

Noble Energy Inc.
Best Management Practices
Horizontal Well

Anti-collision:

Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottomhole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. For the proposed well, upon conclusion of drilling operations, an as-constructed gyro survey will be submitted to COGCC with the Form 5.

During and Post stimulation:

1. At least seven (7) days prior to fracture stimulation, the Operator is to notify all operators of non-operated wells within 300 feet of the wellbore to be fracture stimulated of the anticipated date stimulation date and the recommended best management practice to shut-in all wells within 300' of the stimulated wellbore completed in the same formation.
2. The Operator will monitor the bradenhead pressure of all wells operated by the Operator within 300 feet of the well to be fracture stimulated.
3. Bradenhead pressure gauges are to be installed 24 hours prior to stimulation. The gauges are to read at least once during every 24-hour period until 24-hours after stimulation is completed (post flowback). The gauges are to be of the type able to read current pressure and record the maximum encountered pressure in a 24-hour period. The gauge is to be reset between each 24-hour period. The pressures are to be recorded and saved. Alternate electronic measurement may be used to record the prescribed pressures. Data shall be kept for a period of one year.
4. If at any time during stimulation or the 24-hour post-stimulation period, the bradenhead annulus pressure of the treatment well or offset wells increases more than 200 psig, as per Rule 341, the Operator of the well being stimulated shall verbally notify the Director as soon as practicable, but no later than twenty-four (24) hours following the incident. Within fifteen (15) days after the occurrence, the Operator shall submit a Sundry Notice, Form 4, giving all details, including corrective actions taken.