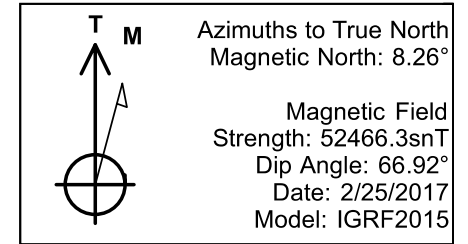




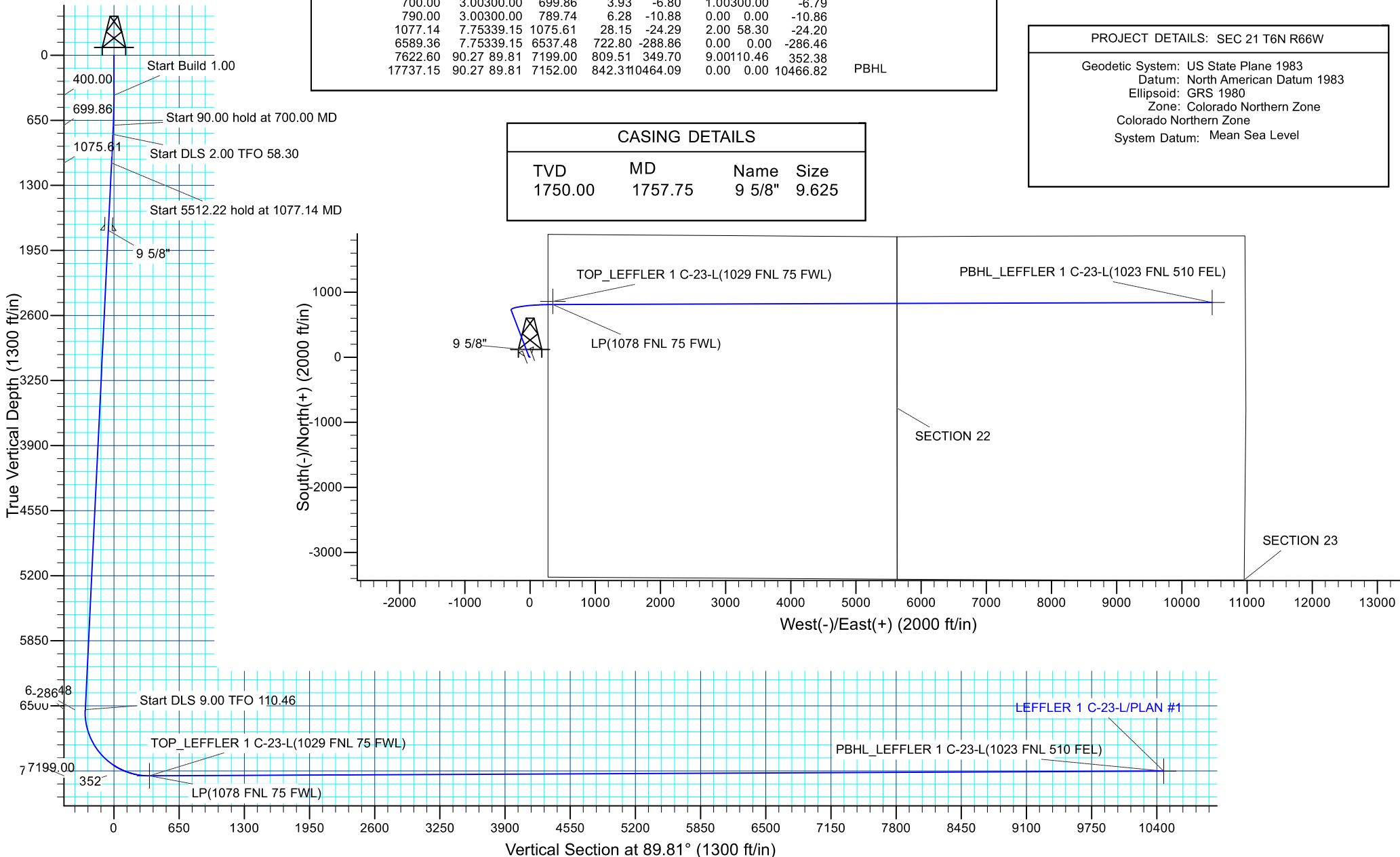
Project: SEC 21 T6N R66W
Site: LEFFLER 8-21 PAD
Well: LEFFLER 1 C-23-L
Wellbore: OH
Design: PLAN #1



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	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
700.00	3.00300.00		699.86	3.93	-6.80	1.00300.00		-6.79	
790.00	3.00300.00		789.74	6.28	-10.88	0.00	0.00	-10.86	
1077.14	7.75339.15		1075.61	28.15	-24.29	2.00	58.30	-24.20	
6589.36	7.75339.15		6537.48	722.80	-288.86	0.00	0.00	-286.46	
7622.60	90.27	89.81	7199.00	809.51	349.70	9.00110.46		352.38	
17737.15	90.27	89.81	7152.00	842.3110464.09		0.00	0.00	10466.82	PBHL

PROJECT DETAILS: SEC 21 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									

CASING DETAILS				
TVD	MD	Name	Size	
1750.00	1757.75	9 5/8"	9.625	





Synergy Resources Corporation

**SEC 21 T6N R66W
LEFFLER 8-21 PAD
LEFFLER 1 C-23-L**

OH

Plan: PLAN #1

Standard Planning Report

27 February, 2017

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well LEFFLER 1 C-23-L
Company:	Synergy Resources Corporation	TVD Reference:	GL 4747 & KB 25
Project:	SEC 21 T6N R66W	MD Reference:	GL 4747 & KB 25 @ 4773.00ft (ASSUMED)
Site:	LEFFLER 8-21 PAD	North Reference:	GL 4747 & KB 25
Well:	LEFFLER 1 C-23-L	Survey Calculation Method:	GL 4747 & KB 25 @ 4773.00ft (ASSUMED)
Wellbore:	OH		True
Design:	PLAN #1		Minimum Curvature

Project	SEC 21 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		LEFFLER 8-21 PAD			
Site Position:		Northing:	1,417,151.07 ft	Latitude:	40.4762060
From:	Lat/Long	Easting:	3,201,878.01 ft	Longitude:	-104.7743500
Position Uncertainty:	3.28 ft	Slot Radius:	13.200 in	Grid Convergence:	0.47 °

Well	LEFFLER 1 C-23-L, 1881' FNL & 275' FEL					
Well Position	+N/-S	-79.79 ft	Northing:	1,417,071.28 ft	Latitude:	40.4759870
	+E/-W	0.00 ft	Easting:	3,201,878.66 ft	Longitude:	-104.7743500
Position Uncertainty		3.28 ft	Wellhead Elevation:		Ground Level:	4,748.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/25/2017	8.26	66.92	52,466

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	89.81

Plan Survey Tool Program	Date	2/27/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,736.93 PLAN #1 (OH)	MWD+IFR1+MS	
			OWSG MWD + IFR1 + Multi-St	

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well LEFFLER 1 C-23-L
Company:	Synergy Resources Corporation	TVD Reference:	GL 4747 & KB 25
Project:	SEC 21 T6N R66W	MD Reference:	GL 4747 & KB 25 @ 4773.00ft (ASSUMED)
Site:	LEFFLER 8-21 PAD	North Reference:	GL 4747 & KB 25
Well:	LEFFLER 1 C-23-L	Survey Calculation Method:	GL 4747 & KB 25 @ 4773.00ft (ASSUMED)
Wellbore:	OH		True
Design:	PLAN #1		Minimum Curvature

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	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	3.00	300.00	699.86	3.93	-6.80	1.00	1.00	0.00	300.00	
790.00	3.00	300.00	789.74	6.28	-10.88	0.00	0.00	0.00	0.00	
1,077.14	7.75	339.15	1,075.61	28.15	-24.29	2.00	1.65	13.63	58.30	
6,589.36	7.75	339.15	6,537.48	722.80	-288.86	0.00	0.00	0.00	0.00	
7,622.60	90.27	89.81	7,199.00	809.51	349.70	9.00	7.99	10.71	110.46	
17,737.15	90.27	89.81	7,152.00	842.31	10,464.09	0.00	0.00	0.00	0.00	PBHL_LEFFLER 1 C-

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well LEFFLER 1 C-23-L
Company:	Synergy Resources Corporation	TVD Reference:	GL 4747 & KB 25
Project:	SEC 21 T6N R66W	MD Reference:	GL 4747 & KB 25 @ 4773.00ft (ASSUMED)
Site:	LEFFLER 8-21 PAD	North Reference:	GL 4747 & KB 25
Well:	LEFFLER 1 C-23-L	Survey Calculation Method:	GL 4747 & KB 25 @ 4773.00ft (ASSUMED)
Wellbore:	OH		True
Design:	PLAN #1		Minimum Curvature

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
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.00									
500.00	1.00	300.00	499.99	0.44	-0.76	-0.75	1.00	1.00	0.00
600.00	2.00	300.00	599.96	1.75	-3.02	-3.02	1.00	1.00	0.00
700.00	3.00	300.00	699.86	3.93	-6.80	-6.79	1.00	1.00	0.00
Start 90.00 hold at 700.00 MD									
790.00	3.00	300.00	789.74	6.28	-10.88	-10.86	0.00	0.00	0.00
Start DLS 2.00 TFO 58.30									
800.00	3.11	303.14	799.73	6.56	-11.33	-11.31	2.00	1.10	31.38
900.00	4.56	324.27	899.50	11.27	-15.93	-15.89	2.00	1.45	21.13
1,000.00	6.31	334.51	999.05	19.46	-20.61	-20.55	2.00	1.76	10.24
1,077.14	7.75	339.15	1,075.61	28.15	-24.29	-24.20	2.00	1.86	6.01
Start 5512.22 hold at 1077.14 MD									
1,100.00	7.75	339.15	1,098.26	31.03	-25.39	-25.28	0.00	0.00	0.00
1,200.00	7.75	339.15	1,197.35	43.63	-30.19	-30.04	0.00	0.00	0.00
1,300.00	7.75	339.15	1,296.44	56.23	-34.99	-34.80	0.00	0.00	0.00
1,400.00	7.75	339.15	1,395.52	68.84	-39.78	-39.56	0.00	0.00	0.00
1,500.00	7.75	339.15	1,494.61	81.44	-44.58	-44.31	0.00	0.00	0.00
1,600.00	7.75	339.15	1,593.70	94.04	-49.38	-49.07	0.00	0.00	0.00
1,700.00	7.75	339.15	1,692.78	106.64	-54.18	-53.83	0.00	0.00	0.00
1,757.75	7.75	339.15	1,750.00	113.92	-56.96	-56.58	0.00	0.00	0.00
9 5/8"									
1,800.00	7.75	339.15	1,791.87	119.24	-58.98	-58.59	0.00	0.00	0.00
1,900.00	7.75	339.15	1,890.95	131.85	-63.78	-63.35	0.00	0.00	0.00
2,000.00	7.75	339.15	1,990.04	144.45	-68.58	-68.10	0.00	0.00	0.00
2,100.00	7.75	339.15	2,089.13	157.05	-73.38	-72.86	0.00	0.00	0.00
2,200.00	7.75	339.15	2,188.21	169.65	-78.18	-77.62	0.00	0.00	0.00
2,300.00	7.75	339.15	2,287.30	182.25	-82.98	-82.38	0.00	0.00	0.00
2,400.00	7.75	339.15	2,386.39	194.86	-87.78	-87.13	0.00	0.00	0.00
2,500.00	7.75	339.15	2,485.47	207.46	-92.58	-91.89	0.00	0.00	0.00
2,600.00	7.75	339.15	2,584.56	220.06	-97.38	-96.65	0.00	0.00	0.00
2,700.00	7.75	339.15	2,683.65	232.66	-102.18	-101.41	0.00	0.00	0.00
2,800.00	7.75	339.15	2,782.73	245.26	-106.98	-106.17	0.00	0.00	0.00
2,900.00	7.75	339.15	2,881.82	257.87	-111.78	-110.92	0.00	0.00	0.00
3,000.00	7.75	339.15	2,980.91	270.47	-116.58	-115.68	0.00	0.00	0.00
3,100.00	7.75	339.15	3,079.99	283.07	-121.38	-120.44	0.00	0.00	0.00
3,200.00	7.75	339.15	3,179.08	295.67	-126.18	-125.20	0.00	0.00	0.00
3,300.00	7.75	339.15	3,278.17	308.27	-130.98	-129.96	0.00	0.00	0.00
3,400.00	7.75	339.15	3,377.25	320.88	-135.78	-134.71	0.00	0.00	0.00
3,500.00	7.75	339.15	3,476.34	333.48	-140.58	-139.47	0.00	0.00	0.00
3,600.00	7.75	339.15	3,575.43	346.08	-145.38	-144.23	0.00	0.00	0.00
3,700.00	7.75	339.15	3,674.51	358.68	-150.18	-148.99	0.00	0.00	0.00
3,800.00	7.75	339.15	3,773.60	371.28	-154.98	-153.74	0.00	0.00	0.00
3,900.00	7.75	339.15	3,872.69	383.89	-159.78	-158.50	0.00	0.00	0.00
4,000.00	7.75	339.15	3,971.77	396.49	-164.58	-163.26	0.00	0.00	0.00
4,100.00	7.75	339.15	4,070.86	409.09	-169.38	-168.02	0.00	0.00	0.00
4,200.00	7.75	339.15	4,169.95	421.69	-174.18	-172.78	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well LEFFLER 1 C-23-L
Company:	Synergy Resources Corporation	TVD Reference:	GL 4747 & KB 25
Project:	SEC 21 T6N R66W	MD Reference:	GL 4747 & KB 25 @ 4773.00ft (ASSUMED)
Site:	LEFFLER 8-21 PAD	North Reference:	GL 4747 & KB 25
Well:	LEFFLER 1 C-23-L	Survey Calculation Method:	True
Wellbore:	OH		Minimum Curvature
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)	
4,300.00	7.75	339.15	4,269.03	434.29	-178.97	-177.53	0.00	0.00	0.00	
4,400.00	7.75	339.15	4,368.12	446.90	-183.77	-182.29	0.00	0.00	0.00	
4,500.00	7.75	339.15	4,467.21	459.50	-188.57	-187.05	0.00	0.00	0.00	
4,600.00	7.75	339.15	4,566.29	472.10	-193.37	-191.81	0.00	0.00	0.00	
4,700.00	7.75	339.15	4,665.38	484.70	-198.17	-196.56	0.00	0.00	0.00	
4,800.00	7.75	339.15	4,764.47	497.30	-202.97	-201.32	0.00	0.00	0.00	
4,900.00	7.75	339.15	4,863.55	509.91	-207.77	-206.08	0.00	0.00	0.00	
5,000.00	7.75	339.15	4,962.64	522.51	-212.57	-210.84	0.00	0.00	0.00	
5,100.00	7.75	339.15	5,061.73	535.11	-217.37	-215.60	0.00	0.00	0.00	
5,200.00	7.75	339.15	5,160.81	547.71	-222.17	-220.35	0.00	0.00	0.00	
5,300.00	7.75	339.15	5,259.90	560.32	-226.97	-225.11	0.00	0.00	0.00	
5,400.00	7.75	339.15	5,358.99	572.92	-231.77	-229.87	0.00	0.00	0.00	
5,500.00	7.75	339.15	5,458.07	585.52	-236.57	-234.63	0.00	0.00	0.00	
5,600.00	7.75	339.15	5,557.16	598.12	-241.37	-239.39	0.00	0.00	0.00	
5,700.00	7.75	339.15	5,656.25	610.72	-246.17	-244.14	0.00	0.00	0.00	
5,800.00	7.75	339.15	5,755.33	623.33	-250.97	-248.90	0.00	0.00	0.00	
5,900.00	7.75	339.15	5,854.42	635.93	-255.77	-253.66	0.00	0.00	0.00	
6,000.00	7.75	339.15	5,953.51	648.53	-260.57	-258.42	0.00	0.00	0.00	
6,100.00	7.75	339.15	6,052.59	661.13	-265.37	-263.17	0.00	0.00	0.00	
6,200.00	7.75	339.15	6,151.68	673.73	-270.17	-267.93	0.00	0.00	0.00	
6,300.00	7.75	339.15	6,250.76	686.34	-274.97	-272.69	0.00	0.00	0.00	
6,400.00	7.75	339.15	6,349.85	698.94	-279.77	-277.45	0.00	0.00	0.00	
6,500.00	7.75	339.15	6,448.94	711.54	-284.57	-282.21	0.00	0.00	0.00	
6,589.36	7.75	339.15	6,537.48	722.80	-288.86	-286.46	0.00	0.00	0.00	
Start DLS 9.00 TFO 110.46										
6,600.00	7.47	346.07	6,548.03	724.14	-289.28	-286.87	9.00	-2.64	65.02	
6,700.00	10.23	44.91	6,647.01	736.77	-284.56	-282.12	9.00	2.77	58.84	
6,800.00	17.74	66.32	6,744.04	749.20	-264.29	-261.81	9.00	7.51	21.41	
6,900.00	26.19	74.77	6,836.72	761.14	-228.97	-226.44	9.00	8.45	8.45	
7,000.00	34.90	79.26	6,922.77	772.29	-179.46	-176.90	9.00	8.71	4.49	
7,100.00	43.72	82.13	7,000.07	782.38	-117.00	-114.40	9.00	8.82	2.86	
7,200.00	52.59	84.19	7,066.72	791.15	-43.10	-40.48	9.00	8.87	2.06	
7,300.00	61.49	85.81	7,121.07	798.39	40.40	43.05	9.00	8.90	1.62	
7,400.00	70.40	87.18	7,161.80	803.93	131.45	134.11	9.00	8.91	1.37	
7,500.00	79.32	88.40	7,187.89	807.62	227.81	230.49	9.00	8.92	1.22	
7,600.00	88.25	89.56	7,198.70	809.38	327.10	329.79	9.00	8.93	1.15	
7,622.60	90.27	89.81	7,199.00	809.51	349.70	352.38	9.00	8.93	1.14	
LP(1078 FNL 75 FWL)										
7,623.58	90.27	89.81	7,198.99	809.51	350.68	353.36	0.00	0.00	0.00	
TOP_LEFFLER 1 C-23-L(1029 FNL 75 FWL)										
7,700.00	90.27	89.81	7,198.64	809.76	427.10	429.78	0.00	0.00	0.00	
7,800.00	90.27	89.81	7,198.17	810.08	527.10	529.78	0.00	0.00	0.00	
7,900.00	90.27	89.81	7,197.71	810.41	627.10	629.78	0.00	0.00	0.00	
8,000.00	90.27	89.81	7,197.24	810.73	727.09	729.78	0.00	0.00	0.00	
8,100.00	90.27	89.81	7,196.78	811.05	827.09	829.78	0.00	0.00	0.00	
8,200.00	90.27	89.81	7,196.31	811.38	927.09	929.78	0.00	0.00	0.00	
8,300.00	90.27	89.81	7,195.85	811.70	1,027.09	1,029.77	0.00	0.00	0.00	
8,400.00	90.27	89.81	7,195.38	812.03	1,127.09	1,129.77	0.00	0.00	0.00	
8,500.00	90.27	89.81	7,194.92	812.35	1,227.09	1,229.77	0.00	0.00	0.00	
8,600.00	90.27	89.81	7,194.46	812.68	1,327.08	1,329.77	0.00	0.00	0.00	
8,700.00	90.27	89.81	7,193.99	813.00	1,427.08	1,429.77	0.00	0.00	0.00	
8,800.00	90.27	89.81	7,193.53	813.32	1,527.08	1,529.77	0.00	0.00	0.00	

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Company:	Synergy Resources Corporation	TVD Reference:	GL 4747 & KB 25
Project:	SEC 21 T6N R66W	MD Reference:	GL 4747 & KB 25 @ 4773.00ft (ASSUMED)
Site:	LEFFLER 8-21 PAD	North Reference:	GL 4747 & KB 25
Well:	LEFFLER 1 C-23-L	Survey Calculation Method:	True
Wellbore:	OH		Minimum Curvature
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)
8,900.00	90.27	89.81	7,193.06	813.65	1,627.08	1,629.77	0.00	0.00	0.00
9,000.00	90.27	89.81	7,192.60	813.97	1,727.08	1,729.77	0.00	0.00	0.00
9,100.00	90.27	89.81	7,192.13	814.30	1,827.08	1,829.77	0.00	0.00	0.00
9,200.00	90.27	89.81	7,191.67	814.62	1,927.07	1,929.77	0.00	0.00	0.00
9,300.00	90.27	89.81	7,191.20	814.95	2,027.07	2,029.76	0.00	0.00	0.00
9,400.00	90.27	89.81	7,190.74	815.27	2,127.07	2,129.76	0.00	0.00	0.00
9,500.00	90.27	89.81	7,190.27	815.59	2,227.07	2,229.76	0.00	0.00	0.00
9,600.00	90.27	89.81	7,189.81	815.92	2,327.07	2,329.76	0.00	0.00	0.00
9,700.00	90.27	89.81	7,189.34	816.24	2,427.07	2,429.76	0.00	0.00	0.00
9,800.00	90.27	89.81	7,188.88	816.57	2,527.06	2,529.76	0.00	0.00	0.00
9,900.00	90.27	89.81	7,188.41	816.89	2,627.06	2,629.76	0.00	0.00	0.00
10,000.00	90.27	89.81	7,187.95	817.22	2,727.06	2,729.76	0.00	0.00	0.00
10,100.00	90.27	89.81	7,187.49	817.54	2,827.06	2,829.76	0.00	0.00	0.00
10,200.00	90.27	89.81	7,187.02	817.87	2,927.06	2,929.75	0.00	0.00	0.00
10,300.00	90.27	89.81	7,186.56	818.19	3,027.06	3,029.75	0.00	0.00	0.00
10,400.00	90.27	89.81	7,186.09	818.51	3,127.06	3,129.75	0.00	0.00	0.00
10,500.00	90.27	89.81	7,185.63	818.84	3,227.05	3,229.75	0.00	0.00	0.00
10,600.00	90.27	89.81	7,185.16	819.16	3,327.05	3,329.75	0.00	0.00	0.00
10,700.00	90.27	89.81	7,184.70	819.49	3,427.05	3,429.75	0.00	0.00	0.00
10,800.00	90.27	89.81	7,184.23	819.81	3,527.05	3,529.75	0.00	0.00	0.00
10,900.00	90.27	89.81	7,183.77	820.14	3,627.05	3,629.75	0.00	0.00	0.00
11,000.00	90.27	89.81	7,183.30	820.46	3,727.05	3,729.75	0.00	0.00	0.00
11,100.00	90.27	89.81	7,182.84	820.78	3,827.04	3,829.74	0.00	0.00	0.00
11,200.00	90.27	89.81	7,182.37	821.11	3,927.04	3,929.74	0.00	0.00	0.00
11,300.00	90.27	89.81	7,181.91	821.43	4,027.04	4,029.74	0.00	0.00	0.00
11,400.00	90.27	89.81	7,181.45	821.76	4,127.04	4,129.74	0.00	0.00	0.00
11,500.00	90.27	89.81	7,180.98	822.08	4,227.04	4,229.74	0.00	0.00	0.00
11,600.00	90.27	89.81	7,180.52	822.41	4,327.04	4,329.74	0.00	0.00	0.00
11,700.00	90.27	89.81	7,180.05	822.73	4,427.03	4,429.74	0.00	0.00	0.00
11,800.00	90.27	89.81	7,179.59	823.06	4,527.03	4,529.74	0.00	0.00	0.00
11,900.00	90.27	89.81	7,179.12	823.38	4,627.03	4,629.74	0.00	0.00	0.00
12,000.00	90.27	89.81	7,178.66	823.70	4,727.03	4,729.74	0.00	0.00	0.00
12,100.00	90.27	89.81	7,178.19	824.03	4,827.03	4,829.73	0.00	0.00	0.00
12,200.00	90.27	89.81	7,177.73	824.35	4,927.03	4,929.73	0.00	0.00	0.00
12,300.00	90.27	89.81	7,177.26	824.68	5,027.02	5,029.73	0.00	0.00	0.00
12,400.00	90.27	89.81	7,176.80	825.00	5,127.02	5,129.73	0.00	0.00	0.00
12,500.00	90.27	89.81	7,176.33	825.33	5,227.02	5,229.73	0.00	0.00	0.00
12,600.00	90.27	89.81	7,175.87	825.65	5,327.02	5,329.73	0.00	0.00	0.00
12,700.00	90.27	89.81	7,175.40	825.97	5,427.02	5,429.73	0.00	0.00	0.00
12,800.00	90.27	89.81	7,174.94	826.30	5,527.02	5,529.73	0.00	0.00	0.00
12,900.00	90.27	89.81	7,174.48	826.62	5,627.02	5,629.73	0.00	0.00	0.00
13,000.00	90.27	89.81	7,174.01	826.95	5,727.01	5,729.72	0.00	0.00	0.00
13,100.00	90.27	89.81	7,173.55	827.27	5,827.01	5,829.72	0.00	0.00	0.00
13,200.00	90.27	89.81	7,173.08	827.60	5,927.01	5,929.72	0.00	0.00	0.00
13,300.00	90.27	89.81	7,172.62	827.92	6,027.01	6,029.72	0.00	0.00	0.00
13,400.00	90.27	89.81	7,172.15	828.24	6,127.01	6,129.72	0.00	0.00	0.00
13,500.00	90.27	89.81	7,171.69	828.57	6,227.01	6,229.72	0.00	0.00	0.00
13,600.00	90.27	89.81	7,171.22	828.89	6,327.00	6,329.72	0.00	0.00	0.00
13,700.00	90.27	89.81	7,170.76	829.22	6,427.00	6,429.72	0.00	0.00	0.00
13,800.00	90.27	89.81	7,170.29	829.54	6,527.00	6,529.72	0.00	0.00	0.00
13,900.00	90.27	89.81	7,169.83	829.87	6,627.00	6,629.71	0.00	0.00	0.00
14,000.00	90.27	89.81	7,169.36	830.19	6,727.00	6,729.71	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well LEFFLER 1 C-23-L
Company:	Synergy Resources Corporation	TVD Reference:	GL 4747 & KB 25 GL 4747 & KB 25 @ 4773.00ft (ASSUMED)
Project:	SEC 21 T6N R66W	MD Reference:	GL 4747 & KB 25 GL 4747 & KB 25 @ 4773.00ft (ASSUMED)
Site:	LEFFLER 8-21 PAD	North Reference:	True
Well:	LEFFLER 1 C-23-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)
14,100.00	90.27	89.81	7,168.90	830.52	6,827.00	6,829.71	0.00	0.00	0.00
14,200.00	90.27	89.81	7,168.44	830.84	6,926.99	6,929.71	0.00	0.00	0.00
14,300.00	90.27	89.81	7,167.97	831.16	7,026.99	7,029.71	0.00	0.00	0.00
14,400.00	90.27	89.81	7,167.51	831.49	7,126.99	7,129.71	0.00	0.00	0.00
14,500.00	90.27	89.81	7,167.04	831.81	7,226.99	7,229.71	0.00	0.00	0.00
14,600.00	90.27	89.81	7,166.58	832.14	7,326.99	7,329.71	0.00	0.00	0.00
14,700.00	90.27	89.81	7,166.11	832.46	7,426.99	7,429.71	0.00	0.00	0.00
14,800.00	90.27	89.81	7,165.65	832.79	7,526.98	7,529.70	0.00	0.00	0.00
14,900.00	90.27	89.81	7,165.18	833.11	7,626.98	7,629.70	0.00	0.00	0.00
15,000.00	90.27	89.81	7,164.72	833.43	7,726.98	7,729.70	0.00	0.00	0.00
15,100.00	90.27	89.81	7,164.25	833.76	7,826.98	7,829.70	0.00	0.00	0.00
15,200.00	90.27	89.81	7,163.79	834.08	7,926.98	7,929.70	0.00	0.00	0.00
15,300.00	90.27	89.81	7,163.32	834.41	8,026.98	8,029.70	0.00	0.00	0.00
15,400.00	90.27	89.81	7,162.86	834.73	8,126.98	8,129.70	0.00	0.00	0.00
15,500.00	90.27	89.81	7,162.39	835.06	8,226.97	8,229.70	0.00	0.00	0.00
15,600.00	90.27	89.81	7,161.93	835.38	8,326.97	8,329.70	0.00	0.00	0.00
15,700.00	90.27	89.81	7,161.47	835.71	8,426.97	8,429.70	0.00	0.00	0.00
15,800.00	90.27	89.81	7,161.00	836.03	8,526.97	8,529.69	0.00	0.00	0.00
15,900.00	90.27	89.81	7,160.54	836.35	8,626.97	8,629.69	0.00	0.00	0.00
16,000.00	90.27	89.81	7,160.07	836.68	8,726.97	8,729.69	0.00	0.00	0.00
16,100.00	90.27	89.81	7,159.61	837.00	8,826.96	8,829.69	0.00	0.00	0.00
16,200.00	90.27	89.81	7,159.14	837.33	8,926.96	8,929.69	0.00	0.00	0.00
16,300.00	90.27	89.81	7,158.68	837.65	9,026.96	9,029.69	0.00	0.00	0.00
16,400.00	90.27	89.81	7,158.21	837.98	9,126.96	9,129.69	0.00	0.00	0.00
16,500.00	90.27	89.81	7,157.75	838.30	9,226.96	9,229.69	0.00	0.00	0.00
16,600.00	90.27	89.81	7,157.28	838.62	9,326.96	9,329.69	0.00	0.00	0.00
16,700.00	90.27	89.81	7,156.82	838.95	9,426.95	9,429.68	0.00	0.00	0.00
16,800.00	90.27	89.81	7,156.35	839.27	9,526.95	9,529.68	0.00	0.00	0.00
16,900.00	90.27	89.81	7,155.89	839.60	9,626.95	9,629.68	0.00	0.00	0.00
17,000.00	90.27	89.81	7,155.43	839.92	9,726.95	9,729.68	0.00	0.00	0.00
17,100.00	90.27	89.81	7,154.96	840.25	9,826.95	9,829.68	0.00	0.00	0.00
17,200.00	90.27	89.81	7,154.50	840.57	9,926.95	9,929.68	0.00	0.00	0.00
17,300.00	90.27	89.81	7,154.03	840.89	10,026.94	10,029.68	0.00	0.00	0.00
17,400.00	90.27	89.81	7,153.57	841.22	10,126.94	10,129.68	0.00	0.00	0.00
17,500.00	90.27	89.81	7,153.10	841.54	10,226.94	10,229.68	0.00	0.00	0.00
17,600.00	90.27	89.81	7,152.64	841.87	10,326.94	10,329.67	0.00	0.00	0.00
17,700.00	90.27	89.81	7,152.17	842.19	10,426.94	10,429.67	0.00	0.00	0.00
17,737.15	90.27	89.81	7,152.00	842.31	10,464.09	10,466.82	0.00	0.00	0.00
TD at 17737.15 - PBHL_LEFFLER 1 C-23-L(1023 FNL 510 FEL)									

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well LEFFLER 1 C-23-L
Company:	Synergy Resources Corporation	TVD Reference:	GL 4747 & KB 25 GL 4747 & KB 25 @ 4773.00ft (ASSUMED)
Project:	SEC 21 T6N R66W	MD Reference:	GL 4747 & KB 25 GL 4747 & KB 25 @ 4773.00ft (ASSUMED)
Site:	LEFFLER 8-21 PAD	North Reference:	True
Well:	LEFFLER 1 C-23-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									
PBHL_LEFFLER 1 C-23	0.00	0.00	7,152.00	842.31	10,464.09	1,417,999.19	3,212,335.51	40.4782930	-104.7367350
- plan hits target center									
- Point									
TOP_LEFFLER 1 C-23-L	0.00	0.00	7,199.00	857.95	350.52	1,417,932.06	3,202,222.15	40.4783420	-104.7730900
- plan misses target center by 48.44ft at 7623.58ft MD (7198.99 TVD, 809.51 N, 350.68 E)									
- Point									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(ft)	(ft)			(in)	(in)
1,757.75	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)		
400.00	400.00	0.00	0.00	Start Build 1.00	
700.00	699.86	3.93	-6.80	Start 90.00 hold at 700.00 MD	
790.00	789.74	6.28	-10.88	Start DLS 2.00 TFO 58.30	
1,077.14	1,075.61	28.15	-24.29	Start 5512.22 hold at 1077.14 MD	
6,589.36	6,537.48	722.80	-288.86	Start DLS 9.00 TFO 110.46	
7,622.60	7,199.00	809.51	349.70	LP(1078 FNL 75 FWL)	
17,737.15	7,152.00	842.31	10,464.09	TD at 17737.15	