Colorado Oil and Gas Conservation Commission

DOWHOLE PROTECTION & WELBORE INTEGRITY

No Reception Exposure when downhole transport pathway is incomplete

1. General Drilling Rules
   a. Perforation interval requirement: 50’ intervals
   b. Limit to 50 feet
   c. Perforation to be fired per the log provided with the well
   d. Limit to 50 feet
   e. Surface or epicenter shall be at least 300 feet
   f. Surface casing providing a log to be continuous
   g. Surface casing providing a log to be continuous
   h. Surface casing providing a log to be continuous
   i. Surface casing providing a log to be continuous
   j. Surface casing providing a log to be continuous
   k. Surface casing providing a log to be continuous
   l. Surface casing providing a log to be continuous
   m. Surface casing providing a log to be continuous
   n. Surface casing providing a log to be continuous
   o. Surface casing providing a log to be continuous
   p. Surface casing providing a log to be continuous
   q. Surface casing providing a log to be continuous
   r. Surface casing providing a log to be continuous
   s. Surface casing providing a log to be continuous
   t. Surface casing providing a log to be continuous
   u. Surface casing providing a log to be continuous
   v. Surface casing providing a log to be continuous
   w. Surface casing providing a log to be continuous
   x. Surface casing providing a log to be continuous
   y. Surface casing providing a log to be continuous
   z. Surface casing providing a log to be continuous

3. Bradenhead Monitoring during Well Stimulation operations

a. The placement of all stimulation fluids shall be confirmed by the operator to the Conservation Commission for release:
   b. During stimulation operations, bradenhead pressure shall be continuously monitored at the surface and at well locations.
   c. Every 24 hours the surface pressure in the well shall be monitored for any changes that may indicate a potential for bradenhead failure.
   d. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   e. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   f. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   g. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   h. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   i. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   j. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   k. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   l. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   m. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   n. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   o. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   p. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   q. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   r. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   s. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   t. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   u. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   v. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   w. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   x. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   y. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.
   z. If any bradenhead monitoring indicators are observed, the operator shall take appropriate measures to prevent any potential for bradenhead failure.

4. Cement Bond Log

2.1 The requirements to log well. For all new drilling operations, the operator shall be required to maintain a cement bond log with gamma ray or other post-logging methods approved by the Conservation Commission. A cement bond log shall be run on all production casing or, in the case of a production liner, the intermediate casing, when those casing strings are run. These logs and all other logs run shall be submitted with the Conservation Commission’s Recompletion and Report Form (CPR Form) and ORP Form to the Conservation Commission for review and approval.

5. Conclusion

The Conservation Commission has determined that the proposed new drilling operations and other activities are consistent with the requirements of the regulations of the Conservation Commission and other applicable laws and regulations. The Commission has approved the proposed new drilling operations and other activities as outlined in this report. The Commission has found that the proposed new drilling operations and other activities will not cause any significant adverse environmental impacts. The Commission has also determined that the proposed new drilling operations and other activities will not cause any significant adverse public health or safety impacts. The Commission has further determined that the proposed new drilling operations and other activities will not cause any significant adverse economic impacts. The Commission has approved the proposed new drilling operations and other activities as outlined in this report.