

SANTA FE ENERGY OPERATING PARTNERS, L.P.  
P. G. "4" FEDERAL NO. 1  
SEC 4-9, T23S, R31E, EDDY COUNTY, NEW MEXICO

**PROPOSED DIRECTIONAL WELL PLAN**

**RADIUS OF CURVATURE METHOD**

| MEASURED | COURSE | INCL  | DRIFT     | TRUE     | VERTICAL | DOGLEG     |
|----------|--------|-------|-----------|----------|----------|------------|
| DEPTH    | LENGTH | ANGLE | DIRECTION | VERTICAL | SECTION  | SEVERITY   |
| (FT)     | (FT)   | (DEG) | (DEG)     | DEPTH    | (FT)     | (DEG/100') |

|          |         |       |          |          |         |      |
|----------|---------|-------|----------|----------|---------|------|
| 6030.14  | 0.00    | 0.00  | N 0.00 E | 6030.14  | 0.00    | 0.00 |
| 6130.14  | 100.00  | 1.50  | N 0.00 E | 6130.13  | 1.31    | 1.50 |
| 6230.14  | 100.00  | 3.00  | N 0.00 E | 6230.05  | 5.23    | 1.50 |
| 6330.14  | 100.00  | 4.50  | N 0.00 E | 6329.83  | 11.77   | 1.50 |
| 6430.14  | 100.00  | 6.00  | N 0.00 E | 6429.41  | 20.92   | 1.50 |
| 6530.14  | 100.00  | 7.50  | N 0.00 E | 6528.71  | 32.68   | 1.50 |
| 6630.14  | 100.00  | 9.00  | N 0.00 E | 6627.68  | 47.03   | 1.50 |
| 6730.14  | 100.00  | 10.50 | N 0.00 E | 6726.23  | 63.96   | 1.50 |
| 6830.14  | 100.00  | 12.00 | N 0.00 E | 6824.30  | 83.47   | 1.50 |
| 6930.14  | 100.00  | 13.50 | N 0.00 E | 6921.84  | 105.54  | 1.50 |
| 7030.14  | 100.00  | 15.00 | N 0.00 E | 7018.76  | 130.15  | 1.50 |
| 7130.14  | 100.00  | 16.50 | N 0.00 E | 7115.00  | 157.30  | 1.50 |
| 7230.14  | 100.00  | 18.00 | N 0.00 E | 7210.50  | 186.95  | 1.50 |
| 7330.14  | 100.00  | 19.50 | N 0.00 E | 7305.19  | 219.09  | 1.50 |
| 7363.47  | 33.33   | 20.00 | N 0.00 E | 7336.56  | 230.36  | 1.50 |
| 10240.81 | 2877.34 | 20.00 | N 0.00 E | 10040.28 | 1214.47 | 0.00 |
| 10340.81 | 100.00  | 19.00 | N 0.00 E | 10134.94 | 1247.95 | 1.00 |
| 10440.81 | 100.00  | 18.00 | N 0.00 E | 10229.47 | 1279.58 | 1.00 |
| 10540.81 | 100.00  | 17.00 | N 0.00 E | 10324.84 | 1309.65 | 1.00 |
| 10640.81 | 100.00  | 16.00 | N 0.00 E | 10420.72 | 1338.05 | 1.00 |
| 10740.81 | 100.00  | 15.00 | N 0.00 E | 10517.08 | 1364.77 | 1.00 |
| 10840.81 | 100.00  | 14.00 | N 0.00 E | 10613.90 | 1389.81 | 1.00 |
| 10940.81 | 100.00  | 13.00 | N 0.00 E | 10711.13 | 1413.15 | 1.00 |
| 11040.81 | 100.00  | 12.00 | N 0.00 E | 10808.76 | 1434.90 | 1.00 |
| 11140.81 | 100.00  | 11.00 | N 0.00 E | 10906.75 | 1454.73 | 1.00 |
| 11240.81 | 100.00  | 10.00 | N 0.00 E | 11005.08 | 1472.96 | 1.00 |
| 11340.81 | 100.00  | 9.00  | N 0.00 E | 11103.70 | 1489.46 | 1.00 |
| 11440.81 | 100.00  | 8.00  | N 0.00 E | 11202.60 | 1504.24 | 1.00 |
| 11540.81 | 100.00  | 7.00  | N 0.00 E | 11301.75 | 1517.29 | 1.00 |
| 11640.81 | 100.00  | 6.00  | N 0.00 E | 11401.10 | 1528.61 | 1.00 |
| 11740.81 | 100.00  | 5.00  | N 0.00 E | 11500.64 | 1538.20 | 1.00 |
| 11840.81 | 100.00  | 4.00  | N 0.00 E | 11600.33 | 1546.04 | 1.00 |
| 11940.81 | 100.00  | 3.00  | N 0.00 E | 11700.14 | 1552.15 | 1.00 |
| 12040.81 | 100.00  | 2.00  | N 0.00 E | 11800.05 | 1556.51 | 1.00 |
| 12140.81 | 100.00  | 1.00  | N 0.00 E | 11900.01 | 1559.13 | 1.00 |
| 12240.81 | 100.00  | 0.01  | N 0.00 E | 12000.00 | 1560.00 | 0.99 |
| 15240.81 | 3000.00 | 0.01  | N 0.00 E | 15000.00 | 1560.24 | 0.00 |