



Project: SECTION 15, T6N, R66W
Site: HARVESTERS STATE 7-15 PAD
Well: HARVESTERS STATE 33N-16C-M
Wellbore: OH
Design: PLAN #1
Lat: 40.4900229
Long: -104.7625190

T

M

Azimuths to True North

Magnetic North: 8.19°

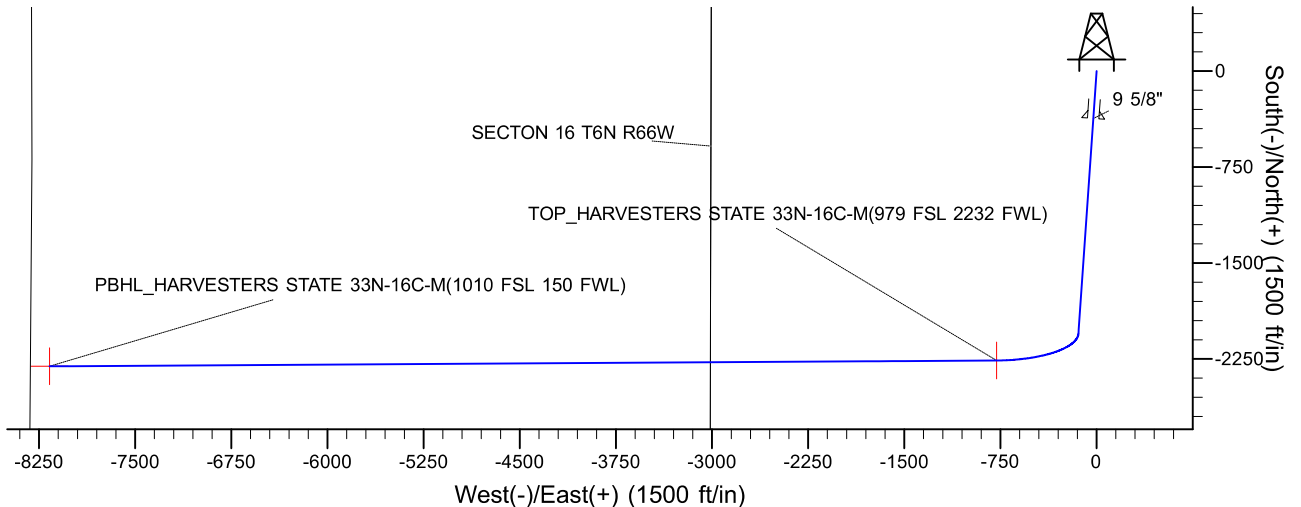
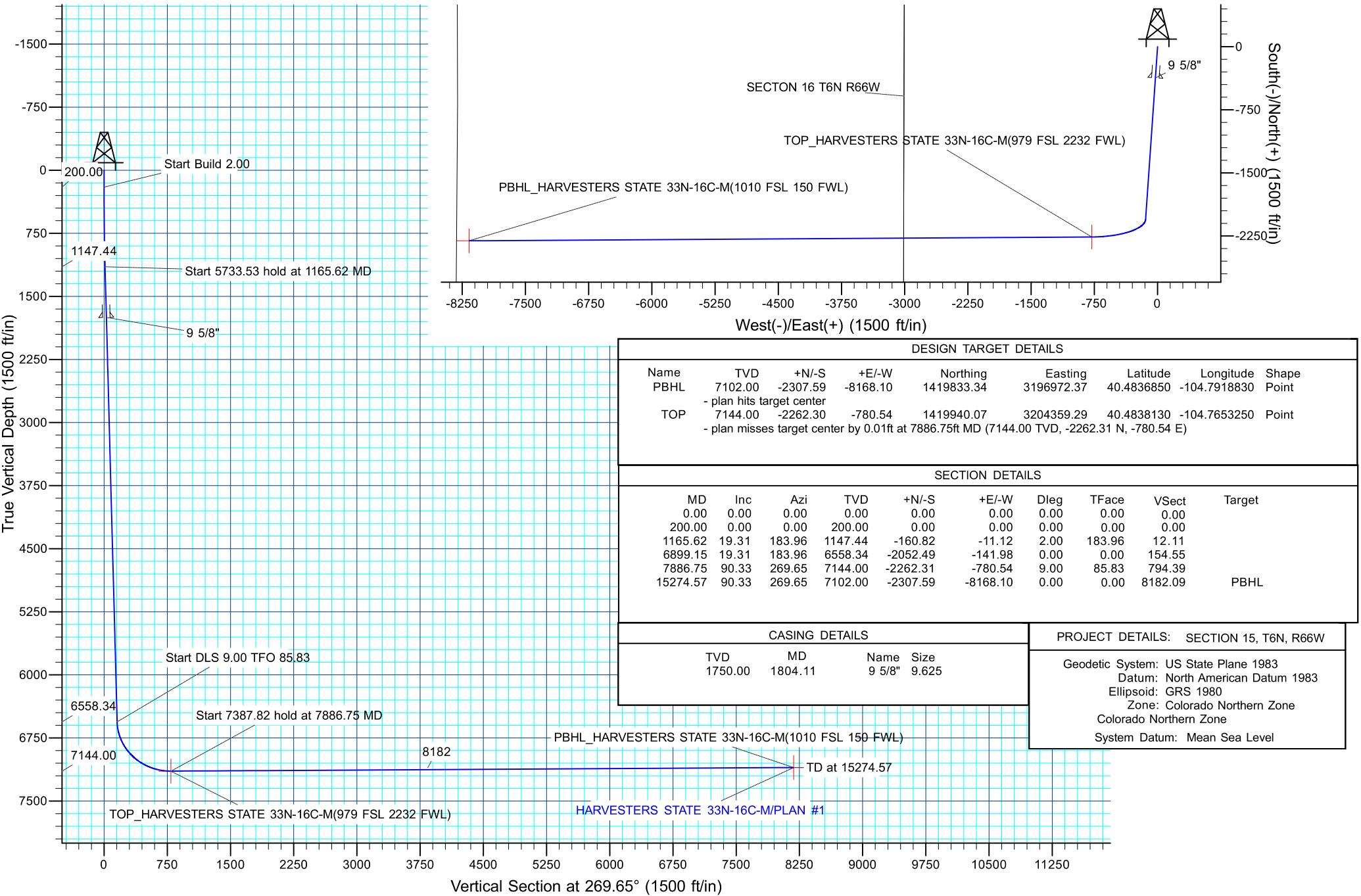
Magnetic Field

Strength: 52405.9snT

Dip Angle: 66.92°

Date: 10/2/2017

Model: IGRF2015



DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7102.00	-2307.59	-8168.10	1419833.34	3196972.37	40.4836850	-104.7918830	Point
- plan hits target center								
TOP	7144.00	-2262.30	-780.54	1419940.07	3204359.29	40.4838130	-104.7653250	Point
- plan misses target center by 0.01ft at 7886.75ft MD (7144.00 TVD, -2262.31 N, -780.54 E)								

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
1165.62	19.31	183.96	1147.44	-160.82	-11.12	2.00	183.96	12.11	
6899.15	19.31	183.96	6558.34	-2052.49	-141.98	0.00	0.00	154.55	
7886.75	90.33	269.65	7144.00	-2262.31	-780.54	9.00	85.83	794.39	
15274.57	90.33	269.65	7102.00	-2307.59	-8168.10	0.00	0.00	8182.09	PBHL

CASING DETAILS					PROJECT DETAILS: SECTION 15, T6N, R66W	
TVD	MD	Name	Size		Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: Colorado Northern Zone Colorado Northern Zone System Datum: Mean Sea Level	
1750.00	1804.11	9 5/8"	9.625			



SRC ENERGY

**SECTION 15, T6N, R66W
HARVESTERS STATE 7-15 PAD
HARVESTER STATE 33N-16C-M**

OH

Plan: PLAN #1

Standard Planning Report

02 October, 2017





Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well HARVESTER STATE 33N-16C-M
Company:	SRC ENERGY	TVD Reference:	KB @ 4819.00ft
Project:	SECTION 15, T6N, R66W	MD Reference:	KB @ 4819.00ft
Site:	HARVESTERS STATE 7-15 PAD	North Reference:	True
Well:	HARVESTER STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Project	SECTION 15, T6N, R66W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	HARVESTERS STATE 7-15 PAD			
Site Position:		Northing:	1,422,648.53 usft	Latitude: 40.4912300
From:	Lat/Long	Easting:	3,205,120.94 usft	Longitude: -104.7625060
Position Uncertainty:	3.28 ft	Slot Radius:	13.200 in	Grid Convergence: 0.48 °

Well	HARVESTER STATE 33N-16C-M, 2033' FNL & 2337' FEL			
Well Position	+N/-S	-439.73 ft	Northing:	1,422,208.78 usft
	+E/-W	-3.62 ft	Easting:	3,205,120.98 usft
Position Uncertainty		3.28 ft	Wellhead Elevation:	Latitude: 40.4900230
				Longitude: -104.7625190
				Ground Level: 4,799.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/2/2017	8.19	66.92	52,406

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	269.65

Plan Survey Tool Program	Date	10/2/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,274.50	PLAN #1 (OH)	MWD+IFR1
				OWSG MWD + IFR1

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,165.63	19.31	183.96	1,147.44	-160.82	-11.12	2.00	2.00	0.00	183.96	
6,899.15	19.31	183.96	6,558.34	-2,052.49	-141.98	0.00	0.00	0.00	0.00	
7,886.75	90.33	269.65	7,144.00	-2,262.31	-780.54	9.00	7.19	8.68	85.83	
15,274.57	90.33	269.65	7,102.00	-2,307.60	-8,168.10	0.00	0.00	0.00	0.00	PBHL_HARVESTER

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Company:	SRC ENERGY	TVD Reference:	KB @ 4819.00ft
Project:	SECTION 15, T6N, R66W	MD Reference:	KB @ 4819.00ft
Site:	HARVESTERS STATE 7-15 PAD	North Reference:	True
Well:	HARVESTER STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
300.00	2.00	183.96	299.98	-1.74	-0.12	0.13	2.00	2.00	0.00
400.00	4.00	183.96	399.84	-6.96	-0.48	0.52	2.00	2.00	0.00
500.00	6.00	183.96	499.45	-15.66	-1.08	1.18	2.00	2.00	0.00
600.00	8.00	183.96	598.70	-27.81	-1.92	2.09	2.00	2.00	0.00
700.00	10.00	183.96	697.47	-43.42	-3.00	3.27	2.00	2.00	0.00
800.00	12.00	183.96	795.62	-62.45	-4.32	4.70	2.00	2.00	0.00
900.00	14.00	183.96	893.06	-84.89	-5.87	6.39	2.00	2.00	0.00
1,000.00	16.00	183.96	989.64	-110.71	-7.66	8.34	2.00	2.00	0.00
1,100.00	18.00	183.96	1,085.27	-139.88	-9.68	10.53	2.00	2.00	0.00
1,165.63	19.31	183.96	1,147.44	-160.82	-11.12	12.11	2.00	2.00	0.00
Start 5733.53 hold at 1165.62 MD									
1,200.00	19.31	183.96	1,179.88	-172.16	-11.91	12.96	0.00	0.00	0.00
1,300.00	19.31	183.96	1,274.26	-205.16	-14.19	15.45	0.00	0.00	0.00
1,400.00	19.31	183.96	1,368.63	-238.15	-16.47	17.93	0.00	0.00	0.00
1,500.00	19.31	183.96	1,463.00	-271.14	-18.76	20.42	0.00	0.00	0.00
1,600.00	19.31	183.96	1,557.38	-304.13	-21.04	22.90	0.00	0.00	0.00
1,700.00	19.31	183.96	1,651.75	-337.13	-23.32	25.39	0.00	0.00	0.00
1,800.00	19.31	183.96	1,746.12	-370.12	-25.60	27.87	0.00	0.00	0.00
1,804.11	19.31	183.96	1,750.00	-371.48	-25.70	27.97	0.00	0.00	0.00
9 5/8"									
1,900.00	19.31	183.96	1,840.49	-403.11	-27.88	30.35	0.00	0.00	0.00
2,000.00	19.31	183.96	1,934.87	-436.11	-30.17	32.84	0.00	0.00	0.00
2,100.00	19.31	183.96	2,029.24	-469.10	-32.45	35.32	0.00	0.00	0.00
2,200.00	19.31	183.96	2,123.61	-502.09	-34.73	37.81	0.00	0.00	0.00
2,300.00	19.31	183.96	2,217.99	-535.09	-37.01	40.29	0.00	0.00	0.00
2,400.00	19.31	183.96	2,312.36	-568.08	-39.30	42.78	0.00	0.00	0.00
2,500.00	19.31	183.96	2,406.73	-601.07	-41.58	45.26	0.00	0.00	0.00
2,600.00	19.31	183.96	2,501.10	-634.07	-43.86	47.75	0.00	0.00	0.00
2,700.00	19.31	183.96	2,595.48	-667.06	-46.14	50.23	0.00	0.00	0.00
2,800.00	19.31	183.96	2,689.85	-700.05	-48.42	52.71	0.00	0.00	0.00
2,900.00	19.31	183.96	2,784.22	-733.05	-50.71	55.20	0.00	0.00	0.00
3,000.00	19.31	183.96	2,878.60	-766.04	-52.99	57.68	0.00	0.00	0.00
3,100.00	19.31	183.96	2,972.97	-799.03	-55.27	60.17	0.00	0.00	0.00
3,200.00	19.31	183.96	3,067.34	-832.03	-57.55	62.65	0.00	0.00	0.00
3,300.00	19.31	183.96	3,161.72	-865.02	-59.84	65.14	0.00	0.00	0.00
3,400.00	19.31	183.96	3,256.09	-898.01	-62.12	67.62	0.00	0.00	0.00
3,500.00	19.31	183.96	3,350.46	-931.01	-64.40	70.11	0.00	0.00	0.00
3,600.00	19.31	183.96	3,444.83	-964.00	-66.68	72.59	0.00	0.00	0.00
3,700.00	19.31	183.96	3,539.21	-996.99	-68.96	75.07	0.00	0.00	0.00
3,800.00	19.31	183.96	3,633.58	-1,029.99	-71.25	77.56	0.00	0.00	0.00
3,900.00	19.31	183.96	3,727.95	-1,062.98	-73.53	80.04	0.00	0.00	0.00
4,000.00	19.31	183.96	3,822.33	-1,095.97	-75.81	82.53	0.00	0.00	0.00
4,100.00	19.31	183.96	3,916.70	-1,128.96	-78.09	85.01	0.00	0.00	0.00
4,200.00	19.31	183.96	4,011.07	-1,161.96	-80.38	87.50	0.00	0.00	0.00
4,300.00	19.31	183.96	4,105.44	-1,194.95	-82.66	89.98	0.00	0.00	0.00
4,400.00	19.31	183.96	4,199.82	-1,227.94	-84.94	92.47	0.00	0.00	0.00
4,500.00	19.31	183.96	4,294.19	-1,260.94	-87.22	94.95	0.00	0.00	0.00
4,600.00	19.31	183.96	4,388.56	-1,293.93	-89.50	97.43	0.00	0.00	0.00
4,700.00	19.31	183.96	4,482.94	-1,326.92	-91.79	99.92	0.00	0.00	0.00

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Company:	SRC ENERGY	TVD Reference:	KB @ 4819.00ft
Project:	SECTION 15, T6N, R66W	MD Reference:	KB @ 4819.00ft
Site:	HARVESTERS STATE 7-15 PAD	North Reference:	True
Well:	HARVESTER STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,800.00	19.31	183.96	4,577.31	-1,359.92	-94.07	102.40	0.00	0.00	0.00
4,900.00	19.31	183.96	4,671.68	-1,392.91	-96.35	104.89	0.00	0.00	0.00
5,000.00	19.31	183.96	4,766.05	-1,425.90	-98.63	107.37	0.00	0.00	0.00
5,100.00	19.31	183.96	4,860.43	-1,458.90	-100.92	109.86	0.00	0.00	0.00
5,200.00	19.31	183.96	4,954.80	-1,491.89	-103.20	112.34	0.00	0.00	0.00
5,300.00	19.31	183.96	5,049.17	-1,524.88	-105.48	114.83	0.00	0.00	0.00
5,400.00	19.31	183.96	5,143.55	-1,557.88	-107.76	117.31	0.00	0.00	0.00
5,500.00	19.31	183.96	5,237.92	-1,590.87	-110.04	119.79	0.00	0.00	0.00
5,600.00	19.31	183.96	5,332.29	-1,623.86	-112.33	122.28	0.00	0.00	0.00
5,700.00	19.31	183.96	5,426.66	-1,656.86	-114.61	124.76	0.00	0.00	0.00
5,800.00	19.31	183.96	5,521.04	-1,689.85	-116.89	127.25	0.00	0.00	0.00
5,900.00	19.31	183.96	5,615.41	-1,722.84	-119.17	129.73	0.00	0.00	0.00
6,000.00	19.31	183.96	5,709.78	-1,755.84	-121.46	132.22	0.00	0.00	0.00
6,100.00	19.31	183.96	5,804.16	-1,788.83	-123.74	134.70	0.00	0.00	0.00
6,200.00	19.31	183.96	5,898.53	-1,821.82	-126.02	137.18	0.00	0.00	0.00
6,300.00	19.31	183.96	5,992.90	-1,854.81	-128.30	139.67	0.00	0.00	0.00
6,400.00	19.31	183.96	6,087.27	-1,887.81	-130.58	142.15	0.00	0.00	0.00
6,500.00	19.31	183.96	6,181.65	-1,920.80	-132.87	144.64	0.00	0.00	0.00
6,600.00	19.31	183.96	6,276.02	-1,953.79	-135.15	147.12	0.00	0.00	0.00
6,700.00	19.31	183.96	6,370.39	-1,986.79	-137.43	149.61	0.00	0.00	0.00
6,800.00	19.31	183.96	6,464.77	-2,019.78	-139.71	152.09	0.00	0.00	0.00
6,899.15	19.31	183.96	6,558.34	-2,052.49	-141.98	154.55	0.00	0.00	0.00
Start DLS 9.00 TFO 85.83									
6,900.00	19.32	184.19	6,559.14	-2,052.77	-142.00	154.58	9.00	0.67	27.13
7,000.00	21.86	208.96	6,652.92	-2,085.63	-152.24	165.02	9.00	2.54	24.77
7,100.00	27.17	226.63	6,744.00	-2,117.66	-177.90	190.87	9.00	5.31	17.67
7,200.00	33.97	238.30	6,830.13	-2,148.08	-218.34	231.50	9.00	6.80	11.67
7,300.00	41.53	246.30	6,909.19	-2,176.14	-272.58	285.91	9.00	7.56	8.01
7,400.00	49.50	252.18	6,979.23	-2,201.16	-339.27	352.76	9.00	7.97	5.87
7,500.00	57.71	256.78	7,038.53	-2,222.51	-416.78	430.39	9.00	8.21	4.60
7,600.00	66.05	260.61	7,085.63	-2,239.67	-503.18	516.90	9.00	8.34	3.83
7,700.00	74.48	263.97	7,119.37	-2,252.21	-596.37	610.17	9.00	8.43	3.36
7,800.00	82.96	267.06	7,138.92	-2,259.83	-694.04	707.88	9.00	8.47	3.09
7,886.75	90.33	269.65	7,144.00	-2,262.31	-780.54	794.39	9.00	8.49	2.98
TOP HARVESTERS STATE 33N-16C-M(979 FSL 2232 FWL)									
7,886.75	90.33	269.65	7,144.00	-2,262.31	-780.54	794.39	9.00	8.50	2.97
Start 7387.82 hold at 7886.75 MD									
7,900.00	90.33	269.65	7,143.92	-2,262.39	-793.79	807.64	0.00	0.00	0.00
8,000.00	90.33	269.65	7,143.35	-2,263.00	-893.79	907.64	0.00	0.00	0.00
8,100.00	90.33	269.65	7,142.78	-2,263.62	-993.78	1,007.64	0.00	0.00	0.00
8,200.00	90.33	269.65	7,142.22	-2,264.23	-1,093.78	1,107.64	0.00	0.00	0.00
8,300.00	90.33	269.65	7,141.65	-2,264.84	-1,193.77	1,207.63	0.00	0.00	0.00
8,400.00	90.33	269.65	7,141.08	-2,265.46	-1,293.77	1,307.63	0.00	0.00	0.00
8,500.00	90.33	269.65	7,140.51	-2,266.07	-1,393.77	1,407.63	0.00	0.00	0.00
8,600.00	90.33	269.65	7,139.94	-2,266.68	-1,493.76	1,507.63	0.00	0.00	0.00
8,700.00	90.33	269.65	7,139.37	-2,267.30	-1,593.76	1,607.63	0.00	0.00	0.00
8,800.00	90.33	269.65	7,138.80	-2,267.91	-1,693.76	1,707.63	0.00	0.00	0.00
8,900.00	90.33	269.65	7,138.24	-2,268.52	-1,793.75	1,807.62	0.00	0.00	0.00
9,000.00	90.33	269.65	7,137.67	-2,269.13	-1,893.75	1,907.62	0.00	0.00	0.00
9,100.00	90.33	269.65	7,137.10	-2,269.75	-1,993.75	2,007.62	0.00	0.00	0.00
9,200.00	90.33	269.65	7,136.53	-2,270.36	-2,093.74	2,107.62	0.00	0.00	0.00
9,300.00	90.33	269.65	7,135.96	-2,270.97	-2,193.74	2,207.62	0.00	0.00	0.00
9,400.00	90.33	269.65	7,135.39	-2,271.59	-2,293.74	2,307.62	0.00	0.00	0.00

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Site:	HARVESTERS STATE 7-15 PAD	North Reference:	True
Well:	HARVESTER STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,500.00	90.33	269.65	7,134.83	-2,272.20	-2,393.73	2,407.62	0.00	0.00	0.00
9,600.00	90.33	269.65	7,134.26	-2,272.81	-2,493.73	2,507.61	0.00	0.00	0.00
9,700.00	90.33	269.65	7,133.69	-2,273.43	-2,593.73	2,607.61	0.00	0.00	0.00
9,800.00	90.33	269.65	7,133.12	-2,274.04	-2,693.72	2,707.61	0.00	0.00	0.00
9,900.00	90.33	269.65	7,132.55	-2,274.65	-2,793.72	2,807.61	0.00	0.00	0.00
10,000.00	90.33	269.65	7,131.98	-2,275.26	-2,893.72	2,907.61	0.00	0.00	0.00
10,100.00	90.33	269.65	7,131.42	-2,275.88	-2,993.71	3,007.61	0.00	0.00	0.00
10,200.00	90.33	269.65	7,130.85	-2,276.49	-3,093.71	3,107.60	0.00	0.00	0.00
10,300.00	90.33	269.65	7,130.28	-2,277.10	-3,193.70	3,207.60	0.00	0.00	0.00
10,400.00	90.33	269.65	7,129.71	-2,277.72	-3,293.70	3,307.60	0.00	0.00	0.00
10,500.00	90.33	269.65	7,129.14	-2,278.33	-3,393.70	3,407.60	0.00	0.00	0.00
10,600.00	90.33	269.65	7,128.57	-2,278.94	-3,493.69	3,507.60	0.00	0.00	0.00
10,700.00	90.33	269.65	7,128.00	-2,279.56	-3,593.69	3,607.60	0.00	0.00	0.00
10,800.00	90.33	269.65	7,127.44	-2,280.17	-3,693.69	3,707.59	0.00	0.00	0.00
10,900.00	90.33	269.65	7,126.87	-2,280.78	-3,793.68	3,807.59	0.00	0.00	0.00
11,000.00	90.33	269.65	7,126.30	-2,281.39	-3,893.68	3,907.59	0.00	0.00	0.00
11,100.00	90.33	269.65	7,125.73	-2,282.01	-3,993.68	4,007.59	0.00	0.00	0.00
11,200.00	90.33	269.65	7,125.16	-2,282.62	-4,093.67	4,107.59	0.00	0.00	0.00
11,300.00	90.33	269.65	7,124.59	-2,283.23	-4,193.67	4,207.59	0.00	0.00	0.00
11,400.00	90.33	269.65	7,124.03	-2,283.85	-4,293.67	4,307.58	0.00	0.00	0.00
11,500.00	90.33	269.65	7,123.46	-2,284.46	-4,393.66	4,407.58	0.00	0.00	0.00
11,600.00	90.33	269.65	7,122.89	-2,285.07	-4,493.66	4,507.58	0.00	0.00	0.00
11,700.00	90.33	269.65	7,122.32	-2,285.68	-4,593.66	4,607.58	0.00	0.00	0.00
11,800.00	90.33	269.65	7,121.75	-2,286.30	-4,693.65	4,707.58	0.00	0.00	0.00
11,900.00	90.33	269.65	7,121.18	-2,286.91	-4,793.65	4,807.58	0.00	0.00	0.00
12,000.00	90.33	269.65	7,120.61	-2,287.52	-4,893.65	4,907.57	0.00	0.00	0.00
12,100.00	90.33	269.65	7,120.05	-2,288.14	-4,993.64	5,007.57	0.00	0.00	0.00
12,200.00	90.33	269.65	7,119.48	-2,288.75	-5,093.64	5,107.57	0.00	0.00	0.00
12,300.00	90.33	269.65	7,118.91	-2,289.36	-5,193.63	5,207.57	0.00	0.00	0.00
12,400.00	90.33	269.65	7,118.34	-2,289.98	-5,293.63	5,307.57	0.00	0.00	0.00
12,500.00	90.33	269.65	7,117.77	-2,290.59	-5,393.63	5,407.57	0.00	0.00	0.00
12,600.00	90.33	269.65	7,117.20	-2,291.20	-5,493.62	5,507.57	0.00	0.00	0.00
12,700.00	90.33	269.65	7,116.64	-2,291.81	-5,593.62	5,607.56	0.00	0.00	0.00
12,800.00	90.33	269.65	7,116.07	-2,292.43	-5,693.62	5,707.56	0.00	0.00	0.00
12,900.00	90.33	269.65	7,115.50	-2,293.04	-5,793.61	5,807.56	0.00	0.00	0.00
13,000.00	90.33	269.65	7,114.93	-2,293.65	-5,893.61	5,907.56	0.00	0.00	0.00
13,100.00	90.33	269.65	7,114.36	-2,294.27	-5,993.61	6,007.56	0.00	0.00	0.00
13,200.00	90.33	269.65	7,113.79	-2,294.88	-6,093.60	6,107.56	0.00	0.00	0.00
13,300.00	90.33	269.65	7,113.22	-2,295.49	-6,193.60	6,207.55	0.00	0.00	0.00
13,400.00	90.33	269.65	7,112.66	-2,296.11	-6,293.60	6,307.55	0.00	0.00	0.00
13,500.00	90.33	269.65	7,112.09	-2,296.72	-6,393.59	6,407.55	0.00	0.00	0.00
13,600.00	90.33	269.65	7,111.52	-2,297.33	-6,493.59	6,507.55	0.00	0.00	0.00
13,700.00	90.33	269.65	7,110.95	-2,297.94	-6,593.59	6,607.55	0.00	0.00	0.00
13,800.00	90.33	269.65	7,110.38	-2,298.56	-6,693.58	6,707.55	0.00	0.00	0.00
13,900.00	90.33	269.65	7,109.81	-2,299.17	-6,793.58	6,807.54	0.00	0.00	0.00
14,000.00	90.33	269.65	7,109.25	-2,299.78	-6,893.58	6,907.54	0.00	0.00	0.00
14,100.00	90.33	269.65	7,108.68	-2,300.40	-6,993.57	7,007.54	0.00	0.00	0.00
14,200.00	90.33	269.65	7,108.11	-2,301.01	-7,093.57	7,107.54	0.00	0.00	0.00
14,300.00	90.33	269.65	7,107.54	-2,301.62	-7,193.57	7,207.54	0.00	0.00	0.00
14,400.00	90.33	269.65	7,106.97	-2,302.24	-7,293.56	7,307.54	0.00	0.00	0.00
14,500.00	90.33	269.65	7,106.40	-2,302.85	-7,393.56	7,407.53	0.00	0.00	0.00
14,600.00	90.33	269.65	7,105.83	-2,303.46	-7,493.55	7,507.53	0.00	0.00	0.00
14,700.00	90.33	269.65	7,105.27	-2,304.07	-7,593.55	7,607.53	0.00	0.00	0.00
14,800.00	90.33	269.65	7,104.70	-2,304.69	-7,693.55	7,707.53	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well HARVESTER STATE 33N-16C-M
Company:	SRC ENERGY	TVD Reference:	KB @ 4819.00ft
Project:	SECTION 15, T6N, R66W	MD Reference:	KB @ 4819.00ft
Site:	HARVESTERS STATE 7-15 PAD	North Reference:	True
Well:	HARVESTER STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
14,900.00	90.33	269.65	7,104.13	-2,305.30	-7,793.54	7,807.53	0.00	0.00	0.00
15,000.00	90.33	269.65	7,103.56	-2,305.91	-7,893.54	7,907.53	0.00	0.00	0.00
15,100.00	90.33	269.65	7,102.99	-2,306.53	-7,993.54	8,007.52	0.00	0.00	0.00
15,200.00	90.33	269.65	7,102.42	-2,307.14	-8,093.53	8,107.52	0.00	0.00	0.00
15,274.57	90.33	269.65	7,102.00	-2,307.60	-8,168.10	8,182.09	0.00	0.00	0.00
TD at 15274.57 - PBHL_HARVESTERS STATE 33N-16C-M(1010 FSL 150 FWL)									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_HARVESTERS S	0.00	0.00	7,102.00	-2,307.60	-8,168.10	1,419,833.34	3,196,972.38	40.4836850	-104.7918830
- plan hits target center									
- Point									
TOP_HARVESTERS ST	0.00	0.00	7,144.00	-2,262.31	-780.54	1,419,940.07	3,204,359.29	40.4838130	-104.7653250
- plan misses target center by 0.01ft at 7886.75ft MD (7144.00 TVD, -2262.31 N, -780.54 E)									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,804.11	1,750.00	9 5/8"	9.625	13.500	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
200.00	200.00	0.00	0.00	Start Build 2.00
1,165.63	1,147.44	-160.82	-11.12	Start 5733.53 hold at 1165.62 MD
6,899.15	6,558.34	-2,052.49	-141.98	Start DLS 9.00 TFO 85.83
7,886.75	7,144.00	-2,262.31	-780.54	Start 7387.82 hold at 7886.75 MD
15,274.57	7,102.00	-2,307.60	-8,168.10	TD at 15274.57