

D.I.G., INC.

SANTA FE ENERGY RESOURCES, INC.
FAREWELL 18 FEDERAL #1
EDDY COUNTY, NEW MEXICO

Calculated by Minimum Curvature Method
Vert Sect Plane: N 80.96 E

- RECORD OF SURVEY -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	T O T A L RECTANGULAR COORDINATES (FT)		VERTICAL SECTION (FT)	C L O S U R E DISTANCE DIRECTION (FT) (DEG)		DOGLEG SEVERITY (DG/100')
9431.00	17.25	N 87.00 E	94.00	9406.48	23.49 S	224.36 E	217.88	225.59 S	84.02 E	4.14
9525.00	21.50	N 85.00 E	94.00	9495.14	21.26 S	255.45 E	248.94	256.34 S	85.24 E	4.58
9619.00	24.50	N 84.00 E	94.00	9581.66	17.72 S	292.01 E	285.60	292.54 S	86.53 E	3.22
9713.00	27.50	N 82.00 E	94.00	9666.14	12.66 S	332.89 E	326.77	333.13 S	87.82 E	3.32
9807.00	29.50	N 81.00 E	94.00	9748.74	6.02 S	377.25 E	371.61	377.29 S	89.09 E	2.19
9901.00	31.50	N 80.00 E	94.00	9829.73	1.87 N	424.29 E	419.32	424.30 N	89.75 E	2.20
9995.00	29.75	N 81.00 E	94.00	9910.62	9.78 N	471.52 E	467.20	471.62 N	88.81 E	1.94
10089.00	28.50	N 82.00 E	94.00	9992.73	16.55 N	516.76 E	512.94	517.03 N	88.17 E	1.43
10183.00	27.25	N 83.00 E	94.00	10075.82	22.29 N	560.33 E	556.88	560.78 N	87.72 E	1.42
10277.00	26.50	N 84.00 E	94.00	10159.67	27.11 N	602.55 E	599.33	603.16 N	87.42 E	0.93
10371.00	26.25	N 85.00 E	94.00	10243.89	31.11 N	644.12 E	641.00	644.87 N	87.23 E	0.54
10465.00	27.50	N 85.00 E	94.00	10327.73	34.81 N	686.45 E	683.39	687.33 N	87.10 E	1.33
10559.00	28.00	N 84.00 E	94.00	10410.92	39.01 N	730.01 E	727.07	731.05 N	86.94 E	0.73
10653.00	32.00	N 84.00 E	94.00	10492.31	43.92 N	776.74 E	774.00	777.98 N	86.76 E	4.26
10747.00	33.00	N 82.00 E	94.00	10571.59	50.09 N	826.86 E	824.46	828.38 N	86.53 E	1.56
10841.00	35.00	N 80.00 E	94.00	10649.52	58.34 N	878.77 E	877.02	880.70 N	86.20 E	2.44
10935.00	37.00	N 79.00 E	94.00	10725.56	68.42 N	933.09 E	932.25	935.59 N	85.81 E	2.22
11029.00	37.25	N 79.00 E	94.00	10800.51	79.24 N	988.78 E	988.95	991.95 N	85.42 E	0.27
11123.00	37.00	N 79.00 E	94.00	10875.46	90.07 N	1044.47 E	1045.65	1048.35 N	85.07 E	0.27
11217.00	36.75	N 79.00 E	94.00	10950.65	100.83 N	1099.84 E	1102.02	1104.45 N	84.76 E	0.27
11311.00	36.50	N 80.00 E	94.00	11026.10	111.05 N	1154.98 E	1158.08	1160.31 N	84.51 E	0.69
11405.00	36.50	N 80.00 E	94.00	11101.66	120.76 N	1210.04 E	1213.99	1216.05 N	84.30 E	0.00
11499.00	36.00	N 80.00 E	94.00	11177.46	130.41 N	1264.78 E	1269.56	1271.49 N	84.11 E	0.53
11593.00	36.00	N 80.00 E	94.00	11253.51	140.00 N	1319.19 E	1324.81	1326.60 N	83.94 E	0.00
11687.00	35.75	N 79.00 E	94.00	11329.68	150.04 N	1373.36 E	1379.87	1381.53 N	83.77 E	0.68
11781.00	35.25	N 79.00 E	94.00	11406.21	160.46 N	1426.94 E	1434.43	1435.93 N	83.58 E	0.53
11875.00	35.50	N 78.00 E	94.00	11482.85	171.31 N	1480.26 E	1488.79	1490.14 N	83.40 E	0.67
11969.00	35.25	N 81.00 E	94.00	11559.50	181.23 N	1533.76 E	1543.18	1544.43 N	83.26 E	1.87
12063.00	35.25	N 81.00 E	94.00	11636.27	189.71 N	1587.34 E	1597.43	1598.64 N	83.18 E	0.00
12094.00	35.00	N 81.00 E	31.00	11661.62	192.50 N	1604.96 E	1615.27	1616.46 N	83.16 E	0.81
PROJECTION @ T.D.										
12150.00	34.75	N 81.00 E	56.00	11707.57	197.51 N	1636.58 E	1647.29	1648.46 N	83.12 E	0.45

Survey Ref: Well Head Closure Ref: Well Head
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Vert Sect Ref: Well Head
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