

**RULES
OF THE
OIL AND GAS PROGRAM
DIVISION OF WATER RESOURCES**

**CHAPTER 0400-52-08
DIRECTIONAL DRILLING**

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0400-52-08-.01 LATERAL DEVIATION.

- (1) No operator shall drill a well in which the well bore deviates laterally a resultant distance greater than that determined by a 5 degree angle from a vertical line passing through the center of the surface location of the well bore, without running a directional survey. If the operator desires to directionally control and thereby intentionally deflect a hole from the vertical (whether more or less than 5 degrees and unless done to straighten the hole or to side-track junk in the hole or because of other mechanical difficulties) a letter of approval shall be first obtained from the Supervisor. Nothing herein shall be construed to permit the drilling of any well in such a manner that it crosses property lines.
- (2) Whenever a well is deviated from vertical, the point at which the well bore intersects the producing formation (pool) shall be protected to the surface and become the location of the well in determining if it complied with the spacing rules.

Authority: T.C.A §§ 60-1-201 et seq., and 4-5-201 et seq. **Administrative History:** Original rule filed March 20, 2013; effective June 18, 2013.

0400-52-08-.02 INCLINATION SURVEYS.

An inclination survey shall be made at the discretion of the Supervisor on all wells drilled with the first shot-point at a depth not greater than that of the surface casing seat and succeeding shot-points not more than 1,000 feet apart. Inclination surveys conforming to the requirements may be made either during the normal course of drilling or after the well has reached total depth. Such survey data shall be certified by the operator's representative and/or drilling contractor and shall indicate the resultant lateral deviation as the sum of the calculated lateral displacement determined between each inclination survey point, assuming that all such displacement occurs in the direction of the nearest property line. If a directional survey determining the bottom of the hole is filed with the Supervisor upon completion of the well, it shall not be necessary to furnish the inclination survey data. Except as otherwise specified herein, all inclination and/or directional survey data shall be filed along with Well History (Form CN-0221).

Authority: T.C.A §§ 60-1-201 et seq., and 4-5-201 et seq. **Administrative History:** Original rule filed March 20, 2013; effective June 18, 2013.

0400-52-08-.03 DIRECTIONAL SURVEY.

- (1) A directional survey shall be run by a qualified contractor approved by the Supervisor and 2 certified copies thereof filed with the Supervisor on any well, if:
 - (a) The well is directionally controlled and is thereby intentionally deflected from the vertical; or

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- (b) The resultant level deviation as calculated from inclination survey data is a distance greater than the distance from the center of the surface location of the well bore to the nearest property or unit line and might violate the distance from property lines rule; or
 - (c) The well bore deviates a resultant distance greater than that determined by a 5 degree angle from a vertical line passing through the center of the surface location of the well bore.
- (2) The Supervisor, on his own initiative or at the request of an offset operator, shall have the right to require the operator to run a directional survey on any well if there is reasonable cause therefore. Whenever a survey is so required, and the operator of the well and the offset operator are unable to agree as to the terms and conditions for running such survey, the Supervisor, upon request of either, shall determine such terms and conditions, after notice to all interested parties and a public hearing.
 - (3) Unless required by the Supervisor, a directional survey shall not be required for any well which is not directionally controlled and thereby intentionally deflected from the vertical and which has a surface location, maximum angle of deviation and total depth, in compliance with the provisions of Chapters 0400-52-01 through 0400-52-12.
 - (4) The provisions hereof shall not alter or affect the minimum spacing provisions of Chapters 0400-52-01 through 0400-52-12.

Authority: T.C.A §§ 60-1-201 et seq., and 4-5-201 et seq. **Administrative History:** Original rule filed March 20, 2013; effective June 18, 2013.

0400-52-08-.04 HORIZONTAL DRILLING.

- (1) Wells drilled by horizontal methods shall comply with the following spacing requirements:
 - (a) For all oil wells, and for gas wells drilled to the top of the Conasauga Group, the surface trace of that portion of the well bore or any portion of the horizontal drainhole that penetrates the producing formation, including the horizontal drainhole end point, shall not be located closer than 330 feet from any property or unit line.
 - (b) For gas wells drilled below the top of the Conasauga Group, the surface trace of that portion of the well bore or any portion of the horizontal drainhole that penetrates the producing formation, including the horizontal drainhole end point, shall not be located closer than 660 feet from any property or unit line.
 - (c) Any number of producing formations may be penetrated by lateral drainholes from a single vertical well bore.
 - (d) All of the producing portion of the well shall be in compliance with the spacing requirements of this paragraph. The horizontal portion of the well is the formation of record for production.
- (2) For all horizontal wells, the operator shall at a minimum cement the production casing from the first packer up to 100 feet inside the intermediate casing. Alternatively, the operator may utilize an appropriate packer at the bottom of the intermediate casing instead of cement. Casing shall have an external collapse pressure rating to handle cement design from termination point to surface. If cement is used, the operator shall use cement with 500 psi compressive strength and have a minimum 8 hour wait, or until cement has adequately set. The operator shall present all cement and casing designs on a specifications sheet with Permit Application for approval. A copy of cement tickets shall be kept on location to be viewed by the inspector until the drill rig is removed. When unknown or over pressured

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conditions are encountered a 5000 psi rating on casing shall apply. The operator shall attach a copy of all cement tickets to the well history tickets and shall include all volumes and pressures of job from start to finish.

Authority: *T.C.A §§ 60-1-201 et seq., and 4-5-201 et seq.* **Administrative History:** *Original rule filed March 20, 2013; effective June 18, 2013.*