

Rule 107 - Casing and Tubing Requirements

(a) All wells drilled for oil or natural gas shall be completed with a string of casing which shall be properly cemented at a sufficient depth to protect adequately the oil or natural gas bearing strata to be produced. In addition thereto such other casing and cement shall be used as necessary in order to seal off all oil, gas, and water strata which may be encountered in the well, except the one or ones to be produced. Sufficient cement shall be used on surface casing to fill the annular space back of the casing to the top of the hole. All cementing shall be by pump and plug method, or such other method approved by the Commission. All casing strings shall be tested and proved satisfactory as provided in paragraph (c) below.

(b) Before initiating tests (as in (c) below), all casing strings shall stand cemented a minimum of

- (1) eighteen (18) hours, or
- (2) until the compressive strength is at least 500 pounds per square inch in the "zone of interest," provided however, that no tests shall be commenced until the cement has been in place for at least eight (8) hours.

The "zone of interest" for surface, intermediate, and protection casing strings shall be the bottom 20 percent of the casing string, but shall be no greater than 1000 feet nor less than 300 feet of the bottom part of the casing unless the casing is set at a depth less than 300 feet. In the case of the production casing string the "zone of interest" shall include the interval or intervals where immediate completion is contemplated. Operators using the minimum 18-hour criterion of cement strength shall report on Form C-103 the actual time the cement was in place before initiating tests. Operators using compressive strength criterion shall report the following information on Form C-103:

- (1) Volume of cement slurry (cubic feet).
- (2) Brand name of cement together with additives showing sequence of placement if more than one type cement slurry is used.
- (3) Approximate temperature of cement slurry when mixed.
- (4) Estimated native bottom hole formation temperature.
- (5) Estimate of cement strength at time of testing.
- (6) Time interval between plug down and starting of casing test.

(c) All casing strings except conductor pipe shall be tested after cementing and before commencing any other operations on the well.

(1) Wells drilled with rotary tools shall be pressure tested. Minimum casing test pressure shall be approximately one-third manufacturer's rated internal yield pressure except that the test pressure shall not be less than 600 pounds per square inch and need not be greater than ~~2600~~ pounds per square inch. In cases where combination strings are involved, the above test pressures shall apply to the lowest pressure rated casing used. Test pressures shall be applied for a period of 30 minutes. If a drop of more than 10 percent of the test pressure should occur, the casing shall be considered defective and corrective measures shall be applied.

(2) Wells drilled with cable tools may be tested as outlined in subparagraph (c) (1) above, or by bailing the well dry in which case the hole must satisfactorily remain dry for a period of at least six hours (6) before commencing any further operations on the well.

(over)

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

EXHIBIT No. 6

CASE 1369

Rule 107 - Casing and Tubing Requirements (Continued)

The results of casing tests on each string shall be reported on Form C-103.

(d) All flowing wells shall be tubed, and the tubing shall be set as near the bottom as practical; tubing perforations shall not be more than 250 feet above the top of the pay, unless authorized by the Commission.