

Aurora-Brule Rural Water System Drinking Water Information

(System Information, Sampling Requirements, and Compliance Report)



Secretary Award For Drinking Water Excellence

Population Served:	5,070	System Population:	2,600
Certified Operator:	Mr Wade Blasius PO Box 140 Kimball, SD 57355-0140	Work Phone:	(605)778-6110
		Home Phone:	
		Cell Phone:	
		Fax:	(605)778-6292
		Email:	abrws@midstatesd.net
Financial Contact:	Mr Wade Blasius PO Box 140 Kimball, SD 57355-0140	Work Phone:	(605)734-6091
		Home Phone:	
		Cell Phone:	
		Fax:	(605)778-6292
		Email:	abrws@midstatesd.net
Other Contacts:	Mr Richard Ekstrum 25691 362nd Avenue Kimball, SD 57355	Work Phone:	
		Home Phone:	
		Cell Phone:	
		Fax:	
		Email:	
Last Inspection:	March 28, 2017		
Type of System:	Community	Area Served:	Aurora, Buffalo, Brule, Douglas, Davison, Jerauld County
Number of Service Connections:	1,040	Contamination Risk:	moderate
Water Purchased From:			Randall Community Water District (0433)
PWS Owner Type:	Private Ownership	Service Area:	Rural Water System/Colonies
Contract Laboratory:			State Health Lab, Pierre

Monitoring/Reporting - Entry Point

Aurora-Brule Rural Water System

EPA ID: 0621

SAMPLING

Entry point: Treatment Plant

	Chemical	Sampling Frequency	Waivers	Taken Last	Due Next	Notes
1	Inorganic Chemicals					
	A. Antimony	Every nine years	Yes	Mar-12		
	B. Arsenic	Every nine years	Yes	Mar-12		
	C. Barium	Every nine years	Yes	Mar-12		
	D. Beryllium	Every nine years	Yes	Mar-12		
	E. Cadmium	Every nine years	Yes	Mar-12		
	F. Chromium	Every nine years	Yes	Mar-12		
	G. Cyanide		Yes			State-wide waiver
	H. Fluoride	Annually	No	Oct-17		
	I. Mercury	Every nine years	Yes	Mar-12		
	J. Nickel	Every nine years	Yes	Mar-12		
	K. Selenium	Every nine years	Yes	Mar-12		
	L. Thallium	Every nine years	Yes	Mar-12		
2	Radiological Chemicals	Every nine years	N/A			
3	VOC Chemicals	Triennially	Yes	Jul-15	2018	Surface Water Waiver
4	SOC Chemicals					
	A. Method 515.1	Triennially	No	Sep-15	2018	
	B. Method 524	Triennially	No	Sep-15	2018	
	C. Method 525	Triennially	No	Sep-15	2018	
	D. Method 531.1	Triennially	No	Sep-15	2018	
	E. Method 547	Triennially	No	Sep-15	2018	
	F. Method 548	Triennially	No	Sep-15	2018	
	G. Method 549	Triennially	No	Sep-15	2018	
5	Nitrate	Annually-1st Qtr	N/A	Mar-17		
6	Nitrite	Triennially	N/A	Mar-16		

(These values are calculated from available data. Check correspondence for verification.)

Bacteriological Monitoring

Bacteriological sampling and analysis: January 1, 2017 to January 1, 2018

A	Samples submitted:	<u>31</u>
B	Samples required:	<u>Three Samples Each Month.</u>
C	Survey samples:	<u>0</u>
D	Safe samples:	<u>31</u>
E	Unsafe samples:	<u>0</u>
F	Repeat samples:	<u>0</u>
H	Groundwater Samples:	<u></u>

Lead and Copper Monitoring

(These values are calculated from available data. Check correspondence for verification.)

A	Date Last Tested:	<u>June 24, 2015</u>
B	Samples required:	<u>10</u>
C	Sampling Frequency	<u>Triennially</u>
D	Date Due Next	<u>2018</u>
E	Lead - 90% Level	<u>3</u> Action Level - 15 ug/l
F	Copper 90% Level	<u>0.16</u> Action Level - 1.3 mg/l

Disinfectant Residual Monitoring

Residual sampling and analysis: January 1, 2017 to January 1, 2018

A	Samples submitted:	<u>31</u>
B	Samples required:	<u>Three Samples Each Month.</u>
C	Last Qtr Cl Residual:	<u>2.95</u> mg/l
D	Running Annual Average:	<u>2.99</u> mg/l
E	Date of last DBP test:	<u>December 15, 2017</u>
F	THM - Qtr Average:	<u>0</u> ug/l
G	Haa5 - Qtr Average:	<u>0</u> ug/l

Asbestos

A	Date of last test:	<u>Waiver - Testing Not Required</u>
B	Asbestos Result:	<u></u> million fibers per liter

Comments

Violations and Significant Deficiencies

Aurora-Brule Rural Water System

EPA ID: 0621

Violations From **January 1, 2013** To **January 1, 2018**

Violation Type	Parameter	Date	Status
Sanitary Survey		06/14/2014	Intentional No-Action
			Compliance Achieved

Significant Deficiency	Date Identified	Date Corrected

EPA ID#: 0621 System Name: Aurora-Brule Rural Water System

Sampler- Mr Wade Blasius Work Phone-(605)778-6110
 Title- Manager
 Address- PO Box 140
 Kimball SD 57355-0140

Location- City: Chamberlain County: Aurora, Buffalo, Brule, Douglas, Davison, Jerauld
 Service Area- Other residential areas
 PWS Owner Type- Private Ownership
 Water Supply Type- Surface Water Supply

Population Served- 2,600 Service Connections- 1,040

Sources for Aurora-Brule Rural Water System

Source	Name	Year Built	Depth (feet)	Diameter (inches)	Availability	Type	Vulnerability	Treatment
01	MISSOURI RIVER	1981	0000	0000		Surface Water	Vulnerable	Treatment At Plant
09	CHAMBERLAIN EMERGENCY CONNECTION	1999			Emergency	Purchased Surface	Non-Vulnerable	Water Treated By Seller - Purchased Surface Only
10	TREATMENT PLANT				Permanent	Treatment Plant	Non-Vulnerable	Coagulation, Softening - KMnO4 Polymers Disinfection - Gas Chlorine Filtration - Mixed Media Corrosion Control - Caustic Soda Mixing Device Ammoniation -
12	RANDALL CWD CONNECTION				Permanent	Purchased Surface	Non-Vulnerable	Water Treated By Seller - Purchased Surface Only
14	MISSOURI RIVER	2011			Permanent	Surface Water	Non-Vulnerable	Treatment At Plant

EPA ID#: 0621 System Name: Aurora-Brule Rural Water System

Common Ion Data

(All chemical data are reported in milligrams per liter (mg/l) except pH and Langlier Index)

Please refer to Private Well Data for more information about these test results.

Source	Type	Date	TDS	Conductance	pH	Alk-M	Alk-P	Na	K	Ca	Mg	Fe	Mn	Cl	SO4	HCO3	CO3	Hardness	Langlier	NO3	F
01	Raw	11/17/93	505	763	8.43	154	7	76	4.6	61.8	24.9	0.40	0.03	15.0	230	171	0	257	+0.94	0.1	1.02
01	Raw	06/04/96	542	810	8.46	168	4	81	5.8	61.4	25.2	0.57	0.07	18.0	241	195	5	257	+0.91	0.1	0.48
01	Raw	03/24/99	512	769	8.33	157	0	72	4.6	53.4	22.0	0.26	0.06	11.3	227	192	0	224	+0.70	0.1	0.43
10	Raw	06/12/02	514	813	8.38	172	2	76	5.4	57.6	24.9	0.67	0.22	13.0	224	205	2	246	+0.82	0.1	0.48
10	Raw	10/19/04	461	700	8.47	163	2	67	5.2	58.5	22.3	0.74	0.12	13.0	188	194	2	238	+0.90	0.1	0.62
10	Raw	05/27/08	487	704	8.41	166	2	65	5.0	54.7	20.0	0.20	0.09	13.0	190	198	2	219	+0.82	0.2	0.63
Averages			504	760	8.41	163	3	73	5.1	57.9	23.2	0.47	0.10	13.9	217	193	2	240		0.1	0.61

Source	Type	Date	TDS	Conductance	pH	Alk-M	Alk-P	Na	K	Ca	Mg	Fe	Mn	Cl	SO4	HCO3	CO3	Hardness	Langlier	NO3	F
01	Treated	11/17/93	496	763	8.07	146	0	78	4.7	62.0	21.5	0.05	0.02	17.0	238	178	0	243	+0.55	0.1	1.01
01	Treated	06/04/96	530	810	7.87	150	0	80	5.6	58.3	24.1	0.06	0.03	17.0	259	183	0	245	+0.25	0.1	1.56
01	Treated	03/24/99	522	770	7.82	146	0	72	4.6	53.6	22.4	0.04	0.02	15.3	237	178	0	226	+0.16	0.1	1.12
10	Treated	06/12/02	518	825	7.82	160	0	76	5.2	56.0	24.7	0.03	0.02	15.0	228	195	0	241	+0.22	0.1	1.14
10	Treated	10/19/04	450	704	7.93	150	0	69	5.0	55.1	21.9	0.05	0.02	20.0	183	183	0	228	+0.31	0.1	1.25
10	Treated	05/27/08	474	727	7.87	156	0	65	4.9	53.6	22.0	0.08	0.03	29.0	192	190	0	224	+0.24	0.2	1.15
Averages			498	767	7.90	151	0	73	5.0	56.4	22.8	0.05	0.02	18.9	223	185	0	235		0.1	1.21

You can contact us by calling
(605)734-6091 or write us at
PO Box 140
Kimball SD 57355-0140

Aurora-Brule Rural Water System

2017 Drinking Water Report

It's your tap water!



EPA ID: 0621



Water Quality



Secretary's Award

The Aurora-Brule Rural Water System has supplied ten consecutive years of safe drinking water to the public it serves and has been awarded the Secretary's Award for Drinking Water Excellence by the South Dakota Department of Environment and Natural Resources. This brochure is a snapshot of the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies.

Water Source

We serve more than 2,600 customers an average of 1,005,000 gallons of water per day. We get our water from surface water sources. The state has performed an assessment of our source water and they have determined that the relative susceptibility rating for the Aurora-Brule Rural Water System public water supply system is medium.

For more information about your water and information on opportunities to participate in public meetings, call (605)734-6091 and ask for Wade Blasius.

Additional Information

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants can be obtained by calling the Environment Protection Agency's Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Aurora-Brule Rural Water System public water supply system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Detected Contaminants

The attached table lists all the drinking water contaminants that we detected during the 2017 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 – December 31, 2017. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

The Aurora-Brule Rural Water System public water system purchases 20% of their water from Randall Community Water District (0433).

2017 Table of Detected Contaminants For Aurora-Brule Rural Water System (EPA ID 0621)

Terms and abbreviations used in this table:

- * Maximum Contaminant Level Goal(MCLG): the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- * Maximum Contaminant Level(MCL): the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- * Action Level(AL): the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. For Lead and Copper, 90% of the samples must be below the AL.
- * Treatment Technique(TT): A required process intended to reduce the level of a contaminant in drinking water. For turbidity, 95% of samples must be less than 0.3 NTU
- * Running Annual Average(RAA): Compliance is calculated using the running annual average of samples from designated monitoring locations.

Units:

- *MFL: million fibers per liter
- *pCi/l: picocuries per liter(a measure of radioactivity)
- *ppt: parts per trillion, or nanograms per liter
- *mrem/year: millirems per year(a measure of radiation absorbed by the body)
- *ppm: parts per million, or milligrams per liter(mg/l)
- *ppq: parts per quadrillion, or picograms per liter
- *NTU: Nephelometric Turbidity Units
- *ppb: parts per billion, or micrograms per liter(ug/l)
- *pspm: positive samples per month

Substance	90% Level	Test Sites > Action Level	Date Tested	Highest Level Allowed (AL)	Ideal Goal	Units	Major Source of Contaminant
Copper	0.2	0	06/24/15	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	3	0	06/24/15	AL=15	0	ppb	Corrosion of household plumbing systems; erosion of natural deposits.

Substance	Highest Level Detected	Range	Date Tested	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Units	Major Source of Contaminant
Fluoride *	0.52	0.51 - 0.52	10/18/17	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Fluoride	0.50		10/11/17	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Haloacetic Acids (RAA) *	27.60		11/28/17	60	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.
Haloacetic Acids (RAA)	3.50		12/15/17	60	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.
Total trihalomethanes (RAA) *	42.20		11/28/17	80	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.
Total trihalomethanes (RAA)	11.58		12/15/17	80	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.

Please direct questions regarding this information to Mr Wade Blasius with the Aurora-Brule Rural Water System public water system at (605)734-6091.

* Randall Community Water District (0433) test result.

