



Project: SEC 5-T5N-R66W
Site: Boomerang 21-5
Well: Boomerang 13C-6-M
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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1110.48	16.21	113.65	1099.71	-45.69	104.32	2.00	113.65	-102.79	
3298.02	16.21	113.65	3200.29	-290.66	663.68	0.00	0.00	-653.95	
4108.50	0.00	0.00	4000.00	-336.35	768.00	2.00	180.00	-756.74	
6639.95	0.00	0.00	6531.45	-336.35	768.00	0.00	0.00	-756.74	
7649.14	90.83	268.15	7168.00	-357.22	122.53	9.00	268.15	-110.93	
15687.75	90.83	268.15	7052.00	-616.94	-7911.05	0.00	0.00	7926.85	PBHL

PROJECT DETAILS: SEC 5-T5N-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
PBHL	7052.00	-616.94	-7911.05	1400713.14	3185963.28	40.4314290	-104.8320000	Point
- plan hits target center								
PLP	7168.00	-396.35	122.21	1400996.82	3193994.56	40.4320380	-104.8031430	Point
- plan misses target center by 39.10ft at 7650.72ft MD (7167.98 TVD, -357.27 N, 120.95 E)								

CASING DETAILS

TVD	MD	Name	Size
1750.00	1787.69	9 5/8"	9.625

T

M

Azimuths to True North

Magnetic North: 8.26°

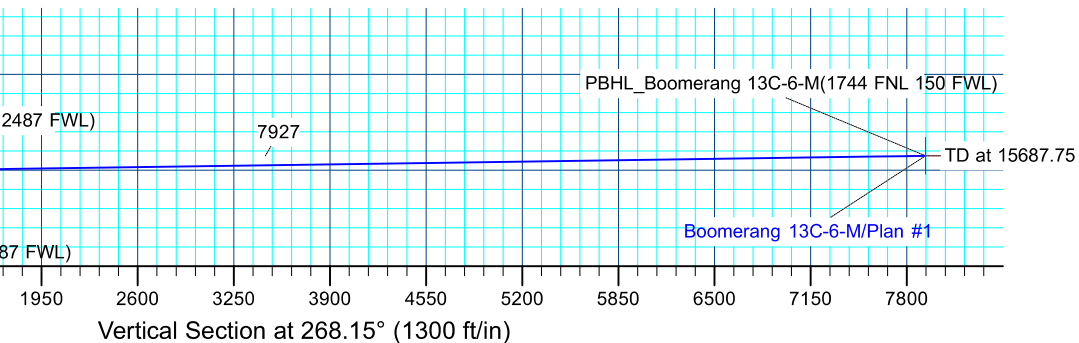
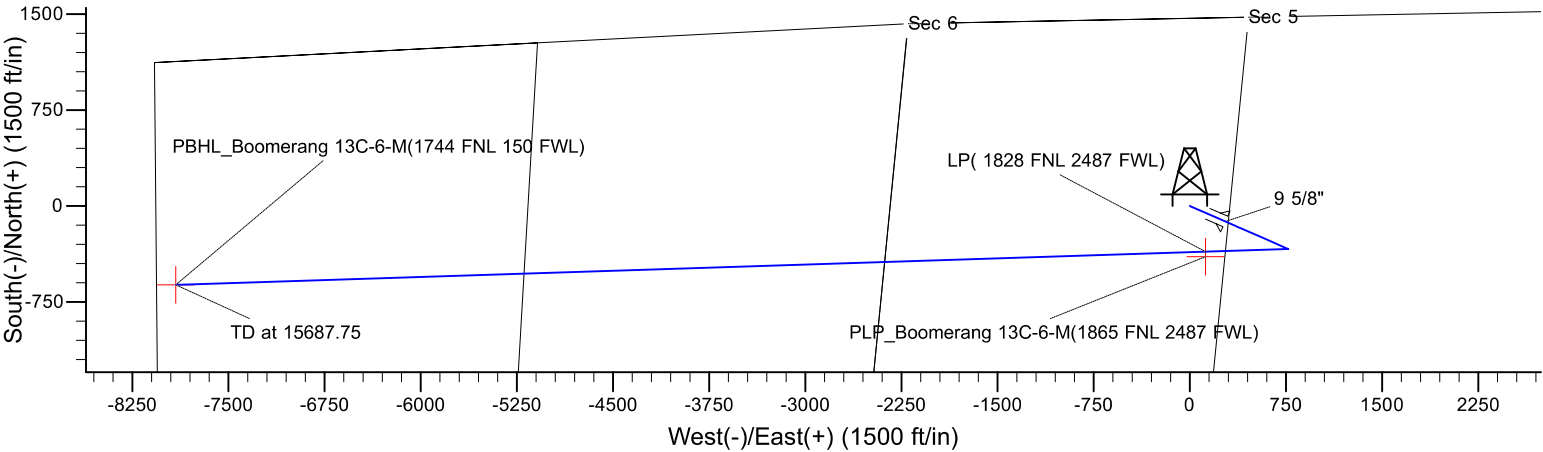
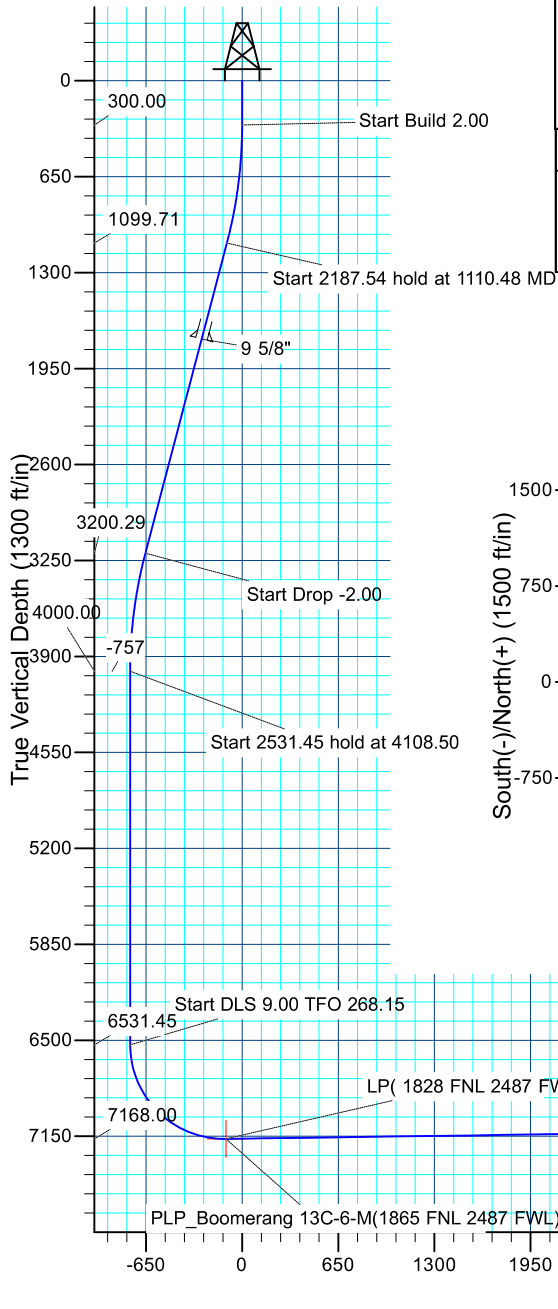
Magnetic Field

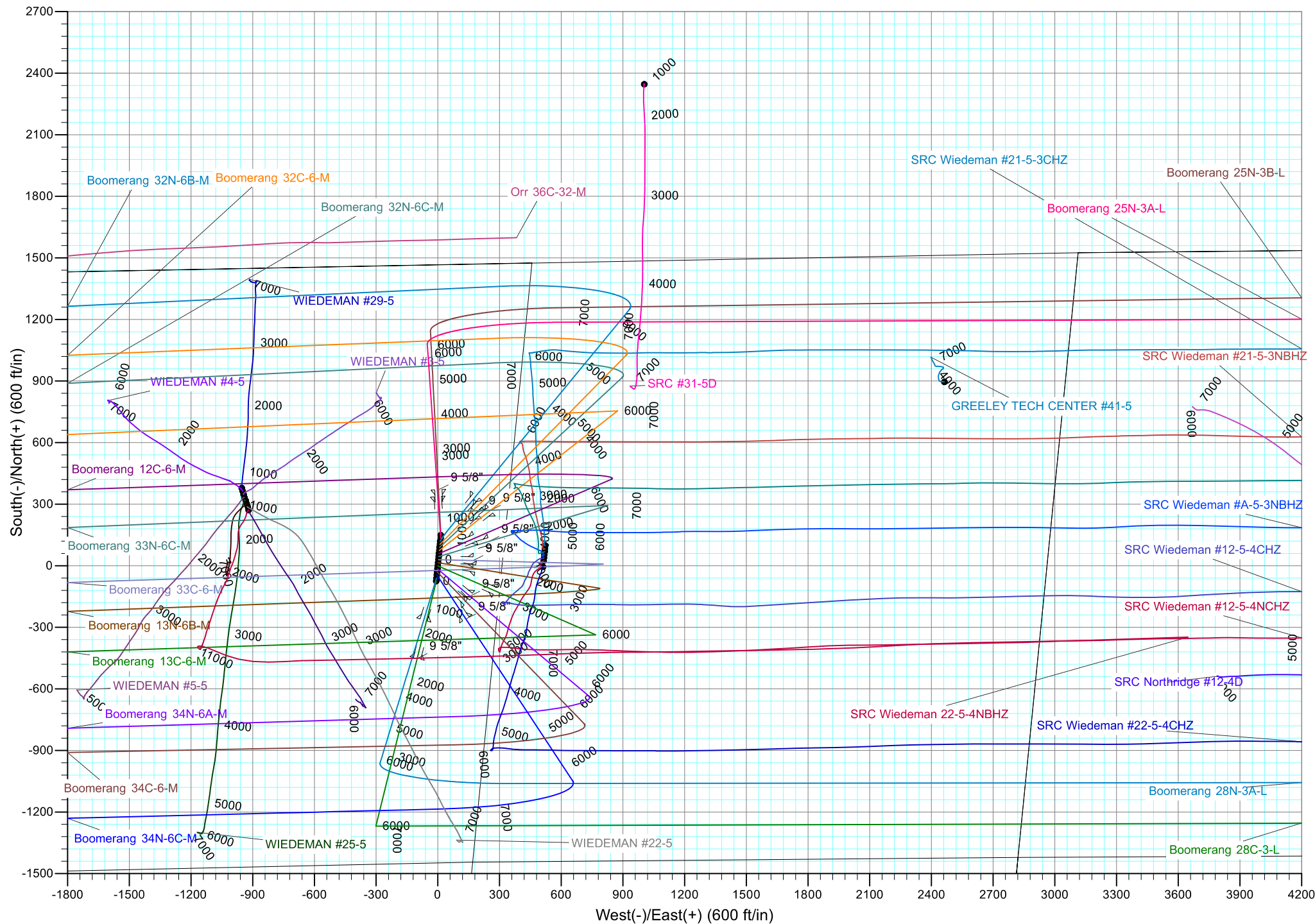
Strength: 52429.9snT

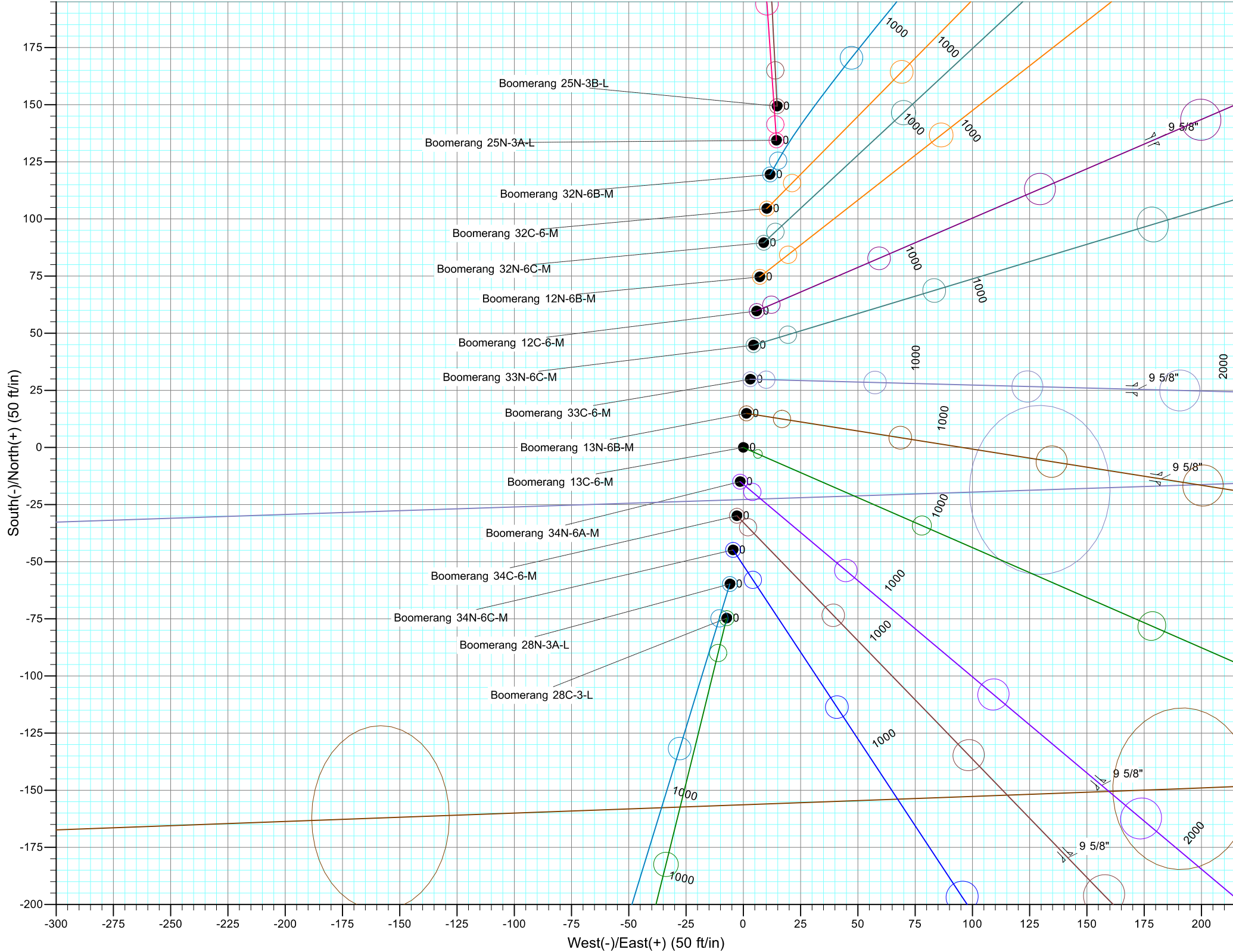
Dip Angle: 66.88°

Date: 4/1/2017

Model: IGRF2015









Synergy Resources Corporation

SEC 5-T5N-R66W

Boomerang 21-5

Boomerang 13C-6-M

OH

Plan: Plan #1

Standard Planning Report

05 April, 2017

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Boomerang 13C-6-M
Company:	Synergy Resources Corporation	TVD Reference:	GL 4770+KB 20 @ 4790.00ft
Project:	SEC 5-T5N-R66W	MD Reference:	GL 4770+KB 20 @ 4790.00ft
Site:	Boomerang 21-5	North Reference:	True
Well:	Boomerang 13C-6-M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	SEC 5-T5N-R66W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Boomerang 21-5			
Site Position:		Northing:	1,401,541.68 ft	Latitude:	40.4335360
From:	Lat/Long	Easting:	3,193,882.83 ft	Longitude:	-104.8035290
Position Uncertainty:	3.28 ft	Slot Radius:	13.200 in	Grid Convergence:	0.45

Well	Boomerang 13C-6-M, 1466 FNL 2327 FWL					
Well Position	+N/-S	-149.38 ft	Northing:	1,401,392.19 ft	Latitude:	40.4331260
	+E/-W	-14.75 ft	Easting:	3,193,869.25 ft	Longitude:	-104.8035820
Position Uncertainty		3.28 ft	Wellhead Elevation:		Ground Level:	4,770.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/1/2017	8.26	66.88	52,430

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	268.15

Plan Survey Tool Program	Date	4/5/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,687.75 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	
1,110.48	16.21	113.65	1,099.71	-45.69	104.32	2.00	2.00	0.00	113.65	
3,298.02	16.21	113.65	3,200.29	-290.66	663.68	0.00	0.00	0.00	0.00	
4,108.50	0.00	0.00	4,000.00	-336.35	768.00	2.00	-2.00	0.00	180.00	
6,639.95	0.00	0.00	6,531.45	-336.35	768.00	0.00	0.00	0.00	0.00	
7,649.14	90.83	268.15	7,168.00	-357.22	122.53	9.00	9.00	-9.10	268.15	
15,687.75	90.83	268.15	7,052.00	-616.94	-7,911.05	0.00	0.00	0.00	0.00	PBHL_Boomerang 13

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Boomerang 13C-6-M
Company:	Synergy Resources Corporation	TVD Reference:	GL 4770+KB 20 @ 4790.00ft
Project:	SEC 5-T5N-R66W	MD Reference:	GL 4770+KB 20 @ 4790.00ft
Site:	Boomerang 21-5	North Reference:	True
Well:	Boomerang 13C-6-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
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	113.65	399.98	-0.70	1.60	-1.58	2.00	2.00	0.00
500.00	4.00	113.65	499.84	-2.80	6.39	-6.30	2.00	2.00	0.00
600.00	6.00	113.65	599.45	-6.30	14.38	-14.16	2.00	2.00	0.00
700.00	8.00	113.65	698.70	-11.18	25.54	-25.16	2.00	2.00	0.00
800.00	10.00	113.65	797.47	-17.46	39.87	-39.28	2.00	2.00	0.00
900.00	12.00	113.65	895.62	-25.11	57.34	-56.50	2.00	2.00	0.00
1,000.00	14.00	113.65	993.06	-34.14	77.95	-76.81	2.00	2.00	0.00
1,100.00	16.00	113.65	1,089.64	-44.52	101.66	-100.17	2.00	2.00	0.00
1,110.48	16.21	113.65	1,099.71	-45.69	104.32	-102.79	2.00	2.00	0.00
Start 2187.54 hold at 1110.48 MD									
1,200.00	16.21	113.65	1,185.67	-55.71	127.21	-125.34	0.00	0.00	0.00
1,300.00	16.21	113.65	1,281.70	-66.91	152.78	-150.54	0.00	0.00	0.00
1,400.00	16.21	113.65	1,377.72	-78.11	178.35	-175.74	0.00	0.00	0.00
1,500.00	16.21	113.65	1,473.75	-89.31	203.92	-200.93	0.00	0.00	0.00
1,600.00	16.21	113.65	1,569.77	-100.51	229.49	-226.13	0.00	0.00	0.00
1,700.00	16.21	113.65	1,665.80	-111.71	255.06	-251.32	0.00	0.00	0.00
1,787.69	16.21	113.65	1,750.00	-121.53	277.48	-273.42	0.00	0.00	0.00
9 5/8"									
1,800.00	16.21	113.65	1,761.82	-122.90	280.63	-276.52	0.00	0.00	0.00
1,900.00	16.21	113.65	1,857.85	-134.10	306.20	-301.71	0.00	0.00	0.00
2,000.00	16.21	113.65	1,953.87	-145.30	331.77	-326.91	0.00	0.00	0.00
2,100.00	16.21	113.65	2,049.90	-156.50	357.34	-352.10	0.00	0.00	0.00
2,200.00	16.21	113.65	2,145.92	-167.70	382.91	-377.30	0.00	0.00	0.00
2,300.00	16.21	113.65	2,241.94	-178.90	408.48	-402.50	0.00	0.00	0.00
2,400.00	16.21	113.65	2,337.97	-190.10	434.05	-427.69	0.00	0.00	0.00
2,500.00	16.21	113.65	2,433.99	-201.30	459.62	-452.89	0.00	0.00	0.00
2,600.00	16.21	113.65	2,530.02	-212.49	485.20	-478.08	0.00	0.00	0.00
2,700.00	16.21	113.65	2,626.04	-223.69	510.77	-503.28	0.00	0.00	0.00
2,800.00	16.21	113.65	2,722.07	-234.89	536.34	-528.47	0.00	0.00	0.00
2,900.00	16.21	113.65	2,818.09	-246.09	561.91	-553.67	0.00	0.00	0.00
3,000.00	16.21	113.65	2,914.12	-257.29	587.48	-578.86	0.00	0.00	0.00
3,100.00	16.21	113.65	3,010.14	-268.49	613.05	-604.06	0.00	0.00	0.00
3,200.00	16.21	113.65	3,106.17	-279.69	638.62	-629.26	0.00	0.00	0.00
3,298.02	16.21	113.65	3,200.29	-290.66	663.68	-653.95	0.00	0.00	0.00
Start Drop -2.00									
3,300.00	16.17	113.65	3,202.19	-290.88	664.19	-654.45	2.00	-2.00	0.00
3,400.00	14.17	113.65	3,298.70	-301.38	688.16	-678.07	2.00	-2.00	0.00
3,500.00	12.17	113.65	3,396.07	-310.52	709.03	-698.63	2.00	-2.00	0.00
3,600.00	10.17	113.65	3,494.17	-318.29	726.77	-716.12	2.00	-2.00	0.00
3,700.00	8.17	113.65	3,592.88	-324.69	741.37	-730.50	2.00	-2.00	0.00
3,800.00	6.17	113.65	3,692.10	-329.69	752.80	-741.76	2.00	-2.00	0.00
3,900.00	4.17	113.65	3,791.69	-333.31	761.05	-749.90	2.00	-2.00	0.00
4,000.00	2.17	113.65	3,891.53	-335.53	766.12	-754.89	2.00	-2.00	0.00
4,100.00	0.17	113.65	3,991.50	-336.34	767.99	-756.73	2.00	-2.00	0.00
4,108.50	0.00	0.00	4,000.00	-336.35	768.00	-756.74	2.00	-2.00	0.00
Start 2531.45 hold at 4108.50 MD									
4,200.00	0.00	0.00	4,091.50	-336.35	768.00	-756.74	0.00	0.00	0.00
4,300.00	0.00	0.00	4,191.50	-336.35	768.00	-756.74	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Boomerang 13C-6-M
Company:	Synergy Resources Corporation	TVD Reference:	GL 4770+KB 20 @ 4790.00ft
Project:	SEC 5-T5N-R66W	MD Reference:	GL 4770+KB 20 @ 4790.00ft
Site:	Boomerang 21-5	North Reference:	True
Well:	Boomerang 13C-6-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)
4,400.00	0.00	0.00	4,291.50	-336.35	768.00	-756.74	0.00	0.00	0.00
4,500.00	0.00	0.00	4,391.50	-336.35	768.00	-756.74	0.00	0.00	0.00
4,600.00	0.00	0.00	4,491.50	-336.35	768.00	-756.74	0.00	0.00	0.00
4,700.00	0.00	0.00	4,591.50	-336.35	768.00	-756.74	0.00	0.00	0.00
4,800.00	0.00	0.00	4,691.50	-336.35	768.00	-756.74	0.00	0.00	0.00
4,900.00	0.00	0.00	4,791.50	-336.35	768.00	-756.74	0.00	0.00	0.00
5,000.00	0.00	0.00	4,891.50	-336.35	768.00	-756.74	0.00	0.00	0.00
5,100.00	0.00	0.00	4,991.50	-336.35	768.00	-756.74	0.00	0.00	0.00
5,200.00	0.00	0.00	5,091.50	-336.35	768.00	-756.74	0.00	0.00	0.00
5,300.00	0.00	0.00	5,191.50	-336.35	768.00	-756.74	0.00	0.00	0.00
5,400.00	0.00	0.00	5,291.50	-336.35	768.00	-756.74	0.00	0.00	0.00
5,500.00	0.00	0.00	5,391.50	-336.35	768.00	-756.74	0.00	0.00	0.00
5,600.00	0.00	0.00	5,491.50	-336.35	768.00	-756.74	0.00	0.00	0.00
5,700.00	0.00	0.00	5,591.50	-336.35	768.00	-756.74	0.00	0.00	0.00
5,800.00	0.00	0.00	5,691.50	-336.35	768.00	-756.74	0.00	0.00	0.00
5,900.00	0.00	0.00	5,791.50	-336.35	768.00	-756.74	0.00	0.00	0.00
6,000.00	0.00	0.00	5,891.50	-336.35	768.00	-756.74	0.00	0.00	0.00
6,100.00	0.00	0.00	5,991.50	-336.35	768.00	-756.74	0.00	0.00	0.00
6,200.00	0.00	0.00	6,091.50	-336.35	768.00	-756.74	0.00	0.00	0.00
6,300.00	0.00	0.00	6,191.50	-336.35	768.00	-756.74	0.00	0.00	0.00
6,400.00	0.00	0.00	6,291.50	-336.35	768.00	-756.74	0.00	0.00	0.00
6,500.00	0.00	0.00	6,391.50	-336.35	768.00	-756.74	0.00	0.00	0.00
6,600.00	0.00	0.00	6,491.50	-336.35	768.00	-756.74	0.00	0.00	0.00
6,639.95	0.00	0.00	6,531.45	-336.35	768.00	-756.74	0.00	0.00	0.00
Start DLS 9.00 TFO 268.15									
6,700.00	5.40	268.15	6,591.41	-336.44	765.17	-753.91	9.00	9.00	0.00
6,800.00	14.40	268.15	6,689.82	-337.00	748.00	-736.73	9.00	9.00	0.00
6,900.00	23.40	268.15	6,784.33	-338.04	715.65	-704.36	9.00	9.00	0.00
7,000.00	32.40	268.15	6,872.61	-339.55	668.92	-657.61	9.00	9.00	0.00
7,100.00	41.40	268.15	6,952.49	-341.49	608.96	-597.62	9.00	9.00	0.00
7,200.00	50.40	268.15	7,022.01	-343.81	537.26	-525.88	9.00	9.00	0.00
7,300.00	59.40	268.15	7,079.44	-346.45	455.56	-444.14	9.00	9.00	0.00
7,400.00	68.40	268.15	7,123.38	-349.35	365.90	-354.43	9.00	9.00	0.00
7,500.00	77.40	268.15	7,152.75	-352.43	270.46	-258.95	9.00	9.00	0.00
7,600.00	86.40	268.15	7,166.82	-355.63	171.61	-160.04	9.00	9.00	0.00
7,649.14	90.83	268.15	7,168.00	-357.22	122.53	-110.93	9.00	9.00	0.00
LP (1828 FNL 2487 FWL)									
7,650.72	90.83	268.15	7,167.98	-357.27	120.95	-109.35	0.00	0.00	0.00
PLP_Boomerang 13C-6-M(1865 FNL 2487 FWL)									
7,700.00	90.83	268.15	7,167.27	-358.86	71.70	-60.08	0.00	0.00	0.00
7,800.00	90.83	268.15	7,165.83	-362.09	-28.24	39.91	0.00	0.00	0.00
7,900.00	90.83	268.15	7,164.38	-365.32	-128.18	139.90	0.00	0.00	0.00
8,000.00	90.83	268.15	7,162.94	-368.55	-228.11	239.89	0.00	0.00	0.00
8,100.00	90.83	268.15	7,161.50	-371.78	-328.05	339.88	0.00	0.00	0.00
8,200.00	90.83	268.15	7,160.05	-375.02	-427.99	439.87	0.00	0.00	0.00
8,300.00	90.83	268.15	7,158.61	-378.25	-527.93	539.86	0.00	0.00	0.00
8,400.00	90.83	268.15	7,157.17	-381.48	-627.86	639.85	0.00	0.00	0.00
8,500.00	90.83	268.15	7,155.73	-384.71	-727.80	739.84	0.00	0.00	0.00
8,600.00	90.83	268.15	7,154.28	-387.94	-827.74	839.83	0.00	0.00	0.00
8,700.00	90.83	268.15	7,152.84	-391.17	-927.68	939.82	0.00	0.00	0.00
8,800.00	90.83	268.15	7,151.40	-394.40	-1,027.61	1,039.81	0.00	0.00	0.00
8,900.00	90.83	268.15	7,149.95	-397.63	-1,127.55	1,139.80	0.00	0.00	0.00
9,000.00	90.83	268.15	7,148.51	-400.86	-1,227.49	1,239.79	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Boomerang 13C-6-M
Company:	Synergy Resources Corporation	TVD Reference:	GL 4770+KB 20 @ 4790.00ft
Project:	SEC 5-T5N-R66W	MD Reference:	GL 4770+KB 20 @ 4790.00ft
Site:	Boomerang 21-5	North Reference:	True
Well:	Boomerang 13C-6-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)	
9,100.00	90.83	268.15	7,147.07	-404.09	-1,327.43	1,339.78	0.00	0.00	0.00	
9,200.00	90.83	268.15	7,145.62	-407.32	-1,427.36	1,439.77	0.00	0.00	0.00	
9,300.00	90.83	268.15	7,144.18	-410.56	-1,527.30	1,539.76	0.00	0.00	0.00	
9,400.00	90.83	268.15	7,142.74	-413.79	-1,627.24	1,639.75	0.00	0.00	0.00	
9,500.00	90.83	268.15	7,141.29	-417.02	-1,727.17	1,739.74	0.00	0.00	0.00	
9,600.00	90.83	268.15	7,139.85	-420.25	-1,827.11	1,839.73	0.00	0.00	0.00	
9,700.00	90.83	268.15	7,138.41	-423.48	-1,927.05	1,939.72	0.00	0.00	0.00	
9,800.00	90.83	268.15	7,136.97	-426.71	-2,026.99	2,039.71	0.00	0.00	0.00	
9,900.00	90.83	268.15	7,135.52	-429.94	-2,126.92	2,139.70	0.00	0.00	0.00	
10,000.00	90.83	268.15	7,134.08	-433.17	-2,226.86	2,239.69	0.00	0.00	0.00	
10,100.00	90.83	268.15	7,132.64	-436.40	-2,326.80	2,339.67	0.00	0.00	0.00	
10,200.00	90.83	268.15	7,131.19	-439.63	-2,426.74	2,439.66	0.00	0.00	0.00	
10,300.00	90.83	268.15	7,129.75	-442.86	-2,526.67	2,539.65	0.00	0.00	0.00	
10,400.00	90.83	268.15	7,128.31	-446.10	-2,626.61	2,639.64	0.00	0.00	0.00	
10,500.00	90.83	268.15	7,126.86	-449.33	-2,726.55	2,739.63	0.00	0.00	0.00	
10,600.00	90.83	268.15	7,125.42	-452.56	-2,826.49	2,839.62	0.00	0.00	0.00	
10,700.00	90.83	268.15	7,123.98	-455.79	-2,926.42	2,939.61	0.00	0.00	0.00	
10,800.00	90.83	268.15	7,122.53	-459.02	-3,026.36	3,039.60	0.00	0.00	0.00	
10,900.00	90.83	268.15	7,121.09	-462.25	-3,126.30	3,139.59	0.00	0.00	0.00	
11,000.00	90.83	268.15	7,119.65	-465.48	-3,226.24	3,239.58	0.00	0.00	0.00	
11,100.00	90.83	268.15	7,118.20	-468.71	-3,326.17	3,339.57	0.00	0.00	0.00	
11,200.00	90.83	268.15	7,116.76	-471.94	-3,426.11	3,439.56	0.00	0.00	0.00	
11,300.00	90.83	268.15	7,115.32	-475.17	-3,526.05	3,539.55	0.00	0.00	0.00	
11,400.00	90.83	268.15	7,113.88	-478.40	-3,625.98	3,639.54	0.00	0.00	0.00	
11,500.00	90.83	268.15	7,112.43	-481.64	-3,725.92	3,739.53	0.00	0.00	0.00	
11,600.00	90.83	268.15	7,110.99	-484.87	-3,825.86	3,839.52	0.00	0.00	0.00	
11,700.00	90.83	268.15	7,109.55	-488.10	-3,925.80	3,939.51	0.00	0.00	0.00	
11,800.00	90.83	268.15	7,108.10	-491.33	-4,025.73	4,039.50	0.00	0.00	0.00	
11,900.00	90.83	268.15	7,106.66	-494.56	-4,125.67	4,139.49	0.00	0.00	0.00	
12,000.00	90.83	268.15	7,105.22	-497.79	-4,225.61	4,239.48	0.00	0.00	0.00	
12,100.00	90.83	268.15	7,103.77	-501.02	-4,325.55	4,339.47	0.00	0.00	0.00	
12,200.00	90.83	268.15	7,102.33	-504.25	-4,425.48	4,439.46	0.00	0.00	0.00	
12,300.00	90.83	268.15	7,100.89	-507.48	-4,525.42	4,539.45	0.00	0.00	0.00	
12,400.00	90.83	268.15	7,099.44	-510.71	-4,625.36	4,639.44	0.00	0.00	0.00	
12,500.00	90.83	268.15	7,098.00	-513.94	-4,725.30	4,739.42	0.00	0.00	0.00	
12,600.00	90.83	268.15	7,096.56	-517.18	-4,825.23	4,839.41	0.00	0.00	0.00	
12,700.00	90.83	268.15	7,095.12	-520.41	-4,925.17	4,939.40	0.00	0.00	0.00	
12,800.00	90.83	268.15	7,093.67	-523.64	-5,025.11	5,039.39	0.00	0.00	0.00	
12,900.00	90.83	268.15	7,092.23	-526.87	-5,125.05	5,139.38	0.00	0.00	0.00	
13,000.00	90.83	268.15	7,090.79	-530.10	-5,224.98	5,239.37	0.00	0.00	0.00	
13,100.00	90.83	268.15	7,089.34	-533.33	-5,324.92	5,339.36	0.00	0.00	0.00	
13,200.00	90.83	268.15	7,087.90	-536.56	-5,424.86	5,439.35	0.00	0.00	0.00	
13,300.00	90.83	268.15	7,086.46	-539.79	-5,524.80	5,539.34	0.00	0.00	0.00	
13,400.00	90.83	268.15	7,085.01	-543.02	-5,624.73	5,639.33	0.00	0.00	0.00	
13,500.00	90.83	268.15	7,083.57	-546.25	-5,724.67	5,739.32	0.00	0.00	0.00	
13,600.00	90.83	268.15	7,082.13	-549.48	-5,824.61	5,839.31	0.00	0.00	0.00	
13,700.00	90.83	268.15	7,080.68	-552.72	-5,924.54	5,939.30	0.00	0.00	0.00	
13,800.00	90.83	268.15	7,079.24	-555.95	-6,024.48	6,039.29	0.00	0.00	0.00	
13,900.00	90.83	268.15	7,077.80	-559.18	-6,124.42	6,139.28	0.00	0.00	0.00	
14,000.00	90.83	268.15	7,076.36	-562.41	-6,224.36	6,239.27	0.00	0.00	0.00	
14,100.00	90.83	268.15	7,074.91	-565.64	-6,324.29	6,339.26	0.00	0.00	0.00	
14,200.00	90.83	268.15	7,073.47	-568.87	-6,424.23	6,439.25	0.00	0.00	0.00	
14,300.00	90.83	268.15	7,072.03	-572.10	-6,524.17	6,539.24	0.00	0.00	0.00	
14,400.00	90.83	268.15	7,070.58	-575.33	-6,624.11	6,639.23	0.00	0.00	0.00	

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Boomerang 13C-6-M
Company:	Synergy Resources Corporation	TVD Reference:	GL 4770+KB 20 @ 4790.00ft
Project:	SEC 5-T5N-R66W	MD Reference:	GL 4770+KB 20 @ 4790.00ft
Site:	Boomerang 21-5	North Reference:	True
Well:	Boomerang 13C-6-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)	
14,500.00	90.83	268.15	7,069.14	-578.56	-6,724.04	6,739.22	0.00	0.00	0.00	
14,600.00	90.83	268.15	7,067.70	-581.79	-6,823.98	6,839.21	0.00	0.00	0.00	
14,700.00	90.83	268.15	7,066.25	-585.02	-6,923.92	6,939.20	0.00	0.00	0.00	
14,800.00	90.83	268.15	7,064.81	-588.26	-7,023.86	7,039.19	0.00	0.00	0.00	
14,900.00	90.83	268.15	7,063.37	-591.49	-7,123.79	7,139.17	0.00	0.00	0.00	
15,000.00	90.83	268.15	7,061.92	-594.72	-7,223.73	7,239.16	0.00	0.00	0.00	
15,100.00	90.83	268.15	7,060.48	-597.95	-7,323.67	7,339.15	0.00	0.00	0.00	
15,200.00	90.83	268.15	7,059.04	-601.18	-7,423.61	7,439.14	0.00	0.00	0.00	
15,300.00	90.83	268.15	7,057.60	-604.41	-7,523.54	7,539.13	0.00	0.00	0.00	
15,400.00	90.83	268.15	7,056.15	-607.64	-7,623.48	7,639.12	0.00	0.00	0.00	
15,500.00	90.83	268.15	7,054.71	-610.87	-7,723.42	7,739.11	0.00	0.00	0.00	
15,600.00	90.83	268.15	7,053.27	-614.10	-7,823.35	7,839.10	0.00	0.00	0.00	
15,687.75	90.83	268.15	7,052.00	-616.94	-7,911.05	7,926.85	0.00	0.00	0.00	
TD at 15687.75 - PBHL_Boomerang 13C-6-M(1744 FNL 150 FWL)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
- hit/miss target										
- Shape										
PBHL_Boomerang 13C- - plan hits target center - Point	0.00	0.00	7,052.00	-616.94	-7,911.05	1,400,713.14	3,185,963.28	40.4314290	-104.8320000	
PLP_Boomerang 13C-6- - plan misses target center by 39.10ft at 7650.72ft MD (7167.98 TVD, -357.27 N, 120.95 E) - Point	0.00	0.00	7,168.00	-396.35	122.21	1,400,996.82	3,193,994.56	40.4320380	-104.8031430	

Casing Points							Casing Diameter (in)	Hole Diameter (in)
Measured Depth (ft)	Vertical Depth (ft)	Name						
1,787.69	1,750.00	9 5/8"					9.625	13.500

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
300.00	300.00	0.00	0.00	Start Build 2.00	
1,110.48	1,099.71	-45.69	104.32	Start 2187.54 hold at 1110.48 MD	
3,298.02	3,200.29	-290.66	663.68	Start Drop -2.00	
4,108.50	4,000.00	-336.35	768.00	Start 2531.45 hold at 4108.50 MD	
6,639.95	6,531.45	-336.35	768.00	Start DLS 9.00 TFO 268.15	
7,649.14	7,168.00	-357.22	122.53	LP(1828 FNL 2487 FWL)	
15,687.75	7,052.00	-616.94	-7,911.05	TD at 15687.75	