

An advisory was issued for well construction in the New Haven area in 2003. A revised advisory is now issued due to the spread of dissolved and concentrated TCE and PCE into more areas than was originally estimated. The USEPA, USGS and MDNR's Superfund Section are continuing to assess the vertical and lateral extent of the chlorinated hydrocarbon plume and will assist Wellhead in determining acceptable well construction standards for the areas of impact.

Advisory #1 (REVISED) October 29, 2004:

Site Name: New Haven (Franklin County). Also known as the Riverfront Superfund Site

Contaminants of concern: Tetrachloroethene (PCE) and its degradation products; Trichloroethene (TCE) and its degradation products. PCE and TCE are dissolved in groundwater and in some areas exist as free-product. New data shows that contamination is more severe than the previous advisory indicated.

Location: PCE and TCE contamination is present within the following areas, although the exact boundaries currently are not well-defined: Sec 36, Township 45, Range 3W; Sec 2, N ½ Sec 11, SW ¼ Sec 1 and NW ¼ Sec 12, Township 44, Range 3W.

Construction requirements: It is highly recommended that well installation contractors consult the division for construction specifications before considering drilling any type of well (domestic, multi-family, heat pump, etc.) in the advisory area. The division continues to collect information about the location and concentration of contaminants as site investigations continue. New information indicates that the problem is worse than previously understood; in fact, pools of contamination (free product) have been identified in the subsurface. In some areas, especially areas with pooled contamination, the division may advise that wells not be constructed in order to prevent the spread of contamination into deeper zones of the aquifer.

Caveat: Any well, including new wells constructed pursuant to this advisory, may be ordered to be plugged by the division if the well causes or permits a hazardous or potentially hazardous condition to exist which could cause deterioration of groundwater quality, per Section 256.637.4, RSMo. In addition, a release of a hazardous substance caused by the drilling of a well may make the contractor and/or well owner liable under the federal Superfund Law (CERCLA).

Contact: Bob Archer at 573-368-2165; Candice McGhee; MDNR Superfund, 573-751-1738

**Well Drilling Advisory
New Haven Area
Franklin County**

The Department of Natural Resources is issuing a well drilling advisory for the area in the vicinity of New Haven, Missouri. Tetrachloroethene (PCE) contamination has been detected in two separate plumes in the New Haven area. This advisory is being issued in cooperation with the Environmental Protection Agency Region VII (EPA) and the United States Geological Survey (USGS) to better protect public health and prevent the unnecessary spread of contamination through inadequately cased wells.

The northern plume in the New Haven area is in Section 36, Township 45N, Range 03W. This plume has already impacted several city wells, and extends below the surface down into the Roubidoux Formation more than 500 feet. The plume extends approximately 3000 feet south from the Missouri River. Concentrations of PCE in excess of 200 parts per billion (ppb) have been detected.

The southern plume is in Section 2, the north half of Section 11, the southwest quarter of Section 1 and the northwest $\frac{1}{4}$ of Section 12, all in Township 44N, Range 03W. This plume extends more than 4000 feet into unincorporated land south of New Haven. Available data suggests this plume is relatively shallow, limited to the Cotter Dolomite. The full extent of this plume may not be fully delineated as of yet.

To assure that new wells case out known contamination, all new wells drilled in the area should be constructed in accordance with the following standard:

Sec 36, Town 45, Range 3W:

Consult the division for construction specifications. Much of this area is currently served by public drinking water.

Sec 2, N $\frac{1}{2}$ Sec 11, SW $\frac{1}{4}$ Sec 1 and NW $\frac{1}{4}$ Sec 12, Town 44, Range 3W:

Water Wells:

Recommended Casing: 200 feet

Recommended Grouting: Full-length

Recommended Borehole Size: 10 inch

Heatpump Wells:

Recommended not to be constructed in area until plume is further delineated.

Construction using alternating plugs and fill has potential to spread contamination.

Contractors and homeowners could assume liability if contamination is spread.

If you have specific questions feel free to contact Evan Kifer at (573)368-2170.

Reprinted from "The Connection, A Well Drilling Industry Newsletter", Fall 2002. This Newsletter is sent to all permitted well installation contractors in the State of Missouri.