

## GENERAL DRILLING PROGRAM- Attachment to Form C-101

Southwestern Energy Production Company- Butkus "2" State #1

SL: 3300' FSL 900' FEL Section 2-T21S-R34E

PBHL: 3350' FSL 685' FEL Section 2-T21S-R34E

Lea County, New Mexico

Elevation: 3704' GR

Proposed Total Depth: 13,423' MD / 13,400' TVD

### Estimated Formation Tops

|                |         |
|----------------|---------|
| Rustler        | 1794'   |
| Salt           | 1874'   |
| Yates          | 3722'   |
| Delaware       | 5854'   |
| Bone Spring    | 8115'   |
| Wolfcamp       | 11,360' |
| Strawn         | 12,020' |
| Atoka          | 12,270' |
| Morrow Lm      | 12,500' |
| Morrow Clastic | 12,930' |
| Morrow "C"     | 13,170' |
| Total Depth    | 13,400' |

### Casing/Cement Program

| <u>Hole Size</u> | <u>Casing Size/Weight/Grade</u>                    | <u>Setting Depth</u> | <u>Cement</u>                                                                                            | <u>Est. TOC</u> |
|------------------|----------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------|-----------------|
|                  | 20" Conductor pipe                                 | 40'                  | ready mix                                                                                                | surface         |
| 17-1/2"          | 13-3/8" 61# J-55 ST&C                              | 1350'                | Lead:850 sx 35:65 Poz: Class C<br>+ 6% D20+ 0.25 pps D29<br>Tail: 235 sx Class C+ 2% S1<br>+0.25 pps D29 | surface         |
| 12-1/4"          | 9-5/8" 40# N-80/K-55 LT&C                          | 5750'                | Lead: 925 sx 35:65 Poz: Class C<br>+ 6% D20+0.25 pps D29<br>Tail: 200 sx Class C Neat                    | 1200'           |
| 8-1/2"           | 7" 26# HCP-110 LT&C                                | 11,823'              | 860 sx 50:50 Poz: Class H + 6%<br>D44 +2% D20+0.4% D59                                                   | 4800'           |
| 6-1/8"           | 4-1/2" 13.5# HCP-110 LT&C<br>liner 11,500'-13,400' | 13,423'              | 150 sx Class H+1 gps D600+0.03<br>gps M45+0.1 gps D801+0.05 gps<br>D604AM                                | 11,300'         |

### Drilling Fluids Program

| <u>Depth</u>  | <u>Mud Weight</u> | <u>Viscosity</u> | <u>Fluid Loss</u> | <u>Comments</u>                              |
|---------------|-------------------|------------------|-------------------|----------------------------------------------|
| 0-1350'       | 8.4-8.8           | 32-34            | NC                | fresh gel,caustic,paper                      |
| 1350'-5750'   | 9.9-10.0          | 28-30            | NC                | cut brine water,lime,paper<br>Star NP-110    |
| 5750'-11,823' | 9.0-9.5           | 28-32            | NC                | fresh/cut brine,caustic,paper<br>Star NP-110 |