

## **Suggested Wellbore Diagram Guidelines:**

When is a wellbore diagram required per COGCC rules?

A wellbore diagram is required as an attachment to a Form 4, Sundry Notice, prior to a recomple or deepening (Rule 303.b.) and prior to performing a routine or planned casing repair (Rule 317.d.). Current and proposed wellbore diagrams are required as attachments to Form 33, Injection Well Permit Application. A wellbore diagram is required as an attachment to Form 17, Bradenhead Test Report, if not previously submitted or if the wellbore configuration has changed following a previous submittal (Rule 314). Wellbore diagram must be submitted upon request by COGCC staff as attachments to Form 5A, Completed Interval Report and Form 6, Well Abandonment Report.

What is the objective of a wellbore diagram?

A current wellbore diagram provides a visual representation of the existing wellbore configuration. Wellbore diagrams are particularly useful to COGCC staff during their review of proposed procedures which would alter the wellbore configuration. If an operator proposes to change the current wellbore configuration, then COGCC staff recommends submittal of current and proposed wellbore diagrams to expedite review and approval of proposed procedures.

What are COGCC staff's recommended items to include on a wellbore diagram?

A standard wellbore diagram should include all permanent downhole features and diagram label.

### Diagram Label:

- Well Name and Number
- Current / Actual or Planned/Proposed
- Legal location (Qtr-Qtr, Section, Township, Range, and Principal Meridian)
- API Number
- County
- Date of the diagram

### Permanent Downhole Features:

- Hole size
- TD of hole and PBSD
- Quantity of cement placed in hole for conductor, surface, intermediate, production casing and liners, top and bottom of cement, yield and slurry weight
- Casing: size, weight, top and depth, casing tools (DV)
- Perforations depth
- Formation tops
- KOPs for sidetracks

### Future Permanent Downhole Features:

- Deepened TD
- Remedial cement placed in hole, top and bottom, quantity, yield, and slurry weight
- Depth of bridge plugs, retainers, packers, fish, and quantity of cement placed on top of these features, if any.
- Any changes to the casing configurations.
- New perforations

Injection wells should show the packer and tubing depths.

Plug and abandonment wellbore diagrams should show the location of plugs (top and bottom) and the number of cement sacks on top of mechanical plugs. Specify cement quantity, yield, and slurry weight for all open-hole cement plugs and cement plugs which are circulated or pumped through retainers.