Brown-Day-Marshall RWS Drinking Water Information

(System Information, Sampling Requirements, and Compliance Report)

2017 Certificate of Achievement Award.

Population Served: 8,350

System Population: 5,375

Certified Operator: Mr Darin Roehr
PO Box 49
Britton, SD 57430-0049

Work Phone: (605)448-5417
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Fax: (605)448-2124
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Financial Contact: Mr Rodney Kappes
PO Box 49
Britton, SD 57430-0049

Work Phone: (605)448-5417
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Email: BDM@venturecomm.net

Other Contacts: Mr Mark Hagen
11914 424th Avenue
Langford, SD 57454

Work Phone:
Home Phone:
Cell Phone:
Fax:
Email: BDM_operations@venturecomm.net

Last Inspection: August 24, 2016

Type of System: Community

Area Served: Brown, Day, Marshall County

Number of Service Connections: 2,210

Contamination Risk: low

Water Sold To: Amherst Water Company, Britton, Claremont, Hecla, Lake City, Langford

PWS Owner Type: Private Ownership

Service Area: Rural Water System/Colonies

Contract Laboratory: State Health Lab, Pierre

, New Effington, Peever, Pierpont, Veblen

Monitoring/Reporting - Entry Point

Brown-Day-Marshall RWS **EPA ID: 0882**

SAMPLING

Entry point: Treatment Plant

	Chemical	Sampling Frequency	Waivers	Taken Last	Due Next	Notes
1	Inorganic Chemicals					
	A. Antimony	Every nine years	Yes	Jul-13		
	B. Arsenic	Every nine years	Yes	Jul-13		
	C. Barium	Every nine years	Yes	Jul-13		
	D. Beryllium	Every nine years	Yes	Jul-13		
	E. Cadmium	Every nine years	Yes	Jul-13		
	F. Chromium	Every nine years	Yes	Jul-13		
	G. Cyanide		Yes			State-wide waiver
	H. Fluoride	Triennially	No	Nov-16		
	I. Mercury	Every nine years	Yes	Jul-13		
	J. Nickel	Every nine years	Yes	Jul-13		
	K. Selenium	Every nine years	Yes	Jul-13		
	L. Thallium	Every nine years	Yes	Jul-13		
2	Radiological Chemicals	Every nine years	N/A			
3	VOC Chemicals		No	Nov-13	2019	
4	SOC Chemicals					
	A. Method 515.1	Not Required	Yes			
	B. Method 524	Not Required	Yes			
	C. Method 525	Not Required	Yes			
	D. Method 531.1	Not Required	Yes			
	E. Method 547	Not Required	Yes			
	F. Method 548	Not Required	Yes			
	G. Method 549	Not Required	Yes			
5	Nitrate	Annually	N/A	May-17		
6	Nitrite	Triennially	N/A	Jun-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:	72
B	Samples required:	Six Samples Each Month.
C	Survey samples:	0
D	Safe samples:	72
E	Unsafe samples:	0
F	Repeat samples:	0
H	Groundwater Samples:	

Lead and Copper Monitoring

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

A	Date Last Tested:	September 27, 2016	
B	Samples required:	20	
C	Sampling Frequency	Triennially	
D	Date Due Next	2019	
E	Lead - 90% Level	3.2	Action Level - 15 ug/l
F	Copper 90% Level	0.7	Action Level - 1.3 mg/l

Disinfectant Residual Monitoring

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

A	Samples submitted:	72	
B	Samples required:	Six Samples Each Month.	
C	Last Qtr Cl Residual:	2.95	mg/l
D	Running Annual Average:	3.22	mg/l
E	Date of last DBP test:	August 2, 2017	
F	THM - Qtr Average:	2.88	ug/l
G	Haa5 - Qtr Average:	6.4	ug/l

Asbestos

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

Comments

Violations and Significant Deficiencies

Brown-Day-Marshall RWS **EPA ID: 0882**

Violations From January 1, 2013 To January 1, 2018

Violation Type	Parameter	Date	Status
No Violations			

Significant Deficiency	Date Identified	Date Corrected

EPA ID#: 0882 System Name: Brown-Day-Marshall RWS

Sampler- Mr Darin Roehr Work Phone-(605)448-5417
Title- Bdm Rws
Address- PO Box 49
Britton SD 57430-0049

Location- City: Britton County: Brown, Day, Marshall
Service Area- Other residential areas
PWS Owner Type- Private Ownership
Water Supply Type- Groundwater Supply

Population Served- 5,375 Service Connections- 2,210

Sources for Brown-Day-Marshall RWS

Source	Name	Year Built	Depth (feet)	Diameter (inches)	Availability	Type	Vulnerability	Treatment
01	#1	1984	300	12	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant
02	#2	1984	300	12	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant
04	TREATMENT PLANT				Permanent	Treatment Plant	Non-Vulnerable	Aeration Coagulation, Softening - KMnO4 Disinfection - Gas Chlorine Filtration - Pressure Sand Corrosion Control - Phosphates Fluoridation - H2SiF6
15	#3	2002	256	12	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant
16	#4	2002	283	12	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant
21	#5	2004	300	12	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant
22	#6	2004	300	12	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant
23	#7	2012	300	12	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant
24	#8	2013	300	12	Permanent	Groundwater	Non-Vulnerable	Treatment At Plant

Date Of This Report: August 29, 2017

EPA ID#: 0882 System Name: Brown-Day-Marshall RWS

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	01/26/94	954	1430	8.27	448	0	326	8.1	22.1	9.1	0.10	0.02	20.0	330	547	0	93	+0.76	0.4	0.49
01	Raw	04/02/86	973	1504	7.60	473	0	327	10.1	23.3	9.6	1.93	1.04	37.1	297	577	0	97	-0.19	0.1	0.44
02	Raw	05/09/90	1015	1500	7.87	431	0	323	11.9	24.1	9.4	0.75	0.22	36.2	288	526	0	98	+0.03	0.2	0.47
04	Raw	08/24/16	788	1220	8.02	411	0	240	6.6	15.0	16.7	0.47	0.00	7.0	198	501	0	65	+0.21	0.0	0.56
Averages			933	1414	7.94	441	0	304	9.2	21.1	11.2	0.81	0.32	25.1	278	538	0	88		0.2	0.49

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	04/02/86	980	1507	7.10	469	0	326	11.1	23.0	9.5	0.25	0.11	39.0	294	572	0	96	-0.20	0.8	1.28
04	Treated	03/05/96	952	1430	7.88	432	0	310	9.1	22.0	9.3	0.41	0.03	32.0	326	527	0	93	+0.23	0.4	1.29
04	Treated	03/18/99	994	1320	7.85	435	0	309	8.8	20.5	8.4	0.04	0.05	31.0	284	531	0	86	+0.17	0.1	1.22
04	Treated	04/17/02	985	1530	7.78	442	0	302	8.9	21.2	8.1	0.03	0.02	34.0	272	539	0	86	+0.12	0.1	1.27
04	Treated	11/02/05	939	1430	7.75	432	0	311	8.6	20.2	8.2	0.03	0.02	29.0	279	527	0	84	+0.06	0.1	1.11
04	Treated	09/25/07	900	1430	7.83	433	0	294	9.4	20.4	8.1	0.03	0.06	30.0	275	528	0	84	+0.16	0.2	1.22
04	Treated	08/31/10	948	1500	7.87	433	0	300	7.6	20.0	8.9	0.03	0.09	31.0	300	528	0	86	+0.18	0.2	1.11
04	Treated	09/04/13	975	1530	7.85	435	0	315	8.6	21.3	9.6	0.03	0.08	38.0	281	531	0	93	+0.18	0.2	0.94
Averages			959	1460	7.74	439	0	308	9.0	21.1	8.8	0.11	0.06	33.0	289	535	0	88		0.3	1.18

Date Of This Report: August 29, 2017

You can contact us by calling
(605)448-5417 or write us at
PO Box 49
Britton SD 57430-0049

Brown-Day-Marshall RWS

2017 Drinking Water Report

It's your tap water!

EPA ID: 0882

Water Quality

Last year, the Brown-Day-Marshall RWS monitored your drinking water for possible contaminants. 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 5,375 customers an average of 1,384,000 gallons of water per day. Our water is groundwater that we produce from local wells. The state has performed an assessment of our source water and they have determined that the relative susceptibility rating for the Brown-Day-Marshall RWS public water supply system is low.

For more information about your water and information on opportunities to participate in public meetings, call (605)448-5417 and ask for Rodney Kappes.

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 Brown-Day-Marshall RWS 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.

2017 Table of Detected Contaminants For Brown-Day-Marshall RWS (EPA ID 0882)

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	0.7	0	08/29/16	AL=1.3	0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	3	1	08/30/16	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
Barium	0.014		07/23/13	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium	4.7		07/23/13	100	100	ppb	Discharge from steel and pulp mills; erosion of natural deposits.
Fluoride	0.52		11/07/17	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Haloacetic Acids (RAA)	6.40		08/02/17	60	0	ppb	By-product of drinking water chlorination. Results are reported as a running annual average of test results.
Selenium	0.7		07/23/13	50	50	ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Total trihalomethanes (RAA)	2.88		08/02/17	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 Darin Roehr with the Brown-Day-Marshall RWS public water system at (605)448-5417.