



Lab Number _____

NEW WELL SAMPLING PROGRAM

Please provide the following information about your new well. This form, along with a copy of your sample results will be supplied to the State in order to comply with the Centennial Environmental Protection Act of 1989. Thank you.

Well owner: _____

Mailing address: _____

City: _____ State: _____ Zip Code: _____

Daytime phone number: _____

For all Wells:

Date sample collected: _____ Time: _____

Sample collector: _____

Well drilled by: _____ Date: _____

Pump installed by: _____ Date: _____

Depth of well: _____ Diameter of well: _____

For Private Wells

County: _____

Township: _____

Range: _____

Section: _____

Quarter: _____

Distance from nearest town: _____ miles N or S

_____ miles E or W

of: _____ (town)

Please return to Mid-Continent Testing at the time of sample submittal.



NEW WELL SAMPLING PROGRAM

Introduction

In order to assure that the citizens of South Dakota are provided with a good quality water supply, the Centennial Environmental Protection Act of 1989 requires that all new domestic wells drilled in South Dakota are tested for bacteria and several selected chemicals. The test results, which provide a general indication of water quality, are for your information and allow you to consider the bacteriological and chemical qualities of your water that may be of concern. The following narrative provides an explanation of each test result, to aid in this evaluation.

Bacteriological Analysis

If the bacteriological analysis determines that coliform bacteria are **absent** in your sample, the water is considered **safe**. If coliform bacteria are **present**, the water is considered **unsafe**. The presence of total coliform is an indication of contamination from surface drainage, while fecal coliform are indicative of septic, or septic-like contamination. Until your well is tested and found to be safe, the water should be boiled before being used for drinking purposes. **It is suggested that the well be shock-chlorinated and a resample be submitted to the laboratory following an unsafe test.**

It is also recommended that the bacteriological quality of the water be retested at least annually. After heavy rains, snowmelt, or flooding in the area of your well, a sample of water should be submitted for at least the bacteriological and nitrate analyses.

Nitrate

Nitrate in excess of **10 mg/L** (milligrams per liter, or parts per million) is of health significance to infants of 12 months of age or less, and pregnant or nursing mothers. High nitrate water should not be used for infant feeding or formula preparation. Nitrate can only be reduced with water treatment equipment, as boiling actually increases the nitrate content.

Sodium

Sodium may be of health significance to persons on a low salt diet. Most home water softeners are ion exchange water softeners. The sodium content is increased when water is passed through this type of softener. People on low sodium diets should consult their physician as to how much water may be consumed, but the following levels may serve as a guideline:

0-20 mg/L	-Safe for those on a salt-restricted diet
20-270 mg/L	-Safe for those on a moderately restricted diet
>270 mg/L	-High – Not recommended for those on a salt restricted diet

Sulfate

Water with a sulfate content in excess of **250 mg/L** may have a bitter taste and have a laxative effect on persons not adapted to the water. Sulfates may also contribute to odor problems. The sulfate content can be reduced in a private water supply through distillation or reverse osmosis (R/O) treatment.

Conductivity

Conductivity is a measure of the water's ability to conduct an electrical current. It is related to the type and amount of dissolved chemicals in the water. In general, water having a conductivity of less than **1000 µmhos/cm** is slightly mineralized, but should be suitable for human consumption. It may have some hardness and it is possible that the water may have taste or odor problems. Depending upon the particular chemicals dissolved in the water, these problems may become more pronounced with increasing conductivity to the extent that levels greater than 2000 µmhos/cm may make the water objectionable for use.