

- b. A mechanical integrity test that shows the Well lacks integrity is considered a failed test.
- c. The Form 21 will be completely filled out except for Part II, which is required only for injection Wells. An original copy of the pressure chart will be submitted with every Form 21.

419. BRADENHEAD MONITORING, TESTING, AND REPORTING

a. Equipment Requirements.

- (1) The Operator will equip Bradenhead access on all Wells to the Annulus between the production and surface casing as well as any intermediate casing with appropriate fittings to allow safe and convenient determination of pressure and Fluid flow.
- (2) To allow for Commission visual inspection at all times, all valves used for annular pressure monitoring will remain exposed and will not be buried. An Operator may use a rigid housing to protect the valves so long as the housing can be easily opened or removed by the Operator upon request.
- (3) These equipment requirements apply to all Wells, regardless of function.

b. Bradenhead Monitoring. The Operator will monitor all Wells at a Director-indicated frequency for aspects of Well integrity necessary to protect and minimize adverse impacts to public health, safety, welfare, the environment, and wildlife resources, including Groundwater, Potential Flow Zones, and formations and pursuant to this Rule 419.

(1) **After Rig Release, Prior to Stimulation.** An Operator will monitor all annular casing pressures on a monthly basis. If at any point the Bradenhead monitoring pressure is greater than 30% of the TVD in feet of the surface casing shoe expressed in psig, the Operator will contact the Director before proceeding with Stimulation to determine whether mitigation or other measures are necessary to ensure isolation consistent with the Commission's Rules.

(2) During Hydraulic Fracturing Treatment.

- A. An Operator will confine the placement of all Stimulation fluids to the objective formations during Hydraulic Fracturing Treatment to the extent practicable.
- B. During Hydraulic Fracturing Treatment operations, an Operator will continuously monitor and record Bradenhead Annulus pressure on all Wells being Stimulated.
- C. If intermediate casing has been set on the Well Stimulated by Hydraulic Fracturing Treatment, an Operator will monitor and record the pressure in the Annulus between the intermediate casing and the production casing during Stimulation operations.
- D. During Hydraulic Fracturing Treatment operations, an Operator will monitor the Bradenhead Annulus and casing pressures for all Wells within 300 feet of the wellbore being Stimulated.
- E. If at any time during Hydraulic Fracturing Treatment operations, the Bradenhead Annulus pressure in psig in the Well being Stimulated or any Well being monitored has a Bradenhead pressure exceeding 30% of the TVD in feet of the surface casing shoe expressed in psig, or the Operator has reason to suspect any potential failure of the production casing or Stimulation string, the Operator will: