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February 12, 2010

Bill Jackson
City of Miltonvale
P.O. Box 248
Miltonvale, KS 67466

Dear Bill,

I enjoyed visiting with you last week about water supply issues, especially the iron and manganese issue at Well No. 8. Iron and manganese in groundwater is a fairly common problem in the north central part of Kansas. Before drilling into the aquifer, iron and manganese will remain in solution in the absence of oxygen. However, when they come into contact with oxygen, they will precipitate and cause discoloring of laundry and plumbing fixtures and will cause taste and odors. Iron will cause brown staining while manganese will cause black deposits in plumbing.

Since you are currently sequestering the iron and manganese with Aqua-Mag, you are providing the only treatment alternative available that does not require construction of a treatment plant. Sequestering is usually effective with iron at levels of less than 1.0 mg/L and manganese less than 0.3 mg/L. Below these levels, the Aqua-Mag will combine with these minerals and prevent them from oxidizing. The Aqua-Mag must be added as far ahead of the chlorine as possible. It is imperative that adequate treatment with Aqua-Mag be accomplished before the chlorine, which is a powerful oxidant, enters the water. Generally you can count on this procedure providing acceptable results for a period of 4 to 5 days, after which the water may begin to show signs of discoloring.

Funding for the above assistance was provided through a contractual arrangement between the Kansas Department of Health and Environment (State Revolving Loan Program set-aside) and the Kansas Rural Water Association (KRWA). Please call the KRWA if we can be of further assistance. Also, visit the KRWA website www.krwa.net for news and information concerning water utilities, training opportunities, and other KRWA programs.

Sincerely,

Delbert C. Zerr
Consultant

C: Jon Puckett, Mayor
Dave Waldo, KDHE, Topeka
Marsha Carpenter, KDHE, Salina