

KINGBROOK RURAL WATER SYSTEM, INC.
WATER QUALITY ANALYSIS

	PHASE I-Bruce WTP (test results 8-2024)	PHASE II-DeSmet WTP (test results 10-2024)	PHASE III-Chester WTP (test results 7-26-2022)	SUGGESTED LIMITS
Nitrate	0.4 mg/L	<0.2 mg/L	2.4 mg/L	10 mg/L
Fluoride	0.75 mg/L	0.74 mg/L	<0.30 mg/L	4.0 mg/L
Chloride	15.3 mg/L	10.4 mg/L	18.7 mg/L	250 mg/L
Iron, Total	<0.05 mg/L	0.13 mg/L	<0.05 mg/L	0.3 mg/L
Manganese	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	0.05 mg/L
Sulfate	138 mg/L	343 mg/L	311 mg/L	levels >250 mg/L may have bitter taste
Solids, Total Dissolved	520 mg/L	885 mg/L	791 mg/L	upper limit 1000 mg/L
pH	7.52 pH	7.83 pH	7.39 pH	between 6.5 - 8.5
Alkalinity-M	276 mg/L	297 mg/L	261 mg/L	no rec. standard set
Alkalinity-P	0 mg/L	0 mg/L	0 mg/L	no rec. standard set
Bicarbonate	337 mg/L	362 mg/L	318 mg/L	no rec. standard set
Carbonate	0 mg/L	0 mg/L	0 mg/L	no rec. standard set
Conductivity	767 umho/cm	1141 umho/cm	1061 umho/cm	2000 umho/cm
Calcium	104 mg/L	163 mg/L	126 mg/L	no rec. standard set
Magnesium	36.5 mg/L	59.4 mg/L	57.5 mg/L	1000 mg/L
Hardness (calcium)	24 grains	38 grains	32 grains	see table below
Langlier Index	(+)0.57	(+)1.04	(+)0.46	(+)deposit forming, (-) corrosive
Sodium	12.4 mg/L	25.7 mg/L	24.8 mg/L	**no rec. standard set
Potassium	3.3 mg/L	7.2 mg/L	6.2 mg/L	2000 mg/L

** Sodium has no recommended EPA standard, however; individuals on a low-salt diet should use 25.0 mg/L or less as a guideline.
Water samples for the above common ions are taken and analyzed by the Dept of Ag & Nat'l Resources once every three years.

0-3 grains - soft water

4-10 grains - reasonably soft

11-25 grains - fairly hard, less than average for South Dakota

26-50 grains - average hardness for South Dakota

51-75 grains - very hard

Over 75 grains - extremely hard

grains= divide by 17.1



Kingbrook is an equal opportunity provider and employer

updated October 2024