



Project: SEC 12-13 T6N R66W
Site: Falken 9-11 PAD
Well: Falken 16C-9-L
Wellbore: OH
Design: Plan #1

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1000.00	14.00	125.00	993.06	-48.81	69.71	2.00	125.00	-69.46	
6655.36	14.00	125.00	6480.43	-833.55	1190.43	0.00	0.00	-1186.20	
7780.56	89.88	269.71	7235.00	-945.17	568.25	9.00	143.91	-563.46	
19046.19	89.88	269.71	7259.00	-1002.43	-10697.20	0.00	0.00	10702.14	PBHL_Falken 16C-9-L

PROJECT DETAILS: SEC 12-13 T6N R66W

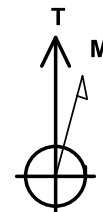
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
Colorado Northern Zone
System Datum: Mean Sea Level

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
TOP_Falken 16C-9-L	7235.00	-1033.89	568.46	1425050.28	3213061.89	40.4976300	-104.7339050	Point
- plan misses target center by 88.72ft at 7780.81ft MD (7235.00 TVD, -945.17 N, 568.01 E)								
PBHL_Falken 16C-9-L	7259.00	-1002.43	-10697.20	1424984.67	3201796.38	40.4977100	-104.7744130	Point
- plan hits target center								

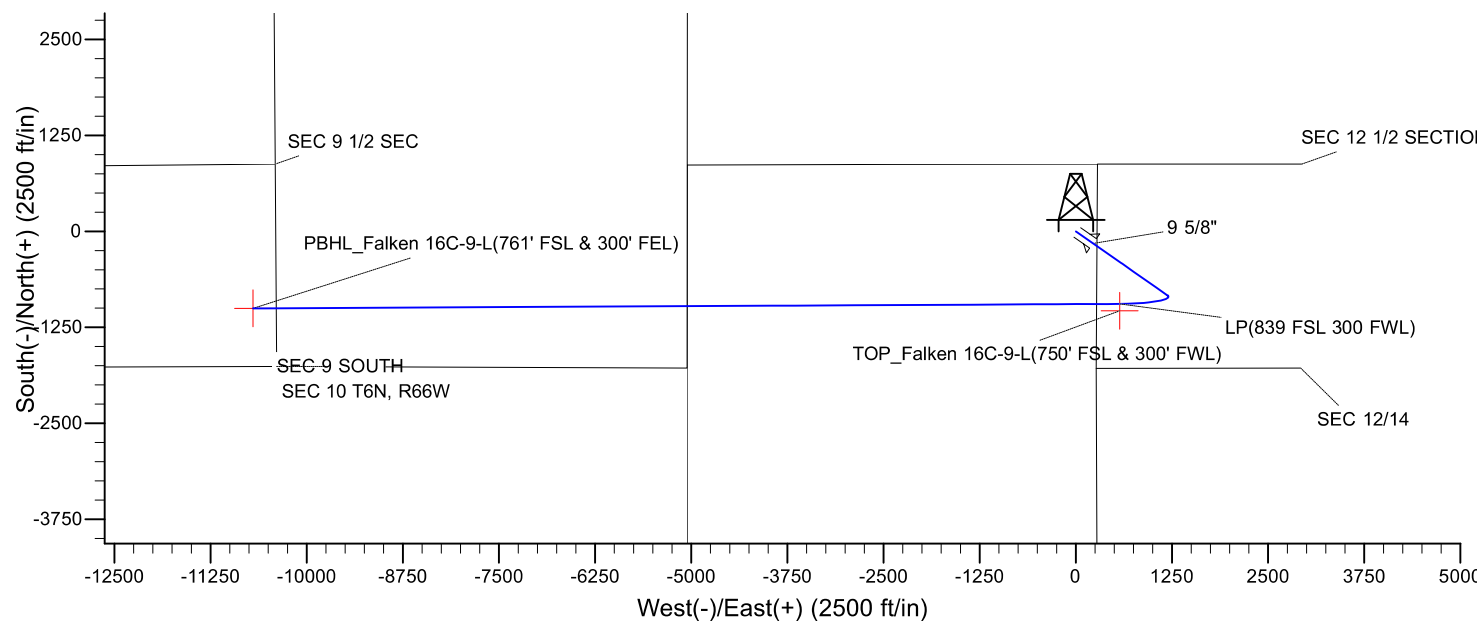
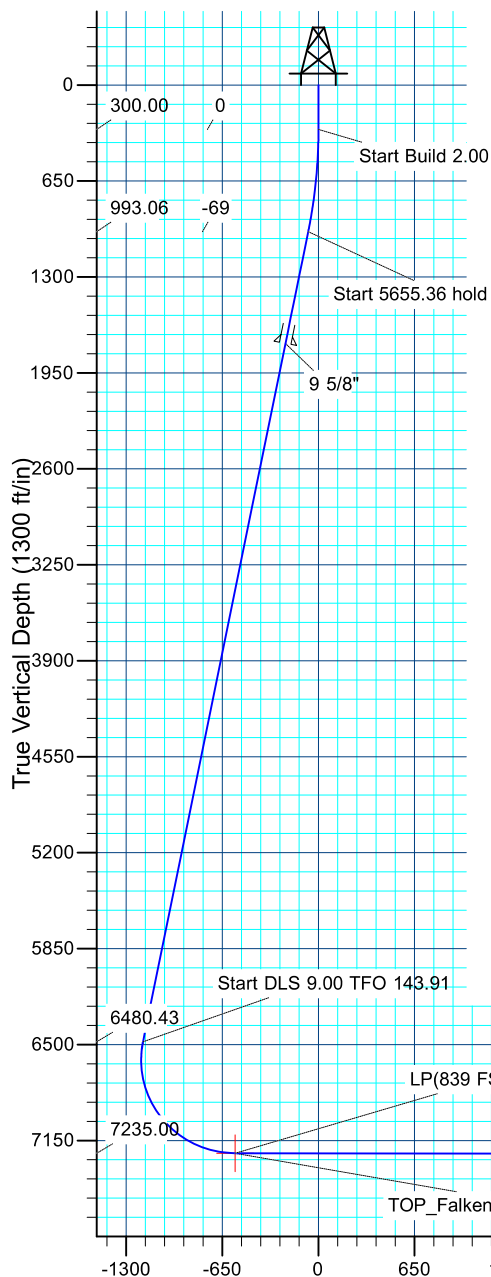
CASING DETAILS

TVD	MD	Name	Size
1750.00	1780.12	9 5/8"	9.625

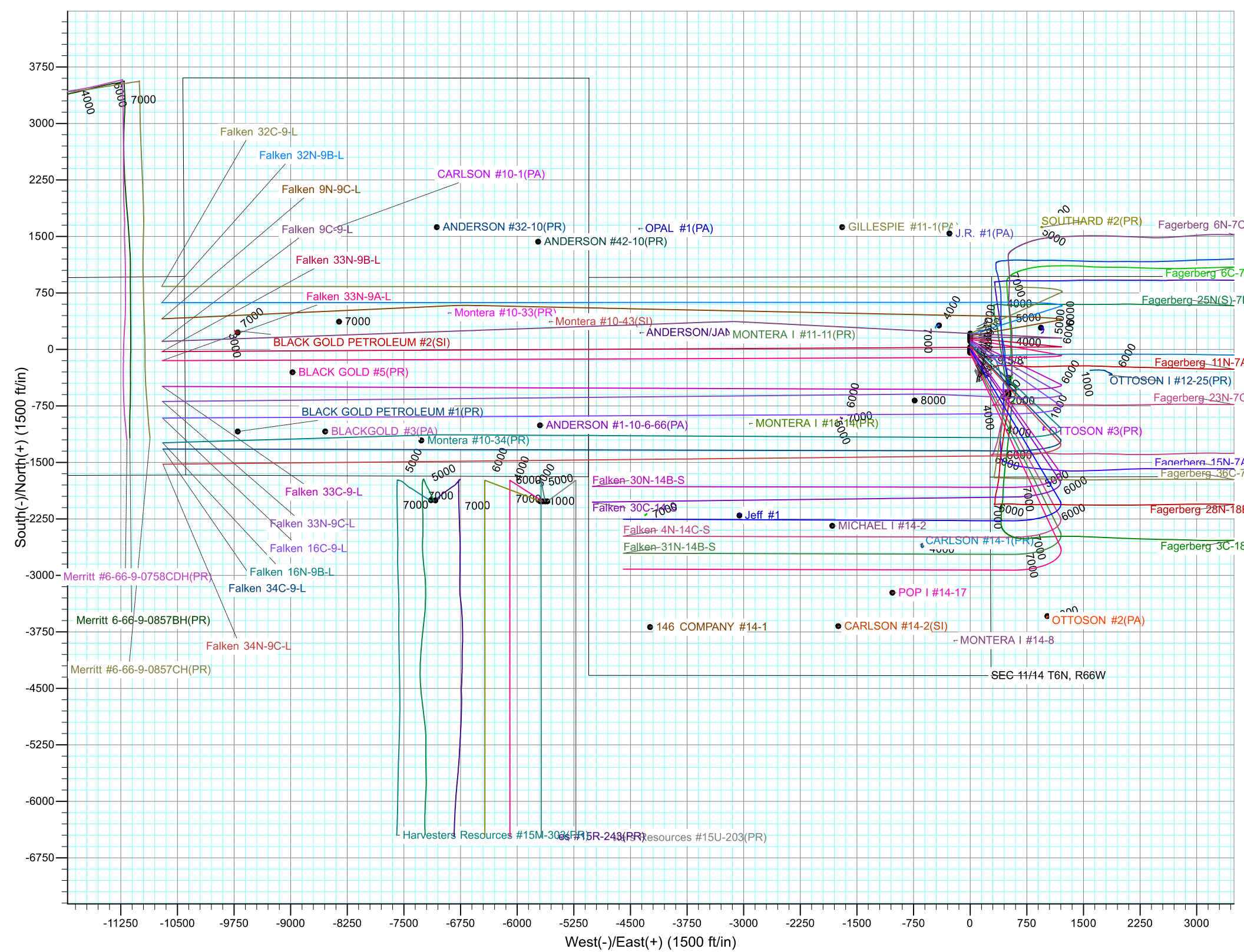


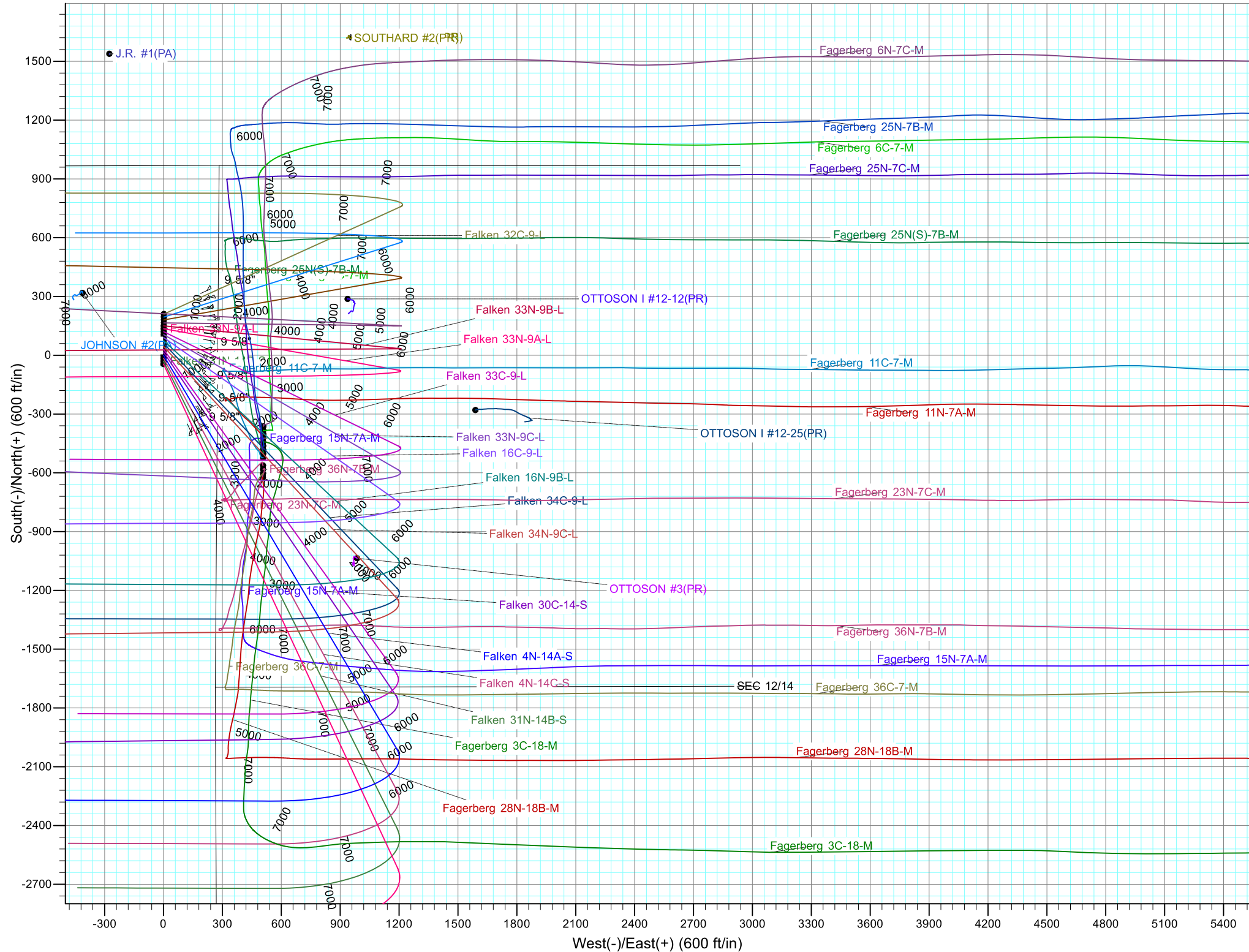
Azimuths to True North
Magnetic North: 8.22°

Magnetic Field
Strength: 52465.3snT
Dip Angle: 66.94°
Date: 4/21/2017
Model: IGRF2015



Vertical Section at 269.71° (1300 ft/in)







Synergy Resources Corporation

SEC 12-13 T6N R66W

Falken 9-11 PAD

Falken 16C-9-L

OH

Plan: Plan #1

Standard Planning Report

25 April, 2017



Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Falken 16C-9-L
Company:	Synergy Resources Corporation	TVD Reference:	GL 4810 & KB 20 @ 4830.00ft (Original Well Elev)
Project:	SEC 12-13 T6N R66W	MD Reference:	GL 4810 & KB 20 @ 4830.00ft (Original Well Elev)
Site:	Falken 9-11 PAD	North Reference:	True
Well:	Falken 16C-9-L	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	SEC 12-13 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		Falken 9-11 PAD			
Site Position:		Northing:	1,426,199.10 ft	Latitude:	40.5007970
From:	Lat/Long	Easting:	3,212,484.63 ft	Longitude:	-104.7359450
Position Uncertainty:	3.28 ft	Slot Radius:	13.200 in	Grid Convergence:	0.49 °

Well	Falken 16C-9-L, 1784' FSL & 276' FEL					
Well Position	+N/-S	-119.86 ft	Northing:	1,426,079.23 ft	Latitude:	40.5004680
	+E/-W	-1.11 ft	Easting:	3,212,484.55 ft	Longitude:	-104.7359490
Position Uncertainty		3.28 ft	Wellhead Elevation:		Ground Level:	4,810.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/21/2017	8.22	66.94	52,465

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	269.71

Plan Survey Tool Program	Date	4/24/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,045.98 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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	14.00	125.00	993.06	-48.81	69.71	2.00	2.00	0.00	125.00	
6,655.36	14.00	125.00	6,480.43	-833.55	1,190.43	0.00	0.00	0.00	0.00	
7,780.56	89.88	269.71	7,235.00	-945.17	568.25	9.00	6.74	12.86	143.91	
19,046.19	89.88	269.71	7,259.00	-1,002.43	-10,697.20	0.00	0.00	0.00	0.00	PBHL_Falken 16C-9-L

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Falken 16C-9-L
Company:	Synergy Resources Corporation	TVD Reference:	GL 4810 & KB 20 @ 4830.00ft (Original Well Elev)
Project:	SEC 12-13 T6N R66W	MD Reference:	GL 4810 & KB 20 @ 4830.00ft (Original Well Elev)
Site:	Falken 9-11 PAD	North Reference:	True
Well:	Falken 16C-9-L	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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
400.00	2.00	125.00	399.98	-1.00	1.43	-1.42	2.00	2.00	0.00
500.00	4.00	125.00	499.84	-4.00	5.72	-5.70	2.00	2.00	0.00
600.00	6.00	125.00	599.45	-9.00	12.86	-12.81	2.00	2.00	0.00
700.00	8.00	125.00	698.70	-15.99	22.84	-22.76	2.00	2.00	0.00
800.00	10.00	125.00	797.47	-24.96	35.65	-35.52	2.00	2.00	0.00
900.00	12.00	125.00	895.62	-35.91	51.28	-51.10	2.00	2.00	0.00
1,000.00	14.00	125.00	993.06	-48.81	69.71	-69.46	2.00	2.00	0.00
Start 5655.36 hold at 1000.00 MD									
1,100.00	14.00	125.00	1,090.08	-62.69	89.52	-89.21	0.00	0.00	0.00
1,200.00	14.00	125.00	1,187.11	-76.56	109.34	-108.95	0.00	0.00	0.00
1,300.00	14.00	125.00	1,284.14	-90.44	129.16	-128.70	0.00	0.00	0.00
1,400.00	14.00	125.00	1,381.17	-104.31	148.98	-148.45	0.00	0.00	0.00
1,500.00	14.00	125.00	1,478.20	-118.19	168.79	-168.19	0.00	0.00	0.00
1,600.00	14.00	125.00	1,575.23	-132.07	188.61	-187.94	0.00	0.00	0.00
1,700.00	14.00	125.00	1,672.26	-145.94	208.43	-207.69	0.00	0.00	0.00
1,780.12	14.00	125.00	1,750.00	-157.06	224.30	-223.51	0.00	0.00	0.00
9 5/8"									
1,800.00	14.00	125.00	1,769.29	-159.82	228.24	-227.43	0.00	0.00	0.00
1,900.00	14.00	125.00	1,866.32	-173.69	248.06	-247.18	0.00	0.00	0.00
2,000.00	14.00	125.00	1,963.35	-187.57	267.88	-266.92	0.00	0.00	0.00
2,100.00	14.00	125.00	2,060.38	-201.45	287.69	-286.67	0.00	0.00	0.00
2,200.00	14.00	125.00	2,157.41	-215.32	307.51	-306.42	0.00	0.00	0.00
2,300.00	14.00	125.00	2,254.44	-229.20	327.33	-326.16	0.00	0.00	0.00
2,400.00	14.00	125.00	2,351.47	-243.07	347.15	-345.91	0.00	0.00	0.00
2,500.00	14.00	125.00	2,448.50	-256.95	366.96	-365.66	0.00	0.00	0.00
2,600.00	14.00	125.00	2,545.53	-270.83	386.78	-385.40	0.00	0.00	0.00
2,700.00	14.00	125.00	2,642.56	-284.70	406.60	-405.15	0.00	0.00	0.00
2,800.00	14.00	125.00	2,739.59	-298.58	426.41	-424.90	0.00	0.00	0.00
2,900.00	14.00	125.00	2,836.62	-312.45	446.23	-444.64	0.00	0.00	0.00
3,000.00	14.00	125.00	2,933.65	-326.33	466.05	-464.39	0.00	0.00	0.00
3,100.00	14.00	125.00	3,030.68	-340.21	485.87	-484.14	0.00	0.00	0.00
3,200.00	14.00	125.00	3,127.71	-354.08	505.68	-503.88	0.00	0.00	0.00
3,300.00	14.00	125.00	3,224.74	-367.96	525.50	-523.63	0.00	0.00	0.00
3,400.00	14.00	125.00	3,321.76	-381.84	545.32	-543.38	0.00	0.00	0.00
3,500.00	14.00	125.00	3,418.79	-395.71	565.13	-563.12	0.00	0.00	0.00
3,600.00	14.00	125.00	3,515.82	-409.59	584.95	-582.87	0.00	0.00	0.00
3,700.00	14.00	125.00	3,612.85	-423.46	604.77	-602.62	0.00	0.00	0.00
3,800.00	14.00	125.00	3,709.88	-437.34	624.59	-622.36	0.00	0.00	0.00
3,900.00	14.00	125.00	3,806.91	-451.22	644.40	-642.11	0.00	0.00	0.00
4,000.00	14.00	125.00	3,903.94	-465.09	664.22	-661.86	0.00	0.00	0.00
4,100.00	14.00	125.00	4,000.97	-478.97	684.04	-681.60	0.00	0.00	0.00
4,200.00	14.00	125.00	4,098.00	-492.84	703.85	-701.35	0.00	0.00	0.00
4,300.00	14.00	125.00	4,195.03	-506.72	723.67	-721.10	0.00	0.00	0.00
4,400.00	14.00	125.00	4,292.06	-520.60	743.49	-740.84	0.00	0.00	0.00
4,500.00	14.00	125.00	4,389.09	-534.47	763.30	-760.59	0.00	0.00	0.00
4,600.00	14.00	125.00	4,486.12	-548.35	783.12	-780.34	0.00	0.00	0.00
4,700.00	14.00	125.00	4,583.15	-562.22	802.94	-800.08	0.00	0.00	0.00

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Company:	Synergy Resources Corporation	TVD Reference:	GL 4810 & KB 20 @ 4830.00ft (Original Well Elev)
Project:	SEC 12-13 T6N R66W	MD Reference:	GL 4810 & KB 20 @ 4830.00ft (Original Well Elev)
Site:	Falken 9-11 PAD	North Reference:	True
Well:	Falken 16C-9-L	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	14.00	125.00	4,680.18	-576.10	822.76	-819.83	0.00	0.00	0.00
4,900.00	14.00	125.00	4,777.21	-589.98	842.57	-839.58	0.00	0.00	0.00
5,000.00	14.00	125.00	4,874.24	-603.85	862.39	-859.32	0.00	0.00	0.00
5,100.00	14.00	125.00	4,971.27	-617.73	882.21	-879.07	0.00	0.00	0.00
5,200.00	14.00	125.00	5,068.30	-631.60	902.02	-898.82	0.00	0.00	0.00
5,300.00	14.00	125.00	5,165.33	-645.48	921.84	-918.56	0.00	0.00	0.00
5,400.00	14.00	125.00	5,262.36	-659.36	941.66	-938.31	0.00	0.00	0.00
5,500.00	14.00	125.00	5,359.39	-673.23	961.48	-958.06	0.00	0.00	0.00
5,600.00	14.00	125.00	5,456.42	-687.11	981.29	-977.80	0.00	0.00	0.00
5,700.00	14.00	125.00	5,553.45	-700.98	1,001.11	-997.55	0.00	0.00	0.00
5,800.00	14.00	125.00	5,650.47	-714.86	1,020.93	-1,017.30	0.00	0.00	0.00
5,900.00	14.00	125.00	5,747.50	-728.74	1,040.74	-1,037.04	0.00	0.00	0.00
6,000.00	14.00	125.00	5,844.53	-742.61	1,060.56	-1,056.79	0.00	0.00	0.00
6,100.00	14.00	125.00	5,941.56	-756.49	1,080.38	-1,076.54	0.00	0.00	0.00
6,200.00	14.00	125.00	6,038.59	-770.36	1,100.20	-1,096.28	0.00	0.00	0.00
6,300.00	14.00	125.00	6,135.62	-784.24	1,120.01	-1,116.03	0.00	0.00	0.00
6,400.00	14.00	125.00	6,232.65	-798.12	1,139.83	-1,135.78	0.00	0.00	0.00
6,500.00	14.00	125.00	6,329.68	-811.99	1,159.65	-1,155.52	0.00	0.00	0.00
6,600.00	14.00	125.00	6,426.71	-825.87	1,179.46	-1,175.27	0.00	0.00	0.00
6,655.36	14.00	125.00	6,480.43	-833.55	1,190.43	-1,186.20	0.00	0.00	0.00
Start DLS 9.00 TFO 143.91									
6,700.00	11.01	137.48	6,524.01	-839.79	1,197.74	-1,193.47	9.00	-6.71	27.97
6,800.00	8.35	190.99	6,622.76	-853.99	1,202.82	-1,198.48	9.00	-2.65	53.51
6,900.00	13.39	232.51	6,721.08	-868.19	1,192.22	-1,187.81	9.00	5.04	41.51
7,000.00	21.21	247.94	6,816.53	-882.06	1,166.22	-1,161.74	9.00	7.82	15.44
7,100.00	29.68	255.09	6,906.77	-895.25	1,125.45	-1,120.91	9.00	8.47	7.15
7,200.00	38.38	259.25	6,989.58	-907.43	1,070.92	-1,066.31	9.00	8.70	4.16
7,300.00	47.18	262.06	7,062.91	-918.31	1,003.96	-999.30	9.00	8.80	2.81
7,400.00	56.03	264.16	7,124.97	-927.62	926.23	-921.52	9.00	8.85	2.10
7,500.00	64.90	265.86	7,174.22	-935.12	839.64	-834.90	9.00	8.88	1.70
7,600.00	73.80	267.33	7,209.45	-940.64	746.33	-741.56	9.00	8.89	1.47
7,700.00	82.70	268.67	7,229.79	-944.04	648.58	-643.80	9.00	8.90	1.34
7,780.56	89.88	269.71	7,235.00	-945.17	568.25	-563.46	9.00	8.91	1.29
LP(839 FSL 300 FWL)									
7,780.81	89.88	269.71	7,235.00	-945.17	568.01	-563.21	0.00	0.00	0.00
TOP_Falken 16C-9-L(750' FSL & 300' FWL)									
7,800.00	89.88	269.71	7,235.04	-945.27	548.81	-544.02	0.00	0.00	0.00
7,900.00	89.88	269.71	7,235.26	-945.78	448.81	-444.02	0.00	0.00	0.00
8,000.00	89.88	269.71	7,235.47	-946.28	348.82	-344.02	0.00	0.00	0.00
8,100.00	89.88	269.71	7,235.68	-946.79	248.82	-244.02	0.00	0.00	0.00
8,200.00	89.88	269.71	7,235.90	-947.30	148.82	-144.02	0.00	0.00	0.00
8,300.00	89.88	269.71	7,236.11	-947.81	48.82	-44.02	0.00	0.00	0.00
8,400.00	89.88	269.71	7,236.32	-948.32	-51.18	55.98	0.00	0.00	0.00
8,500.00	89.88	269.71	7,236.54	-948.83	-151.18	155.98	0.00	0.00	0.00
8,600.00	89.88	269.71	7,236.75	-949.33	-251.17	255.98	0.00	0.00	0.00
8,700.00	89.88	269.71	7,236.96	-949.84	-351.17	355.98	0.00	0.00	0.00
8,800.00	89.88	269.71	7,237.17	-950.35	-451.17	455.98	0.00	0.00	0.00
8,900.00	89.88	269.71	7,237.39	-950.86	-551.17	555.98	0.00	0.00	0.00
9,000.00	89.88	269.71	7,237.60	-951.37	-651.17	655.98	0.00	0.00	0.00
9,100.00	89.88	269.71	7,237.81	-951.88	-751.17	755.98	0.00	0.00	0.00
9,200.00	89.88	269.71	7,238.03	-952.38	-851.17	855.97	0.00	0.00	0.00

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Site:	Falken 9-11 PAD	North Reference:	True
Well:	Falken 16C-9-L	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)
9,300.00	89.88	269.71	7,238.24	-952.89	-951.16	955.97	0.00	0.00	0.00
9,400.00	89.88	269.71	7,238.45	-953.40	-1,051.16	1,055.97	0.00	0.00	0.00
9,500.00	89.88	269.71	7,238.67	-953.91	-1,151.16	1,155.97	0.00	0.00	0.00
9,600.00	89.88	269.71	7,238.88	-954.42	-1,251.16	1,255.97	0.00	0.00	0.00
9,700.00	89.88	269.71	7,239.09	-954.93	-1,351.16	1,355.97	0.00	0.00	0.00
9,800.00	89.88	269.71	7,239.30	-955.43	-1,451.16	1,455.97	0.00	0.00	0.00
9,900.00	89.88	269.71	7,239.52	-955.94	-1,551.15	1,555.97	0.00	0.00	0.00
10,000.00	89.88	269.71	7,239.73	-956.45	-1,651.15	1,655.97	0.00	0.00	0.00
10,100.00	89.88	269.71	7,239.94	-956.96	-1,751.15	1,755.97	0.00	0.00	0.00
10,200.00	89.88	269.71	7,240.16	-957.47	-1,851.15	1,855.97	0.00	0.00	0.00
10,300.00	89.88	269.71	7,240.37	-957.97	-1,951.15	1,955.97	0.00	0.00	0.00
10,400.00	89.88	269.71	7,240.58	-958.48	-2,051.15	2,055.97	0.00	0.00	0.00
10,500.00	89.88	269.71	7,240.80	-958.99	-2,151.15	2,155.97	0.00	0.00	0.00
10,600.00	89.88	269.71	7,241.01	-959.50	-2,251.14	2,255.97	0.00	0.00	0.00
10,700.00	89.88	269.71	7,241.22	-960.01	-2,351.14	2,355.97	0.00	0.00	0.00
10,800.00	89.88	269.71	7,241.43	-960.52	-2,451.14	2,455.97	0.00	0.00	0.00
10,900.00	89.88	269.71	7,241.65	-961.02	-2,551.14	2,555.97	0.00	0.00	0.00
11,000.00	89.88	269.71	7,241.86	-961.53	-2,651.14	2,655.97	0.00	0.00	0.00
11,100.00	89.88	269.71	7,242.07	-962.04	-2,751.14	2,755.97	0.00	0.00	0.00
11,200.00	89.88	269.71	7,242.29	-962.55	-2,851.14	2,855.97	0.00	0.00	0.00
11,300.00	89.88	269.71	7,242.50	-963.06	-2,951.13	2,955.97	0.00	0.00	0.00
11,400.00	89.88	269.71	7,242.71	-963.57	-3,051.13	3,055.97	0.00	0.00	0.00
11,500.00	89.88	269.71	7,242.93	-964.07	-3,151.13	3,155.97	0.00	0.00	0.00
11,600.00	89.88	269.71	7,243.14	-964.58	-3,251.13	3,255.97	0.00	0.00	0.00
11,700.00	89.88	269.71	7,243.35	-965.09	-3,351.13	3,355.97	0.00	0.00	0.00
11,800.00	89.88	269.71	7,243.57	-965.60	-3,451.13	3,455.97	0.00	0.00	0.00
11,900.00	89.88	269.71	7,243.78	-966.11	-3,551.12	3,555.97	0.00	0.00	0.00
12,000.00	89.88	269.71	7,243.99	-966.62	-3,651.12	3,655.97	0.00	0.00	0.00
12,100.00	89.88	269.71	7,244.20	-967.12	-3,751.12	3,755.97	0.00	0.00	0.00
12,200.00	89.88	269.71	7,244.42	-967.63	-3,851.12	3,855.97	0.00	0.00	0.00
12,300.00	89.88	269.71	7,244.63	-968.14	-3,951.12	3,955.97	0.00	0.00	0.00
12,400.00	89.88	269.71	7,244.84	-968.65	-4,051.12	4,055.97	0.00	0.00	0.00
12,500.00	89.88	269.71	7,245.06	-969.16	-4,151.12	4,155.97	0.00	0.00	0.00
12,600.00	89.88	269.71	7,245.27	-969.66	-4,251.11	4,255.97	0.00	0.00	0.00
12,700.00	89.88	269.71	7,245.48	-970.17	-4,351.11	4,355.97	0.00	0.00	0.00
12,800.00	89.88	269.71	7,245.70	-970.68	-4,451.11	4,455.97	0.00	0.00	0.00
12,900.00	89.88	269.71	7,245.91	-971.19	-4,551.11	4,555.97	0.00	0.00	0.00
13,000.00	89.88	269.71	7,246.12	-971.70	-4,651.11	4,655.97	0.00	0.00	0.00
13,100.00	89.88	269.71	7,246.33	-972.21	-4,751.11	4,755.97	0.00	0.00	0.00
13,200.00	89.88	269.71	7,246.55	-972.71	-4,851.10	4,855.97	0.00	0.00	0.00
13,300.00	89.88	269.71	7,246.76	-973.22	-4,951.10	4,955.97	0.00	0.00	0.00
13,400.00	89.88	269.71	7,246.97	-973.73	-5,051.10	5,055.97	0.00	0.00	0.00
13,500.00	89.88	269.71	7,247.19	-974.24	-5,151.10	5,155.97	0.00	0.00	0.00
13,600.00	89.88	269.71	7,247.40	-974.75	-5,251.10	5,255.97	0.00	0.00	0.00
13,700.00	89.88	269.71	7,247.61	-975.26	-5,351.10	5,355.96	0.00	0.00	0.00
13,800.00	89.88	269.71	7,247.83	-975.76	-5,451.10	5,455.96	0.00	0.00	0.00
13,900.00	89.88	269.71	7,248.04	-976.27	-5,551.09	5,555.96	0.00	0.00	0.00
14,000.00	89.88	269.71	7,248.25	-976.78	-5,651.09	5,655.96	0.00	0.00	0.00
14,100.00	89.88	269.71	7,248.46	-977.29	-5,751.09	5,755.96	0.00	0.00	0.00
14,200.00	89.88	269.71	7,248.68	-977.80	-5,851.09	5,855.96	0.00	0.00	0.00
14,300.00	89.88	269.71	7,248.89	-978.31	-5,951.09	5,955.96	0.00	0.00	0.00
14,400.00	89.88	269.71	7,249.10	-978.81	-6,051.09	6,055.96	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Falken 16C-9-L
Company:	Synergy Resources Corporation	TVD Reference:	GL 4810 & KB 20 @ 4830.00ft (Original Well Elev)
Project:	SEC 12-13 T6N R66W	MD Reference:	GL 4810 & KB 20 @ 4830.00ft (Original Well Elev)
Site:	Falken 9-11 PAD	North Reference:	True
Well:	Falken 16C-9-L	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)
14,500.00	89.88	269.71	7,249.32	-979.32	-6,151.09	6,155.96	0.00	0.00	0.00
14,600.00	89.88	269.71	7,249.53	-979.83	-6,251.08	6,255.96	0.00	0.00	0.00
14,700.00	89.88	269.71	7,249.74	-980.34	-6,351.08	6,355.96	0.00	0.00	0.00
14,800.00	89.88	269.71	7,249.96	-980.85	-6,451.08	6,455.96	0.00	0.00	0.00
14,900.00	89.88	269.71	7,250.17	-981.35	-6,551.08	6,555.96	0.00	0.00	0.00
15,000.00	89.88	269.71	7,250.38	-981.86	-6,651.08	6,655.96	0.00	0.00	0.00
15,100.00	89.88	269.71	7,250.59	-982.37	-6,751.08	6,755.96	0.00	0.00	0.00
15,200.00	89.88	269.71	7,250.81	-982.88	-6,851.07	6,855.96	0.00	0.00	0.00
15,300.00	89.88	269.71	7,251.02	-983.39	-6,951.07	6,955.96	0.00	0.00	0.00
15,400.00	89.88	269.71	7,251.23	-983.90	-7,051.07	7,055.96	0.00	0.00	0.00
15,500.00	89.88	269.71	7,251.45	-984.40	-7,151.07	7,155.96	0.00	0.00	0.00
15,600.00	89.88	269.71	7,251.66	-984.91	-7,251.07	7,255.96	0.00	0.00	0.00
15,700.00	89.88	269.71	7,251.87	-985.42	-7,351.07	7,355.96	0.00	0.00	0.00
15,800.00	89.88	269.71	7,252.09	-985.93	-7,451.07	7,455.96	0.00	0.00	0.00
15,900.00	89.88	269.71	7,252.30	-986.44	-7,551.06	7,555.96	0.00	0.00	0.00
16,000.00	89.88	269.71	7,252.51	-986.95	-7,651.06	7,655.96	0.00	0.00	0.00
16,100.00	89.88	269.71	7,252.72	-987.45	-7,751.06	7,755.96	0.00	0.00	0.00
16,200.00	89.88	269.71	7,252.94	-987.96	-7,851.06	7,855.96	0.00	0.00	0.00
16,300.00	89.88	269.71	7,253.15	-988.47	-7,951.06	7,955.96	0.00	0.00	0.00
16,400.00	89.88	269.71	7,253.36	-988.98	-8,051.06	8,055.96	0.00	0.00	0.00
16,500.00	89.88	269.71	7,253.58	-989.49	-8,151.05	8,155.96	0.00	0.00	0.00
16,600.00	89.88	269.71	7,253.79	-990.00	-8,251.05	8,255.96	0.00	0.00	0.00
16,700.00	89.88	269.71	7,254.00	-990.50	-8,351.05	8,355.96	0.00	0.00	0.00
16,800.00	89.88	269.71	7,254.22	-991.01	-8,451.05	8,455.96	0.00	0.00	0.00
16,900.00	89.88	269.71	7,254.43	-991.52	-8,551.05	8,555.96	0.00	0.00	0.00
17,000.00	89.88	269.71	7,254.64	-992.03	-8,651.05	8,655.96	0.00	0.00	0.00
17,100.00	89.88	269.71	7,254.85	-992.54	-8,751.05	8,755.96	0.00	0.00	0.00
17,200.00	89.88	269.71	7,255.07	-993.04	-8,851.04	8,855.96	0.00	0.00	0.00
17,300.00	89.88	269.71	7,255.28	-993.55	-8,951.04	8,955.96	0.00	0.00	0.00
17,400.00	89.88	269.71	7,255.49	-994.06	-9,051.04	9,055.96	0.00	0.00	0.00
17,500.00	89.88	269.71	7,255.71	-994.57	-9,151.04	9,155.96	0.00	0.00	0.00
17,600.00	89.88	269.71	7,255.92	-995.08	-9,251.04	9,255.96	0.00	0.00	0.00
17,700.00	89.88	269.71	7,256.13	-995.59	-9,351.04	9,355.96	0.00	0.00	0.00
17,800.00	89.88	269.71	7,256.35	-996.09	-9,451.04	9,455.96	0.00	0.00	0.00
17,900.00	89.88	269.71	7,256.56	-996.60	-9,551.03	9,555.96	0.00	0.00	0.00
18,000.00	89.88	269.71	7,256.77	-997.11	-9,651.03	9,655.96	0.00	0.00	0.00
18,100.00	89.88	269.71	7,256.98	-997.62	-9,751.03	9,755.95	0.00	0.00	0.00
18,200.00	89.88	269.71	7,257.20	-998.13	-9,851.03	9,855.95	0.00	0.00	0.00
18,300.00	89.88	269.71	7,257.41	-998.64	-9,951.03	9,955.95	0.00	0.00	0.00
18,400.00	89.88	269.71	7,257.62	-999.14	-10,051.03	10,055.95	0.00	0.00	0.00
18,500.00	89.88	269.71	7,257.84	-999.65	-10,151.02	10,155.95	0.00	0.00	0.00
18,600.00	89.88	269.71	7,258.05	-1,000.16	-10,251.02	10,255.95	0.00	0.00	0.00
18,700.00	89.88	269.71	7,258.26	-1,000.67	-10,351.02	10,355.95	0.00	0.00	0.00
18,800.00	89.88	269.71	7,258.48	-1,001.18	-10,451.02	10,455.95	0.00	0.00	0.00
18,900.00	89.88	269.71	7,258.69	-1,001.68	-10,551.02	10,555.95	0.00	0.00	0.00
19,000.00	89.88	269.71	7,258.90	-1,002.19	-10,651.02	10,655.95	0.00	0.00	0.00
19,046.19	89.88	269.71	7,259.00	-1,002.43	-10,697.20	10,702.14	0.00	0.00	0.00
TD at 19046.19 - PBHL_Falken 16C-9-L(761' FSL & 300' FEL)									

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Falken 16C-9-L
Company:	Synergy Resources Corporation	TVD Reference:	GL 4810 & KB 20 @ 4830.00ft (Original Well Elev)
Project:	SEC 12-13 T6N R66W	MD Reference:	GL 4810 & KB 20 @ 4830.00ft (Original Well Elev)
Site:	Falken 9-11 PAD	North Reference:	True
Well:	Falken 16C-9-L	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
TOP_Falken 16C-9-L(75	0.00	0.00	7,235.00	-1,033.89	568.46	1,425,050.28	3,213,061.90	40.4976300	-104.7339050
- plan misses target center by 88.72ft at 7780.81ft MD (7235.00 TVD, -945.17 N, 568.01 E)									
- Point									
PBHL_Falken 16C-9-L(7	0.00	0.00	7,259.00	-1,002.43	-10,697.20	1,424,984.67	3,201,796.38	40.4977100	-104.7744130
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(ft)	(ft)			(in)	(in)
1,780.12	1,750.00	9 5/8"		9.625	13.500

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
300.00	300.00	0.00	0.00	Start Build 2.00
1,000.00	993.06	-48.81	69.71	Start 5655.36 hold at 1000.00 MD
6,655.36	6,480.43	-833.55	1,190.43	Start DLS 9.00 TFO 143.91
7,780.56	7,235.00	-945.17	568.25	LP(839 FSL 300 FWL)
19,046.19	7,259.00	-1,002.43	-10,697.20	TD at 19046.19