

**KINGBROOK RURAL WATER SYSTEM, INC.**  
**WATER QUALITY ANALYSIS**

	<b>PHASE I-Bruce WTP</b> (test results 6-2019)	<b>PHASE II-DeSmet WTP</b> (test results 9-2021)	<b>PHASE III-Chester WTP</b> (test results 7-26-2022)	<b>SUGGESTED LIMITS</b>
Nitrate	1.4 mg/L	<0.2 mg/L	2.4 mg/L	10 mg/L
Fluoride	0.77 mg/L	0.76 mg/L	<0.30 mg/L	4.0 mg/L
Chloride	12.6 mg/L	16.8 mg/L	18.7 mg/L	250 mg/L
Iron, Total	<0.05 mg/L	<0.05 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	129 mg/L	260 mg/L	311 mg/L	levels >250 mg/L may have bitter taste
Solids, Total Dissolved	512 mg/L	733 mg/L	791 mg/L	upper limit 1000 mg/L
pH	8.02 pH	8.19 pH	7.39 pH	between 6.5 - 8.5
Alkalinity-M	264 mg/L	269 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	322 mg/L	328 mg/L	318 mg/L	no rec. standard set
Carbonate	0 mg/L	0 mg/L	0 mg/L	no rec. standard set
Conductivity	752 umho/cm	1014 umho/cm	1061 umho/cm	2000 umho/cm
Calcium	96.5 mg/L	137 mg/L	126 mg/L	no rec. standard set
Magnesium	33.7 mg/L	49.4 mg/L	57.5 mg/L	1000 mg/L
Hardness (calcium)	22 grains	32 grains	32 grains	see table below
Langlier Index	(+)0.88	(+)1.31	(+)0.46	(+)deposit forming, (-) corrosive
Sodium	10.6 mg/L	18.5 mg/L	24.8 mg/L	**no rec. standard set
Potassium	2.7 mg/L	6.5 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*



Kingbrook is an equal opportunity provider and employer

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