

Municipality of Rhineland Public Water System Annual Report 2025

The Municipality of Rhineland 2025 Annual Public Water System Report was placed on the Rhineland website on January 26, 2026.

Free paper copies of the report are available at the Rhineland Office at 109 3rd Ave NE in Altona.

The public will be notified on the municipal website as well as a poster on the municipal bulletin board.

Municipality of Rhineland Public Water System 2025 Annual Report

Name of Public Water System: Rhineland Water System

Name of the Legal Owner:	The Municipality of Rhineland
Phone:	204-324-5357
Contact Person:	Michael Rempel
Email Address:	michael.rempel@rhinelandmb.ca

Supervisor:	Craig Smiley
Phone:	204-324-7510
Email Address:	craig.smiley@rhinelandmb.ca

Report prepared on January 22, 2026 (sent to Kale Black)

1. Description of the Water System

Rhineland municipality serves a population of approximately 5250. The treated water supplied by the Pembina Valley Water Co-op meets all objectives as stated in the Guidelines for Canadian Drinking Water Quality.

1.1 Water Supply Source

The Rhineland Water System receives treated water from Letellier which is 20 km's east of Altona. The Letellier water plant draws water from the Red River and treats the water before distribution.

1.2 Distribution System

Treated water from the seven water reservoirs listed below is pumped throughout the Rhineland distribution water system. Combined, the seven facilities have 1 – 30 hp pump, 4 - 25 hp pumps, 2 - 15 hp pumps, 2 - 10 hp pumps, 1 - 7.5hp pump, 11 - 5 hp pumps, and 4 - 3hp pumps.

1.3 Storage Reservoirs

Name	Capacity
GNS East	2,500,000 litres (2-25hp; 1-10hp; 1-5hp)
GNS West	90,000 litres (2-5hp; 1-3hp)
Kronstal	150,000 litres (1-3hp; 2-5hp)
Rosenfeld	150,000 litres (1-15hp fire pump; 2-5hp)
Gnadenthal	75,000 litres (2-5hp)
Plum Coulee	80,000 litres (2-25hp; 1-15hp; 1-10hp; 1-7.5hp; 1-3hp)
Gretna	150,000 litres (1-30hp fire pump; 2-5hp; 1-3hp)

1.4 Number of Connections, population serviced, and type of users

The Rhineland distribution system is comprised of approximately 1380 service connections serving 5250 residents. All connections are metered.

1.5 Classification and Certification

Operators are certified under Manitoba Conservation's *Water & Wastewater Facility Operators Regulation* under the *Environment Act*.

Craig Smiley – Public Works Foreman	Cert #2026-013 WD2, WWT1, WWC1
Henry Peters – Public Works Assistant	Cert #2026-014 WD1, WWT1, WWC1
Randy Braun – Plum Coulee Operator	Cert #2012-211 WD1, WWT1, WWC1
Kelton Dyck – Rhineland Operator	Cert #2024-271 WD1, WWT1, WWC1
Tim Wiebe – Rhineland Operator	Cert #2024-273 WD1, WWT1, WWC1
Tysen Wiebe – Rhineland Operator	Cert #2024-272 WWT1, WWC1
Tysen Wiebe – Rhineland Operator	Cert #2026-016 WD2
Jonathan Aron Teichroeb – Rhineland Operator	Cert #2024-260 WWT1, WWC1
Jonathan Aron Teichroeb – Rhineland Operator	Cert #2026-015 WD2

Disinfection Monitoring & Reporting – Rhineland System (Chlorine Reports)

Water System Performance: All samples were 100%. No hits.

Bacteriological Monitoring & Reporting

Bacteriological Requirements

Date Samples Incident Outcome

We had 2 boil water maintenance advisories in 2025:

1. March 20, 2025. Rescinded on March 26, 2025
2. May 20, 2025. Rescinded on May 26, 2025.

Don't need to send the actual BWA and rescinding letters. Summary above is good.

2. Disinfection System in Use

The last step before distribution is the addition of 12% sodium hypochlorite to the water while entering the reservoirs. The dosage is flow-paced to maintain a minimum of 0.5 g of free chlorine per litre before it enters the distribution system. There is always a minimum of 0.1 mg of free chlorine per litre in the distribution system.

2.1 Equipment and Monitoring Requirements

As required, the Rhineland Water System ensures continuous disinfection is maintained by stocking all spare parts for chlorinators and a complete spare chlorinator is kept at the reservoirs. Free Available and Total Chlorine residuals are monitored daily at the reservoirs and bi-weekly throughout the distribution system. A *Hach* portable colorimeter test kit is used for the testing. All results are recorded on the appropriate monitoring forms. Bi-weekly samples are sent to ALS Labs for testing. Monthly chlorination reports are sent to the Drinking Water Officer at the end of each month.

Tests performed bi-weekly:

- Total coli form: a measurement of the total coli form present in bi-weekly samples submitted to ALS Labs.
- *Escherichia coli*: a measurement of the *Escherichia coli* present in bi-weekly samples submitted to ALS Labs.

Quarterly test in 2025: (THM's, HAA's in 2026), Total Metals

2.2 Overall Performance

The following tables outline the requirements and performance of the water system in Rhineland for 2025 as outlined in the Operating Licence:

Disinfection Monitoring & Reporting – GNS EAST

	<u>Regulatory Requirement</u>	<u>Water System Performance</u>
A) Free Chlorine residual entering the distribution system Section 21(1)a – MR 40-2007	≥	100%
B) Frequency of testing entering the distribution system Section A – MR 40/2007	daily	100%
C) Free Chlorine residual in the distribution system Section 22a – MR 40/2007	> 0.1 mg/L	100%
D) Frequency of testing in the distribution system Section 1 – MR 40/2007	bi-weekly	100%
E) Report Submissions Section 25(2) – MR 40/2007	monthly	100%

The water system met all regulatory requirements for 2025 in this area.

Disinfection Monitoring & Reporting – GNS WEST

	<u>Regulatory Requirement</u>	<u>Water System Performance</u>
A) Free Chlorine residual entering the distribution system Section 21(1)a – MR 40-2007	≥	100%
B) Frequency of testing entering the distribution system Section A – MR 40/2007	daily	100%
C) Free Chlorine residual in the distribution system Section 22a – MR 40/2007	> 0.1 mg/L	100%
D) Frequency of testing in the distribution system Section 1 – MR 40/2007	bi-weekly	100%
E) Report Submissions Section 25(2) – MR 40/2007	monthly	100%

The water system met all regulatory requirements for 2025 in this area.

Disinfection Monitoring & Reporting – ROSENFELD

	<u>Regulatory Requirement</u>	<u>Water System Performance</u>
A) Free Chlorine residual entering the distribution system Section 21(1)a – MR 40-2007	≥	100%
B) Frequency of testing entering the distribution system Section A – MR 40/2007	daily	100%
C) Free Chlorine residual in the distribution system Section 22a – MR 40/2007	> 0.1 mg/L	100%
D) Frequency of testing in the distribution system Section 1 – MR 40/2007	bi-weekly	100%
E) Report Submissions Section 25(2) – MR 40/2007	monthly	100%

The water system met all regulatory requirements for 2025 in this area.

Disinfection Monitoring & Reporting – GNADENTHAL

	<u>Regulatory Requirement</u>	<u>Water System Performance</u>
A) Free Chlorine residual entering the distribution system Section 21(1)a – MR 40-2007	≥	100%
B) Frequency of testing entering the distribution system Section A – MR 40/2007	daily	100%
C) Free Chlorine residual in the distribution system Section 22a – MR 40/2007	> 0.1 mg/L	100%
D) Frequency of testing in the distribution system Section 1 – MR 40/2007	bi-weekly	100%
E) Report Submissions Section 25(2) – MR 40/2007	monthly	100%

The water system met all regulatory requirements for 2025 in this area.

Disinfection Monitoring & Reporting – PLUM COULEE

	<u>Regulatory Requirement</u>	<u>Water System Performance</u>
A) Free Chlorine residual entering the distribution system Section 21(1)a – MR 40-2007	≥	100%
B) Frequency of testing entering the distribution system Section A – MR 40/2007	daily	100%
C) Free Chlorine residual in the distribution system Section 22a – MR 40/2007	> 0.1 mg/L	100%
D) Frequency of testing in the distribution system Section 1 – MR 40/2007	bi-weekly	100%
E) Report Submissions Section 25(2) – MR 40/2007	monthly	100%

The water system met all regulatory requirements for 2025 in this area.

Disinfection Monitoring & Reporting – KRONSTAL

	<u>Regulatory Requirement</u>	<u>Water System Performance</u>
A) Free Chlorine residual entering the distribution system Section 21(1)a – MR 40-2007	≥	100%
B) Frequency of testing entering the distribution system Section A – MR 40/2007	daily	100%
C) Free Chlorine residual in the distribution system Section 22a – MR 40/2007	> 0.1 mg/L	100%
D) Frequency of testing in the distribution system Section 1 – MR 40/2007	bi-weekly	100%
E) Report Submissions Section 25(2) – MR 40/2007	monthly	100%

The water system met all regulatory requirements for 2025 in this area.

Disinfection Monitoring & Reporting – GRETNA

	<u>Regulatory Requirement</u>	<u>Water System Performance</u>
A) Free Chlorine residual entering the distribution system Section 21(1)a – MR 40-2007	≥	100%
B) Frequency of testing entering the distribution system Section A – MR 40/2007	daily	100%
C) Free Chlorine residual in the distribution system Section 22a – MR 40/2007	> 0.1 mg/L	100%
D) Frequency of testing in the distribution system Section 1 – MR 40/2007	bi-weekly	100%
E) Report Submissions Section 25(2) – MR 40/2007	monthly	100%

The water system met all regulatory requirements for 2025 in this area.

THM	Q1- Rosenfeld Coffee Shop	Q2- Rosenfeld Coffee Shop	Q3- Rosenfeld Coffee Shop	Q4 Rosenfeld Coffee Shop	Average
	0.00	0.00	0.00	0.00	0.00

HAA	Q1- Altona Shop	Q2-Plum Coulee Shop	Q3-Plum Coulee Shop	Q4-Plum Coulee Shop	Average
	0.00	0.00	0.00	0.00	0.00

Metals	Q1-See attached	Q2-	Q3-	Q4	Average
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Lead	Q1-See attached	Q2-	Q3-	Q4	Average
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Office of the Drinking Water changed Rhineland's licence and we are now reporting quarterly every other year for THM's and HAA's (need them 2026). Metal is every year, lead 1-time in 2025.

Bacteriological Monitoring – Distribution system

	Regulatory requirement	% Compliance at all stations	% Compliance at all stations
Frequency of testing	Bi-weekly	100%	100%
Total coliform present in samples	0 TC per 100 mL	100%	100%
<i>E. coli</i> present in samples	0 EC per 100 mL	100%	100%

3. Water System Incidents

None.

4. Drinking Water Orders

None.

5. Boil Water Advisories Issued & Actions Taken

See above.

6. Major Waterline Extensions for 2026

None.

7. Future System Expansion

None.

Report prepared by Craig Smiley
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	A	B	C	D	E	F	G
1	Municipality of Rhineland (PWS 178.15) <u>Residential Lead Monitoring - 2025</u>						
2				MAC=0.005 mg/L			
3	<u>Date</u>	<u>Result</u>					
4	July 28/25	0.000504					
5	July 28/25	0.000678					
6	July 28/25	0.000598					
7	July 28/25	0.000232					
8	July 28/25	0.000928					
9	July 28/25	0.000829					
10	July 28/25	0.001050					
11	July 28/25	0.000164					
12	July 28/25	0.002130					
13	July 28/25	0.000517					
14	July 28/25	0.002280					
15	July 28/25	0.000985					
16	July 28/25	0.000452					
17	July 28/25	0.000284					
18	July 28/25	0.000578					
19	July 28/25	0.000322					
20	July 28/25	0.000088					
21	July 28/25	0.005850					
22	July 28/25	0.000430					
23	July 28/25	0.000298					



Analytical Results Evaluation

Matrix: Water

Matrix: Water		Client sample ID									
		Client sampling date / time		Sub-Matrix		RM of Rhineland 3 - Distribution @ Shop		Distribution			
				25-Jul-2025 00:00		Water					
Analyte	CAS Number	Method/Lab	Unit	WP2512002-001							
Field Tests											
Chlorine, free, field		7782-50-5	EF001/WP	mg/L	1.18	---	---	---	---	---	---
Chlorine, total, field		7782-50-5	EF001/WP	mg/L	1.51	---	---	---	---	---	---
Total Metals											
Aluminum, total		7429-90-5	E420/WP	µg/L	18.2	---	---	---	---	---	---
Antimony, total		7440-36-0	E420/WP	µg/L	0.42	---	---	---	---	---	---
Arsenic, total		7440-38-2	E420/WP	µg/L	0.99	---	---	---	---	---	---
Barium, total		7440-39-3	E420/WP	µg/L	42.3	---	---	---	---	---	---
Beryllium, total		7440-41-7	E420/WP	µg/L	Not Detected	---	---	---	---	---	---
Bismuth, total		7440-69-9	E420/WP	µg/L	0.00081	---	---	---	---	---	---
Boron, total		7440-42-8	E420/WP	µg/L	103	---	---	---	---	---	---
Cadmium, total		7440-43-9	E420/WP	µg/L	0.0092	---	---	---	---	---	---
Calcium, total		7440-70-2	E420/WP	µg/L	126000	---	---	---	---	---	---
Cesium, total		7440-46-2	E420/WP	µg/L	0.025	---	---	---	---	---	---
Chromium, total		7440-47-3	E420/WP	µg/L	0.44	---	---	---	---	---	---
Cobalt, total		7440-48-4	E420/WP	µg/L	0.61	---	---	---	---	---	---
Copper, total		7440-50-8	E420/WP	µg/L	24.3	---	---	---	---	---	---
Iron, total		7439-89-6	E420/WP	µg/L	13	---	---	---	---	---	---
Lead, total		7439-92-1	E420/WP	µg/L	0.488	---	---	---	---	---	---

Work Order : WP2512002
 Client : Manitoba Conservation & Climate
 Project : Municipality of Rhineland (Red River Regional) - PWS 178.15



Matrix: Water		Client sample ID		RM of Rhineland 3 - Distribution @ Shop Distribution																
				Client sampling date / time		25-Jul-2025 00:00														
				Sub-Matrix		Water														
Analyte	CAS Number	Method/Lab	Unit																	
Total Metals																				
Lithium, total	7439-93-2	E420/WP	µg/L																	
Magnesium, total	7439-95-4	E420/WP	µg/L																	
Manganese, total	7439-96-5	E420/WP	µg/L																	
Molybdenum, total	7439-98-7	E420/WP	µg/L																	
Nickel, total	7440-02-0	E420/WP	µg/L																	
Phosphorus, total	7723-14-0	E420/WP	µg/L																	
Potassium, total	7440-09-7	E420/WP	µg/L																	
Rubidium, total	7440-17-7	E420/WP	µg/L																	
Selenium, total	7782-49-2	E420/WP	µg/L																	
Silicon, total	7440-21-3	E420/WP	µg/L																	
Silver, total	7440-22-4	E420/WP	µg/L																	
Sodium, total	7440-23-5	E420/WP	µg/L																	
Strontium, total	7440-24-6	E420/WP	µg/L																	
Sulfur, total	7704-34-9	E420/WP	µg/L																	
Tellurium, total	13494-80-9	E420/WP	µg/L																	
Thallium, total	7440-28-0	E420/WP	µg/L																	
Thorium, total	7440-29-1	E420/WP	µg/L																	
Tin, total	7440-31-5	E420/WP	µg/L																	
Titanium, total	7440-32-6	E420/WP	µg/L																	

Work Order : WP2512002
 Client : Manitoba Conservation & Climate
 Project : Municipality of Rhineland (Red River Regional) - PWS 178.15



Matrix: Water

Matrix: Water				Client sample ID									
				RM of Rhineland 3 - Distribution @ Shop									
				Distribution									
				25-Jul-2025 00:00									
				Water									

Please refer to the General Comments section for an explanation of any result qualifiers detected.