86	2,399.32	8.38	12.78	37.51	-4,687.48	-3,364.80	5,571.33	5,551.51	19.82	281.061	
1,700.00	1,647.82	2,474.12	2,480.33	8.93	13.29	37.88	-4,668.72	-3,368.87	5,528.30	5,507.56	20.74	266.610	
1,800.00	1,741.41	2,557.37	2,561.35	9.49	13.79	38.25	-4,649.96	-3,372.94	5,485.49	5,463.83	21.66	253.224	
1,900.00	1,835.00	2,640.63	2,642.36	10.05	14.30	38.63	-4,631.20	-3,377.00	5,442.90	5,420.30	22.60	240.810	
2,000.00	1,928.59	2,723.88	2,723.37	10.62	14.81	39.02	-4,612.44	-3,381.07	5,400.55	5,377.00	23.55	229.282	
2,100.00	2,022.18	2,807.14	2,804.38	11.20	15.32	39.40	-4,593.68	-3,385.14	5,358.44	5,333.92	24.52	218.564	
2,200.00	2,115.77	2,890.39	2,885.39	11.78	15.83	39.80	-4,574.92	-3,389.21	5,316.57	5,291.08	25.49	208.581	
2,300.00	2,209.36	2,973.65	2,966.41	12.37	16.35	40.19	-4,556.16	-3,393.28	5,274.95	5,248.48	26.47	199.271	
2,400.00	2,302.95	3,056.90	3,047.42	12.95	16.86	40.60	-4,537.40	-3,397.35	5,233.58	5,206.12	27.46	190.574	
2,500.00	2,396.54	3,140.16	3,128.43	13.54	17.38	41.01	-4,518.64	-3,401.41	5,192.48	5,164.02	28.46	182.436	
2,600.00	2,490.13	3,223.41	3,209.44	14.13	17.90	41.42	-4,499.88	-3,405.48	5,151.64	5,122.17	29.47	174.811	
2,700.00	2,583.72	3,306.67	3,290.45	14.73	18.41	41.84	-4,481.12	-3,409.55	5,111.08	5,080.60	30.49	167.656	
2,800.00	2,677.31	3,389.92	3,371.47	15.32	18.93	42.27	-4,462.36	-3,413.62	5,070.80	5,039.29	31.51	160.932	
2,900.00	2,770.90	3,473.18	3,452.48	15.92	19.45	42.70	-4,443.60	-3,417.69	5,030.81	4,998.27	32.54	154.604	
3,000.00	2,864.49	3,556.43	3,533.49	16.52	19.97	43.13	-4,424.83	-3,421.76	4,991.11	4,957.53	33.58	148.642	
3,100.00	2,958.08	3,639.69	3,614.50	17.12	20.49	43.58	-4,406.07	-3,425.82	4,951.71	4,917.08	34.62	143.016	
3,200.00	3,051.67	3,723.97	3,695.51	17.72	21.02	44.02	-4,387.31	-3,429.89	4,912.62	4,876.94	35.68	137.678	
3,300.00	3,145.26	3,806.20	3,776.52	18.32	21.53	44.48	-4,368.55	-3,433.96	4,873.85	4,837.11	36.74	132.674	
3,400.00	3,238.85	10,702.42	7,243.67	18.92	120.28	-13.48	-3,552.14	19.06	4,778.95	4,696.45	82.50	57.928	
3,500.00	3,332.44	10,693.58	7,243.74	19.53	120.00	-13.27	-3,552.15	15.07	4,681.44	4,598.61	82.82	56.523	
3,600.00	3,426.03	10,689.58	7,243.81	20.13	119.87	-13.05	-3,552.17	11.07	4,584.02	4,500.75	83.27	55.050	
3,700.00	3,519.62	10,685.59	7,243.88	20.74	119.74	-12.84	-3,552.18	7.07	4,486.72	4,402.98	83.74	53.577	
3,800.00	3,613.21	10,681.59	7,243.95	21.34	119.62	-12.62	-3,552.19	3.07	4,389.53	4,305.29	84.25	52.103	
3,900.00	3,706.80	10,677.59	7,244.02	21.95	119.49	-12.41	-3,552.21	-0.92	4,292.47	4,207.69	84.78	50.629	
4,000.00	3,800.39	10,673.59	7,244.09	22.56	119.36	-12.19	-3,552.22	-4.92	4,195.55	4,110.20	85.35	49.156	
4,100.00	3,893.98	10,669.59	7,244.16	23.16	119.24	-11.97	-3,552.23	-8.92	4,098.77	4,012.81	85.95	47.686	
4,200.00	3,987.57	10,665.60	7,244.23	23.77	119.11	-11.76	-3,552.25	-12.91	4,002.14	3,915.55	86.59	46.218	
4,300.00	4,081.16	10,661.60	7,244.30	24.38	118.98	-11.54	-3,552.26	-16.91	3,905.68	3,818.41	87.27	44.755	
4,400.00	4,174.75	10,657.60	7,244.37	24.99	118.86	-11.32	-3,552.27	-20.91	3,809.39	3,721.41	87.99	43.296	
4,500.00	4,268.34	10,653.60	7,244.44	25.60	118.73	-11.10	-3,552.29	-24.91	3,713.30	3,624.56	88.74	41.843	
4,600.00	4,361.93	10,649.60	7,244.51	26.21	118.60	-10.89	-3,552.30	-28.90	3,617.42	3,527.77	89.65	40.352	
4,700.00	4,455.52	10,645.61	7,244.58	26.82	118.48	-10.67	-3,552.31	-32.90	3,521.76	3,431.36	90.40	38.958	
4,800.00	4,549.11	10,641.61	7,244.65	27.43	118.35	-10.45	-3,552.33	-36.90	3,426.34	3,335.04	91.30	37.529	
4,900.00	4,642.70	10,637.61	7,244.72	28.04	118.22	-10.23	-3,552.34	-40.90	3,331.19	3,238.94	92.25	36.109	
5,000.00	4,736.29	10,633.61	7,244.79	28.65	118.10	-10.01	-3,552.35	-44.89	3,236.33	3,143.06	93.26	34.701	
5,100.00	4,829.88	10,629.62	7,244.86	29.26	117.97	-9.79	-3,552.37	-48.89	3,141.77	3,047.44	94.33	33.305	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER PLAN												Offset Site Error:	0.00 ft
Survey Program: 25-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	4,923.47	10,625.62	7,244.93	29.87	117.84	-9.57	-3,552.38	-52.89	3,047.57	2,952.10	95.47	31.922	
5,300.00	5,017.06	10,621.62	7,245.00	30.48	117.72	-9.35	-3,552.39	-56.88	2,953.73	2,857.06	96.68	30.553	
5,400.00	5,110.65	10,617.62	7,245.07	31.09	117.59	-9.13	-3,552.41	-60.88	2,860.31	2,762.36	97.95	29.200	
5,500.00	5,204.24	10,613.62	7,245.14	31.70	117.47	-8.91	-3,552.42	-64.88	2,767.34	2,668.03	99.31	27.865	
5,600.00	5,297.83	10,609.63	7,245.21	32.32	117.34	-8.69	-3,552.43	-68.88	2,674.88	2,574.12	100.76	26.548	
5,700.00	5,391.42	10,605.63	7,245.28	32.93	117.21	-8.47	-3,552.45	-72.87	2,582.97	2,480.68	102.29	25.251	
5,800.00	5,485.01	10,601.63	7,245.35	33.54	117.09	-8.25	-3,552.46	-76.87	2,491.68	2,387.75	103.93	23.976	
5,900.00	5,578.60	10,602.37	7,245.43	34.15	117.11	-8.03	-3,552.47	-80.87	2,401.07	2,295.29	105.78	22.700	
6,000.00	5,672.19	10,593.63	7,245.50	34.77	116.83	-7.81	-3,552.49	-84.87	2,311.23	2,203.72	107.51	21.497	
6,100.00	5,765.78	10,589.64	7,245.57	35.38	116.71	-7.59	-3,552.50	-88.86	2,222.25	2,112.77	109.48	20.298	
6,200.00	5,859.37	10,585.64	7,245.64	35.99	116.58	-7.37	-3,552.51	-92.86	2,134.24	2,022.66	111.58	19.127	
6,300.00	5,952.96	10,581.64	7,245.71	36.60	116.46	-7.15	-3,552.53	-96.86	2,047.33	1,933.52	113.81	17.989	
6,400.00	6,046.55	10,577.64	7,245.78	37.22	116.33	-6.93	-3,552.54	-100.85	1,961.65	1,845.47	116.18	16.884	
6,500.00	6,140.14	10,573.65	7,245.85	37.83	116.20	-6.71	-3,552.55	-104.85	1,877.39	1,758.68	118.70	15.816	
6,600.00	6,233.73	10,569.65	7,245.92	38.44	116.08	-6.49	-3,552.57	-108.85	1,794.73	1,673.36	121.37	14.788	
6,700.00	6,327.32	10,565.65	7,245.99	39.06	115.95	-6.27	-3,552.58	-112.85	1,713.91	1,589.73	124.18	13.802	
6,800.00	6,420.91	10,561.65	7,246.06	39.67	115.82	-6.05	-3,552.59	-116.84	1,635.20	1,508.07	127.13	12.863	
6,900.00	6,514.50	10,557.65	7,246.13	40.28	115.70	-5.82	-3,552.61	-120.84	1,558.92	1,428.72	130.20	11.973	
7,000.00	6,608.09	10,553.66	7,246.20	40.90	115.57	-5.60	-3,552.62	-124.84	1,485.45	1,352.08	133.37	11.138	
7,100.00	6,701.63	10,555.66	7,246.29	41.51	115.63	-18.18	-3,552.64	-130.11	1,415.27	1,278.50	136.77	10.348	
7,200.00	6,793.85	10,530.32	7,246.61	42.10	114.84	-44.63	-3,552.70	-148.17	1,349.76	1,210.48	139.28	9.691	
7,300.00	6,882.50	10,497.11	7,247.19	42.64	113.79	-62.71	-3,552.81	-181.38	1,290.72	1,149.42	141.30	9.134	
7,400.00	6,965.41	10,454.48	7,248.03	43.12	112.45	-74.25	-3,552.97	-228.91	1,239.44	1,096.81	142.63	8.690	
7,500.00	7,040.53	10,388.86	7,249.10	43.53	110.39	-81.44	-3,553.17	-289.60	1,196.64	1,053.87	142.76	8.382	
7,600.00	7,106.00	10,313.97	7,249.62	43.89	108.04	-85.66	-3,553.42	-364.49	1,162.32	1,020.21	142.11	8.179	
7,700.00	7,160.23	10,232.67	7,249.62	44.20	105.50	-88.12	-3,553.69	-445.80	1,136.22	995.30	140.92	8.063	
7,800.00	7,201.86	10,143.29	7,249.62	44.48	102.72	-89.39	-3,553.99	-535.18	1,117.69	978.46	139.23	8.028 SF	
7,900.00	7,229.88	10,056.02	7,249.62	44.73	100.01	-89.98	-3,554.31	-630.44	1,105.91	968.40	137.50	8.043	
8,000.00	7,243.60	9,954.81	7,249.62	44.99	96.89	-90.21	-3,554.64	-729.23	1,100.16	964.81	135.35	8.128 ES	
8,100.00	7,244.73	9,854.77	7,249.62	45.29	93.82	-90.26	-3,554.97	-829.19	1,099.29	965.99	133.29	8.247	
8,200.00	7,244.23	9,754.77	7,249.62	45.74	90.77	-90.28	-3,555.31	-929.19	1,099.04	967.62	131.41	8.363	
8,300.00	7,243.73	9,654.77	7,249.62	46.38	87.75	-90.31	-3,555.64	-1,029.19	1,098.78	969.08	129.71	8.471	
8,400.00	7,243.23	9,554.76	7,249.62	47.29	84.74	-90.33	-3,555.98	-1,129.18	1,098.53	970.37	128.16	8.571	
8,500.00	7,242.73	9,454.76	7,249.62	48.46	81.76	-90.36	-3,556.31	-1,229.18	1,098.28	971.51	126.77	8.664	
8,600.00	7,242.23	9,354.76	7,249.62	49.87	78.81	-90.39	-3,556.64	-1,329.18	1,098.03	972.52	125.51	8.748	
8,700.00	7,241.73	9,254.76	7,249.62	51.48	75.90	-90.41	-3,556.98	-1,429.18	1,097.78	973.39	124.39	8.825	
8,800.00	7,241.23	9,154.76	7,249.62	53.24	73.02	-90.44	-3,557.31	-1,529.18	1,097.53	974.14	123.39	8.895	
8,900.00	7,240.73	9,054.75	7,249.62	55.13	70.18	-90.47	-3,557.65	-1,629.17	1,097.28	974.77	122.51	8.957	
9,000.00	7,240.23	8,954.75	7,249.62	57.11	67.39	-90.49	-3,557.98	-1,729.17	1,097.03	975.29	121.74	9.012	
9,100.00	7,239.73	8,854.75	7,249.62	59.19	64.65	-90.52	-3,558.31	-1,829.17	1,096.78	975.70	121.08	9.058	
9,200.00	7,239.23	8,754.75	7,249.62	61.34	61.98	-90.54	-3,558.65	-1,929.17	1,096.53	976.00	120.53	9.098	
9,300.00	7,238.72	8,654.75	7,249.62	63.55	59.38	-90.57	-3,558.98	-2,029.17	1,096.28	976.19	120.09	9.129	
9,400.00	7,238.22	8,549.29	7,249.62	65.81	56.73	-90.60	-3,559.32	-2,129.16	1,096.03	976.40	119.63	9.162	
9,500.00	7,237.72	8,454.74	7,249.62	68.13	54.46	-90.62	-3,559.65	-2,229.16	1,095.78	976.21	119.57	9.164	
9,600.00	7,237.22	8,354.74	7,249.62	70.48	52.18	-90.65	-3,559.98	-2,329.16	1,095.53	976.03	119.50	9.167	
9,700.00	7,236.72	8,254.74	7,249.62	72.88	50.06	-90.68	-3,560.32	-2,429.16	1,095.29	975.71	119.57	9.160	
9,800.00	7,236.22	8,149.30	7,249.62	75.31	48.05	-90.70	-3,560.65	-2,529.15	1,095.04	975.36	119.68	9.150	
9,900.00	7,235.72	8,054.73	7,249.62	77.77	46.50	-90.73	-3,560.99	-2,629.15	1,094.79	974.60	120.19	9.109	
10,000.00	7,235.22	7,954.73	7,249.62	80.26	45.17	-90.75	-3,561.32	-2,729.15	1,094.54	973.78	120.77	9.063	
10,100.00	7,234.72	7,854.73	7,249.62	82.77	44.21	-90.78	-3,561.65	-2,829.15	1,094.29	972.74	121.55	9.002	
10,200.00	7,234.22	7,754.73	7,249.62	85.31	43.58	-90.81	-3,561.99	-2,929.15	1,094.05	971.47	122.58	8.925	
10,221.33	7,234.11	7,730.67	7,249.58	85.85	43.47	-90.81	-3,562.06	-2,947.78	1,094.01	971.18	122.82	8.907 CC	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	7,673.20	7,246.40	87.86	43.24	-90.66	-3,562.99	-3,005.13	1,094.77	970.45	124.32	8.806		
10,400.00	7,233.22	7,600.00	7,235.09	90.44	43.03	-90.08	-3,565.85	-3,077.36	1,098.02	971.75	126.27	8.696		
10,500.00	7,232.72	7,533.39	7,217.84	93.03	42.88	-89.20	-3,570.06	-3,141.52	1,104.12	975.72	128.40	8.599		
10,600.00	7,232.22	7,469.57	7,195.27	95.64	42.74	-88.05	-3,575.49	-3,200.94	1,113.53	983.02	130.52	8.532		
10,700.00	7,231.72	7,410.93	7,169.51	98.26	42.63	-86.75	-3,581.63	-3,253.25	1,126.78	994.18	132.60	8.498		
10,800.00	7,231.21	7,352.01	7,139.03	100.89	42.51	-85.23	-3,588.87	-3,303.11	1,144.36	1,009.92	134.44	8.512		
10,900.00	7,230.71	7,309.90	7,114.55	103.54	42.41	-84.03	-3,594.65	-3,336.88	1,166.62	1,030.47	136.15	8.568		
11,000.00	7,230.21	7,267.13	7,087.51	106.20	42.31	-82.72	-3,601.03	-3,369.39	1,193.90	1,056.35	137.54	8.680		
11,100.00	7,229.71	7,228.98	7,061.65	108.87	42.21	-81.48	-3,607.11	-3,396.77	1,226.28	1,087.66	138.62	8.846		
11,200.00	7,229.21	7,200.00	7,040.96	111.54	42.13	-80.51	-3,611.97	-3,416.46	1,263.78	1,124.38	139.39	9.066		
11,300.00	7,228.71	7,164.63	7,014.56	114.23	42.03	-79.28	-3,618.16	-3,439.17	1,306.19	1,166.33	139.86	9.340		
11,400.00	7,228.21	7,137.51	6,993.52	116.92	41.94	-78.32	-3,623.10	-3,455.53	1,353.36	1,213.30	140.06	9.663		
11,500.00	7,227.71	7,113.22	6,974.10	119.63	41.86	-77.45	-3,627.64	-3,469.40	1,404.99	1,264.97	140.03	10.034		
11,600.00	7,227.21	7,100.00	6,963.32	122.34	41.82	-76.97	-3,630.17	-3,476.62	1,460.83	1,321.03	139.80	10.449		
11,700.00	7,226.71	7,071.71	6,939.77	125.05	41.72	-75.94	-3,635.67	-3,491.30	1,520.35	1,380.94	139.41	10.905		
11,800.00	7,226.21	7,052.01	6,923.01	127.78	41.65	-75.21	-3,639.59	-3,500.88	1,583.42	1,444.53	138.89	11.401		
11,900.00	7,225.71	7,037.75	6,910.70	130.51	41.59	-74.69	-3,642.46	-3,507.48	1,649.64	1,511.37	138.27	11.930		
12,000.00	7,225.21	7,023.04	6,897.85	133.24	41.53	-74.14	-3,645.46	-3,513.99	1,718.72	1,581.14	137.58	12.493		
12,100.00	7,224.71	7,010.76	6,887.02	135.98	41.48	-73.69	-3,647.99	-3,519.19	1,790.38	1,653.55	136.83	13.085		
12,200.00	7,224.21	7,000.00	6,877.45	138.72	41.44	-73.29	-3,650.22	-3,523.57	1,864.37	1,728.32	136.05	13.704		
12,300.00	7,223.70	7,000.00	6,877.45	141.47	41.44	-73.29	-3,650.22	-3,523.57	1,940.61	1,805.39	135.22	14.352		
12,400.00	7,223.20	6,975.57	6,855.46	144.23	41.33	-72.39	-3,655.35	-3,532.88	2,018.38	1,883.93	134.45	15.013		
12,500.00	7,222.70	6,952.01	6,833.94	146.98	41.23	-71.52	-3,660.36	-3,541.05	2,098.20	1,964.54	133.67	15.697		
12,600.00	7,222.20	6,952.01	6,833.94	149.74	41.23	-71.52	-3,660.36	-3,541.05	2,179.22	2,046.37	132.85	16.403		
12,700.00	7,221.70	6,952.01	6,833.94	152.51	41.23	-71.52	-3,660.36	-3,541.05	2,261.76	2,129.71	132.05	17.128		
12,800.00	7,221.20	6,952.01	6,833.94	155.28	41.23	-71.52	-3,660.36	-3,541.05	2,345.66	2,214.40	131.26	17.870		
12,900.00	7,220.70	6,952.01	6,833.94	158.05	41.23	-71.52	-3,660.36	-3,541.05	2,430.77	2,300.28	130.49	18.627		
13,000.00	7,220.20	6,927.13	6,810.90	160.82	41.11	-70.61	-3,665.73	-3,548.77	2,516.42	2,386.59	129.83	19.382		
13,100.00	7,219.70	6,920.84	6,805.03	163.60	41.08	-70.38	-3,667.10	-3,550.58	2,603.30	2,474.16	129.14	20.159		
13,200.00	7,219.20	6,900.00	6,785.47	166.38	40.98	-69.63	-3,671.65	-3,556.14	2,691.23	2,562.72	128.50	20.943		
13,300.00	7,218.70	6,900.00	6,785.47	169.16	40.98	-69.63	-3,671.65	-3,556.14	2,779.60	2,651.76	127.84	21.742		
13,400.00	7,218.20	6,900.00	6,785.47	171.95	40.98	-69.63	-3,671.65	-3,556.14	2,868.73	2,741.53	127.21	22.552		
13,500.00	7,217.70	6,900.00	6,785.47	174.74	40.98	-69.63	-3,671.65	-3,556.14	2,958.57	2,831.97	126.59	23.370		
13,600.00	7,217.20	6,900.00	6,785.47	177.53	40.98	-69.63	-3,671.65	-3,556.14	3,049.03	2,923.02	126.01	24.197		
13,700.00	7,216.70	6,900.00	6,785.47	180.32	40.98	-69.63	-3,671.65	-3,556.14	3,140.07	3,014.63	125.44	25.032		
13,800.00	7,216.19	6,900.00	6,785.47	183.11	40.98	-69.63	-3,671.65	-3,556.14	3,231.64	3,106.74	124.90	25.873		
13,900.00	7,215.69	6,900.00	6,785.47	185.91	40.98	-69.63	-3,671.65	-3,556.14	3,323.70	3,199.32	124.38	26.721		
14,000.00	7,215.19	6,878.25	6,764.88	188.71	40.87	-68.85	-3,676.44	-3,561.23	3,415.78	3,291.82	123.96	27.556		
14,100.00	7,214.69	6,874.67	6,761.48	191.51	40.85	-68.72	-3,677.23	-3,562.00	3,508.55	3,385.05	123.50	28.410		
14,200.00	7,214.19	6,852.01	6,739.83	194.31	40.74	-67.91	-3,682.26	-3,566.41	3,602.01	3,478.91	123.10	29.260		
14,300.00	7,213.69	6,852.01	6,739.83	197.11	40.74	-67.91	-3,682.26	-3,566.41	3,695.38	3,572.71	122.67	30.124		
14,400.00	7,213.19	6,852.01	6,739.83	199.92	40.74	-67.91	-3,682.26	-3,566.41	3,789.09	3,666.83	122.26	30.993		
14,500.00	7,212.69	6,852.01	6,739.83	202.72	40.74	-67.91	-3,682.26	-3,566.41	3,883.11	3,761.25	121.86	31.866		
14,600.00	7,212.19	6,852.01	6,739.83	205.53	40.74	-67.91	-3,682.26	-3,566.41	3,977.43	3,855.95	121.48	32.742		
14,700.00	7,211.69	6,852.01	6,739.83	208.34	40.74	-67.91	-3,682.26	-3,566.41	4,072.01	3,950.90	121.11	33.622		
14,800.00	7,211.19	6,852.01	6,739.83	211.15	40.74	-67.91	-3,682.26	-3,566.41	4,166.85	4,046.09	120.76	34.504		
14,900.00	7,210.69	6,852.01	6,739.83	213.96	40.74	-67.91	-3,682.26	-3,566.41	4,261.92	4,141.49	120.43	35.389		
15,000.00	7,210.19	6,852.01	6,739.83	216.78	40.74	-67.91	-3,682.26	-3,566.41	4,357.22	4,237.11	120.11	36.277		
15,100.00	7,209.69	6,852.01	6,739.83	219.59	40.74	-67.91	-3,682.26	-3,566.41	4,452.72	4,332.92	119.80	37.167		
15,200.00	7,209.18	6,852.01	6,739.83	222.41	40.74	-67.91	-3,682.26	-3,566.41	4,548.41	4,428.91	119.51	38.059		
15,300.00	7,208.68	6,852.01	6,739.83	225.22	40.74	-67.91	-3,682.26	-3,566.41	4,644.29	4,525.06	119.23	38.953		
15,400.00	7,208.18	6,852.01	6,739.83	228.04	40.74	-67.91	-3,682.26	-3,566.41	4,740.34	4,621.38	118.96	39.849		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												HARVESTERS STATE 7-15 PAD - LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER PLAN		Offset Site Error:		0.00 ft	
Survey Program: 25-MWD														Offset Well Error:		3.28 ft	
Reference		Offset		Semi Major Axis			Distance						Warning				
Measured Depth	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)						
15,437.48	7,208.00	6,852.01	6,739.83	229.10	40.74	-67.91	-3,682.26	-3,566.41	4,776.37	4,657.52	118.86	40.185					



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	25.00	71.00	3.28	3.28	-146.72	-5,013.28	-3,291.08	5,997.44					
100.00	100.00	1,172.69	1,203.63	3.28	6.59	-145.69	-4,864.69	-3,319.89	5,992.06	5,982.25	9.82	610.298		
200.00	200.00	1,265.95	1,293.47	3.34	7.13	-145.51	-4,840.35	-3,325.77	5,973.73	5,963.40	10.32	578.630		
300.00	299.98	1,400.00	1,422.67	3.44	7.93	31.33	-4,805.41	-3,333.17	5,953.57	5,942.45	11.12	535.459		
400.00	399.84	1,484.46	1,504.24	3.59	8.44	31.76	-4,783.83	-3,337.06	5,930.53	5,918.84	11.70	506.986		
500.00	499.45	1,582.11	1,598.61	3.79	9.04	32.26	-4,759.05	-3,340.96	5,904.51	5,892.11	12.40	476.294		
600.00	598.70	1,642.00	1,656.61	4.03	9.41	32.73	-4,744.27	-3,343.21	5,876.16	5,863.23	12.93	454.449		
700.00	697.47	1,792.64	1,802.38	4.31	10.35	33.49	-4,706.80	-3,349.25	5,845.24	5,831.23	14.01	417.314		
800.00	795.62	1,882.34	1,888.86	4.64	10.93	34.18	-4,683.33	-3,353.42	5,810.87	5,796.07	14.80	392.726		
900.00	893.06	1,970.46	1,973.80	5.00	11.50	34.93	-4,660.26	-3,357.51	5,773.94	5,758.33	15.61	369.891		
1,000.00	989.64	2,056.89	2,057.12	5.40	12.07	35.74	-4,637.64	-3,361.52	5,734.52	5,718.08	16.44	348.729		
1,100.00	1,085.27	2,141.52	2,138.71	5.83	12.63	36.62	-4,615.49	-3,365.45	5,692.70	5,675.41	17.30	329.132		
1,200.00	1,179.82	2,224.26	2,218.47	6.29	13.18	37.58	-4,593.83	-3,369.30	5,648.55	5,630.39	18.16	310.980		
1,300.00	1,273.47	2,305.48	2,296.77	6.79	13.72	38.15	-4,572.57	-3,373.07	5,602.73	5,583.69	19.04	294.199		
1,400.00	1,367.06	2,386.61	2,374.98	7.30	14.26	38.53	-4,551.34	-3,376.84	5,557.02	5,537.09	19.94	278.748		
1,500.00	1,460.64	2,467.73	2,453.18	7.83	14.80	38.92	-4,530.11	-3,380.60	5,511.56	5,490.71	20.85	264.374		
1,600.00	1,554.23	2,548.86	2,531.39	8.38	15.35	39.32	-4,508.87	-3,384.37	5,466.34	5,444.57	21.78	251.008		
1,700.00	1,647.82	2,640.03	2,609.60	8.93	15.96	39.72	-4,487.64	-3,388.14	5,421.38	5,398.60	22.78	237.952		
1,800.00	1,741.41	2,711.11	2,687.80	9.49	16.44	40.12	-4,466.41	-3,391.91	5,376.68	5,352.99	23.68	227.009		
1,900.00	1,835.00	2,792.23	2,766.01	10.05	16.99	40.54	-4,445.17	-3,395.67	5,332.24	5,307.58	24.66	216.236		
2,000.00	1,928.59	2,873.36	2,844.21	10.62	17.54	40.95	-4,423.94	-3,399.44	5,288.08	5,262.43	25.65	206.193		
2,100.00	2,022.18	2,954.48	2,922.42	11.20	18.08	41.37	-4,402.71	-3,403.21	5,244.19	5,217.55	26.64	196.818		
2,200.00	2,115.77	3,035.61	3,000.63	11.78	18.64	41.80	-4,381.47	-3,406.98	5,200.60	5,172.94	27.65	188.056		
2,300.00	2,209.36	3,116.73	3,078.83	12.37	19.19	42.24	-4,360.24	-3,410.74	5,157.29	5,128.62	28.67	179.856		
2,400.00	2,302.95	3,202.14	3,157.04	12.95	19.77	42.68	-4,339.01	-3,414.51	5,114.29	5,084.56	29.73	172.020		
2,500.00	2,396.54	3,278.98	3,235.25	13.54	20.29	43.12	-4,317.77	-3,418.28	5,071.60	5,040.86	30.74	164.961		
2,600.00	2,490.13	3,360.11	3,313.45	14.13	20.84	43.57	-4,296.54	-3,422.05	5,029.23	4,997.43	31.79	158.186		
2,700.00	2,583.72	3,441.23	3,391.66	14.73	21.40	44.03	-4,275.31	-3,425.81	4,987.18	4,954.33	32.85	151.812		
2,800.00	2,677.31	3,522.36	3,469.86	15.32	21.95	44.50	-4,254.07	-3,429.58	4,945.46	4,911.55	33.92	145.807		
2,900.00	2,770.90	3,603.48	3,548.07	15.92	22.51	44.97	-4,232.84	-3,433.35	4,904.09	4,869.10	34.99	140.144		
3,000.00	2,864.49	3,684.61	3,626.28	16.52	23.06	45.44	-4,211.61	-3,437.12	4,863.07	4,826.99	36.08	134.797		
3,100.00	2,958.08	10,481.92	7,075.95	17.12	117.79	-9.84	-3,289.20	-63.55	4,791.08	4,713.06	78.03	61.403		
3,200.00	3,051.67	10,479.87	7,075.95	17.72	117.73	-9.70	-3,289.20	-65.61	4,692.70	4,614.36	78.35	59.898		
3,300.00	3,145.26	10,477.81	7,075.95	18.32	117.66	-9.56	-3,289.19	-67.66	4,594.39	4,515.70	78.69	58.387		
3,400.00	3,238.85	10,475.76	7,075.95	18.92	117.60	-9.42	-3,289.19	-69.72	4,496.15	4,417.10	79.06	56.873		
3,500.00	3,332.44	10,473.70	7,075.95	19.53	117.53	-9.29	-3,289.18	-71.77	4,397.99	4,318.54	79.45	55.356		
3,600.00	3,426.03	10,471.65	7,075.94	20.13	117.47	-9.15	-3,289.18	-73.83	4,299.91	4,220.04	79.87	53.836		
3,700.00	3,519.62	10,469.60	7,075.94	20.74	117.41	-9.01	-3,289.17	-75.88	4,201.93	4,121.61	80.32	52.315		
3,800.00	3,613.21	10,467.54	7,075.94	21.34	117.34	-8.87	-3,289.17	-77.93	4,104.04	4,023.24	80.80	50.793		
3,900.00	3,706.80	10,465.49	7,075.94	21.95	117.28	-8.73	-3,289.16	-79.99	4,006.25	3,924.94	81.31	49.270		
4,000.00	3,800.39	10,463.43	7,075.94	22.56	117.21	-8.60	-3,289.16	-82.04	3,908.57	3,826.72	81.86	47.748		
4,100.00	3,893.98	10,461.38	7,075.93	23.16	117.15	-8.46	-3,289.15	-84.10	3,811.02	3,728.58	82.44	46.228		
4,200.00	3,987.57	10,459.32	7,075.93	23.77	117.08	-8.32	-3,289.15	-86.15	3,713.59	3,630.53	83.06	44.711		
4,300.00	4,081.16	10,457.27	7,075.93	24.38	117.02	-8.18	-3,289.14	-88.21	3,616.30	3,532.58	83.72	43.197		
4,400.00	4,174.75	10,455.21	7,075.93	24.99	116.95	-8.04	-3,289.14	-90.26	3,519.16	3,434.75	84.42	41.688		
4,500.00	4,268.34	10,453.16	7,075.92	25.60	116.89	-7.90	-3,289.13	-92.32	3,422.19	3,337.03	85.16	40.184		
4,600.00	4,361.93	10,451.11	7,075.92	26.21	116.82	-7.77	-3,289.13	-94.37	3,325.39	3,239.44	85.96	38.688		
4,700.00	4,455.52	10,449.05	7,075.92	26.82	116.76	-7.63	-3,289.12	-96.42	3,228.79	3,141.99	86.80	37.198		
4,800.00	4,549.11	10,447.00	7,075.92	27.43	116.69	-7.49	-3,289.12	-98.48	3,132.40	3,044.70	87.70	35.718		
4,900.00	4,642.70	10,444.94	7,075.92	28.04	116.63	-7.35	-3,289.11	-100.53	3,036.24	2,947.58	88.66	34.248		
5,000.00	4,736.29	10,442.89	7,075.91	28.65	116.56	-7.21	-3,289.11	-102.59	2,940.34	2,850.66	89.68	32.789		
5,100.00	4,829.88	10,440.83	7,075.91	29.26	116.50	-7.07	-3,289.10	-104.64	2,844.71	2,753.95	90.76	31.342		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	10,438.78	7,075.91	29.87	116.43	-6.93	-3,289.10	-106.70	2,749.40	2,657.47	91.93	29.909		
5,300.00	5,017.06	10,436.72	7,075.91	30.48	116.37	-6.80	-3,289.09	-108.75	2,654.43	2,561.26	93.17	28.491		
5,400.00	5,110.65	10,434.67	7,075.91	31.09	116.31	-6.66	-3,289.09	-110.80	2,559.84	2,465.34	94.50	27.089		
5,500.00	5,204.24	10,437.43	7,075.90	31.70	116.39	-6.52	-3,289.08	-112.86	2,465.68	2,369.66	96.02	25.678		
5,600.00	5,297.83	10,430.56	7,075.90	32.32	116.18	-6.38	-3,289.08	-114.91	2,371.99	2,274.55	97.44	24.342		
5,700.00	5,391.42	10,428.51	7,075.90	32.93	116.11	-6.24	-3,289.07	-116.97	2,278.84	2,179.76	99.08	23.000		
5,800.00	5,485.01	10,426.45	7,075.90	33.54	116.05	-6.10	-3,289.07	-119.02	2,186.29	2,085.45	100.84	21.682		
5,900.00	5,578.60	10,424.40	7,075.90	34.15	115.98	-5.96	-3,289.06	-121.08	2,094.42	1,991.70	102.73	20.388		
6,000.00	5,672.19	10,422.34	7,075.89	34.77	115.92	-5.82	-3,289.06	-123.13	2,003.33	1,898.57	104.76	19.123		
6,100.00	5,765.78	10,420.29	7,075.89	35.38	115.85	-5.68	-3,289.05	-125.19	1,913.13	1,806.18	106.95	17.887		
6,200.00	5,859.37	10,418.24	7,075.89	35.99	115.79	-5.54	-3,289.05	-127.24	1,823.95	1,714.64	109.32	16.685		
6,300.00	5,952.96	10,416.18	7,075.89	36.60	115.72	-5.41	-3,289.04	-129.29	1,735.95	1,624.09	111.86	15.519		
6,400.00	6,046.55	10,414.13	7,075.89	37.22	115.66	-5.27	-3,289.04	-131.35	1,649.31	1,534.71	114.60	14.391		
6,500.00	6,140.14	10,412.07	7,075.88	37.83	115.60	-5.13	-3,289.03	-133.40	1,564.26	1,446.71	117.55	13.307		
6,600.00	6,233.73	10,410.02	7,075.88	38.44	115.53	-4.99	-3,289.03	-135.46	1,481.08	1,360.37	120.71	12.270		
6,700.00	6,327.32	10,407.96	7,075.88	39.06	115.47	-4.85	-3,289.02	-137.51	1,400.10	1,276.02	124.08	11.284		
6,800.00	6,420.91	10,405.91	7,075.88	39.67	115.40	-4.71	-3,289.02	-139.57	1,321.73	1,194.08	127.65	10.354		
6,900.00	6,514.50	10,403.85	7,075.88	40.28	115.34	-4.57	-3,289.01	-141.62	1,246.45	1,115.07	131.38	9.487		
7,000.00	6,608.09	10,401.80	7,075.87	40.90	115.27	-4.43	-3,289.01	-143.67	1,174.85	1,039.64	135.21	8.689		
7,100.00	6,701.63	10,401.53	7,075.87	41.51	115.26	-16.78	-3,289.00	-147.00	1,107.69	968.59	139.10	7.963		
7,200.00	6,793.85	10,382.32	7,075.85	42.10	114.66	-42.33	-3,288.96	-163.16	1,046.48	904.28	142.20	7.359		
7,300.00	6,882.50	10,350.94	7,075.82	42.64	113.68	-59.27	-3,288.88	-194.53	993.15	848.74	144.42	6.877		
7,400.00	6,965.41	10,305.12	7,075.78	43.12	112.24	-69.50	-3,288.77	-240.36	949.00	803.57	145.43	6.525		
7,500.00	7,040.53	10,245.97	7,075.72	43.53	110.39	-75.23	-3,288.62	-299.50	914.43	769.25	145.17	6.299		
7,600.00	7,106.00	10,174.96	7,075.65	43.89	108.18	-78.03	-3,288.45	-370.51	888.96	745.18	143.78	6.183		
7,700.00	7,160.23	10,093.84	7,075.57	44.20	105.65	-79.01	-3,288.24	-451.64	871.37	729.82	141.55	6.156 SF		
7,800.00	7,201.86	10,004.59	7,075.48	44.48	102.89	-79.03	-3,288.02	-540.88	860.04	721.14	138.90	6.192		
7,900.00	7,229.88	9,909.42	7,075.38	44.73	99.96	-78.70	-3,287.79	-636.05	853.31	717.10	136.21	6.264		
8,000.00	7,243.60	9,810.68	7,075.29	44.99	96.93	-78.47	-3,287.54	-734.80	849.88	716.08	133.80	6.352		
8,100.00	7,244.73	9,710.72	7,075.19	45.29	93.88	-78.48	-3,287.30	-834.75	848.70	716.94	131.77	6.441		
8,200.00	7,244.23	9,610.73	7,075.09	45.74	90.86	-78.49	-3,287.05	-934.74	847.81	717.87	129.94	6.525		
8,300.00	7,243.73	9,510.73	7,074.99	46.38	87.85	-78.51	-3,286.80	-1,034.74	846.91	718.64	128.27	6.602		
8,400.00	7,243.23	9,410.74	7,074.89	47.29	84.88	-78.52	-3,286.56	-1,134.74	846.01	719.26	126.75	6.675		
8,500.00	7,242.73	9,310.74	7,074.79	48.46	81.93	-78.54	-3,286.31	-1,234.73	845.11	719.74	125.37	6.741		
8,600.00	7,242.23	9,211.96	7,074.64	49.87	79.05	-78.55	-3,286.06	-1,333.51	844.22	720.04	124.19	6.798		
8,700.00	7,241.73	9,111.97	7,073.82	51.48	76.17	-78.52	-3,285.82	-1,433.50	843.47	720.42	123.04	6.855		
8,800.00	7,241.23	9,011.97	7,072.99	53.24	73.34	-78.49	-3,285.57	-1,533.49	842.71	720.70	122.02	6.907		
8,900.00	7,240.73	8,911.98	7,072.16	55.13	70.55	-78.45	-3,285.32	-1,633.48	841.96	720.86	121.10	6.952		
9,000.00	7,240.23	8,811.98	7,071.33	57.11	67.82	-78.42	-3,285.08	-1,733.48	841.21	720.91	120.30	6.993		
9,100.00	7,239.73	8,711.98	7,070.51	59.19	65.15	-78.39	-3,284.83	-1,833.47	840.46	720.86	119.60	7.027		
9,200.00	7,239.23	8,611.99	7,069.68	61.34	62.57	-78.35	-3,284.58	-1,933.46	839.70	720.70	119.01	7.056		
9,300.00	7,238.72	8,511.99	7,068.85	63.55	60.08	-78.32	-3,284.33	-2,033.45	838.95	720.43	118.53	7.078		
9,400.00	7,238.22	8,412.00	7,068.03	65.81	57.70	-78.29	-3,284.09	-2,133.44	838.20	720.04	118.16	7.094		
9,500.00	7,237.72	8,312.00	7,067.20	68.13	55.47	-78.25	-3,283.84	-2,233.44	837.45	719.54	117.91	7.103		
9,600.00	7,237.22	8,212.00	7,066.37	70.48	53.41	-78.22	-3,283.59	-2,333.43	836.70	718.91	117.79	7.103		
9,700.00	7,236.72	8,112.01	7,065.54	72.88	51.59	-78.19	-3,283.35	-2,433.42	835.95	718.14	117.81	7.096		
9,800.00	7,236.22	8,012.01	7,064.72	75.31	50.04	-78.15	-3,283.10	-2,533.41	835.20	717.21	117.98	7.079		
9,900.00	7,235.72	7,912.02	7,063.89	77.77	48.80	-78.12	-3,282.85	-2,633.41	834.44	716.12	118.33	7.052		
10,000.00	7,235.22	7,812.02	7,063.06	80.26	47.88	-78.08	-3,282.60	-2,733.40	833.69	714.83	118.87	7.014		
10,100.00	7,234.72	7,712.02	7,062.23	82.77	47.24	-78.05	-3,282.36	-2,833.39	832.94	713.32	119.63	6.963		
10,200.00	7,234.22	7,612.03	7,061.41	85.31	46.83	-78.02	-3,282.11	-2,933.38	832.20	711.57	120.63	6.899		
10,225.92	7,234.09	7,593.20	7,061.15	85.97	46.76	-78.00	-3,282.09	-2,952.20	832.08	710.96	121.13	6.870 CC		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-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		
10,300.00	7,233.72	7,546.97	7,058.31	87.86	46.63	-77.83	-3,282.64	-2,998.34	833.40	710.72	122.68	6.793 ES		
10,400.00	7,233.22	7,485.62	7,049.58	90.44	46.48	-77.29	-3,284.72	-3,059.00	839.16	714.53	124.63	6.733		
10,500.00	7,232.72	7,426.45	7,035.86	93.03	46.35	-76.45	-3,288.17	-3,116.44	849.70	723.32	126.39	6.723		
10,600.00	7,232.22	7,370.29	7,018.14	95.64	46.23	-75.37	-3,292.73	-3,169.51	865.28	737.35	127.93	6.764		
10,700.00	7,231.72	7,317.71	6,997.51	98.26	46.12	-74.15	-3,298.10	-3,217.56	886.16	756.96	129.20	6.859		
10,800.00	7,231.21	7,269.03	6,975.07	100.89	46.01	-72.84	-3,303.99	-3,260.34	912.54	782.23	130.31	7.003		
10,900.00	7,230.71	7,224.34	6,951.74	103.54	45.91	-71.53	-3,310.14	-3,297.95	944.52	813.48	131.04	7.208		
11,000.00	7,230.21	7,183.10	6,928.01	106.20	45.81	-70.22	-3,316.42	-3,331.07	982.06	850.54	131.53	7.467		
11,100.00	7,229.71	7,146.47	6,905.23	108.87	45.71	-69.01	-3,322.46	-3,359.11	1,025.01	893.23	131.78	7.778		
11,200.00	7,229.21	7,112.84	6,882.98	111.54	45.61	-67.86	-3,328.39	-3,383.63	1,073.09	941.29	131.80	8.142		
11,300.00	7,228.71	7,082.35	6,861.76	114.23	45.52	-66.79	-3,334.04	-3,404.77	1,125.97	994.35	131.62	8.554		
11,400.00	7,228.21	7,050.00	6,838.20	116.92	45.42	-65.65	-3,340.33	-3,426.02	1,183.30	1,052.07	131.23	9.017		
11,500.00	7,227.71	7,035.01	6,826.94	119.63	45.36	-65.11	-3,343.34	-3,435.44	1,244.64	1,113.80	130.84	9.512		
11,600.00	7,227.21	7,000.00	6,799.83	122.34	45.24	-63.85	-3,350.60	-3,456.36	1,309.64	1,179.45	130.19	10.060		
11,700.00	7,226.71	7,000.00	6,799.83	125.05	45.24	-63.85	-3,350.60	-3,456.36	1,378.03	1,248.39	129.64	10.630		
11,800.00	7,226.21	6,967.11	6,773.38	127.78	45.11	-62.67	-3,357.69	-3,474.58	1,448.99	1,320.11	128.88	11.243		
11,900.00	7,225.71	6,950.00	6,759.27	130.51	45.05	-62.06	-3,361.47	-3,483.49	1,522.75	1,394.60	128.15	11.883		
12,000.00	7,225.21	6,935.01	6,746.73	133.24	44.98	-61.52	-3,364.84	-3,490.97	1,598.84	1,471.43	127.40	12.549		
12,100.00	7,224.71	6,919.29	6,733.40	135.98	44.92	-60.96	-3,368.42	-3,498.49	1,676.98	1,550.33	126.65	13.241		
12,200.00	7,224.21	6,900.00	6,716.80	138.72	44.83	-60.28	-3,372.88	-3,507.25	1,757.00	1,631.10	125.90	13.955		
12,300.00	7,223.70	6,900.00	6,716.80	141.47	44.83	-60.28	-3,372.88	-3,507.25	1,838.64	1,713.47	125.17	14.689		
12,400.00	7,223.20	6,881.92	6,701.01	144.23	44.75	-59.65	-3,377.13	-3,514.98	1,921.69	1,797.23	124.46	15.440		
12,500.00	7,222.70	6,871.25	6,691.60	146.98	44.70	-59.28	-3,379.66	-3,519.32	2,006.09	1,882.32	123.77	16.209		
12,600.00	7,222.20	6,850.00	6,672.66	149.74	44.60	-58.55	-3,384.76	-3,527.48	2,091.79	1,968.68	123.11	16.991		
12,700.00	7,221.70	6,850.00	6,672.66	152.51	44.60	-58.55	-3,384.76	-3,527.48	2,178.31	2,055.85	122.46	17.788		
12,800.00	7,221.20	6,843.47	6,666.78	155.28	44.57	-58.33	-3,386.34	-3,529.85	2,265.89	2,144.06	121.84	18.598		
12,900.00	7,220.70	6,835.01	6,659.14	158.05	44.53	-58.04	-3,388.40	-3,532.83	2,354.34	2,233.10	121.25	19.418		
13,000.00	7,220.20	6,835.01	6,659.14	160.82	44.53	-58.04	-3,388.40	-3,532.83	2,443.62	2,322.95	120.66	20.252		
13,100.00	7,219.70	6,820.75	6,646.17	163.60	44.46	-57.56	-3,391.90	-3,537.63	2,533.50	2,413.36	120.14	21.088		
13,200.00	7,219.20	6,814.08	6,640.07	166.38	44.42	-57.33	-3,393.54	-3,539.76	2,624.07	2,504.45	119.63	21.935		
13,300.00	7,218.70	6,800.00	6,627.13	169.16	44.35	-56.87	-3,397.04	-3,544.06	2,715.29	2,596.13	119.16	22.787		
13,400.00	7,218.20	6,800.00	6,627.13	171.95	44.35	-56.87	-3,397.04	-3,544.06	2,806.93	2,688.25	118.68	23.652		
13,500.00	7,217.70	6,800.00	6,627.13	174.74	44.35	-56.87	-3,397.04	-3,544.06	2,899.12	2,780.90	118.22	24.524		
13,600.00	7,217.20	6,800.00	6,627.13	177.53	44.35	-56.87	-3,397.04	-3,544.06	2,991.81	2,874.04	117.78	25.402		
13,700.00	7,216.70	6,800.00	6,627.13	180.32	44.35	-56.87	-3,397.04	-3,544.06	3,084.96	2,967.61	117.36	26.287		
13,800.00	7,216.19	6,800.00	6,627.13	183.11	44.35	-56.87	-3,397.04	-3,544.06	3,178.53	3,061.57	116.96	27.176		
13,900.00	7,215.69	6,776.66	6,605.47	185.91	44.23	-56.10	-3,402.88	-3,550.52	3,271.98	3,155.32	116.65	28.049		
14,000.00	7,215.19	6,772.36	6,601.46	188.71	44.20	-55.97	-3,403.96	-3,551.62	3,366.07	3,249.77	116.31	28.942		
14,100.00	7,214.69	6,750.56	6,581.01	191.51	44.08	-55.27	-3,409.48	-3,556.76	3,460.76	3,344.73	116.03	29.828		
14,200.00	7,214.19	6,750.56	6,581.01	194.31	44.08	-55.27	-3,409.48	-3,556.76	3,555.32	3,439.62	115.70	30.729		
14,300.00	7,213.69	6,750.56	6,581.01	197.11	44.08	-55.27	-3,409.48	-3,556.76	3,650.17	3,534.78	115.39	31.633		
14,400.00	7,213.19	6,750.56	6,581.01	199.92	44.08	-55.27	-3,409.48	-3,556.76	3,745.29	3,630.19	115.09	32.541		
14,500.00	7,212.69	6,750.56	6,581.01	202.72	44.08	-55.27	-3,409.48	-3,556.76	3,840.65	3,725.84	114.81	33.451		
14,600.00	7,212.19	6,750.56	6,581.01	205.53	44.08	-55.27	-3,409.48	-3,556.76	3,936.25	3,821.71	114.55	34.364		
14,700.00	7,211.69	6,750.56	6,581.01	208.34	44.08	-55.27	-3,409.48	-3,556.76	4,032.06	3,917.77	114.29	35.279		
14,800.00	7,211.19	6,750.56	6,581.01	211.15	44.08	-55.27	-3,409.48	-3,556.76	4,128.07	4,014.02	114.05	36.196		
14,900.00	7,210.69	6,735.01	6,566.33	213.96	44.00	-54.78	-3,413.45	-3,559.99	4,224.23	4,110.37	113.86	37.101		
15,000.00	7,210.19	6,735.01	6,566.33	216.78	44.00	-54.78	-3,413.45	-3,559.99	4,320.52	4,206.88	113.64	38.020		
15,100.00	7,209.69	6,735.01	6,566.33	219.59	44.00	-54.78	-3,413.45	-3,559.99	4,416.98	4,303.55	113.43	38.941		
15,200.00	7,209.18	6,735.01	6,566.33	222.41	44.00	-54.78	-3,413.45	-3,559.99	4,513.59	4,400.36	113.23	39.863		
15,300.00	7,208.68	6,735.01	6,566.33	225.22	44.00	-54.78	-3,413.45	-3,559.99	4,610.34	4,497.31	113.04	40.786		
15,400.00	7,208.18	6,735.01	6,566.33	228.04	44.00	-54.78	-3,413.45	-3,559.99	4,707.23	4,594.38	112.85	41.711		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN											Offset Site Error:	0.00 ft
Survey Program:	25-MWD											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	6,735.01	6,566.33	229.10	44.00	-54.78	-3,413.45	-3,559.99	4,743.58	4,630.79	112.79	42.057	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER FARM 1-21(PA_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	64.00	3.28	3.28	-123.08	-4,130.75	-6,342.41	7,569.24				
100.00	100.00	36.00	100.00	3.28	3.34	-123.08	-4,130.75	-6,342.41	7,568.96	7,562.34	6.62	1,142.594	
200.00	200.00	136.00	200.00	3.34	4.45	-123.08	-4,130.75	-6,342.41	7,568.96	7,561.18	7.78	972.425	
300.00	299.98	235.98	299.98	3.44	7.27	53.31	-4,130.75	-6,342.41	7,567.92	7,557.21	10.71	706.384	
400.00	399.84	335.84	399.84	3.59	10.50	53.40	-4,130.75	-6,342.41	7,564.80	7,550.70	14.09	536.756	
500.00	499.45	435.45	499.45	3.79	13.85	53.53	-4,130.75	-6,342.41	7,559.59	7,541.96	17.64	428.587	
600.00	598.70	534.70	598.70	4.03	17.24	53.72	-4,130.75	-6,342.41	7,552.33	7,531.06	21.27	355.125	
700.00	697.47	633.47	697.47	4.31	20.63	53.97	-4,130.75	-6,342.41	7,543.03	7,518.08	24.94	302.398	
800.00	795.62	731.62	795.62	4.64	24.02	54.27	-4,130.75	-6,342.41	7,531.71	7,503.06	28.65	262.872	
900.00	893.06	829.06	893.06	5.00	27.39	54.63	-4,130.75	-6,342.41	7,518.40	7,486.03	32.38	232.216	
1,000.00	989.64	925.64	989.64	5.40	30.74	55.04	-4,130.75	-6,342.41	7,503.15	7,467.04	36.11	207.785	
1,100.00	1,085.27	1,021.27	1,085.27	5.83	34.07	55.50	-4,130.75	-6,342.41	7,485.99	7,446.15	39.84	187.882	
1,200.00	1,179.82	1,115.82	1,179.82	6.29	37.35	56.02	-4,130.75	-6,342.41	7,466.97	7,423.40	43.57	171.368	
1,300.00	1,273.47	1,209.47	1,273.47	6.79	40.61	56.34	-4,130.75	-6,342.41	7,446.59	7,399.29	47.30	157.446	
1,400.00	1,367.06	1,303.06	1,367.06	7.30	43.87	56.56	-4,130.75	-6,342.41	7,426.22	7,375.18	51.04	145.512	
1,500.00	1,460.64	1,403.36	1,460.64	7.83	47.36	56.78	-4,130.75	-6,342.41	7,405.96	7,350.94	55.02	134.596	
1,600.00	1,554.23	1,509.77	1,554.23	8.38	51.07	56.99	-4,130.75	-6,342.41	7,385.82	7,326.58	59.24	124.679	
1,700.00	1,647.82	1,583.82	1,647.82	8.93	53.65	57.21	-4,130.75	-6,342.41	7,365.79	7,303.46	62.34	118.160	
1,800.00	1,741.41	1,677.41	1,741.41	9.49	56.91	57.43	-4,130.75	-6,342.41	7,345.88	7,279.75	66.13	111.089	
1,900.00	1,835.00	1,771.00	1,835.00	10.05	60.17	57.66	-4,130.75	-6,342.41	7,326.08	7,256.16	69.92	104.774	
2,000.00	1,928.59	1,864.59	1,928.59	10.62	63.43	57.88	-4,130.75	-6,342.41	7,306.40	7,232.67	73.73	99.102	
2,100.00	2,022.18	1,958.18	2,022.18	11.20	66.70	58.10	-4,130.75	-6,342.41	7,286.83	7,209.30	77.54	93.981	
2,200.00	2,115.77	2,051.77	2,115.77	11.78	69.96	58.33	-4,130.75	-6,342.41	7,267.38	7,186.03	81.35	89.335	
2,300.00	2,209.36	2,145.36	2,209.36	12.37	73.22	58.55	-4,130.75	-6,342.41	7,248.06	7,162.89	85.17	85.102	
2,400.00	2,302.95	2,238.95	2,302.95	12.95	76.49	58.78	-4,130.75	-6,342.41	7,228.85	7,139.85	88.99	81.229	
2,500.00	2,396.54	2,332.54	2,396.54	13.54	79.75	59.01	-4,130.75	-6,342.41	7,209.76	7,116.94	92.82	77.674	
2,600.00	2,490.13	2,426.13	2,490.13	14.13	83.02	59.24	-4,130.75	-6,342.41	7,190.79	7,094.14	96.65	74.400	
2,700.00	2,583.72	2,519.72	2,583.72	14.73	86.28	59.47	-4,130.75	-6,342.41	7,171.95	7,071.47	100.48	71.374	
2,800.00	2,677.31	2,613.31	2,677.31	15.32	89.55	59.70	-4,130.75	-6,342.41	7,153.23	7,048.91	104.32	68.569	
2,900.00	2,770.90	2,706.90	2,770.90	15.92	92.81	59.93	-4,130.75	-6,342.41	7,134.64	7,026.48	108.16	65.964	
3,000.00	2,864.49	2,800.49	2,864.49	16.52	96.08	60.17	-4,130.75	-6,342.41	7,116.17	7,004.17	112.00	63.536	
3,100.00	2,958.08	2,905.92	2,958.08	17.12	99.75	60.40	-4,130.75	-6,342.41	7,097.83	6,981.57	116.26	61.052	
3,200.00	3,051.67	2,987.67	3,051.67	17.72	102.61	60.64	-4,130.75	-6,342.41	7,079.61	6,959.92	119.69	59.149	
3,300.00	3,145.26	3,081.26	3,145.26	18.32	105.87	60.87	-4,130.75	-6,342.41	7,061.53	6,937.99	123.54	57.160	
3,400.00	3,238.85	3,174.85	3,238.85	18.92	109.14	61.11	-4,130.75	-6,342.41	7,043.57	6,916.18	127.39	55.292	
3,500.00	3,332.44	3,268.44	3,332.44	19.53	112.40	61.35	-4,130.75	-6,342.41	7,025.75	6,894.51	131.24	53.533	
3,600.00	3,426.03	3,362.03	3,426.03	20.13	115.67	61.59	-4,130.75	-6,342.41	7,008.06	6,872.96	135.09	51.875	
3,700.00	3,519.62	3,455.62	3,519.62	20.74	118.94	61.83	-4,130.75	-6,342.41	6,990.50	6,851.55	138.95	50.310	
3,800.00	3,613.21	3,549.21	3,613.21	21.34	122.20	62.08	-4,130.75	-6,342.41	6,973.07	6,830.26	142.81	48.829	
3,900.00	3,706.80	3,642.80	3,706.80	21.95	125.47	62.32	-4,130.75	-6,342.41	6,955.78	6,809.11	146.66	47.427	
4,000.00	3,800.39	3,736.39	3,800.39	22.56	128.73	62.56	-4,130.75	-6,342.41	6,938.62	6,788.10	150.52	46.097	
4,100.00	3,893.98	3,829.98	3,893.98	23.16	132.00	62.81	-4,130.75	-6,342.41	6,921.60	6,767.22	154.38	44.834	
4,200.00	3,987.57	3,923.57	3,987.57	23.77	135.27	63.06	-4,130.75	-6,342.41	6,904.72	6,746.48	158.25	43.633	
4,300.00	4,081.16	4,017.16	4,081.16	24.38	138.53	63.30	-4,130.75	-6,342.41	6,887.98	6,725.87	162.11	42.490	
4,400.00	4,174.75	4,110.75	4,174.75	24.99	141.80	63.55	-4,130.75	-6,342.41	6,871.37	6,705.40	165.97	41.401	
4,500.00	4,268.34	4,204.34	4,268.34	25.60	145.07	63.80	-4,130.75	-6,342.41	6,854.91	6,685.07	169.84	40.361	
4,600.00	4,361.93	4,302.07	4,361.93	26.21	148.48	64.05	-4,130.75	-6,342.41	6,838.59	6,664.74	173.85	39.336	
4,700.00	4,455.52	4,408.48	4,455.52	26.82	152.19	64.31	-4,130.75	-6,342.41	6,822.42	6,644.25	178.17	38.292	
4,800.00	4,549.11	4,485.11	4,549.11	27.43	154.86	64.56	-4,130.75	-6,342.41	6,806.38	6,624.94	181.44	37.512	
4,900.00	4,642.70	4,578.70	4,642.70	28.04	158.13	64.81	-4,130.75	-6,342.41	6,790.49	6,605.18	185.31	36.643	
5,000.00	4,736.29	4,672.29	4,736.29	28.65	161.40	65.07	-4,130.75	-6,342.41	6,774.75	6,585.57	189.19	35.810	
5,100.00	4,829.88	4,765.88	4,829.88	29.26	164.66	65.33	-4,130.75	-6,342.41	6,759.15	6,566.10	193.06	35.011	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER FARM 1-21(PA_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,859.47	4,923.47	29.87	167.93	65.58	-4,130.75	-6,342.41	6,743.71	6,546.78	196.93	34.244		
5,300.00	5,017.06	4,953.06	5,017.06	30.48	171.20	65.84	-4,130.75	-6,342.41	6,728.41	6,527.60	200.81	33.507		
5,400.00	5,110.65	5,046.65	5,110.65	31.09	174.46	66.10	-4,130.75	-6,342.41	6,713.26	6,508.58	204.68	32.799		
5,500.00	5,204.24	5,140.24	5,204.24	31.70	177.73	66.36	-4,130.75	-6,342.41	6,698.26	6,489.70	208.56	32.117		
5,600.00	5,297.83	5,233.83	5,297.83	32.32	181.00	66.63	-4,130.75	-6,342.41	6,683.42	6,470.98	212.43	31.461		
5,700.00	5,391.42	5,327.42	5,391.42	32.93	184.26	66.89	-4,130.75	-6,342.41	6,668.72	6,452.41	216.31	30.829		
5,800.00	5,485.01	5,421.01	5,485.01	33.54	187.53	67.15	-4,130.75	-6,342.41	6,654.18	6,433.99	220.19	30.220		
5,900.00	5,578.60	5,514.60	5,578.60	34.15	190.80	67.42	-4,130.75	-6,342.41	6,639.80	6,415.73	224.07	29.632		
6,000.00	5,672.19	5,608.19	5,672.19	34.77	194.06	67.68	-4,130.75	-6,342.41	6,625.57	6,397.62	227.95	29.066		
6,100.00	5,765.78	5,701.78	5,765.78	35.38	197.33	67.95	-4,130.75	-6,342.41	6,611.50	6,379.67	231.83	28.518		
6,200.00	5,859.37	5,804.63	5,859.37	35.99	200.92	68.22	-4,130.75	-6,342.41	6,597.59	6,361.55	236.04	27.951		
6,300.00	5,952.96	5,888.96	5,952.96	36.60	203.86	68.49	-4,130.75	-6,342.41	6,583.84	6,344.24	239.60	27.478		
6,400.00	6,046.55	5,982.55	6,046.55	37.22	207.13	68.76	-4,130.75	-6,342.41	6,570.24	6,326.76	243.48	26.984		
6,500.00	6,140.14	6,076.14	6,140.14	37.83	210.40	69.03	-4,130.75	-6,342.41	6,556.81	6,309.44	247.37	26.506		
6,600.00	6,233.73	6,169.73	6,233.73	38.44	213.67	69.30	-4,130.75	-6,342.41	6,543.54	6,292.29	251.26	26.043		
6,700.00	6,327.32	6,263.32	6,327.32	39.06	216.93	69.57	-4,130.75	-6,342.41	6,530.43	6,275.29	255.14	25.595		
6,800.00	6,420.91	6,356.91	6,420.91	39.67	220.20	69.85	-4,130.75	-6,342.41	6,517.49	6,258.46	259.03	25.161		
6,900.00	6,514.50	6,450.50	6,514.50	40.28	223.47	70.12	-4,130.75	-6,342.41	6,504.71	6,241.80	262.92	24.741		
7,000.00	6,608.09	6,544.09	6,608.09	40.90	226.73	70.40	-4,130.75	-6,342.41	6,492.10	6,225.30	266.80	24.333		
7,100.00	6,701.63	6,637.63	6,701.63	41.51	230.00	71.11	-4,130.75	-6,342.41	6,478.44	6,207.75	270.69	23.933		
7,200.00	6,793.85	6,729.85	6,793.85	42.10	233.22	71.82	-4,130.75	-6,342.41	6,465.77	6,188.28	274.49	23.508		
7,300.00	6,882.50	6,818.50	6,882.50	42.64	236.31	72.53	-4,130.75	-6,342.41	6,453.09	6,174.88	278.29	23.080		
7,400.00	6,965.41	6,901.41	6,965.41	43.12	239.21	73.24	-4,130.75	-6,342.41	6,440.40	6,161.56	282.09	22.659		
7,500.00	7,040.53	6,976.53	7,040.53	43.53	241.83	73.95	-4,130.75	-6,342.41	6,427.71	6,148.24	285.89	22.234		
7,600.00	7,106.00	7,042.00	7,106.00	43.89	244.11	74.66	-4,130.75	-6,342.41	6,415.02	6,134.92	289.69	21.815		
7,700.00	7,160.23	7,103.77	7,160.23	44.20	246.27	75.37	-4,130.75	-6,342.41	6,402.33	6,121.60	293.49	21.396		
7,800.00	7,201.86	7,137.86	7,201.86	44.48	247.46	76.08	-4,130.75	-6,342.41	6,389.64	6,108.28	297.29	20.977		
7,900.00	7,229.88	7,165.88	7,229.88	44.73	248.44	76.79	-4,130.75	-6,342.41	6,376.95	6,094.96	301.09	20.558		
8,000.00	7,243.60	7,179.60	7,243.60	44.99	248.92	77.50	-4,130.75	-6,342.41	6,364.26	6,081.64	304.89	20.139		
8,100.00	7,244.73	7,180.73	7,244.73	45.29	248.96	78.21	-4,130.75	-6,342.41	6,351.57	6,068.32	308.69	19.720		
8,200.00	7,244.23	7,180.23	7,244.23	45.74	248.94	78.92	-4,130.75	-6,342.41	6,338.88	6,055.00	312.49	19.301		
8,300.00	7,243.73	7,179.73	7,243.73	46.38	248.92	79.63	-4,130.75	-6,342.41	6,326.19	6,041.68	316.29	18.882		
8,400.00	7,243.23	7,179.23	7,243.23	47.29	248.90	80.34	-4,130.75	-6,342.41	6,313.50	6,028.36	320.09	18.463		
8,500.00	7,242.73	7,178.73	7,242.73	48.46	248.89	81.05	-4,130.75	-6,342.41	6,300.81	6,015.04	323.89	18.044		
8,600.00	7,242.23	7,178.23	7,242.23	49.87	248.87	81.76	-4,130.75	-6,342.41	6,288.12	6,001.72	327.69	17.625		
8,700.00	7,241.73	7,177.73	7,241.73	51.48	248.85	82.47	-4,130.75	-6,342.41	6,275.43	5,988.40	331.49	17.206		
8,800.00	7,241.23	7,177.23	7,241.23	53.24	248.83	83.18	-4,130.75	-6,342.41	6,262.74	5,975.08	335.29	16.787		
8,900.00	7,240.73	7,176.73	7,240.73	55.13	248.82	83.89	-4,130.75	-6,342.41	6,250.05	5,961.76	339.09	16.368		
9,000.00	7,240.23	7,176.23	7,240.23	57.11	248.80	84.60	-4,130.75	-6,342.41	6,237.36	5,948.44	342.89	15.949		
9,100.00	7,239.73	7,175.73	7,239.73	59.19	248.78	85.31	-4,130.75	-6,342.41	6,224.67	5,935.12	346.69	15.530		
9,200.00	7,239.23	7,175.23	7,239.23	61.34	248.76	86.02	-4,130.75	-6,342.41	6,211.98	5,921.80	350.49	15.111		
9,300.00	7,238.72	7,174.72	7,238.72	63.55	248.75	86.73	-4,130.75	-6,342.41	6,199.29	5,908.48	354.29	14.692		
9,400.00	7,238.22	7,174.22	7,238.22	65.81	248.73	87.44	-4,130.75	-6,342.41	6,186.60	5,895.16	358.09	14.273		
9,500.00	7,237.72	7,173.72	7,237.72	68.13	248.71	88.15	-4,130.75	-6,342.41	6,173.91	5,881.84	361.89	13.854		
9,600.00	7,237.22	7,173.22	7,237.22	70.48	248.69	88.86	-4,130.75	-6,342.41	6,161.22	5,868.52	365.69	13.435		
9,700.00	7,236.72	7,172.72	7,236.72	72.88	248.68	89.57	-4,130.75	-6,342.41	6,148.53	5,855.20	369.49	13.016		
9,800.00	7,236.22	7,172.22	7,236.22	75.31	248.66	90.28	-4,130.75	-6,342.41	6,135.84	5,841.88	373.29	12.597		
9,900.00	7,235.72	7,171.72	7,235.72	77.77	248.64	90.99	-4,130.75	-6,342.41	6,123.15	5,828.56	377.09	12.178		
10,000.00	7,235.22	7,171.22	7,235.22	80.26	248.62	91.70	-4,130.75	-6,342.41	6,110.46	5,815.24	380.89	11.759		
10,100.00	7,234.72	7,170.72	7,234.72	82.77	248.61	92.41	-4,130.75	-6,342.41	6,097.77	5,801.92	384.69	11.340		
10,200.00	7,234.22	7,170.22	7,234.22	85.31	248.59	93.12	-4,130.75	-6,342.41	6,085.08	5,788.60	388.49	10.921		
10,300.00	7,233.72	7,169.72	7,233.72	87.86	248.57	93.83	-4,130.75	-6,342.41	6,072.39	5,775.28	392.29	10.502		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER FARM 1-21(PA_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,169.22	7,233.22	90.44	248.55	-90.56	-4,130.75	-6,342.41	3,614.18	3,313.73	300.45	12.029		
10,500.00	7,232.72	7,168.72	7,232.72	93.03	248.54	-90.54	-4,130.75	-6,342.41	3,525.39	3,223.63	301.76	11.683		
10,600.00	7,232.22	7,168.22	7,232.22	95.64	248.52	-90.53	-4,130.75	-6,342.41	3,437.23	3,134.02	303.21	11.336		
10,700.00	7,231.72	7,167.72	7,231.72	98.26	248.50	-90.51	-4,130.75	-6,342.41	3,349.73	3,044.93	304.80	10.990		
10,800.00	7,231.21	7,167.21	7,231.21	100.89	248.48	-90.49	-4,130.75	-6,342.41	3,262.95	2,956.41	306.54	10.644		
10,900.00	7,230.71	7,166.71	7,230.71	103.54	248.47	-90.47	-4,130.75	-6,342.41	3,176.94	2,868.50	308.45	10.300		
11,000.00	7,230.21	7,166.21	7,230.21	106.20	248.45	-90.46	-4,130.75	-6,342.41	3,091.78	2,781.26	310.52	9.957		
11,100.00	7,229.71	7,165.71	7,229.71	108.87	248.43	-90.44	-4,130.75	-6,342.41	3,007.53	2,694.76	312.77	9.616		
11,200.00	7,229.21	7,165.21	7,229.21	111.54	248.41	-90.42	-4,130.75	-6,342.41	2,924.28	2,609.06	315.21	9.277		
11,300.00	7,228.71	7,164.71	7,228.71	114.23	248.40	-90.41	-4,130.75	-6,342.41	2,842.10	2,524.25	317.85	8.942		
11,400.00	7,228.21	7,164.21	7,228.21	116.92	248.38	-90.39	-4,130.75	-6,342.41	2,761.10	2,440.40	320.70	8.610		
11,500.00	7,227.71	7,163.71	7,227.71	119.63	248.36	-90.37	-4,130.75	-6,342.41	2,681.38	2,357.62	323.76	8.282		
11,600.00	7,227.21	7,163.21	7,227.21	122.34	248.34	-90.35	-4,130.75	-6,342.41	2,603.06	2,276.01	327.05	7.959		
11,700.00	7,226.71	7,162.71	7,226.71	125.05	248.33	-90.34	-4,130.75	-6,342.41	2,526.28	2,195.70	330.58	7.642		
11,800.00	7,226.21	7,162.21	7,226.21	127.78	248.31	-90.32	-4,130.75	-6,342.41	2,451.16	2,116.82	334.35	7.331		
11,900.00	7,225.71	7,161.71	7,225.71	130.51	248.29	-90.30	-4,130.75	-6,342.41	2,377.89	2,039.52	338.36	7.028		
12,000.00	7,225.21	7,161.21	7,225.21	133.24	248.27	-90.28	-4,130.75	-6,342.41	2,306.62	1,963.99	342.63	6.732		
12,100.00	7,224.71	7,160.71	7,224.71	135.98	248.26	-90.27	-4,130.75	-6,342.41	2,237.55	1,890.40	347.15	6.446		
12,200.00	7,224.21	7,160.21	7,224.21	138.72	248.24	-90.25	-4,130.75	-6,342.41	2,170.88	1,818.97	351.91	6.169		
12,300.00	7,223.70	7,159.70	7,223.70	141.47	248.22	-90.23	-4,130.75	-6,342.41	2,106.86	1,749.95	356.91	5.903		
12,400.00	7,223.20	7,159.20	7,223.20	144.23	248.20	-90.21	-4,130.75	-6,342.41	2,045.73	1,683.59	362.14	5.649		
12,500.00	7,222.70	7,158.70	7,222.70	146.98	248.19	-90.20	-4,130.75	-6,342.41	1,987.75	1,620.17	367.57	5.408		
12,600.00	7,222.20	7,158.20	7,222.20	149.74	248.17	-90.18	-4,130.75	-6,342.41	1,933.20	1,560.02	373.18	5.180		
12,700.00	7,221.70	7,157.70	7,221.70	152.51	248.15	-90.16	-4,130.75	-6,342.41	1,882.39	1,503.48	378.91	4.968		
12,800.00	7,221.20	7,157.20	7,221.20	155.28	248.13	-90.14	-4,130.75	-6,342.41	1,835.63	1,450.90	384.73	4.771		
12,900.00	7,220.70	7,156.70	7,220.70	158.05	248.12	-90.13	-4,130.75	-6,342.41	1,793.23	1,402.65	390.57	4.591		
13,000.00	7,220.20	7,156.20	7,220.20	160.82	248.10	-90.11	-4,130.75	-6,342.41	1,755.50	1,359.14	396.36	4.429		
13,100.00	7,219.70	7,155.70	7,219.70	163.60	248.08	-90.09	-4,130.75	-6,342.41	1,722.77	1,320.75	402.01	4.285		
13,200.00	7,219.20	7,155.20	7,219.20	166.38	248.06	-90.07	-4,130.75	-6,342.41	1,695.30	1,287.85	407.45	4.161		
13,300.00	7,218.70	7,154.70	7,218.70	169.16	248.05	-90.06	-4,130.75	-6,342.41	1,673.37	1,260.80	412.57	4.056		
13,400.00	7,218.20	7,154.20	7,218.20	171.95	248.03	-90.04	-4,130.75	-6,342.41	1,657.20	1,239.91	417.29	3.971		
13,500.00	7,217.70	7,153.70	7,217.70	174.74	248.01	-90.02	-4,130.75	-6,342.41	1,646.95	1,225.42	421.53	3.907		
13,600.00	7,217.20	7,153.20	7,217.20	177.53	247.99	-90.00	-4,130.75	-6,342.41	1,642.73	1,217.51	425.22	3.863		
13,619.37	7,217.10	7,153.10	7,217.10	178.07	247.99	-90.00	-4,130.75	-6,342.41	1,642.61	1,216.75	425.86	3.857 CC		
13,700.00	7,216.70	7,152.70	7,216.70	180.32	247.98	-89.99	-4,130.75	-6,342.41	1,644.59	1,216.29	428.30	3.840 ES		
13,800.00	7,216.19	7,152.19	7,216.19	183.11	247.96	-89.97	-4,130.75	-6,342.41	1,652.52	1,221.77	430.74	3.836 SF		
13,900.00	7,215.69	7,151.69	7,215.69	185.91	247.94	-89.95	-4,130.75	-6,342.41	1,666.41	1,233.87	432.54	3.853		
14,000.00	7,215.19	7,151.19	7,215.19	188.71	247.92	-89.93	-4,130.75	-6,342.41	1,686.14	1,252.43	433.70	3.888		
14,100.00	7,214.69	7,150.69	7,214.69	191.51	247.91	-89.92	-4,130.75	-6,342.41	1,711.48	1,277.23	434.26	3.941		
14,200.00	7,214.19	7,150.19	7,214.19	194.31	247.89	-89.90	-4,130.75	-6,342.41	1,742.21	1,307.96	434.26	4.012		
14,300.00	7,213.69	7,149.69	7,213.69	197.11	247.87	-89.88	-4,130.75	-6,342.41	1,778.04	1,344.29	433.75	4.099		
14,400.00	7,213.19	7,149.19	7,213.19	199.92	247.85	-89.86	-4,130.75	-6,342.41	1,818.67	1,385.86	432.80	4.202		
14,500.00	7,212.69	7,148.69	7,212.69	202.72	247.84	-89.85	-4,130.75	-6,342.41	1,863.78	1,432.30	431.48	4.319		
14,600.00	7,212.19	7,148.19	7,212.19	205.53	247.82	-89.83	-4,130.75	-6,342.41	1,913.06	1,483.21	429.85	4.451		
14,700.00	7,211.69	7,147.69	7,211.69	208.34	247.80	-89.81	-4,130.75	-6,342.41	1,966.19	1,538.22	427.97	4.594		
14,800.00	7,211.19	7,147.19	7,211.19	211.15	247.79	-89.79	-4,130.75	-6,342.41	2,022.88	1,596.98	425.90	4.750		
14,900.00	7,210.69	7,146.69	7,210.69	213.96	247.77	-89.78	-4,130.75	-6,342.41	2,082.82	1,659.14	423.68	4.916		
15,000.00	7,210.19	7,146.19	7,210.19	216.78	247.75	-89.76	-4,130.75	-6,342.41	2,145.76	1,724.39	421.37	5.092		
15,100.00	7,209.69	7,145.69	7,209.69	219.59	247.73	-89.74	-4,130.75	-6,342.41	2,211.42	1,792.43	418.99	5.278		
15,200.00	7,209.18	7,145.18	7,209.18	222.41	247.72	-89.72	-4,130.75	-6,342.41	2,279.59	1,863.01	416.58	5.472		
15,300.00	7,208.68	7,144.68	7,208.68	225.22	247.70	-89.71	-4,130.75	-6,342.41	2,350.03	1,935.86	414.16	5.674		
15,400.00	7,208.18	7,144.18	7,208.18	228.04	247.68	-89.69	-4,130.75	-6,342.41	2,422.55	2,010.79	411.76	5.883		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - LEFFLER FARM 1-21(PA_75CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth	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)		
15,437.48	7,208.00	7,144.00	7,208.00	229.10	247.67	-89.68	-4,130.75	-6,342.41	2,450.23	2,039.36	410.87	5.964	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	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	17.00	3.28	3.28	-67.22	2,668.28	-6,354.84	6,892.31				
100.00	100.00	83.00	100.00	3.28	3.59	-67.22	2,668.28	-6,354.84	6,892.29	6,885.42	6.87	1,003.184	
200.00	200.00	183.00	200.00	3.34	5.68	-67.22	2,668.28	-6,354.84	6,892.29	6,883.27	9.02	763.963	
300.00	299.98	282.98	299.98	3.44	8.77	109.14	2,668.28	-6,354.84	6,892.87	6,880.66	12.21	564.564	
400.00	399.84	382.84	399.84	3.59	12.07	109.15	2,668.28	-6,354.84	6,894.58	6,878.92	15.66	440.206	
500.00	499.45	482.45	499.45	3.79	15.45	109.17	2,668.28	-6,354.84	6,897.45	6,878.22	19.24	358.571	
600.00	598.70	581.70	598.70	4.03	18.85	109.18	2,668.28	-6,354.84	6,901.48	6,878.61	22.88	301.651	
700.00	697.47	680.47	697.47	4.31	22.25	109.21	2,668.28	-6,354.84	6,906.69	6,880.12	26.57	259.977	
800.00	795.62	778.62	795.62	4.64	25.65	109.23	2,668.28	-6,354.84	6,913.07	6,882.79	30.28	228.281	
900.00	893.06	876.06	893.06	5.00	29.02	109.26	2,668.28	-6,354.84	6,920.66	6,886.64	34.02	203.440	
1,000.00	989.64	972.64	989.64	5.40	32.38	109.29	2,668.28	-6,354.84	6,929.47	6,891.71	37.76	183.498	
1,100.00	1,085.27	1,068.27	1,085.27	5.83	35.70	109.32	2,668.28	-6,354.84	6,939.53	6,898.02	41.51	167.172	
1,200.00	1,179.82	1,162.82	1,179.82	6.29	38.99	109.34	2,668.28	-6,354.84	6,950.86	6,905.60	45.26	153.588	
1,300.00	1,273.47	1,256.47	1,273.47	6.79	42.25	109.53	2,668.28	-6,354.84	6,963.21	6,914.21	49.00	142.110	
1,400.00	1,367.06	1,350.06	1,367.06	7.30	45.50	109.79	2,668.28	-6,354.84	6,975.77	6,923.01	52.76	132.220	
1,500.00	1,460.64	1,443.64	1,460.64	7.83	48.76	110.04	2,668.28	-6,354.84	6,988.48	6,931.95	56.53	123.617	
1,600.00	1,554.23	1,537.23	1,554.23	8.38	52.02	110.30	2,668.28	-6,354.84	7,001.35	6,941.03	60.32	116.070	
1,700.00	1,647.82	1,630.82	1,647.82	8.93	55.28	110.55	2,668.28	-6,354.84	7,014.38	6,950.26	64.12	109.400	
1,800.00	1,741.41	1,724.41	1,741.41	9.49	58.55	110.81	2,668.28	-6,354.84	7,027.56	6,959.63	67.92	103.466	
1,900.00	1,835.00	1,818.00	1,835.00	10.05	61.81	111.06	2,668.28	-6,354.84	7,040.88	6,969.15	71.73	98.156	
2,000.00	1,928.59	1,911.59	1,928.59	10.62	65.07	111.31	2,668.28	-6,354.84	7,054.36	6,978.81	75.55	93.376	
2,100.00	2,022.18	2,005.18	2,022.18	11.20	68.33	111.56	2,668.28	-6,354.84	7,067.99	6,988.62	79.37	89.053	
2,200.00	2,115.77	2,101.23	2,115.77	11.78	71.68	111.81	2,668.28	-6,354.84	7,081.77	6,998.49	83.28	85.037	
2,300.00	2,209.36	2,207.64	2,209.36	12.37	75.39	112.06	2,668.28	-6,354.84	7,095.69	7,008.14	87.55	81.045	
2,400.00	2,302.95	2,285.95	2,302.95	12.95	78.13	112.31	2,668.28	-6,354.84	7,109.77	7,018.92	90.85	78.258	
2,500.00	2,396.54	2,379.54	2,396.54	13.54	81.39	112.56	2,668.28	-6,354.84	7,123.99	7,029.31	94.68	75.241	
2,600.00	2,490.13	2,473.13	2,490.13	14.13	84.66	112.81	2,668.28	-6,354.84	7,138.35	7,039.84	98.52	72.459	
2,700.00	2,583.72	2,566.72	2,583.72	14.73	87.92	113.05	2,668.28	-6,354.84	7,152.86	7,050.51	102.35	69.886	
2,800.00	2,677.31	2,660.31	2,677.31	15.32	91.19	113.30	2,668.28	-6,354.84	7,167.52	7,061.33	106.19	67.499	
2,900.00	2,770.90	2,753.90	2,770.90	15.92	94.45	113.54	2,668.28	-6,354.84	7,182.31	7,072.29	110.02	65.279	
3,000.00	2,864.49	2,847.49	2,864.49	16.52	97.72	113.79	2,668.28	-6,354.84	7,197.25	7,083.39	113.86	63.210	
3,100.00	2,958.08	2,941.08	2,958.08	17.12	100.98	114.03	2,668.28	-6,354.84	7,212.33	7,094.63	117.70	61.276	
3,200.00	3,051.67	3,034.67	3,051.67	17.72	104.25	114.27	2,668.28	-6,354.84	7,227.55	7,106.01	121.54	59.466	
3,300.00	3,145.26	3,128.26	3,145.26	18.32	107.51	114.51	2,668.28	-6,354.84	7,242.91	7,117.53	125.38	57.767	
3,400.00	3,238.85	3,221.85	3,238.85	18.92	110.78	114.75	2,668.28	-6,354.84	7,258.40	7,129.18	129.22	56.171	
3,500.00	3,332.44	3,315.44	3,332.44	19.53	114.04	114.99	2,668.28	-6,354.84	7,274.04	7,140.98	133.06	54.667	
3,600.00	3,426.03	3,409.03	3,426.03	20.13	117.31	115.23	2,668.28	-6,354.84	7,289.81	7,152.91	136.90	53.249	
3,700.00	3,519.62	3,502.62	3,519.62	20.74	120.58	115.46	2,668.28	-6,354.84	7,305.72	7,164.98	140.74	51.909	
3,800.00	3,613.21	3,603.79	3,613.21	21.34	124.11	115.70	2,668.28	-6,354.84	7,321.76	7,176.92	144.85	50.549	
3,900.00	3,706.80	3,689.80	3,706.80	21.95	127.11	115.94	2,668.28	-6,354.84	7,337.94	7,189.52	148.42	49.440	
4,000.00	3,800.39	3,783.39	3,800.39	22.56	130.37	116.17	2,668.28	-6,354.84	7,354.25	7,201.99	152.26	48.300	
4,100.00	3,893.98	3,876.98	3,893.98	23.16	133.64	116.40	2,668.28	-6,354.84	7,370.69	7,214.59	156.10	47.218	
4,200.00	3,987.57	3,970.57	3,987.57	23.77	136.91	116.63	2,668.28	-6,354.84	7,387.26	7,227.32	159.94	46.188	
4,300.00	4,081.16	4,064.16	4,081.16	24.38	140.17	116.87	2,668.28	-6,354.84	7,403.97	7,240.19	163.78	45.207	
4,400.00	4,174.75	4,157.75	4,174.75	24.99	143.44	117.10	2,668.28	-6,354.84	7,420.80	7,253.18	167.62	44.272	
4,500.00	4,268.34	4,251.34	4,268.34	25.60	146.71	117.33	2,668.28	-6,354.84	7,437.76	7,266.31	171.46	43.380	
4,600.00	4,361.93	4,344.93	4,361.93	26.21	149.97	117.55	2,668.28	-6,354.84	7,454.85	7,279.56	175.29	42.528	
4,700.00	4,455.52	4,438.52	4,455.52	26.82	153.24	117.78	2,668.28	-6,354.84	7,472.07	7,292.94	179.13	41.713	
4,800.00	4,549.11	4,532.11	4,549.11	27.43	156.51	118.01	2,668.28	-6,354.84	7,489.41	7,306.44	182.97	40.933	
4,900.00	4,642.70	4,625.70	4,642.70	28.04	159.77	118.23	2,668.28	-6,354.84	7,506.88	7,320.07	186.81	40.185	
5,000.00	4,736.29	4,719.29	4,736.29	28.65	163.04	118.46	2,668.28	-6,354.84	7,524.47	7,333.83	190.64	39.469	
5,100.00	4,829.88	4,812.88	4,829.88	29.26	166.30	118.68	2,668.28	-6,354.84	7,542.19	7,347.71	194.48	38.782	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,906.47	4,923.47	29.87	169.57	118.91	2,668.28	-6,354.84	7,560.03	7,361.72	198.31	38.122		
5,300.00	5,017.06	5,000.06	5,017.06	30.48	172.84	119.13	2,668.28	-6,354.84	7,577.99	7,375.84	202.15	37.487		
5,400.00	5,110.65	5,106.35	5,110.65	31.09	176.55	119.35	2,668.28	-6,354.84	7,596.07	7,389.65	206.43	36.798		
5,500.00	5,204.24	5,187.24	5,204.24	31.70	179.37	119.57	2,668.28	-6,354.84	7,614.27	7,404.46	209.82	36.290		
5,600.00	5,297.83	5,280.83	5,297.83	32.32	182.64	119.79	2,668.28	-6,354.84	7,632.59	7,418.94	213.65	35.725		
5,700.00	5,391.42	5,374.42	5,391.42	32.93	185.90	120.01	2,668.28	-6,354.84	7,651.03	7,433.55	217.48	35.180		
5,800.00	5,485.01	5,468.01	5,485.01	33.54	189.17	120.22	2,668.28	-6,354.84	7,669.59	7,448.27	221.31	34.655		
5,900.00	5,578.60	5,561.60	5,578.60	34.15	192.44	120.44	2,668.28	-6,354.84	7,688.26	7,463.12	225.15	34.148		
6,000.00	5,672.19	5,655.19	5,672.19	34.77	195.71	120.65	2,668.28	-6,354.84	7,707.05	7,478.07	228.98	33.659		
6,100.00	5,765.78	5,748.78	5,765.78	35.38	198.97	120.87	2,668.28	-6,354.84	7,725.95	7,493.15	232.81	33.186		
6,200.00	5,859.37	5,842.37	5,859.37	35.99	202.24	121.08	2,668.28	-6,354.84	7,744.97	7,508.34	236.64	32.729		
6,300.00	5,952.96	5,935.96	5,952.96	36.60	205.51	121.29	2,668.28	-6,354.84	7,764.10	7,523.64	240.47	32.288		
6,400.00	6,046.55	6,029.55	6,046.55	37.22	208.77	121.50	2,668.28	-6,354.84	7,783.35	7,539.05	244.30	31.860		
6,500.00	6,140.14	6,123.14	6,140.14	37.83	212.04	121.72	2,668.28	-6,354.84	7,802.70	7,554.58	248.12	31.447		
6,600.00	6,233.73	6,216.73	6,233.73	38.44	215.31	121.92	2,668.28	-6,354.84	7,822.17	7,570.22	251.95	31.046		
6,700.00	6,327.32	6,310.32	6,327.32	39.06	218.57	122.13	2,668.28	-6,354.84	7,841.74	7,585.97	255.78	30.658		
6,800.00	6,420.91	6,403.91	6,420.91	39.67	221.84	122.34	2,668.28	-6,354.84	7,861.43	7,601.82	259.60	30.282		
6,900.00	6,514.50	6,502.50	6,514.50	40.28	225.28	122.55	2,668.28	-6,354.84	7,881.22	7,617.62	263.60	29.898		
7,000.00	6,608.09	6,608.09	6,608.09	40.90	229.00	122.75	2,668.28	-6,354.84	7,901.12	7,633.25	267.88	29.495		
7,100.00	6,701.63	6,684.63	6,701.63	41.51	231.64	113.17	2,668.28	-6,354.84	7,920.12	7,649.05	271.08	29.217		
7,200.00	6,793.85	6,776.85	6,793.85	42.10	234.86	93.26	2,668.28	-6,354.84	7,928.97	7,654.11	274.86	28.848		
7,300.00	6,882.50	6,865.50	6,882.50	42.64	237.95	80.44	2,668.28	-6,354.84	7,925.39	7,646.91	278.48	28.459		
7,400.00	6,965.41	6,948.41	6,965.41	43.12	240.85	73.13	2,668.28	-6,354.84	7,909.61	7,627.74	281.87	28.062		
7,500.00	7,040.53	7,023.53	7,040.53	43.53	243.47	69.58	2,668.28	-6,354.84	7,882.15	7,597.21	284.95	27.662		
7,600.00	7,106.00	7,089.00	7,106.00	43.89	245.75	68.75	2,668.28	-6,354.84	7,843.83	7,556.15	287.68	27.266		
7,700.00	7,160.23	7,143.23	7,160.23	44.20	247.65	70.13	2,668.28	-6,354.84	7,795.69	7,505.67	290.03	26.879		
7,800.00	7,201.86	7,184.86	7,201.86	44.48	249.10	73.52	2,668.28	-6,354.84	7,739.01	7,447.03	291.98	26.505		
7,900.00	7,229.88	7,212.88	7,229.88	44.73	250.08	78.89	2,668.28	-6,354.84	7,675.21	7,381.69	293.51	26.149		
8,000.00	7,243.60	7,226.60	7,243.60	44.99	250.56	86.22	2,668.28	-6,354.84	7,605.86	7,311.25	294.61	25.817		
8,100.00	7,244.73	7,227.73	7,244.73	45.29	250.60	90.31	2,668.28	-6,354.84	7,533.09	7,237.77	295.32	25.508		
8,200.00	7,244.23	7,227.23	7,244.23	45.74	250.58	90.30	2,668.28	-6,354.84	7,460.50	7,164.44	296.06	25.199		
8,300.00	7,243.73	7,226.73	7,243.73	46.38	250.56	90.29	2,668.28	-6,354.84	7,388.55	7,091.66	296.90	24.886		
8,400.00	7,243.23	7,226.23	7,243.23	47.29	250.54	90.29	2,668.28	-6,354.84	7,317.27	7,019.44	297.83	24.569		
8,500.00	7,242.73	7,225.73	7,242.73	48.46	250.53	90.28	2,668.28	-6,354.84	7,246.66	6,947.81	298.85	24.249		
8,600.00	7,242.23	7,225.23	7,242.23	49.87	250.51	90.28	2,668.28	-6,354.84	7,176.75	6,876.79	299.96	23.925		
8,700.00	7,241.73	7,224.73	7,241.73	51.48	250.49	90.27	2,668.28	-6,354.84	7,107.56	6,806.39	301.17	23.600		
8,800.00	7,241.23	7,224.23	7,241.23	53.24	250.47	90.27	2,668.28	-6,354.84	7,039.11	6,736.64	302.47	23.272		
8,900.00	7,240.73	7,223.73	7,240.73	55.13	250.46	90.26	2,668.28	-6,354.84	6,971.42	6,667.57	303.85	22.944		
9,000.00	7,240.23	7,223.23	7,240.23	57.11	250.44	90.26	2,668.28	-6,354.84	6,904.52	6,599.19	305.32	22.614		
9,100.00	7,239.73	7,222.73	7,239.73	59.19	250.42	90.25	2,668.28	-6,354.84	6,838.42	6,531.54	306.88	22.283		
9,200.00	7,239.23	7,222.23	7,239.23	61.34	250.40	90.24	2,668.28	-6,354.84	6,773.16	6,464.63	308.53	21.953		
9,300.00	7,238.72	7,221.72	7,238.72	63.55	250.39	90.24	2,668.28	-6,354.84	6,708.75	6,398.50	310.25	21.623		
9,400.00	7,238.22	7,221.22	7,238.22	65.81	250.37	90.23	2,668.28	-6,354.84	6,645.23	6,333.16	312.06	21.295		
9,500.00	7,237.72	7,220.72	7,237.72	68.13	250.35	90.23	2,668.28	-6,354.84	6,582.60	6,268.66	313.95	20.967		
9,600.00	7,237.22	7,220.22	7,237.22	70.48	250.33	90.22	2,668.28	-6,354.84	6,520.91	6,205.01	315.91	20.642		
9,700.00	7,236.72	7,219.72	7,236.72	72.88	250.32	90.22	2,668.28	-6,354.84	6,460.18	6,142.24	317.95	20.319		
9,800.00	7,236.22	7,219.22	7,236.22	75.31	250.30	90.21	2,668.28	-6,354.84	6,400.44	6,080.39	320.05	19.998		
9,900.00	7,235.72	7,218.72	7,235.72	77.77	250.28	90.21	2,668.28	-6,354.84	6,341.71	6,019.48	322.23	19.680		
10,000.00	7,235.22	7,218.22	7,235.22	80.26	250.26	90.20	2,668.28	-6,354.84	6,284.02	5,959.54	324.48	19.366		
10,100.00	7,234.72	7,217.72	7,234.72	82.77	250.25	90.19	2,668.28	-6,354.84	6,227.41	5,900.61	326.80	19.056		
10,200.00	7,234.22	7,217.22	7,234.22	85.31	250.23	90.19	2,668.28	-6,354.84	6,171.89	5,842.72	329.17	18.750		
10,300.00	7,233.72	7,216.72	7,233.72	87.86	250.21	90.18	2,668.28	-6,354.84	6,117.51	5,785.90	331.61	18.448		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,216.22	7,233.22	90.44	250.19	90.18	2,668.28	-6,354.84	6,064.29	5,730.17	334.11	18.150		
10,500.00	7,232.72	7,215.72	7,232.72	93.03	250.18	90.17	2,668.28	-6,354.84	6,012.26	5,675.59	336.67	17.858		
10,600.00	7,232.22	7,215.22	7,232.22	95.64	250.16	90.17	2,668.28	-6,354.84	5,961.45	5,622.17	339.28	17.571		
10,700.00	7,231.72	7,214.72	7,231.72	98.26	250.14	90.16	2,668.28	-6,354.84	5,911.90	5,569.95	341.94	17.289		
10,800.00	7,231.21	7,214.21	7,231.21	100.89	250.12	90.16	2,668.28	-6,354.84	5,863.63	5,518.97	344.66	17.013		
10,900.00	7,230.71	7,213.71	7,230.71	103.54	250.11	90.15	2,668.28	-6,354.84	5,816.69	5,469.27	347.42	16.743		
11,000.00	7,230.21	7,213.21	7,230.21	106.20	250.09	90.14	2,668.28	-6,354.84	5,771.09	5,420.87	350.22	16.478		
11,100.00	7,229.71	7,212.71	7,229.71	108.87	250.07	90.14	2,668.28	-6,354.84	5,726.88	5,373.81	353.07	16.220		
11,200.00	7,229.21	7,212.21	7,229.21	111.54	250.05	90.13	2,668.28	-6,354.84	5,684.08	5,328.13	355.95	15.969		
11,300.00	7,228.71	7,211.71	7,228.71	114.23	250.04	90.13	2,668.28	-6,354.84	5,642.73	5,283.86	358.87	15.723		
11,400.00	7,228.21	7,211.21	7,228.21	116.92	250.02	90.12	2,668.28	-6,354.84	5,602.86	5,241.04	361.83	15.485		
11,500.00	7,227.71	7,210.71	7,227.71	119.63	250.00	90.12	2,668.28	-6,354.84	5,564.51	5,199.70	364.81	15.253		
11,600.00	7,227.21	7,210.21	7,227.21	122.34	249.98	90.11	2,668.28	-6,354.84	5,527.69	5,159.88	367.81	15.029		
11,700.00	7,226.71	7,209.71	7,226.71	125.05	249.97	90.11	2,668.28	-6,354.84	5,492.45	5,121.61	370.84	14.811		
11,800.00	7,226.21	7,209.21	7,226.21	127.78	249.95	90.10	2,668.28	-6,354.84	5,458.82	5,084.93	373.88	14.600		
11,900.00	7,225.71	7,208.71	7,225.71	130.51	249.93	90.09	2,668.28	-6,354.84	5,426.81	5,049.87	376.94	14.397		
12,000.00	7,225.21	7,208.21	7,225.21	133.24	249.92	90.09	2,668.28	-6,354.84	5,396.48	5,016.46	380.01	14.201		
12,100.00	7,224.71	7,207.71	7,224.71	135.98	249.90	90.08	2,668.28	-6,354.84	5,367.83	4,984.74	383.09	14.012		
12,200.00	7,224.21	7,207.21	7,224.21	138.72	249.88	90.08	2,668.28	-6,354.84	5,340.90	4,954.74	386.16	13.831		
12,300.00	7,223.70	7,206.70	7,223.70	141.47	249.86	90.07	2,668.28	-6,354.84	5,315.72	4,926.49	389.24	13.657		
12,400.00	7,223.20	7,206.20	7,223.20	144.23	249.85	90.07	2,668.28	-6,354.84	5,292.31	4,900.01	392.30	13.490		
12,500.00	7,222.70	7,205.70	7,222.70	146.98	249.83	90.06	2,668.28	-6,354.84	5,270.69	4,875.33	395.36	13.331		
12,600.00	7,222.20	7,205.20	7,222.20	149.74	249.81	90.06	2,668.28	-6,354.84	5,250.89	4,852.49	398.40	13.180		
12,700.00	7,221.70	7,204.70	7,221.70	152.51	249.79	90.05	2,668.28	-6,354.84	5,232.92	4,831.51	401.41	13.036		
12,800.00	7,221.20	7,204.20	7,221.20	155.28	249.78	90.04	2,668.28	-6,354.84	5,216.81	4,812.40	404.41	12.900		
12,900.00	7,220.70	7,203.70	7,220.70	158.05	249.76	90.04	2,668.28	-6,354.84	5,202.57	4,795.20	407.37	12.771		
13,000.00	7,220.20	7,203.20	7,220.20	160.82	249.74	90.03	2,668.28	-6,354.84	5,190.22	4,779.92	410.30	12.650		
13,100.00	7,219.70	7,202.70	7,219.70	163.60	249.72	90.03	2,668.28	-6,354.84	5,179.77	4,766.58	413.19	12.536		
13,200.00	7,219.20	7,202.20	7,219.20	166.38	249.71	90.02	2,668.28	-6,354.84	5,171.23	4,755.19	416.05	12.429		
13,300.00	7,218.70	7,201.70	7,218.70	169.16	249.69	90.02	2,668.28	-6,354.84	5,164.62	4,745.77	418.85	12.330		
13,400.00	7,218.20	7,201.20	7,218.20	171.95	249.67	90.01	2,668.28	-6,354.84	5,159.94	4,738.33	421.61	12.239		
13,500.00	7,217.70	7,200.70	7,217.70	174.74	249.65	90.01	2,668.28	-6,354.84	5,157.19	4,732.88	424.31	12.154		
13,591.81	7,217.24	7,200.24	7,217.24	177.30	249.64	90.00	2,668.28	-6,354.84	5,156.37	4,729.63	426.74	12.083 CC		
13,600.00	7,217.20	7,200.20	7,217.20	177.53	249.64	90.00	2,668.28	-6,354.84	5,156.38	4,729.43	426.95	12.077		
13,700.00	7,216.70	7,200.31	7,216.70	180.32	249.64	89.99	2,668.28	-6,354.84	5,157.51	4,727.95	429.55	12.007 ES		
13,800.00	7,216.19	7,200.81	7,216.19	183.11	249.66	89.99	2,668.28	-6,354.84	5,160.57	4,728.46	432.11	11.943		
13,900.00	7,215.69	7,201.31	7,215.69	185.91	249.67	89.98	2,668.28	-6,354.84	5,165.57	4,730.97	434.60	11.886		
14,000.00	7,215.19	7,201.81	7,215.19	188.71	249.69	89.98	2,668.28	-6,354.84	5,172.50	4,735.48	437.02	11.836		
14,100.00	7,214.69	7,202.31	7,214.69	191.51	249.71	89.97	2,668.28	-6,354.84	5,181.35	4,741.99	439.37	11.793		
14,200.00	7,214.19	7,202.81	7,214.19	194.31	249.73	89.97	2,668.28	-6,354.84	5,192.11	4,750.47	441.64	11.756		
14,300.00	7,213.69	7,203.31	7,213.69	197.11	249.74	89.96	2,668.28	-6,354.84	5,204.77	4,760.93	443.84	11.727		
14,400.00	7,213.19	7,203.81	7,213.19	199.92	249.76	89.96	2,668.28	-6,354.84	5,219.32	4,773.36	445.96	11.704		
14,500.00	7,212.69	7,204.31	7,212.69	202.72	249.78	89.95	2,668.28	-6,354.84	5,235.74	4,787.73	448.01	11.687		
14,600.00	7,212.19	7,204.81	7,212.19	205.53	249.80	89.94	2,668.28	-6,354.84	5,254.01	4,804.03	449.97	11.676		
14,700.00	7,211.69	7,205.31	7,211.69	208.34	249.81	89.94	2,668.28	-6,354.84	5,274.11	4,822.25	451.86	11.672 SF		
14,800.00	7,211.19	7,205.81	7,211.19	211.15	249.83	89.93	2,668.28	-6,354.84	5,296.02	4,842.35	453.67	11.674		
14,900.00	7,210.69	7,206.31	7,210.69	213.96	249.85	89.93	2,668.28	-6,354.84	5,319.72	4,864.33	455.39	11.682		
15,000.00	7,210.19	7,206.81	7,210.19	216.78	249.87	89.92	2,668.28	-6,354.84	5,345.19	4,888.15	457.04	11.695		
15,100.00	7,209.69	7,207.31	7,209.69	219.59	249.88	89.92	2,668.28	-6,354.84	5,372.40	4,913.80	458.61	11.715		
15,200.00	7,209.18	7,207.82	7,209.18	222.41	249.90	89.91	2,668.28	-6,354.84	5,401.33	4,941.23	460.10	11.740		
15,300.00	7,208.68	7,208.32	7,208.68	225.22	249.92	89.90	2,668.28	-6,354.84	5,431.94	4,970.43	461.51	11.770		
15,400.00	7,208.18	7,208.82	7,208.18	228.04	249.94	89.90	2,668.28	-6,354.84	5,464.21	5,001.37	462.84	11.806		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												HARVESTERS STATE 7-15 PAD - LOVELY 1(AB_150CC) - OH - OH		Offset Site Error:		0.00 ft			
Survey Program:												100-2" Cone@2.448 Sigma				Offset Well Error:		3.28 ft	
Reference		Offset		Semi Major Axis			Distance						Warning						
Measured Depth	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)								
15,437.48	7,208.00	7,209.00	7,208.00	229.10	249.94	89.90	2,668.28	-6,354.84	5,476.73	5,013.41	463.32	11.821							



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 14-9(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	14.00	3.28	3.28	-71.66	2,603.13	-7,851.10	8,271.41					
100.00	100.00	86.00	100.00	3.28	3.61	-71.66	2,603.13	-7,851.10	8,271.40	8,264.51	6.89	1,200.164		
200.00	200.00	186.00	200.00	3.34	5.77	-71.66	2,603.13	-7,851.10	8,271.40	8,262.29	9.11	908.185		
300.00	299.98	285.98	299.98	3.44	8.87	104.71	2,603.13	-7,851.10	8,271.84	8,259.54	12.31	672.160		
400.00	399.84	385.84	399.84	3.59	12.17	104.72	2,603.13	-7,851.10	8,273.18	8,257.41	15.76	524.853		
500.00	499.45	485.45	499.45	3.79	15.55	104.73	2,603.13	-7,851.10	8,275.40	8,256.06	19.34	427.934		
600.00	598.70	584.70	598.70	4.03	18.95	104.75	2,603.13	-7,851.10	8,278.52	8,255.54	22.98	360.220		
700.00	697.47	683.47	697.47	4.31	22.36	104.78	2,603.13	-7,851.10	8,282.56	8,255.89	26.67	310.556		
800.00	795.62	781.62	795.62	4.64	25.75	104.81	2,603.13	-7,851.10	8,287.52	8,257.13	30.39	272.726		
900.00	893.06	879.06	893.06	5.00	29.13	104.84	2,603.13	-7,851.10	8,293.41	8,259.29	34.12	243.037		
1,000.00	989.64	975.64	989.64	5.40	32.48	104.88	2,603.13	-7,851.10	8,300.27	8,262.40	37.87	219.172		
1,100.00	1,085.27	1,071.27	1,085.27	5.83	35.80	104.91	2,603.13	-7,851.10	8,308.10	8,266.48	41.62	199.609		
1,200.00	1,179.82	1,165.82	1,179.82	6.29	39.09	104.95	2,603.13	-7,851.10	8,316.94	8,271.57	45.37	183.312		
1,300.00	1,273.47	1,259.47	1,273.47	6.79	42.35	105.11	2,603.13	-7,851.10	8,326.59	8,277.48	49.12	169.526		
1,400.00	1,367.06	1,353.06	1,367.06	7.30	45.61	105.33	2,603.13	-7,851.10	8,336.42	8,283.54	52.88	157.641		
1,500.00	1,460.64	1,446.64	1,460.64	7.83	48.87	105.55	2,603.13	-7,851.10	8,346.39	8,289.73	56.66	147.299		
1,600.00	1,554.23	1,540.23	1,554.23	8.38	52.13	105.77	2,603.13	-7,851.10	8,356.50	8,296.04	60.46	138.226		
1,700.00	1,647.82	1,633.82	1,647.82	8.93	55.39	105.98	2,603.13	-7,851.10	8,366.74	8,302.48	64.26	130.205		
1,800.00	1,741.41	1,727.41	1,741.41	9.49	58.65	106.20	2,603.13	-7,851.10	8,377.12	8,309.05	68.07	123.068		
1,900.00	1,835.00	1,821.00	1,835.00	10.05	61.91	106.42	2,603.13	-7,851.10	8,387.63	8,315.74	71.89	116.679		
2,000.00	1,928.59	1,914.59	1,928.59	10.62	65.18	106.64	2,603.13	-7,851.10	8,398.28	8,322.57	75.71	110.928		
2,100.00	2,022.18	2,008.18	2,022.18	11.20	68.44	106.85	2,603.13	-7,851.10	8,409.06	8,329.52	79.54	105.725		
2,200.00	2,115.77	2,101.77	2,115.77	11.78	71.70	107.07	2,603.13	-7,851.10	8,419.97	8,336.60	83.37	100.997		
2,300.00	2,209.36	2,204.64	2,209.36	12.37	75.29	107.28	2,603.13	-7,851.10	8,431.02	8,343.49	87.53	96.325		
2,400.00	2,302.95	2,288.95	2,302.95	12.95	78.23	107.50	2,603.13	-7,851.10	8,442.20	8,351.16	91.04	92.730		
2,500.00	2,396.54	2,382.54	2,396.54	13.54	81.50	107.71	2,603.13	-7,851.10	8,453.51	8,358.63	94.88	89.096		
2,600.00	2,490.13	2,476.13	2,490.13	14.13	84.76	107.93	2,603.13	-7,851.10	8,464.96	8,366.23	98.72	85.745		
2,700.00	2,583.72	2,569.72	2,583.72	14.73	88.02	108.14	2,603.13	-7,851.10	8,476.53	8,373.97	102.57	82.645		
2,800.00	2,677.31	2,663.31	2,677.31	15.32	91.29	108.35	2,603.13	-7,851.10	8,488.24	8,381.83	106.41	79.769		
2,900.00	2,770.90	2,756.90	2,770.90	15.92	94.56	108.57	2,603.13	-7,851.10	8,500.07	8,389.82	110.26	77.094		
3,000.00	2,864.49	2,850.49	2,864.49	16.52	97.82	108.78	2,603.13	-7,851.10	8,512.04	8,397.93	114.10	74.599		
3,100.00	2,958.08	2,944.08	2,958.08	17.12	101.09	108.99	2,603.13	-7,851.10	8,524.13	8,406.18	117.95	72.268		
3,200.00	3,051.67	3,037.67	3,051.67	17.72	104.35	109.20	2,603.13	-7,851.10	8,536.35	8,414.55	121.80	70.085		
3,300.00	3,145.26	3,131.26	3,145.26	18.32	107.62	109.41	2,603.13	-7,851.10	8,548.70	8,423.05	125.65	68.036		
3,400.00	3,238.85	3,224.85	3,238.85	18.92	110.88	109.62	2,603.13	-7,851.10	8,561.18	8,431.68	129.50	66.110		
3,500.00	3,332.44	3,318.44	3,332.44	19.53	114.15	109.83	2,603.13	-7,851.10	8,573.78	8,440.43	133.35	64.296		
3,600.00	3,426.03	3,412.03	3,426.03	20.13	117.41	110.04	2,603.13	-7,851.10	8,586.51	8,449.31	137.20	62.585		
3,700.00	3,519.62	3,505.62	3,519.62	20.74	120.68	110.25	2,603.13	-7,851.10	8,599.36	8,458.31	141.05	60.967		
3,800.00	3,613.21	3,600.79	3,613.21	21.34	124.00	110.45	2,603.13	-7,851.10	8,612.34	8,467.39	144.95	59.414		
3,900.00	3,706.80	3,707.20	3,706.80	21.95	127.72	110.66	2,603.13	-7,851.10	8,625.44	8,476.19	149.25	57.791		
4,000.00	3,800.39	3,786.39	3,800.39	22.56	130.48	110.87	2,603.13	-7,851.10	8,638.67	8,486.07	152.60	56.610		
4,100.00	3,893.98	3,879.98	3,893.98	23.16	133.75	111.07	2,603.13	-7,851.10	8,652.02	8,495.57	156.45	55.302		
4,200.00	3,987.57	3,973.57	3,987.57	23.77	137.01	111.28	2,603.13	-7,851.10	8,665.50	8,505.19	160.30	54.058		
4,300.00	4,081.16	4,067.16	4,081.16	24.38	140.28	111.48	2,603.13	-7,851.10	8,679.09	8,514.94	164.15	52.873		
4,400.00	4,174.75	4,160.75	4,174.75	24.99	143.54	111.69	2,603.13	-7,851.10	8,692.81	8,524.81	168.00	51.743		
4,500.00	4,268.34	4,254.34	4,268.34	25.60	146.81	111.89	2,603.13	-7,851.10	8,706.64	8,534.79	171.85	50.664		
4,600.00	4,361.93	4,347.93	4,361.93	26.21	150.08	112.09	2,603.13	-7,851.10	8,720.60	8,544.90	175.70	49.633		
4,700.00	4,455.52	4,441.52	4,455.52	26.82	153.34	112.30	2,603.13	-7,851.10	8,734.68	8,555.13	179.55	48.648		
4,800.00	4,549.11	4,535.11	4,549.11	27.43	156.61	112.50	2,603.13	-7,851.10	8,748.88	8,565.48	183.40	47.704		
4,900.00	4,642.70	4,628.70	4,642.70	28.04	159.88	112.70	2,603.13	-7,851.10	8,763.19	8,575.94	187.25	46.800		
5,000.00	4,736.29	4,722.29	4,736.29	28.65	163.14	112.90	2,603.13	-7,851.10	8,777.63	8,586.53	191.10	45.933		
5,100.00	4,829.88	4,815.88	4,829.88	29.26	166.41	113.10	2,603.13	-7,851.10	8,792.18	8,597.23	194.94	45.101		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 14-9(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,909.47	4,923.47	29.87	169.68	113.30	2,603.13	-7,851.10	8,806.84	8,608.05	198.79	44.302		
5,300.00	5,017.06	5,003.06	5,017.06	30.48	172.94	113.50	2,603.13	-7,851.10	8,821.63	8,618.99	202.64	43.534		
5,400.00	5,110.65	5,103.35	5,110.65	31.09	176.44	113.70	2,603.13	-7,851.10	8,836.53	8,629.81	206.72	42.746		
5,500.00	5,204.24	5,209.76	5,204.24	31.70	180.16	113.90	2,603.13	-7,851.10	8,851.54	8,640.53	211.01	41.948		
5,600.00	5,297.83	5,283.83	5,297.83	32.32	182.74	114.09	2,603.13	-7,851.10	8,866.67	8,652.49	214.18	41.398		
5,700.00	5,391.42	5,377.42	5,391.42	32.93	186.01	114.29	2,603.13	-7,851.10	8,881.92	8,663.89	218.03	40.738		
5,800.00	5,485.01	5,471.01	5,485.01	33.54	189.28	114.48	2,603.13	-7,851.10	8,897.27	8,675.40	221.87	40.101		
5,900.00	5,578.60	5,564.60	5,578.60	34.15	192.54	114.68	2,603.13	-7,851.10	8,912.74	8,687.03	225.72	39.487		
6,000.00	5,672.19	5,658.19	5,672.19	34.77	195.81	114.87	2,603.13	-7,851.10	8,928.32	8,698.76	229.56	38.893		
6,100.00	5,765.78	5,751.78	5,765.78	35.38	199.08	115.07	2,603.13	-7,851.10	8,944.02	8,710.61	233.40	38.320		
6,200.00	5,859.37	5,845.37	5,859.37	35.99	202.34	115.26	2,603.13	-7,851.10	8,959.82	8,722.57	237.25	37.766		
6,300.00	5,952.96	5,938.96	5,952.96	36.60	205.61	115.45	2,603.13	-7,851.10	8,975.74	8,734.65	241.09	37.230		
6,400.00	6,046.55	6,032.55	6,046.55	37.22	208.88	115.65	2,603.13	-7,851.10	8,991.76	8,746.83	244.93	36.711		
6,500.00	6,140.14	6,126.14	6,140.14	37.83	212.14	115.84	2,603.13	-7,851.10	9,007.90	8,759.12	248.77	36.209		
6,600.00	6,233.73	6,219.73	6,233.73	38.44	215.41	116.03	2,603.13	-7,851.10	9,024.14	8,771.52	252.62	35.723		
6,700.00	6,327.32	6,313.32	6,327.32	39.06	218.68	116.22	2,603.13	-7,851.10	9,040.49	8,784.03	256.46	35.251		
6,800.00	6,420.91	6,406.91	6,420.91	39.67	221.94	116.41	2,603.13	-7,851.10	9,056.95	8,796.65	260.30	34.795		
6,900.00	6,514.50	6,500.50	6,514.50	40.28	225.21	116.60	2,603.13	-7,851.10	9,073.51	8,809.37	264.14	34.351		
7,000.00	6,608.09	6,605.91	6,608.09	40.90	228.89	116.79	2,603.13	-7,851.10	9,090.18	8,821.79	268.39	33.869		
7,100.00	6,701.63	6,687.63	6,701.63	41.51	231.74	107.30	2,603.13	-7,851.10	9,105.87	8,834.06	271.81	33.500		
7,200.00	6,793.85	6,779.85	6,793.85	42.10	234.96	87.62	2,603.13	-7,851.10	9,110.64	8,835.04	275.61	33.057		
7,300.00	6,882.50	6,868.50	6,882.50	42.64	238.06	74.97	2,603.13	-7,851.10	9,102.10	8,822.86	279.24	32.596		
7,400.00	6,965.41	6,951.41	6,965.41	43.12	240.95	67.79	2,603.13	-7,851.10	9,080.56	8,797.93	282.63	32.129		
7,500.00	7,040.53	7,026.53	7,040.53	43.53	243.57	64.37	2,603.13	-7,851.10	9,046.65	8,760.94	285.71	31.663		
7,600.00	7,106.00	7,108.00	7,106.00	43.89	246.42	63.73	2,603.13	-7,851.10	9,001.28	8,712.28	289.00	31.147		
7,700.00	7,160.23	7,146.23	7,160.23	44.20	247.75	65.46	2,603.13	-7,851.10	8,945.64	8,654.86	290.77	30.765		
7,800.00	7,201.86	7,187.86	7,201.86	44.48	249.20	69.50	2,603.13	-7,851.10	8,881.13	8,588.44	292.69	30.343		
7,900.00	7,229.88	7,215.88	7,229.88	44.73	250.18	76.00	2,603.13	-7,851.10	8,809.34	8,515.18	294.16	29.948		
8,000.00	7,243.60	7,229.60	7,243.60	44.99	250.66	85.17	2,603.13	-7,851.10	8,732.03	8,436.87	295.16	29.584		
8,100.00	7,244.73	7,230.73	7,244.73	45.29	250.70	90.39	2,603.13	-7,851.10	8,651.44	8,355.68	295.76	29.251		
8,200.00	7,244.23	7,230.23	7,244.23	45.74	250.68	90.39	2,603.13	-7,851.10	8,570.87	8,274.50	296.37	28.920		
8,300.00	7,243.73	7,229.73	7,243.73	46.38	250.67	90.38	2,603.13	-7,851.10	8,490.71	8,193.66	297.05	28.584		
8,400.00	7,243.23	7,229.23	7,243.23	47.29	250.65	90.38	2,603.13	-7,851.10	8,410.98	8,113.18	297.80	28.244		
8,500.00	7,242.73	7,228.73	7,242.73	48.46	250.63	90.37	2,603.13	-7,851.10	8,331.68	8,033.06	298.62	27.901		
8,600.00	7,242.23	7,228.23	7,242.23	49.87	250.61	90.36	2,603.13	-7,851.10	8,252.83	7,953.31	299.52	27.554		
8,700.00	7,241.73	7,227.73	7,241.73	51.48	250.60	90.36	2,603.13	-7,851.10	8,174.44	7,873.96	300.48	27.204		
8,800.00	7,241.23	7,227.23	7,241.23	53.24	250.58	90.35	2,603.13	-7,851.10	8,096.54	7,795.01	301.53	26.852		
8,900.00	7,240.73	7,226.73	7,240.73	55.13	250.56	90.35	2,603.13	-7,851.10	8,019.12	7,716.47	302.64	26.497		
9,000.00	7,240.23	7,226.23	7,240.23	57.11	250.54	90.34	2,603.13	-7,851.10	7,942.20	7,638.37	303.83	26.140		
9,100.00	7,239.73	7,225.73	7,239.73	59.19	250.53	90.34	2,603.13	-7,851.10	7,865.81	7,560.71	305.09	25.782		
9,200.00	7,239.23	7,225.23	7,239.23	61.34	250.51	90.33	2,603.13	-7,851.10	7,789.95	7,483.52	306.43	25.422		
9,300.00	7,238.72	7,224.72	7,238.72	63.55	250.49	90.33	2,603.13	-7,851.10	7,714.63	7,406.80	307.83	25.061		
9,400.00	7,238.22	7,224.22	7,238.22	65.81	250.47	90.32	2,603.13	-7,851.10	7,639.89	7,330.58	309.31	24.700		
9,500.00	7,237.72	7,223.72	7,237.72	68.13	250.46	90.31	2,603.13	-7,851.10	7,565.73	7,254.88	310.85	24.339		
9,600.00	7,237.22	7,223.22	7,237.22	70.48	250.44	90.31	2,603.13	-7,851.10	7,492.17	7,179.70	312.47	23.977		
9,700.00	7,236.72	7,222.72	7,236.72	72.88	250.42	90.30	2,603.13	-7,851.10	7,419.23	7,105.07	314.16	23.616		
9,800.00	7,236.22	7,222.22	7,236.22	75.31	250.40	90.30	2,603.13	-7,851.10	7,346.92	7,031.01	315.91	23.256		
9,900.00	7,235.72	7,221.72	7,235.72	77.77	250.39	90.29	2,603.13	-7,851.10	7,275.27	6,957.54	317.73	22.897		
10,000.00	7,235.22	7,221.22	7,235.22	80.26	250.37	90.29	2,603.13	-7,851.10	7,204.30	6,884.68	319.62	22.540		
10,100.00	7,234.72	7,220.72	7,234.72	82.77	250.35	90.28	2,603.13	-7,851.10	7,134.02	6,812.45	321.58	22.185		
10,200.00	7,234.22	7,220.22	7,234.22	85.31	250.33	90.27	2,603.13	-7,851.10	7,064.46	6,740.87	323.60	21.831		
10,300.00	7,233.72	7,219.72	7,233.72	87.86	250.32	90.27	2,603.13	-7,851.10	6,995.64	6,669.96	325.68	21.480		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 14-9(AB_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,233.22	7,219.22	7,233.22	90.44	250.30	90.26	2,603.13	-7,851.10	6,927.57	6,599.74	327.83	21.132	
10,500.00	7,232.72	7,218.72	7,232.72	93.03	250.28	90.26	2,603.13	-7,851.10	6,860.29	6,530.25	330.04	20.786	
10,600.00	7,232.22	7,218.22	7,232.22	95.64	250.26	90.25	2,603.13	-7,851.10	6,793.82	6,461.50	332.32	20.444	
10,700.00	7,231.72	7,217.72	7,231.72	98.26	250.25	90.25	2,603.13	-7,851.10	6,728.17	6,393.52	334.66	20.105	
10,800.00	7,231.21	7,217.21	7,231.21	100.89	250.23	90.24	2,603.13	-7,851.10	6,663.38	6,326.33	337.05	19.769	
10,900.00	7,230.71	7,216.71	7,230.71	103.54	250.21	90.24	2,603.13	-7,851.10	6,599.47	6,259.95	339.51	19.438	
11,000.00	7,230.21	7,216.21	7,230.21	106.20	250.19	90.23	2,603.13	-7,851.10	6,536.46	6,194.43	342.03	19.111	
11,100.00	7,229.71	7,215.71	7,229.71	108.87	250.18	90.22	2,603.13	-7,851.10	6,474.38	6,129.78	344.60	18.788	
11,200.00	7,229.21	7,215.21	7,229.21	111.54	250.16	90.22	2,603.13	-7,851.10	6,413.26	6,066.03	347.23	18.470	
11,300.00	7,228.71	7,214.71	7,228.71	114.23	250.14	90.21	2,603.13	-7,851.10	6,353.13	6,003.21	349.92	18.156	
11,400.00	7,228.21	7,214.21	7,228.21	116.92	250.12	90.21	2,603.13	-7,851.10	6,294.01	5,941.35	352.66	17.847	
11,500.00	7,227.71	7,213.71	7,227.71	119.63	250.11	90.20	2,603.13	-7,851.10	6,235.94	5,880.48	355.46	17.543	
11,600.00	7,227.21	7,213.21	7,227.21	122.34	250.09	90.20	2,603.13	-7,851.10	6,178.94	5,820.63	358.30	17.245	
11,700.00	7,226.71	7,212.71	7,226.71	125.05	250.07	90.19	2,603.13	-7,851.10	6,123.04	5,761.84	361.20	16.952	
11,800.00	7,226.21	7,212.21	7,226.21	127.78	250.05	90.18	2,603.13	-7,851.10	6,068.27	5,704.12	364.15	16.664	
11,900.00	7,225.71	7,211.71	7,225.71	130.51	250.04	90.18	2,603.13	-7,851.10	6,014.67	5,647.53	367.14	16.382	
12,000.00	7,225.21	7,211.21	7,225.21	133.24	250.02	90.17	2,603.13	-7,851.10	5,962.26	5,592.08	370.18	16.106	
12,100.00	7,224.71	7,210.71	7,224.71	135.98	250.00	90.17	2,603.13	-7,851.10	5,911.08	5,537.82	373.26	15.836	
12,200.00	7,224.21	7,210.21	7,224.21	138.72	249.98	90.16	2,603.13	-7,851.10	5,861.16	5,484.78	376.38	15.572	
12,300.00	7,223.70	7,209.70	7,223.70	141.47	249.97	90.16	2,603.13	-7,851.10	5,812.53	5,432.99	379.54	15.315	
12,400.00	7,223.20	7,209.20	7,223.20	144.23	249.95	90.15	2,603.13	-7,851.10	5,765.23	5,382.49	382.74	15.063	
12,500.00	7,222.70	7,208.70	7,222.70	146.98	249.93	90.15	2,603.13	-7,851.10	5,719.28	5,333.31	385.97	14.818	
12,600.00	7,222.20	7,208.20	7,222.20	149.74	249.91	90.14	2,603.13	-7,851.10	5,674.73	5,285.50	389.23	14.579	
12,700.00	7,221.70	7,207.70	7,221.70	152.51	249.90	90.13	2,603.13	-7,851.10	5,631.59	5,239.08	392.51	14.348	
12,800.00	7,221.20	7,207.20	7,221.20	155.28	249.88	90.13	2,603.13	-7,851.10	5,589.92	5,194.09	395.82	14.122	
12,900.00	7,220.70	7,206.70	7,220.70	158.05	249.86	90.12	2,603.13	-7,851.10	5,549.73	5,150.57	399.15	13.904	
13,000.00	7,220.20	7,206.20	7,220.20	160.82	249.84	90.12	2,603.13	-7,851.10	5,511.06	5,108.56	402.50	13.692	
13,100.00	7,219.70	7,205.70	7,219.70	163.60	249.83	90.11	2,603.13	-7,851.10	5,473.95	5,068.09	405.86	13.487	
13,200.00	7,219.20	7,205.20	7,219.20	166.38	249.81	90.11	2,603.13	-7,851.10	5,438.42	5,029.19	409.23	13.289	
13,300.00	7,218.70	7,204.70	7,218.70	169.16	249.79	90.10	2,603.13	-7,851.10	5,404.51	4,991.91	412.60	13.099	
13,400.00	7,218.20	7,204.20	7,218.20	171.95	249.78	90.09	2,603.13	-7,851.10	5,372.25	4,956.27	415.98	12.915	
13,500.00	7,217.70	7,203.70	7,217.70	174.74	249.76	90.09	2,603.13	-7,851.10	5,341.67	4,922.32	419.35	12.738	
13,600.00	7,217.20	7,203.20	7,217.20	177.53	249.74	90.08	2,603.13	-7,851.10	5,312.79	4,890.08	422.71	12.568	
13,700.00	7,216.70	7,202.70	7,216.70	180.32	249.72	90.08	2,603.13	-7,851.10	5,285.64	4,859.58	426.06	12.406	
13,800.00	7,216.19	7,202.19	7,216.19	183.11	249.71	90.07	2,603.13	-7,851.10	5,260.26	4,830.87	429.39	12.250	
13,900.00	7,215.69	7,201.69	7,215.69	185.91	249.69	90.07	2,603.13	-7,851.10	5,236.67	4,803.96	432.70	12.102	
14,000.00	7,215.19	7,201.19	7,215.19	188.71	249.67	90.06	2,603.13	-7,851.10	5,214.88	4,778.90	435.98	11.961	
14,100.00	7,214.69	7,200.69	7,214.69	191.51	249.65	90.06	2,603.13	-7,851.10	5,194.93	4,755.70	439.23	11.827	
14,200.00	7,214.19	7,200.19	7,214.19	194.31	249.64	90.05	2,603.13	-7,851.10	5,176.83	4,734.39	442.44	11.701	
14,300.00	7,213.69	7,200.31	7,213.69	197.11	249.64	90.04	2,603.13	-7,851.10	5,160.61	4,714.98	445.63	11.580	
14,400.00	7,213.19	7,200.81	7,213.19	199.92	249.66	90.04	2,603.13	-7,851.10	5,146.28	4,697.50	448.79	11.467	
14,500.00	7,212.69	7,201.31	7,212.69	202.72	249.67	90.03	2,603.13	-7,851.10	5,133.86	4,681.97	451.89	11.361	
14,600.00	7,212.19	7,201.81	7,212.19	205.53	249.69	90.03	2,603.13	-7,851.10	5,123.36	4,668.42	454.94	11.262	
14,700.00	7,211.69	7,202.31	7,211.69	208.34	249.71	90.02	2,603.13	-7,851.10	5,114.80	4,656.87	457.93	11.169	
14,800.00	7,211.19	7,202.81	7,211.19	211.15	249.73	90.02	2,603.13	-7,851.10	5,108.18	4,647.33	460.85	11.084	
14,900.00	7,210.69	7,203.31	7,210.69	213.96	249.74	90.01	2,603.13	-7,851.10	5,103.51	4,639.80	463.71	11.006	
15,000.00	7,210.19	7,203.81	7,210.19	216.78	249.76	90.00	2,603.13	-7,851.10	5,100.80	4,634.31	466.49	10.934	
15,088.45	7,209.74	7,204.26	7,209.74	219.27	249.78	90.00	2,603.13	-7,851.10	5,100.03	4,631.14	468.89	10.877 CC	
15,100.00	7,209.69	7,204.31	7,209.69	219.59	249.78	90.00	2,603.13	-7,851.10	5,100.04	4,630.85	469.19	10.870	
15,200.00	7,209.18	7,204.82	7,209.18	222.41	249.80	89.99	2,603.13	-7,851.10	5,101.25	4,629.43	471.82	10.812 ES	
15,300.00	7,208.68	7,205.32	7,208.68	225.22	249.81	89.99	2,603.13	-7,851.10	5,104.41	4,630.05	474.36	10.761	
15,400.00	7,208.18	7,205.82	7,208.18	228.04	249.83	89.98	2,603.13	-7,851.10	5,109.54	4,632.72	476.82	10.716	

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - LOVELY 14-9(AB_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,206.00	7,208.00	229.10	249.84	89.98	2,603.13	-7,851.10	5,111.96	4,634.24	477.72	10.701 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 1(TA_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	3.00	0.00	3.28	3.28	-53.14	2,718.73	-3,626.56	4,532.49				
100.00	100.00	103.00	100.00	3.28	3.77	-53.14	2,718.73	-3,626.56	4,532.49	4,525.44	7.05	642.855	
200.00	200.00	203.00	200.00	3.34	6.27	-53.14	2,718.73	-3,626.56	4,532.49	4,522.88	9.60	471.889 CC	
300.00	299.98	302.98	299.98	3.44	9.42	123.22	2,718.73	-3,626.56	4,533.44	4,520.58	12.86	352.510	
400.00	399.84	402.84	399.84	3.59	12.75	123.23	2,718.73	-3,626.56	4,536.31	4,519.98	16.34	277.683 ES	
500.00	499.45	502.45	499.45	3.79	16.13	123.24	2,718.73	-3,626.56	4,541.10	4,521.18	19.92	227.965	
600.00	598.70	601.70	598.70	4.03	19.54	123.26	2,718.73	-3,626.56	4,547.82	4,524.25	23.57	192.965	
700.00	697.47	700.47	697.47	4.31	22.94	123.28	2,718.73	-3,626.56	4,556.48	4,529.22	27.26	167.166	
800.00	795.62	801.38	795.62	4.64	26.43	123.29	2,718.73	-3,626.56	4,567.09	4,536.02	31.07	147.003	
900.00	893.06	903.94	893.06	5.00	29.99	123.31	2,718.73	-3,626.56	4,579.66	4,544.68	34.98	130.932	
1,000.00	989.64	1,007.36	989.64	5.40	33.58	123.33	2,718.73	-3,626.56	4,594.23	4,555.27	38.95	117.943	
1,100.00	1,085.27	1,088.27	1,085.27	5.83	36.39	123.35	2,718.73	-3,626.56	4,610.80	4,568.62	42.18	109.314	
1,200.00	1,179.82	1,182.82	1,179.82	6.29	39.68	123.35	2,718.73	-3,626.56	4,629.40	4,583.49	45.91	100.836	
1,300.00	1,273.47	1,276.47	1,273.47	6.79	42.94	123.59	2,718.73	-3,626.56	4,649.61	4,599.97	49.63	93.677	
1,400.00	1,367.06	1,370.06	1,367.06	7.30	46.20	123.94	2,718.73	-3,626.56	4,670.08	4,616.71	53.37	87.501	
1,500.00	1,460.64	1,463.64	1,460.64	7.83	49.46	124.28	2,718.73	-3,626.56	4,690.73	4,633.61	57.12	82.116	
1,600.00	1,554.23	1,557.23	1,554.23	8.38	52.72	124.62	2,718.73	-3,626.56	4,711.56	4,650.67	60.89	77.384	
1,700.00	1,647.82	1,650.82	1,647.82	8.93	55.98	124.95	2,718.73	-3,626.56	4,732.55	4,667.90	64.66	73.195	
1,800.00	1,741.41	1,744.41	1,741.41	9.49	59.24	125.29	2,718.73	-3,626.56	4,753.72	4,685.28	68.44	69.463	
1,900.00	1,835.00	1,838.00	1,835.00	10.05	62.51	125.62	2,718.73	-3,626.56	4,775.05	4,702.83	72.22	66.119	
2,000.00	1,928.59	1,931.59	1,928.59	10.62	65.77	125.95	2,718.73	-3,626.56	4,796.54	4,720.53	76.01	63.105	
2,100.00	2,022.18	2,025.18	2,022.18	11.20	69.03	126.27	2,718.73	-3,626.56	4,818.19	4,738.39	79.80	60.378	
2,200.00	2,115.77	2,118.77	2,115.77	11.78	72.30	126.59	2,718.73	-3,626.56	4,840.01	4,756.41	83.60	57.897	
2,300.00	2,209.36	2,212.36	2,209.36	12.37	75.56	126.91	2,718.73	-3,626.56	4,861.98	4,774.59	87.40	55.632	
2,400.00	2,302.95	2,305.95	2,302.95	12.95	78.82	127.23	2,718.73	-3,626.56	4,884.11	4,792.91	91.20	53.556	
2,500.00	2,396.54	2,400.46	2,396.54	13.54	82.12	127.54	2,718.73	-3,626.56	4,906.39	4,811.36	95.03	51.630	
2,600.00	2,490.13	2,506.87	2,490.13	14.13	85.83	127.86	2,718.73	-3,626.56	4,928.82	4,829.54	99.28	49.645	
2,700.00	2,583.72	2,586.72	2,583.72	14.73	88.62	128.17	2,718.73	-3,626.56	4,951.40	4,848.79	102.61	48.256	
2,800.00	2,677.31	2,680.31	2,677.31	15.32	91.88	128.47	2,718.73	-3,626.56	4,974.13	4,867.72	106.41	46.744	
2,900.00	2,770.90	2,773.90	2,770.90	15.92	95.15	128.78	2,718.73	-3,626.56	4,997.00	4,886.78	110.22	45.337	
3,000.00	2,864.49	2,867.49	2,864.49	16.52	98.41	129.08	2,718.73	-3,626.56	5,020.02	4,905.99	114.03	44.025	
3,100.00	2,958.08	2,961.08	2,958.08	17.12	101.68	129.38	2,718.73	-3,626.56	5,043.17	4,925.34	117.83	42.800	
3,200.00	3,051.67	3,054.67	3,051.67	17.72	104.94	129.67	2,718.73	-3,626.56	5,066.47	4,944.83	121.64	41.652	
3,300.00	3,145.26	3,148.26	3,145.26	18.32	108.21	129.97	2,718.73	-3,626.56	5,089.90	4,964.45	125.45	40.574	
3,400.00	3,238.85	3,241.85	3,238.85	18.92	111.48	130.26	2,718.73	-3,626.56	5,113.47	4,984.21	129.25	39.562	
3,500.00	3,332.44	3,335.44	3,332.44	19.53	114.74	130.55	2,718.73	-3,626.56	5,137.17	5,004.11	133.06	38.608	
3,600.00	3,426.03	3,429.03	3,426.03	20.13	118.01	130.83	2,718.73	-3,626.56	5,161.00	5,024.14	136.87	37.708	
3,700.00	3,519.62	3,522.62	3,519.62	20.74	121.27	131.12	2,718.73	-3,626.56	5,184.97	5,044.29	140.67	36.858	
3,800.00	3,613.21	3,616.21	3,613.21	21.34	124.54	131.40	2,718.73	-3,626.56	5,209.06	5,064.58	144.48	36.054	
3,900.00	3,706.80	3,709.80	3,706.80	21.95	127.81	131.68	2,718.73	-3,626.56	5,233.27	5,084.99	148.29	35.292	
4,000.00	3,800.39	3,803.39	3,800.39	22.56	131.07	131.96	2,718.73	-3,626.56	5,257.61	5,105.52	152.09	34.569	
4,100.00	3,893.98	3,903.02	3,893.98	23.16	134.55	132.23	2,718.73	-3,626.56	5,282.08	5,125.97	156.11	33.836	
4,200.00	3,987.57	4,009.43	3,987.57	23.77	138.26	132.50	2,718.73	-3,626.56	5,306.66	5,146.30	160.36	33.092	
4,300.00	4,081.16	4,084.16	4,081.16	24.38	140.87	132.77	2,718.73	-3,626.56	5,331.37	5,167.86	163.51	32.606	
4,400.00	4,174.75	4,177.75	4,174.75	24.99	144.14	133.04	2,718.73	-3,626.56	5,356.19	5,188.88	167.31	32.013	
4,500.00	4,268.34	4,271.34	4,268.34	25.60	147.40	133.30	2,718.73	-3,626.56	5,381.13	5,210.02	171.11	31.447	
4,600.00	4,361.93	4,364.93	4,361.93	26.21	150.67	133.57	2,718.73	-3,626.56	5,406.18	5,231.27	174.92	30.907	
4,700.00	4,455.52	4,458.52	4,455.52	26.82	153.94	133.83	2,718.73	-3,626.56	5,431.35	5,252.63	178.72	30.390	
4,800.00	4,549.11	4,552.11	4,549.11	27.43	157.20	134.08	2,718.73	-3,626.56	5,456.63	5,274.10	182.52	29.896	
4,900.00	4,642.70	4,645.70	4,642.70	28.04	160.47	134.34	2,718.73	-3,626.56	5,482.01	5,295.69	186.32	29.422	
5,000.00	4,736.29	4,739.29	4,736.29	28.65	163.74	134.59	2,718.73	-3,626.56	5,507.51	5,317.38	190.13	28.968	
5,100.00	4,829.88	4,832.88	4,829.88	29.26	167.00	134.85	2,718.73	-3,626.56	5,533.11	5,339.19	193.93	28.532	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 1(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,926.47	4,923.47	29.87	170.27	135.10	2,718.73	-3,626.56	5,558.82	5,361.09	197.73	28.114		
5,300.00	5,017.06	5,020.06	5,017.06	30.48	173.54	135.34	2,718.73	-3,626.56	5,584.63	5,383.10	201.53	27.712		
5,400.00	5,110.65	5,113.65	5,110.65	31.09	176.80	135.59	2,718.73	-3,626.56	5,610.54	5,405.22	205.32	27.325		
5,500.00	5,204.24	5,207.24	5,204.24	31.70	180.07	135.83	2,718.73	-3,626.56	5,636.56	5,427.44	209.12	26.953		
5,600.00	5,297.83	5,300.83	5,297.83	32.32	183.34	136.07	2,718.73	-3,626.56	5,662.67	5,449.75	212.92	26.595		
5,700.00	5,391.42	5,405.58	5,391.42	32.93	186.99	136.31	2,718.73	-3,626.56	5,688.89	5,471.78	217.11	26.203		
5,800.00	5,485.01	5,488.01	5,485.01	33.54	189.87	136.55	2,718.73	-3,626.56	5,715.20	5,494.68	220.51	25.918		
5,900.00	5,578.60	5,581.60	5,578.60	34.15	193.14	136.78	2,718.73	-3,626.56	5,741.60	5,517.29	224.31	25.597		
6,000.00	5,672.19	5,675.19	5,672.19	34.77	196.40	137.01	2,718.73	-3,626.56	5,768.10	5,539.99	228.11	25.287		
6,100.00	5,765.78	5,768.78	5,765.78	35.38	199.67	137.24	2,718.73	-3,626.56	5,794.69	5,562.79	231.90	24.988		
6,200.00	5,859.37	5,862.37	5,859.37	35.99	202.94	137.47	2,718.73	-3,626.56	5,821.38	5,585.68	235.70	24.699		
6,300.00	5,952.96	5,955.96	5,952.96	36.60	206.20	137.70	2,718.73	-3,626.56	5,848.15	5,608.66	239.49	24.419		
6,400.00	6,046.55	6,049.55	6,046.55	37.22	209.47	137.92	2,718.73	-3,626.56	5,875.01	5,631.73	243.29	24.149		
6,500.00	6,140.14	6,143.14	6,140.14	37.83	212.74	138.15	2,718.73	-3,626.56	5,901.97	5,654.89	247.08	23.887		
6,600.00	6,233.73	6,236.73	6,233.73	38.44	216.00	138.37	2,718.73	-3,626.56	5,929.01	5,678.13	250.87	23.634		
6,700.00	6,327.32	6,330.32	6,327.32	39.06	219.27	138.59	2,718.73	-3,626.56	5,956.13	5,701.46	254.66	23.388		
6,800.00	6,420.91	6,423.91	6,420.91	39.67	222.54	138.80	2,718.73	-3,626.56	5,983.34	5,724.88	258.46	23.150		
6,900.00	6,514.50	6,517.50	6,514.50	40.28	225.80	139.02	2,718.73	-3,626.56	6,010.63	5,748.38	262.25	22.920		
7,000.00	6,608.09	6,611.09	6,608.09	40.90	229.07	139.23	2,718.73	-3,626.56	6,038.00	5,771.96	266.04	22.696		
7,100.00	6,701.63	6,704.63	6,701.63	41.51	232.34	129.27	2,718.73	-3,626.56	6,064.72	5,794.89	269.83	22.476		
7,200.00	6,793.85	6,803.15	6,793.85	42.10	235.78	108.51	2,718.73	-3,626.56	6,083.88	5,810.09	273.79	22.221		
7,300.00	6,882.50	6,885.50	6,882.50	42.64	238.65	94.89	2,718.73	-3,626.56	6,093.63	5,816.46	277.17	21.985		
7,400.00	6,965.41	6,968.41	6,965.41	43.12	241.54	86.79	2,718.73	-3,626.56	6,093.98	5,813.45	280.53	21.723		
7,500.00	7,040.53	7,043.53	7,040.53	43.53	244.17	82.36	2,718.73	-3,626.56	6,085.18	5,801.59	283.58	21.458		
7,600.00	7,106.00	7,109.00	7,106.00	43.89	246.45	80.45	2,718.73	-3,626.56	6,067.74	5,781.43	286.31	21.193		
7,700.00	7,160.23	7,163.23	7,160.23	44.20	248.34	80.39	2,718.73	-3,626.56	6,042.35	5,753.67	288.68	20.931		
7,800.00	7,201.86	7,204.86	7,201.86	44.48	249.80	81.79	2,718.73	-3,626.56	6,009.87	5,719.17	290.70	20.674		
7,900.00	7,229.88	7,232.88	7,229.88	44.73	250.78	84.41	2,718.73	-3,626.56	5,971.24	5,678.90	292.35	20.425		
8,000.00	7,243.60	7,246.60	7,243.60	44.99	251.26	88.09	2,718.73	-3,626.56	5,927.53	5,633.91	293.62	20.188		
8,100.00	7,244.73	7,247.73	7,244.73	45.29	251.29	90.15	2,718.73	-3,626.56	5,880.43	5,585.87	294.56	19.963		
8,200.00	7,244.23	7,247.23	7,244.23	45.74	251.28	90.15	2,718.73	-3,626.56	5,834.11	5,538.52	295.59	19.737		
8,300.00	7,243.73	7,246.73	7,243.73	46.38	251.26	90.14	2,718.73	-3,626.56	5,789.15	5,492.40	296.75	19.509		
8,400.00	7,243.23	7,246.23	7,243.23	47.29	251.24	90.14	2,718.73	-3,626.56	5,745.57	5,447.53	298.04	19.278		
8,500.00	7,242.73	7,245.73	7,242.73	48.46	251.22	90.13	2,718.73	-3,626.56	5,703.41	5,403.95	299.46	19.046		
8,600.00	7,242.23	7,245.23	7,242.23	49.87	251.21	90.13	2,718.73	-3,626.56	5,662.71	5,361.71	301.00	18.813		
8,700.00	7,241.73	7,244.73	7,241.73	51.48	251.19	90.12	2,718.73	-3,626.56	5,623.49	5,320.84	302.65	18.581		
8,800.00	7,241.23	7,244.23	7,241.23	53.24	251.17	90.11	2,718.73	-3,626.56	5,585.79	5,281.38	304.41	18.349		
8,900.00	7,240.73	7,243.73	7,240.73	55.13	251.15	90.11	2,718.73	-3,626.56	5,549.63	5,243.36	306.27	18.120		
9,000.00	7,240.23	7,243.23	7,240.23	57.11	251.14	90.10	2,718.73	-3,626.56	5,515.05	5,206.83	308.22	17.893		
9,100.00	7,239.73	7,242.73	7,239.73	59.19	251.12	90.10	2,718.73	-3,626.56	5,482.07	5,171.82	310.25	17.670		
9,200.00	7,239.23	7,242.23	7,239.23	61.34	251.10	90.09	2,718.73	-3,626.56	5,450.73	5,138.37	312.36	17.450		
9,300.00	7,238.72	7,241.72	7,238.72	63.55	251.09	90.09	2,718.73	-3,626.56	5,421.05	5,106.52	314.53	17.235		
9,400.00	7,238.22	7,241.22	7,238.22	65.81	251.07	90.08	2,718.73	-3,626.56	5,393.07	5,076.29	316.78	17.025		
9,500.00	7,237.72	7,240.72	7,237.72	68.13	251.05	90.08	2,718.73	-3,626.56	5,366.80	5,047.72	319.08	16.820		
9,600.00	7,237.22	7,240.22	7,237.22	70.48	251.03	90.07	2,718.73	-3,626.56	5,342.27	5,020.85	321.42	16.621		
9,700.00	7,236.72	7,239.72	7,236.72	72.88	251.02	90.06	2,718.73	-3,626.56	5,319.52	4,995.70	323.82	16.428		
9,800.00	7,236.22	7,239.22	7,236.22	75.31	251.00	90.06	2,718.73	-3,626.56	5,298.55	4,972.30	326.25	16.241		
9,900.00	7,235.72	7,238.72	7,235.72	77.77	250.98	90.05	2,718.73	-3,626.56	5,279.39	4,950.68	328.71	16.061		
10,000.00	7,235.22	7,238.22	7,235.22	80.26	250.96	90.05	2,718.73	-3,626.56	5,262.06	4,930.86	331.20	15.888		
10,100.00	7,234.72	7,237.72	7,234.72	82.77	250.95	90.04	2,718.73	-3,626.56	5,246.59	4,912.88	333.71	15.722		
10,200.00	7,234.22	7,237.22	7,234.22	85.31	250.93	90.04	2,718.73	-3,626.56	5,232.97	4,896.74	336.23	15.563		
10,300.00	7,233.72	7,236.72	7,233.72	87.86	250.91	90.03	2,718.73	-3,626.56	5,221.24	4,882.47	338.77	15.412		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 1(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,236.22	7,233.22	90.44	250.89	90.03	2,718.73	-3,626.56	5,211.40	4,870.09	341.31	15.269		
10,500.00	7,232.72	7,235.72	7,232.72	93.03	250.88	90.02	2,718.73	-3,626.56	5,203.47	4,859.62	343.85	15.133		
10,600.00	7,232.22	7,235.22	7,232.22	95.64	250.86	90.01	2,718.73	-3,626.56	5,197.44	4,851.06	346.38	15.005		
10,700.00	7,231.72	7,234.72	7,231.72	98.26	250.84	90.01	2,718.73	-3,626.56	5,193.34	4,844.43	348.91	14.885		
10,800.00	7,231.21	7,234.21	7,231.21	100.89	250.82	90.00	2,718.73	-3,626.56	5,191.16	4,839.74	351.42	14.772		
10,863.25	7,230.90	7,233.90	7,230.90	102.57	250.81	90.00	2,718.73	-3,626.56	5,190.77	4,837.77	353.00	14.705		
10,900.00	7,230.71	7,233.71	7,230.71	103.54	250.81	90.00	2,718.73	-3,626.56	5,190.90	4,836.99	353.91	14.667		
11,000.00	7,230.21	7,233.21	7,230.21	106.20	250.79	89.99	2,718.73	-3,626.56	5,192.57	4,836.19	356.38	14.570		
11,100.00	7,229.71	7,232.71	7,229.71	108.87	250.77	89.99	2,718.73	-3,626.56	5,196.17	4,837.34	358.83	14.481		
11,200.00	7,229.21	7,232.21	7,229.21	111.54	250.75	89.98	2,718.73	-3,626.56	5,201.68	4,840.44	361.24	14.400		
11,300.00	7,228.71	7,231.71	7,228.71	114.23	250.74	89.98	2,718.73	-3,626.56	5,209.11	4,845.49	363.62	14.326		
11,400.00	7,228.21	7,231.21	7,228.21	116.92	250.72	89.97	2,718.73	-3,626.56	5,218.45	4,852.48	365.97	14.259		
11,500.00	7,227.71	7,230.71	7,227.71	119.63	250.70	89.96	2,718.73	-3,626.56	5,229.68	4,861.41	368.27	14.201		
11,600.00	7,227.21	7,230.21	7,227.21	122.34	250.68	89.96	2,718.73	-3,626.56	5,242.80	4,872.26	370.54	14.149		
11,700.00	7,226.71	7,229.71	7,226.71	125.05	250.67	89.95	2,718.73	-3,626.56	5,257.78	4,885.02	372.76	14.105		
11,800.00	7,226.21	7,229.21	7,226.21	127.78	250.65	89.95	2,718.73	-3,626.56	5,274.62	4,899.69	374.93	14.068		
11,900.00	7,225.71	7,228.71	7,225.71	130.51	250.63	89.94	2,718.73	-3,626.56	5,293.29	4,916.24	377.05	14.039		
12,000.00	7,225.21	7,228.21	7,225.21	133.24	250.61	89.94	2,718.73	-3,626.56	5,313.78	4,934.66	379.13	14.016		
12,100.00	7,224.71	7,227.71	7,224.71	135.98	250.60	89.93	2,718.73	-3,626.56	5,336.07	4,954.92	381.15	14.000		
12,200.00	7,224.21	7,227.21	7,224.21	138.72	250.58	89.93	2,718.73	-3,626.56	5,360.13	4,977.01	383.11	13.991		
12,300.00	7,223.70	7,226.70	7,223.70	141.47	250.56	89.92	2,718.73	-3,626.56	5,385.94	5,000.91	385.03	13.988 SF		
12,400.00	7,223.20	7,226.20	7,223.20	144.23	250.54	89.92	2,718.73	-3,626.56	5,413.47	5,026.58	386.89	13.992		
12,500.00	7,222.70	7,225.70	7,222.70	146.98	250.53	89.91	2,718.73	-3,626.56	5,442.70	5,054.01	388.69	14.003		
12,600.00	7,222.20	7,225.20	7,222.20	149.74	250.51	89.90	2,718.73	-3,626.56	5,473.60	5,083.17	390.44	14.019		
12,700.00	7,221.70	7,224.70	7,221.70	152.51	250.49	89.90	2,718.73	-3,626.56	5,506.15	5,114.02	392.13	14.042		
12,800.00	7,221.20	7,224.20	7,221.20	155.28	250.47	89.89	2,718.73	-3,626.56	5,540.31	5,146.55	393.76	14.070		
12,900.00	7,220.70	7,223.70	7,220.70	158.05	250.46	89.89	2,718.73	-3,626.56	5,576.05	5,180.71	395.34	14.104		
13,000.00	7,220.20	7,223.20	7,220.20	160.82	250.44	89.88	2,718.73	-3,626.56	5,613.35	5,216.49	396.86	14.144		
13,100.00	7,219.70	7,222.70	7,219.70	163.60	250.42	89.88	2,718.73	-3,626.56	5,652.17	5,253.84	398.33	14.190		
13,200.00	7,219.20	7,222.20	7,219.20	166.38	250.40	89.87	2,718.73	-3,626.56	5,692.48	5,292.74	399.74	14.240		
13,300.00	7,218.70	7,221.70	7,218.70	169.16	250.39	89.87	2,718.73	-3,626.56	5,734.26	5,333.16	401.10	14.296		
13,400.00	7,218.20	7,221.20	7,218.20	171.95	250.37	89.86	2,718.73	-3,626.56	5,777.46	5,375.06	402.40	14.357		
13,500.00	7,217.70	7,220.70	7,217.70	174.74	250.35	89.85	2,718.73	-3,626.56	5,822.06	5,418.41	403.65	14.423		
13,600.00	7,217.20	7,220.20	7,217.20	177.53	250.33	89.85	2,718.73	-3,626.56	5,868.03	5,463.18	404.85	14.494		
13,700.00	7,216.70	7,219.70	7,216.70	180.32	250.32	89.84	2,718.73	-3,626.56	5,915.32	5,509.32	406.00	14.570		
13,800.00	7,216.19	7,219.19	7,216.19	183.11	250.30	89.84	2,718.73	-3,626.56	5,963.92	5,556.83	407.10	14.650		
13,900.00	7,215.69	7,218.69	7,215.69	185.91	250.28	89.83	2,718.73	-3,626.56	6,013.80	5,605.65	408.15	14.734		
14,000.00	7,215.19	7,218.19	7,215.19	188.71	250.26	89.83	2,718.73	-3,626.56	6,064.90	5,655.75	409.15	14.823		
14,100.00	7,214.69	7,217.69	7,214.69	191.51	250.25	89.82	2,718.73	-3,626.56	6,117.22	5,707.11	410.11	14.916		
14,200.00	7,214.19	7,217.19	7,214.19	194.31	250.23	89.82	2,718.73	-3,626.56	6,170.72	5,759.69	411.03	15.013		
14,300.00	7,213.69	7,216.69	7,213.69	197.11	250.21	89.81	2,718.73	-3,626.56	6,225.36	5,813.46	411.90	15.114		
14,400.00	7,213.19	7,216.19	7,213.19	199.92	250.19	89.80	2,718.73	-3,626.56	6,281.11	5,868.39	412.73	15.219		
14,500.00	7,212.69	7,215.69	7,212.69	202.72	250.18	89.80	2,718.73	-3,626.56	6,337.96	5,924.44	413.52	15.327		
14,600.00	7,212.19	7,215.19	7,212.19	205.53	250.16	89.79	2,718.73	-3,626.56	6,395.86	5,981.60	414.27	15.439		
14,700.00	7,211.69	7,214.69	7,211.69	208.34	250.14	89.79	2,718.73	-3,626.56	6,454.80	6,039.82	414.98	15.555		
14,800.00	7,211.19	7,214.19	7,211.19	211.15	250.12	89.78	2,718.73	-3,626.56	6,514.73	6,099.08	415.65	15.673		
14,900.00	7,210.69	7,213.69	7,210.69	213.96	250.11	89.78	2,718.73	-3,626.56	6,575.64	6,159.35	416.29	15.796		
15,000.00	7,210.19	7,213.19	7,210.19	216.78	250.09	89.77	2,718.73	-3,626.56	6,637.50	6,220.60	416.90	15.921		
15,100.00	7,209.69	7,212.69	7,209.69	219.59	250.07	89.77	2,718.73	-3,626.56	6,700.28	6,282.80	417.48	16.049		
15,200.00	7,209.18	7,212.18	7,209.18	222.41	250.05	89.76	2,718.73	-3,626.56	6,763.95	6,345.93	418.02	16.181		
15,300.00	7,208.68	7,211.68	7,208.68	225.22	250.04	89.75	2,718.73	-3,626.56	6,828.50	6,409.96	418.53	16.315		
15,400.00	7,208.18	7,211.18	7,208.18	228.04	250.02	89.75	2,718.73	-3,626.56	6,893.89	6,474.87	419.02	16.453		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 1(TA_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,211.00	7,208.00	229.10	250.01	89.75	2,718.73	-3,626.56	6,918.61	6,499.42	419.19	16.505	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	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	37.00	3.28	3.28	-60.95	2,689.79	-4,841.91	5,538.99				
100.00	100.00	63.00	100.00	3.28	3.46	-60.95	2,689.79	-4,841.91	5,538.87	5,532.13	6.74	821.285	
200.00	200.00	163.00	200.00	3.34	5.13	-60.95	2,689.79	-4,841.91	5,538.87	5,530.40	8.47	654.145	
300.00	299.98	262.98	299.98	3.44	8.13	115.42	2,689.79	-4,841.91	5,539.62	5,528.05	11.57	478.961	
400.00	399.84	362.84	399.84	3.59	11.40	115.43	2,689.79	-4,841.91	5,541.87	5,526.88	14.99	369.652	
500.00	499.45	462.45	499.45	3.79	14.77	115.44	2,689.79	-4,841.91	5,545.62	5,527.07	18.55	298.876	
600.00	598.70	561.70	598.70	4.03	18.16	115.46	2,689.79	-4,841.91	5,550.89	5,528.70	22.19	250.127	
700.00	697.47	660.47	697.47	4.31	21.56	115.48	2,689.79	-4,841.91	5,557.69	5,531.81	25.88	214.781	
800.00	795.62	758.62	795.62	4.64	24.95	115.50	2,689.79	-4,841.91	5,566.03	5,536.44	29.59	188.108	
900.00	893.06	856.06	893.06	5.00	28.33	115.53	2,689.79	-4,841.91	5,575.92	5,542.60	33.32	167.338	
1,000.00	989.64	952.64	989.64	5.40	31.68	115.55	2,689.79	-4,841.91	5,587.40	5,550.34	37.06	150.757	
1,100.00	1,085.27	1,048.27	1,085.27	5.83	35.00	115.58	2,689.79	-4,841.91	5,600.48	5,559.68	40.81	137.249	
1,200.00	1,179.82	1,142.82	1,179.82	6.29	38.29	115.59	2,689.79	-4,841.91	5,615.19	5,570.65	44.54	126.059	
1,300.00	1,273.47	1,236.47	1,273.47	6.79	41.55	115.81	2,689.79	-4,841.91	5,631.20	5,582.92	48.28	116.640	
1,400.00	1,367.06	1,330.06	1,367.06	7.30	44.81	116.11	2,689.79	-4,841.91	5,647.46	5,595.43	52.03	108.545	
1,500.00	1,460.64	1,423.64	1,460.64	7.83	48.07	116.42	2,689.79	-4,841.91	5,663.89	5,608.10	55.79	101.515	
1,600.00	1,554.23	1,517.23	1,554.23	8.38	51.33	116.72	2,689.79	-4,841.91	5,680.49	5,620.92	59.57	95.358	
1,700.00	1,647.82	1,610.82	1,647.82	8.93	54.59	117.02	2,689.79	-4,841.91	5,697.26	5,633.91	63.36	89.925	
1,800.00	1,741.41	1,704.41	1,741.41	9.49	57.85	117.32	2,689.79	-4,841.91	5,714.20	5,647.05	67.15	85.097	
1,900.00	1,835.00	1,802.00	1,835.00	10.05	61.25	117.62	2,689.79	-4,841.91	5,731.31	5,660.22	71.09	80.623	
2,000.00	1,928.59	1,908.41	1,928.59	10.62	64.96	117.91	2,689.79	-4,841.91	5,748.58	5,673.24	75.34	76.303	
2,100.00	2,022.18	1,985.18	2,022.18	11.20	67.64	118.21	2,689.79	-4,841.91	5,766.01	5,687.45	78.56	73.395	
2,200.00	2,115.77	2,078.77	2,115.77	11.78	70.90	118.50	2,689.79	-4,841.91	5,783.61	5,701.23	82.37	70.212	
2,300.00	2,209.36	2,172.36	2,209.36	12.37	74.16	118.79	2,689.79	-4,841.91	5,801.36	5,715.17	86.19	67.310	
2,400.00	2,302.95	2,265.95	2,302.95	12.95	77.43	119.08	2,689.79	-4,841.91	5,819.28	5,729.27	90.01	64.655	
2,500.00	2,396.54	2,359.54	2,396.54	13.54	80.69	119.37	2,689.79	-4,841.91	5,837.35	5,743.53	93.82	62.216	
2,600.00	2,490.13	2,453.13	2,490.13	14.13	83.96	119.65	2,689.79	-4,841.91	5,855.58	5,757.94	97.65	59.968	
2,700.00	2,583.72	2,546.72	2,583.72	14.73	87.22	119.94	2,689.79	-4,841.91	5,873.96	5,772.50	101.47	57.890	
2,800.00	2,677.31	2,640.31	2,677.31	15.32	90.49	120.22	2,689.79	-4,841.91	5,892.50	5,787.21	105.29	55.965	
2,900.00	2,770.90	2,733.90	2,770.90	15.92	93.75	120.50	2,689.79	-4,841.91	5,911.19	5,802.08	109.11	54.175	
3,000.00	2,864.49	2,827.49	2,864.49	16.52	97.02	120.78	2,689.79	-4,841.91	5,930.03	5,817.09	112.94	52.507	
3,100.00	2,958.08	2,921.08	2,958.08	17.12	100.28	121.06	2,689.79	-4,841.91	5,949.02	5,832.26	116.76	50.950	
3,200.00	3,051.67	3,014.67	3,051.67	17.72	103.55	121.33	2,689.79	-4,841.91	5,968.15	5,847.57	120.59	49.493	
3,300.00	3,145.26	3,108.26	3,145.26	18.32	106.81	121.61	2,689.79	-4,841.91	5,987.44	5,863.02	124.41	48.126	
3,400.00	3,238.85	3,201.85	3,238.85	18.92	110.08	121.88	2,689.79	-4,841.91	6,006.86	5,878.63	128.24	46.842	
3,500.00	3,332.44	3,304.56	3,332.44	19.53	113.66	122.15	2,689.79	-4,841.91	6,026.43	5,894.05	132.38	45.524	
3,600.00	3,426.03	3,389.03	3,426.03	20.13	116.61	122.42	2,689.79	-4,841.91	6,046.14	5,910.26	135.89	44.494	
3,700.00	3,519.62	3,482.62	3,519.62	20.74	119.88	122.69	2,689.79	-4,841.91	6,066.00	5,926.28	139.71	43.418	
3,800.00	3,613.21	3,576.21	3,613.21	21.34	123.14	122.96	2,689.79	-4,841.91	6,085.99	5,942.45	143.54	42.401	
3,900.00	3,706.80	3,669.80	3,706.80	21.95	126.41	123.22	2,689.79	-4,841.91	6,106.12	5,958.76	147.36	41.437	
4,000.00	3,800.39	3,763.39	3,800.39	22.56	129.68	123.49	2,689.79	-4,841.91	6,126.38	5,975.20	151.18	40.523	
4,100.00	3,893.98	3,856.98	3,893.98	23.16	132.94	123.75	2,689.79	-4,841.91	6,146.78	5,991.77	155.01	39.655	
4,200.00	3,987.57	3,950.57	3,987.57	23.77	136.21	124.01	2,689.79	-4,841.91	6,167.32	6,008.49	158.83	38.830	
4,300.00	4,081.16	4,044.16	4,081.16	24.38	139.48	124.27	2,689.79	-4,841.91	6,187.98	6,025.33	162.65	38.044	
4,400.00	4,174.75	4,137.75	4,174.75	24.99	142.74	124.52	2,689.79	-4,841.91	6,208.78	6,042.31	166.48	37.296	
4,500.00	4,268.34	4,231.34	4,268.34	25.60	146.01	124.78	2,689.79	-4,841.91	6,229.71	6,059.41	170.30	36.581	
4,600.00	4,361.93	4,324.93	4,361.93	26.21	149.27	125.03	2,689.79	-4,841.91	6,250.76	6,076.65	174.12	35.900	
4,700.00	4,455.52	4,418.52	4,455.52	26.82	152.54	125.29	2,689.79	-4,841.91	6,271.95	6,094.01	177.94	35.248	
4,800.00	4,549.11	4,512.11	4,549.11	27.43	155.81	125.54	2,689.79	-4,841.91	6,293.26	6,111.50	181.76	34.624	
4,900.00	4,642.70	4,605.70	4,642.70	28.04	159.07	125.79	2,689.79	-4,841.91	6,314.69	6,129.11	185.58	34.027	
5,000.00	4,736.29	4,700.29	4,736.29	28.65	162.39	126.03	2,689.79	-4,841.91	6,336.25	6,146.80	189.45	33.446	
5,100.00	4,829.88	4,807.12	4,829.88	29.26	166.10	126.28	2,689.79	-4,841.91	6,357.93	6,164.21	193.71	32.821	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 34-9(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,886.47	4,923.47	29.87	168.87	126.52	2,689.79	-4,841.91	6,379.73	6,182.69	197.03	32.379		
5,300.00	5,017.06	4,980.06	5,017.06	30.48	172.14	126.77	2,689.79	-4,841.91	6,401.65	6,200.79	200.85	31.873		
5,400.00	5,110.65	5,073.65	5,110.65	31.09	175.41	127.01	2,689.79	-4,841.91	6,423.68	6,219.02	204.67	31.386		
5,500.00	5,204.24	5,167.24	5,204.24	31.70	178.67	127.25	2,689.79	-4,841.91	6,445.84	6,237.35	208.48	30.918		
5,600.00	5,297.83	5,260.83	5,297.83	32.32	181.94	127.49	2,689.79	-4,841.91	6,468.11	6,255.81	212.30	30.467		
5,700.00	5,391.42	5,354.42	5,391.42	32.93	185.21	127.72	2,689.79	-4,841.91	6,490.50	6,274.38	216.11	30.033		
5,800.00	5,485.01	5,448.01	5,485.01	33.54	188.47	127.96	2,689.79	-4,841.91	6,513.00	6,293.07	219.93	29.614		
5,900.00	5,578.60	5,541.60	5,578.60	34.15	191.74	128.19	2,689.79	-4,841.91	6,535.61	6,311.86	223.74	29.210		
6,000.00	5,672.19	5,635.19	5,672.19	34.77	195.01	128.43	2,689.79	-4,841.91	6,558.33	6,330.77	227.56	28.821		
6,100.00	5,765.78	5,728.78	5,765.78	35.38	198.27	128.66	2,689.79	-4,841.91	6,581.16	6,349.80	231.37	28.445		
6,200.00	5,859.37	5,822.37	5,859.37	35.99	201.54	128.89	2,689.79	-4,841.91	6,604.11	6,368.93	235.18	28.081		
6,300.00	5,952.96	5,915.96	5,952.96	36.60	204.81	129.11	2,689.79	-4,841.91	6,627.16	6,388.16	238.99	27.730		
6,400.00	6,046.55	6,009.55	6,046.55	37.22	208.07	129.34	2,689.79	-4,841.91	6,650.31	6,407.51	242.80	27.390		
6,500.00	6,140.14	6,103.14	6,140.14	37.83	211.34	129.57	2,689.79	-4,841.91	6,673.57	6,426.96	246.61	27.061		
6,600.00	6,233.73	6,203.27	6,233.73	38.44	214.84	129.79	2,689.79	-4,841.91	6,696.94	6,446.29	250.65	26.718		
6,700.00	6,327.32	6,309.68	6,327.32	39.06	218.55	130.01	2,689.79	-4,841.91	6,720.41	6,465.51	254.91	26.364		
6,800.00	6,420.91	6,383.91	6,420.91	39.67	221.14	130.23	2,689.79	-4,841.91	6,743.98	6,485.95	258.04	26.136		
6,900.00	6,514.50	6,477.50	6,514.50	40.28	224.41	130.45	2,689.79	-4,841.91	6,767.66	6,505.81	261.85	25.846		
7,000.00	6,608.09	6,571.09	6,608.09	40.90	227.68	130.67	2,689.79	-4,841.91	6,791.43	6,525.78	265.65	25.565		
7,100.00	6,701.63	6,664.63	6,701.63	41.51	230.94	120.92	2,689.79	-4,841.91	6,814.42	6,544.96	269.46	25.289		
7,200.00	6,793.85	6,756.85	6,793.85	42.10	234.16	100.63	2,689.79	-4,841.91	6,828.43	6,555.21	273.22	24.992		
7,300.00	6,882.50	6,845.50	6,882.50	42.64	237.25	87.49	2,689.79	-4,841.91	6,831.36	6,554.53	276.83	24.677		
7,400.00	6,965.41	6,928.41	6,965.41	43.12	240.15	79.87	2,689.79	-4,841.91	6,823.35	6,543.15	280.20	24.352		
7,500.00	7,040.53	7,003.53	7,040.53	43.53	242.77	75.97	2,689.79	-4,841.91	6,804.79	6,521.52	283.27	24.022		
7,600.00	7,106.00	7,069.00	7,106.00	43.89	245.06	74.70	2,689.79	-4,841.91	6,776.35	6,490.35	286.00	23.693		
7,700.00	7,160.23	7,123.23	7,160.23	44.20	246.95	75.45	2,689.79	-4,841.91	6,738.90	6,450.53	288.37	23.369		
7,800.00	7,201.86	7,164.86	7,201.86	44.48	248.40	77.90	2,689.79	-4,841.91	6,693.52	6,403.16	290.36	23.053		
7,900.00	7,229.88	7,207.12	7,229.88	44.73	249.88	81.88	2,689.79	-4,841.91	6,641.41	6,348.96	292.45	22.709		
8,000.00	7,243.60	7,206.60	7,243.60	44.99	249.86	87.25	2,689.79	-4,841.91	6,583.90	6,290.75	293.15	22.459		
8,100.00	7,244.73	7,207.73	7,244.73	45.29	249.90	90.22	2,689.79	-4,841.91	6,522.93	6,228.94	293.99	22.187		
8,200.00	7,244.23	7,207.23	7,244.23	45.74	249.88	90.22	2,689.79	-4,841.91	6,462.42	6,167.53	294.89	21.915		
8,300.00	7,243.73	7,206.73	7,243.73	46.38	249.86	90.21	2,689.79	-4,841.91	6,402.90	6,106.99	295.91	21.638		
8,400.00	7,243.23	7,206.23	7,243.23	47.29	249.85	90.20	2,689.79	-4,841.91	6,344.40	6,047.36	297.04	21.359		
8,500.00	7,242.73	7,205.73	7,242.73	48.46	249.83	90.20	2,689.79	-4,841.91	6,286.94	5,988.66	298.29	21.077		
8,600.00	7,242.23	7,205.23	7,242.23	49.87	249.81	90.19	2,689.79	-4,841.91	6,230.56	5,930.92	299.65	20.793		
8,700.00	7,241.73	7,204.73	7,241.73	51.48	249.79	90.19	2,689.79	-4,841.91	6,175.29	5,874.17	301.11	20.508		
8,800.00	7,241.23	7,204.23	7,241.23	53.24	249.78	90.18	2,689.79	-4,841.91	6,121.15	5,818.46	302.68	20.223		
8,900.00	7,240.73	7,203.73	7,240.73	55.13	249.76	90.18	2,689.79	-4,841.91	6,068.17	5,763.82	304.36	19.938		
9,000.00	7,240.23	7,203.23	7,240.23	57.11	249.74	90.17	2,689.79	-4,841.91	6,016.39	5,710.27	306.12	19.653		
9,100.00	7,239.73	7,202.73	7,239.73	59.19	249.72	90.17	2,689.79	-4,841.91	5,965.84	5,657.86	307.98	19.371		
9,200.00	7,239.23	7,202.23	7,239.23	61.34	249.71	90.16	2,689.79	-4,841.91	5,916.54	5,606.61	309.93	19.090		
9,300.00	7,238.72	7,201.72	7,238.72	63.55	249.69	90.15	2,689.79	-4,841.91	5,868.54	5,556.58	311.96	18.812		
9,400.00	7,238.22	7,201.22	7,238.22	65.81	249.67	90.15	2,689.79	-4,841.91	5,821.86	5,507.78	314.07	18.537		
9,500.00	7,237.72	7,200.72	7,237.72	68.13	249.65	90.14	2,689.79	-4,841.91	5,776.53	5,460.27	316.26	18.265		
9,600.00	7,237.22	7,200.22	7,237.22	70.48	249.64	90.14	2,689.79	-4,841.91	5,732.59	5,414.07	318.51	17.998		
9,700.00	7,236.72	7,200.28	7,236.72	72.88	249.64	90.13	2,689.79	-4,841.91	5,690.06	5,369.21	320.85	17.734		
9,800.00	7,236.22	7,200.78	7,236.22	75.31	249.66	90.13	2,689.79	-4,841.91	5,648.99	5,325.72	323.27	17.475		
9,900.00	7,235.72	7,201.28	7,235.72	77.77	249.67	90.12	2,689.79	-4,841.91	5,609.40	5,283.65	325.74	17.220		
10,000.00	7,235.22	7,201.78	7,235.22	80.26	249.69	90.12	2,689.79	-4,841.91	5,571.32	5,243.05	328.27	16.972		
10,100.00	7,234.72	7,202.28	7,234.72	82.77	249.71	90.11	2,689.79	-4,841.91	5,534.78	5,203.94	330.85	16.729		
10,200.00	7,234.22	7,202.78	7,234.22	85.31	249.73	90.10	2,689.79	-4,841.91	5,499.83	5,166.36	333.47	16.493		
10,300.00	7,233.72	7,203.28	7,233.72	87.86	249.74	90.10	2,689.79	-4,841.91	5,466.47	5,130.35	336.13	16.263		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 34-9(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,203.78	7,233.22	90.44	249.76	90.09	2,689.79	-4,841.91	5,434.76	5,095.94	338.82	16.040		
10,500.00	7,232.72	7,204.28	7,232.72	93.03	249.78	90.09	2,689.79	-4,841.91	5,404.71	5,063.16	341.55	15.824		
10,600.00	7,232.22	7,204.78	7,232.22	95.64	249.80	90.08	2,689.79	-4,841.91	5,376.35	5,032.05	344.30	15.615		
10,700.00	7,231.72	7,205.28	7,231.72	98.26	249.81	90.08	2,689.79	-4,841.91	5,349.71	5,002.63	347.07	15.414		
10,800.00	7,231.21	7,205.79	7,231.21	100.89	249.83	90.07	2,689.79	-4,841.91	5,324.81	4,974.95	349.87	15.220		
10,900.00	7,230.71	7,206.29	7,230.71	103.54	249.85	90.07	2,689.79	-4,841.91	5,301.69	4,949.02	352.67	15.033		
11,000.00	7,230.21	7,206.79	7,230.21	106.20	249.87	90.06	2,689.79	-4,841.91	5,280.35	4,924.87	355.48	14.854		
11,100.00	7,229.71	7,207.29	7,229.71	108.87	249.88	90.05	2,689.79	-4,841.91	5,260.83	4,902.53	358.30	14.683		
11,200.00	7,229.21	7,207.79	7,229.21	111.54	249.90	90.05	2,689.79	-4,841.91	5,243.15	4,882.03	361.12	14.519		
11,300.00	7,228.71	7,208.29	7,228.71	114.23	249.92	90.04	2,689.79	-4,841.91	5,227.32	4,863.39	363.93	14.364		
11,400.00	7,228.21	7,208.79	7,228.21	116.92	249.94	90.04	2,689.79	-4,841.91	5,213.36	4,846.63	366.73	14.216		
11,500.00	7,227.71	7,209.29	7,227.71	119.63	249.95	90.03	2,689.79	-4,841.91	5,201.29	4,831.76	369.52	14.076		
11,600.00	7,227.21	7,209.79	7,227.21	122.34	249.97	90.03	2,689.79	-4,841.91	5,191.11	4,818.82	372.29	13.944		
11,700.00	7,226.71	7,189.71	7,226.71	125.05	249.27	90.02	2,689.79	-4,841.91	5,182.84	4,808.52	374.32	13.846		
11,800.00	7,226.21	7,189.21	7,226.21	127.78	249.25	90.02	2,689.79	-4,841.91	5,176.50	4,799.49	377.01	13.730		
11,900.00	7,225.71	7,188.71	7,225.71	130.51	249.23	90.01	2,689.79	-4,841.91	5,172.08	4,792.41	379.67	13.623		
12,000.00	7,225.21	7,188.21	7,225.21	133.24	249.22	90.00	2,689.79	-4,841.91	5,169.59	4,787.30	382.29	13.523		
12,078.77	7,224.81	7,187.81	7,224.81	135.40	249.20	90.00	2,689.79	-4,841.91	5,168.99	4,784.66	384.33	13.449 CC		
12,100.00	7,224.71	7,187.71	7,224.71	135.98	249.20	90.00	2,689.79	-4,841.91	5,169.03	4,784.15	384.88	13.430		
12,200.00	7,224.21	7,187.21	7,224.21	138.72	249.18	89.99	2,689.79	-4,841.91	5,170.41	4,782.99	387.42	13.346 ES		
12,300.00	7,223.70	7,186.70	7,223.70	141.47	249.16	89.99	2,689.79	-4,841.91	5,173.72	4,783.80	389.92	13.269		
12,400.00	7,223.20	7,186.20	7,223.20	144.23	249.15	89.98	2,689.79	-4,841.91	5,178.96	4,786.59	392.37	13.199		
12,500.00	7,222.70	7,185.70	7,222.70	146.98	249.13	89.98	2,689.79	-4,841.91	5,186.12	4,791.35	394.77	13.137		
12,600.00	7,222.20	7,185.20	7,222.20	149.74	249.11	89.97	2,689.79	-4,841.91	5,195.20	4,798.08	397.12	13.082		
12,700.00	7,221.70	7,184.70	7,221.70	152.51	249.09	89.97	2,689.79	-4,841.91	5,206.18	4,806.78	399.41	13.035		
12,800.00	7,221.20	7,184.20	7,221.20	155.28	249.08	89.96	2,689.79	-4,841.91	5,219.06	4,817.42	401.64	12.994		
12,900.00	7,220.70	7,183.70	7,220.70	158.05	249.06	89.95	2,689.79	-4,841.91	5,233.82	4,830.00	403.81	12.961		
13,000.00	7,220.20	7,183.20	7,220.20	160.82	249.04	89.95	2,689.79	-4,841.91	5,250.44	4,844.51	405.93	12.934		
13,100.00	7,219.70	7,182.70	7,219.70	163.60	249.02	89.94	2,689.79	-4,841.91	5,268.90	4,860.93	407.97	12.915		
13,200.00	7,219.20	7,182.20	7,219.20	166.38	249.01	89.94	2,689.79	-4,841.91	5,289.19	4,879.23	409.96	12.902		
13,300.00	7,218.70	7,181.70	7,218.70	169.16	248.99	89.93	2,689.79	-4,841.91	5,311.29	4,899.41	411.88	12.895		
13,400.00	7,218.20	7,181.20	7,218.20	171.95	248.97	89.93	2,689.79	-4,841.91	5,335.17	4,921.44	413.73	12.895 SF		
13,500.00	7,217.70	7,180.70	7,217.70	174.74	248.95	89.92	2,689.79	-4,841.91	5,360.81	4,945.29	415.52	12.901		
13,600.00	7,217.20	7,180.20	7,217.20	177.53	248.94	89.92	2,689.79	-4,841.91	5,388.18	4,970.94	417.24	12.914		
13,700.00	7,216.70	7,179.70	7,216.70	180.32	248.92	89.91	2,689.79	-4,841.91	5,417.26	4,998.37	418.89	12.932		
13,800.00	7,216.19	7,179.19	7,216.19	183.11	248.90	89.90	2,689.79	-4,841.91	5,448.03	5,027.54	420.48	12.957		
13,900.00	7,215.69	7,178.69	7,215.69	185.91	248.88	89.90	2,689.79	-4,841.91	5,480.44	5,058.44	422.01	12.987		
14,000.00	7,215.19	7,178.19	7,215.19	188.71	248.87	89.89	2,689.79	-4,841.91	5,514.48	5,091.02	423.46	13.022		
14,100.00	7,214.69	7,177.69	7,214.69	191.51	248.85	89.89	2,689.79	-4,841.91	5,550.11	5,125.25	424.85	13.064		
14,200.00	7,214.19	7,177.19	7,214.19	194.31	248.83	89.88	2,689.79	-4,841.91	5,587.30	5,161.12	426.18	13.110		
14,300.00	7,213.69	7,176.69	7,213.69	197.11	248.81	89.88	2,689.79	-4,841.91	5,626.03	5,198.58	427.45	13.162		
14,400.00	7,213.19	7,176.19	7,213.19	199.92	248.80	89.87	2,689.79	-4,841.91	5,666.25	5,237.60	428.65	13.219		
14,500.00	7,212.69	7,175.69	7,212.69	202.72	248.78	89.87	2,689.79	-4,841.91	5,707.95	5,278.15	429.79	13.281		
14,600.00	7,212.19	7,175.19	7,212.19	205.53	248.76	89.86	2,689.79	-4,841.91	5,751.08	5,320.20	430.88	13.347		
14,700.00	7,211.69	7,174.69	7,211.69	208.34	248.74	89.85	2,689.79	-4,841.91	5,795.61	5,363.71	431.91	13.419		
14,800.00	7,211.19	7,174.19	7,211.19	211.15	248.73	89.85	2,689.79	-4,841.91	5,841.52	5,408.64	432.88	13.495		
14,900.00	7,210.69	7,173.69	7,210.69	213.96	248.71	89.84	2,689.79	-4,841.91	5,888.77	5,454.98	433.79	13.575		
15,000.00	7,210.19	7,173.19	7,210.19	216.78	248.69	89.84	2,689.79	-4,841.91	5,937.32	5,502.67	434.65	13.660		
15,100.00	7,209.69	7,172.69	7,209.69	219.59	248.68	89.83	2,689.79	-4,841.91	5,987.16	5,551.69	435.47	13.749		
15,200.00	7,209.18	7,172.18	7,209.18	222.41	248.66	89.83	2,689.79	-4,841.91	6,038.23	5,602.01	436.23	13.842		
15,300.00	7,208.68	7,171.68	7,208.68	225.22	248.64	89.82	2,689.79	-4,841.91	6,090.53	5,653.59	436.94	13.939		
15,400.00	7,208.18	7,171.18	7,208.18	228.04	248.62	89.82	2,689.79	-4,841.91	6,144.00	5,706.39	437.61	14.040		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 34-9(TA_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,171.00	7,208.00	229.10	248.62	89.81	2,689.79	-4,841.91	6,164.34	5,726.49	437.85	14.079	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MAURICE LEFFLER 1(AB_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	64.00	3.28	3.28	-121.77	-3,931.84	-6,349.03	7,468.18				
100.00	100.00	36.00	100.00	3.28	3.34	-121.77	-3,931.84	-6,349.03	7,467.90	7,461.28	6.62	1,127.337	
200.00	200.00	136.00	200.00	3.34	4.45	-121.77	-3,931.84	-6,349.03	7,467.90	7,460.12	7.78	959.441	
300.00	299.98	235.98	299.98	3.44	7.27	54.62	-3,931.84	-6,349.03	7,466.89	7,456.18	10.71	696.955	
400.00	399.84	335.84	399.84	3.59	10.50	54.70	-3,931.84	-6,349.03	7,463.86	7,449.77	14.09	529.598	
500.00	499.45	435.45	499.45	3.79	13.85	54.84	-3,931.84	-6,349.03	7,458.82	7,441.18	17.64	422.877	
600.00	598.70	534.70	598.70	4.03	17.24	55.03	-3,931.84	-6,349.03	7,451.78	7,430.52	21.27	350.399	
700.00	697.47	633.47	697.47	4.31	20.63	55.28	-3,931.84	-6,349.03	7,442.77	7,417.83	24.94	298.378	
800.00	795.62	731.62	795.62	4.64	24.02	55.58	-3,931.84	-6,349.03	7,431.81	7,403.16	28.65	259.382	
900.00	893.06	829.06	893.06	5.00	27.39	55.94	-3,931.84	-6,349.03	7,418.92	7,386.55	32.38	229.137	
1,000.00	989.64	925.64	989.64	5.40	30.74	56.35	-3,931.84	-6,349.03	7,404.16	7,368.05	36.11	205.034	
1,100.00	1,085.27	1,021.27	1,085.27	5.83	34.07	56.81	-3,931.84	-6,349.03	7,387.55	7,347.70	39.85	185.397	
1,200.00	1,179.82	1,115.82	1,179.82	6.29	37.35	57.33	-3,931.84	-6,349.03	7,369.15	7,325.57	43.58	169.105	
1,300.00	1,273.47	1,209.47	1,273.47	6.79	40.61	57.65	-3,931.84	-6,349.03	7,349.44	7,302.14	47.30	155.370	
1,400.00	1,367.06	1,303.06	1,367.06	7.30	43.87	57.88	-3,931.84	-6,349.03	7,329.76	7,278.72	51.04	143.597	
1,500.00	1,460.64	1,403.36	1,460.64	7.83	47.36	58.10	-3,931.84	-6,349.03	7,310.19	7,255.16	55.04	132.828	
1,600.00	1,554.23	1,509.77	1,554.23	8.38	51.07	58.32	-3,931.84	-6,349.03	7,290.74	7,231.49	59.25	123.046	
1,700.00	1,647.82	1,583.82	1,647.82	8.93	53.65	58.55	-3,931.84	-6,349.03	7,271.41	7,209.06	62.35	116.616	
1,800.00	1,741.41	1,677.41	1,741.41	9.49	56.91	58.78	-3,931.84	-6,349.03	7,252.20	7,186.06	66.14	109.642	
1,900.00	1,835.00	1,771.00	1,835.00	10.05	60.17	59.00	-3,931.84	-6,349.03	7,233.11	7,163.17	69.94	103.413	
2,000.00	1,928.59	1,864.59	1,928.59	10.62	63.43	59.23	-3,931.84	-6,349.03	7,214.14	7,140.39	73.75	97.819	
2,100.00	2,022.18	1,958.18	2,022.18	11.20	66.70	59.46	-3,931.84	-6,349.03	7,195.29	7,117.73	77.56	92.769	
2,200.00	2,115.77	2,051.77	2,115.77	11.78	69.96	59.69	-3,931.84	-6,349.03	7,176.57	7,095.19	81.38	88.187	
2,300.00	2,209.36	2,145.36	2,209.36	12.37	73.22	59.92	-3,931.84	-6,349.03	7,157.97	7,072.77	85.20	84.013	
2,400.00	2,302.95	2,238.95	2,302.95	12.95	76.49	60.16	-3,931.84	-6,349.03	7,139.50	7,050.47	89.03	80.195	
2,500.00	2,396.54	2,332.54	2,396.54	13.54	79.75	60.39	-3,931.84	-6,349.03	7,121.15	7,028.29	92.86	76.690	
2,600.00	2,490.13	2,426.13	2,490.13	14.13	83.02	60.63	-3,931.84	-6,349.03	7,102.93	7,006.24	96.69	73.461	
2,700.00	2,583.72	2,519.72	2,583.72	14.73	86.28	60.86	-3,931.84	-6,349.03	7,084.84	6,984.31	100.53	70.478	
2,800.00	2,677.31	2,613.31	2,677.31	15.32	89.55	61.10	-3,931.84	-6,349.03	7,066.88	6,962.51	104.36	67.713	
2,900.00	2,770.90	2,706.90	2,770.90	15.92	92.81	61.34	-3,931.84	-6,349.03	7,049.04	6,940.84	108.21	65.144	
3,000.00	2,864.49	2,800.49	2,864.49	16.52	96.08	61.58	-3,931.84	-6,349.03	7,031.34	6,919.29	112.05	62.752	
3,100.00	2,958.08	2,905.92	2,958.08	17.12	99.75	61.82	-3,931.84	-6,349.03	7,013.78	6,897.47	116.31	60.303	
3,200.00	3,051.67	2,987.67	3,051.67	17.72	102.61	62.06	-3,931.84	-6,349.03	6,996.34	6,876.60	119.75	58.427	
3,300.00	3,145.26	3,081.26	3,145.26	18.32	105.87	62.30	-3,931.84	-6,349.03	6,979.04	6,855.44	123.60	56.467	
3,400.00	3,238.85	3,174.85	3,238.85	18.92	109.14	62.55	-3,931.84	-6,349.03	6,961.87	6,834.43	127.45	54.625	
3,500.00	3,332.44	3,268.44	3,332.44	19.53	112.40	62.79	-3,931.84	-6,349.03	6,944.84	6,813.54	131.30	52.892	
3,600.00	3,426.03	3,362.03	3,426.03	20.13	115.67	63.04	-3,931.84	-6,349.03	6,927.95	6,792.79	135.16	51.258	
3,700.00	3,519.62	3,455.62	3,519.62	20.74	118.94	63.28	-3,931.84	-6,349.03	6,911.20	6,772.18	139.01	49.716	
3,800.00	3,613.21	3,549.21	3,613.21	21.34	122.20	63.53	-3,931.84	-6,349.03	6,894.58	6,751.71	142.87	48.257	
3,900.00	3,706.80	3,642.80	3,706.80	21.95	125.47	63.78	-3,931.84	-6,349.03	6,878.11	6,731.38	146.73	46.875	
4,000.00	3,800.39	3,736.39	3,800.39	22.56	128.73	64.03	-3,931.84	-6,349.03	6,861.78	6,711.18	150.60	45.564	
4,100.00	3,893.98	3,829.98	3,893.98	23.16	132.00	64.28	-3,931.84	-6,349.03	6,845.58	6,691.13	154.46	44.320	
4,200.00	3,987.57	3,923.57	3,987.57	23.77	135.27	64.54	-3,931.84	-6,349.03	6,829.54	6,671.21	158.32	43.137	
4,300.00	4,081.16	4,017.16	4,081.16	24.38	138.53	64.79	-3,931.84	-6,349.03	6,813.63	6,651.45	162.19	42.011	
4,400.00	4,174.75	4,110.75	4,174.75	24.99	141.80	65.04	-3,931.84	-6,349.03	6,797.88	6,631.82	166.05	40.938	
4,500.00	4,268.34	4,204.34	4,268.34	25.60	145.07	65.30	-3,931.84	-6,349.03	6,782.26	6,612.34	169.92	39.914	
4,600.00	4,361.93	4,302.07	4,361.93	26.21	148.48	65.56	-3,931.84	-6,349.03	6,766.80	6,592.86	173.94	38.904	
4,700.00	4,455.52	4,391.52	4,455.52	26.82	151.60	65.81	-3,931.84	-6,349.03	6,751.48	6,573.82	177.66	38.002	
4,800.00	4,549.11	4,485.00	4,516.00	27.43	153.71	65.98	-3,931.84	-6,349.03	6,736.40	6,556.01	180.39	37.344	
4,900.00	4,642.70	4,452.00	4,516.00	28.04	153.71	65.98	-3,931.84	-6,349.03	6,722.50	6,541.49	181.00	37.140	
5,000.00	4,736.29	4,452.00	4,516.00	28.65	153.71	65.98	-3,931.84	-6,349.03	6,710.05	6,528.47	181.59	36.953	
5,100.00	4,829.88	4,452.00	4,516.00	29.26	153.71	65.98	-3,931.84	-6,349.03	6,699.08	6,516.95	182.13	36.781	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MAURICE LEFFLER 1(AB_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	4,923.47	4,452.00	4,516.00	29.87	153.71	65.98	-3,931.84	-6,349.03	6,689.59	6,506.94	182.65	36.626	
5,300.00	5,017.06	4,452.00	4,516.00	30.48	153.71	65.98	-3,931.84	-6,349.03	6,681.58	6,498.45	183.12	36.487	
5,400.00	5,110.65	4,452.00	4,516.00	31.09	153.71	65.98	-3,931.84	-6,349.03	6,675.05	6,491.49	183.57	36.363	
5,500.00	5,204.24	4,452.00	4,516.00	31.70	153.71	65.98	-3,931.84	-6,349.03	6,670.02	6,486.05	183.97	36.256	
5,600.00	5,297.83	4,452.00	4,516.00	32.32	153.71	65.98	-3,931.84	-6,349.03	6,666.49	6,482.15	184.34	36.164	
5,700.00	5,391.42	4,452.00	4,516.00	32.93	153.71	65.98	-3,931.84	-6,349.03	6,664.46	6,479.79	184.67	36.089	
5,785.61	5,471.54	4,452.00	4,516.00	33.45	153.71	65.98	-3,931.84	-6,349.03	6,663.91	6,478.98	184.92	36.036	
5,800.00	5,485.01	4,452.00	4,516.00	33.54	153.71	65.98	-3,931.84	-6,349.03	6,663.92	6,478.96	184.96	36.029	
5,900.00	5,578.60	4,452.00	4,516.00	34.15	153.71	65.98	-3,931.84	-6,349.03	6,664.89	6,479.67	185.22	35.984	
6,000.00	5,672.19	4,452.00	4,516.00	34.77	153.71	65.98	-3,931.84	-6,349.03	6,667.35	6,481.92	185.44	35.955	
6,100.00	5,765.78	4,452.00	4,516.00	35.38	153.71	65.98	-3,931.84	-6,349.03	6,671.32	6,485.70	185.61	35.942	
6,200.00	5,859.37	4,452.00	4,516.00	35.99	153.71	65.98	-3,931.84	-6,349.03	6,676.78	6,491.02	185.76	35.944	
6,300.00	5,952.96	4,452.00	4,516.00	36.60	153.71	65.98	-3,931.84	-6,349.03	6,683.73	6,497.87	185.86	35.961	
6,400.00	6,046.55	4,452.00	4,516.00	37.22	153.71	65.98	-3,931.84	-6,349.03	6,692.17	6,506.24	185.93	35.993	
6,500.00	6,140.14	4,452.00	4,516.00	37.83	153.71	65.98	-3,931.84	-6,349.03	6,702.09	6,516.13	185.96	36.041	
6,600.00	6,233.73	4,452.00	4,516.00	38.44	153.71	65.98	-3,931.84	-6,349.03	6,713.49	6,527.54	185.95	36.104	
6,700.00	6,327.32	4,452.00	4,516.00	39.06	153.71	65.98	-3,931.84	-6,349.03	6,726.35	6,540.44	185.91	36.181	
6,800.00	6,420.91	4,452.00	4,516.00	39.67	153.71	65.98	-3,931.84	-6,349.03	6,740.67	6,554.84	185.83	36.274	
6,900.00	6,514.50	4,452.00	4,516.00	40.28	153.71	65.98	-3,931.84	-6,349.03	6,756.44	6,570.73	185.71	36.381	
7,000.00	6,608.09	4,452.00	4,516.00	40.90	153.71	65.98	-3,931.84	-6,349.03	6,773.65	6,588.09	185.56	36.503	
7,100.00	6,701.63	4,452.00	4,516.00	41.51	153.71	56.77	-3,931.84	-6,349.03	6,791.12	6,605.74	185.37	36.635	
7,200.00	6,793.85	4,452.00	4,516.00	42.10	153.71	37.30	-3,931.84	-6,349.03	6,797.98	6,612.88	185.10	36.725	
7,300.00	6,882.50	4,452.00	4,516.00	42.64	153.71	23.80	-3,931.84	-6,349.03	6,791.56	6,606.81	184.75	36.762	
7,400.00	6,965.41	4,452.00	4,516.00	43.12	153.71	14.66	-3,931.84	-6,349.03	6,771.97	6,587.66	184.31	36.742	
7,500.00	7,040.53	4,452.00	4,516.00	43.53	153.71	8.03	-3,931.84	-6,349.03	6,739.58	6,555.76	183.82	36.664	
7,600.00	7,106.00	4,452.00	4,516.00	43.89	153.71	2.64	-3,931.84	-6,349.03	6,695.01	6,511.73	183.28	36.528	
7,700.00	7,160.23	4,452.00	4,516.00	44.20	153.71	-2.35	-3,931.84	-6,349.03	6,639.13	6,456.41	182.73	36.333	
7,800.00	7,201.86	4,452.00	4,516.00	44.48	153.71	-7.66	-3,931.84	-6,349.03	6,573.05	6,390.88	182.17	36.082	
7,900.00	7,229.88	4,452.00	4,516.00	44.73	153.71	-14.10	-3,931.84	-6,349.03	6,498.10	6,316.46	181.64	35.775	
8,000.00	7,243.60	4,452.00	4,516.00	44.99	153.71	-22.80	-3,931.84	-6,349.03	6,415.86	6,234.71	181.15	35.417	
8,100.00	7,244.73	4,452.00	4,516.00	45.29	153.71	-28.12	-3,931.84	-6,349.03	6,328.75	6,148.02	180.73	35.017	
8,200.00	7,244.23	4,452.00	4,516.00	45.74	153.71	-28.12	-3,931.84	-6,349.03	6,241.43	6,061.11	180.32	34.613	
8,300.00	7,243.73	4,452.00	4,516.00	46.38	153.71	-28.12	-3,931.84	-6,349.03	6,154.49	5,974.58	179.91	34.209	
8,400.00	7,243.23	4,452.00	4,516.00	47.29	153.71	-28.12	-3,931.84	-6,349.03	6,067.95	5,888.46	179.50	33.805	
8,500.00	7,242.73	4,452.00	4,516.00	48.46	153.71	-28.12	-3,931.84	-6,349.03	5,981.84	5,802.75	179.09	33.401	
8,600.00	7,242.23	4,452.00	4,516.00	49.87	153.71	-28.12	-3,931.84	-6,349.03	5,896.16	5,717.47	178.70	32.996	
8,700.00	7,241.73	4,452.00	4,516.00	51.48	153.71	-28.12	-3,931.84	-6,349.03	5,810.94	5,632.64	178.30	32.591	
8,800.00	7,241.23	4,452.00	4,516.00	53.24	153.71	-28.12	-3,931.84	-6,349.03	5,726.20	5,548.29	177.91	32.185	
8,900.00	7,240.73	4,452.00	4,516.00	55.13	153.71	-28.12	-3,931.84	-6,349.03	5,641.96	5,464.43	177.53	31.779	
9,000.00	7,240.23	4,452.00	4,516.00	57.11	153.71	-28.12	-3,931.84	-6,349.03	5,558.24	5,381.08	177.16	31.374	
9,100.00	7,239.73	4,452.00	4,516.00	59.19	153.71	-28.12	-3,931.84	-6,349.03	5,475.07	5,298.27	176.80	30.967	
9,200.00	7,239.23	4,452.00	4,516.00	61.34	153.71	-28.12	-3,931.84	-6,349.03	5,392.47	5,216.02	176.45	30.561	
9,300.00	7,238.72	4,452.00	4,516.00	63.55	153.71	-28.12	-3,931.84	-6,349.03	5,310.47	5,134.36	176.11	30.155	
9,400.00	7,238.22	4,452.00	4,516.00	65.81	153.71	-28.12	-3,931.84	-6,349.03	5,229.09	5,053.31	175.78	29.748	
9,500.00	7,237.72	4,452.00	4,516.00	68.13	153.71	-28.12	-3,931.84	-6,349.03	5,148.37	4,972.91	175.46	29.342	
9,600.00	7,237.22	4,452.00	4,516.00	70.48	153.71	-28.12	-3,931.84	-6,349.03	5,068.34	4,893.18	175.15	28.936	
9,700.00	7,236.72	4,452.00	4,516.00	72.88	153.71	-28.12	-3,931.84	-6,349.03	4,989.02	4,814.16	174.86	28.531	
9,800.00	7,236.22	4,452.00	4,516.00	75.31	153.71	-28.12	-3,931.84	-6,349.03	4,910.47	4,735.88	174.59	28.126	
9,900.00	7,235.72	4,452.00	4,516.00	77.77	153.71	-28.12	-3,931.84	-6,349.03	4,832.70	4,658.38	174.32	27.723	
10,000.00	7,235.22	4,452.00	4,516.00	80.26	153.71	-28.12	-3,931.84	-6,349.03	4,755.77	4,581.69	174.08	27.320	
10,100.00	7,234.72	4,452.00	4,516.00	82.77	153.71	-28.12	-3,931.84	-6,349.03	4,679.71	4,505.87	173.84	26.919	
10,200.00	7,234.22	4,452.00	4,516.00	85.31	153.71	-28.12	-3,931.84	-6,349.03	4,604.57	4,430.94	173.63	26.520	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MAURICE LEFFLER 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	4,452.00	4,516.00	87.86	153.71	-28.12	-3,931.84	-6,349.03	4,530.38	4,356.95	173.43	26.123		
10,400.00	7,233.22	4,452.00	4,516.00	90.44	153.71	-28.12	-3,931.84	-6,349.03	4,457.21	4,283.96	173.24	25.728		
10,500.00	7,232.72	4,452.00	4,516.00	93.03	153.71	-28.12	-3,931.84	-6,349.03	4,385.09	4,212.02	173.07	25.337		
10,600.00	7,232.22	4,452.00	4,516.00	95.64	153.71	-28.12	-3,931.84	-6,349.03	4,314.09	4,141.17	172.92	24.949		
10,700.00	7,231.72	4,452.00	4,516.00	98.26	153.71	-28.12	-3,931.84	-6,349.03	4,244.25	4,071.47	172.78	24.565		
10,800.00	7,231.21	4,452.00	4,516.00	100.89	153.71	-28.12	-3,931.84	-6,349.03	4,175.64	4,002.99	172.65	24.185		
10,900.00	7,230.71	4,452.00	4,516.00	103.54	153.71	-28.12	-3,931.84	-6,349.03	4,108.32	3,935.78	172.54	23.811		
11,000.00	7,230.21	4,452.00	4,516.00	106.20	153.71	-28.12	-3,931.84	-6,349.03	4,042.36	3,869.92	172.44	23.442		
11,100.00	7,229.71	4,452.00	4,516.00	108.87	153.71	-28.12	-3,931.84	-6,349.03	3,977.81	3,805.46	172.35	23.079		
11,200.00	7,229.21	4,452.00	4,516.00	111.54	153.71	-28.12	-3,931.84	-6,349.03	3,914.76	3,742.48	172.28	22.723		
11,300.00	7,228.71	4,452.00	4,516.00	114.23	153.71	-28.12	-3,931.84	-6,349.03	3,853.27	3,681.05	172.21	22.375		
11,400.00	7,228.21	4,452.00	4,516.00	116.92	153.71	-28.12	-3,931.84	-6,349.03	3,793.41	3,621.26	172.16	22.035		
11,500.00	7,227.71	4,452.00	4,516.00	119.63	153.71	-28.12	-3,931.84	-6,349.03	3,735.28	3,563.17	172.11	21.703		
11,600.00	7,227.21	4,452.00	4,516.00	122.34	153.71	-28.12	-3,931.84	-6,349.03	3,678.95	3,506.87	172.08	21.380		
11,700.00	7,226.71	4,452.00	4,516.00	125.05	153.71	-28.12	-3,931.84	-6,349.03	3,624.50	3,452.44	172.05	21.066		
11,800.00	7,226.21	4,452.00	4,516.00	127.78	153.71	-28.12	-3,931.84	-6,349.03	3,572.02	3,399.98	172.04	20.763		
11,900.00	7,225.71	4,452.00	4,516.00	130.51	153.71	-28.12	-3,931.84	-6,349.03	3,521.60	3,349.56	172.04	20.470		
12,000.00	7,225.21	4,452.00	4,516.00	133.24	153.71	-28.12	-3,931.84	-6,349.03	3,473.32	3,301.27	172.05	20.187		
12,100.00	7,224.71	4,452.00	4,516.00	135.98	153.71	-28.12	-3,931.84	-6,349.03	3,427.29	3,255.20	172.09	19.916		
12,200.00	7,224.21	4,452.00	4,516.00	138.72	153.71	-28.12	-3,931.84	-6,349.03	3,383.58	3,211.43	172.15	19.655		
12,300.00	7,223.70	4,452.00	4,516.00	141.47	153.71	-28.12	-3,931.84	-6,349.03	3,342.30	3,170.06	172.23	19.405		
12,400.00	7,223.20	4,452.00	4,516.00	144.23	153.71	-28.12	-3,931.84	-6,349.03	3,303.53	3,131.17	172.36	19.166		
12,500.00	7,222.70	4,452.00	4,516.00	146.98	153.71	-28.12	-3,931.84	-6,349.03	3,267.36	3,094.83	172.53	18.938		
12,600.00	7,222.20	4,452.00	4,516.00	149.74	153.71	-28.12	-3,931.84	-6,349.03	3,233.87	3,061.12	172.76	18.719		
12,700.00	7,221.70	4,452.00	4,516.00	152.51	153.71	-28.12	-3,931.84	-6,349.03	3,203.17	3,030.11	173.05	18.510		
12,800.00	7,221.20	4,452.00	4,516.00	155.28	153.71	-28.12	-3,931.84	-6,349.03	3,175.31	3,001.88	173.43	18.309		
12,900.00	7,220.70	4,452.00	4,516.00	158.05	153.71	-28.12	-3,931.84	-6,349.03	3,150.39	2,976.48	173.91	18.115		
13,000.00	7,220.20	4,452.00	4,516.00	160.82	153.71	-28.12	-3,931.84	-6,349.03	3,128.46	2,953.96	174.50	17.928		
13,100.00	7,219.70	4,452.00	4,516.00	163.60	153.71	-28.12	-3,931.84	-6,349.03	3,109.60	2,934.38	175.22	17.747		
13,200.00	7,219.20	4,452.00	4,516.00	166.38	153.71	-28.12	-3,931.84	-6,349.03	3,093.85	2,917.76	176.09	17.570		
13,300.00	7,218.70	4,452.00	4,516.00	169.16	153.71	-28.12	-3,931.84	-6,349.03	3,081.28	2,904.16	177.11	17.397		
13,400.00	7,218.20	4,452.00	4,516.00	171.95	153.71	-28.12	-3,931.84	-6,349.03	3,071.90	2,893.59	178.31	17.228		
13,500.00	7,217.70	4,452.00	4,516.00	174.74	153.71	-28.12	-3,931.84	-6,349.03	3,065.77	2,886.08	179.68	17.062		
13,600.00	7,217.20	4,452.00	4,516.00	177.53	153.71	-28.12	-3,931.84	-6,349.03	3,062.88	2,881.65	181.24	16.900		
13,638.35	7,217.00	4,452.00	4,516.00	178.60	153.71	-28.12	-3,931.84	-6,349.03	3,062.64	2,880.76	181.88	16.839 CC		
13,700.00	7,216.70	4,452.00	4,516.00	180.32	153.71	-28.12	-3,931.84	-6,349.03	3,063.26	2,880.30	182.97	16.742 ES		
13,800.00	7,216.19	4,452.00	4,516.00	183.11	153.71	-28.12	-3,931.84	-6,349.03	3,066.91	2,882.04	184.87	16.590		
13,900.00	7,215.69	4,452.00	4,516.00	185.91	153.71	-28.12	-3,931.84	-6,349.03	3,073.80	2,886.87	186.93	16.444		
14,000.00	7,215.19	4,452.00	4,516.00	188.71	153.71	-28.12	-3,931.84	-6,349.03	3,083.92	2,894.79	189.13	16.306		
14,100.00	7,214.69	4,452.00	4,516.00	191.51	153.71	-28.12	-3,931.84	-6,349.03	3,097.24	2,905.79	191.45	16.178		
14,200.00	7,214.19	4,452.00	4,516.00	194.31	153.71	-28.12	-3,931.84	-6,349.03	3,113.72	2,919.85	193.87	16.061		
14,300.00	7,213.69	4,452.00	4,516.00	197.11	153.71	-28.12	-3,931.84	-6,349.03	3,133.30	2,936.95	196.35	15.957		
14,400.00	7,213.19	4,452.00	4,516.00	199.92	153.71	-28.12	-3,931.84	-6,349.03	3,155.93	2,957.05	198.88	15.868		
14,500.00	7,212.69	4,452.00	4,516.00	202.72	153.71	-28.12	-3,931.84	-6,349.03	3,181.54	2,980.11	201.44	15.794		
14,600.00	7,212.19	4,452.00	4,516.00	205.53	153.71	-28.12	-3,931.84	-6,349.03	3,210.07	3,006.09	203.98	15.737		
14,700.00	7,211.69	4,452.00	4,516.00	208.34	153.71	-28.12	-3,931.84	-6,349.03	3,241.43	3,034.92	206.51	15.696		
14,800.00	7,211.19	4,452.00	4,516.00	211.15	153.71	-28.12	-3,931.84	-6,349.03	3,275.55	3,066.55	208.99	15.673		
14,900.00	7,210.69	4,452.00	4,516.00	213.96	153.71	-28.12	-3,931.84	-6,349.03	3,312.33	3,100.91	211.42	15.667 SF		
15,000.00	7,210.19	4,452.00	4,516.00	216.78	153.71	-28.12	-3,931.84	-6,349.03	3,351.70	3,137.92	213.78	15.678		
15,100.00	7,209.69	4,452.00	4,516.00	219.59	153.71	-28.12	-3,931.84	-6,349.03	3,393.55	3,177.50	216.05	15.707		
15,200.00	7,209.18	4,452.00	4,516.00	222.41	153.71	-28.12	-3,931.84	-6,349.03	3,437.81	3,219.57	218.24	15.753		
15,300.00	7,208.68	4,452.00	4,516.00	225.22	153.71	-28.12	-3,931.84	-6,349.03	3,484.37	3,264.05	220.33	15.815		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
HARVESTERS STATE 7-15 PAD - MAURICE LEFFLER 1(AB_150CC) - OH - OH												Offset Well Error:	3.28 ft
Survey Program: 100-2" Cone@2.448 Sigma													
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)		
15,400.00	7,208.18	4,452.00	4,516.00	228.04	153.71	-28.12	-3,931.84	-6,349.03	3,533.16	3,310.84	222.32	15.893	
15,437.48	7,208.00	4,452.00	4,516.00	229.10	153.71	-28.12	-3,931.84	-6,349.03	3,551.99	3,328.96	223.03	15.926	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1,354.17	1,282.75	3.28	7.28	-105.90	-2,511.81	-8,815.16	9,255.36					
100.00	100.00	1,377.00	1,305.28	3.28	7.39	-105.89	-2,509.19	-8,812.66	9,241.85	9,231.70	10.15	910.549		
200.00	200.00	1,435.08	1,362.66	3.34	7.67	-105.86	-2,502.39	-8,806.72	9,228.87	9,218.44	10.43	884.444		
300.00	299.98	1,477.43	1,404.49	3.44	7.88	70.78	-2,497.10	-8,802.86	9,216.02	9,205.32	10.70	861.036		
400.00	399.84	1,660.00	1,584.91	3.59	8.77	71.20	-2,475.37	-8,785.33	9,201.72	9,190.07	11.65	789.685		
500.00	499.45	1,699.93	1,624.38	3.79	8.96	71.54	-2,471.05	-8,781.08	9,186.10	9,174.09	12.01	765.036		
600.00	598.70	1,718.08	1,642.35	4.03	9.05	71.86	-2,469.16	-8,779.39	9,170.39	9,158.07	12.31	744.820		
700.00	697.47	700.00	1,706.35	4.31	4.60	72.27	-2,462.53	-8,774.06	9,154.54	9,145.90	8.64	1,059.008		
800.00	795.62	1,982.26	1,903.68	4.64	10.36	72.95	-2,438.26	-8,756.43	9,136.61	9,122.53	14.09	648.513		
900.00	893.06	2,292.40	2,209.38	5.00	12.00	73.98	-2,396.83	-8,724.72	9,116.15	9,100.25	15.90	573.450		
1,000.00	989.64	1,000.00	2,396.62	5.40	5.28	74.85	-2,370.45	-8,702.66	9,093.94	9,083.39	10.54	862.510		
1,100.00	1,085.27	2,545.64	2,458.41	5.83	13.39	75.48	-2,361.97	-8,694.79	9,070.16	9,052.26	17.90	506.723		
1,200.00	1,179.82	2,570.77	2,483.16	6.29	13.52	76.02	-2,358.80	-8,691.79	9,046.31	9,027.84	18.47	489.806		
1,300.00	1,273.47	2,751.88	2,661.48	6.79	14.51	76.68	-2,335.92	-8,669.93	9,022.00	9,002.20	19.80	455.650		
1,400.00	1,367.06	2,792.00	2,700.94	7.30	14.74	76.80	-2,330.67	-8,664.96	8,997.44	8,976.95	20.49	439.026		
1,500.00	1,460.64	2,792.00	2,700.94	7.83	14.74	76.80	-2,330.67	-8,664.96	8,973.79	8,952.77	21.02	426.977		
1,600.00	1,554.23	2,792.00	2,700.94	8.38	14.74	76.80	-2,330.67	-8,664.96	8,951.18	8,929.63	21.56	415.272		
1,700.00	1,647.82	2,843.04	2,751.28	8.93	15.00	76.94	-2,324.47	-8,659.27	8,928.84	8,906.50	22.34	399.697		
1,800.00	1,741.41	2,887.00	2,794.81	9.49	15.23	77.06	-2,319.85	-8,655.27	8,908.03	8,884.93	23.10	385.609		
1,900.00	1,835.00	1,900.00	2,832.38	10.05	10.27	77.17	-2,315.65	-8,651.85	8,887.61	8,868.47	19.14	464.441		
2,000.00	1,928.59	3,075.00	2,980.70	10.62	16.21	77.60	-2,297.93	-8,637.80	8,866.98	8,841.86	25.11	353.066		
2,100.00	2,022.18	3,200.68	3,104.76	11.20	16.87	77.97	-2,281.89	-8,625.68	8,846.20	8,819.91	26.29	336.519		
2,200.00	2,115.77	3,262.00	3,165.33	11.78	17.20	78.15	-2,274.43	-8,619.72	8,825.70	8,798.54	27.17	324.886		
2,300.00	2,209.36	3,383.67	3,285.51	12.37	17.84	78.50	-2,259.76	-8,607.62	8,805.20	8,776.87	28.33	310.851		
2,400.00	2,302.95	3,449.00	3,350.04	12.95	18.19	78.69	-2,251.85	-8,601.26	8,785.09	8,755.86	29.23	300.523		
2,500.00	2,396.54	2,500.00	3,436.45	13.54	13.20	78.95	-2,241.23	-8,592.75	8,765.24	8,739.95	25.29	346.581		
2,600.00	2,490.13	4,109.00	3,998.00	14.13	21.92	80.74	-2,155.74	-8,526.15	8,744.97	8,711.37	33.60	260.248		
2,700.00	2,583.72	4,488.00	4,366.51	14.73	24.30	81.97	-2,092.06	-8,465.61	8,719.69	8,683.62	36.07	241.746		
2,800.00	2,677.31	4,534.57	4,411.68	15.32	24.60	82.13	-2,084.43	-8,457.21	8,692.89	8,655.95	36.93	235.357		
2,900.00	2,770.90	4,583.00	4,458.81	15.92	24.90	82.28	-2,076.83	-8,449.05	8,667.12	8,629.31	37.81	229.210		
3,000.00	2,864.49	4,583.00	4,458.81	16.52	24.90	82.28	-2,076.83	-8,449.05	8,641.97	8,603.51	38.46	224.671		
3,100.00	2,958.08	4,583.00	4,458.81	17.12	24.90	82.28	-2,076.83	-8,449.05	8,617.91	8,578.79	39.12	220.303		
3,200.00	3,051.67	4,583.00	4,458.81	17.72	24.90	82.28	-2,076.83	-8,449.05	8,594.94	8,555.16	39.77	216.101		
3,300.00	3,145.26	4,631.22	4,505.96	18.32	25.19	82.44	-2,069.85	-8,441.75	8,572.34	8,531.69	40.65	210.879		
3,400.00	3,238.85	4,678.00	4,551.95	18.92	25.46	82.58	-2,063.88	-8,435.69	8,551.31	8,509.79	41.52	205.938		
3,500.00	3,332.44	4,678.00	4,551.95	19.53	25.46	82.58	-2,063.88	-8,435.69	8,530.72	8,488.54	42.18	202.236		
3,600.00	3,426.03	4,678.00	4,551.95	20.13	25.46	82.58	-2,063.88	-8,435.69	8,511.25	8,468.41	42.84	198.678		
3,700.00	3,519.62	4,721.07	4,594.44	20.74	25.69	82.71	-2,058.91	-8,430.68	8,492.66	8,448.97	43.69	194.391		
3,800.00	3,613.21	4,772.00	4,644.77	21.34	25.96	82.87	-2,053.47	-8,425.07	8,474.83	8,430.26	44.57	190.130		
3,900.00	3,706.80	4,806.22	4,678.63	21.95	26.14	82.97	-2,050.04	-8,421.46	8,457.67	8,412.29	45.38	186.371		
4,000.00	3,800.39	4,867.00	4,738.81	22.56	26.45	83.15	-2,044.24	-8,415.27	8,441.17	8,394.87	46.30	182.296		
4,100.00	3,893.98	4,894.21	4,765.78	23.16	26.59	83.23	-2,041.76	-8,412.63	8,425.33	8,378.25	47.08	178.959		
4,200.00	3,987.57	4,928.53	4,799.82	23.77	26.76	83.33	-2,038.75	-8,409.49	8,410.28	8,362.40	47.88	175.637		
4,300.00	4,081.16	4,961.00	4,832.06	24.38	26.92	83.42	-2,036.02	-8,406.72	8,396.04	8,347.36	48.68	172.469		
4,400.00	4,174.75	5,023.22	4,893.87	24.99	27.22	83.60	-2,031.03	-8,401.69	8,382.44	8,332.84	49.60	168.992		
4,500.00	4,268.34	5,056.00	4,926.46	25.60	27.37	83.70	-2,028.52	-8,399.13	8,369.45	8,319.05	50.40	166.069		
4,600.00	4,361.93	5,093.56	4,963.82	26.21	27.55	83.80	-2,025.78	-8,396.43	8,357.24	8,306.04	51.21	163.202		
4,700.00	4,455.52	5,150.00	5,020.04	26.82	27.80	83.96	-2,022.04	-8,393.13	8,346.15	8,294.05	52.10	160.201		
4,800.00	4,549.11	5,150.00	5,020.04	27.43	27.80	83.96	-2,022.04	-8,393.13	8,335.58	8,282.84	52.75	158.034		
4,900.00	4,642.70	5,211.48	5,081.34	28.04	28.07	84.13	-2,018.45	-8,390.07	8,325.92	8,272.27	53.65	155.196		
5,000.00	4,736.29	5,243.00	5,112.77	28.65	28.20	84.22	-2,016.81	-8,388.53	8,316.78	8,262.36	54.42	152.817		
5,100.00	4,829.88	5,292.65	5,162.32	29.26	28.41	84.35	-2,014.48	-8,386.39	8,308.33	8,253.07	55.27	150.330		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	5,336.00	5,205.61	29.87	28.59	84.47	-2,012.71	-8,384.97	8,300.81	8,244.73	56.08	148.006		
5,300.00	5,017.06	5,374.35	5,243.93	30.48	28.74	84.57	-2,011.41	-8,383.93	8,294.02	8,237.15	56.87	145.836		
5,400.00	5,110.65	5,430.00	5,299.54	31.09	28.95	84.71	-2,010.05	-8,382.58	8,287.81	8,230.09	57.73	143.565		
5,500.00	5,204.24	5,492.98	5,362.49	31.70	29.19	84.87	-2,008.74	-8,381.28	8,282.14	8,223.53	58.61	141.305		
5,600.00	5,297.83	5,551.23	5,420.72	32.32	29.41	85.03	-2,007.34	-8,380.35	8,277.01	8,217.54	59.47	139.168		
5,700.00	5,391.42	5,609.34	5,478.81	32.93	29.63	85.18	-2,005.74	-8,379.66	8,272.45	8,212.11	60.34	137.105		
5,800.00	5,485.01	5,667.31	5,536.75	33.54	29.85	85.33	-2,003.96	-8,379.22	8,268.43	8,207.24	61.20	135.112		
5,900.00	5,578.60	5,711.00	5,580.41	34.15	30.01	85.45	-2,002.50	-8,379.05	8,265.00	8,203.01	62.00	133.314		
6,000.00	5,672.19	5,793.97	5,663.33	34.77	30.32	85.67	-1,999.67	-8,379.03	8,262.02	8,199.06	62.96	131.227		
6,100.00	5,765.78	5,860.70	5,730.03	35.38	30.57	85.84	-1,997.49	-8,379.24	8,259.52	8,195.67	63.85	129.349		
6,200.00	5,859.37	5,927.52	5,796.81	35.99	30.82	86.02	-1,995.40	-8,379.66	8,257.49	8,192.74	64.75	127.533		
6,300.00	5,952.96	5,995.00	5,864.26	36.60	31.07	86.20	-1,993.37	-8,380.29	8,255.91	8,190.27	65.64	125.769		
6,400.00	6,046.55	6,100.07	5,969.28	37.22	31.45	86.47	-1,990.36	-8,381.36	8,254.59	8,187.89	66.70	123.765		
6,500.00	6,140.14	6,206.19	6,075.36	37.83	31.84	86.75	-1,987.47	-8,382.26	8,253.28	8,185.53	67.75	121.818		
6,600.00	6,233.73	6,312.45	6,181.58	38.44	32.24	87.03	-1,984.75	-8,382.99	8,252.00	8,183.19	68.81	119.930		
6,700.00	6,327.32	6,381.26	6,250.36	39.06	32.50	87.21	-1,982.56	-8,383.57	8,251.01	8,181.29	69.72	118.350		
6,800.00	6,420.91	6,458.78	6,327.81	39.67	32.80	87.42	-1,979.68	-8,384.32	8,250.34	8,179.68	70.66	116.760		
6,900.00	6,514.50	6,535.88	6,404.83	40.28	33.09	87.63	-1,976.33	-8,385.19	8,250.03	8,178.43	71.60	115.221		
7,000.00	6,608.09	6,637.55	6,506.37	40.90	33.49	87.91	-1,971.11	-8,386.40	8,249.98	8,177.31	72.67	113.527		
7,100.00	6,701.63	6,751.79	6,620.38	41.51	33.96	78.83	-1,964.05	-8,387.44	8,248.62	8,174.82	73.80	111.768		
7,200.00	6,793.85	6,863.34	6,731.64	42.10	34.41	59.53	-1,955.92	-8,388.11	8,234.39	8,159.49	74.90	109.939		
7,300.00	6,882.50	6,915.22	6,783.36	42.64	34.63	46.51	-1,951.90	-8,388.49	8,205.19	8,129.51	75.68	108.421		
7,400.00	6,965.41	6,971.07	6,839.02	43.12	34.86	38.42	-1,947.46	-8,389.06	8,161.87	8,085.45	76.41	106.814		
7,500.00	7,040.53	7,021.92	6,889.70	43.53	35.07	33.47	-1,943.34	-8,389.71	8,105.40	8,028.34	77.06	105.184		
7,600.00	7,106.00	7,066.57	6,934.20	43.89	35.26	30.62	-1,939.67	-8,390.40	8,037.09	7,959.47	77.62	103.548		
7,700.00	7,160.23	7,103.97	6,971.46	44.20	35.42	29.42	-1,936.54	-8,391.06	7,958.48	7,880.40	78.08	101.926		
7,800.00	7,201.86	7,135.60	7,002.97	44.48	35.55	29.97	-1,933.87	-8,391.67	7,871.40	7,792.94	78.46	100.328		
7,900.00	7,229.88	7,167.59	7,034.85	44.73	35.68	33.67	-1,931.25	-8,392.30	7,777.85	7,699.07	78.77	98.739		
8,000.00	7,243.60	7,184.40	7,051.60	44.99	35.75	48.41	-1,929.92	-8,392.63	7,680.07	7,601.11	78.96	97.266		
8,100.00	7,244.73	7,187.72	7,054.92	45.29	35.76	75.08	-1,929.66	-8,392.70	7,580.49	7,501.45	79.04	95.908		
8,200.00	7,244.23	7,189.30	7,056.49	45.74	35.77	75.23	-1,929.54	-8,392.73	7,480.80	7,401.69	79.11	94.566		
8,300.00	7,243.73	7,190.87	7,058.05	46.38	35.77	75.38	-1,929.42	-8,392.76	7,381.11	7,301.94	79.18	93.222		
8,400.00	7,243.23	7,192.44	7,059.62	47.29	35.78	75.53	-1,929.30	-8,392.79	7,281.44	7,202.19	79.25	91.877		
8,500.00	7,242.73	7,194.01	7,061.19	48.46	35.79	75.68	-1,929.18	-8,392.82	7,181.77	7,102.44	79.33	90.530		
8,600.00	7,242.23	7,195.58	7,062.75	49.87	35.79	75.83	-1,929.06	-8,392.85	7,082.11	7,002.70	79.41	89.181		
8,700.00	7,241.73	7,197.15	7,064.31	51.48	35.80	75.98	-1,928.94	-8,392.88	6,982.46	6,902.97	79.50	87.831		
8,800.00	7,241.23	7,198.72	7,065.88	53.24	35.81	76.14	-1,928.82	-8,392.91	6,882.83	6,803.24	79.59	86.479		
8,900.00	7,240.73	7,200.28	7,067.44	55.13	35.81	76.29	-1,928.70	-8,392.94	6,783.20	6,703.51	79.68	85.126		
9,000.00	7,240.23	7,201.85	7,069.00	57.11	35.82	76.44	-1,928.58	-8,392.97	6,683.58	6,603.79	79.78	83.771		
9,100.00	7,239.73	7,203.41	7,070.56	59.19	35.83	76.59	-1,928.46	-8,393.00	6,583.97	6,504.08	79.89	82.415		
9,200.00	7,239.23	7,204.98	7,072.12	61.34	35.83	76.74	-1,928.35	-8,393.03	6,484.38	6,404.38	80.00	81.057		
9,300.00	7,238.72	7,206.54	7,073.67	63.55	35.84	76.89	-1,928.23	-8,393.07	6,384.79	6,304.68	80.11	79.697		
9,400.00	7,238.22	7,208.10	7,075.23	65.81	35.84	77.04	-1,928.11	-8,393.10	6,285.23	6,204.99	80.23	78.336		
9,500.00	7,237.72	7,209.66	7,076.79	68.13	35.85	77.19	-1,928.00	-8,393.13	6,185.67	6,105.31	80.36	76.973		
9,600.00	7,237.22	7,211.22	7,078.34	70.48	35.86	77.34	-1,927.88	-8,393.16	6,086.13	6,005.63	80.50	75.609		
9,700.00	7,236.72	7,212.78	7,079.89	72.88	35.86	77.49	-1,927.76	-8,393.19	5,986.60	5,905.96	80.64	74.243		
9,800.00	7,236.22	7,214.33	7,081.44	75.31	35.87	77.64	-1,927.65	-8,393.22	5,887.09	5,806.31	80.78	72.875		
9,900.00	7,235.72	7,215.89	7,083.00	77.77	35.88	77.79	-1,927.53	-8,393.25	5,787.59	5,706.66	80.94	71.506		
10,000.00	7,235.22	7,217.44	7,084.55	80.26	35.88	77.94	-1,927.42	-8,393.28	5,688.12	5,607.01	81.10	70.135		
10,100.00	7,234.72	7,219.00	7,086.09	82.77	35.89	78.09	-1,927.31	-8,393.31	5,588.66	5,507.38	81.27	68.762		
10,200.00	7,234.22	7,220.55	7,087.64	85.31	35.90	78.24	-1,927.19	-8,393.34	5,489.22	5,407.76	81.46	67.388		
10,300.00	7,233.72	7,222.10	7,089.19	87.86	35.90	78.39	-1,927.08	-8,393.37	5,389.80	5,308.15	81.65	66.013		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (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	7,233.22	7,223.65	7,090.73	90.44	35.91	78.54	-1,926.97	-8,393.40	5,290.40	5,208.55	81.85	64.635		
10,500.00	7,232.72	7,225.20	7,092.28	93.03	35.91	78.69	-1,926.85	-8,393.43	5,191.02	5,108.96	82.06	63.256		
10,600.00	7,232.22	7,226.75	7,093.82	95.64	35.92	78.85	-1,926.74	-8,393.46	5,091.67	5,009.38	82.29	61.876		
10,700.00	7,231.72	7,228.29	7,095.36	98.26	35.93	79.00	-1,926.63	-8,393.49	4,992.35	4,909.82	82.53	60.493		
10,800.00	7,231.21	7,229.84	7,096.91	100.89	35.93	79.15	-1,926.52	-8,393.52	4,893.05	4,810.27	82.78	59.109		
10,900.00	7,230.71	7,231.38	7,098.45	103.54	35.94	79.30	-1,926.41	-8,393.55	4,793.78	4,710.73	83.05	57.724		
11,000.00	7,230.21	7,232.93	7,099.99	106.20	35.95	79.45	-1,926.30	-8,393.58	4,694.54	4,611.21	83.33	56.337		
11,100.00	7,229.71	7,234.47	7,101.52	108.87	35.95	79.60	-1,926.19	-8,393.61	4,595.33	4,511.70	83.63	54.948		
11,200.00	7,229.21	7,236.01	7,103.06	111.54	35.96	79.75	-1,926.08	-8,393.64	4,496.16	4,412.21	83.95	53.557		
11,300.00	7,228.71	7,237.55	7,104.60	114.23	35.96	79.90	-1,925.97	-8,393.67	4,397.02	4,312.73	84.29	52.165		
11,400.00	7,228.21	7,239.09	7,106.13	116.92	35.97	80.05	-1,925.86	-8,393.70	4,297.93	4,213.27	84.65	50.772		
11,500.00	7,227.71	7,240.63	7,107.67	119.63	35.98	80.20	-1,925.75	-8,393.73	4,198.87	4,113.83	85.04	49.377		
11,600.00	7,227.21	7,242.17	7,109.20	122.34	35.98	80.35	-1,925.64	-8,393.76	4,099.86	4,014.41	85.45	47.980		
11,700.00	7,226.71	7,243.70	7,110.73	125.05	35.99	80.50	-1,925.53	-8,393.79	4,000.90	3,915.02	85.89	46.582		
11,800.00	7,226.21	7,245.24	7,112.26	127.78	36.00	80.65	-1,925.42	-8,393.82	3,902.00	3,815.64	86.36	45.183		
11,900.00	7,225.71	7,246.77	7,113.79	130.51	36.00	80.80	-1,925.32	-8,393.85	3,803.15	3,716.28	86.86	43.783		
12,000.00	7,225.21	7,248.30	7,115.32	133.24	36.01	80.95	-1,925.21	-8,393.88	3,704.36	3,616.95	87.40	42.382		
12,100.00	7,224.71	7,249.84	7,116.85	135.98	36.01	81.10	-1,925.10	-8,393.91	3,605.63	3,517.65	87.98	40.980		
12,200.00	7,224.21	7,251.37	7,118.38	138.72	36.02	81.25	-1,925.00	-8,393.94	3,506.98	3,418.37	88.61	39.578		
12,300.00	7,223.70	7,252.90	7,119.90	141.47	36.03	81.40	-1,924.89	-8,393.97	3,408.41	3,319.13	89.28	38.175		
12,400.00	7,223.20	7,254.42	7,121.43	144.23	36.03	81.55	-1,924.79	-8,394.00	3,309.92	3,219.91	90.01	36.773		
12,500.00	7,222.70	7,255.95	7,122.95	146.98	36.04	81.70	-1,924.68	-8,394.03	3,211.52	3,120.73	90.80	35.370		
12,600.00	7,222.20	7,257.48	7,124.47	149.74	36.05	81.85	-1,924.58	-8,394.06	3,113.23	3,021.58	91.65	33.969		
12,700.00	7,221.70	7,259.00	7,125.99	152.51	36.05	82.00	-1,924.47	-8,394.09	3,015.05	2,922.47	92.57	32.569		
12,800.00	7,221.20	7,260.53	7,127.52	155.28	36.06	82.15	-1,924.37	-8,394.12	2,916.99	2,823.41	93.58	31.172		
12,900.00	7,220.70	7,262.05	7,129.03	158.05	36.06	82.30	-1,924.27	-8,394.15	2,819.06	2,724.39	94.67	29.777		
13,000.00	7,220.20	7,263.57	7,130.55	160.82	36.07	82.45	-1,924.16	-8,394.18	2,721.29	2,625.42	95.87	28.385		
13,100.00	7,219.70	7,265.10	7,132.07	163.60	36.08	82.60	-1,924.06	-8,394.20	2,623.68	2,526.50	97.18	26.999		
13,200.00	7,219.20	7,266.62	7,133.59	166.38	36.08	82.75	-1,923.96	-8,394.23	2,526.26	2,427.65	98.61	25.618		
13,300.00	7,218.70	7,268.13	7,135.10	169.16	36.09	82.90	-1,923.85	-8,394.26	2,429.05	2,328.86	100.19	24.244		
13,400.00	7,218.20	7,269.65	7,136.62	171.95	36.10	83.05	-1,923.75	-8,394.29	2,332.07	2,230.14	101.93	22.879		
13,500.00	7,217.70	7,271.17	7,138.13	174.74	36.10	83.20	-1,923.65	-8,394.32	2,235.36	2,131.51	103.85	21.525		
13,600.00	7,217.20	7,272.69	7,139.64	177.53	36.11	83.35	-1,923.55	-8,394.35	2,138.95	2,032.97	105.98	20.183		
13,700.00	7,216.70	7,274.20	7,141.15	180.32	36.11	83.50	-1,923.45	-8,394.38	2,042.88	1,934.53	108.35	18.855		
13,800.00	7,216.19	7,275.71	7,142.66	183.11	36.12	83.65	-1,923.35	-8,394.41	1,947.21	1,836.23	110.98	17.545		
13,900.00	7,215.69	7,277.23	7,144.17	185.91	36.13	83.80	-1,923.25	-8,394.44	1,851.99	1,738.06	113.93	16.256		
14,000.00	7,215.19	7,278.74	7,145.68	188.71	36.13	83.95	-1,923.15	-8,394.47	1,757.31	1,640.07	117.23	14.990		
14,100.00	7,214.69	7,280.25	7,147.19	191.51	36.14	84.09	-1,923.05	-8,394.50	1,663.24	1,542.29	120.95	13.751		
14,200.00	7,214.19	7,281.76	7,148.70	194.31	36.14	84.24	-1,922.95	-8,394.53	1,569.91	1,444.76	125.15	12.544		
14,300.00	7,213.69	7,283.27	7,150.20	197.11	36.15	84.39	-1,922.85	-8,394.56	1,477.45	1,347.54	129.91	11.373		
14,400.00	7,213.19	7,284.78	7,151.70	199.92	36.16	84.54	-1,922.76	-8,394.58	1,386.04	1,250.72	135.32	10.243		
14,500.00	7,212.69	7,286.28	7,153.21	202.72	36.16	84.69	-1,922.66	-8,394.61	1,295.89	1,154.40	141.49	9.159		
14,600.00	7,212.19	7,287.79	7,154.71	205.53	36.17	84.84	-1,922.56	-8,394.64	1,207.30	1,058.74	148.55	8.127		
14,700.00	7,211.69	7,289.29	7,156.21	208.34	36.17	84.99	-1,922.46	-8,394.67	1,120.62	963.97	156.64	7.154		
14,800.00	7,211.19	7,290.80	7,157.71	211.15	36.18	85.14	-1,922.37	-8,394.70	1,036.34	870.42	165.92	6.246		
14,900.00	7,210.69	7,292.30	7,159.21	213.96	36.19	85.28	-1,922.27	-8,394.73	955.10	778.58	176.53	5.411		
15,000.00	7,210.19	7,293.80	7,160.71	216.78	36.19	85.43	-1,922.17	-8,394.76	877.74	689.17	188.57	4.655		
15,100.00	7,209.69	7,295.30	7,162.21	219.59	36.20	85.58	-1,922.08	-8,394.79	805.38	603.32	202.06	3.986		
15,200.00	7,209.18	7,296.80	7,163.70	222.41	36.21	85.73	-1,921.98	-8,394.82	739.49	522.71	216.78	3.411		
15,300.00	7,208.68	7,298.30	7,165.20	225.22	36.21	85.88	-1,921.89	-8,394.84	681.94	449.84	232.10	2.938		
15,400.00	7,208.18	7,299.80	7,166.69	228.04	36.22	86.02	-1,921.79	-8,394.87	635.01	388.21	246.80	2.573		
15,437.48	7,208.00	7,300.36	7,167.25	229.10	36.22	86.08	-1,921.76	-8,394.88	620.66	368.87	251.79	2.465 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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 17-11(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	28.00	3.28	3.28	-80.82	1,477.87	-9,141.96	9,260.68				
100.00	100.00	72.00	100.00	3.28	3.51	-80.82	1,477.87	-9,141.96	9,260.64	9,253.84	6.80	1,362.411	
200.00	200.00	172.00	200.00	3.34	5.38	-80.82	1,477.87	-9,141.96	9,260.64	9,251.93	8.71	1,062.892	
300.00	299.98	271.98	299.98	3.44	8.41	95.55	1,477.87	-9,141.96	9,260.81	9,248.96	11.85	781.227	
400.00	399.84	371.84	399.84	3.59	11.70	95.58	1,477.87	-9,141.96	9,261.32	9,246.03	15.29	605.604	
500.00	499.45	471.45	499.45	3.79	15.07	95.61	1,477.87	-9,141.96	9,262.17	9,243.31	18.86	491.095	
600.00	598.70	570.70	598.70	4.03	18.47	95.66	1,477.87	-9,141.96	9,263.38	9,240.88	22.50	411.699	
700.00	697.47	669.47	697.47	4.31	21.87	95.73	1,477.87	-9,141.96	9,264.95	9,238.76	26.19	353.804	
800.00	795.62	767.62	795.62	4.64	25.27	95.80	1,477.87	-9,141.96	9,266.90	9,237.00	29.90	309.891	
900.00	893.06	865.06	893.06	5.00	28.64	95.89	1,477.87	-9,141.96	9,269.25	9,235.61	33.64	275.537	
1,000.00	989.64	961.64	989.64	5.40	31.99	95.99	1,477.87	-9,141.96	9,272.03	9,234.64	37.39	247.986	
1,100.00	1,085.27	1,057.27	1,085.27	5.83	35.32	96.10	1,477.87	-9,141.96	9,275.24	9,234.10	41.14	225.440	
1,200.00	1,179.82	1,151.82	1,179.82	6.29	38.60	96.21	1,477.87	-9,141.96	9,278.93	9,234.04	44.90	206.679	
1,300.00	1,273.47	1,245.47	1,273.47	6.79	41.86	96.39	1,477.87	-9,141.96	9,283.03	9,234.39	48.65	190.824	
1,400.00	1,367.06	1,339.06	1,367.06	7.30	45.12	96.59	1,477.87	-9,141.96	9,287.28	9,234.87	52.42	177.175	
1,500.00	1,460.64	1,432.64	1,460.64	7.83	48.38	96.79	1,477.87	-9,141.96	9,291.67	9,235.46	56.21	165.314	
1,600.00	1,554.23	1,526.23	1,554.23	8.38	51.64	97.00	1,477.87	-9,141.96	9,296.18	9,236.18	60.01	154.920	
1,700.00	1,647.82	1,619.82	1,647.82	8.93	54.90	97.20	1,477.87	-9,141.96	9,300.83	9,237.01	63.82	145.743	
1,800.00	1,741.41	1,713.41	1,741.41	9.49	58.16	97.40	1,477.87	-9,141.96	9,305.60	9,237.97	67.64	137.585	
1,900.00	1,835.00	1,807.00	1,835.00	10.05	61.42	97.60	1,477.87	-9,141.96	9,310.51	9,239.05	71.46	130.288	
2,000.00	1,928.59	1,900.59	1,928.59	10.62	64.69	97.80	1,477.87	-9,141.96	9,315.55	9,240.25	75.29	123.724	
2,100.00	2,022.18	2,005.82	2,022.18	11.20	68.36	98.00	1,477.87	-9,141.96	9,320.72	9,241.18	79.53	117.190	
2,200.00	2,115.77	2,087.77	2,115.77	11.78	71.21	98.20	1,477.87	-9,141.96	9,326.01	9,243.04	82.97	112.402	
2,300.00	2,209.36	2,181.36	2,209.36	12.37	74.48	98.40	1,477.87	-9,141.96	9,331.44	9,244.63	86.81	107.488	
2,400.00	2,302.95	2,274.95	2,302.95	12.95	77.74	98.61	1,477.87	-9,141.96	9,337.00	9,246.34	90.66	102.988	
2,500.00	2,396.54	2,368.54	2,396.54	13.54	81.01	98.81	1,477.87	-9,141.96	9,342.69	9,248.18	94.51	98.853	
2,600.00	2,490.13	2,462.13	2,490.13	14.13	84.27	99.01	1,477.87	-9,141.96	9,348.50	9,250.14	98.36	95.041	
2,700.00	2,583.72	2,555.72	2,583.72	14.73	87.54	99.21	1,477.87	-9,141.96	9,354.45	9,252.23	102.22	91.516	
2,800.00	2,677.31	2,649.31	2,677.31	15.32	90.80	99.40	1,477.87	-9,141.96	9,360.53	9,254.45	106.07	88.247	
2,900.00	2,770.90	2,742.90	2,770.90	15.92	94.07	99.60	1,477.87	-9,141.96	9,366.73	9,256.80	109.93	85.207	
3,000.00	2,864.49	2,836.49	2,864.49	16.52	97.33	99.80	1,477.87	-9,141.96	9,373.06	9,259.27	113.79	82.374	
3,100.00	2,958.08	2,930.08	2,958.08	17.12	100.60	100.00	1,477.87	-9,141.96	9,379.52	9,261.87	117.65	79.726	
3,200.00	3,051.67	3,023.67	3,051.67	17.72	103.86	100.20	1,477.87	-9,141.96	9,386.11	9,264.60	121.51	77.248	
3,300.00	3,145.26	3,117.26	3,145.26	18.32	107.13	100.40	1,477.87	-9,141.96	9,392.82	9,267.45	125.37	74.922	
3,400.00	3,238.85	3,210.85	3,238.85	18.92	110.39	100.60	1,477.87	-9,141.96	9,399.66	9,270.43	129.23	72.737	
3,500.00	3,332.44	3,304.44	3,332.44	19.53	113.66	100.80	1,477.87	-9,141.96	9,406.63	9,273.54	133.09	70.678	
3,600.00	3,426.03	3,401.97	3,426.03	20.13	117.06	100.99	1,477.87	-9,141.96	9,413.73	9,276.64	137.09	68.668	
3,700.00	3,519.62	3,508.38	3,519.62	20.74	120.78	101.19	1,477.87	-9,141.96	9,420.95	9,279.55	141.40	66.626	
3,800.00	3,613.21	3,585.21	3,613.21	21.34	123.46	101.39	1,477.87	-9,141.96	9,428.30	9,283.62	144.68	65.166	
3,900.00	3,706.80	3,678.80	3,706.80	21.95	126.72	101.58	1,477.87	-9,141.96	9,435.77	9,287.23	148.54	63.522	
4,000.00	3,800.39	3,772.39	3,800.39	22.56	129.99	101.78	1,477.87	-9,141.96	9,443.37	9,290.96	152.41	61.961	
4,100.00	3,893.98	3,865.98	3,893.98	23.16	133.26	101.98	1,477.87	-9,141.96	9,451.10	9,294.82	156.27	60.479	
4,200.00	3,987.57	3,959.57	3,987.57	23.77	136.52	102.17	1,477.87	-9,141.96	9,458.95	9,298.81	160.14	59.068	
4,300.00	4,081.16	4,053.16	4,081.16	24.38	139.79	102.37	1,477.87	-9,141.96	9,466.92	9,302.92	164.00	57.725	
4,400.00	4,174.75	4,146.75	4,174.75	24.99	143.06	102.56	1,477.87	-9,141.96	9,475.02	9,307.15	167.86	56.444	
4,500.00	4,268.34	4,240.34	4,268.34	25.60	146.32	102.76	1,477.87	-9,141.96	9,483.24	9,311.51	171.73	55.222	
4,600.00	4,361.93	4,333.93	4,361.93	26.21	149.59	102.95	1,477.87	-9,141.96	9,491.59	9,315.99	175.59	54.055	
4,700.00	4,455.52	4,427.52	4,455.52	26.82	152.85	103.15	1,477.87	-9,141.96	9,500.05	9,320.60	179.46	52.938	
4,800.00	4,549.11	4,521.11	4,549.11	27.43	156.12	103.34	1,477.87	-9,141.96	9,508.65	9,325.33	183.32	51.869	
4,900.00	4,642.70	4,614.70	4,642.70	28.04	159.39	103.54	1,477.87	-9,141.96	9,517.36	9,330.18	187.18	50.845	
5,000.00	4,736.29	4,708.29	4,736.29	28.65	162.65	103.73	1,477.87	-9,141.96	9,526.20	9,335.15	191.05	49.863	
5,100.00	4,829.88	4,801.88	4,829.88	29.26	165.92	103.92	1,477.87	-9,141.96	9,535.16	9,340.25	194.91	48.920	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 17-11(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,904.53	4,923.47	29.87	169.50	104.12	1,477.87	-9,141.96	9,544.24	9,345.15	199.09	47.939		
5,300.00	5,017.06	4,989.06	5,017.06	30.48	172.45	104.31	1,477.87	-9,141.96	9,553.44	9,350.80	202.64	47.145		
5,400.00	5,110.65	5,082.65	5,110.65	31.09	175.72	104.50	1,477.87	-9,141.96	9,562.76	9,356.26	206.50	46.308		
5,500.00	5,204.24	5,176.24	5,204.24	31.70	178.99	104.69	1,477.87	-9,141.96	9,572.21	9,361.84	210.36	45.503		
5,600.00	5,297.83	5,269.83	5,297.83	32.32	182.25	104.88	1,477.87	-9,141.96	9,581.77	9,367.54	214.23	44.727		
5,700.00	5,391.42	5,363.42	5,391.42	32.93	185.52	105.08	1,477.87	-9,141.96	9,591.45	9,373.36	218.09	43.979		
5,800.00	5,485.01	5,457.01	5,485.01	33.54	188.79	105.27	1,477.87	-9,141.96	9,601.26	9,379.30	221.95	43.258		
5,900.00	5,578.60	5,550.60	5,578.60	34.15	192.05	105.46	1,477.87	-9,141.96	9,611.18	9,385.36	225.81	42.563		
6,000.00	5,672.19	5,644.19	5,672.19	34.77	195.32	105.65	1,477.87	-9,141.96	9,621.22	9,391.54	229.67	41.891		
6,100.00	5,765.78	5,737.78	5,765.78	35.38	198.59	105.84	1,477.87	-9,141.96	9,631.38	9,397.84	233.53	41.242		
6,200.00	5,859.37	5,831.37	5,859.37	35.99	201.85	106.03	1,477.87	-9,141.96	9,641.65	9,404.26	237.40	40.614		
6,300.00	5,952.96	5,924.96	5,952.96	36.60	205.12	106.22	1,477.87	-9,141.96	9,652.05	9,410.79	241.26	40.008		
6,400.00	6,046.55	6,018.55	6,046.55	37.22	208.39	106.40	1,477.87	-9,141.96	9,662.56	9,417.45	245.12	39.420		
6,500.00	6,140.14	6,112.14	6,140.14	37.83	211.66	106.59	1,477.87	-9,141.96	9,673.19	9,424.21	248.98	38.852		
6,600.00	6,233.73	6,205.73	6,233.73	38.44	214.92	106.78	1,477.87	-9,141.96	9,683.94	9,431.10	252.83	38.302		
6,700.00	6,327.32	6,300.68	6,327.32	39.06	218.24	106.97	1,477.87	-9,141.96	9,694.80	9,438.06	256.74	37.761		
6,800.00	6,420.91	6,407.09	6,420.91	39.67	221.95	107.16	1,477.87	-9,141.96	9,705.77	9,444.73	261.05	37.180		
6,900.00	6,514.50	6,486.50	6,514.50	40.28	224.72	107.34	1,477.87	-9,141.96	9,716.87	9,452.46	264.41	36.749		
7,000.00	6,608.09	6,580.09	6,608.09	40.90	227.99	107.53	1,477.87	-9,141.96	9,728.07	9,459.81	268.27	36.263		
7,100.00	6,701.63	6,673.63	6,701.63	41.51	231.25	98.19	1,477.87	-9,141.96	9,738.21	9,466.09	272.12	35.786		
7,200.00	6,793.85	6,765.85	6,793.85	42.10	234.47	78.78	1,477.87	-9,141.96	9,736.49	9,460.56	275.93	35.287		
7,300.00	6,882.50	6,854.50	6,882.50	42.64	237.57	66.26	1,477.87	-9,141.96	9,720.43	9,440.86	279.57	34.770		
7,400.00	6,965.41	6,937.41	6,965.41	43.12	240.46	59.11	1,477.87	-9,141.96	9,690.49	9,407.53	282.96	34.247		
7,500.00	7,040.53	7,012.53	7,040.53	43.53	243.08	55.68	1,477.87	-9,141.96	9,647.45	9,361.42	286.03	33.729		
7,600.00	7,106.00	7,078.00	7,106.00	43.89	245.37	55.05	1,477.87	-9,141.96	9,592.41	9,303.67	288.73	33.222		
7,700.00	7,160.23	7,132.23	7,160.23	44.20	247.26	56.96	1,477.87	-9,141.96	9,526.73	9,235.71	291.02	32.735		
7,800.00	7,201.86	7,173.86	7,201.86	44.48	248.72	61.67	1,477.87	-9,141.96	9,452.05	9,159.19	292.86	32.275		
7,900.00	7,229.88	7,201.88	7,229.88	44.73	249.69	69.93	1,477.87	-9,141.96	9,370.18	9,075.95	294.22	31.847		
8,000.00	7,243.60	7,215.60	7,243.60	44.99	250.17	82.78	1,477.87	-9,141.96	9,283.09	8,988.01	295.08	31.459		
8,100.00	7,244.73	7,216.73	7,244.73	45.29	250.21	90.60	1,477.87	-9,141.96	9,193.15	8,897.65	295.50	31.110		
8,200.00	7,244.23	7,216.23	7,244.23	45.74	250.20	90.59	1,477.87	-9,141.96	9,103.13	8,807.23	295.90	30.764		
8,300.00	7,243.73	7,215.73	7,243.73	46.38	250.18	90.58	1,477.87	-9,141.96	9,013.31	8,716.97	296.34	30.416		
8,400.00	7,243.23	7,215.23	7,243.23	47.29	250.16	90.58	1,477.87	-9,141.96	8,923.71	8,626.89	296.82	30.064		
8,500.00	7,242.73	7,214.73	7,242.73	48.46	250.14	90.57	1,477.87	-9,141.96	8,834.34	8,536.99	297.35	29.710		
8,600.00	7,242.23	7,214.23	7,242.23	49.87	250.13	90.56	1,477.87	-9,141.96	8,745.19	8,447.27	297.92	29.354		
8,700.00	7,241.73	7,213.73	7,241.73	51.48	250.11	90.55	1,477.87	-9,141.96	8,656.28	8,357.74	298.54	28.995		
8,800.00	7,241.23	7,213.23	7,241.23	53.24	250.09	90.55	1,477.87	-9,141.96	8,567.62	8,268.41	299.21	28.634		
8,900.00	7,240.73	7,212.73	7,240.73	55.13	250.07	90.54	1,477.87	-9,141.96	8,479.21	8,179.28	299.93	28.271		
9,000.00	7,240.23	7,212.23	7,240.23	57.11	250.06	90.53	1,477.87	-9,141.96	8,391.05	8,090.36	300.69	27.906		
9,100.00	7,239.73	7,211.73	7,239.73	59.19	250.04	90.52	1,477.87	-9,141.96	8,303.17	8,001.66	301.51	27.538		
9,200.00	7,239.23	7,211.23	7,239.23	61.34	250.02	90.52	1,477.87	-9,141.96	8,215.56	7,913.18	302.38	27.170		
9,300.00	7,238.72	7,210.72	7,238.72	63.55	250.00	90.51	1,477.87	-9,141.96	8,128.24	7,824.94	303.30	26.799		
9,400.00	7,238.22	7,210.22	7,238.22	65.81	249.99	90.50	1,477.87	-9,141.96	8,041.22	7,736.94	304.28	26.427		
9,500.00	7,237.72	7,209.72	7,237.72	68.13	249.97	90.50	1,477.87	-9,141.96	7,954.50	7,649.19	305.30	26.054		
9,600.00	7,237.22	7,209.22	7,237.22	70.48	249.95	90.49	1,477.87	-9,141.96	7,868.09	7,561.71	306.39	25.680		
9,700.00	7,236.72	7,208.72	7,236.72	72.88	249.93	90.48	1,477.87	-9,141.96	7,782.01	7,474.49	307.52	25.305		
9,800.00	7,236.22	7,208.22	7,236.22	75.31	249.92	90.47	1,477.87	-9,141.96	7,696.27	7,387.55	308.72	24.930		
9,900.00	7,235.72	7,207.72	7,235.72	77.77	249.90	90.47	1,477.87	-9,141.96	7,610.88	7,300.91	309.97	24.554		
10,000.00	7,235.22	7,207.22	7,235.22	80.26	249.88	90.46	1,477.87	-9,141.96	7,525.84	7,214.57	311.28	24.177		
10,100.00	7,234.72	7,206.72	7,234.72	82.77	249.86	90.45	1,477.87	-9,141.96	7,441.18	7,128.54	312.64	23.801		
10,200.00	7,234.22	7,206.22	7,234.22	85.31	249.85	90.45	1,477.87	-9,141.96	7,356.90	7,042.84	314.06	23.425		
10,300.00	7,233.72	7,205.72	7,233.72	87.86	249.83	90.44	1,477.87	-9,141.96	7,273.02	6,957.47	315.55	23.049		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 17-11(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,233.22	7,205.22	7,233.22	90.44	249.81	90.43	1,477.87	-9,141.96	7,189.55	6,872.46	317.09	22.674	
10,500.00	7,232.72	7,204.72	7,232.72	93.03	249.79	90.42	1,477.87	-9,141.96	7,106.51	6,787.82	318.69	22.299	
10,600.00	7,232.22	7,204.22	7,232.22	95.64	249.78	90.42	1,477.87	-9,141.96	7,023.91	6,703.56	320.35	21.925	
10,700.00	7,231.72	7,203.72	7,231.72	98.26	249.76	90.41	1,477.87	-9,141.96	6,941.77	6,619.69	322.08	21.553	
10,800.00	7,231.21	7,203.21	7,231.21	100.89	249.74	90.40	1,477.87	-9,141.96	6,860.11	6,536.24	323.87	21.182	
10,900.00	7,230.71	7,202.71	7,230.71	103.54	249.72	90.40	1,477.87	-9,141.96	6,778.93	6,453.21	325.72	20.812	
11,000.00	7,230.21	7,202.21	7,230.21	106.20	249.71	90.39	1,477.87	-9,141.96	6,698.26	6,370.63	327.63	20.444	
11,100.00	7,229.71	7,201.71	7,229.71	108.87	249.69	90.38	1,477.87	-9,141.96	6,618.13	6,288.51	329.61	20.078	
11,200.00	7,229.21	7,201.21	7,229.21	111.54	249.67	90.37	1,477.87	-9,141.96	6,538.53	6,206.88	331.66	19.715	
11,300.00	7,228.71	7,200.71	7,228.71	114.23	249.65	90.37	1,477.87	-9,141.96	6,459.51	6,125.74	333.77	19.353	
11,400.00	7,228.21	7,200.21	7,228.21	116.92	249.64	90.36	1,477.87	-9,141.96	6,381.07	6,045.13	335.95	18.994	
11,500.00	7,227.71	7,200.29	7,227.71	119.63	249.64	90.35	1,477.87	-9,141.96	6,303.25	5,965.04	338.21	18.637	
11,600.00	7,227.21	7,200.79	7,227.21	122.34	249.66	90.34	1,477.87	-9,141.96	6,226.06	5,885.50	340.56	18.282	
11,700.00	7,226.71	7,201.29	7,226.71	125.05	249.67	90.34	1,477.87	-9,141.96	6,149.52	5,806.55	342.97	17.930	
11,800.00	7,226.21	7,201.79	7,226.21	127.78	249.69	90.33	1,477.87	-9,141.96	6,073.67	5,728.21	345.46	17.581	
11,900.00	7,225.71	7,202.29	7,225.71	130.51	249.71	90.32	1,477.87	-9,141.96	5,998.53	5,650.51	348.01	17.236	
12,000.00	7,225.21	7,202.79	7,225.21	133.24	249.73	90.32	1,477.87	-9,141.96	5,924.12	5,573.48	350.64	16.895	
12,100.00	7,224.71	7,203.29	7,224.71	135.98	249.74	90.31	1,477.87	-9,141.96	5,850.47	5,497.13	353.33	16.558	
12,200.00	7,224.21	7,203.80	7,224.21	138.72	249.76	90.30	1,477.87	-9,141.96	5,777.61	5,421.51	356.10	16.225	
12,300.00	7,223.70	7,204.30	7,223.70	141.47	249.78	90.29	1,477.87	-9,141.96	5,705.58	5,346.64	358.94	15.896	
12,400.00	7,223.20	7,204.80	7,223.20	144.23	249.80	90.29	1,477.87	-9,141.96	5,634.40	5,272.55	361.85	15.571	
12,500.00	7,222.70	7,205.30	7,222.70	146.98	249.81	90.28	1,477.87	-9,141.96	5,564.11	5,199.28	364.83	15.251	
12,600.00	7,222.20	7,205.80	7,222.20	149.74	249.83	90.27	1,477.87	-9,141.96	5,494.74	5,126.86	367.88	14.936	
12,700.00	7,221.70	7,206.30	7,221.70	152.51	249.85	90.27	1,477.87	-9,141.96	5,426.33	5,055.32	371.01	14.626	
12,800.00	7,221.20	7,206.80	7,221.20	155.28	249.87	90.26	1,477.87	-9,141.96	5,358.90	4,984.70	374.20	14.321	
12,900.00	7,220.70	7,207.30	7,220.70	158.05	249.88	90.25	1,477.87	-9,141.96	5,292.51	4,915.04	377.47	14.021	
13,000.00	7,220.20	7,207.80	7,220.20	160.82	249.90	90.24	1,477.87	-9,141.96	5,227.19	4,846.39	380.80	13.727	
13,100.00	7,219.70	7,208.30	7,219.70	163.60	249.92	90.24	1,477.87	-9,141.96	5,162.98	4,778.77	384.21	13.438	
13,200.00	7,219.20	7,208.80	7,219.20	166.38	249.94	90.23	1,477.87	-9,141.96	5,099.92	4,712.24	387.68	13.155	
13,300.00	7,218.70	7,209.30	7,218.70	169.16	249.95	90.22	1,477.87	-9,141.96	5,038.06	4,646.84	391.22	12.878	
13,400.00	7,218.20	7,209.80	7,218.20	171.95	249.97	90.22	1,477.87	-9,141.96	4,977.43	4,582.62	394.82	12.607	
13,500.00	7,217.70	7,189.70	7,217.70	174.74	249.27	90.21	1,477.87	-9,141.96	4,918.10	4,520.34	397.76	12.364	
13,600.00	7,217.20	7,189.20	7,217.20	177.53	249.25	90.20	1,477.87	-9,141.96	4,860.09	4,458.64	401.45	12.106	
13,700.00	7,216.70	7,188.70	7,216.70	180.32	249.23	90.19	1,477.87	-9,141.96	4,803.47	4,398.28	405.19	11.855	
13,800.00	7,216.19	7,188.19	7,216.19	183.11	249.22	90.19	1,477.87	-9,141.96	4,748.28	4,339.29	408.99	11.610	
13,900.00	7,215.69	7,187.69	7,215.69	185.91	249.20	90.18	1,477.87	-9,141.96	4,694.57	4,281.74	412.83	11.372	
14,000.00	7,215.19	7,187.19	7,215.19	188.71	249.18	90.17	1,477.87	-9,141.96	4,642.39	4,225.67	416.72	11.140	
14,100.00	7,214.69	7,186.69	7,214.69	191.51	249.16	90.16	1,477.87	-9,141.96	4,591.80	4,171.15	420.66	10.916	
14,200.00	7,214.19	7,186.19	7,214.19	194.31	249.15	90.16	1,477.87	-9,141.96	4,542.85	4,118.23	424.62	10.699	
14,300.00	7,213.69	7,185.69	7,213.69	197.11	249.13	90.15	1,477.87	-9,141.96	4,495.59	4,066.97	428.62	10.489	
14,400.00	7,213.19	7,185.19	7,213.19	199.92	249.11	90.14	1,477.87	-9,141.96	4,450.07	4,017.44	432.63	10.286	
14,500.00	7,212.69	7,184.69	7,212.69	202.72	249.09	90.14	1,477.87	-9,141.96	4,406.35	3,969.68	436.67	10.091	
14,600.00	7,212.19	7,184.19	7,212.19	205.53	249.08	90.13	1,477.87	-9,141.96	4,364.49	3,923.78	440.71	9.903	
14,700.00	7,211.69	7,183.69	7,211.69	208.34	249.06	90.12	1,477.87	-9,141.96	4,324.53	3,879.78	444.76	9.723	
14,800.00	7,211.19	7,183.19	7,211.19	211.15	249.04	90.11	1,477.87	-9,141.96	4,286.54	3,837.74	448.80	9.551	
14,900.00	7,210.69	7,182.69	7,210.69	213.96	249.02	90.11	1,477.87	-9,141.96	4,250.56	3,797.74	452.82	9.387	
15,000.00	7,210.19	7,182.19	7,210.19	216.78	249.01	90.10	1,477.87	-9,141.96	4,216.64	3,759.82	456.82	9.230	
15,100.00	7,209.69	7,181.69	7,209.69	219.59	248.99	90.09	1,477.87	-9,141.96	4,184.84	3,724.06	460.79	9.082	
15,200.00	7,209.18	7,181.18	7,209.18	222.41	248.97	90.09	1,477.87	-9,141.96	4,155.20	3,690.50	464.71	8.942	
15,300.00	7,208.68	7,180.68	7,208.68	225.22	248.95	90.08	1,477.87	-9,141.96	4,127.78	3,659.20	468.58	8.809	
15,400.00	7,208.18	7,180.18	7,208.18	228.04	248.94	90.07	1,477.87	-9,141.96	4,102.60	3,630.22	472.38	8.685	
15,437.48	7,208.00	7,180.00	7,208.00	229.10	248.93	90.07	1,477.87	-9,141.96	4,093.76	3,619.97	473.79	8.640	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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MONTERA 10-34 (PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	16.56	1.56	3.28	3.28	2.72	2,524.27	120.14	2,527.13					
100.00	100.00	127.98	112.97	3.28	3.30	2.72	2,523.99	119.75	2,526.86	2,520.28	6.58	383.907		
200.00	200.00	237.36	222.35	3.34	3.38	2.71	2,523.16	119.63	2,526.09	2,519.38	6.71	376.208		
225.54	225.54	263.06	248.06	3.36	3.41	179.08	2,522.93	119.63	2,525.98	2,519.22	6.76	373.441 CC, ES		
300.00	299.98	334.06	319.05	3.44	3.50	179.08	2,522.32	119.59	2,526.97	2,520.03	6.94	364.164		
400.00	399.84	423.69	408.68	3.59	3.65	179.07	2,521.84	119.04	2,531.65	2,524.40	7.24	349.558		
500.00	499.45	512.11	497.10	3.79	3.83	179.05	2,521.77	118.27	2,540.24	2,532.61	7.62	333.176		
600.00	598.70	602.53	587.51	4.03	4.05	179.03	2,522.05	117.40	2,552.69	2,544.61	8.08	315.923		
700.00	697.47	690.84	675.82	4.31	4.28	179.02	2,522.64	116.96	2,568.96	2,560.37	8.59	299.095		
800.00	795.62	811.37	796.34	4.64	4.62	179.02	2,523.20	117.01	2,588.50	2,579.26	9.24	280.067		
900.00	893.06	890.28	875.26	5.00	4.87	179.02	2,523.53	117.16	2,611.39	2,601.57	9.82	265.925		
1,000.00	989.64	1,007.90	992.87	5.40	5.25	179.03	2,523.92	117.49	2,637.61	2,627.05	10.56	249.783		
1,100.00	1,085.27	1,100.84	1,085.81	5.83	5.56	179.04	2,523.86	117.90	2,666.81	2,655.56	11.25	237.007		
1,200.00	1,179.82	1,188.75	1,173.72	6.29	5.87	179.06	2,523.92	118.57	2,699.46	2,687.51	11.95	225.838		
1,300.00	1,273.47	1,296.59	1,281.56	6.79	6.26	179.08	2,523.90	119.32	2,734.54	2,721.79	12.75	214.468		
1,400.00	1,367.06	1,382.65	1,367.62	7.30	6.57	179.10	2,523.74	119.49	2,769.60	2,756.12	13.47	205.563		
1,500.00	1,460.64	1,487.07	1,472.03	7.83	6.96	179.11	2,523.58	119.58	2,804.69	2,790.40	14.29	196.299		
1,600.00	1,554.23	1,590.99	1,575.95	8.38	7.36	179.13	2,522.94	119.85	2,839.35	2,824.23	15.12	187.811		
1,700.00	1,647.82	1,684.84	1,669.80	8.93	7.72	179.14	2,522.22	119.69	2,873.84	2,857.92	15.92	180.524		
1,800.00	1,741.41	1,784.39	1,769.35	9.49	8.11	179.14	2,521.41	119.04	2,908.28	2,891.52	16.76	173.553		
1,900.00	1,835.00	1,867.26	1,852.21	10.05	8.43	179.13	2,520.76	118.31	2,942.73	2,925.20	17.53	167.875		
2,000.00	1,928.59	1,966.69	1,951.63	10.62	8.83	179.13	2,520.25	117.51	2,977.45	2,959.06	18.38	161.955		
2,100.00	2,022.18	2,056.86	2,041.79	11.20	9.18	179.12	2,519.54	116.76	3,011.90	2,992.69	19.20	156.840		
2,200.00	2,115.77	2,139.64	2,124.57	11.78	9.52	179.11	2,519.22	115.69	3,046.70	3,026.71	19.99	152.391		
2,300.00	2,209.36	2,221.40	2,206.33	12.37	9.85	179.10	2,519.15	114.81	3,081.79	3,061.01	20.78	148.306		
2,400.00	2,302.95	2,293.66	2,278.58	12.95	10.14	179.10	2,519.49	114.22	3,117.43	3,095.91	21.52	144.850		
2,500.00	2,396.54	2,373.59	2,358.50	13.54	10.46	179.09	2,520.34	113.45	3,153.59	3,131.29	22.30	141.395		
2,600.00	2,490.13	2,450.84	2,435.74	14.13	10.78	179.08	2,521.50	112.31	3,190.16	3,167.08	23.07	138.263		
2,700.00	2,583.72	2,527.44	2,512.31	14.73	11.09	179.06	2,523.07	111.19	3,227.22	3,203.38	23.84	135.368		
2,800.00	2,677.31	2,609.86	2,594.70	15.32	11.43	179.04	2,525.14	109.89	3,264.70	3,240.06	24.64	132.498		
2,900.00	2,770.90	2,725.07	2,709.87	15.92	11.90	179.02	2,527.61	108.12	3,301.83	3,276.21	25.62	128.883		
3,000.00	2,864.49	2,810.80	2,795.57	16.52	12.26	179.00	2,529.40	106.62	3,338.91	3,312.47	26.44	126.275		
3,100.00	2,958.08	2,920.66	2,905.37	17.12	12.71	178.97	2,531.47	104.18	3,375.79	3,348.39	27.40	123.205		
3,200.00	3,051.67	3,014.84	2,999.52	17.72	13.10	178.94	2,532.98	102.14	3,412.40	3,384.13	28.27	120.689		
3,300.00	3,145.26	3,091.00	3,075.66	18.32	13.42	178.92	2,534.40	100.64	3,449.28	3,420.23	29.05	118.739		
3,400.00	3,238.85	3,197.34	3,181.95	18.92	13.86	178.90	2,536.48	98.76	3,486.25	3,456.26	30.00	116.227		
3,500.00	3,332.44	3,266.45	3,251.05	19.53	14.15	178.89	2,537.88	97.67	3,523.30	3,492.57	30.73	114.651		
3,600.00	3,426.03	3,335.51	3,320.07	20.13	14.44	178.87	2,539.76	96.60	3,560.99	3,529.52	31.46	113.178		
3,700.00	3,519.62	3,413.03	3,397.54	20.74	14.76	178.87	2,542.36	95.67	3,599.26	3,567.01	32.24	111.623		
3,800.00	3,613.21	3,536.78	3,521.25	21.34	15.28	178.87	2,545.77	95.17	3,636.95	3,603.65	33.30	109.215		
3,900.00	3,706.80	3,644.93	3,629.35	21.95	15.73	178.87	2,548.62	94.59	3,674.65	3,640.39	34.27	107.237		
4,000.00	3,800.39	3,764.59	3,748.99	22.56	16.23	178.86	2,550.40	93.49	3,711.14	3,675.84	35.30	105.125		
4,100.00	3,893.98	3,865.77	3,850.16	23.16	16.66	178.86	2,551.85	92.28	3,747.65	3,711.42	36.23	103.440		
4,200.00	3,987.57	3,996.43	3,980.77	23.77	17.21	178.82	2,552.92	89.26	3,783.56	3,746.23	37.33	101.343		
4,300.00	4,081.16	4,094.41	4,078.72	24.38	17.62	178.79	2,553.14	86.58	3,818.88	3,780.63	38.25	99.847		
4,400.00	4,174.75	4,171.58	4,155.86	24.99	17.94	178.77	2,553.43	84.57	3,854.35	3,815.31	39.04	98.733		
4,500.00	4,268.34	4,255.99	4,240.25	25.60	18.30	178.75	2,554.05	82.91	3,890.17	3,850.30	39.87	97.569		
4,600.00	4,361.93	4,336.73	4,320.98	26.21	18.64	178.74	2,554.77	81.56	3,926.16	3,885.48	40.68	96.510		
4,700.00	4,455.52	4,410.52	4,394.75	26.82	18.95	178.73	2,555.78	80.81	3,962.60	3,921.16	41.45	95.604		
4,800.00	4,549.11	4,496.86	4,481.08	27.43	19.31	178.73	2,557.21	79.95	3,999.33	3,957.04	42.29	94.565		
4,900.00	4,642.70	4,567.08	4,551.28	28.04	19.61	178.72	2,558.64	78.99	4,036.39	3,993.36	43.03	93.794		
5,000.00	4,736.29	4,675.30	4,659.45	28.65	20.07	178.71	2,561.18	77.13	4,073.76	4,029.74	44.02	92.552		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MONTERA 10-34 (PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	4,792.51	4,776.62	29.26	20.56	178.68	2,563.09	74.83	4,110.41	4,065.36	45.06	91.231		
5,200.00	4,923.47	4,915.43	4,899.50	29.87	21.08	178.65	2,564.26	71.82	4,146.40	4,100.27	46.13	89.885		
5,300.00	5,017.06	4,987.94	4,971.98	30.48	21.39	178.63	2,564.94	69.78	4,182.39	4,135.50	46.89	89.194		
5,400.00	5,110.65	5,100.95	5,084.94	31.09	21.87	178.60	2,566.10	66.77	4,218.47	4,170.57	47.91	88.057		
5,500.00	5,204.24	5,178.37	5,162.35	31.70	22.20	178.59	2,566.77	65.40	4,254.44	4,205.74	48.70	87.365		
5,600.00	5,297.83	5,260.67	5,244.64	32.32	22.54	178.59	2,567.74	64.42	4,290.71	4,241.19	49.52	86.648		
5,700.00	5,391.42	5,350.51	5,334.46	32.93	22.93	178.58	2,568.97	63.29	4,327.15	4,276.76	50.39	85.877		
5,800.00	5,485.01	5,442.78	5,426.72	33.54	23.32	178.59	2,570.20	62.84	4,363.59	4,312.32	51.27	85.105		
5,900.00	5,578.60	5,525.74	5,509.67	34.15	23.67	178.59	2,571.37	62.63	4,400.12	4,348.02	52.10	84.458		
6,000.00	5,672.19	5,600.01	5,583.93	34.77	23.98	178.60	2,572.72	62.73	4,437.03	4,384.16	52.87	83.930		
6,100.00	5,765.78	5,724.82	5,708.71	35.38	24.51	178.63	2,574.79	63.71	4,473.85	4,419.88	53.96	82.903		
6,200.00	5,859.37	5,856.50	5,840.40	35.99	25.07	178.65	2,575.80	64.31	4,509.77	4,454.66	55.11	81.837		
6,300.00	5,952.96	5,999.65	5,983.54	36.60	25.67	178.66	2,575.74	64.03	4,544.98	4,488.66	56.32	80.701		
6,400.00	6,046.55	6,109.00	6,092.88	37.22	26.14	178.67	2,574.84	63.50	4,579.41	4,522.10	57.31	79.901		
6,500.00	6,140.14	6,206.81	6,190.69	37.83	26.55	178.67	2,573.84	63.01	4,613.65	4,555.41	58.24	79.223		
6,600.00	6,233.73	6,290.26	6,274.14	38.44	26.90	178.68	2,573.05	62.45	4,647.96	4,588.89	59.07	78.687		
6,700.00	6,327.32	6,372.65	6,356.51	39.06	27.25	178.67	2,572.47	61.60	4,682.47	4,622.58	59.89	78.178		
6,800.00	6,420.91	6,442.70	6,426.56	39.67	27.55	178.67	2,572.21	60.64	4,717.30	4,656.66	60.64	77.791		
6,900.00	6,514.50	6,513.65	6,497.50	40.28	27.85	178.66	2,572.40	59.63	4,752.70	4,691.31	61.39	77.418		
7,000.00	6,608.09	6,636.57	6,620.41	40.90	28.38	178.66	2,572.45	58.14	4,787.89	4,725.41	62.48	76.631		
7,100.00	6,701.63	6,739.71	6,723.54	41.51	28.82	167.90	2,572.15	56.50	4,822.82	4,759.38	63.44	76.021		
7,200.00	6,793.85	6,837.52	6,821.34	42.10	29.23	145.04	2,571.70	54.94	4,857.75	4,793.38	64.36	75.475		
7,300.00	6,882.50	6,924.93	6,908.74	42.64	29.60	128.76	2,571.27	53.57	4,892.24	4,827.04	65.20	75.038		
7,400.00	6,965.41	7,006.07	6,989.87	43.12	29.95	117.53	2,570.91	52.74	4,925.77	4,859.79	65.97	74.666		
7,500.00	7,040.53	7,095.00	7,078.80	43.53	30.33	109.67	2,570.37	52.37	4,957.73	4,890.94	66.79	74.229		
7,600.00	7,106.00	7,217.88	7,201.67	43.89	30.85	104.33	2,568.63	52.26	4,987.33	4,919.48	67.85	73.500		
7,700.00	7,160.23	7,272.55	7,256.33	44.20	31.08	99.92	2,567.58	52.23	5,014.68	4,946.14	68.54	73.165		
7,800.00	7,201.86	7,314.55	7,298.32	44.48	31.26	96.50	2,566.78	52.20	5,039.82	4,970.57	69.25	72.780		
7,900.00	7,229.88	7,342.84	7,326.60	44.73	31.38	93.83	2,566.23	52.18	5,062.49	4,992.48	70.01	72.313		
8,000.00	7,243.60	7,356.74	7,340.50	44.99	31.44	91.81	2,565.97	52.17	5,082.41	5,011.57	70.83	71.753		
8,100.00	7,244.73	7,357.96	7,341.71	45.29	31.44	91.06	2,565.94	52.17	5,099.96	5,028.24	71.73	71.104		
8,200.00	7,244.23	7,357.53	7,341.29	45.74	31.44	91.05	2,565.95	52.17	5,118.85	5,046.10	72.75	70.359		
8,300.00	7,243.73	7,357.11	7,340.87	46.38	31.44	91.05	2,565.96	52.17	5,139.61	5,065.71	73.91	69.542		
8,400.00	7,243.23	7,356.68	7,340.44	47.29	31.44	91.04	2,565.97	52.17	5,162.23	5,087.06	75.17	68.675		
8,500.00	7,242.73	7,356.26	7,340.02	48.46	31.44	91.04	2,565.98	52.17	5,186.68	5,110.15	76.53	67.777		
8,600.00	7,242.23	7,355.83	7,339.59	49.87	31.43	91.03	2,565.99	52.17	5,212.93	5,134.97	77.96	66.865		
8,700.00	7,241.73	7,355.41	7,339.17	51.48	31.43	91.03	2,565.99	52.17	5,240.96	5,161.50	79.46	65.954		
8,800.00	7,241.23	7,354.98	7,338.74	53.24	31.43	91.02	2,566.00	52.17	5,270.74	5,189.72	81.02	65.055		
8,900.00	7,240.73	7,354.56	7,338.32	55.13	31.43	91.02	2,566.01	52.17	5,302.23	5,219.62	82.62	64.178		
9,000.00	7,240.23	7,354.13	7,337.89	57.11	31.43	91.01	2,566.02	52.17	5,335.42	5,251.17	84.25	63.330		
9,100.00	7,239.73	7,353.71	7,337.47	59.19	31.42	91.01	2,566.03	52.17	5,370.26	5,284.36	85.90	62.517		
9,200.00	7,239.23	7,353.28	7,337.04	61.34	31.42	91.00	2,566.03	52.17	5,406.72	5,319.16	87.57	61.742		
9,300.00	7,238.72	7,352.86	7,336.62	63.55	31.42	91.00	2,566.04	52.17	5,444.78	5,355.54	89.25	61.008		
9,400.00	7,238.22	7,352.43	7,336.19	65.81	31.42	90.99	2,566.05	52.17	5,484.40	5,393.48	90.93	60.317		
9,500.00	7,237.72	7,352.01	7,335.77	68.13	31.42	90.99	2,566.06	52.18	5,525.55	5,432.94	92.60	59.669		
9,600.00	7,237.22	7,351.59	7,335.35	70.48	31.42	90.98	2,566.07	52.18	5,568.18	5,473.91	94.27	59.065		
9,700.00	7,236.72	7,351.16	7,334.92	72.88	31.41	90.98	2,566.07	52.18	5,612.28	5,516.35	95.93	58.504		
9,800.00	7,236.22	7,350.74	7,334.50	75.31	31.41	90.97	2,566.08	52.18	5,657.80	5,560.23	97.57	57.986		
9,900.00	7,235.72	7,350.31	7,334.07	77.77	31.41	90.97	2,566.09	52.18	5,704.71	5,605.51	99.19	57.510		
10,000.00	7,235.22	7,349.89	7,333.65	80.26	31.41	90.96	2,566.10	52.18	5,752.97	5,652.17	100.80	57.075		
10,100.00	7,234.72	7,349.46	7,333.22	82.77	31.41	90.96	2,566.11	52.18	5,802.56	5,700.18	102.38	56.678		
10,200.00	7,234.22	7,349.04	7,332.80	85.31	31.41	90.95	2,566.12	52.18	5,853.43	5,749.50	103.93	56.319		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MONTERA 10-34 (PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.00	7,233.72	7,348.61	7,332.37	87.86	31.40	90.95	2,566.12	52.18	5,905.56	5,800.10	105.46	55.997	
10,400.00	7,233.22	7,348.19	7,331.95	90.44	31.40	90.94	2,566.13	52.18	5,958.92	5,851.95	106.96	55.710	
10,500.00	7,232.72	7,347.76	7,331.52	93.03	31.40	90.94	2,566.14	52.18	6,013.46	5,905.02	108.44	55.456	
10,600.00	7,232.22	7,347.34	7,331.10	95.64	31.40	90.93	2,566.15	52.18	6,069.16	5,959.28	109.88	55.234	
10,700.00	7,231.72	7,346.91	7,330.67	98.26	31.40	90.93	2,566.16	52.18	6,125.98	6,014.69	111.30	55.042	
10,800.00	7,231.21	7,346.49	7,330.25	100.89	31.39	90.92	2,566.16	52.18	6,183.90	6,071.22	112.68	54.880	
10,900.00	7,230.71	7,346.06	7,329.83	103.54	31.39	90.92	2,566.17	52.18	6,242.89	6,128.85	114.04	54.745	
11,000.00	7,230.21	7,345.64	7,329.40	106.20	31.39	90.91	2,566.18	52.18	6,302.91	6,187.55	115.36	54.637	
11,100.00	7,229.71	7,345.21	7,328.98	108.87	31.39	90.91	2,566.19	52.18	6,363.93	6,247.28	116.65	54.554	
11,200.00	7,229.21	7,344.79	7,328.55	111.54	31.39	90.90	2,566.20	52.18	6,425.93	6,308.02	117.92	54.495	
11,300.00	7,228.71	7,344.37	7,328.13	114.23	31.39	90.90	2,566.21	52.18	6,488.89	6,369.73	119.15	54.460	
11,400.00	7,228.21	7,343.94	7,327.70	116.92	31.38	90.90	2,566.21	52.18	6,552.76	6,432.40	120.35	54.446 SF	
11,500.00	7,227.71	7,343.52	7,327.28	119.63	31.38	90.89	2,566.22	52.18	6,617.52	6,496.00	121.53	54.452	
11,600.00	7,227.21	7,343.09	7,326.85	122.34	31.38	90.89	2,566.23	52.18	6,683.16	6,560.49	122.67	54.479	
11,700.00	7,226.71	7,342.67	7,326.43	125.05	31.38	90.88	2,566.24	52.18	6,749.64	6,625.85	123.79	54.525	
11,800.00	7,226.21	7,342.24	7,326.00	127.78	31.38	90.88	2,566.25	52.18	6,816.93	6,692.06	124.88	54.588	
11,900.00	7,225.71	7,341.82	7,325.58	130.51	31.37	90.87	2,566.25	52.18	6,885.03	6,759.09	125.94	54.669	
12,000.00	7,225.21	7,341.39	7,325.15	133.24	31.37	90.87	2,566.26	52.18	6,953.89	6,826.92	126.97	54.766	
12,100.00	7,224.71	7,340.97	7,324.73	135.98	31.37	90.86	2,566.27	52.18	7,023.50	6,895.52	127.98	54.879	
12,200.00	7,224.21	7,340.54	7,324.30	138.72	31.37	90.86	2,566.28	52.18	7,093.84	6,964.88	128.96	55.007	
12,300.00	7,223.70	7,340.12	7,323.88	141.47	31.37	90.85	2,566.29	52.18	7,164.88	7,034.97	129.92	55.149	
12,400.00	7,223.20	7,339.69	7,323.46	144.23	31.37	90.85	2,566.30	52.18	7,236.61	7,105.76	130.85	55.305	
12,500.00	7,222.70	7,339.27	7,323.03	146.98	31.36	90.84	2,566.30	52.18	7,309.00	7,177.25	131.76	55.473	
12,600.00	7,222.20	7,338.84	7,322.61	149.74	31.36	90.84	2,566.31	52.18	7,382.04	7,249.40	132.64	55.655	
12,700.00	7,221.70	7,338.42	7,322.18	152.51	31.36	90.83	2,566.32	52.18	7,455.70	7,322.20	133.50	55.848	
12,800.00	7,221.20	7,337.99	7,321.76	155.28	31.36	90.83	2,566.33	52.18	7,529.97	7,395.64	134.34	56.052	
12,900.00	7,220.70	7,337.57	7,321.33	158.05	31.36	90.82	2,566.34	52.18	7,604.83	7,469.68	135.15	56.268	
13,000.00	7,220.20	7,337.15	7,320.91	160.82	31.35	90.82	2,566.34	52.18	7,680.27	7,544.32	135.95	56.494	
13,100.00	7,219.70	7,336.72	7,320.48	163.60	31.35	90.81	2,566.35	52.19	7,756.25	7,619.53	136.72	56.730	
13,200.00	7,219.20	7,336.30	7,320.06	166.38	31.35	90.81	2,566.36	52.19	7,832.78	7,695.30	137.48	56.975	
13,300.00	7,218.70	7,335.87	7,319.63	169.16	31.35	90.80	2,566.37	52.19	7,909.83	7,771.62	138.21	57.230	
13,400.00	7,218.20	7,335.45	7,319.21	171.95	31.35	90.80	2,566.38	52.19	7,987.39	7,848.46	138.93	57.493	
13,500.00	7,217.70	7,335.02	7,318.78	174.74	31.35	90.79	2,566.38	52.19	8,065.45	7,925.82	139.62	57.765	
13,600.00	7,217.20	7,334.60	7,318.36	177.53	31.34	90.79	2,566.39	52.19	8,143.98	8,003.68	140.30	58.045	
13,700.00	7,216.70	7,334.17	7,317.94	180.32	31.34	90.78	2,566.40	52.19	8,222.98	8,082.01	140.97	58.333	
13,800.00	7,216.19	7,333.75	7,317.51	183.11	31.34	90.78	2,566.41	52.19	8,302.43	8,160.82	141.61	58.628	
13,900.00	7,215.69	7,333.32	7,317.09	185.91	31.34	90.77	2,566.42	52.19	8,382.32	8,240.08	142.24	58.931	
14,000.00	7,215.19	7,332.90	7,316.66	188.71	31.34	90.77	2,566.43	52.19	8,462.64	8,319.79	142.85	59.240	
14,100.00	7,214.69	7,332.47	7,316.24	191.51	31.33	90.76	2,566.43	52.19	8,543.38	8,399.93	143.45	59.556	
14,200.00	7,214.19	7,332.05	7,315.81	194.31	31.33	90.76	2,566.44	52.19	8,624.52	8,480.49	144.03	59.879	
14,300.00	7,213.69	7,331.62	7,315.39	197.11	31.33	90.75	2,566.45	52.19	8,706.05	8,561.45	144.60	60.207	
14,400.00	7,213.19	7,331.20	7,314.96	199.92	31.33	90.75	2,566.46	52.19	8,787.96	8,642.81	145.16	60.542	
14,500.00	7,212.69	7,330.77	7,314.54	202.72	31.33	90.74	2,566.47	52.19	8,870.25	8,724.55	145.70	60.882	
14,600.00	7,212.19	7,330.35	7,314.11	205.53	31.33	90.74	2,566.47	52.19	8,952.89	8,806.67	146.22	61.227	
14,700.00	7,211.69	7,329.93	7,313.69	208.34	31.32	90.74	2,566.48	52.19	9,035.89	8,889.15	146.74	61.578	
14,800.00	7,211.19	7,329.50	7,313.26	211.15	31.32	90.73	2,566.49	52.19	9,119.22	8,971.98	147.24	61.934	
14,900.00	7,210.69	7,329.08	7,312.84	213.96	31.32	90.73	2,566.50	52.19	9,202.89	9,055.16	147.73	62.295	
15,000.00	7,210.19	7,328.65	7,312.42	216.78	31.32	90.72	2,566.51	52.19	9,286.88	9,138.67	148.21	62.661	
15,100.00	7,209.69	7,328.23	7,311.99	219.59	31.32	90.72	2,566.52	52.19	9,371.19	9,222.51	148.68	63.031	
15,200.00	7,209.18	7,327.80	7,311.57	222.41	31.31	90.71	2,566.52	52.19	9,455.80	9,306.67	149.13	63.405	
15,300.00	7,208.68	7,327.38	7,311.14	225.22	31.31	90.71	2,566.53	52.19	9,540.71	9,391.13	149.58	63.784	
15,400.00	7,208.18	7,326.95	7,310.72	228.04	31.31	90.70	2,566.54	52.19	9,625.91	9,475.89	150.01	64.167	

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - MONTERA 10-34 (PR_75CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-GYRO-NS											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,326.79	7,310.56	229.10	31.31	90.70	2,566.54	52.19	9,657.91	9,507.74	150.17	64.311	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - RUTT-ADAMS HEIRS 2-22 - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	58.00	3.28	3.28	-165.02	-3,899.85	-1,043.75	4,037.52					
100.00	100.00	42.00	100.00	3.28	3.36	-165.02	-3,899.85	-1,043.75	4,037.11	4,030.46	6.65	607.481		
200.00	200.00	142.00	200.00	3.34	4.59	-165.02	-3,899.85	-1,043.75	4,037.11	4,029.18	7.93	509.246		
300.00	299.98	241.98	299.98	3.44	7.46	11.36	-3,899.85	-1,043.75	4,035.40	4,024.49	10.90	370.164		
400.00	399.84	341.84	399.84	3.59	10.70	11.39	-3,899.85	-1,043.75	4,030.27	4,015.97	14.30	281.933		
500.00	499.45	441.45	499.45	3.79	14.05	11.45	-3,899.85	-1,043.75	4,021.72	4,003.88	17.85	225.358		
600.00	598.70	540.70	598.70	4.03	17.44	11.53	-3,899.85	-1,043.75	4,009.78	3,988.30	21.48	186.711		
700.00	697.47	639.47	697.47	4.31	20.84	11.64	-3,899.85	-1,043.75	3,994.44	3,969.29	25.15	158.823		
800.00	795.62	737.62	795.62	4.64	24.23	11.77	-3,899.85	-1,043.75	3,975.75	3,946.90	28.85	137.811		
900.00	893.06	835.06	893.06	5.00	27.60	11.93	-3,899.85	-1,043.75	3,953.71	3,921.15	32.56	121.433		
1,000.00	989.64	931.64	989.64	5.40	30.95	12.12	-3,899.85	-1,043.75	3,928.36	3,892.09	36.27	108.314		
1,100.00	1,085.27	1,027.27	1,085.27	5.83	34.27	12.34	-3,899.85	-1,043.75	3,899.73	3,859.76	39.97	97.570		
1,200.00	1,179.82	1,121.82	1,179.82	6.29	37.56	12.59	-3,899.85	-1,043.75	3,867.87	3,824.21	43.65	88.605		
1,300.00	1,273.47	1,215.47	1,273.47	6.79	40.82	12.75	-3,899.85	-1,043.75	3,833.55	3,786.23	47.32	81.011		
1,400.00	1,367.06	1,309.06	1,367.06	7.30	44.08	12.87	-3,899.85	-1,043.75	3,799.10	3,748.11	50.99	74.504		
1,500.00	1,460.64	1,402.64	1,460.64	7.83	47.33	12.99	-3,899.85	-1,043.75	3,764.66	3,709.98	54.68	68.853		
1,600.00	1,554.23	1,503.77	1,554.23	8.38	50.86	13.11	-3,899.85	-1,043.75	3,730.23	3,671.60	58.63	63.618		
1,700.00	1,647.82	1,589.82	1,647.82	8.93	53.86	13.23	-3,899.85	-1,043.75	3,695.82	3,633.74	62.08	59.536		
1,800.00	1,741.41	1,683.41	1,741.41	9.49	57.12	13.36	-3,899.85	-1,043.75	3,661.42	3,595.63	65.79	55.653		
1,900.00	1,835.00	1,777.00	1,835.00	10.05	60.38	13.49	-3,899.85	-1,043.75	3,627.04	3,557.53	69.51	52.180		
2,000.00	1,928.59	1,870.59	1,928.59	10.62	63.64	13.62	-3,899.85	-1,043.75	3,592.68	3,519.44	73.24	49.056		
2,100.00	2,022.18	1,964.18	2,022.18	11.20	66.90	13.75	-3,899.85	-1,043.75	3,558.33	3,481.37	76.97	46.232		
2,200.00	2,115.77	2,057.77	2,115.77	11.78	70.17	13.88	-3,899.85	-1,043.75	3,524.00	3,443.30	80.70	43.666		
2,300.00	2,209.36	2,151.36	2,209.36	12.37	73.43	14.02	-3,899.85	-1,043.75	3,489.69	3,405.25	84.44	41.326		
2,400.00	2,302.95	2,244.95	2,302.95	12.95	76.70	14.16	-3,899.85	-1,043.75	3,455.40	3,367.21	88.19	39.183		
2,500.00	2,396.54	2,338.54	2,396.54	13.54	79.96	14.31	-3,899.85	-1,043.75	3,421.13	3,329.19	91.93	37.214		
2,600.00	2,490.13	2,432.13	2,490.13	14.13	83.23	14.45	-3,899.85	-1,043.75	3,386.87	3,291.19	95.68	35.398		
2,700.00	2,583.72	2,525.72	2,583.72	14.73	86.49	14.60	-3,899.85	-1,043.75	3,352.64	3,253.20	99.43	33.718		
2,800.00	2,677.31	2,619.31	2,677.31	15.32	89.75	14.76	-3,899.85	-1,043.75	3,318.42	3,215.24	103.19	32.159		
2,900.00	2,770.90	2,712.90	2,770.90	15.92	93.02	14.91	-3,899.85	-1,043.75	3,284.23	3,177.29	106.94	30.710		
3,000.00	2,864.49	2,806.49	2,864.49	16.52	96.29	15.07	-3,899.85	-1,043.75	3,250.06	3,139.36	110.70	29.359		
3,100.00	2,958.08	2,900.08	2,958.08	17.12	99.55	15.23	-3,899.85	-1,043.75	3,215.91	3,101.45	114.46	28.096		
3,200.00	3,051.67	3,006.33	3,051.67	17.72	103.26	15.40	-3,899.85	-1,043.75	3,181.79	3,063.13	118.66	26.813		
3,300.00	3,145.26	3,087.26	3,145.26	18.32	106.08	15.57	-3,899.85	-1,043.75	3,147.69	3,025.71	121.99	25.804		
3,400.00	3,238.85	3,180.85	3,238.85	18.92	109.35	15.74	-3,899.85	-1,043.75	3,113.62	2,987.87	125.75	24.760		
3,500.00	3,332.44	3,274.44	3,332.44	19.53	112.61	15.92	-3,899.85	-1,043.75	3,079.57	2,950.05	129.52	23.777		
3,600.00	3,426.03	3,368.03	3,426.03	20.13	115.88	16.10	-3,899.85	-1,043.75	3,045.55	2,912.26	133.28	22.850		
3,700.00	3,519.62	3,461.62	3,519.62	20.74	119.15	16.29	-3,899.85	-1,043.75	3,011.55	2,874.50	137.05	21.974		
3,800.00	3,613.21	3,555.21	3,613.21	21.34	122.41	16.48	-3,899.85	-1,043.75	2,977.59	2,836.77	140.82	21.144		
3,900.00	3,706.80	3,648.80	3,706.80	21.95	125.68	16.67	-3,899.85	-1,043.75	2,943.65	2,799.06	144.60	20.358		
4,000.00	3,800.39	3,742.39	3,800.39	22.56	128.94	16.87	-3,899.85	-1,043.75	2,909.75	2,761.38	148.37	19.612		
4,100.00	3,893.98	3,835.98	3,893.98	23.16	132.21	17.07	-3,899.85	-1,043.75	2,875.88	2,723.73	152.14	18.902		
4,200.00	3,987.57	3,929.57	3,987.57	23.77	135.48	17.28	-3,899.85	-1,043.75	2,842.04	2,686.12	155.92	18.228		
4,300.00	4,081.16	4,023.16	4,081.16	24.38	138.74	17.49	-3,899.85	-1,043.75	2,808.23	2,648.54	159.70	17.585		
4,400.00	4,174.75	4,116.75	4,174.75	24.99	142.01	17.71	-3,899.85	-1,043.75	2,774.46	2,610.99	163.47	16.972		
4,500.00	4,268.34	4,210.34	4,268.34	25.60	145.27	17.93	-3,899.85	-1,043.75	2,740.73	2,573.47	167.25	16.387		
4,600.00	4,361.93	4,303.93	4,361.93	26.21	148.54	18.16	-3,899.85	-1,043.75	2,707.03	2,536.00	171.03	15.828		
4,700.00	4,455.52	4,402.48	4,455.52	26.82	151.98	18.39	-3,899.85	-1,043.75	2,673.37	2,498.39	174.99	15.277		
4,800.00	4,549.11	4,508.89	4,549.11	27.43	155.69	18.63	-3,899.85	-1,043.75	2,639.76	2,460.54	179.22	14.729		
4,900.00	4,642.70	4,584.70	4,642.70	28.04	158.34	18.88	-3,899.85	-1,043.75	2,606.19	2,423.80	182.38	14.290		
5,000.00	4,736.29	4,678.29	4,736.29	28.65	161.61	19.13	-3,899.85	-1,043.75	2,572.66	2,386.49	186.17	13.819		
5,100.00	4,829.88	4,771.88	4,829.88	29.26	164.87	19.39	-3,899.85	-1,043.75	2,539.18	2,349.22	189.96	13.367		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - RUTT-ADAMS HEIRS 2-22 - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	4,923.47	4,865.47	4,923.47	29.87	168.14	19.65	-3,899.85	-1,043.75	2,505.74	2,312.00	193.74	12.933	
5,300.00	5,017.06	4,959.06	5,017.06	30.48	171.41	19.92	-3,899.85	-1,043.75	2,472.36	2,274.82	197.53	12.516	
5,400.00	5,110.65	5,052.65	5,110.65	31.09	174.67	20.20	-3,899.85	-1,043.75	2,439.02	2,237.70	201.33	12.115	
5,500.00	5,204.24	5,146.24	5,204.24	31.70	177.94	20.49	-3,899.85	-1,043.75	2,405.74	2,200.62	205.12	11.729	
5,600.00	5,297.83	5,239.83	5,297.83	32.32	181.21	20.79	-3,899.85	-1,043.75	2,372.52	2,163.61	208.91	11.356	
5,700.00	5,391.42	5,333.42	5,391.42	32.93	184.47	21.09	-3,899.85	-1,043.75	2,339.36	2,126.65	212.71	10.998	
5,800.00	5,485.01	5,427.01	5,485.01	33.54	187.74	21.40	-3,899.85	-1,043.75	2,306.25	2,089.74	216.51	10.652	
5,900.00	5,578.60	5,520.60	5,578.60	34.15	191.01	21.73	-3,899.85	-1,043.75	2,273.21	2,052.90	220.31	10.318	
6,000.00	5,672.19	5,614.19	5,672.19	34.77	194.27	22.06	-3,899.85	-1,043.75	2,240.24	2,016.13	224.11	9.996	
6,100.00	5,765.78	5,707.78	5,765.78	35.38	197.54	22.40	-3,899.85	-1,043.75	2,207.34	1,979.42	227.91	9.685	
6,200.00	5,859.37	5,801.37	5,859.37	35.99	200.81	22.75	-3,899.85	-1,043.75	2,174.51	1,942.79	231.72	9.384	
6,300.00	5,952.96	5,905.04	5,952.96	36.60	204.43	23.11	-3,899.85	-1,043.75	2,141.75	1,905.87	235.88	9.080	
6,400.00	6,046.55	5,988.55	6,046.55	37.22	207.34	23.48	-3,899.85	-1,043.75	2,109.08	1,869.74	239.34	8.812	
6,500.00	6,140.14	6,082.14	6,140.14	37.83	210.61	23.86	-3,899.85	-1,043.75	2,076.49	1,833.33	243.15	8.540	
6,600.00	6,233.73	6,175.73	6,233.73	38.44	213.87	24.26	-3,899.85	-1,043.75	2,043.98	1,797.02	246.97	8.276	
6,700.00	6,327.32	6,269.32	6,327.32	39.06	217.14	24.67	-3,899.85	-1,043.75	2,011.57	1,760.78	250.79	8.021	
6,800.00	6,420.91	6,362.91	6,420.91	39.67	220.41	25.09	-3,899.85	-1,043.75	1,979.26	1,724.65	254.61	7.774	
6,900.00	6,514.50	6,456.50	6,514.50	40.28	223.68	25.52	-3,899.85	-1,043.75	1,947.04	1,688.61	258.43	7.534	
7,000.00	6,608.09	6,550.09	6,608.09	40.90	226.94	25.97	-3,899.85	-1,043.75	1,914.93	1,652.67	262.26	7.302	
7,100.00	6,701.63	6,643.63	6,701.63	41.51	230.21	15.87	-3,899.85	-1,043.75	1,882.34	1,616.25	266.09	7.074	
7,200.00	6,793.85	6,735.85	6,793.85	42.10	233.43	-7.06	-3,899.85	-1,043.75	1,844.01	1,574.21	269.80	6.835	
7,300.00	6,882.50	6,824.50	6,882.50	42.64	236.52	-24.87	-3,899.85	-1,043.75	1,799.50	1,526.21	273.29	6.585	
7,400.00	6,965.41	6,907.41	6,965.41	43.12	239.42	-39.14	-3,899.85	-1,043.75	1,750.19	1,473.70	276.49	6.330	
7,500.00	7,040.53	6,982.53	7,040.53	43.53	242.04	-51.42	-3,899.85	-1,043.75	1,697.90	1,418.58	279.32	6.079	
7,600.00	7,106.00	7,048.00	7,106.00	43.89	244.32	-62.35	-3,899.85	-1,043.75	1,644.90	1,363.13	281.77	5.838	
7,700.00	7,160.23	7,102.23	7,160.23	44.20	246.22	-71.87	-3,899.85	-1,043.75	1,593.75	1,309.92	283.82	5.615	
7,800.00	7,201.86	7,143.86	7,201.86	44.48	247.67	-79.66	-3,899.85	-1,043.75	1,547.21	1,261.67	285.54	5.419	
7,900.00	7,229.88	7,171.88	7,229.88	44.73	248.65	-85.44	-3,899.85	-1,043.75	1,507.96	1,220.99	286.97	5.255	
8,000.00	7,243.60	7,185.60	7,243.60	44.99	249.13	-89.08	-3,899.85	-1,043.75	1,478.40	1,190.20	288.20	5.130	
8,100.00	7,244.73	7,186.73	7,244.73	45.29	249.17	-90.04	-3,899.85	-1,043.75	1,459.46	1,170.16	289.30	5.045	
8,200.00	7,244.23	7,186.23	7,244.23	45.74	249.15	-90.02	-3,899.85	-1,043.75	1,447.81	1,157.13	290.69	4.981	
8,300.00	7,243.73	7,185.73	7,243.73	46.38	249.13	-90.00	-3,899.85	-1,043.75	1,443.01	1,150.67	292.34	4.936	
8,319.38	7,243.63	7,185.63	7,243.63	46.54	249.13	-90.00	-3,899.85	-1,043.75	1,442.88	1,150.18	292.70	4.930 CC, ES	
8,400.00	7,243.23	7,185.23	7,243.23	47.29	249.11	-89.98	-3,899.85	-1,043.75	1,445.13	1,150.92	294.21	4.912	
8,500.00	7,242.73	7,184.73	7,242.73	48.46	249.10	-89.96	-3,899.85	-1,043.75	1,454.14	1,157.94	296.20	4.909 SF	
8,600.00	7,242.23	7,184.23	7,242.23	49.87	249.08	-89.94	-3,899.85	-1,043.75	1,469.91	1,171.67	298.25	4.928	
8,700.00	7,241.73	7,183.73	7,241.73	51.48	249.06	-89.92	-3,899.85	-1,043.75	1,492.24	1,191.95	300.28	4.969	
8,800.00	7,241.23	7,183.23	7,241.23	53.24	249.04	-89.90	-3,899.85	-1,043.75	1,520.82	1,218.56	302.26	5.032	
8,900.00	7,240.73	7,182.73	7,240.73	55.13	249.03	-89.88	-3,899.85	-1,043.75	1,555.32	1,251.20	304.12	5.114	
9,000.00	7,240.23	7,182.23	7,240.23	57.11	249.01	-89.86	-3,899.85	-1,043.75	1,595.35	1,289.50	305.85	5.216	
9,100.00	7,239.73	7,181.73	7,239.73	59.19	248.99	-89.84	-3,899.85	-1,043.75	1,640.50	1,333.07	307.43	5.336	
9,200.00	7,239.23	7,181.23	7,239.23	61.34	248.97	-89.82	-3,899.85	-1,043.75	1,690.38	1,381.52	308.86	5.473	
9,300.00	7,238.72	7,180.72	7,238.72	63.55	248.96	-89.81	-3,899.85	-1,043.75	1,744.56	1,434.43	310.13	5.625	
9,400.00	7,238.22	7,180.22	7,238.22	65.81	248.94	-89.79	-3,899.85	-1,043.75	1,802.67	1,491.41	311.25	5.792	
9,500.00	7,237.72	7,179.72	7,237.72	68.13	248.92	-89.77	-3,899.85	-1,043.75	1,864.33	1,552.08	312.25	5.971	
9,600.00	7,237.22	7,179.22	7,237.22	70.48	248.90	-89.75	-3,899.85	-1,043.75	1,929.21	1,616.10	313.11	6.161	
9,700.00	7,236.72	7,178.72	7,236.72	72.88	248.89	-89.73	-3,899.85	-1,043.75	1,996.99	1,683.12	313.87	6.363	
9,800.00	7,236.22	7,178.22	7,236.22	75.31	248.87	-89.71	-3,899.85	-1,043.75	2,067.38	1,752.86	314.52	6.573	
9,900.00	7,235.72	7,177.72	7,235.72	77.77	248.85	-89.69	-3,899.85	-1,043.75	2,140.14	1,825.05	315.08	6.792	
10,000.00	7,235.22	7,177.22	7,235.22	80.26	248.83	-89.67	-3,899.85	-1,043.75	2,215.02	1,899.45	315.57	7.019	
10,100.00	7,234.72	7,176.72	7,234.72	82.77	248.82	-89.65	-3,899.85	-1,043.75	2,291.82	1,975.83	315.99	7.253	
10,200.00	7,234.22	7,176.22	7,234.22	85.31	248.80	-89.63	-3,899.85	-1,043.75	2,370.35	2,054.00	316.35	7.493	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - RUTT-ADAMS HEIRS 2-22 - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.00	7,233.72	7,175.72	7,233.72	87.86	248.78	-89.61	-3,899.85	-1,043.75	2,450.44	2,133.78	316.66	7.738	
10,400.00	7,233.22	7,175.22	7,233.22	90.44	248.76	-89.59	-3,899.85	-1,043.75	2,531.95	2,215.03	316.92	7.989	
10,500.00	7,232.72	7,174.72	7,232.72	93.03	248.75	-89.57	-3,899.85	-1,043.75	2,614.74	2,297.60	317.15	8.245	
10,600.00	7,232.22	7,174.22	7,232.22	95.64	248.73	-89.55	-3,899.85	-1,043.75	2,698.70	2,381.36	317.34	8.504	
10,700.00	7,231.72	7,173.72	7,231.72	98.26	248.71	-89.53	-3,899.85	-1,043.75	2,783.72	2,466.22	317.50	8.768	
10,800.00	7,231.21	7,173.21	7,231.21	100.89	248.69	-89.51	-3,899.85	-1,043.75	2,869.71	2,552.07	317.64	9.034	
10,900.00	7,230.71	7,172.71	7,230.71	103.54	248.68	-89.49	-3,899.85	-1,043.75	2,956.57	2,638.82	317.76	9.305	
11,000.00	7,230.21	7,172.21	7,230.21	106.20	248.66	-89.47	-3,899.85	-1,043.75	3,044.25	2,726.39	317.85	9.578	
11,100.00	7,229.71	7,171.71	7,229.71	108.87	248.64	-89.45	-3,899.85	-1,043.75	3,132.66	2,814.72	317.93	9.853	
11,200.00	7,229.21	7,171.21	7,229.21	111.54	248.62	-89.43	-3,899.85	-1,043.75	3,221.75	2,903.75	318.00	10.131	
11,300.00	7,228.71	7,170.71	7,228.71	114.23	248.61	-89.41	-3,899.85	-1,043.75	3,311.46	2,993.40	318.06	10.412	
11,400.00	7,228.21	7,170.21	7,228.21	116.92	248.59	-89.39	-3,899.85	-1,043.75	3,401.75	3,083.64	318.10	10.694	
11,500.00	7,227.71	7,169.71	7,227.71	119.63	248.57	-89.37	-3,899.85	-1,043.75	3,492.56	3,174.42	318.14	10.978	
11,600.00	7,227.21	7,169.21	7,227.21	122.34	248.55	-89.35	-3,899.85	-1,043.75	3,583.86	3,265.70	318.17	11.264	
11,700.00	7,226.71	7,168.71	7,226.71	125.05	248.54	-89.33	-3,899.85	-1,043.75	3,675.62	3,357.43	318.19	11.552	
11,800.00	7,226.21	7,168.21	7,226.21	127.78	248.52	-89.31	-3,899.85	-1,043.75	3,767.80	3,449.59	318.21	11.841	
11,900.00	7,225.71	7,167.71	7,225.71	130.51	248.50	-89.29	-3,899.85	-1,043.75	3,860.36	3,542.15	318.22	12.131	
12,000.00	7,225.21	7,167.21	7,225.21	133.24	248.48	-89.27	-3,899.85	-1,043.75	3,953.29	3,635.07	318.23	12.423	
12,100.00	7,224.71	7,166.71	7,224.71	135.98	248.47	-89.25	-3,899.85	-1,043.75	4,046.56	3,728.33	318.23	12.716	
12,200.00	7,224.21	7,166.21	7,224.21	138.72	248.45	-89.23	-3,899.85	-1,043.75	4,140.14	3,821.90	318.23	13.010	
12,300.00	7,223.70	7,165.70	7,223.70	141.47	248.43	-89.21	-3,899.85	-1,043.75	4,234.01	3,915.78	318.23	13.305	
12,400.00	7,223.20	7,165.20	7,223.20	144.23	248.41	-89.19	-3,899.85	-1,043.75	4,328.16	4,009.93	318.23	13.601	
12,500.00	7,222.70	7,164.70	7,222.70	146.98	248.40	-89.17	-3,899.85	-1,043.75	4,422.56	4,104.34	318.22	13.898	
12,600.00	7,222.20	7,164.20	7,222.20	149.74	248.38	-89.15	-3,899.85	-1,043.75	4,517.20	4,198.99	318.21	14.196	
12,700.00	7,221.70	7,163.70	7,221.70	152.51	248.36	-89.13	-3,899.85	-1,043.75	4,612.07	4,293.87	318.21	14.494	
12,800.00	7,221.20	7,163.20	7,221.20	155.28	248.34	-89.11	-3,899.85	-1,043.75	4,707.16	4,388.96	318.20	14.793	
12,900.00	7,220.70	7,162.70	7,220.70	158.05	248.33	-89.09	-3,899.85	-1,043.75	4,802.44	4,484.25	318.19	15.093	
13,000.00	7,220.20	7,162.20	7,220.20	160.82	248.31	-89.07	-3,899.85	-1,043.75	4,897.91	4,579.73	318.18	15.394	
13,100.00	7,219.70	7,161.70	7,219.70	163.60	248.29	-89.05	-3,899.85	-1,043.75	4,993.56	4,675.39	318.17	15.695	
13,200.00	7,219.20	7,161.20	7,219.20	166.38	248.27	-89.03	-3,899.85	-1,043.75	5,089.37	4,771.22	318.16	15.996	
13,300.00	7,218.70	7,160.70	7,218.70	169.16	248.26	-89.01	-3,899.85	-1,043.75	5,185.35	4,867.20	318.15	16.299	
13,400.00	7,218.20	7,160.20	7,218.20	171.95	248.24	-88.99	-3,899.85	-1,043.75	5,281.47	4,963.33	318.14	16.601	
13,500.00	7,217.70	7,159.70	7,217.70	174.74	248.22	-88.97	-3,899.85	-1,043.75	5,377.73	5,059.61	318.13	16.904	
13,600.00	7,217.20	7,159.20	7,217.20	177.53	248.20	-88.95	-3,899.85	-1,043.75	5,474.13	5,156.01	318.12	17.208	
13,700.00	7,216.70	7,158.70	7,216.70	180.32	248.19	-88.93	-3,899.85	-1,043.75	5,570.66	5,252.55	318.11	17.512	
13,800.00	7,216.19	7,158.19	7,216.19	183.11	248.17	-88.91	-3,899.85	-1,043.75	5,667.30	5,349.20	318.10	17.816	
13,900.00	7,215.69	7,157.69	7,215.69	185.91	248.15	-88.89	-3,899.85	-1,043.75	5,764.06	5,445.97	318.09	18.121	
14,000.00	7,215.19	7,157.19	7,215.19	188.71	248.13	-88.87	-3,899.85	-1,043.75	5,860.93	5,542.85	318.08	18.426	
14,100.00	7,214.69	7,156.69	7,214.69	191.51	248.12	-88.85	-3,899.85	-1,043.75	5,957.90	5,639.83	318.07	18.731	
14,200.00	7,214.19	7,156.19	7,214.19	194.31	248.10	-88.83	-3,899.85	-1,043.75	6,054.97	5,736.91	318.07	19.037	
14,300.00	7,213.69	7,155.69	7,213.69	197.11	248.08	-88.81	-3,899.85	-1,043.75	6,152.14	5,834.08	318.06	19.343	
14,400.00	7,213.19	7,155.19	7,213.19	199.92	248.06	-88.79	-3,899.85	-1,043.75	6,249.39	5,931.34	318.06	19.649	
14,500.00	7,212.69	7,154.69	7,212.69	202.72	248.05	-88.77	-3,899.85	-1,043.75	6,346.73	6,028.68	318.05	19.955	
14,600.00	7,212.19	7,154.19	7,212.19	205.53	248.03	-88.75	-3,899.85	-1,043.75	6,444.15	6,126.10	318.05	20.262	
14,700.00	7,211.69	7,153.69	7,211.69	208.34	248.01	-88.73	-3,899.85	-1,043.75	6,541.65	6,223.61	318.04	20.568	
14,800.00	7,211.19	7,153.19	7,211.19	211.15	247.99	-88.71	-3,899.85	-1,043.75	6,639.22	6,321.18	318.04	20.875	
14,900.00	7,210.69	7,152.69	7,210.69	213.96	247.98	-88.69	-3,899.85	-1,043.75	6,736.86	6,418.83	318.04	21.183	
15,000.00	7,210.19	7,152.19	7,210.19	216.78	247.96	-88.67	-3,899.85	-1,043.75	6,834.58	6,516.54	318.04	21.490	
15,100.00	7,209.69	7,151.69	7,209.69	219.59	247.94	-88.65	-3,899.85	-1,043.75	6,932.35	6,614.32	318.04	21.797	
15,200.00	7,209.18	7,151.18	7,209.18	222.41	247.92	-88.63	-3,899.85	-1,043.75	7,030.19	6,712.16	318.04	22.105	
15,300.00	7,208.68	7,150.68	7,208.68	225.22	247.91	-88.61	-3,899.85	-1,043.75	7,128.09	6,810.06	318.04	22.413	
15,400.00	7,208.18	7,150.18	7,208.18	228.04	247.89	-88.59	-3,899.85	-1,043.75	7,226.05	6,908.01	318.04	22.721	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - RUTT-ADAMS HEIRS 2-22 - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth	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)		
15,437.48	7,208.00	7,150.00	7,208.00	229.10	247.88	-88.59	-3,899.85	-1,043.75	7,262.78	6,944.74	318.04	22.836	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	3.00	0.00	3.28	3.28	-37.88	1,490.78	-1,159.78	1,888.78				
100.00	100.00	103.00	100.00	3.28	3.77	-37.88	1,490.78	-1,159.78	1,888.78	1,881.73	7.05	267.891	
200.00	200.00	203.00	200.00	3.34	6.27	-37.88	1,490.78	-1,159.78	1,888.78	1,879.18	9.60	196.646 CC	
300.00	299.98	303.02	299.98	3.44	9.42	138.50	1,490.78	-1,159.78	1,890.09	1,877.23	12.86	146.951 ES	
400.00	399.84	403.16	399.84	3.59	12.76	138.55	1,490.78	-1,159.78	1,894.01	1,877.67	16.35	115.854	
500.00	499.45	503.55	499.45	3.79	16.17	138.64	1,490.78	-1,159.78	1,900.56	1,880.60	19.96	95.222	
600.00	598.70	604.30	598.70	4.03	19.63	138.76	1,490.78	-1,159.78	1,909.75	1,886.09	23.66	80.720	
700.00	697.47	705.53	697.47	4.31	23.12	138.91	1,490.78	-1,159.78	1,921.59	1,894.16	27.43	70.049	
800.00	795.62	807.38	795.62	4.64	26.64	139.08	1,490.78	-1,159.78	1,936.10	1,904.83	31.27	61.913	
900.00	893.06	909.94	893.06	5.00	30.20	139.28	1,490.78	-1,159.78	1,953.31	1,918.14	35.17	55.533	
1,000.00	989.64	986.64	989.64	5.40	32.86	139.50	1,490.78	-1,159.78	1,973.25	1,935.04	38.21	51.642	
1,100.00	1,085.27	1,082.27	1,085.27	5.83	36.19	139.74	1,490.78	-1,159.78	1,995.93	1,954.00	41.93	47.599	
1,200.00	1,179.82	1,176.82	1,179.82	6.29	39.47	139.98	1,490.78	-1,159.78	2,021.39	1,975.75	45.64	44.288	
1,300.00	1,273.47	1,270.47	1,273.47	6.79	42.73	140.49	1,490.78	-1,159.78	2,049.03	1,999.70	49.34	41.530	
1,400.00	1,367.06	1,364.06	1,367.06	7.30	45.99	141.09	1,490.78	-1,159.78	2,077.03	2,023.99	53.04	39.157	
1,500.00	1,460.64	1,457.64	1,460.64	7.83	49.25	141.68	1,490.78	-1,159.78	2,105.25	2,048.49	56.76	37.090	
1,600.00	1,554.23	1,551.23	1,554.23	8.38	52.51	142.25	1,490.78	-1,159.78	2,133.67	2,073.18	60.49	35.275	
1,700.00	1,647.82	1,644.82	1,647.82	8.93	55.77	142.81	1,490.78	-1,159.78	2,162.29	2,098.07	64.22	33.669	
1,800.00	1,741.41	1,738.41	1,741.41	9.49	59.03	143.35	1,490.78	-1,159.78	2,191.11	2,123.15	67.96	32.240	
1,900.00	1,835.00	1,832.00	1,835.00	10.05	62.30	143.88	1,490.78	-1,159.78	2,220.11	2,148.40	71.71	30.961	
2,000.00	1,928.59	1,925.59	1,928.59	10.62	65.56	144.40	1,490.78	-1,159.78	2,249.29	2,173.83	75.46	29.809	
2,100.00	2,022.18	2,019.18	2,022.18	11.20	68.82	144.91	1,490.78	-1,159.78	2,278.64	2,199.43	79.21	28.767	
2,200.00	2,115.77	2,112.77	2,115.77	11.78	72.09	145.40	1,490.78	-1,159.78	2,308.15	2,225.19	82.97	27.820	
2,300.00	2,209.36	2,206.36	2,209.36	12.37	75.35	145.88	1,490.78	-1,159.78	2,337.82	2,251.10	86.72	26.957	
2,400.00	2,302.95	2,300.05	2,302.95	12.95	78.62	146.35	1,490.78	-1,159.78	2,367.65	2,277.16	90.49	26.165	
2,500.00	2,396.54	2,406.46	2,396.54	13.54	82.33	146.81	1,490.78	-1,159.78	2,397.62	2,302.92	94.70	25.319	
2,600.00	2,490.13	2,487.13	2,490.13	14.13	85.14	147.25	1,490.78	-1,159.78	2,427.73	2,329.72	98.01	24.771	
2,700.00	2,583.72	2,580.72	2,583.72	14.73	88.41	147.69	1,490.78	-1,159.78	2,457.98	2,356.21	101.77	24.152	
2,800.00	2,677.31	2,674.31	2,677.31	15.32	91.67	148.12	1,490.78	-1,159.78	2,488.36	2,382.82	105.54	23.578	
2,900.00	2,770.90	2,767.90	2,770.90	15.92	94.94	148.53	1,490.78	-1,159.78	2,518.87	2,409.56	109.30	23.045	
3,000.00	2,864.49	2,861.49	2,864.49	16.52	98.20	148.94	1,490.78	-1,159.78	2,549.49	2,436.42	113.07	22.548	
3,100.00	2,958.08	2,955.08	2,958.08	17.12	101.47	149.33	1,490.78	-1,159.78	2,580.24	2,463.40	116.83	22.084	
3,200.00	3,051.67	3,048.67	3,051.67	17.72	104.74	149.72	1,490.78	-1,159.78	2,611.10	2,490.49	120.60	21.651	
3,300.00	3,145.26	3,142.26	3,145.26	18.32	108.00	150.10	1,490.78	-1,159.78	2,642.06	2,517.69	124.37	21.244	
3,400.00	3,238.85	3,235.85	3,238.85	18.92	111.27	150.47	1,490.78	-1,159.78	2,673.13	2,545.00	128.14	20.862	
3,500.00	3,332.44	3,329.44	3,332.44	19.53	114.53	150.83	1,490.78	-1,159.78	2,704.31	2,572.41	131.90	20.502	
3,600.00	3,426.03	3,423.03	3,426.03	20.13	117.80	151.19	1,490.78	-1,159.78	2,735.58	2,599.91	135.67	20.163	
3,700.00	3,519.62	3,516.62	3,519.62	20.74	121.06	151.54	1,490.78	-1,159.78	2,766.95	2,627.51	139.44	19.844	
3,800.00	3,613.21	3,610.21	3,613.21	21.34	124.33	151.87	1,490.78	-1,159.78	2,798.41	2,655.20	143.21	19.541	
3,900.00	3,706.80	3,703.80	3,706.80	21.95	127.60	152.21	1,490.78	-1,159.78	2,829.96	2,682.98	146.97	19.255	
4,000.00	3,800.39	3,802.61	3,800.39	22.56	131.04	152.53	1,490.78	-1,159.78	2,861.59	2,710.67	150.92	18.961	
4,100.00	3,893.98	3,909.02	3,893.98	23.16	134.76	152.85	1,490.78	-1,159.78	2,893.31	2,738.17	155.14	18.650	
4,200.00	3,987.57	3,984.57	3,987.57	23.77	137.40	153.16	1,490.78	-1,159.78	2,925.11	2,766.83	158.28	18.481	
4,300.00	4,081.16	4,078.16	4,081.16	24.38	140.66	153.46	1,490.78	-1,159.78	2,956.98	2,794.94	162.04	18.248	
4,400.00	4,174.75	4,171.75	4,174.75	24.99	143.93	153.76	1,490.78	-1,159.78	2,988.93	2,823.12	165.81	18.026	
4,500.00	4,268.34	4,265.34	4,268.34	25.60	147.19	154.05	1,490.78	-1,159.78	3,020.96	2,851.38	169.58	17.814	
4,600.00	4,361.93	4,358.93	4,361.93	26.21	150.46	154.34	1,490.78	-1,159.78	3,053.05	2,879.70	173.35	17.612	
4,700.00	4,455.52	4,452.52	4,455.52	26.82	153.73	154.62	1,490.78	-1,159.78	3,085.21	2,908.10	177.11	17.419	
4,800.00	4,549.11	4,546.11	4,549.11	27.43	156.99	154.89	1,490.78	-1,159.78	3,117.44	2,936.56	180.88	17.235	
4,900.00	4,642.70	4,639.70	4,642.70	28.04	160.26	155.16	1,490.78	-1,159.78	3,149.73	2,965.08	184.65	17.058	
5,000.00	4,736.29	4,733.29	4,736.29	28.65	163.53	155.43	1,490.78	-1,159.78	3,182.09	2,993.67	188.42	16.889	
5,100.00	4,829.88	4,826.88	4,829.88	29.26	166.79	155.68	1,490.78	-1,159.78	3,214.50	3,022.32	192.18	16.726	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH													Offset Site Error: 0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error: 3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	4,923.47	4,920.47	4,923.47	29.87	170.06	155.94	1,490.78	-1,159.78	3,246.98	3,051.03	195.95	16.570	
5,300.00	5,017.06	5,014.06	5,017.06	30.48	173.33	156.19	1,490.78	-1,159.78	3,279.51	3,079.79	199.72	16.421	
5,400.00	5,110.65	5,107.65	5,110.65	31.09	176.59	156.43	1,490.78	-1,159.78	3,312.10	3,108.61	203.49	16.277	
5,500.00	5,204.24	5,201.24	5,204.24	31.70	179.86	156.67	1,490.78	-1,159.78	3,344.74	3,137.48	207.25	16.138	
5,600.00	5,297.83	5,294.83	5,297.83	32.32	183.49	156.90	1,490.78	-1,159.78	3,377.43	3,166.04	211.38	15.978	
5,700.00	5,391.42	5,388.42	5,391.42	32.93	186.39	157.13	1,490.78	-1,159.78	3,410.17	3,195.38	214.79	15.877	
5,800.00	5,485.01	5,482.01	5,485.01	33.54	189.66	157.36	1,490.78	-1,159.78	3,442.96	3,224.40	218.56	15.753	
5,900.00	5,578.60	5,575.60	5,578.60	34.15	192.93	157.58	1,490.78	-1,159.78	3,475.80	3,253.47	222.32	15.634	
6,000.00	5,672.19	5,669.19	5,672.19	34.77	196.19	157.80	1,490.78	-1,159.78	3,508.68	3,282.59	226.09	15.519	
6,100.00	5,765.78	5,762.78	5,765.78	35.38	199.46	158.01	1,490.78	-1,159.78	3,541.61	3,311.75	229.86	15.408	
6,200.00	5,859.37	5,856.37	5,859.37	35.99	202.73	158.22	1,490.78	-1,159.78	3,574.59	3,340.96	233.63	15.300	
6,300.00	5,952.96	5,949.96	5,952.96	36.60	205.99	158.43	1,490.78	-1,159.78	3,607.60	3,370.21	237.39	15.197	
6,400.00	6,046.55	6,043.55	6,046.55	37.22	209.26	158.63	1,490.78	-1,159.78	3,640.66	3,399.50	241.16	15.096	
6,500.00	6,140.14	6,137.14	6,140.14	37.83	212.53	158.83	1,490.78	-1,159.78	3,673.76	3,428.83	244.93	14.999	
6,600.00	6,233.73	6,230.73	6,233.73	38.44	215.79	159.02	1,490.78	-1,159.78	3,706.90	3,458.20	248.70	14.905	
6,700.00	6,327.32	6,324.32	6,327.32	39.06	219.06	159.21	1,490.78	-1,159.78	3,740.07	3,487.61	252.47	14.814	
6,800.00	6,420.91	6,417.91	6,420.91	39.67	222.33	159.40	1,490.78	-1,159.78	3,773.29	3,517.05	256.23	14.726	
6,900.00	6,514.50	6,511.50	6,514.50	40.28	225.60	159.59	1,490.78	-1,159.78	3,806.54	3,546.53	260.00	14.640	
7,000.00	6,608.09	6,605.09	6,608.09	40.90	228.86	159.77	1,490.78	-1,159.78	3,839.82	3,576.05	263.77	14.558	
7,100.00	6,701.63	6,701.63	6,701.63	41.51	232.22	149.36	1,490.78	-1,159.78	3,872.79	3,605.16	267.63	14.471	
7,200.00	6,793.85	6,809.15	6,793.85	42.10	235.99	127.43	1,490.78	-1,159.78	3,902.13	3,630.24	271.89	14.352	
7,300.00	6,882.50	6,879.50	6,882.50	42.64	238.44	112.53	1,490.78	-1,159.78	3,926.65	3,651.85	274.81	14.289	
7,400.00	6,965.41	6,962.41	6,965.41	43.12	241.34	103.00	1,490.78	-1,159.78	3,946.18	3,668.05	278.13	14.188	
7,500.00	7,040.53	7,037.53	7,040.53	43.53	243.96	96.98	1,490.78	-1,159.78	3,960.72	3,679.57	281.15	14.088	
7,600.00	7,106.00	7,103.00	7,106.00	43.89	246.24	93.22	1,490.78	-1,159.78	3,970.47	3,686.63	283.84	13.989	
7,700.00	7,160.23	7,157.23	7,160.23	44.20	248.14	90.99	1,490.78	-1,159.78	3,975.72	3,689.54	286.18	13.892	
7,800.00	7,201.86	7,201.14	7,201.86	44.48	249.67	89.83	1,490.78	-1,159.78	3,976.87	3,688.60	288.26	13.796	
7,900.00	7,229.88	7,226.88	7,229.88	44.73	250.57	89.47	1,490.78	-1,159.78	3,974.28	3,684.44	289.84	13.712	
8,000.00	7,243.60	7,240.60	7,243.60	44.99	251.05	89.72	1,490.78	-1,159.78	3,968.31	3,677.17	291.14	13.630	
8,100.00	7,244.73	7,241.73	7,244.73	45.29	251.09	90.02	1,490.78	-1,159.78	3,960.00	3,667.86	292.13	13.555	
8,200.00	7,244.23	7,241.23	7,244.23	45.74	251.07	90.01	1,490.78	-1,159.78	3,953.59	3,660.36	293.23	13.483	
8,300.00	7,243.73	7,240.73	7,243.73	46.38	251.05	90.01	1,490.78	-1,159.78	3,949.70	3,655.23	294.47	13.413	
8,400.00	7,243.23	7,240.23	7,243.23	47.29	251.03	90.00	1,490.78	-1,159.78	3,948.34	3,652.51	295.83	13.347	
8,403.70	7,243.21	7,240.21	7,243.21	47.33	251.03	90.00	1,490.78	-1,159.78	3,948.33	3,652.45	295.88	13.344	
8,500.00	7,242.73	7,239.73	7,242.73	48.46	251.02	89.99	1,490.78	-1,159.78	3,949.51	3,652.21	297.30	13.285	
8,600.00	7,242.23	7,239.23	7,242.23	49.87	251.00	89.99	1,490.78	-1,159.78	3,953.21	3,654.34	298.87	13.227	
8,700.00	7,241.73	7,238.73	7,241.73	51.48	250.98	89.98	1,490.78	-1,159.78	3,959.44	3,658.92	300.51	13.176	
8,800.00	7,241.23	7,238.23	7,241.23	53.24	250.96	89.97	1,490.78	-1,159.78	3,968.17	3,665.95	302.22	13.130	
8,900.00	7,240.73	7,237.73	7,240.73	55.13	250.95	89.96	1,490.78	-1,159.78	3,979.40	3,675.42	303.98	13.091	
9,000.00	7,240.23	7,237.23	7,240.23	57.11	250.93	89.96	1,490.78	-1,159.78	3,993.11	3,687.33	305.77	13.059	
9,100.00	7,239.73	7,236.73	7,239.73	59.19	250.91	89.95	1,490.78	-1,159.78	4,009.26	3,701.67	307.59	13.034	
9,200.00	7,239.23	7,236.23	7,239.23	61.34	250.89	89.94	1,490.78	-1,159.78	4,027.83	3,718.40	309.43	13.017	
9,300.00	7,238.72	7,235.72	7,238.72	63.55	250.88	89.93	1,490.78	-1,159.78	4,048.79	3,737.52	311.27	13.007	
9,400.00	7,238.22	7,235.22	7,238.22	65.81	250.86	89.93	1,490.78	-1,159.78	4,072.09	3,758.99	313.11	13.005 SF	
9,500.00	7,237.72	7,234.72	7,237.72	68.13	250.84	89.92	1,490.78	-1,159.78	4,097.70	3,782.77	314.93	13.011	
9,600.00	7,237.22	7,234.22	7,237.22	70.48	250.82	89.91	1,490.78	-1,159.78	4,125.58	3,808.85	316.74	13.025	
9,700.00	7,236.72	7,233.72	7,236.72	72.88	250.81	89.91	1,490.78	-1,159.78	4,155.68	3,837.16	318.52	13.047	
9,800.00	7,236.22	7,233.22	7,236.22	75.31	250.79	89.90	1,490.78	-1,159.78	4,187.95	3,867.68	320.27	13.076	
9,900.00	7,235.72	7,232.72	7,235.72	77.77	250.77	89.89	1,490.78	-1,159.78	4,222.35	3,900.35	321.99	13.113	
10,000.00	7,235.22	7,232.22	7,235.22	80.26	250.75	89.88	1,490.78	-1,159.78	4,258.81	3,935.13	323.68	13.158	
10,100.00	7,234.72	7,231.72	7,234.72	82.77	250.74	89.88	1,490.78	-1,159.78	4,297.29	3,971.97	325.32	13.209	
10,200.00	7,234.22	7,231.22	7,234.22	85.31	250.72	89.87	1,490.78	-1,159.78	4,337.74	4,010.81	326.92	13.268	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH													Offset Site Error: 0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error: 3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.00	7,233.72	7,230.72	7,233.72	87.86	250.70	89.86	1,490.78	-1,159.78	4,380.09	4,051.61	328.48	13.334	
10,400.00	7,233.22	7,230.22	7,233.22	90.44	250.68	89.85	1,490.78	-1,159.78	4,424.30	4,094.31	329.99	13.407	
10,500.00	7,232.72	7,229.72	7,232.72	93.03	250.67	89.85	1,490.78	-1,159.78	4,470.31	4,138.86	331.46	13.487	
10,600.00	7,232.22	7,229.22	7,232.22	95.64	250.65	89.84	1,490.78	-1,159.78	4,518.07	4,185.20	332.87	13.573	
10,700.00	7,231.72	7,228.72	7,231.72	98.26	250.63	89.83	1,490.78	-1,159.78	4,567.52	4,233.27	334.24	13.665	
10,800.00	7,231.21	7,228.21	7,231.21	100.89	250.61	89.83	1,490.78	-1,159.78	4,618.60	4,283.03	335.57	13.764	
10,900.00	7,230.71	7,227.71	7,230.71	103.54	250.60	89.82	1,490.78	-1,159.78	4,671.26	4,334.42	336.84	13.868	
11,000.00	7,230.21	7,227.21	7,230.21	106.20	250.58	89.81	1,490.78	-1,159.78	4,725.46	4,387.39	338.07	13.978	
11,100.00	7,229.71	7,226.71	7,229.71	108.87	250.56	89.80	1,490.78	-1,159.78	4,781.13	4,441.87	339.25	14.093	
11,200.00	7,229.21	7,226.21	7,229.21	111.54	250.54	89.80	1,490.78	-1,159.78	4,838.23	4,497.83	340.39	14.214	
11,300.00	7,228.71	7,225.71	7,228.71	114.23	250.53	89.79	1,490.78	-1,159.78	4,896.70	4,555.22	341.48	14.339	
11,400.00	7,228.21	7,225.21	7,228.21	116.92	250.51	89.78	1,490.78	-1,159.78	4,956.50	4,613.97	342.53	14.470	
11,500.00	7,227.71	7,224.71	7,227.71	119.63	250.49	89.78	1,490.78	-1,159.78	5,017.59	4,674.04	343.54	14.605	
11,600.00	7,227.21	7,224.21	7,227.21	122.34	250.47	89.77	1,490.78	-1,159.78	5,079.90	4,735.39	344.51	14.745	
11,700.00	7,226.71	7,223.71	7,226.71	125.05	250.46	89.76	1,490.78	-1,159.78	5,143.41	4,797.97	345.44	14.890	
11,800.00	7,226.21	7,223.21	7,226.21	127.78	250.44	89.75	1,490.78	-1,159.78	5,208.06	4,861.73	346.33	15.038	
11,900.00	7,225.71	7,222.71	7,225.71	130.51	250.42	89.75	1,490.78	-1,159.78	5,273.82	4,926.64	347.18	15.191	
12,000.00	7,225.21	7,222.21	7,225.21	133.24	250.40	89.74	1,490.78	-1,159.78	5,340.63	4,992.64	347.99	15.347	
12,100.00	7,224.71	7,221.71	7,224.71	135.98	250.39	89.73	1,490.78	-1,159.78	5,408.48	5,059.70	348.77	15.507	
12,200.00	7,224.21	7,221.21	7,224.21	138.72	250.37	89.72	1,490.78	-1,159.78	5,477.30	5,127.78	349.52	15.671	
12,300.00	7,223.70	7,220.70	7,223.70	141.47	250.35	89.72	1,490.78	-1,159.78	5,547.08	5,196.84	350.24	15.838	
12,400.00	7,223.20	7,220.20	7,223.20	144.23	250.33	89.71	1,490.78	-1,159.78	5,617.77	5,266.85	350.92	16.008	
12,500.00	7,222.70	7,219.70	7,222.70	146.98	250.32	89.70	1,490.78	-1,159.78	5,689.34	5,337.76	351.58	16.182	
12,600.00	7,222.20	7,219.20	7,222.20	149.74	250.30	89.70	1,490.78	-1,159.78	5,761.76	5,409.55	352.21	16.359	
12,700.00	7,221.70	7,218.70	7,221.70	152.51	250.28	89.69	1,490.78	-1,159.78	5,834.99	5,482.18	352.81	16.539	
12,800.00	7,221.20	7,218.20	7,221.20	155.28	250.26	89.68	1,490.78	-1,159.78	5,909.00	5,555.62	353.39	16.721	
12,900.00	7,220.70	7,217.70	7,220.70	158.05	250.25	89.67	1,490.78	-1,159.78	5,983.77	5,629.84	353.94	16.906	
13,000.00	7,220.20	7,217.20	7,220.20	160.82	250.23	89.67	1,490.78	-1,159.78	6,059.27	5,704.81	354.46	17.094	
13,100.00	7,219.70	7,216.70	7,219.70	163.60	250.21	89.66	1,490.78	-1,159.78	6,135.47	5,780.50	354.97	17.285	
13,200.00	7,219.20	7,216.20	7,219.20	166.38	250.19	89.65	1,490.78	-1,159.78	6,212.35	5,856.90	355.45	17.477	
13,300.00	7,218.70	7,215.70	7,218.70	169.16	250.18	89.64	1,490.78	-1,159.78	6,289.87	5,933.96	355.91	17.673	
13,400.00	7,218.20	7,215.20	7,218.20	171.95	250.16	89.64	1,490.78	-1,159.78	6,368.02	6,011.67	356.35	17.870	
13,500.00	7,217.70	7,214.70	7,217.70	174.74	250.14	89.63	1,490.78	-1,159.78	6,446.78	6,090.00	356.78	18.069	
13,600.00	7,217.20	7,214.20	7,217.20	177.53	250.12	89.62	1,490.78	-1,159.78	6,526.12	6,168.93	357.18	18.271	
13,700.00	7,216.70	7,213.70	7,216.70	180.32	250.11	89.62	1,490.78	-1,159.78	6,606.01	6,248.44	357.57	18.475	
13,800.00	7,216.19	7,213.19	7,216.19	183.11	250.09	89.61	1,490.78	-1,159.78	6,686.45	6,328.51	357.94	18.680	
13,900.00	7,215.69	7,212.69	7,215.69	185.91	250.07	89.60	1,490.78	-1,159.78	6,767.41	6,409.11	358.30	18.888	
14,000.00	7,215.19	7,212.19	7,215.19	188.71	250.05	89.59	1,490.78	-1,159.78	6,848.88	6,490.23	358.64	19.097	
14,100.00	7,214.69	7,211.69	7,214.69	191.51	250.04	89.59	1,490.78	-1,159.78	6,930.83	6,571.86	358.97	19.308	
14,200.00	7,214.19	7,211.19	7,214.19	194.31	250.02	89.58	1,490.78	-1,159.78	7,013.24	6,653.96	359.28	19.520	
14,300.00	7,213.69	7,210.69	7,213.69	197.11	250.00	89.57	1,490.78	-1,159.78	7,096.11	6,736.53	359.59	19.734	
14,400.00	7,213.19	7,210.19	7,213.19	199.92	249.98	89.56	1,490.78	-1,159.78	7,179.42	6,819.54	359.88	19.950	
14,500.00	7,212.69	7,209.69	7,212.69	202.72	249.97	89.56	1,490.78	-1,159.78	7,263.14	6,902.99	360.15	20.167	
14,600.00	7,212.19	7,209.19	7,212.19	205.53	249.95	89.55	1,490.78	-1,159.78	7,347.28	6,986.86	360.42	20.385	
14,700.00	7,211.69	7,208.69	7,211.69	208.34	249.93	89.54	1,490.78	-1,159.78	7,431.80	7,071.13	360.67	20.605	
14,800.00	7,211.19	7,208.19	7,211.19	211.15	249.91	89.54	1,490.78	-1,159.78	7,516.71	7,155.79	360.92	20.827	
14,900.00	7,210.69	7,207.69	7,210.69	213.96	249.90	89.53	1,490.78	-1,159.78	7,601.98	7,240.83	361.16	21.049	
15,000.00	7,210.19	7,207.19	7,210.19	216.78	249.88	89.52	1,490.78	-1,159.78	7,687.61	7,326.23	361.38	21.273	
15,100.00	7,209.69	7,206.69	7,209.69	219.59	249.86	89.51	1,490.78	-1,159.78	7,773.59	7,411.99	361.60	21.498	
15,200.00	7,209.18	7,206.18	7,209.18	222.41	249.84	89.51	1,490.78	-1,159.78	7,859.89	7,498.08	361.81	21.724	
15,300.00	7,208.68	7,205.68	7,208.68	225.22	249.83	89.50	1,490.78	-1,159.78	7,946.51	7,584.50	362.01	21.951	
15,400.00	7,208.18	7,205.18	7,208.18	228.04	249.81	89.49	1,490.78	-1,159.78	8,033.45	7,671.25	362.20	22.179	

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,205.00	7,208.00	229.10	249.80	89.49	1,490.78	-1,159.78	8,066.11	7,703.84	362.27	22.265	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-24(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	17.00	3.28	3.28	-80.39	186.56	-1,101.43	1,117.25					
100.00	100.00	83.00	100.00	3.28	3.59	-80.39	186.56	-1,101.43	1,117.12	1,110.25	6.87	162.598		
200.00	200.00	183.00	200.00	3.34	5.68	-80.39	186.56	-1,101.43	1,117.12	1,108.10	9.02	123.825 CC		
300.00	299.98	282.98	299.98	3.44	8.77	96.06	186.56	-1,101.43	1,117.30	1,105.09	12.21	91.514		
400.00	399.84	382.84	399.84	3.59	12.07	96.32	186.56	-1,101.43	1,117.87	1,102.21	15.66	71.375		
500.00	499.45	482.45	499.45	3.79	15.45	96.74	186.56	-1,101.43	1,118.86	1,099.63	19.24	58.167		
600.00	598.70	581.70	598.70	4.03	18.85	97.32	186.56	-1,101.43	1,120.37	1,097.49	22.88	48.970		
700.00	697.47	680.47	697.47	4.31	22.25	98.06	186.56	-1,101.43	1,122.49	1,095.92	26.57	42.252		
800.00	795.62	778.62	795.62	4.64	25.65	98.95	186.56	-1,101.43	1,125.36	1,095.08	30.28	37.160 ES		
900.00	893.06	876.06	893.06	5.00	29.02	99.98	186.56	-1,101.43	1,129.16	1,095.14	34.02	33.190		
1,000.00	989.64	972.64	989.64	5.40	32.38	101.13	186.56	-1,101.43	1,134.06	1,096.29	37.77	30.026		
1,100.00	1,085.27	1,068.27	1,085.27	5.83	35.70	102.39	186.56	-1,101.43	1,140.28	1,098.76	41.52	27.463		
1,200.00	1,179.82	1,162.82	1,179.82	6.29	38.99	103.74	186.56	-1,101.43	1,148.04	1,102.77	45.27	25.361		
1,300.00	1,273.47	1,256.47	1,273.47	6.79	42.25	105.27	186.56	-1,101.43	1,157.37	1,108.36	49.01	23.614		
1,400.00	1,367.06	1,350.06	1,367.06	7.30	45.50	106.84	186.56	-1,101.43	1,167.72	1,114.95	52.77	22.128		
1,500.00	1,460.64	1,443.64	1,460.64	7.83	48.76	108.39	186.56	-1,101.43	1,179.04	1,122.50	56.54	20.852		
1,600.00	1,554.23	1,537.23	1,554.23	8.38	52.02	109.90	186.56	-1,101.43	1,191.30	1,130.97	60.32	19.749		
1,700.00	1,647.82	1,630.82	1,647.82	8.93	55.28	111.39	186.56	-1,101.43	1,204.45	1,140.34	64.11	18.788		
1,800.00	1,741.41	1,724.41	1,741.41	9.49	58.55	112.85	186.56	-1,101.43	1,218.49	1,150.59	67.90	17.946		
1,900.00	1,835.00	1,818.00	1,835.00	10.05	61.81	114.28	186.56	-1,101.43	1,233.37	1,161.68	71.69	17.204		
2,000.00	1,928.59	1,911.59	1,928.59	10.62	65.07	115.68	186.56	-1,101.43	1,249.07	1,173.58	75.49	16.547		
2,100.00	2,022.18	2,005.18	2,022.18	11.20	68.33	117.04	186.56	-1,101.43	1,265.55	1,186.27	79.28	15.963		
2,200.00	2,115.77	2,101.23	2,115.77	11.78	71.68	118.37	186.56	-1,101.43	1,282.79	1,199.63	83.16	15.426		
2,300.00	2,209.36	2,207.64	2,209.36	12.37	75.39	119.67	186.56	-1,101.43	1,300.76	1,213.36	87.40	14.883		
2,400.00	2,302.95	2,285.95	2,302.95	12.95	78.13	120.94	186.56	-1,101.43	1,319.42	1,228.76	90.66	14.554		
2,500.00	2,396.54	2,379.54	2,396.54	13.54	81.39	122.18	186.56	-1,101.43	1,338.75	1,244.30	94.45	14.174		
2,600.00	2,490.13	2,473.13	2,490.13	14.13	84.66	123.38	186.56	-1,101.43	1,358.72	1,260.48	98.24	13.831		
2,700.00	2,583.72	2,566.72	2,583.72	14.73	87.92	124.55	186.56	-1,101.43	1,379.30	1,277.27	102.02	13.519		
2,800.00	2,677.31	2,660.31	2,677.31	15.32	91.19	125.68	186.56	-1,101.43	1,400.46	1,294.65	105.81	13.236		
2,900.00	2,770.90	2,753.90	2,770.90	15.92	94.45	126.79	186.56	-1,101.43	1,422.18	1,312.58	109.59	12.977		
3,000.00	2,864.49	2,847.49	2,864.49	16.52	97.72	127.87	186.56	-1,101.43	1,444.43	1,331.06	113.37	12.740		
3,100.00	2,958.08	2,941.08	2,958.08	17.12	100.98	128.91	186.56	-1,101.43	1,467.19	1,350.04	117.15	12.524		
3,200.00	3,051.67	3,034.67	3,051.67	17.72	104.25	129.92	186.56	-1,101.43	1,490.44	1,369.51	120.93	12.325		
3,300.00	3,145.26	3,128.26	3,145.26	18.32	107.51	130.91	186.56	-1,101.43	1,514.14	1,389.44	124.71	12.142		
3,400.00	3,238.85	3,221.85	3,238.85	18.92	110.78	131.87	186.56	-1,101.43	1,538.29	1,409.81	128.48	11.973		
3,500.00	3,332.44	3,315.44	3,332.44	19.53	114.04	132.80	186.56	-1,101.43	1,562.86	1,430.61	132.25	11.817		
3,600.00	3,426.03	3,409.03	3,426.03	20.13	117.31	133.70	186.56	-1,101.43	1,587.84	1,451.81	136.02	11.673		
3,700.00	3,519.62	3,502.62	3,519.62	20.74	120.58	134.57	186.56	-1,101.43	1,613.19	1,473.40	139.79	11.540		
3,800.00	3,613.21	3,603.79	3,613.21	21.34	124.11	135.42	186.56	-1,101.43	1,638.91	1,495.09	143.83	11.395		
3,900.00	3,706.80	3,689.80	3,706.80	21.95	127.11	136.25	186.56	-1,101.43	1,664.98	1,517.65	147.33	11.301		
4,000.00	3,800.39	3,783.39	3,800.39	22.56	130.37	137.05	186.56	-1,101.43	1,691.38	1,540.29	151.09	11.194		
4,100.00	3,893.98	3,876.98	3,893.98	23.16	133.64	137.83	186.56	-1,101.43	1,718.10	1,563.24	154.86	11.095		
4,200.00	3,987.57	3,970.57	3,987.57	23.77	136.91	138.58	186.56	-1,101.43	1,745.11	1,586.49	158.62	11.002		
4,300.00	4,081.16	4,064.16	4,081.16	24.38	140.17	139.32	186.56	-1,101.43	1,772.42	1,610.04	162.39	10.915		
4,400.00	4,174.75	4,157.75	4,174.75	24.99	143.44	140.03	186.56	-1,101.43	1,800.00	1,633.86	166.15	10.834		
4,500.00	4,268.34	4,251.34	4,268.34	25.60	146.71	140.72	186.56	-1,101.43	1,827.85	1,657.94	169.91	10.758		
4,600.00	4,361.93	4,344.93	4,361.93	26.21	149.97	141.39	186.56	-1,101.43	1,855.94	1,682.27	173.67	10.687		
4,700.00	4,455.52	4,438.52	4,455.52	26.82	153.24	142.04	186.56	-1,101.43	1,884.28	1,706.85	177.43	10.620		
4,800.00	4,549.11	4,532.11	4,549.11	27.43	156.51	142.68	186.56	-1,101.43	1,912.84	1,731.65	181.19	10.557		
4,900.00	4,642.70	4,625.70	4,642.70	28.04	159.77	143.29	186.56	-1,101.43	1,941.63	1,756.68	184.95	10.498		
5,000.00	4,736.29	4,719.29	4,736.29	28.65	163.04	143.89	186.56	-1,101.43	1,970.62	1,781.91	188.71	10.443		
5,100.00	4,829.88	4,812.88	4,829.88	29.26	166.30	144.47	186.56	-1,101.43	1,999.81	1,807.35	192.47	10.390		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-24(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,906.47	4,923.47	29.87	169.57	145.04	186.56	-1,101.43	2,029.20	1,832.97	196.22	10.341		
5,300.00	5,017.06	5,000.06	5,017.06	30.48	172.84	145.59	186.56	-1,101.43	2,058.76	1,858.78	199.98	10.295		
5,400.00	5,110.65	5,106.35	5,110.65	31.09	176.55	146.13	186.56	-1,101.43	2,088.51	1,884.32	204.18	10.229		
5,500.00	5,204.24	5,187.24	5,204.24	31.70	179.37	146.65	186.56	-1,101.43	2,118.42	1,910.92	207.50	10.209		
5,600.00	5,297.83	5,280.83	5,297.83	32.32	182.64	147.15	186.56	-1,101.43	2,148.49	1,937.24	211.25	10.170		
5,700.00	5,391.42	5,374.42	5,391.42	32.93	185.90	147.65	186.56	-1,101.43	2,178.72	1,963.71	215.01	10.133		
5,800.00	5,485.01	5,468.01	5,485.01	33.54	189.17	148.13	186.56	-1,101.43	2,209.09	1,990.32	218.77	10.098		
5,900.00	5,578.60	5,561.60	5,578.60	34.15	192.44	148.60	186.56	-1,101.43	2,239.61	2,017.08	222.53	10.064		
6,000.00	5,672.19	5,655.19	5,672.19	34.77	195.71	149.05	186.56	-1,101.43	2,270.26	2,043.98	226.28	10.033		
6,100.00	5,765.78	5,748.78	5,765.78	35.38	198.97	149.50	186.56	-1,101.43	2,301.05	2,071.01	230.04	10.003		
6,200.00	5,859.37	5,842.37	5,859.37	35.99	202.24	149.93	186.56	-1,101.43	2,331.96	2,098.16	233.80	9.974		
6,300.00	5,952.96	5,935.96	5,952.96	36.60	205.51	150.35	186.56	-1,101.43	2,362.99	2,125.44	237.55	9.947		
6,400.00	6,046.55	6,029.55	6,046.55	37.22	208.77	150.76	186.56	-1,101.43	2,394.14	2,152.83	241.31	9.921		
6,500.00	6,140.14	6,123.14	6,140.14	37.83	212.04	151.16	186.56	-1,101.43	2,425.40	2,180.33	245.07	9.897		
6,600.00	6,233.73	6,216.73	6,233.73	38.44	215.31	151.55	186.56	-1,101.43	2,456.76	2,207.94	248.83	9.873		
6,700.00	6,327.32	6,310.32	6,327.32	39.06	218.57	151.93	186.56	-1,101.43	2,488.23	2,235.65	252.58	9.851		
6,800.00	6,420.91	6,403.91	6,420.91	39.67	221.84	152.30	186.56	-1,101.43	2,519.80	2,263.46	256.34	9.830		
6,900.00	6,514.50	6,502.50	6,514.50	40.28	225.28	152.67	186.56	-1,101.43	2,551.47	2,291.19	260.27	9.803		
7,000.00	6,608.09	6,608.09	6,608.09	40.90	229.00	153.02	186.56	-1,101.43	2,583.22	2,318.74	264.48	9.767		
7,100.00	6,701.63	6,684.63	6,701.63	41.51	231.64	142.91	186.56	-1,101.43	2,614.59	2,346.98	267.61	9.770		
7,200.00	6,793.85	6,776.85	6,793.85	42.10	234.86	121.58	186.56	-1,101.43	2,641.10	2,369.79	271.31	9.735		
7,300.00	6,882.50	6,865.50	6,882.50	42.64	237.95	107.41	186.56	-1,101.43	2,661.51	2,386.67	274.84	9.684		
7,400.00	6,965.41	6,948.41	6,965.41	43.12	240.85	98.70	186.56	-1,101.43	2,675.93	2,397.81	278.12	9.621		
7,500.00	7,040.53	7,023.53	7,040.53	43.53	243.47	93.52	186.56	-1,101.43	2,684.72	2,403.63	281.09	9.551		
7,600.00	7,106.00	7,089.00	7,106.00	43.89	245.75	90.61	186.56	-1,101.43	2,688.45	2,404.72	283.73	9.475		
7,700.00	7,160.23	7,143.23	7,160.23	44.20	247.65	89.18	186.56	-1,101.43	2,687.80	2,401.78	286.02	9.397		
7,800.00	7,201.86	7,184.86	7,201.86	44.48	249.10	88.74	186.56	-1,101.43	2,683.51	2,395.54	287.96	9.319		
7,900.00	7,229.88	7,212.88	7,229.88	44.73	250.08	88.95	186.56	-1,101.43	2,676.26	2,386.70	289.56	9.243		
8,000.00	7,243.60	7,226.60	7,243.60	44.99	250.56	89.61	186.56	-1,101.43	2,666.65	2,375.85	290.80	9.170		
8,100.00	7,244.73	7,227.73	7,244.73	45.29	250.60	90.03	186.56	-1,101.43	2,655.88	2,364.14	291.74	9.104		
8,200.00	7,244.23	7,227.23	7,244.23	45.74	250.58	90.02	186.56	-1,101.43	2,648.22	2,355.45	292.77	9.045		
8,300.00	7,243.73	7,226.73	7,243.73	46.38	250.56	90.01	186.56	-1,101.43	2,644.33	2,350.38	293.95	8.996		
8,353.03	7,243.47	7,226.47	7,243.47	46.84	250.55	90.00	186.56	-1,101.43	2,643.80	2,349.16	294.63	8.973		
8,400.00	7,243.23	7,226.23	7,243.23	47.29	250.54	89.99	186.56	-1,101.43	2,644.22	2,348.98	295.24	8.956		
8,500.00	7,242.73	7,225.73	7,242.73	48.46	250.53	89.98	186.56	-1,101.43	2,647.88	2,351.25	296.63	8.927		
8,600.00	7,242.23	7,225.23	7,242.23	49.87	250.51	89.97	186.56	-1,101.43	2,655.31	2,357.21	298.09	8.908		
8,700.00	7,241.73	7,224.73	7,241.73	51.48	250.49	89.96	186.56	-1,101.43	2,666.47	2,366.85	299.62	8.900 SF		
8,800.00	7,241.23	7,224.23	7,241.23	53.24	250.47	89.95	186.56	-1,101.43	2,681.31	2,380.14	301.18	8.903		
8,900.00	7,240.73	7,223.73	7,240.73	55.13	250.46	89.94	186.56	-1,101.43	2,699.79	2,397.03	302.75	8.917		
9,000.00	7,240.23	7,223.23	7,240.23	57.11	250.44	89.93	186.56	-1,101.43	2,721.81	2,417.47	304.33	8.944		
9,100.00	7,239.73	7,222.73	7,239.73	59.19	250.42	89.92	186.56	-1,101.43	2,747.29	2,441.40	305.90	8.981		
9,200.00	7,239.23	7,222.23	7,239.23	61.34	250.40	89.91	186.56	-1,101.43	2,776.15	2,468.71	307.44	9.030		
9,300.00	7,238.72	7,221.72	7,238.72	63.55	250.39	89.90	186.56	-1,101.43	2,808.27	2,499.33	308.95	9.090		
9,400.00	7,238.22	7,221.22	7,238.22	65.81	250.37	89.89	186.56	-1,101.43	2,843.55	2,533.14	310.41	9.161		
9,500.00	7,237.72	7,220.72	7,237.72	68.13	250.35	89.88	186.56	-1,101.43	2,881.87	2,570.05	311.82	9.242		
9,600.00	7,237.22	7,220.22	7,237.22	70.48	250.33	89.86	186.56	-1,101.43	2,923.11	2,609.93	313.18	9.334		
9,700.00	7,236.72	7,219.72	7,236.72	72.88	250.32	89.85	186.56	-1,101.43	2,967.15	2,652.67	314.47	9.435		
9,800.00	7,236.22	7,219.22	7,236.22	75.31	250.30	89.84	186.56	-1,101.43	3,013.86	2,698.15	315.71	9.546		
9,900.00	7,235.72	7,218.72	7,235.72	77.77	250.28	89.83	186.56	-1,101.43	3,063.13	2,746.24	316.88	9.666		
10,000.00	7,235.22	7,218.22	7,235.22	80.26	250.26	89.82	186.56	-1,101.43	3,114.82	2,796.83	317.99	9.795		
10,100.00	7,234.72	7,217.72	7,234.72	82.77	250.25	89.81	186.56	-1,101.43	3,168.83	2,849.79	319.04	9.932		
10,200.00	7,234.22	7,217.22	7,234.22	85.31	250.23	89.80	186.56	-1,101.43	3,225.04	2,905.01	320.03	10.077		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-24(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	7,216.72	7,233.72	87.86	250.21	89.79	186.56	-1,101.43	3,283.33	2,962.37	320.96	10.230		
10,400.00	7,233.22	7,216.22	7,233.22	90.44	250.19	89.78	186.56	-1,101.43	3,343.60	3,021.77	321.83	10.389		
10,500.00	7,232.72	7,215.72	7,232.72	93.03	250.18	89.77	186.56	-1,101.43	3,405.74	3,083.09	322.65	10.556		
10,600.00	7,232.22	7,215.22	7,232.22	95.64	250.16	89.76	186.56	-1,101.43	3,469.64	3,146.23	323.41	10.728		
10,700.00	7,231.72	7,214.72	7,231.72	98.26	250.14	89.75	186.56	-1,101.43	3,535.23	3,211.10	324.13	10.907		
10,800.00	7,231.21	7,214.21	7,231.21	100.89	250.12	89.73	186.56	-1,101.43	3,602.39	3,277.60	324.79	11.091		
10,900.00	7,230.71	7,213.71	7,230.71	103.54	250.11	89.72	186.56	-1,101.43	3,671.05	3,345.63	325.41	11.281		
11,000.00	7,230.21	7,213.21	7,230.21	106.20	250.09	89.71	186.56	-1,101.43	3,741.12	3,415.12	325.99	11.476		
11,100.00	7,229.71	7,212.71	7,229.71	108.87	250.07	89.70	186.56	-1,101.43	3,812.52	3,485.99	326.54	11.676		
11,200.00	7,229.21	7,212.21	7,229.21	111.54	250.05	89.69	186.56	-1,101.43	3,885.19	3,558.15	327.04	11.880		
11,300.00	7,228.71	7,211.71	7,228.71	114.23	250.04	89.68	186.56	-1,101.43	3,959.05	3,631.54	327.51	12.088		
11,400.00	7,228.21	7,211.21	7,228.21	116.92	250.02	89.67	186.56	-1,101.43	4,034.04	3,706.09	327.95	12.301		
11,500.00	7,227.71	7,210.71	7,227.71	119.63	250.00	89.66	186.56	-1,101.43	4,110.09	3,781.74	328.35	12.517		
11,600.00	7,227.21	7,210.21	7,227.21	122.34	249.98	89.65	186.56	-1,101.43	4,187.15	3,858.42	328.73	12.737		
11,700.00	7,226.71	7,209.71	7,226.71	125.05	249.97	89.64	186.56	-1,101.43	4,265.16	3,936.08	329.09	12.961		
11,800.00	7,226.21	7,209.21	7,226.21	127.78	249.95	89.63	186.56	-1,101.43	4,344.08	4,014.66	329.41	13.187		
11,900.00	7,225.71	7,208.71	7,225.71	130.51	249.93	89.62	186.56	-1,101.43	4,423.84	4,094.12	329.72	13.417		
12,000.00	7,225.21	7,208.21	7,225.21	133.24	249.92	89.60	186.56	-1,101.43	4,504.41	4,174.41	330.01	13.650		
12,100.00	7,224.71	7,207.71	7,224.71	135.98	249.90	89.59	186.56	-1,101.43	4,585.75	4,255.48	330.27	13.885		
12,200.00	7,224.21	7,207.21	7,224.21	138.72	249.88	89.58	186.56	-1,101.43	4,667.82	4,337.30	330.52	14.123		
12,300.00	7,223.70	7,206.70	7,223.70	141.47	249.86	89.57	186.56	-1,101.43	4,750.57	4,419.82	330.75	14.363		
12,400.00	7,223.20	7,206.20	7,223.20	144.23	249.85	89.56	186.56	-1,101.43	4,833.97	4,503.00	330.97	14.606		
12,500.00	7,222.70	7,205.70	7,222.70	146.98	249.83	89.55	186.56	-1,101.43	4,917.99	4,586.82	331.17	14.851		
12,600.00	7,222.20	7,205.20	7,222.20	149.74	249.81	89.54	186.56	-1,101.43	5,002.60	4,671.25	331.35	15.097		
12,700.00	7,221.70	7,204.70	7,221.70	152.51	249.79	89.53	186.56	-1,101.43	5,087.77	4,756.24	331.53	15.346		
12,800.00	7,221.20	7,204.20	7,221.20	155.28	249.78	89.52	186.56	-1,101.43	5,173.47	4,841.77	331.69	15.597		
12,900.00	7,220.70	7,203.70	7,220.70	158.05	249.76	89.51	186.56	-1,101.43	5,259.67	4,927.82	331.85	15.850		
13,000.00	7,220.20	7,203.20	7,220.20	160.82	249.74	89.50	186.56	-1,101.43	5,346.35	5,014.36	331.99	16.104		
13,100.00	7,219.70	7,202.70	7,219.70	163.60	249.72	89.48	186.56	-1,101.43	5,433.49	5,101.37	332.12	16.360		
13,200.00	7,219.20	7,202.20	7,219.20	166.38	249.71	89.47	186.56	-1,101.43	5,521.07	5,188.82	332.25	16.617		
13,300.00	7,218.70	7,201.70	7,218.70	169.16	249.69	89.46	186.56	-1,101.43	5,609.06	5,276.70	332.36	16.876		
13,400.00	7,218.20	7,201.20	7,218.20	171.95	249.67	89.45	186.56	-1,101.43	5,697.45	5,364.98	332.47	17.136		
13,500.00	7,217.70	7,200.70	7,217.70	174.74	249.65	89.44	186.56	-1,101.43	5,786.22	5,453.64	332.58	17.398		
13,600.00	7,217.20	7,200.20	7,217.20	177.53	249.64	89.43	186.56	-1,101.43	5,875.35	5,542.67	332.67	17.661		
13,700.00	7,216.70	7,200.31	7,216.70	180.32	249.64	89.42	186.56	-1,101.43	5,964.82	5,632.03	332.79	17.924		
13,800.00	7,216.19	7,200.81	7,216.19	183.11	249.66	89.41	186.56	-1,101.43	6,054.62	5,721.71	332.91	18.187		
13,900.00	7,215.69	7,201.31	7,215.69	185.91	249.67	89.40	186.56	-1,101.43	6,144.74	5,811.72	333.02	18.451		
14,000.00	7,215.19	7,201.81	7,215.19	188.71	249.69	89.39	186.56	-1,101.43	6,235.16	5,902.02	333.13	18.717		
14,100.00	7,214.69	7,202.31	7,214.69	191.51	249.71	89.38	186.56	-1,101.43	6,325.86	5,992.62	333.24	18.983		
14,200.00	7,214.19	7,202.81	7,214.19	194.31	249.73	89.37	186.56	-1,101.43	6,416.85	6,083.50	333.34	19.250		
14,300.00	7,213.69	7,203.31	7,213.69	197.11	249.74	89.35	186.56	-1,101.43	6,508.09	6,174.65	333.44	19.518		
14,400.00	7,213.19	7,203.81	7,213.19	199.92	249.76	89.34	186.56	-1,101.43	6,599.59	6,266.06	333.54	19.787		
14,500.00	7,212.69	7,204.31	7,212.69	202.72	249.78	89.33	186.56	-1,101.43	6,691.34	6,357.71	333.63	20.056		
14,600.00	7,212.19	7,204.81	7,212.19	205.53	249.80	89.32	186.56	-1,101.43	6,783.32	6,449.60	333.72	20.327		
14,700.00	7,211.69	7,205.31	7,211.69	208.34	249.81	89.31	186.56	-1,101.43	6,875.52	6,541.71	333.80	20.598		
14,800.00	7,211.19	7,205.81	7,211.19	211.15	249.83	89.30	186.56	-1,101.43	6,967.93	6,634.05	333.89	20.869		
14,900.00	7,210.69	7,206.31	7,210.69	213.96	249.85	89.29	186.56	-1,101.43	7,060.56	6,726.59	333.97	21.141		
15,000.00	7,210.19	7,206.81	7,210.19	216.78	249.87	89.28	186.56	-1,101.43	7,153.38	6,819.33	334.05	21.414		
15,100.00	7,209.69	7,207.31	7,209.69	219.59	249.88	89.27	186.56	-1,101.43	7,246.39	6,912.27	334.12	21.688		
15,200.00	7,209.18	7,207.82	7,209.18	222.41	249.90	89.26	186.56	-1,101.43	7,339.59	7,005.39	334.20	21.962		
15,300.00	7,208.68	7,208.32	7,208.68	225.22	249.92	89.25	186.56	-1,101.43	7,432.96	7,098.69	334.27	22.236		
15,400.00	7,208.18	7,208.82	7,208.18	228.04	249.94	89.24	186.56	-1,101.43	7,526.50	7,192.16	334.35	22.511		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - SENA 15-24(PR_75CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth	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)		
15,437.48	7,208.00	7,209.00	7,208.00	229.10	249.94	89.23	186.56	-1,101.43	7,561.61	7,227.23	334.37	22.614	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	10.00	0.00	3.28	3.28	-59.61	867.83	-1,479.66	1,715.38					
100.00	100.00	110.00	100.00	3.28	3.89	-59.61	867.83	-1,479.66	1,715.38	1,708.20	7.18	239.029		
200.00	200.00	210.00	200.00	3.34	6.48	-59.61	867.83	-1,479.66	1,715.38	1,705.56	9.81	174.780 CC		
300.00	299.98	289.98	299.98	3.44	9.00	116.79	867.83	-1,479.66	1,716.17	1,703.73	12.44	137.996		
400.00	399.84	389.84	399.84	3.59	12.31	116.91	867.83	-1,479.66	1,718.53	1,702.63	15.90	108.098 ES		
500.00	499.45	489.45	499.45	3.79	15.69	117.09	867.83	-1,479.66	1,722.50	1,703.03	19.48	88.445		
600.00	598.70	588.70	598.70	4.03	19.09	117.35	867.83	-1,479.66	1,728.11	1,704.99	23.12	74.744		
700.00	697.47	687.47	697.47	4.31	22.49	117.68	867.83	-1,479.66	1,735.41	1,708.60	26.81	64.734		
800.00	795.62	785.62	795.62	4.64	25.89	118.06	867.83	-1,479.66	1,744.46	1,713.93	30.52	57.151		
900.00	893.06	883.06	893.06	5.00	29.27	118.51	867.83	-1,479.66	1,755.33	1,721.08	34.26	51.242		
1,000.00	989.64	979.64	989.64	5.40	32.62	119.00	867.83	-1,479.66	1,768.12	1,730.12	38.00	46.535		
1,100.00	1,085.27	1,075.27	1,085.27	5.83	35.94	119.53	867.83	-1,479.66	1,782.90	1,741.17	41.74	42.719		
1,200.00	1,179.82	1,169.82	1,179.82	6.29	39.23	120.10	867.83	-1,479.66	1,799.78	1,754.31	45.47	39.583		
1,300.00	1,273.47	1,263.47	1,273.47	6.79	42.49	120.91	867.83	-1,479.66	1,818.44	1,769.24	49.19	36.964		
1,400.00	1,367.06	1,357.06	1,367.06	7.30	45.75	121.81	867.83	-1,479.66	1,837.66	1,784.73	52.93	34.717		
1,500.00	1,460.64	1,450.64	1,460.64	7.83	49.01	122.70	867.83	-1,479.66	1,857.36	1,800.67	56.68	32.767		
1,600.00	1,554.23	1,544.23	1,554.23	8.38	52.27	123.56	867.83	-1,479.66	1,877.51	1,817.06	60.44	31.062		
1,700.00	1,647.82	1,637.82	1,647.82	8.93	55.53	124.41	867.83	-1,479.66	1,898.09	1,833.88	64.21	29.561		
1,800.00	1,741.41	1,731.41	1,741.41	9.49	58.79	125.24	867.83	-1,479.66	1,919.11	1,851.13	67.98	28.229		
1,900.00	1,835.00	1,825.00	1,835.00	10.05	62.05	126.05	867.83	-1,479.66	1,940.54	1,868.78	71.76	27.042		
2,000.00	1,928.59	1,918.59	1,928.59	10.62	65.32	126.85	867.83	-1,479.66	1,962.36	1,886.82	75.54	25.978		
2,100.00	2,022.18	2,012.18	2,022.18	11.20	68.58	127.63	867.83	-1,479.66	1,984.57	1,905.25	79.32	25.020		
2,200.00	2,115.77	2,105.77	2,115.77	11.78	71.84	128.40	867.83	-1,479.66	2,007.15	1,924.05	83.10	24.153		
2,300.00	2,209.36	2,200.64	2,209.36	12.37	75.15	129.15	867.83	-1,479.66	2,030.10	1,943.17	86.93	23.353		
2,400.00	2,302.95	2,307.05	2,302.95	12.95	78.86	129.88	867.83	-1,479.66	2,053.39	1,962.22	91.16	22.524		
2,500.00	2,396.54	2,386.54	2,396.54	13.54	81.63	130.60	867.83	-1,479.66	2,077.02	1,982.56	94.46	21.989		
2,600.00	2,490.13	2,480.13	2,490.13	14.13	84.90	131.30	867.83	-1,479.66	2,100.97	2,002.72	98.24	21.385		
2,700.00	2,583.72	2,573.72	2,583.72	14.73	88.16	131.99	867.83	-1,479.66	2,125.23	2,023.21	102.03	20.830		
2,800.00	2,677.31	2,667.31	2,677.31	15.32	91.43	132.67	867.83	-1,479.66	2,149.80	2,043.99	105.81	20.317		
2,900.00	2,770.90	2,760.90	2,770.90	15.92	94.69	133.33	867.83	-1,479.66	2,174.67	2,065.07	109.60	19.842		
3,000.00	2,864.49	2,854.49	2,864.49	16.52	97.96	133.97	867.83	-1,479.66	2,199.81	2,086.43	113.38	19.402		
3,100.00	2,958.08	2,948.08	2,958.08	17.12	101.23	134.60	867.83	-1,479.66	2,225.23	2,108.07	117.16	18.992		
3,200.00	3,051.67	3,041.67	3,051.67	17.72	104.49	135.22	867.83	-1,479.66	2,250.92	2,129.97	120.95	18.611		
3,300.00	3,145.26	3,135.26	3,145.26	18.32	107.76	135.83	867.83	-1,479.66	2,276.85	2,152.12	124.73	18.254		
3,400.00	3,238.85	3,228.85	3,238.85	18.92	111.02	136.42	867.83	-1,479.66	2,303.04	2,174.53	128.51	17.921		
3,500.00	3,332.44	3,322.44	3,332.44	19.53	114.29	137.00	867.83	-1,479.66	2,329.46	2,197.17	132.29	17.609		
3,600.00	3,426.03	3,416.03	3,426.03	20.13	117.55	137.57	867.83	-1,479.66	2,356.12	2,220.05	136.07	17.315		
3,700.00	3,519.62	3,509.62	3,519.62	20.74	120.82	138.12	867.83	-1,479.66	2,382.99	2,243.14	139.85	17.040		
3,800.00	3,613.21	3,603.21	3,613.21	21.34	124.09	138.67	867.83	-1,479.66	2,410.09	2,266.46	143.63	16.780		
3,900.00	3,706.80	3,703.20	3,706.80	21.95	127.58	139.20	867.83	-1,479.66	2,437.39	2,289.76	147.63	16.510		
4,000.00	3,800.39	3,809.61	3,800.39	22.56	131.29	139.72	867.83	-1,479.66	2,464.89	2,313.04	151.85	16.232		
4,100.00	3,893.98	3,883.98	3,893.98	23.16	133.88	140.23	867.83	-1,479.66	2,492.58	2,337.63	154.96	16.085		
4,200.00	3,987.57	3,977.57	3,987.57	23.77	137.15	140.73	867.83	-1,479.66	2,520.47	2,361.73	158.73	15.879		
4,300.00	4,081.16	4,071.16	4,081.16	24.38	140.42	141.22	867.83	-1,479.66	2,548.53	2,386.02	162.51	15.682		
4,400.00	4,174.75	4,164.75	4,174.75	24.99	143.68	141.70	867.83	-1,479.66	2,576.77	2,410.49	166.28	15.496		
4,500.00	4,268.34	4,258.34	4,268.34	25.60	146.95	142.17	867.83	-1,479.66	2,605.19	2,435.13	170.06	15.320		
4,600.00	4,361.93	4,351.93	4,361.93	26.21	150.22	142.62	867.83	-1,479.66	2,633.76	2,459.93	173.83	15.151		
4,700.00	4,455.52	4,445.52	4,455.52	26.82	153.48	143.07	867.83	-1,479.66	2,662.50	2,484.90	177.60	14.991		
4,800.00	4,549.11	4,539.11	4,549.11	27.43	156.75	143.52	867.83	-1,479.66	2,691.39	2,510.01	181.37	14.839		
4,900.00	4,642.70	4,632.70	4,642.70	28.04	160.02	143.95	867.83	-1,479.66	2,720.43	2,535.28	185.15	14.693		
5,000.00	4,736.29	4,726.29	4,736.29	28.65	163.28	144.37	867.83	-1,479.66	2,749.61	2,560.69	188.92	14.555		
5,100.00	4,829.88	4,819.88	4,829.88	29.26	166.55	144.78	867.83	-1,479.66	2,778.93	2,586.25	192.69	14.422		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,913.47	4,923.47	29.87	169.82	145.19	867.83	-1,479.66	2,808.39	2,611.94	196.46	14.295		
5,300.00	5,017.06	5,007.06	5,017.06	30.48	173.08	145.59	867.83	-1,479.66	2,837.98	2,637.76	200.23	14.174		
5,400.00	5,110.65	5,100.65	5,110.65	31.09	176.35	145.98	867.83	-1,479.66	2,867.70	2,663.71	204.00	14.058		
5,500.00	5,204.24	5,205.76	5,204.24	31.70	180.02	146.36	867.83	-1,479.66	2,897.55	2,689.38	208.17	13.919		
5,600.00	5,297.83	5,287.83	5,297.83	32.32	182.88	146.73	867.83	-1,479.66	2,927.51	2,715.97	211.53	13.839		
5,700.00	5,391.42	5,381.42	5,391.42	32.93	186.15	147.10	867.83	-1,479.66	2,957.58	2,742.28	215.30	13.737		
5,800.00	5,485.01	5,475.01	5,485.01	33.54	189.42	147.46	867.83	-1,479.66	2,987.77	2,768.71	219.07	13.638		
5,900.00	5,578.60	5,568.60	5,578.60	34.15	192.68	147.82	867.83	-1,479.66	3,018.07	2,795.24	222.84	13.544		
6,000.00	5,672.19	5,662.19	5,672.19	34.77	195.95	148.16	867.83	-1,479.66	3,048.48	2,821.87	226.60	13.453		
6,100.00	5,765.78	5,755.78	5,765.78	35.38	199.22	148.50	867.83	-1,479.66	3,078.99	2,848.62	230.37	13.365		
6,200.00	5,859.37	5,849.37	5,859.37	35.99	202.48	148.84	867.83	-1,479.66	3,109.60	2,875.46	234.14	13.281		
6,300.00	5,952.96	5,942.96	5,952.96	36.60	205.75	149.16	867.83	-1,479.66	3,140.30	2,902.39	237.91	13.200		
6,400.00	6,046.55	6,036.55	6,046.55	37.22	209.02	149.48	867.83	-1,479.66	3,171.10	2,929.43	241.67	13.121		
6,500.00	6,140.14	6,130.14	6,140.14	37.83	212.28	149.80	867.83	-1,479.66	3,201.99	2,956.55	245.44	13.046		
6,600.00	6,233.73	6,223.73	6,233.73	38.44	215.55	150.11	867.83	-1,479.66	3,232.97	2,983.76	249.21	12.973		
6,700.00	6,327.32	6,317.32	6,327.32	39.06	218.82	150.41	867.83	-1,479.66	3,264.03	3,011.06	252.97	12.903		
6,800.00	6,420.91	6,410.91	6,420.91	39.67	222.08	150.71	867.83	-1,479.66	3,295.18	3,038.44	256.74	12.835		
6,900.00	6,514.50	6,504.50	6,514.50	40.28	225.35	151.00	867.83	-1,479.66	3,326.41	3,065.91	260.50	12.769		
7,000.00	6,608.09	6,601.91	6,608.09	40.90	228.75	151.29	867.83	-1,479.66	3,357.72	3,093.32	264.40	12.699		
7,100.00	6,701.63	6,708.38	6,701.63	41.51	232.47	141.14	867.83	-1,479.66	3,388.59	3,119.98	268.62	12.615		
7,200.00	6,793.85	6,783.85	6,793.85	42.10	235.10	119.80	867.83	-1,479.66	3,414.22	3,142.47	271.74	12.564		
7,300.00	6,882.50	6,872.50	6,882.50	42.64	238.20	105.59	867.83	-1,479.66	3,433.21	3,157.92	275.29	12.471		
7,400.00	6,965.41	6,955.41	6,965.41	43.12	241.09	96.86	867.83	-1,479.66	3,445.58	3,166.98	278.60	12.368		
7,500.00	7,040.53	7,030.53	7,040.53	43.53	243.71	91.68	867.83	-1,479.66	3,451.57	3,169.97	281.60	12.257		
7,600.00	7,106.00	7,104.00	7,106.00	43.89	246.28	88.83	867.83	-1,479.66	3,451.64	3,167.09	284.55	12.130		
7,700.00	7,160.23	7,150.23	7,160.23	44.20	247.89	87.56	867.83	-1,479.66	3,446.37	3,159.78	286.59	12.025		
7,800.00	7,201.86	7,208.14	7,201.86	44.48	249.91	87.40	867.83	-1,479.66	3,436.43	3,147.30	289.14	11.885		
7,900.00	7,229.88	7,219.88	7,229.88	44.73	250.32	88.05	867.83	-1,479.66	3,422.50	3,132.31	290.20	11.794		
8,000.00	7,243.60	7,233.60	7,243.60	44.99	250.80	89.30	867.83	-1,479.66	3,405.22	3,113.75	291.47	11.683		
8,100.00	7,244.73	7,234.73	7,244.73	45.29	250.84	90.05	867.83	-1,479.66	3,385.89	3,093.44	292.45	11.578		
8,200.00	7,244.23	7,234.23	7,244.23	45.74	250.82	90.05	867.83	-1,479.66	3,368.80	3,075.27	293.52	11.477		
8,300.00	7,243.73	7,233.73	7,243.73	46.38	250.81	90.04	867.83	-1,479.66	3,354.60	3,059.85	294.75	11.381		
8,400.00	7,243.23	7,233.23	7,243.23	47.29	250.79	90.03	867.83	-1,479.66	3,343.34	3,047.23	296.11	11.291		
8,500.00	7,242.73	7,232.73	7,242.73	48.46	250.77	90.02	867.83	-1,479.66	3,335.03	3,037.45	297.58	11.207		
8,600.00	7,242.23	7,232.23	7,242.23	49.87	250.75	90.01	867.83	-1,479.66	3,329.71	3,030.56	299.16	11.130		
8,700.00	7,241.73	7,231.73	7,241.73	51.48	250.74	90.00	867.83	-1,479.66	3,327.39	3,026.57	300.82	11.061		
8,727.25	7,241.59	7,231.59	7,241.59	51.95	250.73	90.00	867.83	-1,479.66	3,327.28	3,025.99	301.29	11.043		
8,800.00	7,241.23	7,231.23	7,241.23	53.24	250.72	89.99	867.83	-1,479.66	3,328.08	3,025.53	302.55	11.000		
8,900.00	7,240.73	7,230.73	7,240.73	55.13	250.70	89.99	867.83	-1,479.66	3,331.76	3,027.43	304.33	10.948		
9,000.00	7,240.23	7,230.23	7,240.23	57.11	250.68	89.98	867.83	-1,479.66	3,338.44	3,032.29	306.15	10.904		
9,100.00	7,239.73	7,229.73	7,239.73	59.19	250.67	89.97	867.83	-1,479.66	3,348.10	3,040.10	308.00	10.870		
9,200.00	7,239.23	7,229.23	7,239.23	61.34	250.65	89.96	867.83	-1,479.66	3,360.70	3,050.84	309.86	10.846		
9,300.00	7,238.72	7,228.72	7,238.72	63.55	250.63	89.95	867.83	-1,479.66	3,376.22	3,064.50	311.71	10.831		
9,400.00	7,238.22	7,228.22	7,238.22	65.81	250.61	89.94	867.83	-1,479.66	3,394.61	3,081.05	313.56	10.826 SF		
9,500.00	7,237.72	7,227.72	7,237.72	68.13	250.60	89.93	867.83	-1,479.66	3,415.84	3,100.46	315.38	10.831		
9,600.00	7,237.22	7,227.22	7,237.22	70.48	250.58	89.92	867.83	-1,479.66	3,439.84	3,122.66	317.17	10.845		
9,700.00	7,236.72	7,226.72	7,236.72	72.88	250.56	89.92	867.83	-1,479.66	3,466.56	3,147.63	318.93	10.869		
9,800.00	7,236.22	7,226.22	7,236.22	75.31	250.54	89.91	867.83	-1,479.66	3,495.94	3,175.29	320.65	10.903		
9,900.00	7,235.72	7,225.72	7,235.72	77.77	250.53	89.90	867.83	-1,479.66	3,527.91	3,205.59	322.32	10.946		
10,000.00	7,235.22	7,225.22	7,235.22	80.26	250.51	89.89	867.83	-1,479.66	3,562.40	3,238.47	323.93	10.997		
10,100.00	7,234.72	7,224.72	7,234.72	82.77	250.49	89.88	867.83	-1,479.66	3,599.33	3,273.84	325.49	11.058		
10,200.00	7,234.22	7,224.22	7,234.22	85.31	250.47	89.87	867.83	-1,479.66	3,638.65	3,311.65	327.00	11.127		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	7,223.72	7,233.72	87.86	250.46	89.86	867.83	-1,479.66	3,680.26	3,351.82	328.44	11.205		
10,400.00	7,233.22	7,223.22	7,233.22	90.44	250.44	89.86	867.83	-1,479.66	3,724.09	3,394.26	329.83	11.291		
10,500.00	7,232.72	7,222.72	7,232.72	93.03	250.42	89.85	867.83	-1,479.66	3,770.06	3,438.91	331.15	11.385		
10,600.00	7,232.22	7,222.22	7,232.22	95.64	250.40	89.84	867.83	-1,479.66	3,818.10	3,485.68	332.42	11.486		
10,700.00	7,231.72	7,221.72	7,231.72	98.26	250.39	89.83	867.83	-1,479.66	3,868.13	3,534.51	333.63	11.594		
10,800.00	7,231.21	7,221.21	7,231.21	100.89	250.37	89.82	867.83	-1,479.66	3,920.08	3,585.30	334.78	11.710		
10,900.00	7,230.71	7,220.71	7,230.71	103.54	250.35	89.81	867.83	-1,479.66	3,973.86	3,637.99	335.87	11.832		
11,000.00	7,230.21	7,220.21	7,230.21	106.20	250.33	89.80	867.83	-1,479.66	4,029.40	3,692.50	336.90	11.960		
11,100.00	7,229.71	7,219.71	7,229.71	108.87	250.32	89.80	867.83	-1,479.66	4,086.64	3,748.75	337.89	12.095		
11,200.00	7,229.21	7,219.21	7,229.21	111.54	250.30	89.79	867.83	-1,479.66	4,145.50	3,806.68	338.81	12.235		
11,300.00	7,228.71	7,218.71	7,228.71	114.23	250.28	89.78	867.83	-1,479.66	4,205.91	3,866.22	339.69	12.381		
11,400.00	7,228.21	7,218.21	7,228.21	116.92	250.26	89.77	867.83	-1,479.66	4,267.81	3,927.29	340.52	12.533		
11,500.00	7,227.71	7,217.71	7,227.71	119.63	250.25	89.76	867.83	-1,479.66	4,331.14	3,989.83	341.31	12.690		
11,600.00	7,227.21	7,217.21	7,227.21	122.34	250.23	89.75	867.83	-1,479.66	4,395.83	4,053.78	342.05	12.851		
11,700.00	7,226.71	7,216.71	7,226.71	125.05	250.21	89.74	867.83	-1,479.66	4,461.82	4,119.07	342.75	13.018		
11,800.00	7,226.21	7,216.21	7,226.21	127.78	250.19	89.74	867.83	-1,479.66	4,529.06	4,185.65	343.41	13.189		
11,900.00	7,225.71	7,215.71	7,225.71	130.51	250.18	89.73	867.83	-1,479.66	4,597.49	4,253.47	344.03	13.364		
12,000.00	7,225.21	7,215.21	7,225.21	133.24	250.16	89.72	867.83	-1,479.66	4,667.06	4,322.45	344.61	13.543		
12,100.00	7,224.71	7,214.71	7,224.71	135.98	250.14	89.71	867.83	-1,479.66	4,737.72	4,392.56	345.16	13.726		
12,200.00	7,224.21	7,214.21	7,224.21	138.72	250.12	89.70	867.83	-1,479.66	4,809.42	4,463.74	345.68	13.913		
12,300.00	7,223.70	7,213.70	7,223.70	141.47	250.11	89.69	867.83	-1,479.66	4,882.12	4,535.95	346.16	14.104		
12,400.00	7,223.20	7,213.20	7,223.20	144.23	250.09	89.68	867.83	-1,479.66	4,955.76	4,609.14	346.62	14.297		
12,500.00	7,222.70	7,212.70	7,222.70	146.98	250.07	89.67	867.83	-1,479.66	5,030.32	4,683.27	347.05	14.495		
12,600.00	7,222.20	7,212.20	7,222.20	149.74	250.05	89.67	867.83	-1,479.66	5,105.75	4,758.29	347.45	14.695		
12,700.00	7,221.70	7,211.70	7,221.70	152.51	250.04	89.66	867.83	-1,479.66	5,182.01	4,834.17	347.83	14.898		
12,800.00	7,221.20	7,211.20	7,221.20	155.28	250.02	89.65	867.83	-1,479.66	5,259.06	4,910.87	348.19	15.104		
12,900.00	7,220.70	7,210.70	7,220.70	158.05	250.00	89.64	867.83	-1,479.66	5,336.88	4,988.35	348.53	15.313		
13,000.00	7,220.20	7,210.20	7,220.20	160.82	249.98	89.63	867.83	-1,479.66	5,415.42	5,066.58	348.84	15.524		
13,100.00	7,219.70	7,209.70	7,219.70	163.60	249.97	89.62	867.83	-1,479.66	5,494.66	5,145.52	349.14	15.738		
13,200.00	7,219.20	7,209.20	7,219.20	166.38	249.95	89.61	867.83	-1,479.66	5,574.57	5,225.15	349.42	15.954		
13,300.00	7,218.70	7,208.70	7,218.70	169.16	249.93	89.61	867.83	-1,479.66	5,655.12	5,305.44	349.68	16.172		
13,400.00	7,218.20	7,208.20	7,218.20	171.95	249.91	89.60	867.83	-1,479.66	5,736.28	5,386.35	349.93	16.393		
13,500.00	7,217.70	7,207.70	7,217.70	174.74	249.90	89.59	867.83	-1,479.66	5,818.03	5,467.87	350.16	16.615		
13,600.00	7,217.20	7,207.20	7,217.20	177.53	249.88	89.58	867.83	-1,479.66	5,900.33	5,549.96	350.37	16.840		
13,700.00	7,216.70	7,206.70	7,216.70	180.32	249.86	89.57	867.83	-1,479.66	5,983.18	5,632.60	350.58	17.067		
13,800.00	7,216.19	7,206.19	7,216.19	183.11	249.84	89.56	867.83	-1,479.66	6,066.55	5,715.78	350.77	17.295		
13,900.00	7,215.69	7,205.69	7,215.69	185.91	249.83	89.55	867.83	-1,479.66	6,150.41	5,799.46	350.95	17.525		
14,000.00	7,215.19	7,205.19	7,215.19	188.71	249.81	89.55	867.83	-1,479.66	6,234.75	5,883.62	351.12	17.757		
14,100.00	7,214.69	7,204.69	7,214.69	191.51	249.79	89.54	867.83	-1,479.66	6,319.54	5,968.26	351.28	17.990		
14,200.00	7,214.19	7,204.19	7,214.19	194.31	249.77	89.53	867.83	-1,479.66	6,404.77	6,053.34	351.43	18.225		
14,300.00	7,213.69	7,203.69	7,213.69	197.11	249.76	89.52	867.83	-1,479.66	6,490.43	6,138.85	351.57	18.461		
14,400.00	7,213.19	7,203.19	7,213.19	199.92	249.74	89.51	867.83	-1,479.66	6,576.48	6,224.78	351.70	18.699		
14,500.00	7,212.69	7,202.69	7,212.69	202.72	249.72	89.50	867.83	-1,479.66	6,662.93	6,311.10	351.83	18.938		
14,600.00	7,212.19	7,202.19	7,212.19	205.53	249.70	89.49	867.83	-1,479.66	6,749.75	6,397.81	351.94	19.178		
14,700.00	7,211.69	7,201.69	7,211.69	208.34	249.69	89.49	867.83	-1,479.66	6,836.94	6,484.88	352.05	19.420		
14,800.00	7,211.19	7,201.19	7,211.19	211.15	249.67	89.48	867.83	-1,479.66	6,924.47	6,572.31	352.16	19.663		
14,900.00	7,210.69	7,200.69	7,210.69	213.96	249.65	89.47	867.83	-1,479.66	7,012.33	6,660.07	352.26	19.907		
15,000.00	7,210.19	7,200.19	7,210.19	216.78	249.64	89.46	867.83	-1,479.66	7,100.51	6,748.16	352.35	20.152		
15,100.00	7,209.69	7,200.31	7,209.69	219.59	249.64	89.45	867.83	-1,479.66	7,189.00	6,836.55	352.46	20.397		
15,200.00	7,209.18	7,200.82	7,209.18	222.41	249.66	89.44	867.83	-1,479.66	7,277.80	6,925.22	352.57	20.642		
15,300.00	7,208.68	7,201.32	7,208.68	225.22	249.67	89.43	867.83	-1,479.66	7,366.87	7,014.19	352.68	20.888		
15,400.00	7,208.18	7,201.82	7,208.18	228.04	249.69	89.42	867.83	-1,479.66	7,456.23	7,103.44	352.79	21.135		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth	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)		
15,437.48	7,208.00	7,202.00	7,208.00	229.10	249.70	89.42	867.83	-1,479.66	7,489.79	7,136.96	352.83	21.228	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	47.00	3.28	3.28	-74.58	1,375.77	-4,987.63	5,174.11				
100.00	100.00	53.00	100.00	3.28	3.41	-74.58	1,375.77	-4,987.63	5,173.90	5,167.20	6.69	773.066	
200.00	200.00	153.00	200.00	3.34	4.87	-74.58	1,375.77	-4,987.63	5,173.90	5,165.69	8.20	630.653	
300.00	299.98	252.98	299.98	3.44	7.81	101.80	1,375.77	-4,987.63	5,174.25	5,163.00	11.25	460.029	
400.00	399.84	352.84	399.84	3.59	11.07	101.83	1,375.77	-4,987.63	5,175.33	5,160.67	14.66	353.080	
500.00	499.45	452.45	499.45	3.79	14.43	101.89	1,375.77	-4,987.63	5,177.12	5,158.91	18.21	284.242	
600.00	598.70	551.70	598.70	4.03	17.82	101.97	1,375.77	-4,987.63	5,179.66	5,157.81	21.85	237.075	
700.00	697.47	650.47	697.47	4.31	21.22	102.07	1,375.77	-4,987.63	5,182.96	5,157.43	25.53	203.005	
800.00	795.62	748.62	795.62	4.64	24.61	102.20	1,375.77	-4,987.63	5,187.04	5,157.80	29.25	177.360	
900.00	893.06	846.06	893.06	5.00	27.98	102.34	1,375.77	-4,987.63	5,191.94	5,158.96	32.98	157.425	
1,000.00	989.64	942.64	989.64	5.40	31.33	102.49	1,375.77	-4,987.63	5,197.70	5,160.97	36.73	141.524	
1,100.00	1,085.27	1,038.27	1,085.27	5.83	34.66	102.67	1,375.77	-4,987.63	5,204.34	5,163.86	40.48	128.574	
1,200.00	1,179.82	1,132.82	1,179.82	6.29	37.94	102.85	1,375.77	-4,987.63	5,211.92	5,167.70	44.23	117.846	
1,300.00	1,273.47	1,226.47	1,273.47	6.79	41.20	103.15	1,375.77	-4,987.63	5,220.31	5,172.33	47.97	108.816	
1,400.00	1,367.06	1,320.06	1,367.06	7.30	44.46	103.50	1,375.77	-4,987.63	5,228.95	5,177.21	51.74	101.062	
1,500.00	1,460.64	1,413.64	1,460.64	7.83	47.72	103.86	1,375.77	-4,987.63	5,237.82	5,182.30	55.52	94.339	
1,600.00	1,554.23	1,507.23	1,554.23	8.38	50.98	104.21	1,375.77	-4,987.63	5,246.91	5,187.59	59.31	88.459	
1,700.00	1,647.82	1,600.82	1,647.82	8.93	54.24	104.56	1,375.77	-4,987.63	5,256.22	5,193.10	63.12	83.276	
1,800.00	1,741.41	1,705.59	1,741.41	9.49	57.89	104.91	1,375.77	-4,987.63	5,265.74	5,198.42	67.32	78.221	
1,900.00	1,835.00	1,788.00	1,835.00	10.05	60.76	105.25	1,375.77	-4,987.63	5,275.49	5,204.74	70.75	74.569	
2,000.00	1,928.59	1,881.59	1,928.59	10.62	64.03	105.60	1,375.77	-4,987.63	5,285.45	5,210.88	74.57	70.879	
2,100.00	2,022.18	1,975.18	2,022.18	11.20	67.29	105.95	1,375.77	-4,987.63	5,295.63	5,217.23	78.40	67.549	
2,200.00	2,115.77	2,068.77	2,115.77	11.78	70.55	106.29	1,375.77	-4,987.63	5,306.02	5,223.80	82.23	64.528	
2,300.00	2,209.36	2,162.36	2,209.36	12.37	73.82	106.63	1,375.77	-4,987.63	5,316.63	5,230.57	86.06	61.777	
2,400.00	2,302.95	2,255.95	2,302.95	12.95	77.08	106.98	1,375.77	-4,987.63	5,327.45	5,237.55	89.90	59.261	
2,500.00	2,396.54	2,349.54	2,396.54	13.54	80.34	107.32	1,375.77	-4,987.63	5,338.48	5,244.74	93.74	56.952	
2,600.00	2,490.13	2,443.13	2,490.13	14.13	83.61	107.65	1,375.77	-4,987.63	5,349.71	5,252.14	97.58	54.826	
2,700.00	2,583.72	2,536.72	2,583.72	14.73	86.87	107.99	1,375.77	-4,987.63	5,361.16	5,259.74	101.42	52.862	
2,800.00	2,677.31	2,630.31	2,677.31	15.32	90.14	108.33	1,375.77	-4,987.63	5,372.81	5,267.55	105.26	51.043	
2,900.00	2,770.90	2,723.90	2,770.90	15.92	93.40	108.67	1,375.77	-4,987.63	5,384.67	5,275.57	109.10	49.354	
3,000.00	2,864.49	2,817.49	2,864.49	16.52	96.67	109.00	1,375.77	-4,987.63	5,396.73	5,283.78	112.95	47.781	
3,100.00	2,958.08	2,911.08	2,958.08	17.12	99.93	109.33	1,375.77	-4,987.63	5,408.99	5,292.20	116.79	46.313	
3,200.00	3,051.67	3,004.67	3,051.67	17.72	103.20	109.66	1,375.77	-4,987.63	5,421.46	5,300.82	120.64	44.941	
3,300.00	3,145.26	3,101.74	3,145.26	18.32	106.59	109.99	1,375.77	-4,987.63	5,434.12	5,309.52	124.60	43.612	
3,400.00	3,238.85	3,208.15	3,238.85	18.92	110.30	110.32	1,375.77	-4,987.63	5,446.99	5,318.09	128.89	42.260	
3,500.00	3,332.44	3,285.44	3,332.44	19.53	113.00	110.65	1,375.77	-4,987.63	5,460.05	5,327.88	132.17	41.311	
3,600.00	3,426.03	3,379.03	3,426.03	20.13	116.26	110.98	1,375.77	-4,987.63	5,473.30	5,337.29	136.01	40.241	
3,700.00	3,519.62	3,472.62	3,519.62	20.74	119.53	111.30	1,375.77	-4,987.63	5,486.75	5,346.89	139.86	39.231	
3,800.00	3,613.21	3,566.21	3,613.21	21.34	122.80	111.62	1,375.77	-4,987.63	5,500.39	5,356.69	143.70	38.276	
3,900.00	3,706.80	3,659.80	3,706.80	21.95	126.06	111.94	1,375.77	-4,987.63	5,514.23	5,366.68	147.55	37.373	
4,000.00	3,800.39	3,753.39	3,800.39	22.56	129.33	112.26	1,375.77	-4,987.63	5,528.25	5,376.86	151.39	36.516	
4,100.00	3,893.98	3,846.98	3,893.98	23.16	132.59	112.58	1,375.77	-4,987.63	5,542.46	5,387.23	155.23	35.704	
4,200.00	3,987.57	3,940.57	3,987.57	23.77	135.86	112.90	1,375.77	-4,987.63	5,556.86	5,397.79	159.08	34.932	
4,300.00	4,081.16	4,034.16	4,081.16	24.38	139.13	113.22	1,375.77	-4,987.63	5,571.45	5,408.53	162.92	34.198	
4,400.00	4,174.75	4,127.75	4,174.75	24.99	142.39	113.53	1,375.77	-4,987.63	5,586.22	5,419.46	166.76	33.499	
4,500.00	4,268.34	4,221.34	4,268.34	25.60	145.66	113.84	1,375.77	-4,987.63	5,601.17	5,430.57	170.60	32.832	
4,600.00	4,361.93	4,314.93	4,361.93	26.21	148.93	114.15	1,375.77	-4,987.63	5,616.30	5,441.86	174.44	32.196	
4,700.00	4,455.52	4,408.52	4,455.52	26.82	152.19	114.46	1,375.77	-4,987.63	5,631.61	5,453.33	178.28	31.589	
4,800.00	4,549.11	4,502.11	4,549.11	27.43	155.46	114.77	1,375.77	-4,987.63	5,647.10	5,464.98	182.12	31.008	
4,900.00	4,642.70	4,604.30	4,642.70	28.04	159.02	115.08	1,375.77	-4,987.63	5,662.77	5,476.51	186.26	30.403	
5,000.00	4,736.29	4,689.29	4,736.29	28.65	161.99	115.38	1,375.77	-4,987.63	5,678.61	5,488.82	189.80	29.920	
5,100.00	4,829.88	4,782.88	4,829.88	29.26	165.26	115.69	1,375.77	-4,987.63	5,694.63	5,501.00	193.63	29.410	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	4,923.47	4,876.47	4,923.47	29.87	168.52	115.99	1,375.77	-4,987.63	5,710.82	5,513.35	197.47	28.920	
5,300.00	5,017.06	4,970.06	5,017.06	30.48	171.79	116.29	1,375.77	-4,987.63	5,727.18	5,525.87	201.30	28.451	
5,400.00	5,110.65	5,063.65	5,110.65	31.09	175.06	116.59	1,375.77	-4,987.63	5,743.70	5,538.57	205.14	27.999	
5,500.00	5,204.24	5,157.24	5,204.24	31.70	178.32	116.89	1,375.77	-4,987.63	5,760.40	5,551.43	208.97	27.566	
5,600.00	5,297.83	5,250.83	5,297.83	32.32	181.59	117.18	1,375.77	-4,987.63	5,777.26	5,564.46	212.80	27.148	
5,700.00	5,391.42	5,344.42	5,391.42	32.93	184.86	117.48	1,375.77	-4,987.63	5,794.29	5,577.66	216.64	26.747	
5,800.00	5,485.01	5,438.01	5,485.01	33.54	188.12	117.77	1,375.77	-4,987.63	5,811.49	5,591.02	220.47	26.360	
5,900.00	5,578.60	5,531.60	5,578.60	34.15	191.39	118.06	1,375.77	-4,987.63	5,828.84	5,604.54	224.30	25.987	
6,000.00	5,672.19	5,625.19	5,672.19	34.77	194.66	118.35	1,375.77	-4,987.63	5,846.36	5,618.23	228.13	25.628	
6,100.00	5,765.78	5,718.78	5,765.78	35.38	197.92	118.64	1,375.77	-4,987.63	5,864.03	5,632.07	231.96	25.281	
6,200.00	5,859.37	5,812.37	5,859.37	35.99	201.19	118.93	1,375.77	-4,987.63	5,881.86	5,646.08	235.78	24.946	
6,300.00	5,952.96	5,905.96	5,952.96	36.60	204.46	119.21	1,375.77	-4,987.63	5,899.85	5,660.24	239.61	24.623	
6,400.00	6,046.55	6,000.45	6,046.55	37.22	207.76	119.49	1,375.77	-4,987.63	5,917.99	5,674.52	243.47	24.307	
6,500.00	6,140.14	6,106.86	6,140.14	37.83	211.47	119.78	1,375.77	-4,987.63	5,936.29	5,688.55	247.74	23.962	
6,600.00	6,233.73	6,186.73	6,233.73	38.44	214.26	120.06	1,375.77	-4,987.63	5,954.74	5,703.65	251.09	23.716	
6,700.00	6,327.32	6,280.32	6,327.32	39.06	217.53	120.33	1,375.77	-4,987.63	5,973.34	5,718.43	254.91	23.433	
6,800.00	6,420.91	6,373.91	6,420.91	39.67	220.79	120.61	1,375.77	-4,987.63	5,992.09	5,733.36	258.74	23.159	
6,900.00	6,514.50	6,467.50	6,514.50	40.28	224.06	120.89	1,375.77	-4,987.63	6,010.99	5,748.43	262.56	22.894	
7,000.00	6,608.09	6,561.09	6,608.09	40.90	227.33	121.16	1,375.77	-4,987.63	6,030.03	5,763.65	266.38	22.637	
7,100.00	6,701.63	6,654.63	6,701.63	41.51	230.59	111.67	1,375.77	-4,987.63	6,048.19	5,778.00	270.20	22.384	
7,200.00	6,793.85	6,746.85	6,793.85	42.10	233.81	91.92	1,375.77	-4,987.63	6,066.05	5,782.08	273.97	22.105	
7,300.00	6,882.50	6,835.50	6,882.50	42.64	236.91	79.24	1,375.77	-4,987.63	6,051.32	5,773.74	277.59	21.800	
7,400.00	6,965.41	6,918.41	6,965.41	43.12	239.80	72.08	1,375.77	-4,987.63	6,034.31	5,753.36	280.96	21.478	
7,500.00	7,040.53	7,006.47	7,040.53	43.53	242.87	68.68	1,375.77	-4,987.63	6,005.61	5,721.14	284.47	21.111	
7,600.00	7,106.00	7,059.00	7,106.00	43.89	244.71	68.01	1,375.77	-4,987.63	5,966.10	5,679.36	286.74	20.807	
7,700.00	7,160.23	7,113.23	7,160.23	44.20	246.60	69.57	1,375.77	-4,987.63	5,916.87	5,627.80	289.07	20.469	
7,800.00	7,201.86	7,154.86	7,201.86	44.48	248.05	73.15	1,375.77	-4,987.63	5,859.25	5,568.25	291.00	20.135	
7,900.00	7,229.88	7,182.88	7,229.88	44.73	249.03	78.70	1,375.77	-4,987.63	5,794.71	5,502.20	292.51	19.810	
8,000.00	7,243.60	7,203.40	7,243.60	44.99	249.75	86.17	1,375.77	-4,987.63	5,724.83	5,431.01	293.82	19.484	
8,100.00	7,244.73	7,202.27	7,244.73	45.29	249.71	90.31	1,375.77	-4,987.63	5,651.75	5,357.31	294.44	19.195	
8,200.00	7,244.23	7,202.77	7,244.23	45.74	249.73	90.30	1,375.77	-4,987.63	5,579.05	5,283.85	295.21	18.899	
8,300.00	7,243.73	7,203.27	7,243.73	46.38	249.74	90.29	1,375.77	-4,987.63	5,507.22	5,211.14	296.08	18.601	
8,400.00	7,243.23	7,203.77	7,243.23	47.29	249.76	90.29	1,375.77	-4,987.63	5,436.27	5,139.22	297.04	18.301	
8,500.00	7,242.73	7,204.27	7,242.73	48.46	249.78	90.28	1,375.77	-4,987.63	5,366.24	5,068.13	298.12	18.000	
8,600.00	7,242.23	7,204.77	7,242.23	49.87	249.80	90.27	1,375.77	-4,987.63	5,297.18	4,997.89	299.29	17.699	
8,700.00	7,241.73	7,205.27	7,241.73	51.48	249.81	90.26	1,375.77	-4,987.63	5,229.12	4,928.55	300.57	17.397	
8,800.00	7,241.23	7,205.77	7,241.23	53.24	249.83	90.26	1,375.77	-4,987.63	5,162.10	4,860.15	301.96	17.096	
8,900.00	7,240.73	7,206.27	7,240.73	55.13	249.85	90.25	1,375.77	-4,987.63	5,096.16	4,792.72	303.44	16.794	
9,000.00	7,240.23	7,206.77	7,240.23	57.11	249.86	90.24	1,375.77	-4,987.63	5,031.35	4,726.31	305.03	16.494	
9,100.00	7,239.73	7,207.27	7,239.73	59.19	249.88	90.23	1,375.77	-4,987.63	4,967.70	4,660.97	306.72	16.196	
9,200.00	7,239.23	7,207.77	7,239.23	61.34	249.90	90.23	1,375.77	-4,987.63	4,905.26	4,596.75	308.52	15.900	
9,300.00	7,238.72	7,208.28	7,238.72	63.55	249.92	90.22	1,375.77	-4,987.63	4,844.09	4,533.68	310.41	15.606	
9,400.00	7,238.22	7,208.78	7,238.22	65.81	249.93	90.21	1,375.77	-4,987.63	4,784.22	4,471.83	312.39	15.315	
9,500.00	7,237.72	7,209.28	7,237.72	68.13	249.95	90.20	1,375.77	-4,987.63	4,725.71	4,411.24	314.47	15.028	
9,600.00	7,237.22	7,209.78	7,237.22	70.48	249.97	90.20	1,375.77	-4,987.63	4,668.61	4,351.97	316.64	14.744	
9,700.00	7,236.72	7,189.72	7,236.72	72.88	249.27	90.19	1,375.77	-4,987.63	4,612.97	4,294.79	318.18	14.498	
9,800.00	7,236.22	7,189.22	7,236.22	75.31	249.25	90.18	1,375.77	-4,987.63	4,558.84	4,238.35	320.49	14.225	
9,900.00	7,235.72	7,188.72	7,235.72	77.77	249.23	90.17	1,375.77	-4,987.63	4,506.29	4,183.41	322.88	13.957	
10,000.00	7,235.22	7,188.22	7,235.22	80.26	249.22	90.17	1,375.77	-4,987.63	4,455.35	4,130.01	325.34	13.694	
10,100.00	7,234.72	7,187.72	7,234.72	82.77	249.20	90.16	1,375.77	-4,987.63	4,406.10	4,078.22	327.88	13.438	
10,200.00	7,234.22	7,187.22	7,234.22	85.31	249.18	90.15	1,375.77	-4,987.63	4,358.59	4,028.11	330.48	13.188	
10,300.00	7,233.72	7,186.72	7,233.72	87.86	249.16	90.14	1,375.77	-4,987.63	4,312.87	3,979.72	333.16	12.946	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,233.22	7,186.22	7,233.22	90.44	249.15	90.14	1,375.77	-4,987.63	4,269.01	3,933.13	335.88	12.710	
10,500.00	7,232.72	7,185.72	7,232.72	93.03	249.13	90.13	1,375.77	-4,987.63	4,227.06	3,888.39	338.67	12.481	
10,600.00	7,232.22	7,185.22	7,232.22	95.64	249.11	90.12	1,375.77	-4,987.63	4,187.07	3,845.58	341.50	12.261	
10,700.00	7,231.72	7,184.72	7,231.72	98.26	249.10	90.11	1,375.77	-4,987.63	4,149.11	3,804.75	344.37	12.049	
10,800.00	7,231.21	7,184.21	7,231.21	100.89	249.08	90.11	1,375.77	-4,987.63	4,113.24	3,765.97	347.27	11.844	
10,900.00	7,230.71	7,183.71	7,230.71	103.54	249.06	90.10	1,375.77	-4,987.63	4,079.49	3,729.29	350.20	11.649	
11,000.00	7,230.21	7,183.21	7,230.21	106.20	249.04	90.09	1,375.77	-4,987.63	4,047.94	3,694.79	353.16	11.462	
11,100.00	7,229.71	7,182.71	7,229.71	108.87	249.03	90.08	1,375.77	-4,987.63	4,018.63	3,662.51	356.12	11.284	
11,200.00	7,229.21	7,182.21	7,229.21	111.54	249.01	90.08	1,375.77	-4,987.63	3,991.61	3,632.52	359.09	11.116	
11,300.00	7,228.71	7,181.71	7,228.71	114.23	248.99	90.07	1,375.77	-4,987.63	3,966.93	3,604.87	362.06	10.956	
11,400.00	7,228.21	7,181.21	7,228.21	116.92	248.97	90.06	1,375.77	-4,987.63	3,944.63	3,579.61	365.02	10.807	
11,500.00	7,227.71	7,180.71	7,227.71	119.63	248.96	90.05	1,375.77	-4,987.63	3,924.75	3,556.79	367.96	10.666	
11,600.00	7,227.21	7,180.21	7,227.21	122.34	248.94	90.05	1,375.77	-4,987.63	3,907.33	3,536.45	370.88	10.535	
11,700.00	7,226.71	7,179.71	7,226.71	125.05	248.92	90.04	1,375.77	-4,987.63	3,892.40	3,518.64	373.76	10.414	
11,800.00	7,226.21	7,179.21	7,226.21	127.78	248.90	90.03	1,375.77	-4,987.63	3,879.99	3,503.40	376.59	10.303	
11,900.00	7,225.71	7,178.71	7,225.71	130.51	248.89	90.02	1,375.77	-4,987.63	3,870.13	3,490.75	379.38	10.201	
12,000.00	7,225.21	7,178.21	7,225.21	133.24	248.87	90.02	1,375.77	-4,987.63	3,862.83	3,480.73	382.10	10.109	
12,100.00	7,224.71	7,177.71	7,224.71	135.98	248.85	90.01	1,375.77	-4,987.63	3,858.11	3,473.34	384.77	10.027	
12,200.00	7,224.21	7,177.21	7,224.21	138.72	248.83	90.00	1,375.77	-4,987.63	3,855.98	3,468.62	387.36	9.955	
12,232.21	7,224.04	7,177.04	7,224.04	139.61	248.83	90.00	1,375.77	-4,987.63	3,855.84	3,467.67	388.18	9.933 CC	
12,300.00	7,223.70	7,176.70	7,223.70	141.47	248.82	89.99	1,375.77	-4,987.63	3,856.44	3,466.57	389.87	9.892 ES	
12,400.00	7,223.20	7,176.20	7,223.20	144.23	248.80	89.99	1,375.77	-4,987.63	3,859.49	3,467.20	392.30	9.838	
12,500.00	7,222.70	7,175.70	7,222.70	146.98	248.78	89.98	1,375.77	-4,987.63	3,865.13	3,470.50	394.64	9.794	
12,600.00	7,222.20	7,175.20	7,222.20	149.74	248.76	89.97	1,375.77	-4,987.63	3,873.34	3,476.46	396.88	9.759	
12,700.00	7,221.70	7,174.70	7,221.70	152.51	248.75	89.97	1,375.77	-4,987.63	3,884.12	3,485.09	399.03	9.734	
12,800.00	7,221.20	7,174.20	7,221.20	155.28	248.73	89.96	1,375.77	-4,987.63	3,897.42	3,496.35	401.08	9.717	
12,900.00	7,220.70	7,173.70	7,220.70	158.05	248.71	89.95	1,375.77	-4,987.63	3,913.24	3,510.22	403.02	9.710 SF	
13,000.00	7,220.20	7,173.20	7,220.20	160.82	248.69	89.94	1,375.77	-4,987.63	3,931.54	3,526.68	404.86	9.711	
13,100.00	7,219.70	7,172.70	7,219.70	163.60	248.68	89.94	1,375.77	-4,987.63	3,952.29	3,545.69	406.60	9.720	
13,200.00	7,219.20	7,172.20	7,219.20	166.38	248.66	89.93	1,375.77	-4,987.63	3,975.44	3,567.21	408.23	9.738	
13,300.00	7,218.70	7,171.70	7,218.70	169.16	248.64	89.92	1,375.77	-4,987.63	4,000.96	3,591.21	409.75	9.764	
13,400.00	7,218.20	7,171.20	7,218.20	171.95	248.62	89.91	1,375.77	-4,987.63	4,028.80	3,617.64	411.16	9.799	
13,500.00	7,217.70	7,170.70	7,217.70	174.74	248.61	89.91	1,375.77	-4,987.63	4,058.91	3,646.44	412.48	9.840	
13,600.00	7,217.20	7,170.20	7,217.20	177.53	248.59	89.90	1,375.77	-4,987.63	4,091.25	3,677.56	413.69	9.890	
13,700.00	7,216.70	7,169.70	7,216.70	180.32	248.57	89.89	1,375.77	-4,987.63	4,125.76	3,710.96	414.80	9.946	
13,800.00	7,216.19	7,169.19	7,216.19	183.11	248.55	89.88	1,375.77	-4,987.63	4,162.38	3,746.57	415.81	10.010	
13,900.00	7,215.69	7,168.69	7,215.69	185.91	248.54	89.88	1,375.77	-4,987.63	4,201.07	3,784.34	416.73	10.081	
14,000.00	7,215.19	7,168.19	7,215.19	188.71	248.52	89.87	1,375.77	-4,987.63	4,241.76	3,824.20	417.56	10.158	
14,100.00	7,214.69	7,167.69	7,214.69	191.51	248.50	89.86	1,375.77	-4,987.63	4,284.40	3,866.10	418.30	10.242	
14,200.00	7,214.19	7,167.19	7,214.19	194.31	248.48	89.85	1,375.77	-4,987.63	4,328.93	3,909.97	418.96	10.333	
14,300.00	7,213.69	7,166.69	7,213.69	197.11	248.47	89.85	1,375.77	-4,987.63	4,375.29	3,955.75	419.54	10.429	
14,400.00	7,213.19	7,166.19	7,213.19	199.92	248.45	89.84	1,375.77	-4,987.63	4,423.43	4,003.39	420.04	10.531	
14,500.00	7,212.69	7,165.69	7,212.69	202.72	248.43	89.83	1,375.77	-4,987.63	4,473.28	4,052.82	420.47	10.639	
14,600.00	7,212.19	7,165.19	7,212.19	205.53	248.41	89.82	1,375.77	-4,987.63	4,524.80	4,103.97	420.83	10.752	
14,700.00	7,211.69	7,164.69	7,211.69	208.34	248.40	89.82	1,375.77	-4,987.63	4,577.92	4,156.80	421.12	10.871	
14,800.00	7,211.19	7,164.19	7,211.19	211.15	248.38	89.81	1,375.77	-4,987.63	4,632.59	4,211.23	421.36	10.994	
14,900.00	7,210.69	7,163.69	7,210.69	213.96	248.36	89.80	1,375.77	-4,987.63	4,688.76	4,267.22	421.54	11.123	
15,000.00	7,210.19	7,163.19	7,210.19	216.78	248.34	89.79	1,375.77	-4,987.63	4,746.37	4,324.71	421.66	11.256	
15,100.00	7,209.69	7,162.69	7,209.69	219.59	248.33	89.79	1,375.77	-4,987.63	4,805.37	4,383.63	421.74	11.394	
15,200.00	7,209.18	7,162.18	7,209.18	222.41	248.31	89.78	1,375.77	-4,987.63	4,865.70	4,443.94	421.76	11.537	
15,300.00	7,208.68	7,161.68	7,208.68	225.22	248.29	89.77	1,375.77	-4,987.63	4,927.33	4,505.58	421.75	11.683	
15,400.00	7,208.18	7,161.18	7,208.18	228.04	248.27	89.76	1,375.77	-4,987.63	4,990.21	4,568.51	421.70	11.834	

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth	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)		
15,437.48	7,208.00	7,161.00	7,208.00	229.10	248.27	89.76	1,375.77	-4,987.63	5,014.08	4,592.42	421.67	11.891	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 16-1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	45.00	3.28	3.28	-74.74	1,396.56	-5,117.51	5,304.84					
100.00	100.00	55.00	100.00	3.28	3.42	-74.74	1,396.56	-5,117.51	5,304.65	5,297.95	6.70	791.463		
200.00	200.00	155.00	200.00	3.34	4.92	-74.74	1,396.56	-5,117.51	5,304.65	5,296.39	8.26	642.533		
300.00	299.98	254.98	299.98	3.44	7.87	101.64	1,396.56	-5,117.51	5,305.00	5,293.69	11.31	469.009		
400.00	399.84	354.84	399.84	3.59	11.14	101.67	1,396.56	-5,117.51	5,306.06	5,291.33	14.72	360.359		
500.00	499.45	454.45	499.45	3.79	14.50	101.73	1,396.56	-5,117.51	5,307.83	5,289.55	18.28	290.335		
600.00	598.70	553.70	598.70	4.03	17.89	101.81	1,396.56	-5,117.51	5,310.34	5,288.42	21.92	242.295		
700.00	697.47	652.47	697.47	4.31	21.29	101.91	1,396.56	-5,117.51	5,313.59	5,287.99	25.60	207.561		
800.00	795.62	750.62	795.62	4.64	24.68	102.03	1,396.56	-5,117.51	5,317.62	5,288.30	29.31	181.396		
900.00	893.06	848.06	893.06	5.00	28.05	102.16	1,396.56	-5,117.51	5,322.45	5,289.40	33.05	161.043		
1,000.00	989.64	944.64	989.64	5.40	31.40	102.32	1,396.56	-5,117.51	5,328.12	5,291.33	36.80	144.801		
1,100.00	1,085.27	1,040.27	1,085.27	5.83	34.73	102.48	1,396.56	-5,117.51	5,334.68	5,294.13	40.55	131.568		
1,200.00	1,179.82	1,134.82	1,179.82	6.29	38.01	102.66	1,396.56	-5,117.51	5,342.15	5,297.85	44.30	120.600		
1,300.00	1,273.47	1,228.47	1,273.47	6.79	41.27	102.95	1,396.56	-5,117.51	5,350.41	5,302.37	48.04	111.366		
1,400.00	1,367.06	1,322.06	1,367.06	7.30	44.53	103.30	1,396.56	-5,117.51	5,358.93	5,307.12	51.81	103.434		
1,500.00	1,460.64	1,415.64	1,460.64	7.83	47.79	103.64	1,396.56	-5,117.51	5,367.66	5,312.07	55.59	96.555		
1,600.00	1,554.23	1,509.23	1,554.23	8.38	51.05	103.99	1,396.56	-5,117.51	5,376.61	5,317.23	59.39	90.537		
1,700.00	1,647.82	1,602.82	1,647.82	8.93	54.31	104.33	1,396.56	-5,117.51	5,385.78	5,322.59	63.19	85.233		
1,800.00	1,741.41	1,703.59	1,741.41	9.49	57.82	104.67	1,396.56	-5,117.51	5,395.16	5,327.91	67.25	80.225		
1,900.00	1,835.00	1,810.00	1,835.00	10.05	61.53	105.01	1,396.56	-5,117.51	5,404.75	5,333.24	71.52	75.575		
2,000.00	1,928.59	1,883.59	1,928.59	10.62	64.09	105.35	1,396.56	-5,117.51	5,414.56	5,339.92	74.64	72.540		
2,100.00	2,022.18	1,977.18	2,022.18	11.20	67.36	105.68	1,396.56	-5,117.51	5,424.58	5,346.11	78.47	69.130		
2,200.00	2,115.77	2,070.77	2,115.77	11.78	70.62	106.02	1,396.56	-5,117.51	5,434.81	5,352.50	82.30	66.036		
2,300.00	2,209.36	2,164.36	2,209.36	12.37	73.89	106.36	1,396.56	-5,117.51	5,445.24	5,359.11	86.14	63.217		
2,400.00	2,302.95	2,257.95	2,302.95	12.95	77.15	106.69	1,396.56	-5,117.51	5,455.89	5,365.91	89.97	60.640		
2,500.00	2,396.54	2,351.54	2,396.54	13.54	80.41	107.02	1,396.56	-5,117.51	5,466.74	5,372.92	93.81	58.274		
2,600.00	2,490.13	2,445.13	2,490.13	14.13	83.68	107.35	1,396.56	-5,117.51	5,477.79	5,380.14	97.65	56.095		
2,700.00	2,583.72	2,538.72	2,583.72	14.73	86.94	107.68	1,396.56	-5,117.51	5,489.05	5,387.56	101.49	54.083		
2,800.00	2,677.31	2,632.31	2,677.31	15.32	90.21	108.01	1,396.56	-5,117.51	5,500.51	5,395.17	105.34	52.219		
2,900.00	2,770.90	2,725.90	2,770.90	15.92	93.47	108.34	1,396.56	-5,117.51	5,512.17	5,402.99	109.18	50.487		
3,000.00	2,864.49	2,819.49	2,864.49	16.52	96.74	108.67	1,396.56	-5,117.51	5,524.04	5,411.01	113.02	48.875		
3,100.00	2,958.08	2,913.08	2,958.08	17.12	100.00	109.00	1,396.56	-5,117.51	5,536.10	5,419.23	116.87	47.370		
3,200.00	3,051.67	3,006.67	3,051.67	17.72	103.27	109.32	1,396.56	-5,117.51	5,548.36	5,427.64	120.71	45.962		
3,300.00	3,145.26	3,100.26	3,145.26	18.32	106.54	109.64	1,396.56	-5,117.51	5,560.81	5,436.25	124.56	44.643		
3,400.00	3,238.85	3,206.15	3,238.85	18.92	110.23	109.96	1,396.56	-5,117.51	5,573.46	5,444.63	128.84	43.260		
3,500.00	3,332.44	3,287.44	3,332.44	19.53	113.07	110.28	1,396.56	-5,117.51	5,586.30	5,454.05	132.25	42.240		
3,600.00	3,426.03	3,381.03	3,426.03	20.13	116.33	110.60	1,396.56	-5,117.51	5,599.34	5,463.24	136.10	41.142		
3,700.00	3,519.62	3,474.62	3,519.62	20.74	119.60	110.92	1,396.56	-5,117.51	5,612.57	5,472.62	139.94	40.106		
3,800.00	3,613.21	3,568.21	3,613.21	21.34	122.86	111.24	1,396.56	-5,117.51	5,625.98	5,482.19	143.79	39.127		
3,900.00	3,706.80	3,661.80	3,706.80	21.95	126.13	111.55	1,396.56	-5,117.51	5,639.58	5,491.95	147.63	38.200		
4,000.00	3,800.39	3,755.39	3,800.39	22.56	129.40	111.87	1,396.56	-5,117.51	5,653.38	5,501.90	151.48	37.322		
4,100.00	3,893.98	3,848.98	3,893.98	23.16	132.66	112.18	1,396.56	-5,117.51	5,667.35	5,512.03	155.32	36.488		
4,200.00	3,987.57	3,942.57	3,987.57	23.77	135.93	112.49	1,396.56	-5,117.51	5,681.51	5,522.35	159.16	35.696		
4,300.00	4,081.16	4,036.16	4,081.16	24.38	139.20	112.80	1,396.56	-5,117.51	5,695.85	5,532.85	163.01	34.942		
4,400.00	4,174.75	4,129.75	4,174.75	24.99	142.46	113.11	1,396.56	-5,117.51	5,710.38	5,543.53	166.85	34.225		
4,500.00	4,268.34	4,223.34	4,268.34	25.60	145.73	113.42	1,396.56	-5,117.51	5,725.08	5,554.39	170.69	33.540		
4,600.00	4,361.93	4,316.93	4,361.93	26.21	149.00	113.72	1,396.56	-5,117.51	5,739.96	5,565.43	174.53	32.887		
4,700.00	4,455.52	4,410.52	4,455.52	26.82	152.26	114.03	1,396.56	-5,117.51	5,755.02	5,576.65	178.37	32.264		
4,800.00	4,549.11	4,504.11	4,549.11	27.43	155.53	114.33	1,396.56	-5,117.51	5,770.26	5,588.04	182.21	31.667		
4,900.00	4,642.70	4,602.30	4,642.70	28.04	158.95	114.63	1,396.56	-5,117.51	5,785.67	5,599.45	186.21	31.070		
5,000.00	4,736.29	4,708.71	4,736.29	28.65	162.67	114.93	1,396.56	-5,117.51	5,801.25	5,610.75	190.50	30.453		
5,100.00	4,829.88	4,784.88	4,829.88	29.26	165.33	115.23	1,396.56	-5,117.51	5,817.01	5,623.27	193.73	30.026		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 16-1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,878.47	4,923.47	29.87	168.59	115.52	1,396.56	-5,117.51	5,832.93	5,635.36	197.57	29.524		
5,300.00	5,017.06	4,972.06	5,017.06	30.48	171.86	115.82	1,396.56	-5,117.51	5,849.02	5,647.62	201.41	29.041		
5,400.00	5,110.65	5,065.65	5,110.65	31.09	175.13	116.11	1,396.56	-5,117.51	5,865.28	5,660.04	205.24	28.578		
5,500.00	5,204.24	5,159.24	5,204.24	31.70	178.39	116.41	1,396.56	-5,117.51	5,881.71	5,672.64	209.08	28.132		
5,600.00	5,297.83	5,252.83	5,297.83	32.32	181.66	116.70	1,396.56	-5,117.51	5,898.30	5,685.39	212.91	27.703		
5,700.00	5,391.42	5,346.42	5,391.42	32.93	184.93	116.99	1,396.56	-5,117.51	5,915.06	5,698.31	216.74	27.291		
5,800.00	5,485.01	5,440.01	5,485.01	33.54	188.19	117.27	1,396.56	-5,117.51	5,931.97	5,711.40	220.58	26.893		
5,900.00	5,578.60	5,533.60	5,578.60	34.15	191.46	117.56	1,396.56	-5,117.51	5,949.05	5,724.64	224.41	26.510		
6,000.00	5,672.19	5,627.19	5,672.19	34.77	194.73	117.85	1,396.56	-5,117.51	5,966.29	5,738.05	228.24	26.140		
6,100.00	5,765.78	5,720.78	5,765.78	35.38	197.99	118.13	1,396.56	-5,117.51	5,983.68	5,751.61	232.07	25.784		
6,200.00	5,859.37	5,814.37	5,859.37	35.99	201.26	118.41	1,396.56	-5,117.51	6,001.23	5,765.33	235.90	25.440		
6,300.00	5,952.96	5,907.96	5,952.96	36.60	204.53	118.69	1,396.56	-5,117.51	6,018.94	5,779.21	239.73	25.107		
6,400.00	6,046.55	6,001.55	6,046.55	37.22	207.79	118.97	1,396.56	-5,117.51	6,036.79	5,793.24	243.56	24.786		
6,500.00	6,140.14	6,104.86	6,140.14	37.83	211.40	119.25	1,396.56	-5,117.51	6,054.81	5,807.08	247.72	24.442		
6,600.00	6,233.73	6,188.73	6,233.73	38.44	214.33	119.52	1,396.56	-5,117.51	6,072.97	5,821.76	251.21	24.175		
6,700.00	6,327.32	6,282.32	6,327.32	39.06	217.60	119.80	1,396.56	-5,117.51	6,091.28	5,836.24	255.04	23.884		
6,800.00	6,420.91	6,375.91	6,420.91	39.67	220.86	120.07	1,396.56	-5,117.51	6,109.74	5,850.88	258.86	23.602		
6,900.00	6,514.50	6,469.50	6,514.50	40.28	224.13	120.34	1,396.56	-5,117.51	6,128.35	5,865.66	262.68	23.330		
7,000.00	6,608.09	6,563.09	6,608.09	40.90	227.40	120.61	1,396.56	-5,117.51	6,147.10	5,880.59	266.51	23.065		
7,100.00	6,701.63	6,656.63	6,701.63	41.51	230.66	111.13	1,396.56	-5,117.51	6,164.96	5,894.63	270.33	22.805		
7,200.00	6,793.85	6,748.85	6,793.85	42.10	233.88	91.40	1,396.56	-5,117.51	6,172.44	5,898.33	274.10	22.519		
7,300.00	6,882.50	6,837.50	6,882.50	42.64	236.97	78.73	1,396.56	-5,117.51	6,167.25	5,889.53	277.72	22.207		
7,400.00	6,965.41	6,920.41	6,965.41	43.12	239.87	71.58	1,396.56	-5,117.51	6,149.70	5,868.60	281.09	21.878		
7,500.00	7,040.53	7,004.47	7,040.53	43.53	242.80	68.19	1,396.56	-5,117.51	6,120.38	5,835.91	284.47	21.515		
7,600.00	7,106.00	7,061.00	7,106.00	43.89	244.78	67.54	1,396.56	-5,117.51	6,080.17	5,793.30	286.87	21.195		
7,700.00	7,160.23	7,115.23	7,160.23	44.20	246.67	69.13	1,396.56	-5,117.51	6,030.20	5,741.00	289.20	20.851		
7,800.00	7,201.86	7,156.86	7,201.86	44.48	248.12	72.77	1,396.56	-5,117.51	5,971.79	5,680.66	291.13	20.512		
7,900.00	7,229.88	7,184.88	7,229.88	44.73	249.10	78.43	1,396.56	-5,117.51	5,906.42	5,613.78	292.64	20.183		
8,000.00	7,243.60	7,201.40	7,243.60	44.99	249.68	86.08	1,396.56	-5,117.51	5,835.70	5,541.90	293.80	19.863		
8,100.00	7,244.73	7,200.27	7,244.73	45.29	249.64	90.32	1,396.56	-5,117.51	5,761.78	5,467.37	294.41	19.570		
8,200.00	7,244.23	7,200.77	7,244.23	45.74	249.66	90.31	1,396.56	-5,117.51	5,688.21	5,393.04	295.17	19.271		
8,300.00	7,243.73	7,201.27	7,243.73	46.38	249.67	90.30	1,396.56	-5,117.51	5,615.46	5,319.44	296.02	18.970		
8,400.00	7,243.23	7,201.77	7,243.23	47.29	249.69	90.29	1,396.56	-5,117.51	5,543.55	5,246.58	296.97	18.667		
8,500.00	7,242.73	7,202.27	7,242.73	48.46	249.71	90.29	1,396.56	-5,117.51	5,472.53	5,174.51	298.02	18.363		
8,600.00	7,242.23	7,202.77	7,242.23	49.87	249.73	90.28	1,396.56	-5,117.51	5,402.43	5,103.25	299.17	18.058		
8,700.00	7,241.73	7,203.27	7,241.73	51.48	249.74	90.27	1,396.56	-5,117.51	5,333.28	5,032.85	300.43	17.752		
8,800.00	7,241.23	7,203.77	7,241.23	53.24	249.76	90.26	1,396.56	-5,117.51	5,265.12	4,963.33	301.79	17.446		
8,900.00	7,240.73	7,204.27	7,240.73	55.13	249.78	90.26	1,396.56	-5,117.51	5,197.99	4,894.75	303.25	17.141		
9,000.00	7,240.23	7,204.77	7,240.23	57.11	249.80	90.25	1,396.56	-5,117.51	5,131.93	4,827.13	304.81	16.837		
9,100.00	7,239.73	7,205.27	7,239.73	59.19	249.81	90.24	1,396.56	-5,117.51	5,066.99	4,760.52	306.47	16.533		
9,200.00	7,239.23	7,205.77	7,239.23	61.34	249.83	90.23	1,396.56	-5,117.51	5,003.20	4,694.97	308.23	16.232		
9,300.00	7,238.72	7,206.28	7,238.72	63.55	249.85	90.23	1,396.56	-5,117.51	4,940.61	4,630.52	310.08	15.933		
9,400.00	7,238.22	7,206.78	7,238.22	65.81	249.87	90.22	1,396.56	-5,117.51	4,879.27	4,567.23	312.04	15.637		
9,500.00	7,237.72	7,207.28	7,237.72	68.13	249.88	90.21	1,396.56	-5,117.51	4,819.22	4,505.14	314.08	15.344		
9,600.00	7,237.22	7,207.78	7,237.22	70.48	249.90	90.20	1,396.56	-5,117.51	4,760.51	4,444.29	316.22	15.055		
9,700.00	7,236.72	7,208.28	7,236.72	72.88	249.92	90.20	1,396.56	-5,117.51	4,703.20	4,384.76	318.44	14.769		
9,800.00	7,236.22	7,208.78	7,236.22	75.31	249.93	90.19	1,396.56	-5,117.51	4,647.33	4,326.58	320.75	14.489		
9,900.00	7,235.72	7,209.28	7,235.72	77.77	249.95	90.18	1,396.56	-5,117.51	4,592.97	4,269.82	323.14	14.213		
10,000.00	7,235.22	7,209.78	7,235.22	80.26	249.97	90.17	1,396.56	-5,117.51	4,540.15	4,214.53	325.62	13.943		
10,100.00	7,234.72	7,189.72	7,234.72	82.77	249.27	90.17	1,396.56	-5,117.51	4,488.94	4,161.49	327.44	13.709		
10,200.00	7,234.22	7,189.22	7,234.22	85.31	249.25	90.16	1,396.56	-5,117.51	4,439.39	4,109.36	330.03	13.452		
10,300.00	7,233.72	7,188.72	7,233.72	87.86	249.23	90.15	1,396.56	-5,117.51	4,391.56	4,058.89	332.67	13.201		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 16-1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,188.22	7,233.22	90.44	249.22	90.15	1,396.56	-5,117.51	4,345.51	4,010.12	335.39	12.957		
10,500.00	7,232.72	7,187.72	7,232.72	93.03	249.20	90.14	1,396.56	-5,117.51	4,301.28	3,963.13	338.15	12.720		
10,600.00	7,232.22	7,187.22	7,232.22	95.64	249.18	90.13	1,396.56	-5,117.51	4,258.95	3,917.98	340.97	12.491		
10,700.00	7,231.72	7,186.72	7,231.72	98.26	249.16	90.12	1,396.56	-5,117.51	4,218.56	3,874.72	343.84	12.269		
10,800.00	7,231.21	7,186.21	7,231.21	100.89	249.15	90.12	1,396.56	-5,117.51	4,180.18	3,833.43	346.75	12.055		
10,900.00	7,230.71	7,185.71	7,230.71	103.54	249.13	90.11	1,396.56	-5,117.51	4,143.85	3,794.16	349.69	11.850		
11,000.00	7,230.21	7,185.21	7,230.21	106.20	249.11	90.10	1,396.56	-5,117.51	4,109.64	3,756.98	352.65	11.654		
11,100.00	7,229.71	7,184.71	7,229.71	108.87	249.09	90.09	1,396.56	-5,117.51	4,077.59	3,721.95	355.64	11.466		
11,200.00	7,229.21	7,184.21	7,229.21	111.54	249.08	90.09	1,396.56	-5,117.51	4,047.76	3,689.12	358.64	11.287		
11,300.00	7,228.71	7,183.71	7,228.71	114.23	249.06	90.08	1,396.56	-5,117.51	4,020.19	3,658.55	361.64	11.117		
11,400.00	7,228.21	7,183.21	7,228.21	116.92	249.04	90.07	1,396.56	-5,117.51	3,994.94	3,630.30	364.64	10.956		
11,500.00	7,227.71	7,182.71	7,227.71	119.63	249.02	90.06	1,396.56	-5,117.51	3,972.05	3,604.42	367.63	10.804		
11,600.00	7,227.21	7,182.21	7,227.21	122.34	249.01	90.06	1,396.56	-5,117.51	3,951.55	3,580.95	370.60	10.662		
11,700.00	7,226.71	7,181.71	7,226.71	125.05	248.99	90.05	1,396.56	-5,117.51	3,933.50	3,559.95	373.55	10.530		
11,800.00	7,226.21	7,181.21	7,226.21	127.78	248.97	90.04	1,396.56	-5,117.51	3,917.91	3,541.45	376.46	10.407		
11,900.00	7,225.71	7,180.71	7,225.71	130.51	248.96	90.03	1,396.56	-5,117.51	3,904.82	3,525.49	379.33	10.294		
12,000.00	7,225.21	7,180.21	7,225.21	133.24	248.94	90.03	1,396.56	-5,117.51	3,894.25	3,512.11	382.14	10.191		
12,100.00	7,224.71	7,179.71	7,224.71	135.98	248.92	90.02	1,396.56	-5,117.51	3,886.23	3,501.34	384.90	10.097		
12,200.00	7,224.21	7,179.21	7,224.21	138.72	248.90	90.01	1,396.56	-5,117.51	3,880.78	3,493.18	387.59	10.013		
12,300.00	7,223.70	7,178.70	7,223.70	141.47	248.89	90.00	1,396.56	-5,117.51	3,877.89	3,487.68	390.21	9.938		
12,361.97	7,223.39	7,178.39	7,223.39	143.18	248.87	90.00	1,396.56	-5,117.51	3,877.40	3,485.60	391.80	9.896 CC		
12,400.00	7,223.20	7,178.20	7,223.20	144.23	248.87	90.00	1,396.56	-5,117.51	3,877.58	3,484.83	392.76	9.873		
12,500.00	7,222.70	7,177.70	7,222.70	146.98	248.85	89.99	1,396.56	-5,117.51	3,879.85	3,484.64	395.21	9.817 ES		
12,600.00	7,222.20	7,177.20	7,222.20	149.74	248.83	89.98	1,396.56	-5,117.51	3,884.69	3,487.11	397.58	9.771		
12,700.00	7,221.70	7,176.70	7,221.70	152.51	248.82	89.97	1,396.56	-5,117.51	3,892.10	3,492.24	399.86	9.734		
12,800.00	7,221.20	7,176.20	7,221.20	155.28	248.80	89.97	1,396.56	-5,117.51	3,902.06	3,500.02	402.04	9.706		
12,900.00	7,220.70	7,175.70	7,220.70	158.05	248.78	89.96	1,396.56	-5,117.51	3,914.55	3,510.43	404.11	9.687		
13,000.00	7,220.20	7,175.20	7,220.20	160.82	248.76	89.95	1,396.56	-5,117.51	3,929.54	3,523.45	406.08	9.677		
13,100.00	7,219.70	7,174.70	7,219.70	163.60	248.75	89.95	1,396.56	-5,117.51	3,947.01	3,539.06	407.95	9.675 SF		
13,200.00	7,219.20	7,174.20	7,219.20	166.38	248.73	89.94	1,396.56	-5,117.51	3,966.92	3,557.21	409.71	9.682		
13,300.00	7,218.70	7,173.70	7,218.70	169.16	248.71	89.93	1,396.56	-5,117.51	3,989.25	3,577.88	411.36	9.698		
13,400.00	7,218.20	7,173.20	7,218.20	171.95	248.69	89.92	1,396.56	-5,117.51	4,013.94	3,601.03	412.91	9.721		
13,500.00	7,217.70	7,172.70	7,217.70	174.74	248.68	89.92	1,396.56	-5,117.51	4,040.95	3,626.61	414.35	9.753		
13,600.00	7,217.20	7,172.20	7,217.20	177.53	248.66	89.91	1,396.56	-5,117.51	4,070.24	3,654.56	415.68	9.792		
13,700.00	7,216.70	7,171.70	7,216.70	180.32	248.64	89.90	1,396.56	-5,117.51	4,101.77	3,684.86	416.91	9.839		
13,800.00	7,216.19	7,171.19	7,216.19	183.11	248.62	89.89	1,396.56	-5,117.51	4,135.47	3,717.43	418.04	9.893		
13,900.00	7,215.69	7,170.69	7,215.69	185.91	248.61	89.89	1,396.56	-5,117.51	4,171.29	3,752.23	419.06	9.954		
14,000.00	7,215.19	7,170.19	7,215.19	188.71	248.59	89.88	1,396.56	-5,117.51	4,209.19	3,789.19	420.00	10.022		
14,100.00	7,214.69	7,169.69	7,214.69	191.51	248.57	89.87	1,396.56	-5,117.51	4,249.10	3,828.26	420.84	10.097		
14,200.00	7,214.19	7,169.19	7,214.19	194.31	248.55	89.86	1,396.56	-5,117.51	4,290.98	3,869.39	421.59	10.178		
14,300.00	7,213.69	7,168.69	7,213.69	197.11	248.54	89.86	1,396.56	-5,117.51	4,334.75	3,912.50	422.25	10.266		
14,400.00	7,213.19	7,168.19	7,213.19	199.92	248.52	89.85	1,396.56	-5,117.51	4,380.37	3,957.53	422.84	10.359		
14,500.00	7,212.69	7,167.69	7,212.69	202.72	248.50	89.84	1,396.56	-5,117.51	4,427.78	4,004.44	423.34	10.459		
14,600.00	7,212.19	7,167.19	7,212.19	205.53	248.48	89.83	1,396.56	-5,117.51	4,476.92	4,053.15	423.78	10.564		
14,700.00	7,211.69	7,166.69	7,211.69	208.34	248.47	89.83	1,396.56	-5,117.51	4,527.74	4,103.61	424.14	10.675		
14,800.00	7,211.19	7,166.19	7,211.19	211.15	248.45	89.82	1,396.56	-5,117.51	4,580.18	4,155.75	424.43	10.791		
14,900.00	7,210.69	7,165.69	7,210.69	213.96	248.43	89.81	1,396.56	-5,117.51	4,634.18	4,209.52	424.66	10.913		
15,000.00	7,210.19	7,165.19	7,210.19	216.78	248.41	89.80	1,396.56	-5,117.51	4,689.69	4,264.85	424.84	11.039		
15,100.00	7,209.69	7,164.69	7,209.69	219.59	248.40	89.80	1,396.56	-5,117.51	4,746.66	4,321.71	424.96	11.170		
15,200.00	7,209.18	7,164.18	7,209.18	222.41	248.38	89.79	1,396.56	-5,117.51	4,805.04	4,380.01	425.03	11.305		
15,300.00	7,208.68	7,163.68	7,208.68	225.22	248.36	89.78	1,396.56	-5,117.51	4,864.77	4,439.72	425.05	11.445		
15,400.00	7,208.18	7,163.18	7,208.18	228.04	248.34	89.78	1,396.56	-5,117.51	4,925.81	4,500.78	425.03	11.589		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - STATE BEATRICE 16-1(AB_150CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,163.00	7,208.00	229.10	248.34	89.77	1,396.56	-5,117.51	4,949.01	4,524.01	425.01	11.645	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	52.00	3.28	3.28	-90.88	-75.27	-4,914.77	4,915.62					
100.00	100.00	48.00	100.00	3.28	3.39	-90.88	-75.27	-4,914.77	4,915.35	4,908.68	6.67	736.929		
200.00	200.00	148.00	200.00	3.34	4.74	-90.88	-75.27	-4,914.77	4,915.35	4,907.27	8.08	608.596		
300.00	299.98	247.98	299.98	3.44	7.65	85.51	-75.27	-4,914.77	4,915.21	4,904.12	11.09	443.228		
400.00	399.84	347.84	399.84	3.59	10.90	85.58	-75.27	-4,914.77	4,914.80	4,900.31	14.49	339.164		
500.00	499.45	447.45	499.45	3.79	14.26	85.69	-75.27	-4,914.77	4,914.14	4,896.09	18.04	272.348		
600.00	598.70	546.70	598.70	4.03	17.65	85.85	-75.27	-4,914.77	4,913.23	4,891.56	21.68	226.663		
700.00	697.47	645.47	697.47	4.31	21.04	86.05	-75.27	-4,914.77	4,912.11	4,886.76	25.36	193.706		
800.00	795.62	743.62	795.62	4.64	24.44	86.30	-75.27	-4,914.77	4,910.82	4,881.74	29.07	168.913		
900.00	893.06	841.06	893.06	5.00	27.81	86.58	-75.27	-4,914.77	4,909.38	4,876.58	32.81	149.638		
1,000.00	989.64	937.64	989.64	5.40	31.16	86.90	-75.27	-4,914.77	4,907.86	4,871.30	36.56	134.255		
1,100.00	1,085.27	1,033.27	1,085.27	5.83	34.48	87.26	-75.27	-4,914.77	4,906.30	4,865.99	40.31	121.716		
1,200.00	1,179.82	1,127.82	1,179.82	6.29	37.77	87.65	-75.27	-4,914.77	4,904.78	4,860.71	44.06	111.315		
1,300.00	1,273.47	1,221.47	1,273.47	6.79	41.03	88.04	-75.27	-4,914.77	4,903.37	4,855.56	47.81	102.550		
1,400.00	1,367.06	1,315.06	1,367.06	7.30	44.28	88.43	-75.27	-4,914.77	4,902.21	4,850.62	51.59	95.027		
1,500.00	1,460.64	1,408.64	1,460.64	7.83	47.54	88.81	-75.27	-4,914.77	4,901.30	4,845.93	55.38	88.508		
1,600.00	1,554.23	1,502.23	1,554.23	8.38	50.80	89.20	-75.27	-4,914.77	4,900.65	4,841.47	59.18	82.811		
1,700.00	1,647.82	1,604.18	1,647.82	8.93	54.36	89.58	-75.27	-4,914.77	4,900.25	4,836.97	63.28	77.435		
1,800.00	1,741.41	1,689.41	1,741.41	9.49	57.33	89.97	-75.27	-4,914.77	4,900.10	4,833.29	66.81	73.341		
1,808.22	1,749.11	1,702.89	1,749.11	9.53	57.80	90.00	-75.27	-4,914.77	4,900.10	4,832.77	67.33	72.779		
1,900.00	1,835.00	1,783.00	1,835.00	10.05	60.59	90.35	-75.27	-4,914.77	4,900.21	4,829.57	70.64	69.368		
2,000.00	1,928.59	1,876.59	1,928.59	10.62	63.85	90.74	-75.27	-4,914.77	4,900.57	4,826.09	74.48	65.801		
2,100.00	2,022.18	1,970.18	2,022.18	11.20	67.11	91.12	-75.27	-4,914.77	4,901.18	4,822.86	78.31	62.583		
2,200.00	2,115.77	2,063.77	2,115.77	11.78	70.38	91.51	-75.27	-4,914.77	4,902.04	4,819.89	82.16	59.666		
2,300.00	2,209.36	2,157.36	2,209.36	12.37	73.64	91.90	-75.27	-4,914.77	4,903.16	4,817.16	86.01	57.010		
2,400.00	2,302.95	2,250.95	2,302.95	12.95	76.91	92.28	-75.27	-4,914.77	4,904.53	4,814.68	89.86	54.582		
2,500.00	2,396.54	2,344.54	2,396.54	13.54	80.17	92.66	-75.27	-4,914.77	4,906.16	4,812.45	93.71	52.355		
2,600.00	2,490.13	2,438.13	2,490.13	14.13	83.43	93.05	-75.27	-4,914.77	4,908.03	4,810.47	97.56	50.306		
2,700.00	2,583.72	2,531.72	2,583.72	14.73	86.70	93.43	-75.27	-4,914.77	4,910.16	4,808.74	101.42	48.414		
2,800.00	2,677.31	2,625.31	2,677.31	15.32	89.96	93.82	-75.27	-4,914.77	4,912.54	4,807.26	105.28	46.662		
2,900.00	2,770.90	2,718.90	2,770.90	15.92	93.23	94.20	-75.27	-4,914.77	4,915.17	4,806.03	109.14	45.036		
3,000.00	2,864.49	2,812.49	2,864.49	16.52	96.49	94.58	-75.27	-4,914.77	4,918.05	4,805.05	113.00	43.522		
3,100.00	2,958.08	2,906.08	2,958.08	17.12	99.76	94.97	-75.27	-4,914.77	4,921.18	4,804.32	116.86	42.111		
3,200.00	3,051.67	3,000.33	3,051.67	17.72	103.05	95.35	-75.27	-4,914.77	4,924.57	4,803.82	120.75	40.784		
3,300.00	3,145.26	3,106.74	3,145.26	18.32	106.76	95.73	-75.27	-4,914.77	4,928.20	4,803.14	125.06	39.407		
3,400.00	3,238.85	3,186.85	3,238.85	18.92	109.56	96.11	-75.27	-4,914.77	4,932.08	4,803.63	128.45	38.396		
3,500.00	3,332.44	3,280.44	3,332.44	19.53	112.82	96.49	-75.27	-4,914.77	4,936.21	4,803.89	132.32	37.306		
3,600.00	3,426.03	3,374.03	3,426.03	20.13	116.09	96.87	-75.27	-4,914.77	4,940.59	4,804.40	136.18	36.279		
3,700.00	3,519.62	3,467.62	3,519.62	20.74	119.35	97.25	-75.27	-4,914.77	4,945.21	4,805.16	140.05	35.311		
3,800.00	3,613.21	3,561.21	3,613.21	21.34	122.62	97.63	-75.27	-4,914.77	4,950.08	4,806.17	143.91	34.397		
3,900.00	3,706.80	3,654.80	3,706.80	21.95	125.89	98.01	-75.27	-4,914.77	4,955.19	4,807.42	147.78	33.532		
4,000.00	3,800.39	3,748.39	3,800.39	22.56	129.15	98.39	-75.27	-4,914.77	4,960.56	4,808.92	151.64	32.713		
4,100.00	3,893.98	3,841.98	3,893.98	23.16	132.42	98.77	-75.27	-4,914.77	4,966.16	4,810.66	155.50	31.936		
4,200.00	3,987.57	3,935.57	3,987.57	23.77	135.69	99.14	-75.27	-4,914.77	4,972.01	4,812.64	159.37	31.198		
4,300.00	4,081.16	4,029.16	4,081.16	24.38	138.95	99.52	-75.27	-4,914.77	4,978.10	4,814.87	163.23	30.497		
4,400.00	4,174.75	4,122.75	4,174.75	24.99	142.22	99.89	-75.27	-4,914.77	4,984.43	4,817.33	167.10	29.830		
4,500.00	4,268.34	4,216.34	4,268.34	25.60	145.48	100.27	-75.27	-4,914.77	4,991.00	4,820.04	170.96	29.194		
4,600.00	4,361.93	4,309.93	4,361.93	26.21	148.75	100.64	-75.27	-4,914.77	4,997.82	4,822.99	174.82	28.588		
4,700.00	4,455.52	4,403.52	4,455.52	26.82	152.02	101.01	-75.27	-4,914.77	5,004.87	4,826.18	178.68	28.010		
4,800.00	4,549.11	4,502.89	4,549.11	27.43	155.49	101.38	-75.27	-4,914.77	5,012.16	4,829.41	182.75	27.427		
4,900.00	4,642.70	4,609.30	4,642.70	28.04	159.20	101.75	-75.27	-4,914.77	5,019.68	4,832.62	187.06	26.835		
5,000.00	4,736.29	4,684.29	4,736.29	28.65	161.82	102.12	-75.27	-4,914.77	5,027.44	4,837.17	190.27	26.423		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	4,777.88	4,829.88	29.26	165.08	102.49	-75.27	-4,914.77	5,035.44	4,841.31	194.13	25.939		
5,200.00	4,923.47	4,871.47	4,923.47	29.87	168.35	102.86	-75.27	-4,914.77	5,043.67	4,845.68	197.99	25.475		
5,300.00	5,017.06	4,965.06	5,017.06	30.48	171.62	103.22	-75.27	-4,914.77	5,052.13	4,850.28	201.84	25.030		
5,400.00	5,110.65	5,058.65	5,110.65	31.09	174.88	103.59	-75.27	-4,914.77	5,060.82	4,855.12	205.70	24.603		
5,500.00	5,204.24	5,152.24	5,204.24	31.70	178.15	103.95	-75.27	-4,914.77	5,069.74	4,860.18	209.56	24.192		
5,600.00	5,297.83	5,245.83	5,297.83	32.32	181.42	104.31	-75.27	-4,914.77	5,078.89	4,865.48	213.42	23.798		
5,700.00	5,391.42	5,339.42	5,391.42	32.93	184.68	104.67	-75.27	-4,914.77	5,088.27	4,871.00	217.27	23.419		
5,800.00	5,485.01	5,433.01	5,485.01	33.54	187.95	105.03	-75.27	-4,914.77	5,097.87	4,876.75	221.12	23.054		
5,900.00	5,578.60	5,526.60	5,578.60	34.15	191.22	105.39	-75.27	-4,914.77	5,107.70	4,882.72	224.98	22.703		
6,000.00	5,672.19	5,620.19	5,672.19	34.77	194.48	105.75	-75.27	-4,914.77	5,117.76	4,888.92	228.83	22.365		
6,100.00	5,765.78	5,713.78	5,765.78	35.38	197.75	106.11	-75.27	-4,914.77	5,128.03	4,895.35	232.68	22.039		
6,200.00	5,859.37	5,807.37	5,859.37	35.99	201.02	106.46	-75.27	-4,914.77	5,138.53	4,901.99	236.53	21.724		
6,300.00	5,952.96	5,900.96	5,952.96	36.60	204.28	106.82	-75.27	-4,914.77	5,149.24	4,908.86	240.38	21.421		
6,400.00	6,046.55	6,005.45	6,046.55	37.22	207.93	107.17	-75.27	-4,914.77	5,160.18	4,915.56	244.61	21.095		
6,500.00	6,140.14	6,088.14	6,140.14	37.83	210.82	107.52	-75.27	-4,914.77	5,171.33	4,923.25	248.08	20.845		
6,600.00	6,233.73	6,181.73	6,233.73	38.44	214.08	107.87	-75.27	-4,914.77	5,182.69	4,930.77	251.93	20.572		
6,700.00	6,327.32	6,275.32	6,327.32	39.06	217.35	108.22	-75.27	-4,914.77	5,194.27	4,938.50	255.77	20.308		
6,800.00	6,420.91	6,368.91	6,420.91	39.67	220.62	108.56	-75.27	-4,914.77	5,206.06	4,946.45	259.62	20.053		
6,900.00	6,514.50	6,462.50	6,514.50	40.28	223.88	108.91	-75.27	-4,914.77	5,218.07	4,954.61	263.46	19.806		
7,000.00	6,608.09	6,556.09	6,608.09	40.90	227.15	109.25	-75.27	-4,914.77	5,230.28	4,962.98	267.30	19.567		
7,100.00	6,701.63	6,649.63	6,701.63	41.51	230.42	100.05	-75.27	-4,914.77	5,241.54	4,970.39	271.14	19.331		
7,200.00	6,793.85	6,741.85	6,793.85	42.10	233.64	80.77	-75.27	-4,914.77	5,241.21	4,966.28	274.93	19.064		
7,300.00	6,882.50	6,830.50	6,882.50	42.64	236.73	68.43	-75.27	-4,914.77	5,226.89	4,948.34	278.55	18.764		
7,400.00	6,965.41	6,913.41	6,965.41	43.12	239.62	61.52	-75.27	-4,914.77	5,199.05	4,917.12	281.93	18.441		
7,500.00	7,040.53	6,988.53	7,040.53	43.53	242.25	58.37	-75.27	-4,914.77	5,158.50	4,873.51	284.98	18.101		
7,600.00	7,106.00	7,054.00	7,106.00	43.89	244.53	58.04	-75.27	-4,914.77	5,106.31	4,818.63	287.67	17.750		
7,700.00	7,160.23	7,108.23	7,160.23	44.20	246.42	60.21	-75.27	-4,914.77	5,043.85	4,753.89	289.96	17.395		
7,800.00	7,201.86	7,149.86	7,201.86	44.48	247.88	64.99	-75.27	-4,914.77	4,972.67	4,680.87	291.81	17.041		
7,900.00	7,229.88	7,177.88	7,229.88	44.73	248.86	72.78	-75.27	-4,914.77	4,894.54	4,601.34	293.20	16.694		
8,000.00	7,243.60	7,208.40	7,243.60	44.99	249.92	84.01	-75.27	-4,914.77	4,811.31	4,516.62	294.69	16.327		
8,100.00	7,244.73	7,207.27	7,244.73	45.29	249.88	90.49	-75.27	-4,914.77	4,725.30	4,430.19	295.11	16.012		
8,200.00	7,244.23	7,207.77	7,244.23	45.74	249.90	90.47	-75.27	-4,914.77	4,639.49	4,343.85	295.64	15.693		
8,300.00	7,243.73	7,208.27	7,243.73	46.38	249.92	90.46	-75.27	-4,914.77	4,554.26	4,258.03	296.24	15.374		
8,400.00	7,243.23	7,208.77	7,243.23	47.29	249.93	90.45	-75.27	-4,914.77	4,469.65	4,172.74	296.91	15.054		
8,500.00	7,242.73	7,209.27	7,242.73	48.46	249.95	90.44	-75.27	-4,914.77	4,385.68	4,088.02	297.66	14.734		
8,600.00	7,242.23	7,209.77	7,242.23	49.87	249.97	90.43	-75.27	-4,914.77	4,302.40	4,003.91	298.49	14.414		
8,700.00	7,241.73	7,189.73	7,241.73	51.48	249.27	90.41	-75.27	-4,914.77	4,219.84	3,921.15	298.69	14.128		
8,800.00	7,241.23	7,189.23	7,241.23	53.24	249.25	90.40	-75.27	-4,914.77	4,138.06	3,838.39	299.67	13.809		
8,900.00	7,240.73	7,188.73	7,240.73	55.13	249.24	90.39	-75.27	-4,914.77	4,057.09	3,756.35	300.74	13.490		
9,000.00	7,240.23	7,188.23	7,240.23	57.11	249.22	90.38	-75.27	-4,914.77	3,976.98	3,675.07	301.91	13.173		
9,100.00	7,239.73	7,187.73	7,239.73	59.19	249.20	90.37	-75.27	-4,914.77	3,897.80	3,594.61	303.19	12.856		
9,200.00	7,239.23	7,187.23	7,239.23	61.34	249.18	90.35	-75.27	-4,914.77	3,819.59	3,515.02	304.57	12.541		
9,300.00	7,238.72	7,186.72	7,238.72	63.55	249.17	90.34	-75.27	-4,914.77	3,742.42	3,436.36	306.06	12.228		
9,400.00	7,238.22	7,186.22	7,238.22	65.81	249.15	90.33	-75.27	-4,914.77	3,666.35	3,358.69	307.67	11.917		
9,500.00	7,237.72	7,185.72	7,237.72	68.13	249.13	90.32	-75.27	-4,914.77	3,591.46	3,282.07	309.39	11.608		
9,600.00	7,237.22	7,185.22	7,237.22	70.48	249.11	90.31	-75.27	-4,914.77	3,517.81	3,206.58	311.23	11.303		
9,700.00	7,236.72	7,184.72	7,236.72	72.88	249.10	90.29	-75.27	-4,914.77	3,445.50	3,132.30	313.20	11.001		
9,800.00	7,236.22	7,184.22	7,236.22	75.31	249.08	90.28	-75.27	-4,914.77	3,374.59	3,059.30	315.29	10.703		
9,900.00	7,235.72	7,183.72	7,235.72	77.77	249.06	90.27	-75.27	-4,914.77	3,305.20	2,987.69	317.50	10.410		
10,000.00	7,235.22	7,183.22	7,235.22	80.26	249.04	90.26	-75.27	-4,914.77	3,237.40	2,917.56	319.84	10.122		
10,100.00	7,234.72	7,182.72	7,234.72	82.77	249.03	90.25	-75.27	-4,914.77	3,171.31	2,849.00	322.30	9.839		
10,200.00	7,234.22	7,182.22	7,234.22	85.31	249.01	90.23	-75.27	-4,914.77	3,107.03	2,782.14	324.89	9.563		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	7,181.72	7,233.72	87.86	248.99	90.22	-75.27	-4,914.77	3,044.68	2,717.08	327.60	9.294		
10,400.00	7,233.22	7,181.22	7,233.22	90.44	248.97	90.21	-75.27	-4,914.77	2,984.37	2,653.95	330.42	9.032		
10,500.00	7,232.72	7,180.72	7,232.72	93.03	248.96	90.20	-75.27	-4,914.77	2,926.24	2,592.89	333.36	8.778		
10,600.00	7,232.22	7,180.22	7,232.22	95.64	248.94	90.19	-75.27	-4,914.77	2,870.43	2,534.02	336.40	8.533		
10,700.00	7,231.72	7,179.72	7,231.72	98.26	248.92	90.18	-75.27	-4,914.77	2,817.05	2,477.51	339.54	8.297		
10,800.00	7,231.21	7,179.21	7,231.21	100.89	248.90	90.16	-75.27	-4,914.77	2,766.26	2,423.50	342.77	8.070		
10,900.00	7,230.71	7,178.71	7,230.71	103.54	248.89	90.15	-75.27	-4,914.77	2,718.20	2,372.14	346.07	7.855		
11,000.00	7,230.21	7,178.21	7,230.21	106.20	248.87	90.14	-75.27	-4,914.77	2,673.02	2,323.60	349.43	7.650		
11,100.00	7,229.71	7,177.71	7,229.71	108.87	248.85	90.13	-75.27	-4,914.77	2,630.87	2,278.04	352.83	7.456		
11,200.00	7,229.21	7,177.21	7,229.21	111.54	248.83	90.12	-75.27	-4,914.77	2,591.89	2,235.63	356.26	7.275		
11,300.00	7,228.71	7,176.71	7,228.71	114.23	248.82	90.10	-75.27	-4,914.77	2,556.24	2,196.54	359.70	7.107		
11,400.00	7,228.21	7,176.21	7,228.21	116.92	248.80	90.09	-75.27	-4,914.77	2,524.04	2,160.92	363.12	6.951		
11,500.00	7,227.71	7,175.71	7,227.71	119.63	248.78	90.08	-75.27	-4,914.77	2,495.43	2,128.94	366.49	6.809		
11,600.00	7,227.21	7,175.21	7,227.21	122.34	248.76	90.07	-75.27	-4,914.77	2,470.55	2,100.74	369.81	6.681		
11,700.00	7,226.71	7,174.71	7,226.71	125.05	248.75	90.06	-75.27	-4,914.77	2,449.50	2,076.46	373.03	6.566		
11,800.00	7,226.21	7,174.21	7,226.21	127.78	248.73	90.04	-75.27	-4,914.77	2,432.38	2,056.23	376.15	6.467		
11,900.00	7,225.71	7,173.71	7,225.71	130.51	248.71	90.03	-75.27	-4,914.77	2,419.27	2,040.15	379.12	6.381		
12,000.00	7,225.21	7,173.21	7,225.21	133.24	248.69	90.02	-75.27	-4,914.77	2,410.25	2,028.32	381.93	6.311		
12,100.00	7,224.71	7,172.71	7,224.71	135.98	248.68	90.01	-75.27	-4,914.77	2,405.36	2,020.79	384.57	6.255		
12,167.89	7,224.37	7,172.37	7,224.37	137.84	248.66	90.00	-75.27	-4,914.77	2,404.40	2,018.16	386.24	6.225 CC		
12,200.00	7,224.21	7,172.21	7,224.21	138.72	248.66	90.00	-75.27	-4,914.77	2,404.61	2,017.61	387.00	6.213 ES		
12,300.00	7,223.70	7,171.70	7,223.70	141.47	248.64	89.98	-75.27	-4,914.77	2,408.02	2,018.80	389.22	6.187		
12,400.00	7,223.20	7,171.20	7,223.20	144.23	248.62	89.97	-75.27	-4,914.77	2,415.57	2,024.36	391.22	6.175 SF		
12,500.00	7,222.70	7,170.70	7,222.70	146.98	248.61	89.96	-75.27	-4,914.77	2,427.23	2,034.24	392.98	6.176		
12,600.00	7,222.20	7,170.20	7,222.20	149.74	248.59	89.95	-75.27	-4,914.77	2,442.92	2,048.40	394.52	6.192		
12,700.00	7,221.70	7,169.70	7,221.70	152.51	248.57	89.94	-75.27	-4,914.77	2,462.57	2,066.76	395.81	6.222		
12,800.00	7,221.20	7,169.20	7,221.20	155.28	248.55	89.92	-75.27	-4,914.77	2,486.10	2,089.22	396.88	6.264		
12,900.00	7,220.70	7,168.70	7,220.70	158.05	248.54	89.91	-75.27	-4,914.77	2,513.38	2,115.66	397.72	6.319		
13,000.00	7,220.20	7,168.20	7,220.20	160.82	248.52	89.90	-75.27	-4,914.77	2,544.31	2,145.96	398.36	6.387		
13,100.00	7,219.70	7,167.70	7,219.70	163.60	248.50	89.89	-75.27	-4,914.77	2,578.75	2,179.96	398.78	6.467		
13,200.00	7,219.20	7,167.20	7,219.20	166.38	248.48	89.88	-75.27	-4,914.77	2,616.55	2,217.53	399.03	6.557		
13,300.00	7,218.70	7,166.70	7,218.70	169.16	248.47	89.86	-75.27	-4,914.77	2,657.59	2,258.50	399.09	6.659		
13,400.00	7,218.20	7,166.20	7,218.20	171.95	248.45	89.85	-75.27	-4,914.77	2,701.70	2,302.70	399.00	6.771		
13,500.00	7,217.70	7,165.70	7,217.70	174.74	248.43	89.84	-75.27	-4,914.77	2,748.75	2,349.98	398.77	6.893		
13,600.00	7,217.20	7,165.20	7,217.20	177.53	248.41	89.83	-75.27	-4,914.77	2,798.57	2,400.17	398.40	7.024		
13,700.00	7,216.70	7,164.70	7,216.70	180.32	248.40	89.82	-75.27	-4,914.77	2,851.04	2,453.11	397.93	7.165		
13,800.00	7,216.19	7,164.19	7,216.19	183.11	248.38	89.81	-75.27	-4,914.77	2,906.00	2,508.65	397.35	7.313		
13,900.00	7,215.69	7,163.69	7,215.69	185.91	248.36	89.79	-75.27	-4,914.77	2,963.32	2,566.63	396.69	7.470		
14,000.00	7,215.19	7,163.19	7,215.19	188.71	248.34	89.78	-75.27	-4,914.77	3,022.86	2,626.90	395.96	7.634		
14,100.00	7,214.69	7,162.69	7,214.69	191.51	248.33	89.77	-75.27	-4,914.77	3,084.49	2,689.33	395.16	7.806		
14,200.00	7,214.19	7,162.19	7,214.19	194.31	248.31	89.76	-75.27	-4,914.77	3,148.09	2,753.78	394.32	7.984		
14,300.00	7,213.69	7,161.69	7,213.69	197.11	248.29	89.75	-75.27	-4,914.77	3,213.55	2,820.12	393.43	8.168		
14,400.00	7,213.19	7,161.19	7,213.19	199.92	248.27	89.73	-75.27	-4,914.77	3,280.75	2,888.24	392.51	8.358		
14,500.00	7,212.69	7,160.69	7,212.69	202.72	248.26	89.72	-75.27	-4,914.77	3,349.59	2,958.02	391.57	8.554		
14,600.00	7,212.19	7,160.19	7,212.19	205.53	248.24	89.71	-75.27	-4,914.77	3,419.96	3,029.36	390.60	8.756		
14,700.00	7,211.69	7,159.69	7,211.69	208.34	248.22	89.70	-75.27	-4,914.77	3,491.78	3,102.15	389.63	8.962		
14,800.00	7,211.19	7,159.19	7,211.19	211.15	248.20	89.69	-75.27	-4,914.77	3,564.96	3,176.32	388.65	9.173		
14,900.00	7,210.69	7,158.69	7,210.69	213.96	248.19	89.67	-75.27	-4,914.77	3,639.42	3,251.76	387.66	9.388		
15,000.00	7,210.19	7,158.19	7,210.19	216.78	248.17	89.66	-75.27	-4,914.77	3,715.07	3,328.40	386.68	9.608		
15,100.00	7,209.69	7,157.69	7,209.69	219.59	248.15	89.65	-75.27	-4,914.77	3,791.86	3,406.16	385.70	9.831		
15,200.00	7,209.18	7,157.18	7,209.18	222.41	248.13	89.64	-75.27	-4,914.77	3,869.70	3,484.98	384.72	10.058		
15,300.00	7,208.68	7,156.68	7,208.68	225.22	248.12	89.63	-75.27	-4,914.77	3,948.54	3,564.78	383.76	10.289		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:		0.00 ft	
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:		3.28 ft	
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
15,400.00	7,208.18	7,156.18	7,208.18	228.04	248.10	89.61	-75.27	-4,914.77	4,028.33	3,645.52	382.81	10.523			
15,437.48	7,208.00	7,156.00	7,208.00	229.10	248.09	89.61	-75.27	-4,914.77	4,058.46	3,676.00	382.45	10.612			



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-1(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	55.00	3.28	3.28	-109.98	-2,782.82	-7,652.53	8,142.99					
100.00	100.00	45.00	100.00	3.28	3.37	-109.98	-2,782.82	-7,652.53	8,142.81	8,136.15	6.66	1,223.110		
200.00	200.00	145.00	200.00	3.34	4.66	-109.98	-2,782.82	-7,652.53	8,142.81	8,134.81	8.00	1,017.661		
300.00	299.98	244.98	299.98	3.44	7.56	66.40	-2,782.82	-7,652.53	8,142.11	8,131.11	11.00	740.513		
400.00	399.84	344.84	399.84	3.59	10.80	66.48	-2,782.82	-7,652.53	8,140.01	8,125.62	14.39	565.605		
500.00	499.45	444.45	499.45	3.79	14.16	66.60	-2,782.82	-7,652.53	8,136.53	8,118.59	17.94	453.475		
600.00	598.70	543.70	598.70	4.03	17.54	66.76	-2,782.82	-7,652.53	8,131.68	8,110.10	21.57	376.917		
700.00	697.47	642.47	697.47	4.31	20.94	66.98	-2,782.82	-7,652.53	8,125.47	8,100.21	25.25	321.741		
800.00	795.62	740.62	795.62	4.64	24.33	67.24	-2,782.82	-7,652.53	8,117.93	8,088.96	28.97	280.253		
900.00	893.06	838.06	893.06	5.00	27.71	67.55	-2,782.82	-7,652.53	8,109.09	8,076.39	32.70	248.004		
1,000.00	989.64	934.64	989.64	5.40	31.06	67.90	-2,782.82	-7,652.53	8,098.98	8,062.54	36.44	222.262		
1,100.00	1,085.27	1,030.27	1,085.27	5.83	34.38	68.30	-2,782.82	-7,652.53	8,087.65	8,047.46	40.18	201.266		
1,200.00	1,179.82	1,124.82	1,179.82	6.29	37.66	68.74	-2,782.82	-7,652.53	8,075.14	8,031.21	43.93	183.833		
1,300.00	1,273.47	1,218.47	1,273.47	6.79	40.92	69.03	-2,782.82	-7,652.53	8,061.78	8,014.12	47.67	169.128		
1,400.00	1,367.06	1,312.06	1,367.06	7.30	44.18	69.25	-2,782.82	-7,652.53	8,048.50	7,997.07	51.43	156.507		
1,500.00	1,460.64	1,405.64	1,460.64	7.83	47.44	69.48	-2,782.82	-7,652.53	8,035.35	7,980.15	55.20	145.566		
1,600.00	1,554.23	1,500.77	1,554.23	8.38	50.75	69.70	-2,782.82	-7,652.53	8,022.33	7,963.29	59.04	135.874		
1,700.00	1,647.82	1,607.18	1,647.82	8.93	54.46	69.92	-2,782.82	-7,652.53	8,009.45	7,946.16	63.29	126.554		
1,800.00	1,741.41	1,686.41	1,741.41	9.49	57.22	70.14	-2,782.82	-7,652.53	7,996.70	7,930.11	66.60	120.075		
1,900.00	1,835.00	1,780.00	1,835.00	10.05	60.48	70.37	-2,782.82	-7,652.53	7,984.09	7,913.68	70.41	113.388		
2,000.00	1,928.59	1,873.59	1,928.59	10.62	63.75	70.59	-2,782.82	-7,652.53	7,971.61	7,897.37	74.24	107.380		
2,100.00	2,022.18	1,967.18	2,022.18	11.20	67.01	70.82	-2,782.82	-7,652.53	7,959.27	7,881.20	78.07	101.955		
2,200.00	2,115.77	2,060.77	2,115.77	11.78	70.27	71.05	-2,782.82	-7,652.53	7,947.07	7,865.17	81.90	97.033		
2,300.00	2,209.36	2,154.36	2,209.36	12.37	73.54	71.27	-2,782.82	-7,652.53	7,935.00	7,849.26	85.74	92.549		
2,400.00	2,302.95	2,247.95	2,302.95	12.95	76.80	71.50	-2,782.82	-7,652.53	7,923.07	7,833.49	89.58	88.446		
2,500.00	2,396.54	2,341.54	2,396.54	13.54	80.07	71.73	-2,782.82	-7,652.53	7,911.28	7,817.86	93.43	84.679		
2,600.00	2,490.13	2,435.13	2,490.13	14.13	83.33	71.96	-2,782.82	-7,652.53	7,899.63	7,802.36	97.28	81.209		
2,700.00	2,583.72	2,528.72	2,583.72	14.73	86.59	72.19	-2,782.82	-7,652.53	7,888.12	7,787.00	101.13	78.002		
2,800.00	2,677.31	2,622.31	2,677.31	15.32	89.86	72.42	-2,782.82	-7,652.53	7,876.75	7,771.77	104.98	75.031		
2,900.00	2,770.90	2,715.90	2,770.90	15.92	93.12	72.65	-2,782.82	-7,652.53	7,865.53	7,756.69	108.84	72.269		
3,000.00	2,864.49	2,809.49	2,864.49	16.52	96.39	72.88	-2,782.82	-7,652.53	7,854.44	7,741.74	112.69	69.696		
3,100.00	2,958.08	2,903.08	2,958.08	17.12	99.66	73.11	-2,782.82	-7,652.53	7,843.50	7,726.94	116.56	67.294		
3,200.00	3,051.67	3,003.33	3,051.67	17.72	103.15	73.34	-2,782.82	-7,652.53	7,832.70	7,712.05	120.65	64.921		
3,300.00	3,145.26	3,109.74	3,145.26	18.32	106.87	73.57	-2,782.82	-7,652.53	7,822.04	7,697.08	124.96	62.596		
3,400.00	3,238.85	3,183.85	3,238.85	18.92	109.45	73.81	-2,782.82	-7,652.53	7,811.53	7,683.38	128.15	60.958		
3,500.00	3,332.44	3,277.44	3,332.44	19.53	112.72	74.04	-2,782.82	-7,652.53	7,801.16	7,669.15	132.01	59.094		
3,600.00	3,426.03	3,371.03	3,426.03	20.13	115.98	74.27	-2,782.82	-7,652.53	7,790.94	7,655.06	135.88	57.337		
3,700.00	3,519.62	3,464.62	3,519.62	20.74	119.25	74.51	-2,782.82	-7,652.53	7,780.86	7,641.11	139.75	55.678		
3,800.00	3,613.21	3,558.21	3,613.21	21.34	122.52	74.74	-2,782.82	-7,652.53	7,770.93	7,627.32	143.62	54.108		
3,900.00	3,706.80	3,651.80	3,706.80	21.95	125.78	74.98	-2,782.82	-7,652.53	7,761.15	7,613.66	147.49	52.622		
4,000.00	3,800.39	3,745.39	3,800.39	22.56	129.05	75.22	-2,782.82	-7,652.53	7,751.52	7,600.16	151.36	51.212		
4,100.00	3,893.98	3,838.98	3,893.98	23.16	132.31	75.45	-2,782.82	-7,652.53	7,742.03	7,586.80	155.24	49.873		
4,200.00	3,987.57	3,932.57	3,987.57	23.77	135.58	75.69	-2,782.82	-7,652.53	7,732.70	7,573.59	159.11	48.600		
4,300.00	4,081.16	4,026.16	4,081.16	24.38	138.85	75.93	-2,782.82	-7,652.53	7,723.51	7,560.52	162.98	47.388		
4,400.00	4,174.75	4,119.75	4,174.75	24.99	142.11	76.17	-2,782.82	-7,652.53	7,714.47	7,547.61	166.86	46.233		
4,500.00	4,268.34	4,213.34	4,268.34	25.60	145.38	76.41	-2,782.82	-7,652.53	7,705.58	7,534.85	170.74	45.131		
4,600.00	4,361.93	4,306.93	4,361.93	26.21	148.65	76.65	-2,782.82	-7,652.53	7,696.85	7,522.23	174.61	44.079		
4,700.00	4,455.52	4,400.52	4,455.52	26.82	151.91	76.89	-2,782.82	-7,652.53	7,688.26	7,509.77	178.49	43.073		
4,800.00	4,549.11	4,505.89	4,549.11	27.43	155.59	77.13	-2,782.82	-7,652.53	7,679.83	7,497.05	182.78	42.016		
4,900.00	4,642.70	4,587.70	4,642.70	28.04	158.45	77.37	-2,782.82	-7,652.53	7,671.55	7,485.30	186.25	41.190		
5,000.00	4,736.29	4,681.29	4,736.29	28.65	161.71	77.61	-2,782.82	-7,652.53	7,663.42	7,473.29	190.13	40.306		
5,100.00	4,829.88	4,774.88	4,829.88	29.26	164.98	77.85	-2,782.82	-7,652.53	7,655.45	7,461.44	194.01	39.459		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-1(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,868.47	4,923.47	29.87	168.25	78.09	-2,782.82	-7,652.53	7,647.63	7,449.74	197.89	38.646		
5,300.00	5,017.06	4,962.06	5,017.06	30.48	171.51	78.34	-2,782.82	-7,652.53	7,639.96	7,438.19	201.77	37.864		
5,400.00	5,110.65	5,055.65	5,110.65	31.09	174.78	78.58	-2,782.82	-7,652.53	7,632.45	7,426.80	205.65	37.113		
5,500.00	5,204.24	5,149.24	5,204.24	31.70	178.05	78.82	-2,782.82	-7,652.53	7,625.10	7,415.56	209.54	36.390		
5,600.00	5,297.83	5,242.83	5,297.83	32.32	181.31	79.07	-2,782.82	-7,652.53	7,617.90	7,404.48	213.42	35.695		
5,700.00	5,391.42	5,336.42	5,391.42	32.93	184.58	79.31	-2,782.82	-7,652.53	7,610.85	7,393.55	217.30	35.024		
5,800.00	5,485.01	5,430.01	5,485.01	33.54	187.85	79.55	-2,782.82	-7,652.53	7,603.97	7,382.78	221.19	34.378		
5,900.00	5,578.60	5,523.60	5,578.60	34.15	191.11	79.80	-2,782.82	-7,652.53	7,597.24	7,372.17	225.07	33.755		
6,000.00	5,672.19	5,617.19	5,672.19	34.77	194.38	80.05	-2,782.82	-7,652.53	7,590.67	7,361.71	228.95	33.154		
6,100.00	5,765.78	5,710.78	5,765.78	35.38	197.65	80.29	-2,782.82	-7,652.53	7,584.25	7,351.41	232.84	32.573		
6,200.00	5,859.37	5,804.37	5,859.37	35.99	200.91	80.54	-2,782.82	-7,652.53	7,578.00	7,341.27	236.72	32.012		
6,300.00	5,952.96	5,902.04	5,952.96	36.60	204.32	80.78	-2,782.82	-7,652.53	7,571.90	7,331.15	240.75	31.451		
6,400.00	6,046.55	6,008.45	6,046.55	37.22	208.04	81.03	-2,782.82	-7,652.53	7,565.96	7,320.88	245.08	30.871		
6,500.00	6,140.14	6,085.14	6,140.14	37.83	210.71	81.28	-2,782.82	-7,652.53	7,560.18	7,311.80	248.38	30.438		
6,600.00	6,233.73	6,178.73	6,233.73	38.44	213.98	81.53	-2,782.82	-7,652.53	7,554.56	7,302.30	252.27	29.947		
6,700.00	6,327.32	6,272.32	6,327.32	39.06	217.25	81.77	-2,782.82	-7,652.53	7,549.11	7,292.95	256.15	29.471		
6,800.00	6,420.91	6,365.91	6,420.91	39.67	220.51	82.02	-2,782.82	-7,652.53	7,543.81	7,283.77	260.04	29.010		
6,900.00	6,514.50	6,459.50	6,514.50	40.28	223.78	82.27	-2,782.82	-7,652.53	7,538.67	7,274.75	263.92	28.564		
7,000.00	6,608.09	6,553.09	6,608.09	40.90	227.05	82.52	-2,782.82	-7,652.53	7,533.70	7,265.88	267.81	28.131		
7,100.00	6,701.63	6,646.63	6,701.63	41.51	230.31	73.34	-2,782.82	-7,652.53	7,527.61	7,255.92	271.69	27.706		
7,200.00	6,793.85	6,738.85	6,793.85	42.10	233.53	53.80	-2,782.82	-7,652.53	7,508.92	7,233.42	275.50	27.255		
7,300.00	6,882.50	6,827.50	6,882.50	42.64	236.63	40.55	-2,782.82	-7,652.53	7,475.27	7,196.14	279.13	26.781		
7,400.00	6,965.41	6,910.41	6,965.41	43.12	239.52	32.00	-2,782.82	-7,652.53	7,427.46	7,144.97	282.49	26.293		
7,500.00	7,040.53	6,985.53	7,040.53	43.53	242.14	26.31	-2,782.82	-7,652.53	7,366.63	7,081.13	285.50	25.802		
7,600.00	7,106.00	7,051.00	7,106.00	43.89	244.43	22.28	-2,782.82	-7,652.53	7,294.24	7,006.13	288.11	25.317		
7,700.00	7,160.23	7,105.23	7,160.23	44.20	246.32	19.11	-2,782.82	-7,652.53	7,212.03	6,921.78	290.25	24.847		
7,800.00	7,201.86	7,146.86	7,201.86	44.48	247.77	15.98	-2,782.82	-7,652.53	7,122.01	6,830.12	291.89	24.400		
7,900.00	7,229.88	7,174.88	7,229.88	44.73	248.75	11.00	-2,782.82	-7,652.53	7,026.35	6,733.38	292.97	23.983		
8,000.00	7,243.60	7,188.60	7,243.60	44.99	249.23	-13.55	-2,782.82	-7,652.53	6,927.41	6,633.92	293.49	23.604		
8,100.00	7,244.73	7,189.73	7,244.73	45.29	249.27	-96.79	-2,782.82	-7,652.53	6,827.51	6,533.99	293.52	23.261		
8,200.00	7,244.23	7,189.23	7,244.23	45.74	249.25	-96.69	-2,782.82	-7,652.53	6,727.60	6,434.12	293.49	22.923		
8,300.00	7,243.73	7,188.73	7,243.73	46.38	249.24	-96.59	-2,782.82	-7,652.53	6,627.69	6,334.24	293.45	22.585		
8,400.00	7,243.23	7,188.23	7,243.23	47.29	249.22	-96.49	-2,782.82	-7,652.53	6,527.79	6,234.37	293.42	22.247		
8,500.00	7,242.73	7,187.73	7,242.73	48.46	249.20	-96.39	-2,782.82	-7,652.53	6,427.89	6,134.50	293.39	21.909		
8,600.00	7,242.23	7,187.23	7,242.23	49.87	249.18	-96.29	-2,782.82	-7,652.53	6,327.99	6,034.64	293.36	21.571		
8,700.00	7,241.73	7,186.73	7,241.73	51.48	249.17	-96.19	-2,782.82	-7,652.53	6,228.10	5,934.77	293.33	21.233		
8,800.00	7,241.23	7,186.23	7,241.23	53.24	249.15	-96.10	-2,782.82	-7,652.53	6,128.21	5,834.91	293.30	20.894		
8,900.00	7,240.73	7,185.73	7,240.73	55.13	249.13	-96.00	-2,782.82	-7,652.53	6,028.32	5,735.05	293.27	20.556		
9,000.00	7,240.23	7,185.23	7,240.23	57.11	249.11	-95.90	-2,782.82	-7,652.53	5,928.44	5,635.20	293.24	20.217		
9,100.00	7,239.73	7,184.73	7,239.73	59.19	249.10	-95.80	-2,782.82	-7,652.53	5,828.56	5,535.35	293.21	19.878		
9,200.00	7,239.23	7,184.23	7,239.23	61.34	249.08	-95.70	-2,782.82	-7,652.53	5,728.68	5,435.50	293.18	19.540		
9,300.00	7,238.72	7,183.72	7,238.72	63.55	249.06	-95.60	-2,782.82	-7,652.53	5,628.81	5,335.65	293.16	19.201		
9,400.00	7,238.22	7,183.22	7,238.22	65.81	249.04	-95.50	-2,782.82	-7,652.53	5,528.94	5,235.81	293.13	18.862		
9,500.00	7,237.72	7,182.72	7,237.72	68.13	249.03	-95.40	-2,782.82	-7,652.53	5,429.08	5,135.98	293.11	18.523		
9,600.00	7,237.22	7,182.22	7,237.22	70.48	249.01	-95.30	-2,782.82	-7,652.53	5,329.23	5,036.14	293.08	18.183		
9,700.00	7,236.72	7,181.72	7,236.72	72.88	248.99	-95.20	-2,782.82	-7,652.53	5,229.38	4,936.32	293.06	17.844		
9,800.00	7,236.22	7,181.22	7,236.22	75.31	248.97	-95.11	-2,782.82	-7,652.53	5,129.53	4,836.49	293.04	17.505		
9,900.00	7,235.72	7,180.72	7,235.72	77.77	248.96	-95.01	-2,782.82	-7,652.53	5,029.69	4,736.68	293.02	17.165		
10,000.00	7,235.22	7,180.22	7,235.22	80.26	248.94	-94.91	-2,782.82	-7,652.53	4,929.86	4,636.86	293.00	16.826		
10,100.00	7,234.72	7,179.72	7,234.72	82.77	248.92	-94.81	-2,782.82	-7,652.53	4,830.03	4,537.06	292.98	16.486		
10,200.00	7,234.22	7,179.22	7,234.22	85.31	248.90	-94.71	-2,782.82	-7,652.53	4,730.22	4,437.26	292.96	16.146		
10,300.00	7,233.72	7,178.72	7,233.72	87.86	248.89	-94.61	-2,782.82	-7,652.53	4,630.41	4,337.46	292.94	15.806		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-1(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,233.22	7,178.22	7,233.22	90.44	248.87	-94.51	-2,782.82	-7,652.53	4,530.60	4,237.67	292.93	15.467		
10,500.00	7,232.72	7,177.72	7,232.72	93.03	248.85	-94.41	-2,782.82	-7,652.53	4,430.81	4,137.89	292.92	15.127		
10,600.00	7,232.22	7,177.22	7,232.22	95.64	248.83	-94.31	-2,782.82	-7,652.53	4,331.03	4,038.12	292.91	14.786		
10,700.00	7,231.72	7,176.72	7,231.72	98.26	248.82	-94.21	-2,782.82	-7,652.53	4,231.25	3,938.35	292.90	14.446		
10,800.00	7,231.21	7,176.21	7,231.21	100.89	248.80	-94.11	-2,782.82	-7,652.53	4,131.49	3,838.60	292.89	14.106		
10,900.00	7,230.71	7,175.71	7,230.71	103.54	248.78	-94.01	-2,782.82	-7,652.53	4,031.74	3,738.85	292.89	13.765		
11,000.00	7,230.21	7,175.21	7,230.21	106.20	248.76	-93.91	-2,782.82	-7,652.53	3,932.00	3,639.11	292.89	13.425		
11,100.00	7,229.71	7,174.71	7,229.71	108.87	248.75	-93.81	-2,782.82	-7,652.53	3,832.27	3,539.38	292.89	13.084		
11,200.00	7,229.21	7,174.21	7,229.21	111.54	248.73	-93.71	-2,782.82	-7,652.53	3,732.56	3,439.66	292.90	12.743		
11,300.00	7,228.71	7,173.71	7,228.71	114.23	248.71	-93.62	-2,782.82	-7,652.53	3,632.87	3,339.95	292.92	12.402		
11,400.00	7,228.21	7,173.21	7,228.21	116.92	248.69	-93.52	-2,782.82	-7,652.53	3,533.19	3,240.26	292.94	12.061		
11,500.00	7,227.71	7,172.71	7,227.71	119.63	248.68	-93.42	-2,782.82	-7,652.53	3,433.53	3,140.57	292.96	11.720		
11,600.00	7,227.21	7,172.21	7,227.21	122.34	248.66	-93.32	-2,782.82	-7,652.53	3,333.89	3,040.90	292.99	11.379		
11,700.00	7,226.71	7,171.71	7,226.71	125.05	248.64	-93.22	-2,782.82	-7,652.53	3,234.28	2,941.24	293.03	11.037		
11,800.00	7,226.21	7,171.21	7,226.21	127.78	248.62	-93.12	-2,782.82	-7,652.53	3,134.69	2,841.60	293.09	10.695		
11,900.00	7,225.71	7,170.71	7,225.71	130.51	248.61	-93.02	-2,782.82	-7,652.53	3,035.12	2,741.97	293.15	10.354		
12,000.00	7,225.21	7,170.21	7,225.21	133.24	248.59	-92.92	-2,782.82	-7,652.53	2,935.59	2,642.36	293.22	10.011		
12,100.00	7,224.71	7,169.71	7,224.71	135.98	248.57	-92.82	-2,782.82	-7,652.53	2,836.08	2,542.77	293.32	9.669		
12,200.00	7,224.21	7,169.21	7,224.21	138.72	248.55	-92.72	-2,782.82	-7,652.53	2,736.62	2,443.19	293.43	9.326		
12,300.00	7,223.70	7,168.70	7,223.70	141.47	248.54	-92.62	-2,782.82	-7,652.53	2,637.19	2,343.63	293.56	8.984		
12,400.00	7,223.20	7,168.20	7,223.20	144.23	248.52	-92.52	-2,782.82	-7,652.53	2,537.81	2,244.09	293.72	8.640		
12,500.00	7,222.70	7,167.70	7,222.70	146.98	248.50	-92.42	-2,782.82	-7,652.53	2,438.48	2,144.57	293.91	8.297		
12,600.00	7,222.20	7,167.20	7,222.20	149.74	248.48	-92.32	-2,782.82	-7,652.53	2,339.20	2,045.07	294.13	7.953		
12,700.00	7,221.70	7,166.70	7,221.70	152.51	248.47	-92.22	-2,782.82	-7,652.53	2,239.99	1,945.59	294.41	7.609		
12,800.00	7,221.20	7,166.20	7,221.20	155.28	248.45	-92.12	-2,782.82	-7,652.53	2,140.86	1,846.13	294.73	7.264		
12,900.00	7,220.70	7,165.70	7,220.70	158.05	248.43	-92.02	-2,782.82	-7,652.53	2,041.81	1,746.68	295.12	6.918		
13,000.00	7,220.20	7,165.20	7,220.20	160.82	248.41	-91.92	-2,782.82	-7,652.53	1,942.85	1,647.25	295.60	6.573		
13,100.00	7,219.70	7,164.70	7,219.70	163.60	248.40	-91.82	-2,782.82	-7,652.53	1,844.01	1,547.84	296.17	6.226		
13,200.00	7,219.20	7,164.20	7,219.20	166.38	248.38	-91.72	-2,782.82	-7,652.53	1,745.30	1,448.44	296.86	5.879		
13,300.00	7,218.70	7,163.70	7,218.70	169.16	248.36	-91.62	-2,782.82	-7,652.53	1,646.74	1,349.04	297.70	5.531		
13,400.00	7,218.20	7,163.20	7,218.20	171.95	248.34	-91.52	-2,782.82	-7,652.53	1,548.37	1,249.63	298.74	5.183		
13,500.00	7,217.70	7,162.70	7,217.70	174.74	248.33	-91.42	-2,782.82	-7,652.53	1,450.22	1,150.21	300.01	4.834		
13,600.00	7,217.20	7,162.20	7,217.20	177.53	248.31	-91.32	-2,782.82	-7,652.53	1,352.35	1,050.76	301.59	4.484		
13,700.00	7,216.70	7,161.70	7,216.70	180.32	248.29	-91.22	-2,782.82	-7,652.53	1,254.81	951.25	303.56	4.134		
13,800.00	7,216.19	7,161.19	7,216.19	183.11	248.27	-91.12	-2,782.82	-7,652.53	1,157.68	851.65	306.04	3.783		
13,900.00	7,215.69	7,160.69	7,215.69	185.91	248.26	-91.02	-2,782.82	-7,652.53	1,061.10	751.92	309.17	3.432		
14,000.00	7,215.19	7,160.19	7,215.19	188.71	248.24	-90.92	-2,782.82	-7,652.53	965.20	652.02	313.18	3.082		
14,100.00	7,214.69	7,159.69	7,214.69	191.51	248.22	-90.82	-2,782.82	-7,652.53	870.24	551.88	318.36	2.734		
14,200.00	7,214.19	7,159.19	7,214.19	194.31	248.20	-90.72	-2,782.82	-7,652.53	776.53	451.42	325.11	2.389		
14,300.00	7,213.69	7,158.69	7,213.69	197.11	248.19	-90.62	-2,782.82	-7,652.53	684.61	350.59	334.02	2.050		
14,400.00	7,213.19	7,158.19	7,213.19	199.92	248.17	-90.52	-2,782.82	-7,652.53	595.30	249.39	345.91	1.721		
14,500.00	7,212.69	7,157.69	7,212.69	202.72	248.15	-90.42	-2,782.82	-7,652.53	509.98	148.09	361.88	1.409 Level 3		
14,600.00	7,212.19	7,157.19	7,212.19	205.53	248.13	-90.32	-2,782.82	-7,652.53	431.01	47.80	383.20	1.125 Level 2		
14,700.00	7,211.69	7,156.69	7,211.69	208.34	248.12	-90.22	-2,782.82	-7,652.53	362.57	-47.80	410.36	0.884 Level 1		
14,800.00	7,211.19	7,156.19	7,211.19	211.15	248.10	-90.12	-2,782.82	-7,652.53	311.68	-128.36	440.04	0.708 Level 1		
14,900.00	7,210.69	7,155.69	7,210.69	213.96	248.08	-90.02	-2,782.82	-7,652.53	287.81	-172.89	460.70	0.625 Level 1		
14,921.56	7,210.58	7,155.58	7,210.58	214.57	248.08	-90.00	-2,782.82	-7,652.53	287.00	-175.49	462.49	0.621 Level 1, CC, ES, SF		
15,000.00	7,210.19	7,155.19	7,210.19	216.78	248.06	-89.92	-2,782.82	-7,652.53	297.52	-161.99	459.51	0.647 Level 1		
15,100.00	7,209.69	7,154.69	7,209.69	219.59	248.05	-89.82	-2,782.82	-7,652.53	337.95	-102.30	440.25	0.768 Level 1		
15,200.00	7,209.18	7,154.18	7,209.18	222.41	248.03	-89.72	-2,782.82	-7,652.53	399.87	-16.45	416.32	0.960 Level 1		
15,300.00	7,208.68	7,153.68	7,208.68	225.22	248.01	-89.62	-2,782.82	-7,652.53	474.95	79.76	395.20	1.202 Level 2		
15,400.00	7,208.18	7,153.18	7,208.18	228.04	247.99	-89.52	-2,782.82	-7,652.53	557.91	179.51	378.41	1.474 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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-1(SI_75CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth	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)		
15,437.48	7,208.00	7,153.00	7,208.00	229.10	247.99	-89.48	-2,782.82	-7,652.53	590.37	217.23	373.14	1.582	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	42.00	3.28	3.28	-101.20	-1,290.95	-6,516.91	6,643.68					
100.00	100.00	58.00	100.00	3.28	3.43	-101.20	-1,290.95	-6,516.91	6,643.55	6,636.83	6.72	989.004		
200.00	200.00	158.00	200.00	3.34	5.00	-101.20	-1,290.95	-6,516.91	6,643.55	6,635.21	8.33	797.126		
300.00	299.98	257.98	299.98	3.44	7.97	75.18	-1,290.95	-6,516.91	6,643.10	6,631.69	11.41	582.400		
400.00	399.84	357.84	399.84	3.59	11.24	75.25	-1,290.95	-6,516.91	6,641.76	6,626.94	14.82	448.024		
500.00	499.45	457.45	499.45	3.79	14.60	75.37	-1,290.95	-6,516.91	6,639.55	6,621.16	18.38	361.161		
600.00	598.70	556.70	598.70	4.03	17.99	75.53	-1,290.95	-6,516.91	6,636.46	6,614.44	22.02	301.387		
700.00	697.47	655.47	697.47	4.31	21.39	75.73	-1,290.95	-6,516.91	6,632.53	6,606.83	25.70	258.042		
800.00	795.62	753.62	795.62	4.64	24.78	75.98	-1,290.95	-6,516.91	6,627.79	6,598.37	29.42	225.298		
900.00	893.06	851.06	893.06	5.00	28.16	76.27	-1,290.95	-6,516.91	6,622.26	6,589.11	33.15	199.752		
1,000.00	989.64	947.64	989.64	5.40	31.51	76.61	-1,290.95	-6,516.91	6,615.99	6,579.09	36.90	179.303		
1,100.00	1,085.27	1,043.27	1,085.27	5.83	34.83	76.98	-1,290.95	-6,516.91	6,609.02	6,568.37	40.65	162.588		
1,200.00	1,179.82	1,137.82	1,179.82	6.29	38.12	77.39	-1,290.95	-6,516.91	6,601.41	6,557.01	44.40	148.686		
1,300.00	1,273.47	1,231.47	1,273.47	6.79	41.38	77.72	-1,290.95	-6,516.91	6,593.37	6,545.23	48.15	136.943		
1,400.00	1,367.06	1,325.06	1,367.06	7.30	44.63	78.00	-1,290.95	-6,516.91	6,585.48	6,533.57	51.92	126.850		
1,500.00	1,460.64	1,418.64	1,460.64	7.83	47.89	78.28	-1,290.95	-6,516.91	6,577.77	6,522.07	55.70	118.092		
1,600.00	1,554.23	1,512.23	1,554.23	8.38	51.15	78.56	-1,290.95	-6,516.91	6,570.24	6,510.74	59.50	110.427		
1,700.00	1,647.82	1,605.82	1,647.82	8.93	54.41	78.85	-1,290.95	-6,516.91	6,562.88	6,499.57	63.31	103.667		
1,800.00	1,741.41	1,700.59	1,741.41	9.49	57.72	79.13	-1,290.95	-6,516.91	6,555.71	6,488.54	67.17	97.604		
1,900.00	1,835.00	1,807.00	1,835.00	10.05	61.42	79.41	-1,290.95	-6,516.91	6,548.72	6,477.28	71.44	91.669		
2,000.00	1,928.59	1,886.59	1,928.59	10.62	64.20	79.70	-1,290.95	-6,516.91	6,541.91	6,467.13	74.78	87.478		
2,100.00	2,022.18	1,980.18	2,022.18	11.20	67.46	79.98	-1,290.95	-6,516.91	6,535.29	6,456.67	78.62	83.123		
2,200.00	2,115.77	2,073.77	2,115.77	11.78	70.73	80.27	-1,290.95	-6,516.91	6,528.85	6,446.38	82.46	79.172		
2,300.00	2,209.36	2,167.36	2,209.36	12.37	73.99	80.55	-1,290.95	-6,516.91	6,522.59	6,436.28	86.31	75.571		
2,400.00	2,302.95	2,260.95	2,302.95	12.95	77.25	80.84	-1,290.95	-6,516.91	6,516.52	6,426.35	90.16	72.276		
2,500.00	2,396.54	2,354.54	2,396.54	13.54	80.52	81.13	-1,290.95	-6,516.91	6,510.63	6,416.61	94.01	69.251		
2,600.00	2,490.13	2,448.13	2,490.13	14.13	83.78	81.41	-1,290.95	-6,516.91	6,504.92	6,407.05	97.87	66.464		
2,700.00	2,583.72	2,541.72	2,583.72	14.73	87.05	81.70	-1,290.95	-6,516.91	6,499.41	6,397.68	101.73	63.889		
2,800.00	2,677.31	2,635.31	2,677.31	15.32	90.31	81.99	-1,290.95	-6,516.91	6,494.08	6,388.49	105.59	61.502		
2,900.00	2,770.90	2,728.90	2,770.90	15.92	93.58	82.28	-1,290.95	-6,516.91	6,488.93	6,379.48	109.45	59.285		
3,000.00	2,864.49	2,822.49	2,864.49	16.52	96.84	82.57	-1,290.95	-6,516.91	6,483.98	6,370.66	113.32	57.219		
3,100.00	2,958.08	2,916.08	2,958.08	17.12	100.11	82.86	-1,290.95	-6,516.91	6,479.21	6,362.02	117.19	55.290		
3,200.00	3,051.67	3,009.67	3,051.67	17.72	103.37	83.15	-1,290.95	-6,516.91	6,474.63	6,353.57	121.05	53.486		
3,300.00	3,145.26	3,103.26	3,145.26	18.32	106.64	83.44	-1,290.95	-6,516.91	6,470.24	6,345.31	124.92	51.794		
3,400.00	3,238.85	3,203.15	3,238.85	18.92	110.13	83.73	-1,290.95	-6,516.91	6,466.03	6,337.02	129.01	50.120		
3,500.00	3,332.44	3,309.56	3,332.44	19.53	113.84	84.02	-1,290.95	-6,516.91	6,462.02	6,328.69	133.33	48.466		
3,600.00	3,426.03	3,384.03	3,426.03	20.13	116.44	84.31	-1,290.95	-6,516.91	6,458.19	6,321.66	136.54	47.300		
3,700.00	3,519.62	3,477.62	3,519.62	20.74	119.70	84.60	-1,290.95	-6,516.91	6,454.56	6,314.15	140.41	45.970		
3,800.00	3,613.21	3,571.21	3,613.21	21.34	122.97	84.89	-1,290.95	-6,516.91	6,451.12	6,306.83	144.28	44.711		
3,900.00	3,706.80	3,664.80	3,706.80	21.95	126.24	85.19	-1,290.95	-6,516.91	6,447.86	6,299.71	148.16	43.520		
4,000.00	3,800.39	3,758.39	3,800.39	22.56	129.50	85.48	-1,290.95	-6,516.91	6,444.80	6,292.77	152.03	42.391		
4,100.00	3,893.98	3,851.98	3,893.98	23.16	132.77	85.77	-1,290.95	-6,516.91	6,441.93	6,286.02	155.91	41.318		
4,200.00	3,987.57	3,945.57	3,987.57	23.77	136.03	86.06	-1,290.95	-6,516.91	6,439.25	6,279.47	159.79	40.299		
4,300.00	4,081.16	4,039.16	4,081.16	24.38	139.30	86.36	-1,290.95	-6,516.91	6,436.76	6,273.10	163.66	39.329		
4,400.00	4,174.75	4,132.75	4,174.75	24.99	142.57	86.65	-1,290.95	-6,516.91	6,434.47	6,266.93	167.54	38.406		
4,500.00	4,268.34	4,226.34	4,268.34	25.60	145.83	86.94	-1,290.95	-6,516.91	6,432.36	6,260.95	171.42	37.525		
4,600.00	4,361.93	4,319.93	4,361.93	26.21	149.10	87.23	-1,290.95	-6,516.91	6,430.45	6,255.16	175.30	36.684		
4,700.00	4,455.52	4,413.52	4,455.52	26.82	152.37	87.53	-1,290.95	-6,516.91	6,428.73	6,249.56	179.17	35.880		
4,800.00	4,549.11	4,507.11	4,549.11	27.43	155.63	87.82	-1,290.95	-6,516.91	6,427.21	6,244.15	183.05	35.111		
4,900.00	4,642.70	4,600.70	4,642.70	28.04	158.90	88.12	-1,290.95	-6,516.91	6,425.87	6,238.94	186.93	34.376		
5,000.00	4,736.29	4,705.71	4,736.29	28.65	162.56	88.41	-1,290.95	-6,516.91	6,424.73	6,233.52	191.21	33.601		
5,100.00	4,829.88	4,787.88	4,829.88	29.26	165.43	88.70	-1,290.95	-6,516.91	6,423.78	6,229.09	194.69	32.995		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,923.47	4,881.47	4,923.47	29.87	168.70	89.00	-1,290.95	-6,516.91	6,423.03	6,224.46	198.57	32.347		
5,300.00	5,017.06	4,975.06	5,017.06	30.48	171.97	89.29	-1,290.95	-6,516.91	6,422.47	6,220.02	202.45	31.724		
5,400.00	5,110.65	5,068.65	5,110.65	31.09	175.23	89.59	-1,290.95	-6,516.91	6,422.10	6,215.77	206.32	31.126		
5,500.00	5,204.24	5,162.24	5,204.24	31.70	178.50	89.88	-1,290.95	-6,516.91	6,421.92	6,211.72	210.20	30.551		
5,540.76	5,242.39	5,200.39	5,242.39	31.95	179.83	90.00	-1,290.95	-6,516.91	6,421.91	6,210.12	211.78	30.323		
5,600.00	5,297.83	5,255.83	5,297.83	32.32	181.77	90.17	-1,290.95	-6,516.91	6,421.94	6,207.86	214.08	29.998		
5,700.00	5,391.42	5,349.42	5,391.42	32.93	185.03	90.47	-1,290.95	-6,516.91	6,422.15	6,204.19	217.96	29.465		
5,800.00	5,485.01	5,443.01	5,485.01	33.54	188.30	90.76	-1,290.95	-6,516.91	6,422.56	6,200.72	221.84	28.951		
5,900.00	5,578.60	5,536.60	5,578.60	34.15	191.57	91.06	-1,290.95	-6,516.91	6,423.15	6,197.43	225.72	28.457		
6,000.00	5,672.19	5,630.19	5,672.19	34.77	194.83	91.35	-1,290.95	-6,516.91	6,423.94	6,194.35	229.60	27.979		
6,100.00	5,765.78	5,723.78	5,765.78	35.38	198.10	91.64	-1,290.95	-6,516.91	6,424.93	6,191.45	233.47	27.519		
6,200.00	5,859.37	5,817.37	5,859.37	35.99	201.37	91.94	-1,290.95	-6,516.91	6,426.10	6,188.75	237.35	27.074		
6,300.00	5,952.96	5,910.96	5,952.96	36.60	204.63	92.23	-1,290.95	-6,516.91	6,427.47	6,186.24	241.23	26.645		
6,400.00	6,046.55	6,004.55	6,046.55	37.22	207.90	92.53	-1,290.95	-6,516.91	6,429.04	6,183.93	245.11	26.230		
6,500.00	6,140.14	6,101.86	6,140.14	37.83	211.30	92.82	-1,290.95	-6,516.91	6,430.79	6,181.68	249.11	25.815		
6,600.00	6,233.73	6,208.27	6,233.73	38.44	215.01	93.11	-1,290.95	-6,516.91	6,432.74	6,179.30	253.44	25.382		
6,700.00	6,327.32	6,285.32	6,327.32	39.06	217.70	93.41	-1,290.95	-6,516.91	6,434.88	6,178.14	256.74	25.064		
6,800.00	6,420.91	6,378.91	6,420.91	39.67	220.97	93.70	-1,290.95	-6,516.91	6,437.21	6,176.60	260.61	24.700		
6,900.00	6,514.50	6,472.50	6,514.50	40.28	224.23	93.99	-1,290.95	-6,516.91	6,439.73	6,175.24	264.49	24.348		
7,000.00	6,608.09	6,566.09	6,608.09	40.90	227.50	94.28	-1,290.95	-6,516.91	6,442.45	6,174.08	268.36	24.006		
7,100.00	6,701.63	6,659.63	6,701.63	41.51	230.77	94.57	-1,290.95	-6,516.91	6,444.09	6,171.86	272.23	23.671		
7,200.00	6,793.85	6,751.85	6,793.85	42.10	233.98	94.86	-1,290.95	-6,516.91	6,433.20	6,157.15	276.04	23.305		
7,300.00	6,882.50	6,840.50	6,882.50	42.64	237.08	95.15	-1,290.95	-6,516.91	6,407.30	6,127.62	279.68	22.909		
7,400.00	6,965.41	6,923.41	6,965.41	43.12	239.97	95.44	-1,290.95	-6,516.91	6,367.05	6,084.00	283.06	22.494		
7,500.00	7,040.53	7,001.47	7,040.53	43.53	242.70	95.73	-1,290.95	-6,516.91	6,313.45	6,027.24	286.20	22.059		
7,600.00	7,106.00	7,064.00	7,106.00	43.89	244.88	96.02	-1,290.95	-6,516.91	6,247.79	5,959.03	288.76	21.637		
7,700.00	7,160.23	7,118.23	7,160.23	44.20	246.77	96.31	-1,290.95	-6,516.91	6,171.67	5,880.70	290.97	21.210		
7,800.00	7,201.86	7,159.86	7,201.86	44.48	248.23	96.60	-1,290.95	-6,516.91	6,086.93	5,794.23	292.70	20.796		
7,900.00	7,229.88	7,187.88	7,229.88	44.73	249.21	96.89	-1,290.95	-6,516.91	5,995.60	5,701.69	293.92	20.399		
8,000.00	7,243.60	7,201.60	7,243.60	44.99	249.68	97.18	-1,290.95	-6,516.91	5,899.88	5,605.30	294.59	20.028		
8,100.00	7,244.73	7,202.73	7,244.73	45.29	249.72	97.47	-1,290.95	-6,516.91	5,802.16	5,507.37	294.79	19.682		
8,200.00	7,244.23	7,202.23	7,244.23	45.74	249.71	97.76	-1,290.95	-6,516.91	5,704.36	5,409.42	294.94	19.341		
8,300.00	7,243.73	7,201.73	7,243.73	46.38	249.69	98.05	-1,290.95	-6,516.91	5,606.63	5,311.52	295.10	18.999		
8,400.00	7,243.23	7,201.23	7,243.23	47.29	249.67	98.34	-1,290.95	-6,516.91	5,508.98	5,213.69	295.29	18.656		
8,500.00	7,242.73	7,200.73	7,242.73	48.46	249.65	98.63	-1,290.95	-6,516.91	5,411.42	5,115.93	295.49	18.314		
8,600.00	7,242.23	7,200.23	7,242.23	49.87	249.64	98.92	-1,290.95	-6,516.91	5,313.95	5,018.24	295.71	17.970		
8,700.00	7,241.73	7,200.27	7,241.73	51.48	249.64	99.21	-1,290.95	-6,516.91	5,216.57	4,920.61	295.97	17.626		
8,800.00	7,241.23	7,200.77	7,241.23	53.24	249.66	99.50	-1,290.95	-6,516.91	5,119.30	4,823.04	296.26	17.280		
8,900.00	7,240.73	7,201.27	7,240.73	55.13	249.67	99.79	-1,290.95	-6,516.91	5,022.13	4,725.55	296.58	16.933		
9,000.00	7,240.23	7,201.77	7,240.23	57.11	249.69	100.08	-1,290.95	-6,516.91	4,925.08	4,628.15	296.93	16.587		
9,100.00	7,239.73	7,202.27	7,239.73	59.19	249.71	100.37	-1,290.95	-6,516.91	4,828.15	4,530.85	297.30	16.240		
9,200.00	7,239.23	7,202.77	7,239.23	61.34	249.73	100.66	-1,290.95	-6,516.91	4,731.34	4,433.64	297.70	15.893		
9,300.00	7,238.72	7,203.28	7,238.72	63.55	249.74	100.95	-1,290.95	-6,516.91	4,634.67	4,336.53	298.14	15.545		
9,400.00	7,238.22	7,203.78	7,238.22	65.81	249.76	101.24	-1,290.95	-6,516.91	4,538.15	4,239.54	298.61	15.198		
9,500.00	7,237.72	7,204.28	7,237.72	68.13	249.78	101.53	-1,290.95	-6,516.91	4,441.77	4,142.66	299.11	14.850		
9,600.00	7,237.22	7,204.78	7,237.22	70.48	249.80	101.82	-1,290.95	-6,516.91	4,345.57	4,045.91	299.66	14.502		
9,700.00	7,236.72	7,205.28	7,236.72	72.88	249.81	102.11	-1,290.95	-6,516.91	4,249.53	3,949.29	300.25	14.154		
9,800.00	7,236.22	7,205.78	7,236.22	75.31	249.83	102.40	-1,290.95	-6,516.91	4,153.69	3,852.81	300.88	13.805		
9,900.00	7,235.72	7,206.28	7,235.72	77.77	249.85	102.69	-1,290.95	-6,516.91	4,058.04	3,756.48	301.57	13.457		
10,000.00	7,235.22	7,206.78	7,235.22	80.26	249.87	102.98	-1,290.95	-6,516.91	3,962.61	3,660.31	302.30	13.108		
10,100.00	7,234.72	7,207.28	7,234.72	82.77	249.88	103.27	-1,290.95	-6,516.91	3,867.41	3,564.31	303.10	12.759		
10,200.00	7,234.22	7,207.78	7,234.22	85.31	249.90	103.56	-1,290.95	-6,516.91	3,772.46	3,468.49	303.96	12.411		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-2(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.00	7,233.72	7,208.28	7,233.72	87.86	249.92	90.83	-1,290.95	-6,516.91	3,677.77	3,372.88	304.90	12.062	
10,400.00	7,233.22	7,208.78	7,233.22	90.44	249.94	90.81	-1,290.95	-6,516.91	3,583.38	3,277.48	305.90	11.714	
10,500.00	7,232.72	7,209.28	7,232.72	93.03	249.95	90.78	-1,290.95	-6,516.91	3,489.30	3,182.31	306.99	11.366	
10,600.00	7,232.22	7,209.78	7,232.22	95.64	249.97	90.76	-1,290.95	-6,516.91	3,395.55	3,087.39	308.16	11.019	
10,700.00	7,231.72	7,189.72	7,231.72	98.26	249.27	90.74	-1,290.95	-6,516.91	3,302.17	2,993.47	308.71	10.697	
10,800.00	7,231.21	7,189.21	7,231.21	100.89	249.25	90.71	-1,290.95	-6,516.91	3,209.20	2,899.15	310.04	10.351	
10,900.00	7,230.71	7,188.71	7,230.71	103.54	249.23	90.69	-1,290.95	-6,516.91	3,116.65	2,805.16	311.49	10.006	
11,000.00	7,230.21	7,188.21	7,230.21	106.20	249.22	90.66	-1,290.95	-6,516.91	3,024.58	2,711.52	313.06	9.661	
11,100.00	7,229.71	7,187.71	7,229.71	108.87	249.20	90.64	-1,290.95	-6,516.91	2,933.03	2,618.27	314.76	9.318	
11,200.00	7,229.21	7,187.21	7,229.21	111.54	249.18	90.62	-1,290.95	-6,516.91	2,842.05	2,525.45	316.60	8.977	
11,300.00	7,228.71	7,186.71	7,228.71	114.23	249.16	90.59	-1,290.95	-6,516.91	2,751.70	2,433.10	318.59	8.637	
11,400.00	7,228.21	7,186.21	7,228.21	116.92	249.15	90.57	-1,290.95	-6,516.91	2,662.03	2,341.28	320.76	8.299	
11,500.00	7,227.71	7,185.71	7,227.71	119.63	249.13	90.55	-1,290.95	-6,516.91	2,573.13	2,250.03	323.10	7.964	
11,600.00	7,227.21	7,185.21	7,227.21	122.34	249.11	90.52	-1,290.95	-6,516.91	2,485.07	2,159.43	325.64	7.631	
11,700.00	7,226.71	7,184.71	7,226.71	125.05	249.09	90.50	-1,290.95	-6,516.91	2,397.94	2,069.55	328.39	7.302	
11,800.00	7,226.21	7,184.21	7,226.21	127.78	249.08	90.47	-1,290.95	-6,516.91	2,311.86	1,980.49	331.38	6.977	
11,900.00	7,225.71	7,183.71	7,225.71	130.51	249.06	90.45	-1,290.95	-6,516.91	2,226.95	1,892.34	334.61	6.655	
12,000.00	7,225.21	7,183.21	7,225.21	133.24	249.04	90.43	-1,290.95	-6,516.91	2,143.33	1,805.23	338.10	6.339	
12,100.00	7,224.71	7,182.71	7,224.71	135.98	249.02	90.40	-1,290.95	-6,516.91	2,061.17	1,719.29	341.88	6.029	
12,200.00	7,224.21	7,182.21	7,224.21	138.72	249.01	90.38	-1,290.95	-6,516.91	1,980.66	1,634.69	345.96	5.725	
12,300.00	7,223.70	7,181.70	7,223.70	141.47	248.99	90.35	-1,290.95	-6,516.91	1,901.99	1,551.63	350.36	5.429	
12,400.00	7,223.20	7,181.20	7,223.20	144.23	248.97	90.33	-1,290.95	-6,516.91	1,825.42	1,470.32	355.09	5.141	
12,500.00	7,222.70	7,180.70	7,222.70	146.98	248.95	90.31	-1,290.95	-6,516.91	1,751.21	1,391.04	360.16	4.862	
12,600.00	7,222.20	7,180.20	7,222.20	149.74	248.94	90.28	-1,290.95	-6,516.91	1,679.67	1,314.10	365.57	4.595	
12,700.00	7,221.70	7,179.70	7,221.70	152.51	248.92	90.26	-1,290.95	-6,516.91	1,611.17	1,239.85	371.31	4.339	
12,800.00	7,221.20	7,179.20	7,221.20	155.28	248.90	90.23	-1,290.95	-6,516.91	1,546.10	1,168.74	377.36	4.097	
12,900.00	7,220.70	7,178.70	7,220.70	158.05	248.89	90.21	-1,290.95	-6,516.91	1,484.93	1,101.26	383.67	3.870	
13,000.00	7,220.20	7,178.20	7,220.20	160.82	248.87	90.19	-1,290.95	-6,516.91	1,428.14	1,037.97	390.16	3.660	
13,100.00	7,219.70	7,177.70	7,219.70	163.60	248.85	90.16	-1,290.95	-6,516.91	1,376.28	979.52	396.76	3.469	
13,200.00	7,219.20	7,177.20	7,219.20	166.38	248.83	90.14	-1,290.95	-6,516.91	1,329.93	926.62	403.31	3.298	
13,300.00	7,218.70	7,176.70	7,218.70	169.16	248.82	90.11	-1,290.95	-6,516.91	1,289.68	880.03	409.66	3.148	
13,400.00	7,218.20	7,176.20	7,218.20	171.95	248.80	90.09	-1,290.95	-6,516.91	1,256.13	840.52	415.61	3.022	
13,500.00	7,217.70	7,175.70	7,217.70	174.74	248.78	90.07	-1,290.95	-6,516.91	1,229.80	808.84	420.96	2.921	
13,600.00	7,217.20	7,175.20	7,217.20	177.53	248.76	90.04	-1,290.95	-6,516.91	1,211.19	785.69	425.50	2.847	
13,700.00	7,216.70	7,174.70	7,216.70	180.32	248.75	90.02	-1,290.95	-6,516.91	1,200.65	771.60	429.04	2.798	
13,777.17	7,216.31	7,174.31	7,216.31	182.48	248.73	90.00	-1,290.95	-6,516.91	1,198.16	767.15	431.01	2.780 CC	
13,800.00	7,216.19	7,174.19	7,216.19	183.11	248.73	89.99	-1,290.95	-6,516.91	1,198.38	766.92	431.46	2.777 ES, SF	
13,900.00	7,215.69	7,173.69	7,215.69	185.91	248.71	89.97	-1,290.95	-6,516.91	1,204.44	771.75	432.69	2.784	
14,000.00	7,215.19	7,173.19	7,215.19	188.71	248.69	89.95	-1,290.95	-6,516.91	1,218.71	785.97	432.74	2.816	
14,100.00	7,214.69	7,172.69	7,214.69	191.51	248.68	89.92	-1,290.95	-6,516.91	1,240.89	809.21	431.68	2.875	
14,200.00	7,214.19	7,172.19	7,214.19	194.31	248.66	89.90	-1,290.95	-6,516.91	1,270.58	840.93	429.65	2.957	
14,300.00	7,213.69	7,171.69	7,213.69	197.11	248.64	89.87	-1,290.95	-6,516.91	1,307.26	880.44	426.82	3.063	
14,400.00	7,213.19	7,171.19	7,213.19	199.92	248.62	89.85	-1,290.95	-6,516.91	1,350.37	927.00	423.37	3.190	
14,500.00	7,212.69	7,170.69	7,212.69	202.72	248.61	89.83	-1,290.95	-6,516.91	1,399.31	979.83	419.48	3.336	
14,600.00	7,212.19	7,170.19	7,212.19	205.53	248.59	89.80	-1,290.95	-6,516.91	1,453.49	1,038.19	415.29	3.500	
14,700.00	7,211.69	7,169.69	7,211.69	208.34	248.57	89.78	-1,290.95	-6,516.91	1,512.34	1,101.39	410.96	3.680	
14,800.00	7,211.19	7,169.19	7,211.19	211.15	248.55	89.76	-1,290.95	-6,516.91	1,575.35	1,168.78	406.57	3.875	
14,900.00	7,210.69	7,168.69	7,210.69	213.96	248.54	89.73	-1,290.95	-6,516.91	1,642.04	1,239.82	402.22	4.082	
15,000.00	7,210.19	7,168.19	7,210.19	216.78	248.52	89.71	-1,290.95	-6,516.91	1,711.98	1,314.01	397.97	4.302	
15,100.00	7,209.69	7,167.69	7,209.69	219.59	248.50	89.68	-1,290.95	-6,516.91	1,784.77	1,390.93	393.85	4.532	
15,200.00	7,209.18	7,167.18	7,209.18	222.41	248.48	89.66	-1,290.95	-6,516.91	1,860.10	1,470.21	389.89	4.771	
15,300.00	7,208.68	7,166.68	7,208.68	225.22	248.47	89.64	-1,290.95	-6,516.91	1,937.66	1,551.54	386.12	5.018	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
15,400.00	7,208.18	7,166.18	7,208.18	228.04	248.45	89.61	-1,290.95	-6,516.91	2,017.20	1,634.67	382.53	5.273	
15,437.48	7,208.00	7,166.00	7,208.00	229.10	248.44	89.60	-1,290.95	-6,516.91	2,047.47	1,666.23	381.24	5.371	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-3(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	37.00	3.28	3.28	-91.16	-154.36	-7,655.61	7,657.25					
100.00	100.00	109.98	146.98	3.28	3.29	-91.15	-153.97	-7,655.22	7,656.91	7,650.34	6.58	1,164.526		
200.00	200.00	181.72	218.72	3.34	3.33	-91.15	-153.47	-7,654.92	7,656.48	7,649.82	6.67	1,148.637		
300.00	299.98	255.51	292.50	3.44	3.40	85.23	-153.02	-7,654.88	7,656.27	7,649.43	6.84	1,120.006		
400.00	399.84	331.38	368.37	3.59	3.49	85.27	-152.82	-7,655.08	7,656.10	7,649.01	7.08	1,080.901		
500.00	499.45	413.52	450.51	3.79	3.63	85.32	-152.89	-7,655.54	7,655.93	7,648.51	7.42	1,032.246		
600.00	598.70	521.71	558.70	4.03	3.85	85.43	-153.16	-7,656.14	7,655.50	7,647.62	7.88	971.450		
700.00	697.47	612.43	649.41	4.31	4.07	85.54	-153.84	-7,656.65	7,654.83	7,646.45	8.38	913.207		
800.00	795.62	699.55	736.53	4.64	4.30	85.68	-154.71	-7,657.24	7,654.06	7,645.12	8.94	856.352		
900.00	893.06	799.45	836.43	5.00	4.59	85.85	-155.72	-7,657.99	7,653.13	7,643.54	9.59	798.233		
1,000.00	989.64	900.73	937.69	5.40	4.90	86.07	-156.72	-7,658.70	7,651.97	7,641.68	10.30	743.086		
1,100.00	1,085.27	1,000.87	1,037.83	5.83	5.23	86.31	-157.57	-7,659.35	7,650.62	7,639.56	11.06	692.017		
1,200.00	1,179.82	1,095.83	1,132.78	6.29	5.55	86.56	-158.13	-7,659.93	7,649.13	7,637.29	11.84	645.844		
1,300.00	1,273.47	1,186.64	1,223.59	6.79	5.87	86.81	-158.46	-7,660.51	7,647.64	7,634.99	12.66	604.271		
1,400.00	1,367.06	1,290.87	1,327.83	7.30	6.24	87.08	-158.75	-7,661.13	7,646.27	7,632.73	13.55	564.448		
1,500.00	1,460.64	1,379.09	1,416.04	7.83	6.57	87.31	-158.97	-7,661.61	7,645.01	7,630.61	14.40	530.866		
1,600.00	1,554.23	1,471.74	1,508.69	8.38	6.92	87.55	-159.33	-7,662.17	7,643.96	7,628.67	15.29	499.947		
1,700.00	1,647.82	1,560.61	1,597.56	8.93	7.25	87.79	-159.67	-7,662.72	7,643.09	7,626.91	16.18	472.421		
1,800.00	1,741.41	1,654.46	1,691.40	9.49	7.61	88.03	-159.93	-7,663.37	7,642.44	7,625.34	17.10	446.953		
1,900.00	1,835.00	1,749.90	1,786.84	10.05	7.99	88.28	-160.02	-7,663.97	7,641.90	7,623.86	18.04	423.694		
2,000.00	1,928.59	1,844.46	1,881.39	10.62	8.36	88.53	-160.17	-7,664.58	7,641.53	7,622.55	18.98	402.621		
2,100.00	2,022.18	1,936.81	1,973.75	11.20	8.72	88.77	-160.39	-7,665.14	7,641.29	7,621.37	19.92	383.570		
2,148.02	2,067.13	1,977.57	2,014.50	11.48	8.89	88.88	-160.48	-7,665.42	7,641.26	7,620.90	20.36	375.269		
2,200.00	2,115.77	2,037.58	2,074.51	11.78	9.13	89.04	-160.58	-7,665.82	7,641.27	7,620.37	20.90	365.544		
2,300.00	2,209.36	2,158.20	2,195.14	12.37	9.61	89.36	-160.63	-7,666.19	7,641.07	7,619.09	21.97	347.769		
2,400.00	2,302.95	2,269.03	2,305.96	12.95	10.06	89.64	-161.20	-7,666.33	7,640.84	7,617.84	23.00	332.142		
2,500.00	2,396.54	2,364.18	2,401.11	13.54	10.44	89.89	-161.78	-7,666.28	7,640.60	7,616.62	23.98	318.642		
2,567.22	2,459.45	2,424.86	2,461.79	13.94	10.69	90.05	-162.08	-7,666.27	7,640.56	7,615.94	24.62	310.312		
2,600.00	2,490.13	2,456.09	2,493.01	14.13	10.81	90.13	-162.22	-7,666.27	7,640.57	7,615.62	24.94	306.320		
2,700.00	2,583.72	2,569.27	2,606.19	14.73	11.28	90.43	-162.63	-7,666.16	7,640.62	7,614.63	26.00	293.905		
2,800.00	2,677.31	2,684.02	2,720.95	15.32	11.74	90.73	-162.79	-7,665.66	7,640.52	7,613.46	27.06	282.360		
2,868.11	2,741.06	2,746.15	2,783.08	15.73	12.00	90.89	-162.71	-7,665.29	7,640.46	7,612.74	27.72	275.631		
2,900.00	2,770.90	2,773.58	2,810.50	15.92	12.11	90.97	-162.63	-7,665.14	7,640.48	7,612.45	28.02	272.653		
3,000.00	2,864.49	2,834.14	2,871.07	16.52	12.36	91.13	-162.35	-7,664.88	7,640.80	7,611.93	28.87	264.663		
3,100.00	2,958.08	2,900.01	2,936.93	17.12	12.63	91.31	-161.82	-7,665.03	7,641.83	7,612.09	29.74	256.952		
3,200.00	3,051.67	2,936.66	2,973.57	17.72	12.78	91.41	-161.44	-7,665.31	7,643.49	7,613.00	30.49	250.686		
3,300.00	3,145.26	3,000.01	3,036.91	18.32	13.04	91.58	-160.71	-7,666.08	7,645.83	7,614.48	31.35	243.871		
3,400.00	3,238.85	3,069.98	3,106.88	18.92	13.33	91.77	-159.80	-7,667.15	7,648.67	7,616.43	32.24	237.225		
3,500.00	3,332.44	3,132.55	3,169.42	19.53	13.59	91.94	-158.87	-7,668.22	7,651.91	7,618.80	33.10	231.164		
3,600.00	3,426.03	3,200.01	3,236.86	20.13	13.87	92.12	-157.77	-7,669.79	7,655.83	7,621.84	33.98	225.291		
3,700.00	3,519.62	3,246.69	3,283.51	20.74	14.07	92.25	-156.93	-7,671.09	7,660.32	7,625.54	34.77	220.296		
3,800.00	3,613.21	3,319.10	3,355.88	21.34	14.37	92.45	-155.53	-7,673.29	7,665.32	7,629.65	35.67	214.868		
3,900.00	3,706.80	3,410.93	3,447.64	21.95	14.76	92.70	-153.38	-7,676.15	7,670.62	7,633.96	36.66	209.229		
4,000.00	3,800.39	3,531.26	3,567.87	22.56	15.26	93.04	-150.09	-7,679.62	7,675.94	7,638.16	37.77	203.208		
4,100.00	3,893.98	3,643.69	3,680.23	23.16	15.74	93.35	-147.20	-7,682.49	7,681.10	7,642.25	38.85	197.698		
4,200.00	3,987.57	3,742.98	3,779.47	23.77	16.15	93.63	-145.02	-7,684.93	7,686.33	7,646.45	39.87	192.763		
4,300.00	4,081.16	3,842.26	3,878.70	24.38	16.57	93.90	-143.07	-7,687.33	7,691.64	7,650.74	40.90	188.074		
4,400.00	4,174.75	3,943.43	3,979.83	24.99	17.00	94.17	-141.33	-7,689.72	7,697.06	7,655.13	41.93	183.579		
4,500.00	4,268.34	4,050.71	4,087.07	25.60	17.45	94.46	-139.86	-7,692.15	7,702.50	7,659.52	42.99	179.186		
4,600.00	4,361.93	4,150.02	4,186.35	26.21	17.86	94.73	-138.35	-7,694.21	7,707.96	7,663.95	44.01	175.141		
4,700.00	4,455.52	4,247.70	4,284.00	26.82	18.28	94.99	-137.16	-7,696.26	7,713.57	7,668.54	45.03	171.310		
4,800.00	4,549.11	4,353.14	4,389.41	27.43	18.72	95.27	-136.14	-7,698.39	7,719.23	7,673.15	46.08	167.524		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-3(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,900.00	4,642.70	4,462.14	4,498.38	28.04	19.18	95.56	-135.50	-7,700.46	7,724.88	7,677.74	47.15	163.851		
5,000.00	4,736.29	4,613.20	4,649.43	28.65	19.82	95.95	-134.91	-7,702.74	7,730.33	7,681.94	48.40	159.725		
5,100.00	4,829.88	4,697.78	4,734.00	29.26	20.17	96.17	-134.66	-7,703.75	7,735.61	7,686.25	49.36	156.722		
5,200.00	4,923.47	4,786.80	4,823.01	29.87	20.55	96.40	-134.39	-7,704.85	7,741.08	7,690.74	50.34	153.778		
5,300.00	5,017.06	4,889.99	4,926.19	30.48	20.99	96.67	-134.06	-7,706.10	7,746.69	7,695.31	51.38	150.767		
5,400.00	5,110.65	4,982.85	5,019.05	31.09	21.38	96.91	-133.70	-7,707.13	7,752.38	7,700.00	52.38	148.005		
5,500.00	5,204.24	5,085.70	5,121.89	31.70	21.81	97.18	-133.24	-7,708.23	7,758.21	7,704.78	53.42	145.229		
5,600.00	5,297.83	5,179.68	5,215.86	32.32	22.21	97.43	-132.86	-7,709.15	7,764.10	7,709.68	54.42	142.664		
5,700.00	5,391.42	5,278.01	5,314.19	32.93	22.63	97.68	-132.56	-7,710.13	7,770.14	7,714.70	55.44	140.145		
5,800.00	5,485.01	5,429.35	5,465.53	33.54	23.27	98.07	-131.82	-7,710.93	7,775.95	7,719.26	56.70	137.149		
5,900.00	5,578.60	5,525.42	5,561.59	34.15	23.67	98.33	-131.12	-7,710.96	7,781.51	7,723.81	57.71	134.845		
6,000.00	5,672.19	5,600.01	5,636.18	34.77	23.99	98.52	-130.79	-7,711.15	7,787.39	7,728.77	58.62	132.839		
6,100.00	5,765.78	5,693.51	5,729.68	35.38	24.39	98.76	-130.51	-7,711.55	7,793.55	7,733.93	59.62	130.715		
6,200.00	5,859.37	5,776.64	5,812.81	35.99	24.74	98.97	-130.22	-7,711.93	7,799.90	7,739.32	60.58	128.763		
6,300.00	5,952.96	5,865.25	5,901.42	36.60	25.12	99.20	-129.85	-7,712.43	7,806.52	7,744.96	61.55	126.827		
6,400.00	6,046.55	5,945.86	5,982.03	37.22	25.46	99.41	-129.51	-7,712.94	7,813.36	7,750.86	62.49	125.027		
6,500.00	6,140.14	6,030.93	6,067.10	37.83	25.82	99.63	-129.30	-7,713.70	7,820.55	7,757.10	63.45	123.248		
6,600.00	6,233.73	6,126.16	6,162.32	38.44	26.22	99.87	-129.17	-7,714.50	7,827.83	7,763.37	64.46	121.438		
6,700.00	6,327.32	6,192.03	6,228.19	39.06	26.50	100.04	-129.10	-7,715.23	7,835.48	7,770.15	65.33	119.933		
6,800.00	6,420.91	6,287.58	6,323.73	39.67	26.91	100.28	-129.16	-7,716.50	7,843.45	7,777.11	66.34	118.234		
6,900.00	6,514.50	6,380.54	6,416.67	40.28	27.31	100.51	-129.37	-7,717.75	7,851.54	7,784.21	67.33	116.608		
7,000.00	6,608.09	6,510.92	6,547.05	40.90	27.86	100.83	-129.84	-7,719.29	7,859.62	7,791.12	68.50	114.744		
7,100.00	6,701.63	6,610.39	6,646.51	41.51	28.29	91.62	-130.33	-7,720.21	7,866.33	7,796.81	69.52	113.153		
7,200.00	6,793.85	6,706.98	6,743.09	42.10	28.70	72.34	-131.23	-7,721.15	7,860.66	7,790.15	70.52	111.470		
7,300.00	6,882.50	6,777.24	6,813.35	42.64	29.00	59.75	-132.16	-7,721.98	7,840.28	7,768.93	71.36	109.876		
7,400.00	6,965.41	6,846.75	6,882.83	43.12	29.29	52.42	-133.12	-7,722.97	7,805.81	7,733.67	72.14	108.209		
7,500.00	7,040.53	6,900.01	6,936.09	43.53	29.52	48.64	-133.75	-7,723.78	7,758.06	7,685.27	72.79	106.575		
7,600.00	7,106.00	6,950.78	6,986.85	43.89	29.73	47.56	-134.25	-7,724.66	7,698.26	7,624.86	73.40	104.880		
7,700.00	7,160.23	6,986.52	7,022.58	44.20	29.89	48.89	-134.56	-7,725.38	7,627.84	7,553.94	73.91	103.210		
7,800.00	7,201.86	7,019.70	7,055.76	44.48	30.03	53.14	-134.81	-7,726.12	7,548.44	7,474.06	74.38	101.491		
7,900.00	7,229.88	7,046.03	7,082.07	44.73	30.14	61.63	-134.97	-7,726.71	7,461.86	7,387.07	74.79	99.767		
8,000.00	7,243.60	7,059.95	7,095.99	44.99	30.20	76.90	-135.05	-7,727.03	7,370.17	7,295.04	75.14	98.092		
8,100.00	7,244.73	7,062.93	7,098.97	45.29	30.21	87.30	-135.06	-7,727.09	7,275.79	7,200.37	75.41	96.479		
8,200.00	7,244.23	7,064.48	7,100.52	45.74	30.22	87.34	-135.07	-7,727.13	7,181.28	7,105.58	75.70	94.859		
8,300.00	7,243.73	7,066.03	7,102.07	46.38	30.23	87.38	-135.08	-7,727.17	7,086.93	7,010.91	76.02	93.219		
8,400.00	7,243.23	7,067.59	7,103.63	47.29	30.23	87.41	-135.08	-7,727.20	6,992.74	6,916.36	76.37	91.559		
8,500.00	7,242.73	7,069.15	7,105.18	48.46	30.24	87.45	-135.09	-7,727.24	6,898.71	6,821.95	76.76	89.879		
8,600.00	7,242.23	7,070.70	7,106.74	49.87	30.25	87.49	-135.10	-7,727.27	6,804.84	6,727.67	77.17	88.180		
8,700.00	7,241.73	7,072.27	7,108.30	51.48	30.25	87.53	-135.10	-7,727.31	6,711.16	6,633.54	77.62	86.463		
8,800.00	7,241.23	7,073.83	7,109.86	53.24	30.26	87.56	-135.11	-7,727.34	6,617.66	6,539.55	78.10	84.729		
8,900.00	7,240.73	7,075.39	7,111.43	55.13	30.27	87.60	-135.12	-7,727.38	6,524.35	6,445.72	78.63	82.978		
9,000.00	7,240.23	7,076.96	7,112.99	57.11	30.27	87.64	-135.12	-7,727.41	6,431.24	6,352.05	79.19	81.213		
9,100.00	7,239.73	7,078.52	7,114.56	59.19	30.28	87.68	-135.13	-7,727.45	6,338.34	6,258.55	79.79	79.433		
9,200.00	7,239.23	7,080.09	7,116.13	61.34	30.29	87.72	-135.14	-7,727.49	6,245.66	6,165.22	80.44	77.641		
9,300.00	7,238.72	7,081.67	7,117.70	63.55	30.29	87.75	-135.14	-7,727.52	6,153.21	6,072.07	81.14	75.838		
9,400.00	7,238.22	7,083.24	7,119.27	65.81	30.30	87.79	-135.15	-7,727.56	6,061.00	5,979.12	81.88	74.025		
9,500.00	7,237.72	7,084.81	7,120.85	68.13	30.31	87.83	-135.16	-7,727.59	5,969.04	5,886.37	82.67	72.205		
9,600.00	7,237.22	7,086.39	7,122.42	70.48	30.31	87.87	-135.16	-7,727.63	5,877.34	5,793.83	83.51	70.378		
9,700.00	7,236.72	7,087.97	7,124.00	72.88	30.32	87.91	-135.17	-7,727.67	5,785.91	5,701.51	84.41	68.548		
9,800.00	7,236.22	7,089.55	7,125.58	75.31	30.33	87.95	-135.17	-7,727.70	5,694.78	5,609.42	85.36	66.716		
9,900.00	7,235.72	7,091.13	7,127.16	77.77	30.33	87.98	-135.18	-7,727.74	5,603.94	5,517.58	86.37	64.885		
10,000.00	7,235.22	7,092.71	7,128.74	80.26	30.34	88.02	-135.19	-7,727.78	5,513.42	5,425.99	87.44	63.055		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-3(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,100.00	7,234.72	7,094.30	7,130.33	82.77	30.35	88.06	-135.19	-7,727.81	5,423.24	5,334.67	88.57	61.230		
10,200.00	7,234.22	7,095.88	7,131.91	85.31	30.35	88.10	-135.20	-7,727.85	5,333.40	5,243.63	89.77	59.412		
10,300.00	7,233.72	7,097.47	7,133.50	87.86	30.36	88.14	-135.20	-7,727.88	5,243.93	5,152.90	91.04	57.602		
10,400.00	7,233.22	7,099.06	7,135.09	90.44	30.37	88.18	-135.21	-7,727.92	5,154.85	5,062.48	92.37	55.804		
10,500.00	7,232.72	7,101.00	7,137.02	93.03	30.38	88.22	-135.21	-7,727.97	5,066.18	4,972.39	93.79	54.018		
10,600.00	7,232.22	7,103.42	7,139.45	95.64	30.39	88.28	-135.22	-7,728.02	4,977.93	4,882.65	95.28	52.246		
10,700.00	7,231.72	7,105.83	7,141.86	98.26	30.40	88.34	-135.23	-7,728.08	4,890.13	4,793.29	96.85	50.493		
10,800.00	7,231.21	7,108.22	7,144.24	100.89	30.41	88.40	-135.24	-7,728.13	4,802.81	4,704.31	98.50	48.759		
10,900.00	7,230.71	7,110.58	7,146.61	103.54	30.42	88.46	-135.25	-7,728.18	4,716.00	4,615.76	100.24	47.048		
11,000.00	7,230.21	7,112.92	7,148.95	106.20	30.43	88.51	-135.26	-7,728.24	4,629.71	4,527.65	102.06	45.362		
11,100.00	7,229.71	7,115.25	7,151.27	108.87	30.44	88.57	-135.27	-7,728.29	4,543.99	4,440.01	103.98	43.701		
11,200.00	7,229.21	7,117.55	7,153.57	111.54	30.45	88.62	-135.27	-7,728.34	4,458.86	4,352.87	105.99	42.069		
11,300.00	7,228.71	7,119.83	7,155.85	114.23	30.46	88.68	-135.28	-7,728.39	4,374.36	4,266.26	108.10	40.467		
11,400.00	7,228.21	7,122.09	7,158.11	116.92	30.46	88.73	-135.29	-7,728.44	4,290.52	4,180.21	110.31	38.896		
11,500.00	7,227.71	7,124.33	7,160.35	119.63	30.47	88.79	-135.30	-7,728.49	4,207.39	4,094.77	112.62	37.358		
11,600.00	7,227.21	7,126.55	7,162.57	122.34	30.48	88.84	-135.31	-7,728.54	4,125.01	4,009.96	115.04	35.856		
11,700.00	7,226.71	7,128.75	7,164.77	125.05	30.49	88.90	-135.32	-7,728.59	4,043.42	3,925.84	117.58	34.389		
11,800.00	7,226.21	7,130.93	7,166.95	127.78	30.50	88.95	-135.33	-7,728.64	3,962.67	3,842.45	120.23	32.960		
11,900.00	7,225.71	7,133.10	7,169.12	130.51	30.51	89.00	-135.34	-7,728.69	3,882.82	3,759.83	123.00	31.569		
12,000.00	7,225.21	7,135.24	7,171.26	133.24	30.52	89.05	-135.35	-7,728.73	3,803.93	3,678.04	125.89	30.217		
12,100.00	7,224.71	7,137.37	7,173.39	135.98	30.53	89.10	-135.36	-7,728.78	3,726.04	3,597.14	128.90	28.907		
12,200.00	7,224.21	7,139.47	7,175.49	138.72	30.54	89.16	-135.37	-7,728.83	3,649.23	3,517.19	132.04	27.637		
12,300.00	7,223.70	7,141.56	7,177.58	141.47	30.55	89.21	-135.39	-7,728.87	3,573.57	3,438.26	135.31	26.410		
12,400.00	7,223.20	7,143.64	7,179.65	144.23	30.56	89.26	-135.40	-7,728.92	3,499.13	3,360.41	138.72	25.225		
12,500.00	7,222.70	7,145.69	7,181.71	146.98	30.57	89.31	-135.41	-7,728.96	3,425.99	3,283.73	142.25	24.084		
12,600.00	7,222.20	7,147.73	7,183.75	149.74	30.57	89.36	-135.42	-7,729.00	3,354.23	3,208.31	145.92	22.986		
12,700.00	7,221.70	7,149.75	7,185.77	152.51	30.58	89.41	-135.43	-7,729.05	3,283.95	3,134.22	149.73	21.933		
12,800.00	7,221.20	7,151.75	7,187.77	155.28	30.59	89.45	-135.44	-7,729.09	3,215.25	3,061.58	153.67	20.924		
12,900.00	7,220.70	7,153.74	7,189.75	158.05	30.60	89.50	-135.45	-7,729.13	3,148.22	2,990.48	157.74	19.959		
13,000.00	7,220.20	7,155.71	7,191.72	160.82	30.61	89.55	-135.46	-7,729.17	3,082.97	2,921.04	161.93	19.039		
13,100.00	7,219.70	7,157.66	7,193.68	163.60	30.62	89.60	-135.47	-7,729.21	3,019.63	2,853.38	166.25	18.163		
13,200.00	7,219.20	7,159.60	7,195.62	166.38	30.62	89.64	-135.49	-7,729.25	2,958.32	2,787.63	170.68	17.332		
13,300.00	7,218.70	7,161.52	7,197.54	169.16	30.63	89.69	-135.50	-7,729.29	2,899.15	2,723.93	175.22	16.545		
13,400.00	7,218.20	7,163.43	7,199.44	171.95	30.64	89.74	-135.51	-7,729.33	2,842.27	2,662.41	179.86	15.803		
13,500.00	7,217.70	7,165.32	7,201.34	174.74	30.65	89.78	-135.52	-7,729.37	2,787.82	2,603.25	184.57	15.104		
13,600.00	7,217.20	7,167.20	7,203.21	177.53	30.66	89.83	-135.53	-7,729.41	2,735.94	2,546.59	189.35	14.449		
13,700.00	7,216.70	7,169.06	7,205.07	180.32	30.67	89.87	-135.55	-7,729.45	2,686.78	2,492.61	194.17	13.837		
13,800.00	7,216.19	7,170.91	7,206.92	183.11	30.67	89.92	-135.56	-7,729.49	2,640.49	2,441.48	199.01	13.268		
13,900.00	7,215.69	7,172.74	7,208.75	185.91	30.68	89.96	-135.57	-7,729.53	2,597.23	2,393.38	203.85	12.741		
14,000.00	7,215.19	7,174.55	7,210.56	188.71	30.69	90.01	-135.58	-7,729.56	2,557.14	2,348.49	208.65	12.256		
14,100.00	7,214.69	7,176.36	7,212.37	191.51	30.70	90.05	-135.59	-7,729.60	2,520.39	2,307.01	213.39	11.811		
14,200.00	7,214.19	7,178.14	7,214.15	194.31	30.70	90.09	-135.61	-7,729.64	2,487.12	2,269.10	218.02	11.408		
14,300.00	7,213.69	7,179.92	7,215.93	197.11	30.71	90.14	-135.62	-7,729.67	2,457.47	2,234.95	222.52	11.044		
14,400.00	7,213.19	7,181.68	7,217.69	199.92	30.72	90.18	-135.63	-7,729.71	2,431.57	2,204.72	226.85	10.719		
14,500.00	7,212.69	7,183.43	7,219.43	202.72	30.73	90.22	-135.64	-7,729.74	2,409.54	2,178.57	230.97	10.432		
14,600.00	7,212.19	7,185.16	7,221.17	205.53	30.73	90.26	-135.65	-7,729.78	2,391.50	2,156.64	234.85	10.183		
14,700.00	7,211.69	7,186.88	7,222.89	208.34	30.74	90.31	-135.67	-7,729.81	2,377.52	2,139.07	238.46	9.971		
14,800.00	7,211.19	7,188.58	7,224.59	211.15	30.75	90.35	-135.68	-7,729.85	2,367.69	2,125.94	241.75	9.794		
14,900.00	7,210.69	7,190.28	7,226.28	213.96	30.76	90.39	-135.69	-7,729.88	2,362.06	2,117.35	244.71	9.652		
14,983.28	7,210.27	7,191.68	7,227.68	216.31	30.76	90.42	-135.70	-7,729.91	2,360.59	2,113.68	246.91	9.561 CC		
15,000.00	7,210.19	7,191.96	7,227.96	216.78	30.76	90.43	-135.70	-7,729.92	2,360.65	2,113.33	247.32	9.545 ES		
15,100.00	7,209.69	7,193.63	7,229.63	219.59	30.77	90.47	-135.72	-7,729.95	2,363.48	2,113.92	249.55	9.471		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
15,200.00	7,209.18	7,195.28	7,231.29	222.41	30.78	90.51	-135.73	-7,729.98	2,370.52	2,119.11	251.41	9.429	
15,300.00	7,208.68	7,196.92	7,232.93	225.22	30.78	90.55	-135.74	-7,730.01	2,381.74	2,128.86	252.88	9.418 SF	
15,400.00	7,208.18	7,198.55	7,234.56	228.04	30.79	90.59	-135.76	-7,730.05	2,397.08	2,143.11	253.97	9.438	
15,437.48	7,208.00	7,199.16	7,235.17	229.10	30.79	90.60	-135.76	-7,730.06	2,403.88	2,149.60	254.28	9.454	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STOCKOVER 16-1(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	60.00	3.28	3.28	-109.25	-1,245.29	-3,565.40	3,777.09					
100.00	100.00	40.00	100.00	3.28	3.35	-109.25	-1,245.29	-3,565.40	3,776.61	3,769.97	6.64	568.920		
200.00	200.00	140.00	200.00	3.34	4.54	-109.25	-1,245.29	-3,565.40	3,776.61	3,768.73	7.88	479.323		
300.00	299.98	239.98	299.98	3.44	7.40	67.15	-1,245.29	-3,565.40	3,775.93	3,765.09	10.84	348.386		
400.00	399.84	339.84	399.84	3.59	10.64	67.26	-1,245.29	-3,565.40	3,773.90	3,759.68	14.23	265.292		
500.00	499.45	439.45	499.45	3.79	13.99	67.44	-1,245.29	-3,565.40	3,770.53	3,752.76	17.77	212.152		
600.00	598.70	538.70	598.70	4.03	17.37	67.70	-1,245.29	-3,565.40	3,765.85	3,744.45	21.40	175.953		
700.00	697.47	637.47	697.47	4.31	20.77	68.03	-1,245.29	-3,565.40	3,759.90	3,734.81	25.08	149.902		
800.00	795.62	735.62	795.62	4.64	24.16	68.43	-1,245.29	-3,565.40	3,752.70	3,723.91	28.79	130.331		
900.00	893.06	833.06	893.06	5.00	27.53	68.90	-1,245.29	-3,565.40	3,744.33	3,711.81	32.52	115.122		
1,000.00	989.64	929.64	989.64	5.40	30.88	69.43	-1,245.29	-3,565.40	3,734.85	3,698.58	36.27	102.982		
1,100.00	1,085.27	1,025.27	1,085.27	5.83	34.20	70.04	-1,245.29	-3,565.40	3,724.31	3,684.30	40.01	93.077		
1,200.00	1,179.82	1,119.82	1,179.82	6.29	37.49	70.71	-1,245.29	-3,565.40	3,712.82	3,669.07	43.76	84.849		
1,300.00	1,273.47	1,213.47	1,273.47	6.79	40.75	71.26	-1,245.29	-3,565.40	3,700.73	3,653.23	47.50	77.909		
1,400.00	1,367.06	1,307.06	1,367.06	7.30	44.01	71.75	-1,245.29	-3,565.40	3,688.87	3,637.61	51.26	71.959		
1,500.00	1,460.64	1,400.64	1,460.64	7.83	47.27	72.24	-1,245.29	-3,565.40	3,677.32	3,622.27	55.04	66.807		
1,600.00	1,554.23	1,505.77	1,554.23	8.38	50.93	72.73	-1,245.29	-3,565.40	3,666.06	3,606.82	59.24	61.886		
1,700.00	1,647.82	1,587.82	1,647.82	8.93	53.79	73.23	-1,245.29	-3,565.40	3,655.11	3,592.47	62.64	58.349		
1,800.00	1,741.41	1,681.41	1,741.41	9.49	57.05	73.73	-1,245.29	-3,565.40	3,644.47	3,578.01	66.46	54.839		
1,900.00	1,835.00	1,775.00	1,835.00	10.05	60.31	74.23	-1,245.29	-3,565.40	3,634.14	3,563.86	70.28	51.709		
2,000.00	1,928.59	1,868.59	1,928.59	10.62	63.57	74.74	-1,245.29	-3,565.40	3,624.12	3,550.01	74.11	48.901		
2,100.00	2,022.18	1,962.18	2,022.18	11.20	66.84	75.24	-1,245.29	-3,565.40	3,614.42	3,536.47	77.95	46.370		
2,200.00	2,115.77	2,055.77	2,115.77	11.78	70.10	75.75	-1,245.29	-3,565.40	3,605.03	3,523.24	81.79	44.077		
2,300.00	2,209.36	2,149.36	2,209.36	12.37	73.36	76.26	-1,245.29	-3,565.40	3,595.97	3,510.33	85.64	41.991		
2,400.00	2,302.95	2,242.95	2,302.95	12.95	76.63	76.78	-1,245.29	-3,565.40	3,587.23	3,497.74	89.49	40.086		
2,500.00	2,396.54	2,336.54	2,396.54	13.54	79.89	77.29	-1,245.29	-3,565.40	3,578.81	3,485.47	93.34	38.341		
2,600.00	2,490.13	2,430.13	2,490.13	14.13	83.16	77.81	-1,245.29	-3,565.40	3,570.72	3,473.53	97.20	36.736		
2,700.00	2,583.72	2,523.72	2,583.72	14.73	86.42	78.33	-1,245.29	-3,565.40	3,562.97	3,461.91	101.06	35.256		
2,800.00	2,677.31	2,617.31	2,677.31	15.32	89.69	78.85	-1,245.29	-3,565.40	3,555.54	3,450.62	104.92	33.887		
2,900.00	2,770.90	2,710.90	2,770.90	15.92	92.95	79.37	-1,245.29	-3,565.40	3,548.45	3,439.66	108.79	32.618		
3,000.00	2,864.49	2,804.49	2,864.49	16.52	96.22	79.90	-1,245.29	-3,565.40	3,541.69	3,429.04	112.66	31.438		
3,100.00	2,958.08	2,901.92	2,958.08	17.12	99.61	80.43	-1,245.29	-3,565.40	3,535.28	3,418.62	116.66	30.304		
3,200.00	3,051.67	3,008.33	3,051.67	17.72	103.33	80.96	-1,245.29	-3,565.40	3,529.20	3,408.22	120.98	29.172		
3,300.00	3,145.26	3,085.26	3,145.26	18.32	106.01	81.49	-1,245.29	-3,565.40	3,523.46	3,399.19	124.27	28.354		
3,400.00	3,238.85	3,178.85	3,238.85	18.92	109.28	82.02	-1,245.29	-3,565.40	3,518.07	3,389.93	128.14	27.454		
3,500.00	3,332.44	3,272.44	3,332.44	19.53	112.54	82.55	-1,245.29	-3,565.40	3,513.02	3,381.01	132.02	26.610		
3,600.00	3,426.03	3,366.03	3,426.03	20.13	115.81	83.08	-1,245.29	-3,565.40	3,508.32	3,372.43	135.89	25.817		
3,700.00	3,519.62	3,459.62	3,519.62	20.74	119.08	83.62	-1,245.29	-3,565.40	3,503.97	3,364.20	139.77	25.070		
3,800.00	3,613.21	3,553.21	3,613.21	21.34	122.34	84.16	-1,245.29	-3,565.40	3,499.96	3,356.32	143.65	24.365		
3,900.00	3,706.80	3,646.80	3,706.80	21.95	125.61	84.69	-1,245.29	-3,565.40	3,496.31	3,348.79	147.52	23.700		
4,000.00	3,800.39	3,740.39	3,800.39	22.56	128.87	85.23	-1,245.29	-3,565.40	3,493.01	3,341.61	151.40	23.071		
4,100.00	3,893.98	3,833.98	3,893.98	23.16	132.14	85.77	-1,245.29	-3,565.40	3,490.06	3,334.78	155.28	22.476		
4,200.00	3,987.57	3,927.57	3,987.57	23.77	135.41	86.31	-1,245.29	-3,565.40	3,487.46	3,328.30	159.16	21.912		
4,300.00	4,081.16	4,021.16	4,081.16	24.38	138.67	86.85	-1,245.29	-3,565.40	3,485.22	3,322.18	163.04	21.377		
4,400.00	4,174.75	4,114.75	4,174.75	24.99	141.94	87.40	-1,245.29	-3,565.40	3,483.33	3,316.41	166.92	20.869		
4,500.00	4,268.34	4,208.34	4,268.34	25.60	145.21	87.94	-1,245.29	-3,565.40	3,481.80	3,311.00	170.80	20.386		
4,600.00	4,361.93	4,301.93	4,361.93	26.21	148.47	88.48	-1,245.29	-3,565.40	3,480.62	3,305.95	174.68	19.926		
4,700.00	4,455.52	4,404.48	4,455.52	26.82	152.05	89.02	-1,245.29	-3,565.40	3,479.80	3,300.94	178.87	19.455		
4,800.00	4,549.11	4,489.11	4,549.11	27.43	155.00	89.57	-1,245.29	-3,565.40	3,479.34	3,296.91	182.43	19.072		
4,879.94	4,623.93	4,563.93	4,623.93	27.92	157.62	90.00	-1,245.29	-3,565.40	3,479.23	3,293.70	185.53	18.753		
4,900.00	4,642.70	4,582.70	4,642.70	28.04	158.27	90.11	-1,245.29	-3,565.40	3,479.23	3,292.93	186.31	18.675		
5,000.00	4,736.29	4,676.29	4,736.29	28.65	161.54	90.65	-1,245.29	-3,565.40	3,479.48	3,289.30	190.19	18.295		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STOCKOVER 16-1(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	4,769.88	4,829.88	29.26	164.80	91.19	-1,245.29	-3,565.40	3,480.09	3,286.03	194.06	17.933		
5,200.00	4,923.47	4,863.47	4,923.47	29.87	168.07	91.74	-1,245.29	-3,565.40	3,481.05	3,283.12	197.94	17.587		
5,300.00	5,017.06	4,957.06	5,017.06	30.48	171.34	92.28	-1,245.29	-3,565.40	3,482.37	3,280.56	201.81	17.255		
5,400.00	5,110.65	5,050.65	5,110.65	31.09	174.60	92.82	-1,245.29	-3,565.40	3,484.05	3,278.36	205.69	16.939		
5,500.00	5,204.24	5,144.24	5,204.24	31.70	177.87	93.36	-1,245.29	-3,565.40	3,486.08	3,276.52	209.56	16.635		
5,600.00	5,297.83	5,237.83	5,297.83	32.32	181.14	93.90	-1,245.29	-3,565.40	3,488.46	3,275.03	213.43	16.345		
5,700.00	5,391.42	5,331.42	5,391.42	32.93	184.40	94.44	-1,245.29	-3,565.40	3,491.20	3,273.90	217.30	16.066		
5,800.00	5,485.01	5,425.01	5,485.01	33.54	187.67	94.98	-1,245.29	-3,565.40	3,494.29	3,273.12	221.17	15.799		
5,900.00	5,578.60	5,518.60	5,578.60	34.15	190.94	95.52	-1,245.29	-3,565.40	3,497.73	3,272.69	225.04	15.543		
6,000.00	5,672.19	5,612.19	5,672.19	34.77	194.20	96.06	-1,245.29	-3,565.40	3,501.53	3,272.62	228.91	15.296		
6,100.00	5,765.78	5,705.78	5,765.78	35.38	197.47	96.59	-1,245.29	-3,565.40	3,505.67	3,272.90	232.78	15.060		
6,200.00	5,859.37	5,800.63	5,859.37	35.99	200.78	97.13	-1,245.29	-3,565.40	3,510.17	3,273.48	236.69	14.830		
6,300.00	5,952.96	5,907.04	5,952.96	36.60	204.50	97.66	-1,245.29	-3,565.40	3,515.01	3,274.01	241.00	14.585		
6,400.00	6,046.55	5,986.55	6,046.55	37.22	207.27	98.20	-1,245.29	-3,565.40	3,520.19	3,275.82	244.37	14.405		
6,500.00	6,140.14	6,080.14	6,140.14	37.83	210.54	98.73	-1,245.29	-3,565.40	3,525.72	3,277.49	248.23	14.204		
6,600.00	6,233.73	6,173.73	6,233.73	38.44	213.81	99.26	-1,245.29	-3,565.40	3,531.59	3,279.51	252.09	14.009		
6,700.00	6,327.32	6,267.32	6,327.32	39.06	217.07	99.79	-1,245.29	-3,565.40	3,537.81	3,281.86	255.95	13.822		
6,800.00	6,420.91	6,360.91	6,420.91	39.67	220.34	100.31	-1,245.29	-3,565.40	3,544.36	3,284.56	259.80	13.643		
6,900.00	6,514.50	6,454.50	6,514.50	40.28	223.61	100.84	-1,245.29	-3,565.40	3,551.25	3,287.60	263.66	13.469		
7,000.00	6,608.09	6,548.09	6,608.09	40.90	226.87	101.36	-1,245.29	-3,565.40	3,558.48	3,290.97	267.51	13.302		
7,100.00	6,701.63	6,641.63	6,701.63	41.51	230.14	92.43	-1,245.29	-3,565.40	3,564.81	3,293.45	271.36	13.137		
7,200.00	6,793.85	6,733.85	6,793.85	42.10	233.36	73.45	-1,245.29	-3,565.40	3,559.10	3,283.95	275.15	12.935		
7,300.00	6,882.50	6,822.50	6,882.50	42.64	236.45	61.31	-1,245.29	-3,565.40	3,538.92	3,260.15	278.77	12.695		
7,400.00	6,965.41	6,905.41	6,965.41	43.12	239.35	54.50	-1,245.29	-3,565.40	3,504.88	3,222.74	282.13	12.423		
7,500.00	7,040.53	6,980.53	7,040.53	43.53	241.97	51.40	-1,245.29	-3,565.40	3,457.89	3,172.72	285.17	12.126		
7,600.00	7,106.00	7,046.00	7,106.00	43.89	244.25	51.12	-1,245.29	-3,565.40	3,399.19	3,111.35	287.84	11.809		
7,700.00	7,160.23	7,100.23	7,160.23	44.20	246.15	53.47	-1,245.29	-3,565.40	3,330.26	3,040.17	290.08	11.480		
7,800.00	7,201.86	7,141.86	7,201.86	44.48	247.60	58.79	-1,245.29	-3,565.40	3,252.78	2,960.91	291.87	11.144		
7,900.00	7,229.88	7,169.88	7,229.88	44.73	248.58	67.97	-1,245.29	-3,565.40	3,168.63	2,875.45	293.19	10.808		
8,000.00	7,243.60	7,183.60	7,243.60	44.99	249.06	82.14	-1,245.29	-3,565.40	3,079.81	2,785.80	294.00	10.475		
8,100.00	7,244.73	7,184.73	7,244.73	45.29	249.10	90.64	-1,245.29	-3,565.40	2,988.62	2,694.23	294.39	10.152		
8,200.00	7,244.23	7,184.23	7,244.23	45.74	249.08	90.61	-1,245.29	-3,565.40	2,897.72	2,602.95	294.77	9.831		
8,300.00	7,243.73	7,183.73	7,243.73	46.38	249.06	90.59	-1,245.29	-3,565.40	2,807.44	2,512.23	295.21	9.510		
8,400.00	7,243.23	7,183.23	7,243.23	47.29	249.04	90.57	-1,245.29	-3,565.40	2,717.84	2,422.11	295.72	9.191		
8,500.00	7,242.73	7,182.73	7,242.73	48.46	249.03	90.54	-1,245.29	-3,565.40	2,628.99	2,332.67	296.32	8.872		
8,600.00	7,242.23	7,182.23	7,242.23	49.87	249.01	90.52	-1,245.29	-3,565.40	2,540.96	2,243.96	297.00	8.555		
8,700.00	7,241.73	7,181.73	7,241.73	51.48	248.99	90.50	-1,245.29	-3,565.40	2,453.86	2,156.07	297.79	8.240		
8,800.00	7,241.23	7,181.23	7,241.23	53.24	248.97	90.47	-1,245.29	-3,565.40	2,367.78	2,069.09	298.69	7.927		
8,900.00	7,240.73	7,180.73	7,240.73	55.13	248.96	90.45	-1,245.29	-3,565.40	2,282.83	1,983.11	299.72	7.617		
9,000.00	7,240.23	7,180.23	7,240.23	57.11	248.94	90.43	-1,245.29	-3,565.40	2,199.14	1,898.25	300.89	7.309		
9,100.00	7,239.73	7,179.73	7,239.73	59.19	248.92	90.40	-1,245.29	-3,565.40	2,116.87	1,814.66	302.22	7.004		
9,200.00	7,239.23	7,179.23	7,239.23	61.34	248.90	90.38	-1,245.29	-3,565.40	2,036.19	1,732.48	303.72	6.704		
9,300.00	7,238.72	7,178.72	7,238.72	63.55	248.89	90.36	-1,245.29	-3,565.40	1,957.30	1,651.89	305.40	6.409		
9,400.00	7,238.22	7,178.22	7,238.22	65.81	248.87	90.33	-1,245.29	-3,565.40	1,880.41	1,573.11	307.29	6.119		
9,500.00	7,237.72	7,177.72	7,237.72	68.13	248.85	90.31	-1,245.29	-3,565.40	1,805.78	1,496.39	309.40	5.836		
9,600.00	7,237.22	7,177.22	7,237.22	70.48	248.83	90.29	-1,245.29	-3,565.40	1,733.72	1,421.99	311.73	5.562		
9,700.00	7,236.72	7,176.72	7,236.72	72.88	248.82	90.26	-1,245.29	-3,565.40	1,664.55	1,350.24	314.30	5.296		
9,800.00	7,236.22	7,176.22	7,236.22	75.31	248.80	90.24	-1,245.29	-3,565.40	1,598.64	1,281.53	317.10	5.041		
9,900.00	7,235.72	7,175.72	7,235.72	77.77	248.78	90.22	-1,245.29	-3,565.40	1,536.41	1,216.28	320.13	4.799		
10,000.00	7,235.22	7,175.22	7,235.22	80.26	248.76	90.19	-1,245.29	-3,565.40	1,478.34	1,154.97	323.37	4.572		
10,100.00	7,234.72	7,174.72	7,234.72	82.77	248.75	90.17	-1,245.29	-3,565.40	1,424.92	1,098.14	326.78	4.360		
10,200.00	7,234.22	7,174.22	7,234.22	85.31	248.73	90.15	-1,245.29	-3,565.40	1,376.71	1,046.39	330.32	4.168		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STOCKOVER 16-1(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	7,173.72	7,233.72	87.86	248.71	90.12	-1,245.29	-3,565.40	1,334.26	1,000.35	333.91	3.996		
10,400.00	7,233.22	7,173.22	7,233.22	90.44	248.69	90.10	-1,245.29	-3,565.40	1,298.14	960.67	337.47	3.847		
10,500.00	7,232.72	7,172.72	7,232.72	93.03	248.68	90.08	-1,245.29	-3,565.40	1,268.90	928.00	340.89	3.722		
10,600.00	7,232.22	7,172.22	7,232.22	95.64	248.66	90.05	-1,245.29	-3,565.40	1,247.00	902.93	344.07	3.624		
10,700.00	7,231.72	7,171.72	7,231.72	98.26	248.64	90.03	-1,245.29	-3,565.40	1,232.86	885.96	346.90	3.554		
10,800.00	7,231.21	7,171.21	7,231.21	100.89	248.62	90.01	-1,245.29	-3,565.40	1,226.73	877.45	349.28	3.512		
10,825.40	7,231.09	7,171.09	7,231.09	101.56	248.62	90.00	-1,245.29	-3,565.40	1,226.47	876.67	349.80	3.506	CC, ES	
10,900.00	7,230.71	7,170.71	7,230.71	103.54	248.61	89.98	-1,245.29	-3,565.40	1,228.73	877.60	351.13	3.499	SF	
11,000.00	7,230.21	7,170.21	7,230.21	106.20	248.59	89.96	-1,245.29	-3,565.40	1,238.83	886.40	352.43	3.515		
11,100.00	7,229.71	7,169.71	7,229.71	108.87	248.57	89.94	-1,245.29	-3,565.40	1,256.83	903.66	353.17	3.559		
11,200.00	7,229.21	7,169.21	7,229.21	111.54	248.55	89.91	-1,245.29	-3,565.40	1,282.40	929.03	353.37	3.629		
11,300.00	7,228.71	7,168.71	7,228.71	114.23	248.54	89.89	-1,245.29	-3,565.40	1,315.09	961.99	353.10	3.724		
11,400.00	7,228.21	7,168.21	7,228.21	116.92	248.52	89.87	-1,245.29	-3,565.40	1,354.39	1,001.97	352.42	3.843		
11,500.00	7,227.71	7,167.71	7,227.71	119.63	248.50	89.84	-1,245.29	-3,565.40	1,399.75	1,048.33	351.42	3.983		
11,600.00	7,227.21	7,167.21	7,227.21	122.34	248.48	89.82	-1,245.29	-3,565.40	1,450.59	1,100.42	350.17	4.143		
11,700.00	7,226.71	7,166.71	7,226.71	125.05	248.47	89.80	-1,245.29	-3,565.40	1,506.36	1,157.62	348.74	4.319		
11,800.00	7,226.21	7,166.21	7,226.21	127.78	248.45	89.77	-1,245.29	-3,565.40	1,566.54	1,219.33	347.20	4.512		
11,900.00	7,225.71	7,165.71	7,225.71	130.51	248.43	89.75	-1,245.29	-3,565.40	1,630.63	1,285.03	345.60	4.718		
12,000.00	7,225.21	7,165.21	7,225.21	133.24	248.41	89.73	-1,245.29	-3,565.40	1,698.20	1,354.23	343.96	4.937		
12,100.00	7,224.71	7,164.71	7,224.71	135.98	248.40	89.70	-1,245.29	-3,565.40	1,768.84	1,426.50	342.34	5.167		
12,200.00	7,224.21	7,164.21	7,224.21	138.72	248.38	89.68	-1,245.29	-3,565.40	1,842.20	1,501.46	340.74	5.406		
12,300.00	7,223.70	7,163.70	7,223.70	141.47	248.36	89.66	-1,245.29	-3,565.40	1,917.97	1,578.78	339.19	5.655		
12,400.00	7,223.20	7,163.20	7,223.20	144.23	248.34	89.63	-1,245.29	-3,565.40	1,995.88	1,658.19	337.69	5.910		
12,500.00	7,222.70	7,162.70	7,222.70	146.98	248.33	89.61	-1,245.29	-3,565.40	2,075.68	1,739.42	336.25	6.173		
12,600.00	7,222.20	7,162.20	7,222.20	149.74	248.31	89.58	-1,245.29	-3,565.40	2,157.16	1,822.28	334.88	6.442		
12,700.00	7,221.70	7,161.70	7,221.70	152.51	248.29	89.56	-1,245.29	-3,565.40	2,240.15	1,906.57	333.58	6.716		
12,800.00	7,221.20	7,161.20	7,221.20	155.28	248.27	89.54	-1,245.29	-3,565.40	2,324.47	1,992.13	332.34	6.994		
12,900.00	7,220.70	7,160.70	7,220.70	158.05	248.26	89.51	-1,245.29	-3,565.40	2,409.99	2,078.83	331.16	7.277		
13,000.00	7,220.20	7,160.20	7,220.20	160.82	248.24	89.49	-1,245.29	-3,565.40	2,496.59	2,166.54	330.06	7.564		
13,100.00	7,219.70	7,159.70	7,219.70	163.60	248.22	89.47	-1,245.29	-3,565.40	2,584.16	2,255.15	329.01	7.854		
13,200.00	7,219.20	7,159.20	7,219.20	166.38	248.20	89.44	-1,245.29	-3,565.40	2,672.60	2,344.58	328.02	8.148		
13,300.00	7,218.70	7,158.70	7,218.70	169.16	248.19	89.42	-1,245.29	-3,565.40	2,761.83	2,434.75	327.08	8.444		
13,400.00	7,218.20	7,158.20	7,218.20	171.95	248.17	89.40	-1,245.29	-3,565.40	2,851.77	2,525.58	326.20	8.742		
13,500.00	7,217.70	7,157.70	7,217.70	174.74	248.15	89.37	-1,245.29	-3,565.40	2,942.37	2,617.00	325.36	9.043		
13,600.00	7,217.20	7,157.20	7,217.20	177.53	248.13	89.35	-1,245.29	-3,565.40	3,033.55	2,708.97	324.58	9.346		
13,700.00	7,216.70	7,156.70	7,216.70	180.32	248.12	89.33	-1,245.29	-3,565.40	3,125.27	2,801.44	323.83	9.651		
13,800.00	7,216.19	7,156.19	7,216.19	183.11	248.10	89.30	-1,245.29	-3,565.40	3,217.49	2,894.36	323.13	9.957		
13,900.00	7,215.69	7,155.69	7,215.69	185.91	248.08	89.28	-1,245.29	-3,565.40	3,310.16	2,987.69	322.46	10.265		
14,000.00	7,215.19	7,155.19	7,215.19	188.71	248.06	89.26	-1,245.29	-3,565.40	3,403.24	3,081.41	321.84	10.574		
14,100.00	7,214.69	7,154.69	7,214.69	191.51	248.05	89.23	-1,245.29	-3,565.40	3,496.71	3,175.47	321.24	10.885		
14,200.00	7,214.19	7,154.19	7,214.19	194.31	248.03	89.21	-1,245.29	-3,565.40	3,590.52	3,269.85	320.67	11.197		
14,300.00	7,213.69	7,153.69	7,213.69	197.11	248.01	89.19	-1,245.29	-3,565.40	3,684.67	3,364.53	320.14	11.510		
14,400.00	7,213.19	7,153.19	7,213.19	199.92	247.99	89.16	-1,245.29	-3,565.40	3,779.11	3,459.48	319.63	11.823		
14,500.00	7,212.69	7,152.69	7,212.69	202.72	247.98	89.14	-1,245.29	-3,565.40	3,873.83	3,554.68	319.15	12.138		
14,600.00	7,212.19	7,152.19	7,212.19	205.53	247.96	89.12	-1,245.29	-3,565.40	3,968.81	3,650.12	318.70	12.453		
14,700.00	7,211.69	7,151.69	7,211.69	208.34	247.94	89.09	-1,245.29	-3,565.40	4,064.03	3,745.77	318.26	12.769		
14,800.00	7,211.19	7,151.19	7,211.19	211.15	247.92	89.07	-1,245.29	-3,565.40	4,159.48	3,841.63	317.85	13.086		
14,900.00	7,210.69	7,150.69	7,210.69	213.96	247.91	89.05	-1,245.29	-3,565.40	4,255.13	3,937.68	317.46	13.404		
15,000.00	7,210.19	7,150.19	7,210.19	216.78	247.89	89.02	-1,245.29	-3,565.40	4,350.98	4,033.90	317.09	13.722		
15,100.00	7,209.69	7,149.69	7,209.69	219.59	247.87	89.00	-1,245.29	-3,565.40	4,447.02	4,130.29	316.73	14.040		
15,200.00	7,209.18	7,149.18	7,209.18	222.41	247.85	88.98	-1,245.29	-3,565.40	4,543.22	4,226.83	316.39	14.359		
15,300.00	7,208.68	7,148.68	7,208.68	225.22	247.84	88.95	-1,245.29	-3,565.40	4,639.59	4,323.51	316.07	14.679		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STOCKOVER 16-1(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
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)		
15,400.00	7,208.18	7,148.18	7,208.18	228.04	247.82	88.93	-1,245.29	-3,565.40	4,736.10	4,420.33	315.77	14.999	
15,437.48	7,208.00	7,148.00	7,208.00	229.10	247.81	88.92	-1,245.29	-3,565.40	4,772.31	4,456.65	315.66	15.119	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-07D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	57.73	3.28	3.28	-90.21	-33.76	-9,142.31	9,142.55					
100.00	100.00	185.34	209.32	3.28	3.34	-90.20	-32.31	-9,140.74	9,141.45	9,134.83	6.62	1,380.415		
200.00	200.00	290.08	314.06	3.34	3.45	-90.20	-31.80	-9,139.40	9,140.17	9,133.38	6.79	1,346.444		
300.00	299.98	370.56	394.53	3.44	3.58	86.20	-31.62	-9,138.49	9,138.92	9,131.90	7.02	1,302.684		
400.00	399.84	465.72	489.69	3.59	3.76	86.26	-31.39	-9,137.53	9,137.56	9,130.21	7.35	1,243.217		
500.00	499.45	548.71	572.67	3.79	3.95	86.33	-31.17	-9,136.78	9,136.09	9,128.35	7.74	1,180.801		
600.00	598.70	625.10	649.06	4.03	4.15	86.42	-31.29	-9,136.25	9,134.62	9,126.44	8.17	1,117.487		
700.00	697.47	738.28	762.23	4.31	4.47	86.56	-31.44	-9,135.68	9,133.16	9,124.38	8.78	1,040.601		
800.00	795.62	846.19	870.14	4.64	4.80	86.73	-31.30	-9,134.86	9,131.25	9,121.81	9.43	967.913		
900.00	893.06	927.16	951.11	5.00	5.06	86.89	-31.17	-9,134.26	9,129.20	9,119.15	10.06	907.566		
1,000.00	989.64	984.00	1,007.95	5.40	5.26	87.02	-31.22	-9,133.94	9,127.27	9,116.62	10.65	857.223		
1,100.00	1,085.27	984.00	1,007.95	5.83	5.26	87.04	-31.22	-9,133.94	9,126.02	9,114.94	11.08	823.665		
1,200.00	1,179.82	1,044.81	1,068.75	6.29	5.46	87.18	-31.23	-9,134.16	9,124.97	9,113.23	11.75	776.829		
1,266.42	1,242.15	1,062.32	1,086.26	6.62	5.51	87.22	-31.19	-9,134.42	9,124.81	9,112.68	12.13	752.119		
1,300.00	1,273.47	1,112.00	1,135.93	6.79	5.68	87.33	-30.99	-9,135.61	9,125.17	9,112.70	12.47	731.920		
1,313.09	1,285.72	1,112.00	1,135.93	6.85	5.68	87.33	-30.99	-9,135.61	9,125.16	9,112.63	12.53	728.014		
1,400.00	1,367.06	1,112.00	1,135.93	7.30	5.68	87.33	-30.99	-9,135.61	9,125.57	9,112.59	12.98	702.897		
1,500.00	1,460.64	1,112.00	1,135.93	7.83	5.68	87.33	-30.99	-9,135.61	9,127.07	9,113.56	13.51	675.476		
1,600.00	1,554.23	1,112.00	1,135.93	8.38	5.68	87.33	-30.99	-9,135.61	9,129.67	9,115.62	14.05	649.697		
1,700.00	1,647.82	1,169.21	1,193.09	8.93	5.87	87.46	-30.71	-9,137.92	9,132.64	9,117.85	14.79	617.398		
1,800.00	1,741.41	1,192.64	1,216.48	9.49	5.95	87.51	-30.62	-9,139.17	9,136.72	9,121.30	15.43	592.252		
1,900.00	1,835.00	1,241.00	1,264.74	10.05	6.12	87.62	-30.47	-9,142.33	9,141.79	9,125.63	16.15	565.918		
2,000.00	1,928.59	1,241.00	1,264.74	10.62	6.12	87.62	-30.47	-9,142.33	9,147.44	9,130.72	16.72	547.153		
2,100.00	2,022.18	1,241.00	1,264.74	11.20	6.12	87.62	-30.47	-9,142.33	9,154.17	9,136.89	17.29	529.596		
2,200.00	2,115.77	1,241.00	1,264.74	11.78	6.12	87.62	-30.47	-9,142.33	9,161.99	9,144.14	17.85	513.168		
2,300.00	2,209.36	1,305.57	1,329.08	12.37	6.35	87.76	-30.31	-9,147.79	9,169.93	9,151.28	18.66	491.544		
2,400.00	2,302.95	1,369.00	1,392.14	12.95	6.58	87.90	-30.15	-9,154.59	9,179.55	9,160.09	19.46	471.767		
2,500.00	2,396.54	1,369.00	1,392.14	13.54	6.58	87.90	-30.15	-9,154.59	9,189.32	9,169.29	20.03	458.803		
2,600.00	2,490.13	1,369.00	1,392.14	14.13	6.58	87.90	-30.15	-9,154.59	9,200.16	9,179.56	20.60	446.628		
2,700.00	2,583.72	1,369.00	1,392.14	14.73	6.58	87.90	-30.15	-9,154.59	9,212.08	9,190.91	21.17	435.187		
2,800.00	2,677.31	1,421.17	1,443.90	15.32	6.77	88.01	-30.17	-9,161.18	9,224.51	9,202.57	21.93	420.557		
2,900.00	2,770.90	1,445.95	1,468.43	15.92	6.87	88.06	-30.28	-9,164.60	9,237.91	9,215.31	22.60	408.827		
3,000.00	2,864.49	1,498.00	1,519.90	16.52	7.07	88.17	-30.72	-9,172.40	9,252.27	9,228.90	23.37	395.968		
3,100.00	2,958.08	1,498.00	1,519.90	17.12	7.07	88.17	-30.72	-9,172.40	9,267.14	9,243.21	23.93	387.280		
3,200.00	3,051.67	1,498.00	1,519.90	17.72	7.07	88.17	-30.72	-9,172.40	9,283.06	9,258.57	24.49	379.079		
3,300.00	3,145.26	1,498.00	1,519.90	18.32	7.07	88.17	-30.72	-9,172.40	9,300.03	9,274.99	25.04	371.336		
3,400.00	3,238.85	1,563.52	1,584.47	18.92	7.34	88.31	-31.52	-9,183.46	9,317.09	9,291.23	25.87	360.181		
3,500.00	3,332.44	1,626.00	1,645.80	19.53	7.60	88.44	-32.40	-9,195.34	9,335.73	9,309.05	26.68	349.896		
3,600.00	3,426.03	1,626.00	1,645.80	20.13	7.60	88.44	-32.40	-9,195.34	9,354.54	9,327.31	27.23	343.537		
3,700.00	3,519.62	1,626.00	1,645.80	20.74	7.60	88.44	-32.40	-9,195.34	9,374.38	9,346.61	27.77	337.517		
3,800.00	3,613.21	1,626.00	1,645.80	21.34	7.60	88.44	-32.40	-9,195.34	9,395.25	9,366.93	28.31	331.814		
3,900.00	3,706.80	1,673.37	1,692.12	21.95	7.82	88.53	-33.18	-9,205.23	9,416.61	9,387.55	29.06	324.035		
4,000.00	3,800.39	1,694.63	1,712.85	22.56	7.92	88.57	-33.57	-9,209.94	9,438.93	9,409.24	29.69	317.933		
4,100.00	3,893.98	1,754.00	1,770.54	23.16	8.19	88.69	-34.81	-9,223.91	9,462.38	9,431.89	30.49	310.379		
4,200.00	3,987.57	1,754.00	1,770.54	23.77	8.19	88.69	-34.81	-9,223.91	9,486.02	9,455.00	31.01	305.881		
4,300.00	4,081.16	1,754.00	1,770.54	24.38	8.19	88.69	-34.81	-9,223.91	9,510.65	9,479.12	31.53	301.613		
4,400.00	4,174.75	1,754.00	1,770.54	24.99	8.19	88.69	-34.81	-9,223.91	9,536.27	9,504.22	32.05	297.562		
4,500.00	4,268.34	1,810.68	1,825.36	25.60	8.48	88.80	-36.00	-9,238.26	9,562.26	9,529.43	32.83	291.268		
4,600.00	4,361.93	1,836.31	1,850.08	26.21	8.62	88.85	-36.47	-9,245.02	9,589.16	9,555.70	33.46	286.573		
4,700.00	4,455.52	1,883.00	1,894.99	26.82	8.86	88.94	-37.21	-9,257.75	9,616.87	9,582.67	34.19	281.238		
4,800.00	4,549.11	1,883.00	1,894.99	27.43	8.86	88.94	-37.21	-9,257.75	9,645.13	9,610.43	34.69	278.010		
4,900.00	4,642.70	1,883.00	1,894.99	28.04	8.86	88.94	-37.21	-9,257.75	9,674.34	9,639.15	35.19	274.945		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-07D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,736.29	1,947.49	1,956.79	28.65	9.23	89.06	-38.19	-9,276.15	9,703.83	9,667.83	36.01	269.503		
5,100.00	4,829.88	2,011.00	2,017.39	29.26	9.60	89.19	-39.23	-9,295.12	9,734.36	9,697.54	36.82	264.349		
5,200.00	4,923.47	2,011.00	2,017.39	29.87	9.60	89.19	-39.23	-9,295.12	9,765.19	9,727.88	37.31	261.765		
5,300.00	5,017.06	2,046.25	2,050.93	30.48	9.82	89.25	-39.82	-9,305.95	9,796.80	9,758.83	37.97	258.002		
5,400.00	5,110.65	2,087.52	2,090.14	31.09	10.08	89.33	-40.52	-9,318.82	9,828.95	9,790.28	38.67	254.177		
5,500.00	5,204.24	5,500.00	2,191.03	31.70	33.42	89.53	-42.13	-9,352.25	9,861.50	9,805.62	55.88	176.469		
5,600.00	5,297.83	2,434.90	2,420.79	32.32	12.39	89.98	-45.56	-9,425.13	9,892.60	9,851.02	41.58	237.935		
5,700.00	5,391.42	2,477.11	2,461.06	32.93	12.68	90.06	-46.19	-9,437.79	9,923.92	9,881.63	42.29	234.636		
5,800.00	5,485.01	2,525.00	2,506.67	33.54	13.01	90.15	-46.82	-9,452.37	9,955.77	9,912.73	43.04	231.289		
5,900.00	5,578.60	2,567.10	2,546.71	34.15	13.31	90.22	-47.26	-9,465.36	9,988.12	9,944.36	43.76	228.246		
7,900.00	7,229.88	7,136.23	6,986.09	44.73	40.10	55.47	-75.74	-10,306.45	9,962.11	9,885.08	77.03	129.324		
8,000.00	7,243.60	7,156.25	7,006.10	44.99	40.17	72.48	-76.01	-10,307.02	9,867.99	9,790.64	77.36	127.566		
8,100.00	7,244.73	7,163.60	7,013.44	45.29	40.19	85.68	-76.10	-10,307.22	9,771.36	9,693.77	77.60	125.927		
8,200.00	7,244.23	7,167.77	7,017.62	45.74	40.21	85.78	-76.15	-10,307.34	9,674.57	9,596.74	77.83	124.305		
8,300.00	7,243.73	7,171.86	7,021.70	46.38	40.22	85.87	-76.20	-10,307.45	9,577.84	9,499.76	78.08	122.667		
8,400.00	7,243.23	7,175.86	7,025.69	47.29	40.24	85.97	-76.25	-10,307.56	9,481.17	9,402.83	78.35	121.013		
8,500.00	7,242.73	7,179.77	7,029.61	48.46	40.25	86.06	-76.30	-10,307.66	9,384.58	9,305.95	78.63	119.345		
8,600.00	7,242.23	7,183.61	7,033.44	49.87	40.27	86.15	-76.34	-10,307.76	9,288.06	9,209.12	78.94	117.661		
8,700.00	7,241.73	7,187.36	7,037.20	51.48	40.28	86.24	-76.39	-10,307.86	9,191.61	9,112.35	79.26	115.963		
8,800.00	7,241.23	7,191.04	7,040.87	53.24	40.29	86.32	-76.43	-10,307.96	9,095.24	9,015.63	79.61	114.251		
8,900.00	7,240.73	7,194.65	7,044.48	55.13	40.31	86.41	-76.47	-10,308.05	8,998.94	8,918.97	79.97	112.526		
9,000.00	7,240.23	7,198.19	7,048.01	57.11	40.32	86.49	-76.51	-10,308.14	8,902.73	8,822.37	80.36	110.787		
9,100.00	7,239.73	7,201.65	7,051.48	59.19	40.33	86.57	-76.55	-10,308.23	8,806.60	8,725.83	80.77	109.035		
9,200.00	7,239.23	7,205.05	7,054.88	61.34	40.34	86.65	-76.59	-10,308.31	8,710.55	8,629.35	81.20	107.271		
9,300.00	7,238.72	7,208.39	7,058.21	63.55	40.35	86.73	-76.63	-10,308.40	8,614.60	8,532.94	81.66	105.496		
9,400.00	7,238.22	7,211.66	7,061.48	65.81	40.37	86.81	-76.66	-10,308.48	8,518.74	8,436.60	82.14	103.710		
9,500.00	7,237.72	7,214.87	7,064.69	68.13	40.38	86.88	-76.70	-10,308.56	8,422.97	8,340.32	82.65	101.913		
9,600.00	7,237.22	7,218.01	7,067.84	70.48	40.39	86.95	-76.73	-10,308.64	8,327.30	8,244.12	83.18	100.108		
9,700.00	7,236.72	7,221.11	7,070.93	72.88	40.40	87.03	-76.76	-10,308.71	8,231.73	8,147.99	83.75	98.294		
9,800.00	7,236.22	7,224.14	7,073.96	75.31	40.41	87.10	-76.79	-10,308.78	8,136.27	8,051.94	84.34	96.473		
9,900.00	7,235.72	7,227.12	7,076.94	77.77	40.42	87.17	-76.82	-10,308.86	8,040.92	7,955.96	84.96	94.645		
10,000.00	7,235.22	7,230.04	7,079.86	80.26	40.43	87.24	-76.85	-10,308.93	7,945.69	7,860.08	85.61	92.811		
10,100.00	7,234.72	7,232.92	7,082.73	82.77	40.44	87.30	-76.88	-10,308.99	7,850.57	7,764.27	86.30	90.973		
10,200.00	7,234.22	7,235.74	7,085.56	85.31	40.45	87.37	-76.91	-10,309.06	7,755.57	7,668.56	87.01	89.131		
10,300.00	7,233.72	7,238.51	7,088.33	87.86	40.46	87.44	-76.94	-10,309.12	7,660.70	7,572.94	87.76	87.287		
10,400.00	7,233.22	7,241.24	7,091.05	90.44	40.47	87.50	-76.97	-10,309.19	7,565.96	7,477.41	88.55	85.442		
10,500.00	7,232.72	7,243.92	7,093.73	93.03	40.48	87.56	-76.99	-10,309.25	7,471.36	7,381.98	89.37	83.596		
10,600.00	7,232.22	7,246.55	7,096.36	95.64	40.49	87.62	-77.02	-10,309.31	7,376.90	7,286.66	90.24	81.752		
10,700.00	7,231.72	7,249.14	7,098.95	98.26	40.50	87.69	-77.04	-10,309.37	7,282.58	7,191.45	91.14	79.910		
10,800.00	7,231.21	7,251.68	7,101.49	100.89	40.51	87.74	-77.07	-10,309.42	7,188.42	7,096.35	92.08	78.071		
10,900.00	7,230.71	7,254.18	7,103.99	103.54	40.52	87.80	-77.09	-10,309.48	7,094.42	7,001.37	93.06	76.237		
11,000.00	7,230.21	7,256.64	7,106.45	106.20	40.53	87.86	-77.11	-10,309.54	7,000.59	6,906.50	94.08	74.409		
11,100.00	7,229.71	7,259.06	7,108.87	108.87	40.54	87.92	-77.13	-10,309.59	6,906.92	6,811.77	95.15	72.589		
11,200.00	7,229.21	7,261.44	7,111.25	111.54	40.55	87.97	-77.16	-10,309.64	6,813.44	6,717.17	96.27	70.777		
11,300.00	7,228.71	7,263.79	7,113.59	114.23	40.55	88.03	-77.18	-10,309.69	6,720.14	6,622.71	97.43	68.974		
11,400.00	7,228.21	7,266.09	7,115.90	116.92	40.56	88.08	-77.20	-10,309.74	6,627.04	6,528.40	98.64	67.183		
11,500.00	7,227.71	7,268.36	7,118.17	119.63	40.57	88.14	-77.22	-10,309.79	6,534.14	6,434.24	99.90	65.404		
11,600.00	7,227.21	7,270.59	7,120.40	122.34	40.58	88.19	-77.24	-10,309.84	6,441.46	6,340.24	101.22	63.638		
11,700.00	7,226.71	7,272.79	7,122.60	125.05	40.59	88.24	-77.26	-10,309.89	6,348.99	6,246.40	102.59	61.887		
11,800.00	7,226.21	7,274.96	7,124.76	127.78	40.59	88.29	-77.27	-10,309.93	6,256.76	6,152.74	104.02	60.152		
11,900.00	7,225.71	7,277.22	7,127.02	130.51	40.60	88.34	-77.29	-10,309.98	6,164.77	6,059.26	105.50	58.433		
12,000.00	7,225.21	7,279.56	7,129.36	133.24	40.61	88.40	-77.31	-10,310.03	6,073.03	5,965.98	107.05	56.733		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-07D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
12,100.00	7,224.71	7,281.87	7,131.67	135.98	40.62	88.45	-77.33	-10,310.08	5,981.55	5,872.90	108.65	55.051		
12,200.00	7,224.21	7,284.13	7,133.93	138.72	40.63	88.51	-77.35	-10,310.12	5,890.35	5,780.02	110.33	53.390		
12,300.00	7,223.70	7,286.36	7,136.16	141.47	40.63	88.56	-77.37	-10,310.17	5,799.44	5,687.38	112.07	51.750		
12,400.00	7,223.20	7,288.55	7,138.35	144.23	40.64	88.61	-77.39	-10,310.21	5,708.84	5,594.96	113.88	50.132		
12,500.00	7,222.70	7,290.71	7,140.51	146.98	40.65	88.66	-77.41	-10,310.26	5,618.55	5,502.79	115.76	48.538		
12,600.00	7,222.20	7,292.83	7,142.62	149.74	40.66	88.71	-77.43	-10,310.30	5,528.59	5,410.88	117.71	46.967		
12,700.00	7,221.70	7,294.91	7,144.71	152.51	40.66	88.76	-77.44	-10,310.34	5,438.99	5,319.24	119.75	45.421		
12,800.00	7,221.20	7,296.96	7,146.76	155.28	40.67	88.81	-77.46	-10,310.38	5,349.75	5,227.90	121.86	43.902		
12,900.00	7,220.70	7,298.98	7,148.78	158.05	40.68	88.86	-77.48	-10,310.42	5,260.90	5,136.85	124.05	42.408		
13,000.00	7,220.20	7,300.97	7,150.77	160.82	40.69	88.90	-77.49	-10,310.46	5,172.46	5,046.13	126.34	40.942		
13,100.00	7,219.70	7,302.93	7,152.72	163.60	40.69	88.95	-77.51	-10,310.50	5,084.45	4,955.74	128.71	39.504		
13,200.00	7,219.20	7,304.85	7,154.65	166.38	40.70	88.99	-77.53	-10,310.54	4,996.88	4,865.71	131.17	38.094		
13,300.00	7,218.70	7,306.75	7,156.54	169.16	40.71	89.04	-77.54	-10,310.57	4,909.79	4,776.06	133.73	36.714		
13,400.00	7,218.20	7,308.61	7,158.41	171.95	40.71	89.08	-77.56	-10,310.61	4,823.20	4,686.81	136.39	35.363		
13,500.00	7,217.70	7,310.45	7,160.25	174.74	40.72	89.13	-77.57	-10,310.64	4,737.14	4,597.98	139.16	34.042		
13,600.00	7,217.20	7,312.26	7,162.06	177.53	40.73	89.17	-77.59	-10,310.68	4,651.63	4,509.61	142.03	32.752		
13,700.00	7,216.70	7,314.05	7,163.84	180.32	40.73	89.21	-77.60	-10,310.71	4,566.72	4,421.71	145.01	31.493		
13,800.00	7,216.19	7,315.80	7,165.60	183.11	40.74	89.25	-77.62	-10,310.74	4,482.42	4,334.32	148.10	30.266		
13,900.00	7,215.69	7,317.53	7,167.33	185.91	40.74	89.29	-77.63	-10,310.78	4,398.78	4,247.47	151.32	29.070		
14,000.00	7,215.19	7,319.24	7,169.03	188.71	40.75	89.33	-77.65	-10,310.81	4,315.84	4,161.19	154.65	27.907		
14,100.00	7,214.69	7,320.92	7,170.71	191.51	40.76	89.37	-77.66	-10,310.84	4,233.64	4,075.52	158.11	26.776		
14,200.00	7,214.19	7,322.58	7,172.37	194.31	40.76	89.41	-77.67	-10,310.87	4,152.21	3,990.50	161.71	25.677		
14,300.00	7,213.69	7,324.21	7,174.00	197.11	40.77	89.45	-77.69	-10,310.90	4,071.61	3,906.18	165.44	24.612		
14,400.00	7,213.19	7,325.82	7,175.61	199.92	40.77	89.49	-77.70	-10,310.93	3,991.89	3,822.59	169.30	23.579		
14,500.00	7,212.69	7,327.41	7,177.20	202.72	40.78	89.53	-77.71	-10,310.96	3,913.10	3,739.80	173.31	22.579		
14,600.00	7,212.19	7,328.97	7,178.76	205.53	40.78	89.56	-77.73	-10,310.99	3,835.30	3,657.84	177.46	21.612		
14,700.00	7,211.69	7,330.51	7,180.30	208.34	40.79	89.60	-77.74	-10,311.01	3,758.55	3,576.79	181.76	20.679		
14,800.00	7,211.19	7,332.03	7,181.82	211.15	40.79	89.63	-77.75	-10,311.04	3,682.92	3,496.71	186.21	19.779		
14,900.00	7,210.69	7,333.53	7,183.32	213.96	40.80	89.67	-77.76	-10,311.07	3,608.47	3,417.66	190.81	18.912		
15,000.00	7,210.19	7,335.01	7,184.80	216.78	40.80	89.70	-77.78	-10,311.09	3,535.28	3,339.72	195.56	18.078		
15,100.00	7,209.69	7,336.47	7,186.26	219.59	40.81	89.74	-77.79	-10,311.12	3,463.43	3,262.96	200.46	17.277		
15,200.00	7,209.18	7,337.91	7,187.70	222.41	40.82	89.77	-77.80	-10,311.14	3,393.00	3,187.48	205.52	16.509		
15,300.00	7,208.68	7,339.34	7,189.12	225.22	40.82	89.81	-77.81	-10,311.17	3,324.09	3,113.37	210.73	15.774		
15,400.00	7,208.18	7,340.74	7,190.53	228.04	40.83	89.84	-77.82	-10,311.19	3,256.80	3,040.72	216.08	15.072		
15,437.48	7,208.00	7,341.26	7,191.05	229.10	40.83	89.85	-77.83	-10,311.20	3,232.01	3,013.89	218.12	14.818 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-08(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	37.00	3.28	3.28	-89.87	20.65	-9,145.28	9,145.38				
100.00	100.00	63.00	100.00	3.28	3.46	-89.87	20.65	-9,145.28	9,145.30	9,138.56	6.74	1,356.034	
200.00	200.00	163.00	200.00	3.34	5.13	-89.87	20.65	-9,145.28	9,145.30	9,136.83	8.47	1,080.068	
300.00	299.98	262.98	299.98	3.44	8.13	86.51	20.65	-9,145.28	9,145.20	9,133.63	11.57	790.712	
400.00	399.84	362.84	399.84	3.59	11.40	86.54	20.65	-9,145.28	9,144.88	9,129.89	14.99	610.008	
500.00	499.45	462.45	499.45	3.79	14.77	86.61	20.65	-9,145.28	9,144.36	9,125.80	18.55	492.860	
600.00	598.70	561.70	598.70	4.03	18.16	86.70	20.65	-9,145.28	9,143.64	9,121.45	22.19	412.040	
700.00	697.47	660.47	697.47	4.31	21.56	86.81	20.65	-9,145.28	9,142.74	9,116.87	25.88	353.329	
800.00	795.62	758.62	795.62	4.64	24.95	86.95	20.65	-9,145.28	9,141.69	9,112.09	29.59	308.922	
900.00	893.06	856.06	893.06	5.00	28.33	87.11	20.65	-9,145.28	9,140.49	9,107.16	33.33	274.253	
1,000.00	989.64	952.64	989.64	5.40	31.68	87.30	20.65	-9,145.28	9,139.18	9,102.11	37.08	246.492	
1,100.00	1,085.27	1,048.27	1,085.27	5.83	35.00	87.50	20.65	-9,145.28	9,137.80	9,096.97	40.83	223.797	
1,200.00	1,179.82	1,142.82	1,179.82	6.29	38.29	87.72	20.65	-9,145.28	9,136.36	9,091.78	44.58	204.925	
1,300.00	1,273.47	1,236.47	1,273.47	6.79	41.55	87.94	20.65	-9,145.28	9,134.94	9,086.61	48.34	188.986	
1,400.00	1,367.06	1,330.06	1,367.06	7.30	44.81	88.14	20.65	-9,145.28	9,133.66	9,081.55	52.11	175.277	
1,500.00	1,460.64	1,423.64	1,460.64	7.83	48.07	88.35	20.65	-9,145.28	9,132.50	9,076.60	55.90	163.375	
1,600.00	1,554.23	1,517.23	1,554.23	8.38	51.33	88.56	20.65	-9,145.28	9,131.49	9,071.79	59.70	152.954	
1,700.00	1,647.82	1,610.82	1,647.82	8.93	54.59	88.76	20.65	-9,145.28	9,130.61	9,067.09	63.51	143.758	
1,800.00	1,741.41	1,704.41	1,741.41	9.49	57.85	88.97	20.65	-9,145.28	9,129.86	9,062.53	67.33	135.589	
1,900.00	1,835.00	1,802.00	1,835.00	10.05	61.25	89.18	20.65	-9,145.28	9,129.25	9,057.95	71.30	128.036	
2,000.00	1,928.59	1,908.41	1,928.59	10.62	64.96	89.38	20.65	-9,145.28	9,128.78	9,053.19	75.58	120.776	
2,100.00	2,022.18	1,985.18	2,022.18	11.20	67.64	89.59	20.65	-9,145.28	9,128.44	9,049.60	78.84	115.788	
2,200.00	2,115.77	2,078.77	2,115.77	11.78	70.90	89.80	20.65	-9,145.28	9,128.24	9,045.56	82.68	110.402	
2,298.21	2,207.69	2,170.69	2,207.69	12.36	74.11	90.00	20.65	-9,145.28	9,128.17	9,041.71	86.46	105.576	
2,300.00	2,209.36	2,172.36	2,209.36	12.37	74.16	90.00	20.65	-9,145.28	9,128.17	9,041.64	86.53	105.492	
2,400.00	2,302.95	2,265.95	2,302.95	12.95	77.43	90.21	20.65	-9,145.28	9,128.24	9,037.86	90.38	100.997	
2,500.00	2,396.54	2,359.54	2,396.54	13.54	80.69	90.42	20.65	-9,145.28	9,128.45	9,034.21	94.24	96.869	
2,600.00	2,490.13	2,453.13	2,490.13	14.13	83.96	90.62	20.65	-9,145.28	9,128.79	9,030.70	98.09	93.064	
2,700.00	2,583.72	2,546.72	2,583.72	14.73	87.22	90.83	20.65	-9,145.28	9,129.27	9,027.32	101.95	89.546	
2,800.00	2,677.31	2,640.31	2,677.31	15.32	90.49	91.04	20.65	-9,145.28	9,129.88	9,024.07	105.81	86.285	
2,900.00	2,770.90	2,733.90	2,770.90	15.92	93.75	91.25	20.65	-9,145.28	9,130.63	9,020.96	109.67	83.254	
3,000.00	2,864.49	2,827.49	2,864.49	16.52	97.02	91.45	20.65	-9,145.28	9,131.52	9,017.98	113.54	80.428	
3,100.00	2,958.08	2,921.08	2,958.08	17.12	100.28	91.66	20.65	-9,145.28	9,132.54	9,015.14	117.40	77.789	
3,200.00	3,051.67	3,014.67	3,051.67	17.72	103.55	91.87	20.65	-9,145.28	9,133.70	9,012.43	121.27	75.319	
3,300.00	3,145.26	3,108.26	3,145.26	18.32	106.81	92.07	20.65	-9,145.28	9,134.99	9,009.86	125.13	73.002	
3,400.00	3,238.85	3,201.85	3,238.85	18.92	110.08	92.28	20.65	-9,145.28	9,136.42	9,007.42	129.00	70.824	
3,500.00	3,332.44	3,304.56	3,332.44	19.53	113.66	92.49	20.65	-9,145.28	9,137.98	9,004.80	133.19	68.609	
3,600.00	3,426.03	3,389.03	3,426.03	20.13	116.61	92.69	20.65	-9,145.28	9,139.68	9,002.94	136.74	66.840	
3,700.00	3,519.62	3,482.62	3,519.62	20.74	119.88	92.90	20.65	-9,145.28	9,141.52	9,000.91	140.61	65.013	
3,800.00	3,613.21	3,576.21	3,613.21	21.34	123.14	93.10	20.65	-9,145.28	9,143.49	8,999.01	144.48	63.285	
3,900.00	3,706.80	3,669.80	3,706.80	21.95	126.41	93.31	20.65	-9,145.28	9,145.60	8,997.24	148.35	61.648	
4,000.00	3,800.39	3,763.39	3,800.39	22.56	129.68	93.52	20.65	-9,145.28	9,147.84	8,995.61	152.22	60.095	
4,100.00	3,893.98	3,856.98	3,893.98	23.16	132.94	93.72	20.65	-9,145.28	9,150.21	8,994.12	156.09	58.620	
4,200.00	3,987.57	3,950.57	3,987.57	23.77	136.21	93.93	20.65	-9,145.28	9,152.72	8,992.76	159.97	57.216	
4,300.00	4,081.16	4,044.16	4,081.16	24.38	139.48	94.14	20.65	-9,145.28	9,155.37	8,991.53	163.84	55.880	
4,400.00	4,174.75	4,137.75	4,174.75	24.99	142.74	94.34	20.65	-9,145.28	9,158.15	8,990.44	167.71	54.607	
4,500.00	4,268.34	4,231.34	4,268.34	25.60	146.01	94.55	20.65	-9,145.28	9,161.07	8,989.48	171.58	53.391	
4,600.00	4,361.93	4,324.93	4,361.93	26.21	149.27	94.75	20.65	-9,145.28	9,164.12	8,988.66	175.46	52.230	
4,700.00	4,455.52	4,418.52	4,455.52	26.82	152.54	94.96	20.65	-9,145.28	9,167.30	8,987.97	179.33	51.120	
4,800.00	4,549.11	4,512.11	4,549.11	27.43	155.81	95.16	20.65	-9,145.28	9,170.62	8,987.41	183.20	50.057	
4,900.00	4,642.70	4,605.70	4,642.70	28.04	159.07	95.37	20.65	-9,145.28	9,174.07	8,986.99	187.08	49.039	
5,000.00	4,736.29	4,700.71	4,736.29	28.65	162.39	95.57	20.65	-9,145.28	9,177.66	8,986.66	191.00	48.051	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-08(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,829.88	4,807.12	4,829.88	29.26	166.10	95.78	20.65	-9,145.28	9,181.38	8,986.06	195.32	47.007		
5,200.00	4,923.47	4,886.47	4,923.47	29.87	168.87	95.98	20.65	-9,145.28	9,185.23	8,986.53	198.70	46.228		
5,300.00	5,017.06	4,980.06	5,017.06	30.48	172.14	96.19	20.65	-9,145.28	9,189.22	8,986.65	202.57	45.363		
5,400.00	5,110.65	5,073.65	5,110.65	31.09	175.41	96.39	20.65	-9,145.28	9,193.34	8,986.90	206.44	44.532		
5,500.00	5,204.24	5,167.24	5,204.24	31.70	178.67	96.60	20.65	-9,145.28	9,197.59	8,987.28	210.31	43.732		
5,600.00	5,297.83	5,260.83	5,297.83	32.32	181.94	96.80	20.65	-9,145.28	9,201.98	8,987.79	214.19	42.962		
5,700.00	5,391.42	5,354.42	5,391.42	32.93	185.21	97.00	20.65	-9,145.28	9,206.50	8,988.44	218.06	42.220		
5,800.00	5,485.01	5,448.01	5,485.01	33.54	188.47	97.21	20.65	-9,145.28	9,211.15	8,989.21	221.93	41.504		
5,900.00	5,578.60	5,541.60	5,578.60	34.15	191.74	97.41	20.65	-9,145.28	9,215.93	8,990.13	225.81	40.814		
6,000.00	5,672.19	5,635.19	5,672.19	34.77	195.01	97.62	20.65	-9,145.28	9,220.85	8,991.17	229.68	40.147		
6,100.00	5,765.78	5,728.78	5,765.78	35.38	198.27	97.82	20.65	-9,145.28	9,225.89	8,992.35	233.55	39.503		
6,200.00	5,859.37	5,822.37	5,859.37	35.99	201.54	98.02	20.65	-9,145.28	9,231.07	8,993.65	237.42	38.881		
6,300.00	5,952.96	5,915.96	5,952.96	36.60	204.81	98.22	20.65	-9,145.28	9,236.38	8,995.09	241.29	38.279		
6,400.00	6,046.55	6,009.55	6,046.55	37.22	208.07	98.43	20.65	-9,145.28	9,241.83	8,996.66	245.16	37.697		
6,500.00	6,140.14	6,103.14	6,140.14	37.83	211.34	98.63	20.65	-9,145.28	9,247.40	8,998.36	249.03	37.133		
6,600.00	6,233.73	6,203.27	6,233.73	38.44	214.84	98.83	20.65	-9,145.28	9,253.10	8,999.97	253.13	36.554		
6,700.00	6,327.32	6,309.68	6,327.32	39.06	218.55	99.03	20.65	-9,145.28	9,258.94	9,001.49	257.45	35.964		
6,800.00	6,420.91	6,383.91	6,420.91	39.67	221.14	99.24	20.65	-9,145.28	9,264.90	9,004.26	260.65	35.546		
6,900.00	6,514.50	6,477.50	6,514.50	40.28	224.41	99.44	20.65	-9,145.28	9,271.00	9,006.48	264.52	35.049		
7,000.00	6,608.09	6,571.09	6,608.09	40.90	227.68	99.64	20.65	-9,145.28	9,277.22	9,008.84	268.39	34.567		
7,100.00	6,701.63	6,664.63	6,701.63	41.51	230.94	99.84	20.65	-9,145.28	9,283.44	9,010.08	272.25	34.095		
7,200.00	6,793.85	6,756.85	6,793.85	42.10	234.16	71.09	20.65	-9,145.28	9,275.06	8,999.00	276.06	33.598		
7,300.00	6,882.50	6,845.50	6,882.50	42.64	237.25	58.53	20.65	-9,145.28	9,252.92	8,973.21	279.70	33.081		
7,400.00	6,965.41	6,928.41	6,965.41	43.12	240.15	51.20	20.65	-9,145.28	9,216.46	8,933.38	283.09	32.557		
7,500.00	7,040.53	7,003.53	7,040.53	43.53	242.77	47.45	20.65	-9,145.28	9,166.62	8,880.48	286.14	32.035		
7,600.00	7,106.00	7,069.00	7,106.00	43.89	245.06	46.41	20.65	-9,145.28	9,104.62	8,815.80	288.82	31.523		
7,700.00	7,160.23	7,123.23	7,160.23	44.20	246.95	47.88	20.65	-9,145.28	9,031.99	8,740.93	291.06	31.031		
7,800.00	7,201.86	7,164.86	7,201.86	44.48	248.40	52.42	20.65	-9,145.28	8,950.49	8,657.66	292.84	30.565		
7,900.00	7,229.88	7,207.12	7,229.88	44.73	249.88	61.67	20.65	-9,145.28	8,862.10	8,567.50	294.60	30.082		
8,000.00	7,243.60	7,206.60	7,243.60	44.99	249.86	78.96	20.65	-9,145.28	8,768.95	8,474.11	294.84	29.742		
8,100.00	7,244.73	7,207.73	7,244.73	45.29	249.90	90.94	20.65	-9,145.28	8,673.44	8,378.33	295.11	29.390		
8,200.00	7,244.23	7,207.23	7,244.23	45.74	249.88	90.93	20.65	-9,145.28	8,577.82	8,282.48	295.34	29.043		
8,300.00	7,243.73	7,206.73	7,243.73	46.38	249.86	90.92	20.65	-9,145.28	8,482.31	8,186.71	295.60	28.695		
8,400.00	7,243.23	7,206.23	7,243.23	47.29	249.85	90.91	20.65	-9,145.28	8,386.90	8,091.02	295.88	28.346		
8,500.00	7,242.73	7,205.73	7,242.73	48.46	249.83	90.90	20.65	-9,145.28	8,291.59	7,995.41	296.18	27.995		
8,600.00	7,242.23	7,205.23	7,242.23	49.87	249.81	90.89	20.65	-9,145.28	8,196.40	7,899.90	296.51	27.643		
8,700.00	7,241.73	7,204.73	7,241.73	51.48	249.79	90.87	20.65	-9,145.28	8,101.33	7,804.47	296.86	27.290		
8,800.00	7,241.23	7,204.23	7,241.23	53.24	249.78	90.86	20.65	-9,145.28	8,006.37	7,709.13	297.24	26.936		
8,900.00	7,240.73	7,203.73	7,240.73	55.13	249.76	90.85	20.65	-9,145.28	7,911.54	7,613.89	297.65	26.580		
9,000.00	7,240.23	7,203.23	7,240.23	57.11	249.74	90.84	20.65	-9,145.28	7,816.83	7,518.75	298.09	26.223		
9,100.00	7,239.73	7,202.73	7,239.73	59.19	249.72	90.83	20.65	-9,145.28	7,722.26	7,423.71	298.56	25.865		
9,200.00	7,239.23	7,202.23	7,239.23	61.34	249.71	90.82	20.65	-9,145.28	7,627.83	7,328.77	299.06	25.506		
9,300.00	7,238.72	7,201.72	7,238.72	63.55	249.69	90.81	20.65	-9,145.28	7,533.55	7,233.95	299.60	25.146		
9,400.00	7,238.22	7,201.22	7,238.22	65.81	249.67	90.79	20.65	-9,145.28	7,439.41	7,139.24	300.17	24.784		
9,500.00	7,237.72	7,200.72	7,237.72	68.13	249.65	90.78	20.65	-9,145.28	7,345.42	7,044.65	300.77	24.422		
9,600.00	7,237.22	7,200.22	7,237.22	70.48	249.64	90.77	20.65	-9,145.28	7,251.60	6,950.19	301.41	24.059		
9,700.00	7,236.72	7,200.28	7,236.72	72.88	249.64	90.76	20.65	-9,145.28	7,157.95	6,855.83	302.11	23.693		
9,800.00	7,236.22	7,200.78	7,236.22	75.31	249.66	90.75	20.65	-9,145.28	7,064.47	6,761.60	302.87	23.325		
9,900.00	7,235.72	7,201.28	7,235.72	77.77	249.67	90.74	20.65	-9,145.28	6,971.17	6,667.50	303.66	22.957		
10,000.00	7,235.22	7,201.78	7,235.22	80.26	249.69	90.73	20.65	-9,145.28	6,878.05	6,573.55	304.50	22.588		
10,100.00	7,234.72	7,202.28	7,234.72	82.77	249.71	90.72	20.65	-9,145.28	6,785.14	6,479.75	305.39	22.218		
10,200.00	7,234.22	7,202.78	7,234.22	85.31	249.73	90.70	20.65	-9,145.28	6,692.43	6,386.11	306.31	21.848		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-08(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,233.72	7,203.28	7,233.72	87.86	249.74	90.69	20.65	-9,145.28	6,599.93	6,292.64	307.29	21.478		
10,400.00	7,233.22	7,203.78	7,233.22	90.44	249.76	90.68	20.65	-9,145.28	6,507.65	6,199.34	308.31	21.107		
10,500.00	7,232.72	7,204.28	7,232.72	93.03	249.78	90.67	20.65	-9,145.28	6,415.60	6,106.22	309.39	20.737		
10,600.00	7,232.22	7,204.78	7,232.22	95.64	249.80	90.66	20.65	-9,145.28	6,323.80	6,013.29	310.51	20.366		
10,700.00	7,231.72	7,205.28	7,231.72	98.26	249.81	90.65	20.65	-9,145.28	6,232.25	5,920.55	311.69	19.995		
10,800.00	7,231.21	7,205.79	7,231.21	100.89	249.83	90.64	20.65	-9,145.28	6,140.96	5,828.03	312.93	19.624		
10,900.00	7,230.71	7,206.29	7,230.71	103.54	249.85	90.62	20.65	-9,145.28	6,049.94	5,735.72	314.22	19.254		
11,000.00	7,230.21	7,206.79	7,230.21	106.20	249.87	90.61	20.65	-9,145.28	5,959.22	5,643.65	315.57	18.884		
11,100.00	7,229.71	7,207.29	7,229.71	108.87	249.88	90.60	20.65	-9,145.28	5,868.80	5,551.81	316.99	18.514		
11,200.00	7,229.21	7,207.79	7,229.21	111.54	249.90	90.59	20.65	-9,145.28	5,778.69	5,460.22	318.46	18.146		
11,300.00	7,228.71	7,208.29	7,228.71	114.23	249.92	90.58	20.65	-9,145.28	5,688.91	5,368.90	320.00	17.778		
11,400.00	7,228.21	7,208.79	7,228.21	116.92	249.94	90.57	20.65	-9,145.28	5,599.48	5,277.86	321.61	17.411		
11,500.00	7,227.71	7,209.29	7,227.71	119.63	249.95	90.56	20.65	-9,145.28	5,510.41	5,187.11	323.30	17.045		
11,600.00	7,227.21	7,209.79	7,227.21	122.34	249.97	90.55	20.65	-9,145.28	5,421.72	5,096.67	325.05	16.680		
11,700.00	7,226.71	7,189.71	7,226.71	125.05	249.27	90.53	20.65	-9,145.28	5,333.44	5,007.28	326.16	16.352		
11,800.00	7,226.21	7,189.21	7,226.21	127.78	249.25	90.52	20.65	-9,145.28	5,245.57	4,917.54	328.03	15.991		
11,900.00	7,225.71	7,188.71	7,225.71	130.51	249.23	90.51	20.65	-9,145.28	5,158.14	4,828.17	329.98	15.632		
12,000.00	7,225.21	7,188.21	7,225.21	133.24	249.22	90.50	20.65	-9,145.28	5,071.18	4,739.17	332.01	15.274		
12,100.00	7,224.71	7,187.71	7,224.71	135.98	249.20	90.49	20.65	-9,145.28	4,984.71	4,650.59	334.13	14.919		
12,200.00	7,224.21	7,187.21	7,224.21	138.72	249.18	90.48	20.65	-9,145.28	4,898.76	4,562.42	336.34	14.565		
12,300.00	7,223.70	7,186.70	7,223.70	141.47	249.16	90.47	20.65	-9,145.28	4,813.35	4,474.71	338.63	14.214		
12,400.00	7,223.20	7,186.20	7,223.20	144.23	249.15	90.45	20.65	-9,145.28	4,728.50	4,387.48	341.03	13.865		
12,500.00	7,222.70	7,185.70	7,222.70	146.98	249.13	90.44	20.65	-9,145.28	4,644.27	4,300.75	343.52	13.520		
12,600.00	7,222.20	7,185.20	7,222.20	149.74	249.11	90.43	20.65	-9,145.28	4,560.66	4,214.55	346.11	13.177		
12,700.00	7,221.70	7,184.70	7,221.70	152.51	249.09	90.42	20.65	-9,145.28	4,477.74	4,128.93	348.81	12.837		
12,800.00	7,221.20	7,184.20	7,221.20	155.28	249.08	90.41	20.65	-9,145.28	4,395.52	4,043.91	351.61	12.501		
12,900.00	7,220.70	7,183.70	7,220.70	158.05	249.06	90.40	20.65	-9,145.28	4,314.05	3,959.53	354.52	12.169		
13,000.00	7,220.20	7,183.20	7,220.20	160.82	249.04	90.39	20.65	-9,145.28	4,233.38	3,875.83	357.55	11.840		
13,100.00	7,219.70	7,182.70	7,219.70	163.60	249.02	90.37	20.65	-9,145.28	4,153.55	3,792.86	360.69	11.516		
13,200.00	7,219.20	7,182.20	7,219.20	166.38	249.01	90.36	20.65	-9,145.28	4,074.60	3,710.66	363.95	11.196		
13,300.00	7,218.70	7,181.70	7,218.70	169.16	248.99	90.35	20.65	-9,145.28	3,996.60	3,629.27	367.33	10.880		
13,400.00	7,218.20	7,181.20	7,218.20	171.95	248.97	90.34	20.65	-9,145.28	3,919.61	3,548.77	370.84	10.570		
13,500.00	7,217.70	7,180.70	7,217.70	174.74	248.95	90.33	20.65	-9,145.28	3,843.66	3,469.19	374.47	10.264		
13,600.00	7,217.20	7,180.20	7,217.20	177.53	248.94	90.32	20.65	-9,145.28	3,768.85	3,390.61	378.24	9.964		
13,700.00	7,216.70	7,179.70	7,216.70	180.32	248.92	90.31	20.65	-9,145.28	3,695.22	3,313.09	382.13	9.670		
13,800.00	7,216.19	7,179.19	7,216.19	183.11	248.90	90.30	20.65	-9,145.28	3,622.86	3,236.71	386.15	9.382		
13,900.00	7,215.69	7,178.69	7,215.69	185.91	248.88	90.28	20.65	-9,145.28	3,551.84	3,161.53	390.31	9.100		
14,000.00	7,215.19	7,178.19	7,215.19	188.71	248.87	90.27	20.65	-9,145.28	3,482.24	3,087.65	394.59	8.825		
14,100.00	7,214.69	7,177.69	7,214.69	191.51	248.85	90.26	20.65	-9,145.28	3,414.16	3,015.15	399.00	8.557		
14,200.00	7,214.19	7,177.19	7,214.19	194.31	248.83	90.25	20.65	-9,145.28	3,347.67	2,944.13	403.54	8.296		
14,300.00	7,213.69	7,176.69	7,213.69	197.11	248.81	90.24	20.65	-9,145.28	3,282.89	2,874.69	408.20	8.042		
14,400.00	7,213.19	7,176.19	7,213.19	199.92	248.80	90.23	20.65	-9,145.28	3,219.91	2,806.94	412.97	7.797		
14,500.00	7,212.69	7,175.69	7,212.69	202.72	248.78	90.22	20.65	-9,145.28	3,158.84	2,740.99	417.85	7.560		
14,600.00	7,212.19	7,175.19	7,212.19	205.53	248.76	90.20	20.65	-9,145.28	3,099.79	2,676.97	422.82	7.331		
14,700.00	7,211.69	7,174.69	7,211.69	208.34	248.74	90.19	20.65	-9,145.28	3,042.88	2,615.00	427.89	7.111		
14,800.00	7,211.19	7,174.19	7,211.19	211.15	248.73	90.18	20.65	-9,145.28	2,988.24	2,555.22	433.02	6.901		
14,900.00	7,210.69	7,173.69	7,210.69	213.96	248.71	90.17	20.65	-9,145.28	2,935.99	2,497.78	438.21	6.700		
15,000.00	7,210.19	7,173.19	7,210.19	216.78	248.69	90.16	20.65	-9,145.28	2,886.26	2,442.82	443.44	6.509		
15,100.00	7,209.69	7,172.69	7,209.69	219.59	248.68	90.15	20.65	-9,145.28	2,839.18	2,390.50	448.68	6.328		
15,200.00	7,209.18	7,172.18	7,209.18	222.41	248.66	90.14	20.65	-9,145.28	2,794.88	2,340.97	453.91	6.157		
15,300.00	7,208.68	7,171.68	7,208.68	225.22	248.64	90.12	20.65	-9,145.28	2,753.51	2,294.40	459.11	5.998		
15,400.00	7,208.18	7,171.18	7,208.18	228.04	248.62	90.11	20.65	-9,145.28	2,715.19	2,250.96	464.23	5.849		

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 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design	HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-08(PR_75CC) - OH - OH											Offset Site Error:	0.00 ft
Survey Program:	100-2" Cone@2.448 Sigma											Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	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)		
15,437.48	7,208.00	7,171.00	7,208.00	229.10	248.62	90.11	20.65	-9,145.28	2,701.64	2,235.51	466.13	5.796	CC, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I17-17D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-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	24.00	3.28	3.28	-90.05	-8.49	-9,142.51	9,142.54					
100.00	100.00	112.31	136.31	3.28	3.29	-90.06	-8.78	-9,142.14	9,142.22	9,135.64	6.58	1,389.880		
200.00	200.00	186.31	210.31	3.34	3.34	-90.05	-8.69	-9,141.95	9,141.96	9,135.29	6.67	1,370.007		
300.00	299.98	261.35	285.35	3.44	3.41	86.32	-8.65	-9,141.97	9,141.88	9,135.03	6.85	1,335.083		
400.00	399.84	348.32	372.31	3.59	3.53	86.35	-8.74	-9,142.18	9,141.77	9,134.66	7.12	1,284.846		
500.00	499.45	436.50	460.49	3.79	3.68	86.40	-8.86	-9,142.50	9,141.59	9,134.12	7.47	1,223.822		
600.00	598.70	616.43	640.43	4.03	4.09	86.55	-9.37	-9,142.77	9,141.11	9,132.99	8.12	1,125.353		
700.00	697.47	679.51	703.50	4.31	4.26	86.63	-9.69	-9,142.60	9,139.90	9,131.33	8.58	1,065.777		
800.00	795.62	727.00	750.99	4.64	4.40	86.71	-9.92	-9,142.64	9,138.93	9,129.90	9.03	1,011.668		
900.00	893.06	727.00	750.99	5.00	4.40	86.71	-9.92	-9,142.64	9,138.66	9,129.26	9.40	972.622		
931.14	923.23	775.42	799.41	5.12	4.54	86.79	-9.95	-9,143.03	9,138.35	9,128.69	9.66	946.158		
942.02	933.75	778.78	802.78	5.16	4.55	86.79	-9.93	-9,143.07	9,138.35	9,128.64	9.71	940.995		
1,000.00	989.64	796.67	820.65	5.40	4.60	86.82	-9.83	-9,143.37	9,138.45	9,128.45	10.00	914.022		
1,100.00	1,085.27	856.00	879.96	5.83	4.78	86.92	-9.08	-9,144.86	9,139.21	9,128.60	10.61	861.175		
1,200.00	1,179.82	856.00	879.96	6.29	4.78	86.90	-9.08	-9,144.86	9,140.28	9,129.21	11.08	824.998		
1,300.00	1,273.47	856.00	879.96	6.79	4.78	86.89	-9.08	-9,144.86	9,142.31	9,130.73	11.57	789.904		
1,400.00	1,367.06	902.21	926.12	7.30	4.93	87.00	-8.10	-9,146.70	9,144.93	9,132.70	12.23	747.469		
1,500.00	1,460.64	924.73	948.61	7.83	5.00	87.05	-7.50	-9,147.86	9,148.55	9,135.71	12.84	712.738		
1,600.00	1,554.23	984.00	1,007.72	8.38	5.20	87.19	-5.57	-9,151.72	9,153.33	9,139.76	13.57	674.511		
1,700.00	1,647.82	984.00	1,007.72	8.93	5.20	87.19	-5.57	-9,151.72	9,158.41	9,144.30	14.12	648.697		
1,800.00	1,741.41	984.00	1,007.72	9.49	5.20	87.19	-5.57	-9,151.72	9,164.59	9,149.91	14.67	624.614		
1,900.00	1,835.00	984.00	1,007.72	10.05	5.20	87.19	-5.57	-9,151.72	9,171.85	9,156.61	15.23	602.164		
2,000.00	1,928.59	1,041.68	1,065.14	10.62	5.40	87.34	-2.94	-9,156.52	9,179.51	9,163.51	15.99	573.972		
2,100.00	2,022.18	1,065.90	1,089.21	11.20	5.49	87.40	-1.55	-9,158.81	9,188.23	9,171.59	16.64	552.063		
2,200.00	2,115.77	1,112.00	1,134.95	11.78	5.65	87.52	1.58	-9,163.64	9,197.90	9,180.53	17.38	529.373		
2,300.00	2,209.36	1,112.00	1,134.95	12.37	5.65	87.52	1.58	-9,163.64	9,208.21	9,190.27	17.94	513.180		
2,400.00	2,302.95	1,148.76	1,171.35	12.95	5.79	87.61	4.49	-9,167.84	9,219.40	9,200.75	18.65	494.379		
2,500.00	2,396.54	1,182.60	1,204.81	13.54	5.92	87.70	7.49	-9,171.90	9,231.32	9,211.98	19.34	477.198		
2,600.00	2,490.13	1,241.00	1,262.44	14.13	6.15	87.86	13.35	-9,179.32	9,244.08	9,223.94	20.14	459.029		
2,700.00	2,583.72	1,241.00	1,262.44	14.73	6.15	87.86	13.35	-9,179.32	9,257.41	9,236.70	20.71	447.092		
2,800.00	2,677.31	1,304.93	1,325.33	15.32	6.42	88.05	21.06	-9,187.82	9,271.42	9,249.88	21.53	430.587		
2,900.00	2,770.90	1,369.00	1,388.11	15.92	6.70	88.24	30.43	-9,196.49	9,286.04	9,263.68	22.36	415.240		
3,000.00	2,864.49	1,369.00	1,388.11	16.52	6.70	88.24	30.43	-9,196.49	9,301.33	9,278.40	22.93	405.704		
3,100.00	2,958.08	1,426.90	1,444.63	17.12	6.97	88.42	40.05	-9,204.63	9,317.21	9,293.47	23.74	392.389		
3,200.00	3,051.67	1,460.25	1,477.08	17.72	7.12	88.52	45.97	-9,209.52	9,333.91	9,309.46	24.45	381.697		
3,300.00	3,145.26	1,498.00	1,513.73	18.32	7.31	88.64	53.00	-9,215.24	9,351.35	9,326.17	25.18	371.357		
3,400.00	3,238.85	1,498.00	1,513.73	18.92	7.31	88.64	53.00	-9,215.24	9,369.63	9,343.89	25.73	364.084		
3,500.00	3,332.44	1,556.54	1,570.38	19.53	7.61	88.83	64.46	-9,224.52	9,388.45	9,361.88	26.57	353.354		
3,600.00	3,426.03	1,587.74	1,600.49	20.13	7.77	88.93	70.80	-9,229.67	9,408.12	9,380.85	27.27	345.002		
3,700.00	3,519.62	1,626.00	1,637.33	20.74	7.98	89.06	78.80	-9,236.20	9,428.55	9,400.54	28.00	336.701		
3,800.00	3,613.21	1,626.00	1,637.33	21.34	7.98	89.06	78.80	-9,236.20	9,449.78	9,421.24	28.54	331.077		
3,900.00	3,706.80	1,682.78	1,691.80	21.95	8.30	89.24	91.31	-9,246.23	9,471.58	9,442.20	29.38	322.379		
4,000.00	3,800.39	1,714.36	1,721.96	22.56	8.49	89.35	98.68	-9,251.96	9,494.19	9,464.11	30.08	315.615		
4,100.00	3,893.98	1,754.00	1,759.70	23.16	8.72	89.49	108.34	-9,259.32	9,517.54	9,486.72	30.82	308.777		
4,200.00	3,987.57	1,754.00	1,759.70	23.77	8.72	89.49	108.34	-9,259.32	9,541.67	9,510.32	31.35	304.387		
4,300.00	4,081.16	1,754.00	1,759.70	24.38	8.72	89.49	108.34	-9,259.32	9,566.78	9,534.92	31.87	300.220		
4,400.00	4,174.75	1,812.62	1,815.21	24.99	9.10	89.69	123.28	-9,270.76	9,592.20	9,559.48	32.72	293.143		
4,500.00	4,268.34	1,833.81	1,835.20	25.60	9.24	89.77	128.84	-9,275.10	9,618.69	9,585.33	33.36	288.365		
4,600.00	4,361.93	1,883.00	1,881.40	26.21	9.56	89.94	142.05	-9,285.59	9,646.12	9,611.97	34.15	282.455		
4,700.00	4,455.52	1,883.00	1,881.40	26.82	9.56	89.94	142.05	-9,285.59	9,674.03	9,639.38	34.65	279.183		
4,800.00	4,549.11	4,800.00	1,971.00	27.43	31.92	90.28	168.45	-9,306.06	9,702.43	9,650.66	51.77	187.406		
4,900.00	4,642.70	2,144.58	2,126.83	28.04	11.43	90.86	213.73	-9,340.81	9,730.64	9,693.34	37.30	260.875		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I17-17D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWDD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,736.29	2,210.67	2,189.10	28.65	11.92	91.09	231.02	-9,354.66	9,759.02	9,720.80	38.22	255.339		
5,100.00	4,829.88	2,296.43	2,270.03	29.26	12.56	91.38	252.80	-9,372.86	9,787.77	9,748.50	39.27	249.269		
5,200.00	4,923.47	2,382.19	2,354.17	29.87	13.20	91.71	277.21	-9,393.83	9,816.46	9,759.74	40.32	243.269		
5,300.00	5,017.06	2,467.95	2,439.22	30.48	13.84	91.91	292.02	-9,406.54	9,845.50	9,804.22	41.28	238.494		
5,400.00	5,110.65	2,553.71	2,525.39	31.09	14.47	92.05	302.54	-9,415.40	9,875.17	9,833.13	42.03	234.928		
5,500.00	5,204.24	2,639.47	2,611.26	31.70	15.11	92.25	318.27	-9,428.40	9,905.39	9,862.48	42.92	230.810		
5,600.00	5,297.83	2,725.23	2,697.01	32.32	15.75	92.58	344.06	-9,449.38	9,935.85	9,891.79	44.06	225.520		
5,700.00	5,391.42	2,811.00	2,782.78	32.93	16.39	92.57	343.19	-9,448.68	9,966.85	9,922.36	44.50	223.987		
5,800.00	5,485.01	2,896.76	2,868.54	33.54	17.03	92.77	359.61	-9,461.92	9,998.27	9,952.88	45.39	220.287		
7,700.00	7,160.23	7,495.23	7,339.09	44.20	39.56	92.76	819.31	-9,862.17	9,956.33	9,878.13	78.20	127.312		
7,800.00	7,201.86	7,554.18	7,398.04	44.48	39.74	92.81	818.46	-9,861.28	9,976.51	9,797.78	78.73	125.448		
7,900.00	7,229.88	7,574.31	7,418.16	44.73	39.81	92.86	818.17	-9,860.98	9,789.89	9,710.79	79.10	123.762		
8,000.00	7,243.60	7,580.00	7,423.85	44.99	39.83	92.86	818.09	-9,860.90	9,698.59	9,619.18	79.41	122.141		
8,100.00	7,244.73	7,580.00	7,423.85	45.29	39.83	92.86	818.09	-9,860.90	9,604.96	9,525.29	79.67	120.555		
8,200.00	7,244.23	7,584.18	7,428.02	45.74	39.84	92.86	818.03	-9,860.83	9,511.24	9,431.27	79.97	118.929		
8,300.00	7,243.73	7,582.15	7,426.00	46.38	39.83	92.86	818.06	-9,860.86	9,417.65	9,337.37	80.28	117.305		
8,400.00	7,243.23	7,580.12	7,423.97	47.29	39.83	92.86	818.09	-9,860.89	9,324.20	9,243.58	80.62	115.652		
8,500.00	7,242.73	7,578.09	7,421.94	48.46	39.82	92.86	818.12	-9,860.93	9,230.88	9,149.89	80.99	113.973		
8,600.00	7,242.23	7,576.07	7,419.91	49.87	39.81	92.86	818.15	-9,860.96	9,137.70	9,056.31	81.39	112.267		
8,700.00	7,241.73	7,574.04	7,417.88	51.48	39.81	92.86	818.18	-9,860.99	9,044.67	8,962.85	81.83	110.536		
8,800.00	7,241.23	7,572.01	7,415.86	53.24	39.80	92.86	818.21	-9,861.02	8,951.79	8,869.50	82.29	108.781		
8,900.00	7,240.73	7,569.98	7,413.83	55.13	39.79	92.86	818.24	-9,861.05	8,859.06	8,776.27	82.79	107.004		
9,000.00	7,240.23	7,567.95	7,411.80	57.11	39.79	92.86	818.27	-9,861.08	8,766.49	8,683.16	83.33	105.205		
9,100.00	7,239.73	7,565.92	7,409.77	59.19	39.78	92.86	818.29	-9,861.11	8,674.09	8,590.19	83.90	103.387		
9,200.00	7,239.23	7,563.90	7,407.75	61.34	39.77	92.86	818.32	-9,861.14	8,581.85	8,497.35	84.51	101.550		
9,300.00	7,238.72	7,561.87	7,405.72	63.55	39.77	92.86	818.35	-9,861.18	8,489.80	8,404.64	85.16	99.698		
9,400.00	7,238.22	7,559.84	7,403.69	65.81	39.76	92.86	818.38	-9,861.21	8,397.92	8,312.08	85.84	97.831		
9,500.00	7,237.72	7,557.81	7,401.66	68.13	39.76	92.86	818.41	-9,861.24	8,306.23	8,219.66	86.57	95.951		
9,600.00	7,237.22	7,555.78	7,399.63	70.48	39.75	92.86	818.44	-9,861.27	8,214.73	8,127.40	87.33	94.061		
9,700.00	7,236.72	7,553.75	7,397.61	72.88	39.74	92.86	818.47	-9,861.30	8,123.43	8,035.29	88.14	92.163		
9,800.00	7,236.22	7,551.72	7,395.58	75.31	39.73	92.86	818.50	-9,861.33	8,032.34	7,943.32	89.01	90.237		
9,900.00	7,235.72	7,549.69	7,393.55	77.77	39.72	92.86	818.53	-9,861.36	7,941.46	7,851.56	89.91	88.331		
10,000.00	7,235.22	7,547.66	7,391.52	80.26	39.71	92.86	818.56	-9,861.39	7,850.81	7,759.97	90.84	86.422		
10,100.00	7,234.72	7,545.63	7,389.49	82.77	39.70	92.86	818.59	-9,861.42	7,760.38	7,668.56	91.83	84.512		
10,200.00	7,234.22	7,543.60	7,387.46	85.31	39.69	92.86	818.62	-9,861.45	7,670.20	7,577.34	92.86	82.603		
10,300.00	7,233.72	7,541.57	7,385.43	87.86	39.68	92.86	818.65	-9,861.48	7,580.25	7,486.32	93.93	80.698		
10,400.00	7,233.22	7,539.54	7,383.40	90.44	39.67	92.86	818.68	-9,861.51	7,490.57	7,395.51	95.06	78.799		
10,500.00	7,232.72	7,537.51	7,381.37	93.03	39.66	92.86	818.71	-9,861.54	7,401.14	7,304.91	96.24	76.907		
10,600.00	7,232.22	7,535.48	7,379.34	95.64	39.65	92.86	818.74	-9,861.57	7,311.99	7,214.53	97.46	75.024		
10,700.00	7,231.72	7,533.45	7,377.31	98.26	39.64	92.86	818.77	-9,861.60	7,223.12	7,124.38	98.74	73.152		
10,800.00	7,231.21	7,531.42	7,375.28	100.89	39.63	92.86	818.80	-9,861.63	7,134.55	7,034.47	100.07	71.294		
10,900.00	7,230.71	7,529.39	7,373.25	103.54	39.62	92.86	818.83	-9,861.66	7,046.28	6,944.82	101.46	69.450		
11,000.00	7,230.21	7,527.36	7,371.22	106.20	39.61	92.86	818.86	-9,861.69	6,958.33	6,855.43	102.90	67.623		
11,100.00	7,229.71	7,525.33	7,369.19	108.87	39.60	92.86	818.89	-9,861.72	6,870.70	6,766.31	104.40	65.813		
11,200.00	7,229.21	7,523.30	7,367.16	111.54	39.59	92.86	818.92	-9,861.75	6,783.42	6,677.47	105.95	64.023		
11,300.00	7,228.71	7,521.27	7,365.13	114.23	39.58	92.86	818.95	-9,861.78	6,696.49	6,588.93	107.57	62.254		
11,400.00	7,228.21	7,519.24	7,363.10	116.92	39.57	92.86	818.98	-9,861.81	6,609.94	6,500.70	109.24	60.508		
11,500.00	7,227.71	7,517.21	7,361.07	119.63	39.56	92.86	819.01	-9,861.84	6,523.76	6,412.79	110.98	58.785		
11,600.00	7,227.21	7,515.18	7,359.04	122.34	39.55	92.86	819.04	-9,861.87	6,437.99	6,325.21	112.78	57.086		
11,700.00	7,226.71	7,513.15	7,357.01	125.05	39.54	92.86	819.07	-9,861.90	6,352.63	6,237.99	114.64	55.414		
11,800.00	7,226.21	7,511.12	7,354.98	127.78	39.53	92.86	819.10	-9,861.93	6,267.70	6,151.13	116.57	53.768		
11,900.00	7,225.71	7,509.09	7,352.95	130.51	39.52	92.86	819.13	-9,861.96	6,183.22	6,064.66	118.57	52.150		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I17-17D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-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		
12,000.00	7,225.21	7,502.58	7,346.44	133.24	39.58	92.53	819.20	-9,862.07	6,099.21	5,978.58	120.63	50.560		
12,100.00	7,224.71	7,500.34	7,344.21	135.98	39.57	92.49	819.24	-9,862.10	6,015.69	5,892.93	122.77	49.000		
12,200.00	7,224.21	7,498.13	7,341.99	138.72	39.57	92.45	819.27	-9,862.13	5,932.68	5,807.71	124.98	47.470		
12,300.00	7,223.70	7,495.93	7,339.80	141.47	39.56	92.41	819.30	-9,862.16	5,850.20	5,722.95	127.26	45.971		
12,400.00	7,223.20	7,493.76	7,337.62	144.23	39.55	92.37	819.33	-9,862.19	5,768.28	5,638.66	129.61	44.503		
12,500.00	7,222.70	7,491.60	7,335.47	146.98	39.54	92.34	819.36	-9,862.22	5,686.93	5,554.88	132.05	43.067		
12,600.00	7,222.20	7,489.46	7,333.33	149.74	39.54	92.30	819.40	-9,862.25	5,606.18	5,471.62	134.56	41.663		
12,700.00	7,221.70	7,487.35	7,331.21	152.51	39.53	92.26	819.43	-9,862.28	5,526.06	5,388.91	137.15	40.291		
12,800.00	7,221.20	7,485.25	7,329.11	155.28	39.52	92.23	819.46	-9,862.31	5,446.60	5,306.78	139.83	38.952		
12,900.00	7,220.70	7,483.17	7,327.03	158.05	39.52	92.19	819.49	-9,862.34	5,367.83	5,225.24	142.58	37.647		
13,000.00	7,220.20	7,481.10	7,324.97	160.82	39.51	92.16	819.52	-9,862.36	5,289.77	5,144.34	145.43	36.374		
13,100.00	7,219.70	7,479.06	7,322.92	163.60	39.50	92.12	819.55	-9,862.39	5,212.46	5,064.11	148.36	35.135		
13,200.00	7,219.20	7,477.03	7,320.90	166.38	39.50	92.09	819.58	-9,862.42	5,135.94	4,984.56	151.37	33.929		
13,300.00	7,218.70	7,475.02	7,318.89	169.16	39.49	92.05	819.61	-9,862.44	5,060.23	4,905.75	154.48	32.757		
13,400.00	7,218.20	7,473.02	7,316.89	171.95	39.49	92.02	819.64	-9,862.47	4,985.38	4,827.70	157.67	31.618		
13,500.00	7,217.70	7,471.05	7,314.92	174.74	39.48	91.98	819.67	-9,862.50	4,911.42	4,750.46	160.96	30.513		
13,600.00	7,217.20	7,469.09	7,312.96	177.53	39.47	91.95	819.70	-9,862.52	4,838.40	4,674.05	164.34	29.441		
13,700.00	7,216.70	7,467.14	7,311.01	180.32	39.47	91.92	819.73	-9,862.55	4,766.35	4,598.54	167.82	28.402		
13,800.00	7,216.19	7,465.22	7,309.09	183.11	39.46	91.88	819.76	-9,862.57	4,695.33	4,523.95	171.38	27.396		
13,900.00	7,215.69	7,463.31	7,307.18	185.91	39.46	91.85	819.79	-9,862.60	4,625.38	4,450.34	175.05	26.424		
14,000.00	7,215.19	7,461.41	7,305.28	188.71	39.45	91.82	819.82	-9,862.62	4,556.55	4,377.75	178.80	25.484		
14,100.00	7,214.69	7,459.53	7,303.40	191.51	39.44	91.79	819.85	-9,862.64	4,488.90	4,306.25	182.65	24.576		
14,200.00	7,214.19	7,457.67	7,301.54	194.31	39.44	91.75	819.88	-9,862.67	4,422.47	4,235.87	186.59	23.701		
14,300.00	7,213.69	7,455.82	7,299.69	197.11	39.43	91.72	819.91	-9,862.69	4,357.32	4,166.69	190.63	22.858		
14,400.00	7,213.19	7,453.99	7,297.86	199.92	39.43	91.69	819.93	-9,862.71	4,293.51	4,098.76	194.75	22.046		
14,500.00	7,212.69	7,452.17	7,296.04	202.72	39.42	91.66	819.96	-9,862.73	4,231.10	4,032.14	198.96	21.266		
14,600.00	7,212.19	7,450.36	7,294.24	205.53	39.41	91.63	819.99	-9,862.76	4,170.15	3,966.90	203.25	20.517		
14,700.00	7,211.69	7,448.57	7,292.45	208.34	39.41	91.60	820.02	-9,862.78	4,110.74	3,903.11	207.63	19.799		
14,800.00	7,211.19	7,446.80	7,290.67	211.15	39.40	91.57	820.04	-9,862.80	4,052.91	3,840.84	212.08	19.111		
14,900.00	7,210.69	7,445.04	7,288.91	213.96	39.40	91.54	820.07	-9,862.82	3,996.76	3,780.16	216.60	18.453		
15,000.00	7,210.19	7,443.29	7,287.17	216.78	39.39	91.51	820.10	-9,862.84	3,942.34	3,721.16	221.18	17.824		
15,100.00	7,209.69	7,441.56	7,285.44	219.59	39.39	91.48	820.13	-9,862.86	3,889.73	3,663.91	225.82	17.225		
15,200.00	7,209.18	7,439.84	7,283.72	222.41	39.38	91.45	820.15	-9,862.88	3,839.00	3,608.49	230.51	16.654		
15,300.00	7,208.68	7,438.14	7,282.01	225.22	39.38	91.42	820.18	-9,862.90	3,790.23	3,554.99	235.24	16.112		
15,400.00	7,208.18	7,436.44	7,280.32	228.04	39.37	91.39	820.21	-9,862.92	3,743.50	3,503.50	240.00	15.598		
15,437.48	7,208.00	7,435.81	7,279.69	229.10	39.37	91.38	820.22	-9,862.93	3,726.53	3,484.74	241.79	15.412 CC, ES, SF		

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to KB @ 4819.00ft

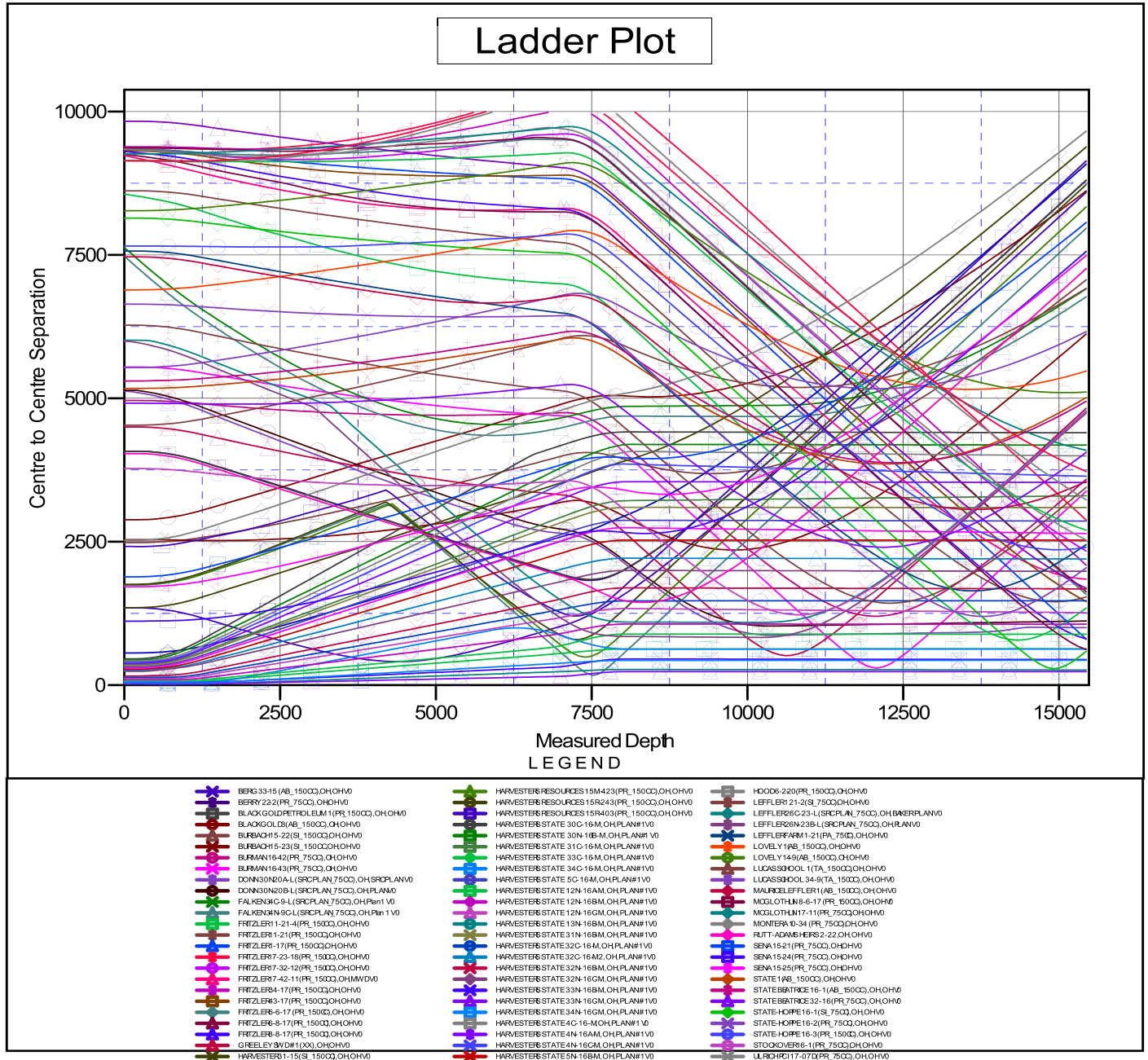
Offset Depths are relative to Offset Datum

Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 13C-16-M

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.48°



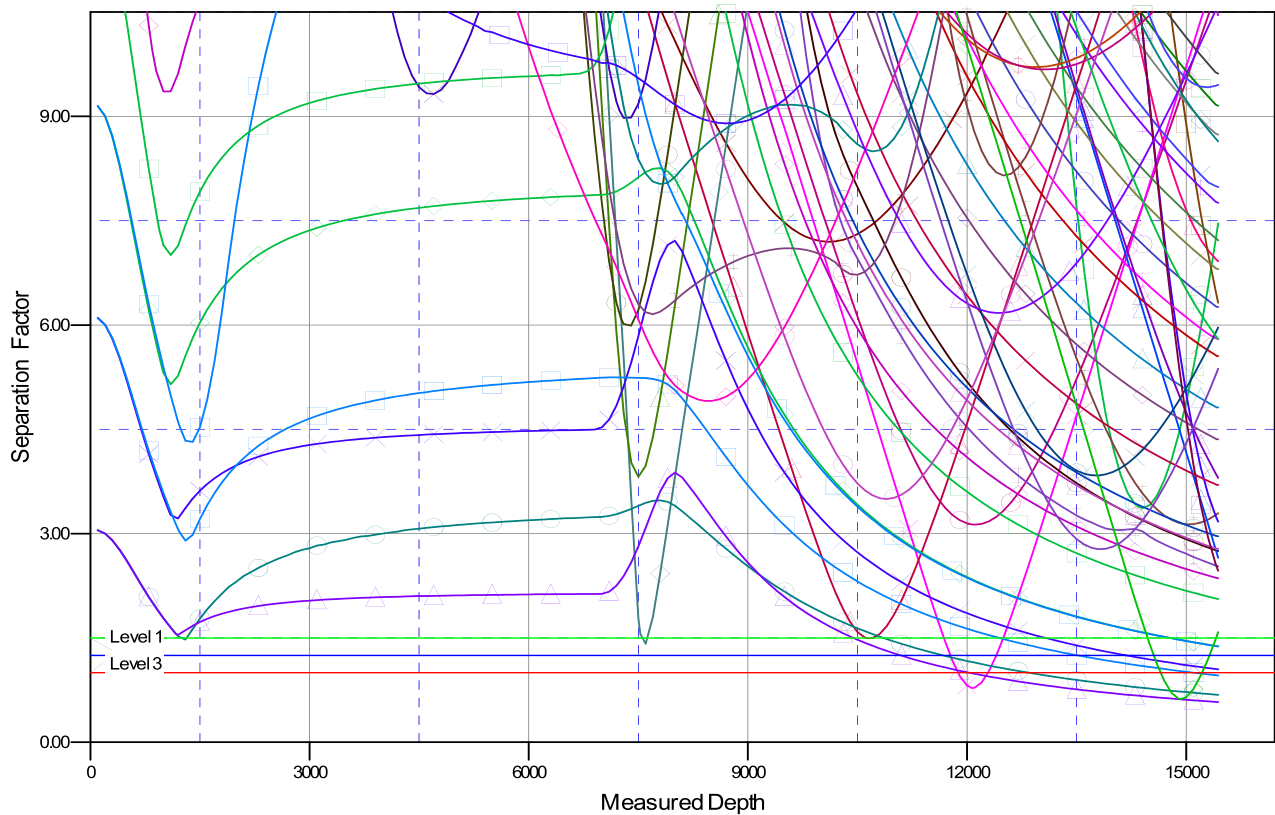
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13C-16-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13C-16-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to KB @ 4819.00ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 13C-16-M
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.48°

Separation Factor Plot



LEGEND

BERG 33-45 (AB, 1500Q, OH, OHV0)	HARVESTERS RESOURCES 15M423 (PR, 1500Q, OH, OHV0)	HOD06-220 (PR, 1500Q, OH, OHV0)
BERR 22-21 (PR, 750Q, OH, OHV0)	HARVESTERS RESOURCES 15N43 (PR, 1500Q, OH, OHV0)	LEFFLER 21-21 (SL, 750Q, OH, OHV0)
BLACK GOLD PETROLEUM 1 (PR, 1500Q, OH, OHV0)	HARVESTERS RESOURCES 15R403 (PR, 1500Q, OH, OHV0)	LEFFLER 22-23 (SL, 750Q, OH, OHV0)
BLACK GOLD (AB, 1500Q, OH, OHV0)	HARVESTERS STATE 30C-16M, OH, PLAN#1 V0	LEFFLER 22-23 (SL, 750Q, OH, OHV0)
BURBACH 15-22 (SL, 1500Q, OH, OHV0)	HARVESTERS STATE 30N-16M, OH, PLAN#1 V0	LOVELY 149 (AB, 1500Q, OH, OHV0)
BURBACH 15-23 (SL, 1500Q, OH, OHV0)	HARVESTERS STATE 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	LUCAS SCHOOL 1 (TA, 1500Q, OH, OHV0)
BURMAN 16-43 (PR, 750Q, OH, OHV0)	HARVESTERS STATE 34C-16M, OH, PLAN#1 V0	LUCAS SCHOOL 34-9 (TA, 1500Q, OH, OHV0)
DOHN 01020-4 (SRCP, PLAN, 750Q, OH, PLAN#1 V0)	HARVESTERS STATE 12N-16AM, OH, PLAN#1 V0	MAURICE LEFFLER 1 (AB, 1500Q, OH, OHV0)
DOHN 01020-4 (SRCP, PLAN, 750Q, OH, PLAN#1 V0)	HARVESTERS STATE 12N-16BM, OH, PLAN#1 V0	MOGLOTHUN 6-17 (PR, 1500Q, OH, OHV0)
FALKEN 31G-9 (L, SRCP, PLAN, 750Q, OH, PLAN#1 V0)	HARVESTERS STATE 12N-16GM, OH, PLAN#1 V0	MOGLOTHUN 17-11 (PR, 750Q, OH, OHV0)
FALKEN 31N-9C (L, SRCP, PLAN, 750Q, OH, PLAN#1 V0)	HARVESTERS STATE 13N-16BM, OH, PLAN#1 V0	MONTEIRA 10-34 (PR, 750Q, OH, OHV0)
FITZLER 11-21 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 31N-16BM, OH, PLAN#1 V0	RUTT-ADAMS HERS 2-22 (OH, OHV0)
FITZLER 11-21 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 32C-16M, OH, PLAN#1 V0	SENA 15-21 (PR, 750Q, OH, OHV0)
FITZLER 16-17 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 32C-16M, OH, PLAN#1 V0	SENA 15-24 (PR, 750Q, OH, OHV0)
FITZLER 17-32 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 32N-16BM, OH, PLAN#1 V0	SENA 15-25 (PR, 750Q, OH, OHV0)
FITZLER 17-42 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 32N-16GM, OH, PLAN#1 V0	STATE 1 (AB, 1500Q, OH, OHV0)
FITZLER 17-42 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 33N-16BM, OH, PLAN#1 V0	STATEBATRICE 16-11 (AB, 1500Q, OH, OHV0)
FITZLER 17-42 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 33N-16GM, OH, PLAN#1 V0	STATEBATRICE 32-16 (PR, 750Q, OH, OHV0)
FITZLER 17-42 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 34N-16GM, OH, PLAN#1 V0	STATE HOPE 16-11 (SL, 750Q, OH, OHV0)
FITZLER 17-42 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 42-16M, OH, PLAN#1 V0	STATE HOPE 16-12 (PR, 750Q, OH, OHV0)
FITZLER 17-42 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 44N-16AM, OH, PLAN#1 V0	STATE HOPE 16-13 (PR, 1500Q, OH, OHV0)
FITZLER 17-42 (PR, 1500Q, OH, OHV0)	HARVESTERS STATE 44N-16GM, OH, PLAN#1 V0	STOCKOVER 6-11 (PR, 750Q, OH, OHV0)
FITZLER 17-42 (PR, 1500Q, OH, OHV0)		ULRICH 17-07 (PR, 750Q, OH, OHV0)