



FOUNDATION ENERGY MANAGEMENT, LLC

DIRECTIONAL SURVEYING WORKSHEET

#####

Sectional Interpretation (Circular Arc)

Company: FOUNDATION ENERGY MANAGEMENT, LLC
 Field: LAY CREEK
 Borehole: GAMMA STATE 23-15
 Date: N/A
 Note:

Engineer: RLP
 Survey: PLAN

Survey Number	Measured Depth	INC	AZM	True Vertical Depth	Relative Coordinates		Relative Closure	Closure Azimuth	Dogleg Severity Deg/100Ft
					North= + South= -	East= + West= -			
0	0	0.00	29.39	0.00	0.00	0.00	0.00	29.39	-
1	500	0.00	29.39	500.00	0.00	0.00	0.00	29.39	0.00
2	1000	0.00	29.39	1000.00	0.00	0.00	0.00	29.39	0.00
3	1000	0.00	29.39	1000.00	0.00	0.00	0.00	29.39	0.00
4	1100	2.26	29.39	1099.97	1.72	0.97	1.97	29.39	2.26
5	1200	4.52	29.39	1199.79	6.87	3.87	7.88	29.39	2.26
6	1300	6.78	29.39	1299.30	15.44	8.70	17.72	29.39	2.26
7	1400	9.04	29.39	1398.34	27.42	15.44	31.47	29.39	2.26
8	1500	11.29	29.39	1496.77	42.80	24.10	49.12	29.39	2.26
9	1600	13.55	29.39	1594.42	61.54	34.66	70.63	29.39	2.26
10	1700	15.81	29.39	1691.15	83.63	47.10	95.98	29.39	2.26
11	1800	18.07	29.39	1786.80	109.01	61.39	125.11	29.39	2.26
12	1900	20.33	29.39	1881.23	137.67	77.53	158.00	29.39	2.26
13	2000	22.59	29.39	1974.30	169.54	95.48	194.58	29.39	2.26
14	3000	22.59	29.39	2897.59	504.22	283.97	578.68	29.39	0.00
15	4000	22.59	29.39	3820.88	838.90	472.45	962.79	29.39	0.00
16	5000	22.59	29.39	4744.16	1173.58	660.93	1346.89	29.39	0.00
17	6000	22.59	29.39	5667.45	1508.26	849.42	1731.00	29.39	0.00
18	6100	20.33	29.39	5760.52	1540.13	867.37	1767.58	29.39	2.26
19	6200	18.07	29.39	5854.95	1568.79	883.51	1800.47	29.39	2.26
20	6300	15.81	29.39	5950.60	1594.17	897.80	1829.60	29.39	2.26
21	6400	13.55	29.39	6047.33	1616.26	910.24	1854.95	29.39	2.26
22	6500	11.29	29.39	6144.98	1635.00	920.80	1876.46	29.39	2.26
23	6600	9.04	29.39	6243.41	1650.38	929.46	1894.11	29.39	2.26
24	6700	6.78	29.39	6342.45	1662.36	936.21	1907.86	29.39	2.26
25	6800	4.52	29.39	6441.96	1670.94	941.03	1917.70	29.39	2.26
26	6900	2.26	29.39	6541.78	1676.08	943.93	1923.61	29.39	2.26
27	7000	0.00	29.39	6641.75	1677.80	944.90	1925.58	29.39	2.26
28	7500	0.00	29.39	7141.75	1677.80	944.90	1925.58	29.39	0.00
29	7508	0.00	29.39	7150.00	1677.80	944.90	1925.58	29.39	0.00
30	8500	0.00	29.39	8141.75	1677.80	944.90	1925.58	29.39	0.00
31	9000	0.00	29.39	8641.75	1677.80	944.90	1925.58	29.39	0.00
32	9138	0.00	29.39	8780.00	1677.80	944.90	1925.58	29.39	0.00
33	9308	0.00	29.39	8950.00	1677.80	944.90	1925.58	29.39	0.00
34				-358.25	1677.80	944.90	1925.58	29.39	0.00
35				-358.25	1677.80	944.90	1925.58	29.39	0.00
36				-358.25	1677.80	944.90	1925.58	29.39	0.00
37				-358.25	1677.80	944.90	1925.58	29.39	0.00
38				-358.25	1677.80	944.90	1925.58	29.39	0.00
39				-358.25	1677.80	944.90	1925.58	29.39	0.00
40				-358.25	1677.80	944.90	1925.58	29.39	0.00
41				-358.25	1677.80	944.90	1925.58	29.39	0.00
42				-358.25	1677.80	944.90	1925.58	29.39	0.00
43				-358.25	1677.80	944.90	1925.58	29.39	0.00
44				-358.25	1677.80	944.90	1925.58	29.39	0.00
45				-358.25	1677.80	944.90	1925.58	29.39	0.00
46				-358.25	1677.80	944.90	1925.58	29.39	0.00
47				-358.25	1677.80	944.90	1925.58	29.39	0.00
48				-358.25	1677.80	944.90	1925.58	29.39	0.00
49				-358.25	1677.80	944.90	1925.58	29.39	0.00
50				-358.25	1677.80	944.90	1925.58	29.39	0.00
51				-358.25	1677.80	944.90	1925.58	29.39	0.00
52				-358.25	1677.80	944.90	1925.58	29.39	0.00
53				-358.25	1677.80	944.90	1925.58	29.39	0.00
54				-358.25	1677.80	944.90	1925.58	29.39	0.00
55				-358.25	1677.80	944.90	1925.58	29.39	0.00