ellwether Exploration, Inc. Spur 11 State Com #1 Drilling & Completion Procedure

- 1. Survey and stake location
- 2. Prepare location, access roads, reserve pits, etc. Establish water source, drill rat hole/mouse hole/conductor as required.
- 3. Mobilize rig and erect same.
- 4. Mix spud mud.
- 5. Spud in and drill 14-3/4" hole to 350-400'
- 6. Run 11-3/4" conductor and cement same.
- 7. Drill out with 11" bit to approximately 3,000'. Have mud loggers rigged up by 1400'.
- 8. Condition hole and run 8-5/8" casing.
- 9. Cement same with +/- 700 sx Class C.
- 10. Nipple up 11" bradenhead, 11" BOP stack, and test same.
- Drill out and test casing shoe to 11.5 ppg. Drill ahead to TD of +/- 12,000'. Be prepared for possible open hole DST intervals in Glorietta, Wolfcamp, Strawn/Attoka, and Morrow formations.
- 12. Condition hole and log with Platform Express, possible NMR over the bottom 3000'.
- 13. If commercially productive, condition hole for casing.
- 14. LDDP.
- 15. RU casing crews and run 5-1/2" 17.0 ppf N-80 casing.
- 16. Cement same based on caliper log and log derived integrated hole volume. Cement slurry should be designed to be at least 500' above the top pay zone. Displace cement with 3% KCI water.
- 17. ND BOP's/ NU tubing head and test same. Install dry hole tree and release drilling rig.
- 18. Mobilize logging truck and run GR-CBL-CCL-VDL. Evaluate logs for isolation.
- 19. Based on open hole and cased hole log evaluations, a completion will be designed. The completion will probably require a completion rig and will include fracture stimulation.