

What if I want further testing?

Scott County offers water testing kits for the public at the Customer Service counter inside the Government Center in Shakopee. The following kits are available for purchase:

Coliform bacteria & Nitrate

Fluoride

Manganese

Lead

Arsenic

The coliform & nitrate test kit meets the requirements for foster care licensing.

For more information call

952-496-8150

Web: www.co.scott.mn.us

Parks, Library & Environment
Water

How to Purchase a Well Water Test Kit

Good News

While the findings of this study is good news indicating that in general atrazine & nitrates are not problems in rural well water are rare in Scott County. These types of problems are site specific and there is still a chance that individual areas may be contaminated. We, therefore, recommend that residents have their water tested regularly, (every 1-2 years). This study also did not include bacteria which is a fairly common problem and whose presence may indicate well contamination rather than groundwater contamination.

Scott Watershed Management Organization

200 Fourth Avenue West
Shakopee, MN 55379

Phone: 952-496-8475

Web: <http://www.co.scott.mn.us/wmo>



Atrazine and Nitrate Screening in Scott County Rural Well Water

September/
October 2011



Introduction

We chose to sample for atrazine and nitrate in private well water because the presence of atrazine could indicate a pesticide issue and nitrate could indicate an issue with dissolved pollutants in the aquifer.

Atrazine is an herbicide used to control broad leaf and some grass weed species. First registered for use in the United States in 1958 atrazine has historically been one of the most heavily used herbicides in Minnesota. Atrazine is primarily used on corn although it may also be used in turf applications and other field crops. The state Maximum Contaminant Level (MCL) for atrazine in public water supplies is 3 parts per billion (ppb).

Nitrate (NO_3) is a naturally occurring chemical made of nitrogen and oxygen. Nitrate is found in air, soil, water, and plants. Much of the nitrate in our environment comes from decomposition of plants and animal wastes. People also add nitrate to the environment in the form of fertilizers.

Natural levels of nitrate in Minnesota groundwater are usually quite low (less than 1 milligram per liter). Elevated nitrate levels in groundwater are often caused by run-off from barnyards or feedlots, excessive use of fertilizers, or septic systems. The state Health Risk Limit for nitrate is 10 mg/L of nitrate-nitrogen.

Methods

Four hundred parcels throughout the Scott WMO were randomly selected. A total of 300 hundred letters were sent in the fall 2011.

Sampling

WMO and SWCD staff collected water samples according to the Minnesota Department of Agriculture's atrazine sampling protocols.

All sampling was taken from an outside faucet or well pump on the property.

Analysis

Samples were analyzed by the State Hygienic Laboratory at The University of Iowa.

Results

Samples were collected from sixty-seven private wells. Atrazine was not detected in any of the samples. All results were less than the detection level of 0.05 parts per billion.

Nitrate was detected in some of the samples. However, none of the samples exceeded the state drinking water standard of 10 parts per million as shown in Figure 1. In fact, the highest concentration detected with less than one-half the drinking water standard.

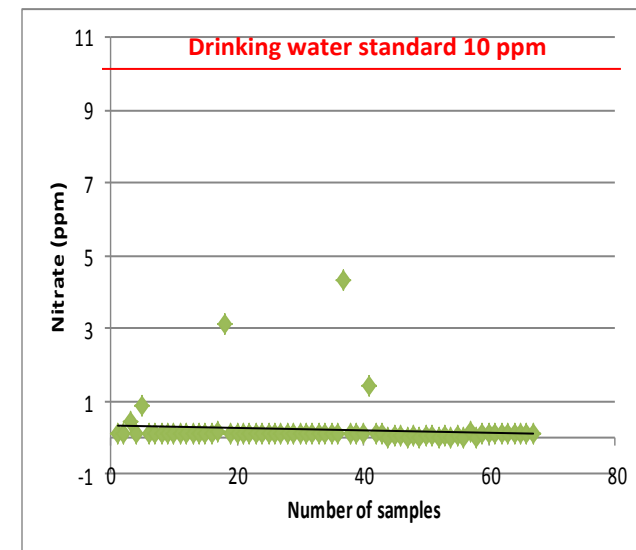


Figure 1. Nitrate Concentrations in Private Well Samples in Parts Per Million (ppm)