2025 Annual Water Report

The Village of Midway

Contents

Introduction:

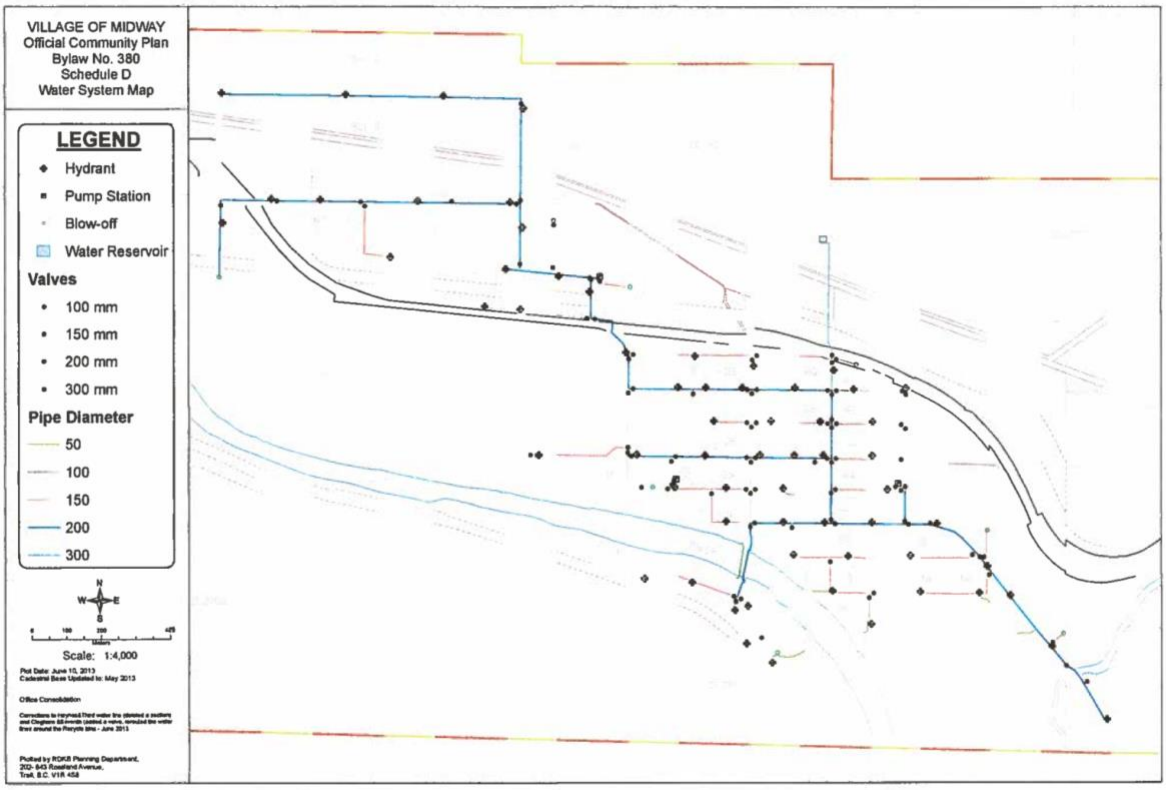
Under the terms of the Village of Midway Operating Permit the Village is required to provide an annual report to users of the system that provides an overview of the water system, and a summary of water test results, maintenance and improvements made to the system. All water suppliers are required to provide a similar annual report to their users.

This report has been submitted to Interior Health and is posted on the Village of Midway website. www.midwaybc.ca

Midway Water Distribution System:

The Village of Midway has approximately 278 residential and 22 commercial water connections serving the residents of Midway. These users primarily get their drinking water from 2 wells.

As part of the water distribution system the Village maintains 17 km of water main, 1 reservoir and 2 pump stations. Figure 1 shows the layout of the Village's water distribution system



Village of Midway Water Distribution System

Reservoir:
The Village has one reservoir located on the north side of Hwy 3, just above town.

The reservoir is a concrete underground tank that holds 245,000 imperial gallons of water. The tank was constructed in 1995.

Distribution System:
The Village's 17 km distribution system is made up of a combination of PVC piping ranging in size from 37mm to 300mm in diameter. There are 64 fire hydrants, 87 solation valves, 2 prvs, 1 creek crossing and 1 bridge crossing. System pressure ranges from 72psi – 95psi. The majority of the system was installed between 1995 and 1996.

Pump Stations:
The Village has 3 pump stations. 2 of which are tied into the distribution system. The #1 pump house is our main lift station. This well is 96.7' deep with a 60hp pump supplying the system at a rate of 720 imp gal per min. This pump is used in the warmer months when the demand for water is high. #2 pump house is 65' deep with a 10hp pump supplying the system at a rate of 100 imp gal per min. This pump is used in the winter months when the demand for water is low. In case of a power outage the Village has a back up generator for the #2 pump house.

Routine Maintenance Program

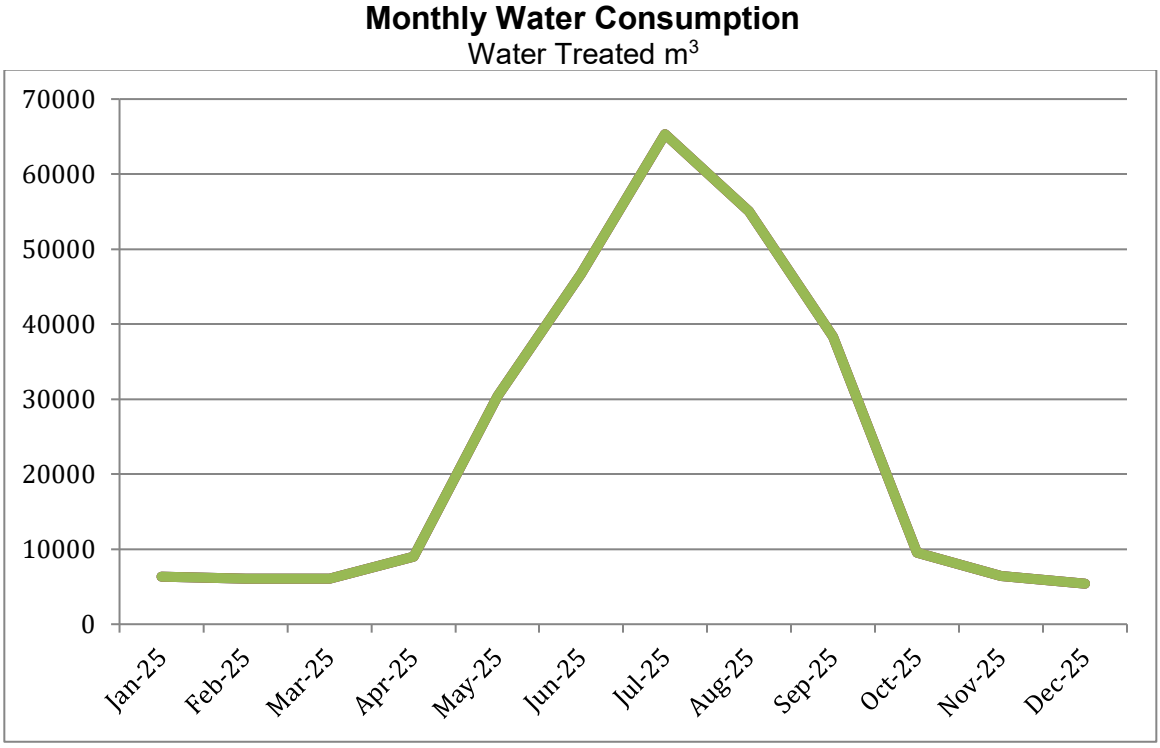
Distribution System:
Fire hydrants are inspected annually and completely tore down once every five years. The distribution system is flushed twice a year, once in the spring and again in the fall. Dead-ends are flushed quarterly. All isolation valves are exercised annually to make sure they are operating properly.

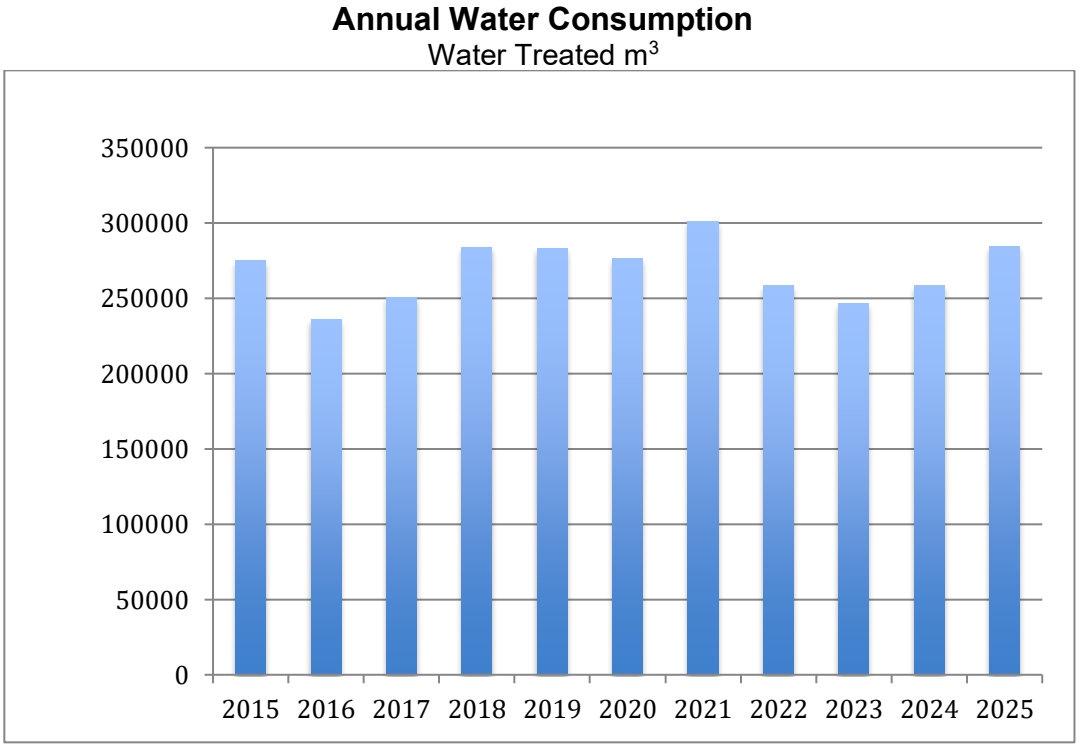
Reservoir:
The reservoir is inspected monthly to make sure the site and structure is secure. The isolation valves are exercised annually. The reservoir is drained, inspected, and cleaned every 5 years.

Pump Stations:
Pump stations are inspected daily. A complete run through of all valves, alarms and procedures are done annually. Pump station maintenance is done every 5 years.

Water Consumption:

In 2025, the Village of Midway's water consumption was 62,597,969 imp gal (284,576 m^3). The daily average in the fall/winter months (Jan – Mar & Oct – Dec) is 48,101 imp gal per day (218.67 m^3) and in the spring/summer months (Apr – Sept) it is 293,146 imp gal per day (1,332.67 m^3). Before bringing in a watering bylaw the average daily use in the summer months were double what they are now.





Water Sampling and Testing:

Bacteriological:
As required by the Interior Health Authority (IHA), Village staff takes weekly samples of the water for bacteriological testing for total Coliforms and e-Coli bacteria. There are two different sampling sites used in the Village. In addition, water samples are taken from within project areas after any work on infrastructure.

See Appendix A for 2025 test results.

Full Spectrum Analysis:
Every two years, Village staff also sends samples from the source water for a full spectrum analysis. Parameters such as alkalinity, metals, pH, turbidity, hardness, and disinfection byproducts are tested.

See Appendix B for 2024 test results for Well #1 and Well #2.

Cross Connection Program:
The Village is developing a Cross Connection Control Program to address the potential for the water system to be compromised by high-risk service connections that could introduce contaminated water into the Village's water system.

Emergency Response Plan:
The Village has an Emergency Response Plan pertaining to the water system. The Emergency Response Plan identifies several potential emergencies that could occur and provides a systematic approach on how the Village will deal with the emergency. The plan is available for public viewing at the Village office.

Wellhead Protection Plan:
The Village has completed Phase II.

Appendix A:
Medical Clinic

Sample Date	Coliform	E. Coli	Turbidity	Arsenic
6-Jan-25	< 1	< 1	< 0.10	
13-Jan-25	< 1	< 1	< 0.10	
20-Jan-25	< 1	< 1	0.15	0.00780
27-Jan-25	< 1	< 1	< 0.10	
3-Feb-25	< 1	< 1	< 0.10	
10-Feb-25	< 1	< 1	< 0.10	
24-Feb-25	< 1	< 1	0.20	
3-Mar-25	< 1	< 1	< 0.10	
10-Mar-25	< 1	< 1	< 0.10	
17-Mar-25	< 1	< 1	< 0.10	
24-Mar-25	< 1	< 1	< 0.10	
31-Mar-25	< 1	< 1	< 0.10	
7-Apr-25	< 1	< 1	< 0.10	
28-Apr-25	< 1	< 1	< 0.10	
5-May-25	< 1	< 1	0.10	
12-May-25	< 1	< 1	< 0.10	
26-May-25	< 1	< 1	< 0.10	
2-Jun-25	< 1	< 1	0.13	
9-Jun-25			< 0.10	
16-Jun-25	< 1	< 1	< 0.10	0.00652
23-Jun-25	< 1	< 1	< 0.10	
7-Jul-25	< 1	< 1	< 0.10	
14-Jul-25	< 1	< 1	< 0.10	
21-Jul-25	< 1	< 1	0.19	
28-Jul-25	< 1	< 1	< 0.10	
11-Aug-25	< 1	< 1	< 0.10	0.00679
18-Aug-25	< 1	< 1	< 0.10	
25-Aug-25	< 1	< 1	< 0.10	
15-Sept-25	< 1	< 1	< 0.10	
22-Sept-25	< 1	< 1	< 0.10	
6-Oct-25	< 1	< 1	< 0.10	
20-Oct-25	< 1	< 1	< 0.10	
27-Oct-25	< 1	< 1	0.11	
3-Nov-25	< 1	< 1	< 0.10	0.00719
17-Nov-25	< 1	< 1	0.20	
8-Dec-25	< 1	< 1	< 0.10	
15-Dec-25	< 1	< 1	0.12	

Community Centre

Sample Date	Coliform	E. Coli	Turbidity
6-Jan-25	< 1	< 1	
13-Jan-25	< 1	< 1	
20-Jan-25	< 1	< 1	
27-Jan-25	< 1	< 1	
3-Feb-25	< 1	< 1	
10-Feb-25	< 1	< 1	
24-Feb-25	< 1	< 1	
3-Mar-25	< 1	< 1	
10-Mar-25	< 1	< 1	
17-Mar-25	< 1	< 1	
24-Mar-25	< 1	< 1	
31-Mar-25	< 1	< 1	
7-Apr-25	< 1	< 1	
28-Apr-25	< 1	< 1	
5-May-25	< 1	< 1	
26-May-25	< 1	< 1	
2-Jun-25	< 1	< 1	
16-Jun-25	< 1	< 1	
7-Jul-25	< 1	< 1	
14-Jul-25	< 1	< 1	
21-Jul-25	< 1	< 1	
15-Sept-25	< 1	< 1	
6-Oct-25	3	< 1	
20-Oct-25	< 1	< 1	
27-Oct-25	< 1	< 1	

Well/Pumphouse #2

Sample Date	Coliform	E. Coli	Turbidity	Background Colonies
23-Jun-25	< 1	< 1		
28-Jul-25	< 1	< 1		
11-Aug-25	< 1	< 1		
18-Aug-25	< 1	< 1		
25-Aug-25	< 1	< 1		
22-Sept-25	< 1	< 1		
3-Nov-25	6	< 1		
17-Nov-25	< 1	< 1		
8-Dec-25	< 1	< 1		
15-Dec-25	< 1	< 1		

Appendix B:

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Midway, Corporation of the Village of	**WORK ORDER**	24D1053
PROJECT	Drinking Water	**REPORTED**	2024-04-15 14:07

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Well #1 (24D1053-01) | Matrix: Water | Sampled: 2024-04-08 09:30						
Anions						
Chloride	**8.92**	AO ≤ 250	0.10	mg/L	2024-04-10	
Fluoride	**0.66**	MAC = 1.5	0.10	mg/L	2024-04-10	
Nitrate (as N)	**0.992**	MAC = 10	0.010	mg/L	2024-04-10	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2024-04-10	
Sulfate	**41.9**	AO ≤ 500	1.0	mg/L	2024-04-10	
Calculated Parameters						
Hardness, Total (as CaCO3)	**200**	None Required	0.500	mg/L	N/A	
Langelier Index	**0.09**	N/A	-5.0		2024-04-15	CT6
Solids, Total Dissolved	**264**	AO ≤ 500	1.00	mg/L	N/A	
General Parameters						
Alkalinity, Total (as CaCO3)	**188**	N/A	1.0	mg/L	2024-04-10	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0	mg/L	2024-04-10	
Alkalinity, Bicarbonate (as CaCO3)	**188**	N/A	1.0	mg/L	2024-04-10	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0	mg/L	2024-04-10	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0	mg/L	2024-04-10	
Colour, True	< 5.0	AO ≤ 15	5.0	CU	2024-04-10	
Conductivity (EC)	**445**	N/A	2.0	µS/cm	2024-04-10	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2024-04-10	
pH	**7.74**	7.0-10.5	0.10	pH units	2024-04-10	HT2
Temperature, at pH	**20.4**	N/A		°C	2024-04-10	HT2
Turbidity	**0.54**	OG < 1	0.10	NTU	2024-04-10	
Microbiological Parameters						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2024-04-09	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2024-04-09	
Total Metals						
Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2024-04-12	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2024-04-12	
Arsenic, total	**0.0116**	MAC = 0.01	0.00050	mg/L	2024-04-12	
Barium, total	**0.0352**	MAC = 2	0.0050	mg/L	2024-04-12	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2024-04-12	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010	mg/L	2024-04-12	
Calcium, total	**48.4**	None Required	0.20	mg/L	2024-04-12	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2024-04-12	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2024-04-12	
Copper, total	**0.00127**	MAC = 2	0.00040	mg/L	2024-04-12	
Iron, total	**0.054**	AO ≤ 0.3	0.010	mg/L	2024-04-12	
Lead, total	**0.00108**	MAC = 0.005	0.00020	mg/L	2024-04-12	
Magnesium, total	**19.0**	None Required	0.010	mg/L	2024-04-12	
Manganese, total	**0.00160**	MAC = 0.12	0.00020	mg/L	2024-04-12	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2024-04-10	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Midway, Corporation of the Village of	**WORK ORDER**	24D1053
PROJECT	Drinking Water	**REPORTED**	2024-04-15 14:07

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Well #1 (24D1053-01) | Matrix: Water | Sampled: 2024-04-08 09:30, Continued						
Total Metals, Continued						
Molybdenum, total	**0.00566**	N/A	0.00010	mg/L	2024-04-12	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2024-04-12	
Potassium, total	**2.40**	N/A	0.10	mg/L	2024-04-12	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2024-04-12	
Sodium, total	**23.6**	AO ≤ 200	0.10	mg/L	2024-04-12	
Strontium, total	**1.36**	MAC = 7	0.0010	mg/L	2024-04-12	
Uranium, total	**0.00676**	MAC = 0.02	0.000020	mg/L	2024-04-12	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2024-04-12	

Sample Qualifiers:

CT6	Results were based on lab temperature & lab pH.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Midway, Corporation of the Village of	**WORK ORDER**	24D2826
PROJECT	Drinking Water	**REPORTED**	2024-04-29 13:25

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Well #2 (24D2826-01) | Matrix: Water | Sampled: 2024-04-22 09:30						
Anions						
Chloride	**8.58**	AO ≤ 250	0.10	mg/L	2024-04-24	
Fluoride	**0.50**	MAC = 1.5	0.10	mg/L	2024-04-24	
Nitrate (as N)	**3.52**	MAC = 10	0.010	mg/L	2024-04-24	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2024-04-24	
Sulfate	**21.5**	AO ≤ 500	1.0	mg/L	2024-04-24	
Calculated Parameters						
Hardness, Total (as CaCO3)	**196**	None Required	0.500	mg/L	N/A	
Langelier Index	**0.09**	N/A	-5.0		2024-04-29	CT6
Solids, Total Dissolved	**229**	AO ≤ 500	1.00	mg/L	N/A	
General Parameters						
Alkalinity, Total (as CaCO3)	**161**	N/A	1.0	mg/L	2024-04-25	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0	mg/L	2024-04-25	
Alkalinity, Bicarbonate (as CaCO3)	**161**	N/A	1.0	mg/L	2024-04-25	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0	mg/L	2024-04-25	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0	mg/L	2024-04-25	
Colour, True	< 5.0	AO ≤ 15	5.0	CU	2024-04-24	
Conductivity (EC)	**381**	N/A	2.0	µS/cm	2024-04-25	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2024-04-26	
pH	**7.70**	7.0-10.5	0.10	pH units	2024-04-25	HT2
Temperature, at pH	**21.5**	N/A		°C	2024-04-25	HT2
Turbidity	**0.12**	OG < 1	0.10	NTU	2024-04-25	
Microbiological Parameters						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2024-04-23	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2024-04-23	
Total Metals						
Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2024-04-27	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2024-04-27	
Arsenic, total	**0.00411**	MAC = 0.01	0.00050	mg/L	2024-04-27	
Barium, total	**0.0309**	MAC = 2	0.0050	mg/L	2024-04-27	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2024-04-27	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010	mg/L	2024-04-27	
Calcium, total	**59.3**	None Required	0.20	mg/L	2024-04-27	
Chromium, total	**0.00089**	MAC = 0.05	0.00050	mg/L	2024-04-27	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2024-04-27	
Copper, total	**0.00057**	MAC = 2	0.00040	mg/L	2024-04-27	
Iron, total	< 0.010	AO ≤ 0.3	0.010	mg/L	2024-04-27	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2024-04-27	
Magnesium, total	**11.6**	None Required	0.010	mg/L	2024-04-27	
Manganese, total	< 0.00020	MAC = 0.12	0.00020	mg/L	2024-04-27	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2024-04-25	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Midway, Corporation of the Village of	**WORK ORDER**	24D2826
PROJECT	Drinking Water	**REPORTED**	2024-04-29 13:25

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Well #2 (24D2826-01) | Matrix: Water | Sampled: 2024-04-22 09:30, Continued						
Total Metals, Continued						
Molybdenum, total	**0.00248**	N/A	0.00010	mg/L	2024-04-27	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2024-04-27	
Potassium, total	**2.27**	N/A	0.10	mg/L	2024-04-27	
Selenium, total	**0.00059**	MAC = 0.05	0.00050	mg/L	2024-04-27	
Sodium, total	**11.7**	AO ≤ 200	0.10	mg/L	2024-04-27	
Strontium, total	**0.552**	MAC = 7	0.0010	mg/L	2024-04-27	
Uranium, total	**0.00557**	MAC = 0.02	0.000020	mg/L	2024-04-27	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2024-04-27	

Sample Qualifiers:

CT6	Results were based on lab temperature & lab pH.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.