



Water and Waste
Eaux et déchets

ENVIRONMENTAL STANDARDS DIVISION

2024 ANNUAL WATER REPORT

CITY OF WINNIPEG WATER SUPPLY SYSTEM



OPERATING LICENCE #PWS-09-412-02 AA

2024



INTRODUCTION

The Mission of the City of Winnipeg's Water and Waste Department is to serve the community by providing and continually improving drinking water, wastewater, land drainage, and solid waste services to the citizens of Winnipeg.

The City of Winnipeg ensures that our drinking water is safe by using watershed protection measures, design and construction standards, multi-step water treatment, operator certification programs, standardized operating procedures, and a comprehensive source-to-tap monitoring program.

The Province of Manitoba and the Winnipeg Regional Health Authority regulate the quality of our drinking water using the *Manitoba Drinking Water Safety Act* and the *Guidelines for Canadian Drinking Water Quality*. The City of Winnipeg's Public Water System Operating Licence, PWS-09-412-02 AA, requires that we regularly monitor the quality of our drinking water and submit an annual report to the regulating authority on or before the 31st of March of each year as set out in subsection 32(2) of *MR 40/2007, Drinking Water Safety Regulation*.

In keeping with this requirement, the City of Winnipeg has compiled this report, which summarizes the results of the City's 2024 Water Quality Monitoring Program.

2024 ANNUAL WATER REPORT – CITY OF WINNIPEG WATER SUPPLY SYSTEM

CONTENTS

Introduction

1.0	Drinking Water Source, Treatment, and Distribution	1
2.0	Drinking Water Quality Standards and Monitoring	2
3.0	Compliance and Corrective Actions Summary	4
4.0	Licences and Permits.....	7
5.0	Major Expenses	7
6.0	Zebra Mussels	7
7.0	Backflow Prevention and Cross Connection Control	8
8.0	Corrosion Control and Residential Lead Monitoring Programs.....	8
9.0	References.....	11

TABLES AND FIGURES

Table 1.	Drinking Water Parameters	3
Table 2.	Corrective Action Reports Summary	6
Table 3.	2024 Residential Lead Monitoring Program Summary.....	9
Figure 1.	2024 Average Lead Results by Service Line Material	10

APPENDICES

Appendix A.	Water Quality Summary Reports
	2024 Shoal Lake Water Quality Summary
	2024 Water Treatment Plant – Raw Water Quality Summary
	2024 Water Treatment Plant – Finished Water Quality Summary
	2024 Distribution System Water Quality Summary
Appendix B.	Compliance Submission Reports
	2024 Monthly Chlorine Reports
	2024 Monthly Turbidity Reports
	2024 Monthly UV Summary Reports
	2024 Corrective Action Reports
	2024 Quarterly Fluoride Monitoring Reports
	2024 Monthly Algae Monitoring Reports
Appendix C.	2024 Zebra Mussel (<i>Dreissena Polymorpha</i>) Monitoring Report
Appendix D.	2024 Residential Lead Monitoring Program Results

1.0 DRINKING WATER SOURCE, TREATMENT, AND DISTRIBUTION

The City of Winnipeg gets its water from Shoal Lake, which is on the border between Manitoba and Ontario, and covers 277 square kilometers. The intake for the water system is only accessible by rail or boat. The water flows by gravity from the intake through a 135-kilometer-long aqueduct into four large reservoirs located adjacent to the Winnipeg Drinking Water Treatment Plant (WTP). The reservoirs can hold enough water to supply Winnipeg for approximately one month, depending on demand. The raw water is pumped from the reservoirs into the WTP, where it undergoes several steps of treatment to produce high quality drinking water:

1. Coagulation and flocculation: sulphuric acid and ferric sulphate are added to lower the pH of the water and cause particles of organic material to clump together.
2. Dissolved Air Flootation (DAF): tiny bubbles of air are used to remove the clumped organic material from the water.
3. Ozonation: gaseous ozone is added to kill bacteria, remove tastes and odors, and improve filter performance. Sodium bisulphite is added at the end of the ozonation process to remove excess ozone.
4. Filtration: the water flows through biologically activated carbon filters to remove any remaining small particles, including parasites.
5. Chlorination: chlorine, the most widely-used drinking water disinfectant in North America, is added to kill viruses and bacteria, and then sodium hydroxide is added to raise the pH back to the original level.
6. Ultraviolet (UV) Light: the water is disinfected by exposing it to UV light.
7. Orthophosphate is added to form a protective coating inside water pipes, which helps to reduce corrosion. Fluoride is added to prevent dental decay, as a part of the Provincial Water Fluoridation Program, overseen by the Province of Manitoba's Department of Health, Seniors and Long-Term Care.

2024 ANNUAL WATER REPORT – CITY OF WINNIPEG WATER SUPPLY SYSTEM

In 2024, the WTP produced an average of 195 megalitres (ML) of high-quality drinking water per day. The water is pumped from the WTP to three smaller reservoirs and regional pumping stations in different areas of the City. The Wilkes Reservoir holds 252 ML and feeds water to the Hurst Regional Pumping Station; the McPhillips Reservoir holds 240 ML and feeds water to the McPhillips Regional Pumping Station; the Maclean Reservoir holds 222 ML and feeds water to the Maclean Regional Pumping Station. At the regional pumping stations, chlorine is added again before entering the distribution system, which is comprised of approximately: 2749.1 km of water mains; 151.5 km of feeder mains; 30,791 valves; and 23,741 fire hydrants.

2.0 DRINKING WATER QUALITY STANDARDS AND MONITORING

The bacteriological, chemical, physical, and microbial drinking water quality standards that apply to the City of Winnipeg's Public Water System are listed in Operating Licence PWS-09-412-02 AA¹ (Operating Licence). The Operating Licence is issued by the Province of Manitoba's Department of Environment and Climate Change, under the authority of the *Manitoba Drinking Water Safety Act*² and its associated Regulations: *MR 40/2007, Drinking Water Safety Regulation*³ and *MR 41/2007, Drinking Water Quality Standards Regulation*⁴.

The required water quality monitoring frequency and monitoring locations are specified in our Operating Licence. We are required to test the raw water, treated water leaving the WTP, water leaving the three regional pumping stations, and at a minimum of 39 sites within the distribution system every week. To ensure the quality of our water, we exceed the minimum requirements by sampling at 57 locations within the distribution system and test for additional parameters beyond the requirements of our Operating Licence.

The parameters tested are listed in Table 1 and summaries of the 2024 Water Quality results are provided in Appendix A.

2024 ANNUAL WATER REPORT – CITY OF WINNIPEG WATER SUPPLY SYSTEM

Table 1. Drinking Water Parameters

Parameter	Shoal Lake	WTP Raw Water	WTP Treated Water	Distribution System
Alkalinity	✓	✓✓	✓	✓✓
Bacteria	✓	✓✓	✓✓	✓✓
Bromate				✓✓
Bromide		✓✓		✓✓
Chloride	✓	✓✓	✓	✓✓
Chlorine		✓	✓✓	✓✓
Chlorophyll-a	✓	✓	✓	
Colour	✓	✓	✓	✓
Conductivity	✓	✓✓	✓	✓✓
Disinfection By-Products	✓	✓	✓	✓✓
Dissolved Oxygen		✓	✓	✓
Enteric Protozoa	✓	✓		
Fluoride	✓	✓✓		✓✓
Hardness	✓	✓✓	✓	✓✓
Langelier Index		✓✓		✓✓
Microcystin LR		✓✓	✓✓	
Nitrogen	✓	✓✓		✓✓
Odour	✓	✓	✓	✓
Organic Carbon	✓	✓✓	✓	✓✓
ORP		✓	✓	✓
Perchlorate	✓	✓	✓	
Pesticides	✓	✓	✓	
Phenoxy Acid Herbicides	✓	✓	✓	
pH	✓	✓✓	✓	✓✓
Phosphorous	✓	✓✓		✓✓
Plankton (algae) count	✓	✓	✓	
Polychlorinated Biphenyls	✓	✓	✓	
Solids	✓	✓✓	✓	✓✓
Sulphate	✓	✓✓	✓	✓✓
Taste and Odour Compounds		✓	✓	
Temperature	✓	✓	✓	✓
Total Metals	✓	✓✓	✓	✓✓
Turbidity	✓	✓✓	✓✓	✓✓
UV – Absorbance		✓✓	✓✓	✓✓
UV – Transmittance		✓✓	✓✓	✓✓

✓ Additional sampling beyond requirements of PWS-09-412-02 AA

✓✓ Required as per PWS-09-412-02 AA

3.0 COMPLIANCE AND CORRECTIVE ACTIONS SUMMARY

The City of Winnipeg operates a comprehensive Water Quality Monitoring program that exceeds the requirements of our Operating Licence. We monitor the quality of our water from source to tap and respond to customer inquiries and complaints about water quality. We submit various compliance reports to our regulators: monthly reports detailing turbidity, chlorine, and UV results at the WTP; quarterly reports detailing fluoride, haloacetic acid (HAA), and trihalomethane (THM) levels in the distribution system; algae monitoring reports; and an annual update on our Residential Lead Monitoring Program. Weekly bacteriological results are sent directly to the Province of Manitoba's Office of Drinking Water (ODW) by the laboratory that performs the analysis.

If test results do not meet a drinking water quality standard, or we fail to meet a licence requirement we notify ODW and take corrective action to ensure our water remains safe. We inform Winnipeg residents immediately if there is ever a water quality issue that could affect public health.

The City of Winnipeg monitors the water supply for algae blooms that may indicate the presence of cyanobacteria (also known as blue-green algae), which can release toxins known as microcystins under certain conditions. We perform weekly visual inspections for algae at the Shoal Lake Intake and the WTP Reservoirs during open water season, and we test raw and finished water monthly for microcystins. If an algae bloom is observed we notify ODW, perform a microscopic examination to determine if cyanobacteria are present, test for microcystins, and increase our monitoring and testing frequency. In 2024, an algae bloom was observed in one of the WTP reservoirs, however, microcystins were not detected in 100% of the twelve raw water and twelve finished water samples.

The presence of bacteria in a treated water sample could indicate a potential treatment failure or contamination after treatment. If bacteria are detected in a treated water sample from the WTP or the distribution system we take immediate corrective actions to maintain water quality, notify the ODW, and submit a Corrective Action Report (CAR). In 2024, total coliform and *E. coli* bacteria were not detected in any of the 244 samples from the WTP and not detected in 99% of the 6,292 samples from the distribution system.

2024 ANNUAL WATER REPORT – CITY OF WINNIPEG WATER SUPPLY SYSTEM

We add chlorine to disinfect the water as it leaves the WTP, as well as where it enters the distribution system from the three regional pumping stations, using continuous online analyzers to manage the chlorine dosing levels. Grab samples are used to confirm the accuracy of the analyzers and to confirm that appropriate levels of chlorine are maintained throughout the distribution system. We are required to maintain a free chlorine residual of 0.5 milligrams per litre (mg/L) in the water as it leaves the WTP and 0.1 mg/L at all points within the distribution system. If the free chlorine residual drops below these levels we take immediate corrective actions to maintain water quality, notify the ODW, and submit a CAR. In 2024, 100% of the 3,256 grab samples collected by laboratory staff met the free chlorine requirements.

Turbidity is a measurement of the cloudiness of water caused by small particles, which can reduce the effectiveness of disinfection. Our Operating Licence requires the turbidity of the water leaving the filters at the WTP to never exceed 1.0 Nephelometric Turbidity Units (NTU) and to not exceed 0.3 NTU for more than 12 consecutive hours and/or more than 5% of readings per month on any operating filter. We continuously monitor the turbidity of the water leaving each filter using online analyzers, and confirm the accuracy of the analyzers using grab samples. If the turbidity exceeds Operating Licence limits we take immediate corrective actions to maintain water quality, notify the ODW, and submit a CAR. In 2024, 100% of the 2,293 grab samples collected by lab staff for turbidity were at or below 0.3 NTU. There is no maximum allowable turbidity in the distribution system, however, we take corrective actions if turbidity greater than 1.0 NTU is measured. In 2024, turbidity measured less than 1.0 NTU in 99% of the 3,266 samples from the distribution system.

No boil water advisories were issued by ODW/WRHA, no drinking water safety orders were issued, and no charges were laid, pending, or disposed of for any offences against the City of Winnipeg in 2024.

A summary of the CARs submitted in 2024 is provided in Table 2; Compliance and Correction Action Reports are provided in Appendix B.

2024 ANNUAL WATER REPORT – CITY OF WINNIPEG WATER SUPPLY SYSTEM

Table 2. Corrective Action Reports Summary

Report Number	Incident Date(s)	Incident Location	Parameter	Result	Description of Corrective Actions Taken and Comments
CAR-01	28-Feb-24	WTP	Turbidity	5.00 NTU	Incident occurred during routine maintenance. No further action required. Water quality was not impacted.
CAR-02	16-Apr-24	WTP	Turbidity	5.00 NTU	Incident occurred during routine maintenance. No further action required. Water quality was not impacted.
CAR-03	14-May-24	WTP	Turbidity	1.63 NTU	Turbidity spike was due to material sloughing from the turbidity analyzer sample line. Water quality was not impacted.
CAR-04	25-May-24	WTP	Turbidity	3.11 NTU	Turbidity spike was due to material sloughing from the turbidity analyzer sample line. Water quality was not impacted.
CAR-05	29-Oct-24	SE08	Total Coliform	1 MPNU per 100mL	Flushed and re-sampled; re-samples met bacteriological standards.
CAR-06	3-Oct-24	WTP	Turbidity	2.05 NTU	Turbidity spike was due to material sloughing from the turbidity analyzer sample line. Water quality was not impacted.
CAR-07	31-Oct-24	WTP	Turbidity	1.35 NTU	Turbidity spike was due to material being trapped in the analyzer cuvette. Water quality was not impacted.
CAR-08	11-Nov-24	WTP	Turbidity	1.04 NTU	Turbidity spike was due to material sloughing from the turbidity analyzer sample line. Water quality was not impacted.
CAR-09	7-Dec-24	WTP	Turbidity	1.46 NTU	Turbidity spike caused by flow surge while bringing filter back online after backwash. Filter was set to backwash and sample lines were cleaned. Water quality was not impacted.
CAR-10	16-Dec-24	Hydrant	Total Coliform	1 MPNU per 100mL	Flushed and re-sampled; re-samples met bacteriological standards.
CAR-11	21-Dec-24	WTP	Turbidity	1.22 NTU	Turbidity spike was due to material sloughing from the turbidity analyzer sample line. Water quality was not impacted.

4.0 LICENCES AND PERMITS

The City of Winnipeg operates its public water system according to the requirements listed in PWS-09-412-02 AA, which came into effect on March 19, 2024 and expires on November 30, 2025.

Approximately 9.6 km of water mains were added to the distribution system in 2024. All of the extensions conform to the City of Winnipeg's engineering standards and construction specifications, as such, the works were approved by ODW as a minor alteration and a Permit to Construct or Alter a Public Water System was not required.

Permit PWS-23-P18 was issued for upgrades to the UV treatment system at the Deacon Booster Pumping Station.

5.0 MAJOR EXPENSES

In 2024, the City's major expenses relating to drinking water included:

- Renewal of around 9.4 km of water mains at 32 locations in the City's water distribution system
- Upgrades to the Feeder Main Valve Chamber at Lagimodiere Blvd and Fermor Ave
- Replacement of the roofing system at the Water Treatment Plant
- Upgrades to the UV system at the Deacon Booster Pumping Station
- Replacement of the chiller at Hurst Pumping Station

6.0 ZEBRA MUSSELS

Zebra mussels are an invasive mollusk which can negatively impact ecosystems as they compete with fish for food. Zebra mussels can also settle inside water intake pipes and restrict water flow.

The City of Winnipeg monitors Shoal Lake and the WTP raw water reservoirs for both adult zebra mussels and zebra mussel larva (veligers) during open water season. In 2024, there was no evidence of adult or veliger zebra mussels observed in any of the samples. The 2024 Zebra Mussel (*Dreissena Polymorpha*) Monitoring Report is provided in Appendix C.

7.0 BACKFLOW PREVENTION AND CROSS CONNECTION CONTROL

As required under our Operating Licence, the City of Winnipeg operates a Backflow Prevention and Cross-Connection Control Program, which is enforced under the City of Winnipeg's Water By-law 2015/107. The program requires all moderate and severe hazard premises to install and maintain a premise isolation backflow prevention device on the incoming water line, to prevent the backwards flow of water from the building into the distribution system. Existing and newly installed devices are inspected by program staff to ensure they have been installed according to the Plumbing Code and that the device offers the required level of protection, which is dependent upon the type of activities that occur within the building.

In 2024, program staff notified 218 building owners of the requirement to install premise isolation devices, conducted approximately 1,200 inspections, and tracked the testing and maintenance of approximately 19,500 backflow prevention devices.

8.0 CORROSION CONTROL AND RESIDENTIAL LEAD MONITORING PROGRAMS

Although lead is not present in the water produced by the WTP, it can enter the water as it passes through a lead service line (the pipe that connects a building to the water main) and/or plumbing systems and fixtures that contain lead. Buildings constructed before 1950 may have a lead service line and those constructed before 1990 may have lead solder or brass plumbing fixtures. There are approximately 8,170 properties with lead service lines on the City side within the City of Winnipeg. We do not have an accurate count of the number of private side lead services. The ODW regulates the City of Winnipeg's Corrosion Control Program and Residential Lead Monitoring Program under our Operating Licence.

As part of our Corrosion Control Program, we add orthophosphate to the water as it leaves the WTP. Orthophosphate forms a coating inside water pipes which helps reduce corrosion that can allow lead to enter water as it travels through the pipes. We also replace the City's portion of lead service lines (from the water main to the shut-off valve at the property line) when replacing water mains or if a repair is required to a lead service. We notify building owners when this work is being done so they have the

2024 ANNUAL WATER REPORT – CITY OF WINNIPEG WATER SUPPLY SYSTEM

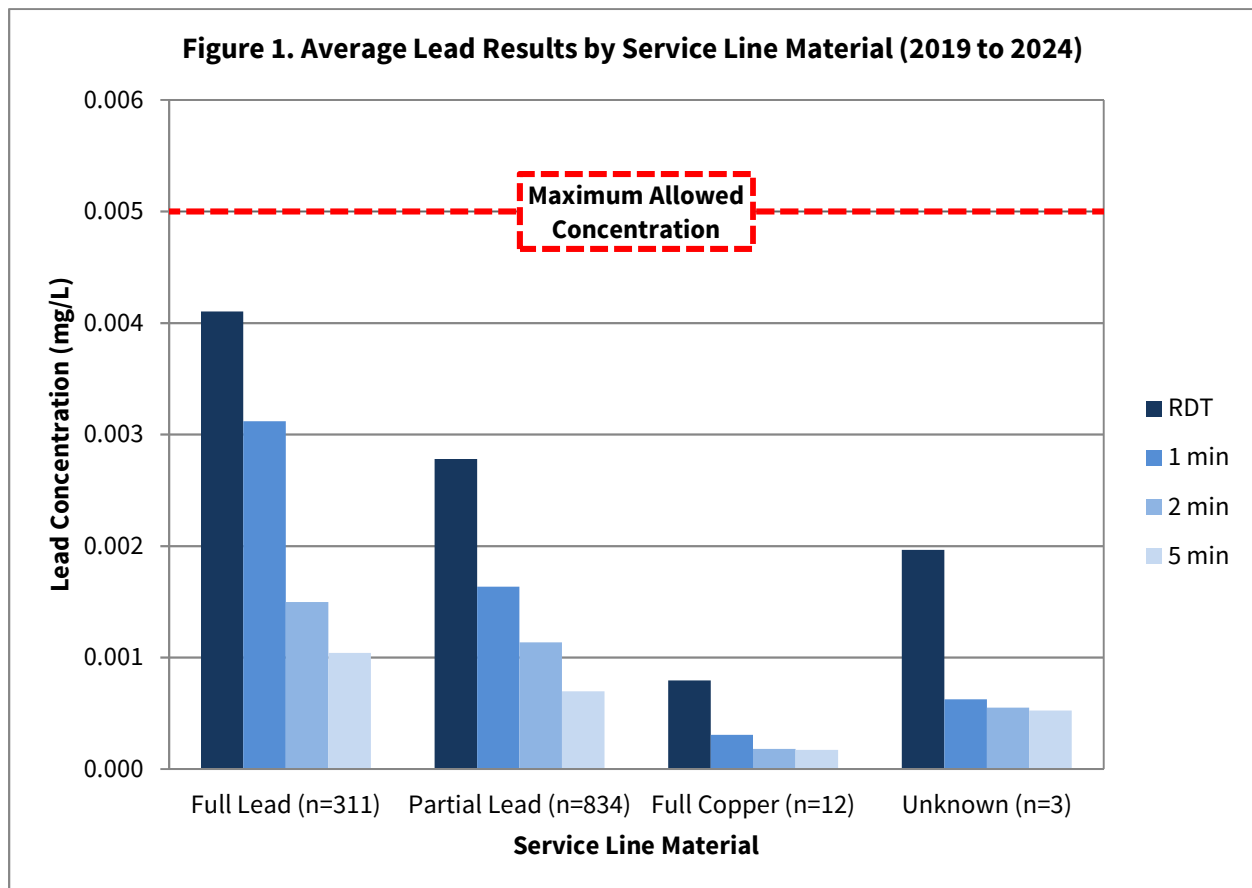
option to benefit from cost-savings achieved by replacing their portion of the service line (from the shut-off valve at the property line to the building) at the same time.

For the 2024 Residential Lead Monitoring Program we analyzed 216 sets of samples collected from buildings with full or partial lead service lines and/or older buildings that may contain lead in their plumbing systems. Sample sets consist of a Random Daytime Sample (RDT), and samples collected after 1, 2, and 5 minutes of flushing. The RDT sample is the best estimate of typical lead exposure within the building, while the sample collected after 1 minute of flushing is the water that was in the service line when the RDT sample was collected (depending on the distance of the sample tap from the service line). The samples collected after 2 and 5 minutes of flushing show the effect of flushing on lead levels at the tap.

Although 7.41% of the RDT and 5.56% of the 1-minute flushed samples were over the guideline of 0.005 mg/L, lead levels decreased significantly with increased flushing. After five minutes of flushing, all but one sample were below the guideline; we conducted follow-up sampling at this location using the 30-minute stagnation (30MS) procedure, and the 30MS results were below the guideline. Overall, the results obtained from the 2024 Residential Lead Monitoring Program were similar to those obtained in previous years. A summary of the results from the 2024 Residential Lead Monitoring Program is provided in Table 3; results are provided in Appendix D.

Table 3: 2024 Residential Lead Monitoring Program Summary				
	Average (mg/L)	Minimum (mg/L)	Maximum (mg/L)	% of samples above guideline (0.005 mg/L)
Random Daytime	0.002816	<0.000065	0.157030	7.41%
1 minute	0.001106	<0.000065	0.018699	5.56%
2 minute	0.000611	<0.000065	0.017951	0.93%
5 minute	0.000532	<0.000065	0.013790	0.46%

As shown in Figure 1, the average lead concentration in buildings with full lead service lines was higher than those with partial lead service lines. The average lead concentration was highest in the RDT and 1-minute flushed samples, but decreased significantly in the 2-minute and 5-minute flushed samples.



Customers are encouraged to remove lead from their plumbing systems whenever feasible. If this is not feasible, customers should flush the water until it is cold to the touch before drinking, preparing food, or making beverages; or use a point-of-use or pitcher-style filter that is certified for lead removal. If filters are used to remove lead it is important that they are maintained and replaced as per manufacturer's instructions. Poor maintenance may increase the levels of lead in the water.

More information on lead in drinking water is available at:

<https://winnipeg.ca/waterandwaste/water/lead.stm>

9.0 REFERENCES

1. City of Winnipeg Operating Licence PWS-09-412-02 AA.

<https://legacy.winnipeg.ca/waterandwaste/pdfs/water/PublicWaterSystemOperatingLicence2024.pdf>

2. Manitoba Drinking Water Safety Act C.C.S.M. c. D101 (2002). Manitoba Water Stewardship.

<https://web2.gov.mb.ca/laws/statutes/ccsm/pdf.php?cap=d101>

3. Manitoba Drinking Water Safety Regulation 40/2007. Manitoba Water Stewardship.

<http://web2.gov.mb.ca/laws/regs/current/pdf-regs.php?reg=40/2007>

4. Manitoba Drinking Water Quality Standards Regulation 41/2007. Manitoba Water Stewardship.

<http://web2.gov.mb.ca/laws/regs/current/pdf-regs.php?reg=41/2007>

APPENDIX A

WATER QUALITY SUMMARY REPORTS

City of Winnipeg
Environmental Standards Division
2024 Shoal Lake Water Quality Summary

PARAMETER	UNITS	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Miscellaneous					
Carbon, Dissolved Organic	<i>parts per million</i>	43	9.0	7.6	10.7
Carbon, Total Organic	<i>parts per million</i>	51	8.3	7.2	9.6
Chlorophyll-a	<i>parts per billion</i>	12	4.7	2.0	7.8
Colour, Apparent	<i>TCU</i>	12	11.2	5.0	15.0
Colour, True	<i>TCU</i>	12	6.9	5.0	8.5
Conductivity	<i>microsiemens per centimetre</i>	12	154	143	169
Odour	<i>units</i>	51	85	60	150
pH	<i>units</i>	51	8.04	7.54	8.50
Plankton (algae) count	<i>cells/mL</i>	12	16,345	2,407	42,460
Solids, Total	<i>parts per million</i>	12	101	91	115
Solids, Total Dissolved	<i>parts per million</i>	12	84	71	100
Solids, Total Suspended	<i>parts per million</i>	12	18	<3	29
Temperature	<i>degrees Celcius</i>	17	12.0	2.2	22.9
Turbidity (clearness)	<i>NTU</i>	64	0.84	0.32	2.15
Anions and Nutrients					
Alkalinity, Total	<i>parts per million as calcium carbonate</i>	24	73.9	69.8	80.9
Hardness, Total	<i>parts per million as calcium carbonate</i>	12	76.8	71.8	84.7
Chloride	<i>parts per million</i>	4	1.8	1.5	2.0
Fluoride	<i>parts per million</i>	4	0.08	0.07	0.08
Nitrate Nitrogen	<i>parts per million</i>	10	0.032	0.017	0.059
Perchlorate	<i>parts per billion</i>	4	<0.20	<0.20	<0.20
Phosphorus, Total Reactive	<i>parts per million</i>	12	0.0048	<0.0010	0.0399
Phosphorus, Total	<i>parts per million</i>	12	0.0217	0.0108	0.0774
Sulphate	<i>parts per million</i>	4	<0.4	<0.4	0.4
Total Kjeldahl Nitrogen (TKN)	<i>parts per million</i>	10	0.53	0.47	0.62
Bacteria					
Escherichia Coli	<i>MPN per 100 mL</i>	13	1	<1	5
Total Coliforms	<i>MPN per 100 mL</i>	13	80	<1	>200
Disinfection By-Products					
Bromodichloromethane	<i>parts per billion</i>	12	<0.4	<0.4	<0.4
Haloacetic acids	<i>parts per billion</i>	12	<1.2	<1.2	<1.2
Trihalomethanes	<i>parts per billion</i>	12	<2.7	<2.7	<2.7
Enteric Protozoa					
Cryptosporidium	<i>oocysts per 100 L</i>	13	<0.1	<0.1	<0.1
Giardia	<i>cysts per 100 L</i>	13	<0.1	<0.1	<0.1

City of Winnipeg
Environmental Standards Division
2024 Shoal Lake Water Quality Summary

PARAMETER	UNITS	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Metals, Total					
Aluminum	<i>parts per million</i>	13	0.00367	0.00090	0.00971
Antimony	<i>parts per million</i>	13	0.000058	<0.000025	0.000082
Arsenic	<i>parts per million</i>	13	0.000759	0.000626	0.001023
Boron	<i>parts per million</i>	13	0.01010	0.00747	0.01203
Cadmium	<i>parts per million</i>	13	<0.000007	<0.000007	<0.000007
Calcium	<i>parts per million</i>	13	19.792	17.858	22.555
Chromium	<i>parts per million</i>	13	<0.00004	<0.00004	0.00008
Chromium VI	<i>parts per million</i>	4	<0.00050	<0.00050	<0.00050
Copper	<i>parts per million</i>	13	0.002123	0.001187	0.003391
Iron	<i>parts per million</i>	13	0.03336	0.00833	0.07678
Lead	<i>parts per million</i>	13	0.000150	<0.000065	0.000250
Magnesium	<i>parts per million</i>	13	6.074	5.423	6.645
Manganese	<i>parts per million</i>	13	0.00788	0.00207	0.02038
Mercury	<i>parts per million</i>	4	<0.0000050	<0.0000050	<0.0000050
Nickel	<i>parts per million</i>	13	0.000166	<0.000021	0.000240
Potassium	<i>parts per million</i>	13	1.189	1.032	1.315
Sodium	<i>parts per million</i>	13	2.371	2.055	2.708
Uranium	<i>parts per million</i>	13	0.000020	<0.000032	0.000039
Zinc	<i>parts per million</i>	13	0.00134	0.00035	0.00281
Phenoxy Acid Herbicides					
2,4,5-T	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
2,4,5-TP	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
2,4-D	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
2,4-DB	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
2,4-DP	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Asulam	<i>parts per billion</i>	7	<0.10	<0.010	<0.10
Brodifacoum	<i>parts per billion</i>	7	<0.10	<0.010	<0.10
Bromacil	<i>parts per billion</i>	7	<1.0	<0.10	<1.0
Bromoxynil	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Clopyralid	<i>parts per billion</i>	7	<1.0	<0.20	<1.0
Dicamba	<i>parts per billion</i>	7	<1.0	<0.10	<1.0
Di flufenican	<i>parts per billion</i>	7	<0.10	<0.010	<0.10
Dinoseb	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Linuron	<i>parts per billion</i>	7	<1.0	<0.10	<1.0
MCPA	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
MCPB	<i>parts per billion</i>	7	<0.50	<0.10	<0.50
Mecoprop	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Nicarbazin	<i>parts per billion</i>	7	<0.10	<0.010	<0.10
Oryzalin	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Picloram	<i>parts per billion</i>	7	<1.0	<0.20	<1.0
Terbacil	<i>parts per billion</i>	7	<0.10	<0.010	<0.10

City of Winnipeg
Environmental Standards Division
2024 Shoal Lake Water Quality Summary

PARAMETER	UNITS	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Polychlorinated Biphenyls					
Arochlor 1016	<i>parts per billion</i>	7	<0.20	<0.020	<0.20
Arochlor 1221	<i>parts per billion</i>	7	<0.20	<0.020	<0.20
Arochlor 1232	<i>parts per billion</i>	7	<0.20	<0.020	<0.20
Arochlor 1242	<i>parts per billion</i>	7	<0.20	<0.020	<0.20
Arochlor 1248	<i>parts per billion</i>	7	<0.20	<0.020	<0.20
Arochlor 1254	<i>parts per billion</i>	7	<0.20	<0.020	<0.20
Arochlor 1260	<i>parts per billion</i>	7	<0.20	<0.020	<0.20
Arochlor 1262	<i>parts per billion</i>	7	<0.20	<0.020	<0.20
Arochlor 1268	<i>parts per billion</i>	7	<0.20	<0.020	<0.20
Pesticides					
Alachlor	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Aldicarb	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Aldrin	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
alpha-Chlordane	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
alpha-Endosulfan	<i>parts per billion</i>	7	<0.0070	<0.0070	<0.0070
alpha-HCH	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Atrazine	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Azinphos-methyl	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Bendiocarb	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
beta-Endosulfan	<i>parts per billion</i>	7	<0.0070	<0.0070	<0.0070
beta-HCH	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Carbaryl	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Carbofuran	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
Chlordane	<i>parts per billion</i>	7	<0.0110	<0.0110	<0.0110
Chlorothalonil	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Chlorpyrifos	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Cyanazine	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
delta-HCH	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Diazinon	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
Diclofop-methyl	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Dieldrin	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Dimethoate	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Diuron	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Endosulfan	<i>parts per billion</i>	7	<0.010	<0.010	<0.010
Endosulfan Sulfate	<i>parts per billion</i>	7	<0.0070	<0.0070	<0.0070
Endrin	<i>parts per billion</i>	7	<0.010	<0.010	<0.010
Endrin Aldehyde	<i>parts per billion</i>	7	<0.010	<0.010	<0.010
Ethalfuralin	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
EPTC (Eptam)	<i>parts per billion</i>	6	<0.50	<0.50	<0.50
gamma-Chlordane	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
gamma-HCH (Lindane)	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Heptachlor	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Heptachlor Epoxide	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Hexachlorobenzene	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Hexachlorobutadiene	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Hexachlorocyclohexane, total	<i>parts per billion</i>	7	<0.0160	<0.0160	<0.0160
Hexachloroethane	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080

City of Winnipeg
Environmental Standards Division
2024 Shoal Lake Water Quality Summary

PARAMETER	UNITS	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Malathion	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
Methoxychlor	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Methyl Parathion	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Metolachlor	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
Metribuzin	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Metsulfuron-methyl	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Mirex	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Omethoate	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Oxychlorane	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
o,p-DDD	<i>parts per billion</i>	7	<0.0040	<0.0040	<0.0040
o,p-DDE	<i>parts per billion</i>	7	<0.0040	<0.0040	<0.0040
o,p-DDT	<i>parts per billion</i>	7	<0.0040	<0.0040	<0.0040
p,p-DDD	<i>parts per billion</i>	7	<0.0040	<0.0040	<0.0040
p,p-DDE	<i>parts per billion</i>	7	<0.0040	<0.0040	<0.0040
p,p-DDT	<i>parts per billion</i>	7	<0.0040	<0.0040	<0.0040
Total-DDD	<i>parts per billion</i>	7	<0.0060	<0.0060	<0.0060
Total-DDE	<i>parts per billion</i>	7	<0.0060	<0.0060	<0.0060
Total-DDT	<i>parts per billion</i>	7	<0.0060	<0.0060	<0.0060
Parathion	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Pentachloronitrobenzene	<i>parts per billion</i>	7	<0.010	<0.010	0.025
Phorate	<i>parts per billion</i>	6	<0.250	<0.250	<0.250
Propachlor	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
Propanil	<i>parts per billion</i>	7	<0.10	<0.010	<0.10
Propoxur	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
Simazine	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Terbufos	<i>parts per billion</i>	6	<0.50	<0.50	<0.50
Trans-Nonachlor	<i>parts per billion</i>	7	<0.010	<0.010	<0.010
Triallate	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Trichlopyr	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Trifluralin	<i>parts per billion</i>	6	<0.10	<0.10	<0.10

Note: Where value is expressed as less than (<), the value is halved and used in the calculations,

where value is expressed as (>), the value is used in the calculations.

Guidelines for Canadian Drinking Water Quality do not apply to Shoal Lake.

City of Winnipeg
Environmental Standards Division
2024 Water Treatment Plant - Raw Water Quality Summary

PARAMETER	UNITS	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Miscellaneous					
Carbon, Dissolved Organic	<i>parts per million</i>	47	8.7	6.8	10.4
Carbon, Total Organic	<i>parts per million</i>	59	8.2	6.6	10.0
Chlorine, Free	<i>parts per million</i>	249	0.02	<0.02	0.10
Chlorine, Total	<i>parts per million</i>	249	0.03	<0.02	0.09
Chlorophyll-a	<i>parts per billion</i>	12	8.1	3.2	19.5
Colour, Apparent	<i>TCU</i>	53	12.1	7.5	18.0
Colour, True	<i>TCU</i>	57	7.1	5.0	9.0
Conductivity	<i>microsiemens per centimetre</i>	57	162	148	174
Langelier Index (4 C)	<i>units</i>	4	-0.44	-0.56	-0.35
Langelier Index (60 C)	<i>units</i>	4	0.33	0.21	0.42
Microcystin	<i>parts per billion</i>	12	<0.20	<0.20	<0.20
Odour	<i>units</i>	53	83	60	150
ORP	<i>millivolts</i>	53	504.2	442.6	559.6
Oxygen, Dissolved	<i>parts per million</i>	53	11.1	7.2	14.1
pH	<i>units</i>	253	7.94	7.56	8.38
Plankton (algae) count	<i>cells/mL</i>	12	19,897	6,103	53,800
Solids, Total	<i>parts per million</i>	53	109	93	151
Solids, Total Dissolved	<i>parts per million</i>	57	90.06	57.2	112
Temperature	<i>degrees Celcius</i>	266	10.6	1.2	24.5
Turbidity (clearness)	<i>NTU</i>	266	1.11	0.10	3.43
UV Absorbance, Filtered	<i>absorbance units</i>	248	0.117	0.103	0.139
UV Transmittance, Filtered	<i>percent transmissivity</i>	248	76.3	72.6	78.9
UV Transmittance, Unfiltered	<i>percent transmissivity</i>	248	74.4	71.1	76.9
Anions and Nutrients					
Alkalinity, Total	<i>parts per million as calcium carbonate</i>	55	74.3	57.2	80.7
Alkalinity, Bicarbonate	<i>parts per million</i>	4	75.8	70.0	78.7
Alkalinity, Carbonate	<i>parts per million</i>	4	<1.0	<1.0	<1.0
Alkalinity, Hydroxide	<i>parts per million</i>	4	<1.0	<1.0	<1.0
Hardness, Total	<i>parts per million as calcium carbonate</i>	57	80.3	72.7	88.6
Ammonia	<i>parts per million</i>	4	0.08	0.01	0.25
Bromide	<i>parts per million</i>	4	<0.050	<0.050	<0.050
Chloride	<i>parts per million</i>	55	1.8	1.2	2.1
Fluoride	<i>parts per million</i>	4	0.059	0.055	0.062
Nitrate Nitrogen	<i>parts per million</i>	4	0.012	<0.0050	0.028
Nitrite	<i>parts per million</i>	4	<0.0010	<0.0010	0.0010
Perchlorate	<i>parts per billion</i>	4	<0.20	<0.20	<0.20
Phosphorus, Total	<i>parts per million</i>	4	<0.050	<0.050	<0.050
Sulphate	<i>parts per million</i>	55	<0.4	<0.4	0.8
Bacteria					
Escherichia Coli	<i>MPN per 100 mL</i>	67	34	<1	>200
Total Coliforms	<i>MPN per 100 mL</i>	67	89	<1	>200
Heterotrophic Plate Count	<i>CFU per mL</i>	52	159	11	>300

City of Winnipeg
Environmental Standards Division
2024 Water Treatment Plant - Raw Water Quality Summary

PARAMETER	UNITS	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Disinfection By-Products					
Bromodichloromethane	<i>parts per billion</i>	12	<0.4	<0.4	<0.4
Haloacetic acids	<i>parts per billion</i>	13	<1.2	<1.2	2.0
Trihalomethanes	<i>parts per billion</i>	12	<2.7	<2.7	<2.7
Enteric Protozoa					
Cryptosporidium	<i>oocysts per 100 L</i>	13	<0.1	<0.1	<0.1
Giardia	<i>cysts per 100 L</i>	13	<0.1	<0.1	<0.1
Metals, Total					
Aluminum	<i>parts per million</i>	56	0.00318	0.00071	0.02952
Antimony	<i>parts per million</i>	57	0.000058	<0.000025	0.000111
Arsenic	<i>parts per million</i>	57	0.000816	0.000374	0.001231
Barium	<i>parts per million</i>	4	0.0143	0.0133	0.0148
Beryllium	<i>parts per million</i>	4	<0.000020	<0.000020	<0.000020
Bismuth	<i>parts per million</i>	4	<0.000050	<0.000050	<0.000050
Boron	<i>parts per million</i>	57	0.01055	0.00777	0.01600
Cadmium	<i>parts per million</i>	57	<0.000005	<0.000005	<0.000007
Calcium	<i>parts per million</i>	57	20.657	17.395	24.098
Cesium	<i>parts per million</i>	4	<0.000010	<0.000010	<0.000010
Chromium	<i>parts per million</i>	55	0.000046	<0.000040	<0.000050
Chromium VI	<i>parts per million</i>	4	<0.00050	<0.00050	<0.00050
Cobalt	<i>parts per million</i>	4	<0.00010	<0.00010	<0.00010
Copper	<i>parts per million</i>	57	0.000658	0.000203	0.005370
Iron	<i>parts per million</i>	56	0.05681	0.02664	0.10203
Lead	<i>parts per million</i>	57	<0.000050	<0.000050	<0.000065
Lithium	<i>parts per million</i>	4	0.0022	0.0017	0.0024
Magnesium	<i>parts per million</i>	57	6.332	5.358	7.194
Manganese	<i>parts per million</i>	57	0.01339	0.00413	0.04891
Mercury	<i>parts per million</i>	4	<0.0000050	<0.0000050	<0.0000050
Molybdenum	<i>parts per million</i>	4	0.000152	0.000140	0.000164
Nickel	<i>parts per million</i>	54	0.000282	<0.000021	0.000851
Potassium	<i>parts per million</i>	57	1.202	0.969	1.421
Rubidium	<i>parts per million</i>	4	0.0017	0.0016	0.0019
Selenium	<i>parts per million</i>	4	0.000356	<0.000050	0.001290
Silicon	<i>parts per million</i>	4	1.97	1.50	2.45
Silver	<i>parts per million</i>	4	<0.000010	<0.000010	<0.000010
Sodium	<i>parts per million</i>	57	2.449	1.945	2.930
Strontium	<i>parts per million</i>	4	0.0380	0.0367	0.0398
Sulfur	<i>parts per million</i>	4	1.75	1.17	2.05
Tellurium	<i>parts per million</i>	4	<0.00020	<0.00020	<0.00020
Thallium	<i>parts per million</i>	4	<0.000010	<0.000010	<0.000010
Thorium	<i>parts per million</i>	4	<0.00010	<0.00010	<0.00010
Tin	<i>parts per million</i>	4	<0.00010	<0.00010	<0.00010
Titanium	<i>parts per million</i>	4	<0.00030	<0.00030	<0.00030
Tungsten	<i>parts per million</i>	4	<0.00010	<0.00010	<0.00010
Uranium	<i>parts per million</i>	57	0.000032	<0.000032	0.000072
Vanadium	<i>parts per million</i>	4	<0.00050	<0.00050	<0.00050
Zinc	<i>parts per million</i>	57	0.00057	<0.00011	0.00240
Zirconium	<i>parts per million</i>	4	<0.00020	<0.00020	<0.00020

City of Winnipeg
Environmental Standards Division
2024 Water Treatment Plant - Raw Water Quality Summary

PARAMETER	UNITS	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Phenoxy Acid Herbicides					
2,4,5-T	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
2,4,5-TP	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
2,4-D	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
2,4-DB	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
2,4-DP	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Asulam	<i>parts per billion</i>	7	<0.10	<0.010	<0.10
Brodifacoum	<i>parts per billion</i>	7	<0.10	<0.010	<0.10
Bromacil	<i>parts per billion</i>	7	<1.0	<0.10	<1.0
Bromoxynil	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Clopyralid	<i>parts per billion</i>	7	<1.0	<0.10	<1.0
Dicamba	<i>parts per billion</i>	7	<1.0	<0.10	<1.0
Diflufenican	<i>parts per billion</i>	7	<0.10	<0.010	<0.10
Dinoseb	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Linuron	<i>parts per billion</i>	7	<1.0	<0.10	<1.0
MCPA	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
MCPB	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Mecoprop	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Nicarbazin	<i>parts per billion</i>	7	<0.10	<0.010	<0.10
Oryzalin	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Picloram	<i>parts per billion</i>	7	<1.0	<0.10	<1.0
Terbacil	<i>parts per billion</i>	7	<0.10	<0.010	<0.10
Polychlorinated Biphenyls					
Arochlor 1016	<i>parts per billion</i>	7	<0.020	<0.020	<0.020
Arochlor 1221	<i>parts per billion</i>	7	<0.020	<0.020	<0.020
Arochlor 1232	<i>parts per billion</i>	7	<0.020	<0.020	<0.020
Arochlor 1242	<i>parts per billion</i>	7	<0.020	<0.020	<0.020
Arochlor 1248	<i>parts per billion</i>	7	<0.020	<0.020	<0.020
Arochlor 1254	<i>parts per billion</i>	7	<0.020	<0.020	<0.020
Arochlor 1260	<i>parts per billion</i>	7	<0.020	<0.020	<0.020
Arochlor 1262	<i>parts per billion</i>	7	<0.020	<0.020	<0.020
Arochlor 1268	<i>parts per billion</i>	7	<0.020	<0.020	<0.020

City of Winnipeg
Environmental Standards Division
2024 Water Treatment Plant - Raw Water Quality Summary

PARAMETER	UNITS	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Pesticides					
Alachlor	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Aldicarb	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Aldrin	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
alpha-Chlordane	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
alpha-Endosulfan	<i>parts per billion</i>	7	<0.0070	<0.0070	<0.0070
alpha-HCH	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Atrazine	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Azinphos-methyl	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Bendiocarb	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
beta-Endosulfan	<i>parts per billion</i>	7	<0.0070	<0.0070	<0.0070
beta-HCH	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Carbaryl	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Carbofuran	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
Chlordane	<i>parts per billion</i>	7	<0.0110	<0.0110	<0.0110
Chlorothalonil	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Chlorpyrifos	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Cyanazine	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
delta-HCH	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Diazinon	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
Diclofop-methyl	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Dieldrin	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Dimethoate	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Diuron	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Endosulfan	<i>parts per billion</i>	7	<0.010	<0.010	<0.010
Endosulfan Sulfate	<i>parts per billion</i>	7	<0.0070	<0.0070	<0.0070
Endrin	<i>parts per billion</i>	7	<0.010	<0.010	<0.010
Endrin Aldehyde	<i>parts per billion</i>	7	<0.010	<0.010	<0.010
Ethalfuralin	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
EPTC (Eptam)	<i>parts per billion</i>	6	<0.50	<0.50	<0.50
gamma-Chlordane	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
gamma-HCH (Lindane)	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Heptachlor	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Heptachlor Epoxide	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Hexachlorobenzene	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Hexachlorobutadiene	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Hexachlorocyclohexane, total	<i>parts per billion</i>	7	<0.0160	<0.0160	<0.0160
Hexachloroethane	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080

City of Winnipeg
Environmental Standards Division
2024 Water Treatment Plant - Raw Water Quality Summary

PARAMETER	UNITS	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Malathion	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
Methoxychlor	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Methyl Parathion	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Metolachlor	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
Metribuzin	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Metsulfuron-methyl	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Mirex	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
Omethoate	<i>parts per billion</i>	6	<0.050	<0.050	<0.050
Oxychlorthane	<i>parts per billion</i>	7	<0.0080	<0.0080	<0.0080
o,p-DDD	<i>parts per billion</i>	7	<0.0040	<0.0040	<0.0040
o,p-DDE	<i>parts per billion</i>	7	<0.0040	<0.0040	<0.0040
o,p-DDT	<i>parts per billion</i>	7	<0.0040	<0.0040	<0.0040
p,p-DDD	<i>parts per billion</i>	7	<0.0040	<0.0040	<0.0040
p,p-DDE	<i>parts per billion</i>	7	<0.0040	<0.0040	<0.0040
p,p-DDT	<i>parts per billion</i>	7	<0.0040	<0.0040	<0.0040
Total-DDD	<i>parts per billion</i>	7	<0.0060	<0.0060	<0.0060
Total-DDE	<i>parts per billion</i>	7	<0.0060	<0.0060	<0.0060
Total-DDT	<i>parts per billion</i>	7	<0.0060	<0.0060	<0.0060
Parathion	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Pentachloronitrobenzene	<i>parts per billion</i>	7	<0.010	<0.010	<0.010
Phorate	<i>parts per billion</i>	6	<0.250	<0.250	<0.250
Propachlor	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
Propanil	<i>parts per billion</i>	7	<0.10	<0.010	<0.10
Propoxur	<i>parts per billion</i>	6	<0.0250	<0.0250	<0.0250
Simazine	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Terbufos	<i>parts per billion</i>	6	<0.50	<0.50	<0.50
Trans-Nonachlor	<i>parts per billion</i>	7	<0.010	<0.010	<0.010
Triallate	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Trichlopyr	<i>parts per billion</i>	7	<0.50	<0.050	<0.50
Trifluralin	<i>parts per billion</i>	6	<0.10	<0.10	<0.10
Taste and Odours					
Dichloromethane	<i>parts per billion</i>	3	<1.0	<1.0	<1.0
MTBE - methyl tertiary-butyl ether	<i>parts per billion</i>	3	<0.50	<0.50	<0.50
NDMA - N-nitrosodimethylamine	<i>parts per billion</i>	4	<0.034	<0.034	<0.034
Note: Where value is expressed as less than (<), the value is halved and used in the calculations, where value is expressed as (>), the value is used in the calculations. Guidelines for Canadian Drinking Water Quality do not apply to raw water.					

City of Winnipeg
Environmental Standards Division
2024 Water Treatment Plant - Finished Water Quality Summary

PARAMETER	UNITS	GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Miscellaneous						
Carbon, Dissolved Organic	<i>parts per million</i>	no guideline	42	3.3	2.5	4.3
Carbon, Total Organic	<i>parts per million</i>	no guideline	53	2.8	1.4	6.0
Chlorine, Free	<i>parts per million</i>	no guideline	498	1.44	0.93	2.03
Chlorine, Total	<i>parts per million</i>	no guideline	498	1.66	1.20	2.40
Chlorophyll-a	<i>parts per billion</i>	no guideline	12	<1.0	<1.0	<1.0
Colour, Apparent	<i>TCU</i>	no guideline	53	0.7	0.0	2.5
Colour, True	<i>TCU</i>	no more than 15 *	53	0.0	0.0	0.0
Conductivity	<i>microsiemens per centimetre</i>	no guideline	53	292	270	313
Microcystin	<i>parts per billion</i>	no more than 1.5	12	<0.2	<0.2	<0.2
Odour	<i>units</i>	inoffensive*	53	15	8	25
ORP	<i>millivolts</i>	no guideline	53	604.2	512.1	675.1
Oxygen, Dissolved	<i>parts per million</i>	no guideline	159	11.6	8.7	16.0
pH	<i>units</i>	between 7.0 and 10.5	498	7.76	7.23	7.99
Plankton (algae) count	<i>cells/mL</i>	no guideline	12	<100	<100	<100
Solids, Total	<i>parts per million</i>	no guideline	53	182	151	201
Solids, Total Dissolved	<i>parts per million</i>	no more than 500 *	53	160	101	186
Temperature	<i>degrees Celcius</i>	no more than 15 *	559	11.0	1.1	24.4
Turbidity (clearness)	<i>NTU</i>	no more than 0.3 in 95% of measurements/month, never to exceed 1.0	1957	0.11	0.06	0.28
UV Absorbance, Filtered	<i>absorbance units</i>	no guideline	496	0.023	0.008	0.034
UV Transmittance, Filtered	<i>percent transmissivity</i>	no guideline	496	94.8	92.5	98.2
UV Transmittance, Unfiltered	<i>percent transmissivity</i>	no guideline	496	93.6	81.7	96.8
Anions and Nutrients						
Alkalinity, Total	<i>parts per million as calcium carbonate</i>	no guideline	51	67.5	61.1	74.3
Hardness, Total	<i>parts per million as calcium carbonate</i>	no guideline	53	80.4	73.3	87.8
Chloride	<i>parts per million</i>	no more than 250 *	50	3.8	3.3	5.1
Perchlorate	<i>parts per billion</i>	no guideline	4	<0.20	<0.20	<0.20
Sulphate	<i>parts per million</i>	no more than 500 *	49	65.0	50.4	78.5
Bacteria						
Escherichia Coli	<i>MPN per 100 mL</i>	none detectable per 100 mL	108	<1	<1	<1
Total Coliforms	<i>MPN per 100 mL</i>	none detectable per 100 mL	108	<1	<1	<1
Heterotrophic Plate Count	<i>CFU per mL</i>	no guideline	105	<1	<1	2
Disinfection By-Products						
BDCM	<i>parts per billion</i>	no guideline	25	1.7	0.9	2.7
Haloacetic acids	<i>parts per billion</i>	no more than 80	26	13.2	5.6	16.6
Trihalomethanes	<i>parts per billion</i>	no more than 100	24	14.81	7.40	18.30

City of Winnipeg
Environmental Standards Division
2024 Water Treatment Plant - Finished Water Quality Summary

PARAMETER	UNITS	GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Metals, Total						
Aluminum	<i>parts per million</i>	no more than 2.9	53	0.00536	0.00162	0.02940
Antimony	<i>parts per million</i>	no more than 0.006	53	0.000057	<0.000025	0.000261
Arsenic	<i>parts per million</i>	no more than 0.010	53	0.000356	0.000255	0.000482
Boron	<i>parts per million</i>	no more than 5	53	0.01064	0.00825	0.01302
Cadmium	<i>parts per million</i>	no more than 0.007	53	<0.000007	<0.000007	0.000013
Calcium	<i>parts per million</i>	no guideline	53	20.996	18.244	24.143
Chromium	<i>parts per million</i>	no more than 0.05	51	0.00005	<0.00004	0.00017
Chromium VI	<i>parts per million</i>	no guideline	8	<0.00050	<0.00050	<0.00050
Copper	<i>parts per million</i>	no more than 2.0	53	0.000777	0.000116	0.004292
Iron	<i>parts per million</i>	no more than 0.1 *	53	0.06088	0.01310	0.10224
Lead	<i>parts per million</i>	no more than 0.005	53	<0.000065	<0.000065	<0.000065
Magnesium	<i>parts per million</i>	no guideline	53	6.438	5.614	7.573
Manganese	<i>parts per million</i>	no more than 0.12	53	0.01193	0.00755	0.02463
Mercury	<i>parts per million</i>	no more than 0.001	8	<0.0000050	<0.0000050	<0.0000050
Nickel	<i>parts per million</i>	no guideline	51	0.003155	0.002438	0.004048
Potassium	<i>parts per million</i>	no guideline	53	1.219	1.031	1.482
Sodium	<i>parts per million</i>	no more than 200 *	53	29.626	25.481	34.865
Uranium	<i>parts per million</i>	no more than 0.02	53	0.000034	<0.000032	0.000131
Zinc	<i>parts per million</i>	no more than 5.0 *	52	0.00062	0.00013	0.00314
Phenoxy Acid Herbicides						
2,4,5-T	<i>parts per billion</i>	no guideline	7	<0.50	<0.050	<0.50
2,4,5-TP	<i>parts per billion</i>	no guideline	7	<0.50	<0.050	<0.50
2,4-D	<i>parts per billion</i>	no more than 100	7	<0.50	<0.050	<0.50
2,4-DB	<i>parts per billion</i>	no guideline	7	<0.50	<0.050	<0.50
2,4-DP	<i>parts per billion</i>	no guideline	7	<0.50	<0.050	<0.50
Asulam	<i>parts per billion</i>	no guideline	7	<0.10	<0.010	<0.10
Brodifacoum	<i>parts per billion</i>	no guideline	7	<0.10	<0.010	<0.10
Bromacil	<i>parts per billion</i>	no guideline	7	<1.0	<0.10	<1.0
Bromoxynil	<i>parts per billion</i>	no more than 30	7	<0.50	<0.050	<0.50
Clopyralid	<i>parts per billion</i>	no guideline	7	<1.0	<0.10	<1.0
Dicamba	<i>parts per billion</i>	no more than 110	7	<1.0	<0.10	<1.0
Diflufenican	<i>parts per billion</i>	no guideline	7	<0.10	<0.010	<0.10
Dinoseb	<i>parts per billion</i>	no guideline	7	<0.50	<0.050	<0.50
Linuron	<i>parts per billion</i>	no guideline	7	<1.0	<0.10	<1.0
MCPA	<i>parts per billion</i>	no more than 350	7	<0.50	<0.050	<0.50
MCPB	<i>parts per billion</i>	no guideline	7	<0.50	<0.050	<0.50
Mecoprop	<i>parts per billion</i>	no guideline	7	<0.50	<0.050	<0.50
Nicarbazin	<i>parts per billion</i>	no guideline	7	<0.10	<0.010	<0.10
Oryzalin	<i>parts per billion</i>	no guideline	7	<0.50	<0.050	<0.50
Picloram	<i>parts per billion</i>	no guideline	7	<1.0	<0.10	<1.0
Terbacil	<i>parts per billion</i>	no guideline	7	<0.10	<0.010	<0.10

City of Winnipeg
Environmental Standards Division
2024 Water Treatment Plant - Finished Water Quality Summary

PARAMETER	UNITS	GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Polychlorinated Biphenyls						
Arochlor 1016	parts per billion	no guideline	7	<0.020	<0.020	<0.020
Arochlor 1221	parts per billion	no guideline	7	<0.020	<0.020	<0.020
Arochlor 1232	parts per billion	no guideline	7	<0.020	<0.020	<0.020
Arochlor 1242	parts per billion	no guideline	7	<0.020	<0.020	<0.020
Arochlor 1248	parts per billion	no guideline	7	<0.020	<0.020	<0.020
Arochlor 1254	parts per billion	no guideline	7	<0.020	<0.020	<0.020
Arochlor 1260	parts per billion	no guideline	7	<0.020	<0.020	<0.020
Arochlor 1262	parts per billion	no guideline	7	<0.020	<0.020	<0.020
Arochlor 1268	parts per billion	no guideline	7	<0.020	<0.020	<0.020
Pesticides						
Alachlor	parts per billion	no guideline	6	<0.050	<0.050	<0.050
Aldicarb	parts per billion	no guideline	6	<0.10	<0.10	<0.10
Aldrin	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080
alpha-Chlordane	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080
alpha-Endosulfan	parts per billion	no guideline	7	<0.0070	<0.0070	<0.0070
alpha-HCH	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080
Atrazine	parts per billion	no more than 5	6	<0.050	<0.050	<0.050
Azinphos-methyl	parts per billion	no guideline	6	<0.10	<0.10	<0.10
Bendiocarb	parts per billion	no guideline	6	<0.0250	<0.0250	<0.0250
beta-Endosulfan	parts per billion	no guideline	7	<0.0070	<0.0070	<0.0070
beta-HCH	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080
Carbaryl	parts per billion	no guideline	6	<0.050	<0.050	<0.050
Carbofuran	parts per billion	no guideline	6	<0.0250	<0.0250	<0.0250
Chlordane	parts per billion	no guideline	7	<0.0110	<0.0110	<0.0110
Chlorothalonil	parts per billion	no guideline	6	<0.050	<0.050	<0.050
Chlorpyrifos	parts per billion	no more than 90	6	<0.10	<0.10	<0.10
Cyanazine	parts per billion	no guideline	6	<0.10	<0.10	<0.10
delta-HCH	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080
Diazinon	parts per billion	no guideline	6	<0.0250	<0.0250	<0.1250
Diclofop-methyl	parts per billion	no guideline	6	<0.10	<0.10	<0.10
Dieldrin	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080
Dimethoate	parts per billion	no more than 20	6	<0.050	<0.050	<0.050
Diuron	parts per billion	no guideline	6	<0.050	<0.050	<0.050
Endosulfan	parts per billion	no guideline	7	<0.010	<0.010	<0.010
Endosulfan Sulfate	parts per billion	no guideline	7	<0.0070	<0.0070	<0.0070
Endrin	parts per billion	no guideline	7	<0.010	<0.010	<0.010
Endrin Aldehyde	parts per billion	no guideline	7	<0.010	<0.010	<0.010
Ethalfuralin	parts per billion	no guideline	6	<0.10	<0.10	<0.10
EPTC (Eptam)	parts per billion	no guideline	6	<0.50	<0.50	<0.50
gamma-Chlordane	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080
gamma-HCH (Lindane)	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080
Heptachlor	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080
Heptachlor Epoxide	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080
Hexachlorobenzene	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080
Hexachlorobutadiene	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080
Hexachlorocyclohexane, total	parts per billion	no guideline	7	<0.0160	<0.0160	<0.0160
Hexachloroethane	parts per billion	no guideline	7	<0.0080	<0.0080	<0.0080

City of Winnipeg
Environmental Standards Division
2024 Water Treatment Plant - Finished Water Quality Summary

PARAMETER	UNITS	GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Malathion	<i>parts per billion</i>	no more than 290	6	<0.0250	<0.0250	<0.0250
Methoxychlor	<i>parts per billion</i>	no guideline	7	<0.0080	<0.0080	<0.0080
Methyl Parathion	<i>parts per billion</i>	no guideline	7	<0.10	<0.10	<0.10
Metolachlor	<i>parts per billion</i>	no guideline	6	<0.0250	<0.0250	<0.0250
Metribuzin	<i>parts per billion</i>	no more than 80	6	<0.10	<0.10	<0.10
Metsulfuron-methyl	<i>parts per billion</i>	no guideline	6	<0.050	<0.050	<0.050
Mirex	<i>parts per billion</i>	no guideline	7	<0.0080	<0.0080	<0.0080
Omethoate	<i>parts per billion</i>	no more than 20	6	<0.050	<0.050	<0.050
Oxychlorane	<i>parts per billion</i>	no guideline	7	<0.0080	<0.0080	<0.0080
o,p-DDD	<i>parts per billion</i>	no guideline	7	<0.0040	<0.0040	<0.0040
o,p-DDE	<i>parts per billion</i>	no guideline	7	<0.0040	<0.0040	<0.0040
o,p-DDT	<i>parts per billion</i>	no guideline	7	<0.0040	<0.0040	<0.0040
p,p-DDD	<i>parts per billion</i>	no guideline	7	<0.0040	<0.0040	<0.0040
p,p-DDE	<i>parts per billion</i>	no guideline	7	<0.0040	<0.0040	<0.0040
p,p-DDT	<i>parts per billion</i>	no guideline	7	<0.0040	<0.0040	<0.0040
Total-DDD	<i>parts per billion</i>	no guideline	7	<0.0060	<0.0060	<0.0060
Total-DDE	<i>parts per billion</i>	no guideline	7	<0.0060	<0.0060	<0.0060
Total-DDT	<i>parts per billion</i>	no guideline	7	<0.0060	<0.0060	<0.0060
Parathion	<i>parts per billion</i>	no guideline	6	<0.10	<0.10	<0.10
Pentachloronitrobenzene	<i>parts per billion</i>	no guideline	7	<0.010	<0.010	<0.010
Phorate	<i>parts per billion</i>	no guideline	6	<0.250	<0.250	<0.250
Propaclor	<i>parts per billion</i>	no guideline	6	<0.0250	<0.0250	<0.0250
Propanil	<i>parts per billion</i>	no guideline	7	<0.10	<0.010	<0.10
Propoxur	<i>parts per billion</i>	no guideline	6	<0.0250	<0.0250	<0.0250
Simazine	<i>parts per billion</i>	no guideline	6	<0.10	<0.10	<0.10
Terbufos	<i>parts per billion</i>	no guideline	6	<0.50	<0.50	<0.50
Trans-Nonachlor	<i>parts per billion</i>	no guideline	7	<0.010	<0.010	<0.010
Triallate	<i>parts per billion</i>	no guideline	6	<0.10	<0.10	<0.10
Trichlopyr	<i>parts per billion</i>	no guideline	7	<0.50	<0.050	<0.50
Trifluralin	<i>parts per billion</i>	no guideline	6	<0.10	<0.10	<0.10
Taste and Odours						
Dichloromethane	<i>parts per billion</i>	no more than 50	3	<1.0	<1.0	<1.0
MTBE - methyl tertiary-butyl ether	<i>parts per billion</i>	no more than 15 *	3	<0.50	<0.50	<0.50
NDMA -N-nitrosodimethylamine	<i>parts per billion</i>	no more than 0.04	4	<0.034	<0.034	<0.034

*Aesthetic objective: These guidelines have an objective and not a maximum acceptable concentration. These parameters should not impact the safety of the water to drink and there is no anticipated health risk for short-term exposures.

Guidelines from 'Summary of Guidelines for Canadian Drinking Water Quality' by Health Canada, March 2025

Results in red do not meet the guideline

Note: Where value is expressed as less than (<), the value is halved and used in the calculations,
where value is expressed as (>), the value is used in the calculations.

City of Winnipeg
Environmental Standards Division
2024 Winnipeg Distribution System Water Quality Summary

PARAMETER	UNITS	GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Miscellaneous						
Carbon, Dissolved Organic	<i>parts per million</i>	no guideline	53	5.0	2.4	13.6
Carbon, Total Organic	<i>parts per million</i>	no guideline	129	3.9	1.8	15.9
Chlorine, Free	<i>parts per million</i>	no guideline	3258	0.90	0.22	1.62
Chlorine, Total	<i>parts per million</i>	no guideline	3258	1.13	0.39	1.84
Colour, Apparent	<i>TCU</i>	no guideline	53	2.3	0.0	2.5
Colour, True	<i>TCU</i>	no more than 15 *	53	0.0	0.0	0.5
Conductivity	<i>microsiemens per centimetre</i>	no guideline	87	296	271	334
Langelier Index (4 C)	<i>units</i>	no guideline	4	-0.88	-0.95	-0.82
Langelier Index (60 C)	<i>units</i>	no guideline	4	-0.11	-0.18	-0.05
Odour	<i>units</i>	inoffensive*	265	11	6	20
ORP	<i>millivolts</i>	no guideline	137	588.4	434.6	691.3
Oxygen, Dissolved	<i>parts per million</i>	no guideline	473	11.4	8.1	16.9
pH	<i>units</i>	between 7.0 and 10.5	640	7.50	7.22	7.79
Solids, Total Dissolved	<i>parts per million</i>	no more than 500 *	57	159	115	191
Temperature	<i>degrees Celcius</i>	no more than 15 *	3305	11.6	1.9	25.3
Turbidity (clearness)	<i>NTU</i>	no guideline	3268	0.19	<0.10	6.2
UV Absorbance, Filtered	<i>absorbance units</i>	no guideline	4	0.027	0.016	0.032
UV Transmittance, Filtered	<i>percent transmissivity</i>	no guideline	4	94.2	92.9	96.4
Anions and Nutrients						
Alkalinity, Total	<i>parts per million as calcium carbonate</i>	no guideline	55	65.3	57.4	72.5
Alkalinity, Bicarbonate	<i>parts per million</i>	no guideline	4	64.4	57.4	69.5
Alkalinity, Carbonate	<i>parts per million</i>	no guideline	4	<1.0	<1.0	<1.0
Alkalinity, Hydroxide	<i>parts per million</i>	no guideline	4	<1.0	<1.0	<1.0
Hardness, Total	<i>parts per million as calcium carbonate</i>	no guideline	57	80.8	72.9	89.0
Ammonia	<i>parts per million</i>	no guideline	4	0.013	<0.005	0.023
Bromate	<i>parts per million</i>	no more than 0.01	4	<0.0003	<0.0003	0.0005
Bromide	<i>parts per million</i>	no guideline	4	<0.05	<0.05	<0.05
Chloride	<i>parts per million</i>	no more than 250 *	56	4.2	3.7	5.6
Fluoride	<i>parts per million</i>	no more than 1.5	163	0.65	0.54	0.80
Nitrate Nitrogen	<i>parts per million</i>	no more than 10	4	0.018	0.007	0.033
Nitrite	<i>parts per million</i>	no more than 3	4	<0.001	<0.001	<0.001
Phosphate, Soluble	<i>parts per million as phosphate</i>	no guideline	299	1.92	1.36	2.92
Phosphorus, Total	<i>parts per million</i>	no guideline	4	0.669	0.628	0.757
Sulphate	<i>parts per million</i>	no more than 500 *	56	63.7	46.6	74.8
Bacteria						
Escherichia Coli	<i>MPN per 100 mL</i>	none detectable per 100 mL	3146	<1	<1	<1
Total Coliforms	<i>MPN per 100 mL</i>	none detectable per 100 mL	3146	<1	<1	1
Heterotrophic Plate Count	<i>CFU per mL</i>	no guideline	2196	1	<1	191
Disinfection By-Products						
BDCM	<i>parts per billion</i>	no guideline	132	3.2	1.5	4.9
Haloacetic acids	<i>parts per billion</i>	no more than 80	142	29.3	12.7	43.6
Trihalomethanes	<i>parts per billion</i>	no more than 100	132	36.2	14.7	65.3

City of Winnipeg
Environmental Standards Division
2024 Winnipeg Distribution System Water Quality Summary

PARAMETER	UNITS	GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	NO. OF SAMPLES	AVERAGE	MINIMUM	MAXIMUM
Metals, Total						
Aluminum	parts per million	no more than 2.9	187	0.0049	<0.0030	0.0264
Antimony	parts per million	no more than 0.006	188	0.000069	<0.000025	0.000360
Arsenic	parts per million	no more than 0.010	188	0.000368	0.000310	0.000501
Barium	parts per million	no more than 2	4	0.0142	0.0136	0.0147
Beryllium	parts per million	no guideline	4	<0.00002	<0.00002	<0.00002
Bismuth	parts per million	no guideline	4	<0.000050	<0.000050	<0.000050
Boron	parts per million	no more than 5	188	0.011	0.009	0.018
Cadmium	parts per million	no more than 0.007	188	<0.000005	<0.000005	0.000038
Calcium	parts per million	no guideline	188	21.220	17.528	24.126
Cesium	parts per million	no guideline	4	<0.000010	<0.000010	<0.000010
Chromium	parts per million	no more than 0.05	177	0.00006	<0.00004	0.00037
Chromium VI	parts per million	no guideline	44	<0.00050	<0.00050	0.00116
Cobalt	parts per million	no guideline	4	0.00163	0.00140	0.00181
Copper	parts per million	no more than 2.0	188	0.035469	0.000201	0.153550
Iron	parts per million	no more than 0.1 *	199	0.06523	0.02064	0.35802
Lead	parts per million	no more than 0.005	188	0.000072	<0.000050	0.001212
Lithium	parts per million	no guideline	4	0.0020	0.0012	0.0024
Magnesium	parts per million	no guideline	188	6.376	5.297	7.422
Manganese	parts per million	no more than 0.12	199	0.01114	0.00559	0.05559
Mercury	parts per million	no more than 0.001	44	<0.0000050	<0.0000050	<0.0000050
Molybdenum	parts per million	no guideline	4	<0.000050	<0.000050	<0.000050
Nickel	parts per million	no guideline	177	0.002878	0.002138	0.006549
Potassium	parts per million	no guideline	188	1.224	1.009	1.472
Rubidium	parts per million	no guideline	4	0.0017	0.0016	0.0018
Selenium	parts per million	no more than 0.05	4	<0.000050	<0.000050	0.000060
Silicon	parts per million	no guideline	4	2.10	1.74	2.63
Silver	parts per million	no guideline	4	<0.000010	<0.000010	<0.000010
Sodium	parts per million	no more than 200 *	188	29.657	25.086	34.405
Strontium	parts per million	no more than 7	4	0.0385	0.0374	0.0408
Sulfur	parts per million	no guideline	4	22.3	21.7	23.5
Tellurium	parts per million	no guideline	4	<0.00020	<0.00020	<0.00020
Thallium	parts per million	no guideline	4	<0.000010	<0.000010	<0.000010
Thorium	parts per million	no guideline	4	<0.00010	<0.00010	<0.00010
Tin	parts per million	no guideline	4	<0.00010	<0.00010	0.00016
Titanium	parts per million	no guideline	4	<0.00030	<0.00030	<0.00030
Tungsten	parts per million	no guideline	4	<0.00010	<0.00010	<0.00010
Uranium	parts per million	no more than 0.02	188	0.000039	<0.000010	0.000187
Vanadium	parts per million	no guideline	4	<0.00050	<0.00050	<0.00050
Zinc	parts per million	no more than 5.0 *	188	0.0032	0.0002	0.0247
Zirconium	parts per million	no guideline	4	<0.00020	<0.00020	<0.00020

*Aesthetic objective: These guidelines have an objective and not a maximum acceptable concentration. These parameters should not impact the safety of the water to drink and there is no anticipated health risk for short-term exposures.

Guidelines from 'Summary of Guidelines for Canadian Drinking Water Quality' by Health Canada, March 2025

Results in red do not meet the guideline

Data reported was collected from a combination of MacLean, Hurst, and McPhillips Pumping Station Discharges,

57 distribution system locations, and/or Branch I at McPhillips and Branch II at Hurst.

Note: Where value is expressed as less than (<), the value is halved and used in the calculations,
where value is expressed as (>), the value is used in the calculations.

City of Winnipeg
Environmental Standards Division
2024 Winnipeg Distribution System Bacteriological Summary

PARAMETER	REQUIREMENT	OUR TEST RESULTS	COMMENTS
Number of total coliform bacteria tests in year	2028 samples/year	3,146	
Number of times that total coliform bacteria show up in a test	none detectable per 100 mL	0.03% (1 positive test)	All resamples were negative and met the operating licence requirements.
Number of <i>Escherichia coli</i> bacteria tests in year	2028 samples/year	3,146	
Number of times that <i>Escherichia coli</i> bacteria show up in a test	none detectable per 100 mL	0.00% (0 positive tests)	
Number of heterotrophic (bacteria) plate count (HPC) tests done	no requirement	2,196	Heterotrophic plate count testing is not required under the operating licence
Requirements from City of Winnipeg Operating Licence PWS-09-412-02 AA			
Data reported was collected from 57 distribution system locations and MacLean, Hurst, and McPhillips Pumping Station Discharges			

APPENDIX B

COMPLIANCE SUBMISSION REPORTS

2024 MONTHLY CHLORINE REPORTS



WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT
Deacon Booster Pumping Station

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-A**
Report Created: **01 February 2024**

Report Period: January 2024

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/01/2024	1.30	1.26	1.17	1.12
02/01/2024	1.35	1.32	1.24	1.16
03/01/2024	1.36	1.24	1.28	1.21
04/01/2024	1.32	1.28	1.28	1.21
05/01/2024	1.32	1.24	1.21	1.05
06/01/2024	1.25	1.21	1.14	1.04
07/01/2024	1.21	1.17	1.19	1.12
08/01/2024	1.27	1.19	1.26	1.17
09/01/2024	1.26	1.11	1.25	1.17
10/01/2024	1.31	1.14	1.27	1.01
11/01/2024	1.30	1.08	1.25	1.16
12/01/2024	1.32	1.27	1.23	1.12
13/01/2024	1.27	1.20	1.19	1.12
14/01/2024	1.27	1.21	1.16	1.11
15/01/2024	1.26	1.20	1.22	1.15
16/01/2024	1.26	1.21	1.28	1.21
17/01/2024	1.28	1.21	1.25	1.15
18/01/2024	1.23	1.16	1.20	1.15
19/01/2024	1.16	1.09	1.16	1.09
20/01/2024	1.19	1.14	1.20	1.15
21/01/2024	1.15	1.08	1.17	1.12
22/01/2024	1.20	1.05	1.18	1.11
23/01/2024	1.31	1.11	1.19	1.12
24/01/2024	1.35	1.27	1.21	1.12
25/01/2024	1.30	1.25	1.13	1.04
26/01/2024	1.28	1.11	1.18	1.01
27/01/2024	1.34	1.23	1.30	1.22
28/01/2024	1.34	1.23	1.28	1.23
29/01/2024	1.36	1.31	1.29	1.18
30/01/2024	1.35	1.30	1.33	1.29
31/01/2024	1.33	1.29	1.31	1.26

Total Number of Measurements, A:	21607	21607
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	21607	21607
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2024\01-January

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



WATER TREATMENT PLANT CHLORINE GRAB MONITORING REPORT						
Water System Code: 252.00 Licence No. PWS-09-412-02 A	Deacon Booster Pumping Station Branch 1			Deacon Booster Pumping Station Branch 2		
Date	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)
	Analyser	Grab	Grab	Analyser	Grab	Grab
01-Jan-2024	ns	ns	ns	ns	ns	ns
02-Jan-2024	1.35	1.36	1.70	1.26	1.28	1.55
03-Jan-2024	1.37	1.45	1.74	1.30	1.32	1.59
04-Jan-2024	1.34	1.41	1.73	1.29	1.32	1.59
05-Jan-2024	1.29	1.36	1.68	1.27	1.32	1.55
06-Jan-2024	ns	ns	ns	ns	ns	ns
07-Jan-2024	ns	ns	ns	ns	ns	ns
08-Jan-2024	1.27	1.33	1.62	1.28	1.29	1.59
09-Jan-2024	1.26	1.34	1.63	1.26	1.27	1.54
10-Jan-2024	1.31	1.30	1.61	1.27	1.28	1.57
11-Jan-2024	1.31	1.37	1.66	1.27	1.25	1.56
12-Jan-2024	1.31	1.31	1.62	1.25	1.32	1.56
13-Jan-2024	ns	ns	ns	ns	ns	ns
14-Jan-2024	ns	ns	ns	ns	ns	ns
15-Jan-2024	1.24	1.26	1.51	1.18	1.27	1.56
16-Jan-2024	1.27	1.36	1.58	1.27	1.37	1.58
17-Jan-2024	1.22	1.32	1.60	1.27	1.30	1.59
18-Jan-2024	1.26	1.34	1.63	1.20	1.25	1.52
19-Jan-2024	1.11	1.20	1.45	1.12	1.21	1.43
20-Jan-2024	ns	ns	ns	ns	ns	ns
21-Jan-2024	ns	ns	ns	ns	ns	ns
22-Jan-2024	1.22	1.15	1.48	1.18	1.19	1.50
23-Jan-2024	1.27	1.27	1.55	1.17	1.20	1.43
24-Jan-2024	1.33	1.36	1.64	1.22	1.29	1.56
25-Jan-2024	1.30	1.35	1.62	1.15	1.19	1.43
26-Jan-2024	1.28	1.28	1.56	1.12	1.18	1.43
27-Jan-2024	ns	ns	ns	ns	ns	ns
28-Jan-2024	ns	ns	ns	ns	ns	ns
29-Jan-2024	1.33	1.35	1.64	1.27	1.32	1.59
30-Jan-2024	1.35	1.32	1.65	1.33	1.35	1.66
31-Jan-2024	1.33	1.36	1.67	1.33	1.38	1.67
Total number of measurements taken, A:		22		22		
Chlorine Standard for Monitoring Location (mg/L):		0.50		0.50		
Number of measurements meeting standard, B:		22		22		
Compliance with Chlorine Standard, C= B/A X 100%:		100%		100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: February 7, 2024

**City Of Winnipeg**Water and Waste Department
Water Services**WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT**
Deacon Booster Pumping StationWater System Code: **252.00**
Licence Number: **PWS-09-412-02-A**
Report Created: 01 March 2024

Report Period: February 2024

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/02/2024	1.25	1.10	1.25	1.08
02/02/2024	1.32	1.22	1.30	1.23
03/02/2024	1.36	1.28	1.34	1.28
04/02/2024	1.37	1.33	1.37	1.33
05/02/2024	1.35	1.27	1.32	1.28
06/02/2024	1.41	1.35	1.36	1.32
07/02/2024	1.44	1.33	1.40	1.32
08/02/2024	1.41	0.86	1.40	1.23
09/02/2024	1.39	1.26	1.41	1.28
10/02/2024	1.34	1.29	1.31	1.25
11/02/2024	1.35	1.30	1.30	1.27
12/02/2024	1.30	1.19	1.29	1.19
13/02/2024	1.32	1.16	1.34	1.20
14/02/2024	1.37	1.23	1.36	1.26
15/02/2024	1.34	0.86	1.30	0.90
16/02/2024	1.26	1.17	1.22	1.17
17/02/2024	1.21	1.16	1.22	1.19
18/02/2024	1.30	1.22	1.28	1.20
19/02/2024	1.31	1.23	1.27	1.17
20/02/2024	1.30	1.23	1.23	1.18
21/02/2024	1.22	0.98	1.22	1.16
22/02/2024	1.22	1.11	1.20	1.15
23/02/2024	1.25	1.05	1.23	1.09
24/02/2024	1.26	1.20	1.28	1.25
25/02/2024	1.25	1.20	1.27	1.25
26/02/2024	1.29	1.23	1.29	1.24
27/02/2024	1.32	1.20	1.31	1.22
28/02/2024	1.25	1.10	1.28	1.19
29/02/2024	1.15	1.03	1.21	1.13

Total Number of Measurements, A:	20167	20166
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	20167	20166
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2024\02-February

Submitted By (Print): D. MerredewSignature: original signed by D. Merredew



WATER TREATMENT PLANT CHLORINE GRAB MONITORING REPORT						
Water System Code: 252.00	Deacon Booster Pumping Station Branch 1			Deacon Booster Pumping Station Branch 2		
Licence No. PWS-09-412-02 A						
Date	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)
	Analyser	Grab	Grab	Analyser	Grab	Grab
01-Feb-2024	1.19	1.27	1.58	1.22	1.31	1.60
02-Feb-2024	1.24	1.32	1.65	1.30	1.39	1.66
03-Feb-2024	ns	ns	ns	ns	ns	ns
04-Feb-2024	ns	ns	ns	ns	ns	ns
05-Feb-2024	1.33	1.35	1.68	1.32	1.35	1.65
06-Feb-2024	1.45	1.39	1.75	1.37	1.42	1.75
07-Feb-2024	1.41	1.45	1.85	1.44	1.54	1.85
08-Feb-2024	1.37	1.46	1.75	1.35	1.35	1.66
09-Feb-2024	1.44	1.44	1.84	1.45	1.51	1.73
10-Feb-2024	ns	ns	ns	ns	ns	ns
11-Feb-2024	ns	ns	ns	ns	ns	ns
12-Feb-2024	1.25	1.31	1.58	1.26	1.26	1.52
13-Feb-2024	1.35	1.41	1.69	1.36	1.38	1.66
14-Feb-2024	1.46	1.37	1.70	1.44	1.36	1.68
15-Feb-2024	1.01	0.93	1.20	1.15	1.21	1.45
16-Feb-2024	1.23	1.31	1.54	1.19	1.19	1.46
17-Feb-2024	ns	ns	ns	ns	ns	ns
18-Feb-2024	ns	ns	ns	ns	ns	ns
19-Feb-2024	ns	ns	ns	ns	ns	ns
20-Feb-2024	1.32	1.40	1.63	1.26	1.23	1.47
21-Feb-2024	1.33	1.33	1.62	1.29	1.27	1.53
22-Feb-2024	1.14	1.22	1.50	1.21	1.25	1.49
23-Feb-2024	1.31	1.29	1.56	1.21	1.25	1.53
24-Feb-2024	ns	ns	ns	ns	ns	ns
25-Feb-2024	ns	ns	ns	ns	ns	ns
26-Feb-2024	1.28	1.38	1.64	1.26	1.35	1.60
27-Feb-2024	1.21	1.27	1.57	1.31	1.33	1.56
28-Feb-2024	1.24	1.33	1.58	1.28	1.29	1.59
29-Feb-2024	1.04	1.12	1.43	1.14	1.19	1.47
Total number of measurements taken, A:		20		20		
Chlorine Standard for Monitoring Location (mg/L):		0.50		0.50		
Number of measurements meeting standard, B:		20		20		
Compliance with Chlorine Standard, C= B/A X 100%:		100%		100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: March 7, 2024

**WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT**
Deacon Booster Pumping Station

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**
Report Created: 01 April 2024

Report Period: March 2024

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/03/2024	1.23	1.14	1.31	1.24
02/03/2024	1.23	1.19	1.27	1.23
03/03/2024	1.21	0.96	1.19	0.84
04/03/2024	1.29	1.09	1.29	1.15
05/03/2024	1.20	1.02	1.12	0.90
06/03/2024	1.29	1.18	1.17	1.07
07/03/2024	1.30	1.25	1.31	1.26
08/03/2024	1.27	1.18	1.29	1.25
09/03/2024	1.29	1.26	1.31	1.30
10/03/2024	1.26	1.20	1.29	1.24
11/03/2024	1.23	1.19	1.25	1.23
12/03/2024	1.30	1.23	1.26	1.22
13/03/2024	1.26	1.15	1.23	1.21
14/03/2024	1.25	1.23	1.26	1.24
15/03/2024	1.26	1.20	1.25	1.18
16/03/2024	1.21	1.13	1.21	1.18
17/03/2024	1.14	1.06	1.19	1.11
18/03/2024	1.23	1.10	1.24	1.15
19/03/2024	1.27	1.07	1.25	0.95
20/03/2024	1.28	0.88	1.28	0.68
21/03/2024	1.28	1.22	1.34	1.29
22/03/2024	1.33	1.26	1.37	1.31
23/03/2024	1.33	1.25	1.36	1.28
24/03/2024	1.25	1.21	1.27	1.23
25/03/2024	1.23	1.17	1.25	1.18
26/03/2024	1.28	1.24	1.27	1.21
27/03/2024	1.49	1.31	1.44	1.12
28/03/2024	1.39	1.23	1.35	1.00
29/03/2024	1.47	1.41	1.44	1.38
30/03/2024	1.40	1.36	1.37	1.32
31/03/2024	1.37	1.32	1.33	1.27

Total Number of Measurements, A:	21536	21569
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	21536	21569
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2024\03-March

Submitted By (Print): H. BuhlerSignature: original signed by H. Buhler



WATER TREATMENT PLANT CHLORINE GRAB MONITORING REPORT						
Water System Code: 252.00 Licence No. PWS-09-412-02 AA	Deacon Booster Pumping Station Branch 1			Deacon Booster Pumping Station Branch 2		
Date	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)
	Analyser	Grab	Grab	Analyser	Grab	Grab
01-Mar-2024	1.22	1.26	1.53	1.28	1.25	1.51
02-Mar-2024	ns	ns	ns	ns	ns	ns
03-Mar-2024	ns	ns	ns	ns	ns	ns
04-Mar-2024	1.33	1.30	1.53	1.28	1.24	1.50
05-Mar-2024	1.16	1.06	1.40	1.07	1.07	1.37
06-Mar-2024	1.28	1.24	1.53	1.13	1.14	1.42
07-Mar-2024	1.33	1.27	1.58	1.33	1.31	1.60
08-Mar-2024	1.18	1.26	1.49	1.25	1.24	1.54
09-Mar-2024	ns	ns	ns	ns	ns	ns
10-Mar-2024	ns	ns	ns	ns	ns	ns
11-Mar-2024	1.24	1.25	1.51	1.26	1.28	1.55
12-Mar-2024	1.24	1.28	1.57	1.27	1.36	1.57
13-Mar-2024	1.23	1.24	1.50	1.24	1.24	1.54
14-Mar-2024	1.25	1.27	1.57	1.26	1.24	1.52
15-Mar-2024	1.25	1.35	1.58	1.28	1.32	1.55
16-Mar-2024	ns	ns	ns	ns	ns	ns
17-Mar-2024	ns	ns	ns	ns	ns	ns
18-Mar-2024	1.12	1.21	1.49	1.18	1.23	1.45
19-Mar-2024	1.37	1.33	1.70	1.33	1.35	1.66
20-Mar-2024	1.75	2.02	2.30	1.67	2.03	2.40
21-Mar-2024	1.31	1.29	1.58	1.33	1.31	1.61
22-Mar-2024	1.33	1.35	1.60	1.35	1.34	1.61
23-Mar-2024	ns	ns	ns	ns	ns	ns
24-Mar-2024	ns	ns	ns	ns	ns	ns
25-Mar-2024	1.21	1.18	1.47	1.22	1.15	1.50
26-Mar-2024	1.26	1.24	1.56	1.30	1.30	1.57
27-Mar-2024	1.54	1.50	1.85	1.54	1.56	1.87
28-Mar-2024	1.41	1.35	1.70	1.38	1.41	1.69
29-Mar-2024	ns	ns	ns	ns	ns	ns
30-Mar-2024	ns	ns	ns	ns	ns	ns
31-Mar-2024	ns	ns	ns	ns	ns	ns
Total number of measurements taken, A: Chlorine Standard for Monitoring Location (mg/L): Number of measurements meeting standard, B: Compliance with Chlorine Standard, C= B/A X 100%:		20		20		
		0.50		0.50		
		20		20		
		100%		100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: April 6, 2024

**WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT**
Deacon Booster Pumping Station

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**
Report Created: **01 May 2024**

Report Period: April 2024

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/04/2024	1.37	1.28	1.33	1.24
02/04/2024	1.21	1.08	1.21	1.15
03/04/2024	1.20	0.92	1.23	1.06
04/04/2024	1.24	1.17	1.30	1.22
05/04/2024	1.36	1.30	1.43	1.36
06/04/2024	1.31	1.19	1.36	1.21
07/04/2024	1.32	1.22	1.32	1.25
08/04/2024	1.34	1.28	1.31	1.25
09/04/2024	1.33	1.24	1.30	1.23
10/04/2024	1.30	1.25	1.29	1.23
11/04/2024	1.33	1.04	1.31	1.03
12/04/2024	1.43	1.39	1.40	1.35
13/04/2024	1.30	1.18	1.28	1.18
14/04/2024	1.27	1.20	1.27	1.21
15/04/2024	1.21	1.17	1.22	1.18
16/04/2024	1.31	1.23	1.31	1.20
17/04/2024	1.34	1.27	1.34	1.27
18/04/2024	1.31	1.24	1.30	1.23
19/04/2024	1.31	1.24	1.29	1.22
20/04/2024	1.31	1.26	1.30	1.26
21/04/2024	1.27	1.23	1.31	1.25
22/04/2024	1.28	1.23	1.30	1.20
23/04/2024	1.26	1.19	1.27	1.21
24/04/2024	1.24	1.20	1.26	1.22
25/04/2024	1.28	1.22	1.29	1.21
26/04/2024	1.26	1.20	1.27	1.23
27/04/2024	1.24	1.16	1.23	1.17
28/04/2024	1.25	1.19	1.26	1.19
29/04/2024	1.26	1.14	1.28	1.17
30/04/2024	1.27	1.22	1.24	1.17

Total Number of Measurements, A:	20881	20881
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	20881	20881
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2024\04-April

Submitted By (Print): D. MerredewSignature: original signed by D. Merredew



WATER TREATMENT PLANT CHLORINE GRAB MONITORING REPORT						
Water System Code: 252.00	Deacon Booster Pumping Station Branch 1			Deacon Booster Pumping Station Branch 2		
Licence No. PWS-09-412-02 AA						
Date	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)
	Analyser	Grab	Grab	Analyser	Grab	Grab
01-Apr-2024	ns	ns	ns	ns	ns	ns
02-Apr-2024	1.27	1.25	1.53	1.22	1.25	1.55
03-Apr-2024	1.25	1.22	1.55	1.21	1.24	1.54
04-Apr-2024	1.23	1.26	1.54	1.29	1.30	1.63
05-Apr-2024	1.32	1.31	1.57	1.39	1.36	1.64
06-Apr-2024	ns	ns	ns	ns	ns	ns
07-Apr-2024	ns	ns	ns	ns	ns	ns
08-Apr-2024	1.33	1.31	1.52	1.31	1.34	1.50
09-Apr-2024	1.27	1.23	1.43	1.24	1.28	1.46
10-Apr-2024	1.26	1.26	1.46	1.24	1.31	1.50
11-Apr-2024	1.31	1.27	1.45	1.31	1.33	1.46
12-Apr-2024	1.42	1.43	1.68	1.38	1.41	1.67
13-Apr-2024	ns	ns	ns	ns	ns	ns
14-Apr-2024	ns	ns	ns	ns	ns	ns
15-Apr-2024	1.20	1.19	1.42	1.20	1.18	1.42
16-Apr-2024	1.30	1.31	1.48	1.28	1.30	1.54
17-Apr-2024	1.40	1.34	1.54	1.38	1.38	1.57
18-Apr-2024	1.33	1.30	1.49	1.30	1.31	1.51
19-Apr-2024	1.29	1.28	1.49	1.24	1.31	1.51
20-Apr-2024	ns	ns	ns	ns	ns	ns
21-Apr-2024	ns	ns	ns	ns	ns	ns
22-Apr-2024	1.35	1.30	1.51	1.32	1.33	1.49
23-Apr-2024	1.26	1.31	1.48	1.24	1.30	1.49
24-Apr-2024	1.27	1.30	1.47	1.25	1.29	1.45
25-Apr-2024	1.33	1.32	1.50	1.33	1.32	1.49
26-Apr-2024	1.29	1.30	1.44	1.29	1.28	1.43
27-Apr-2024	ns	ns	ns	ns	ns	ns
28-Apr-2024	ns	ns	ns	ns	ns	ns
29-Apr-2024	1.25	1.27	1.47	1.29	1.27	1.47
30-Apr-2024	1.27	1.31	1.49	1.21	1.30	1.48
Total number of measurements taken, A:		21		21		
Chlorine Standard for Monitoring Location (mg/L):		0.50		0.50		
Number of measurements meeting standard, B:		21		21		
Compliance with Chlorine Standard, C= B/A X 100%:		100%		100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: May 7, 2024



WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT
Deacon Booster Pumping Station

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**
Report Created: 01 June 2024

Report Period: May 2024

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/05/2024	1.25	1.18	1.22	1.17
02/05/2024	1.22	0.75	1.23	0.86
03/05/2024	1.25	1.20	1.26	1.21
04/05/2024	1.25	1.20	1.25	1.20
05/05/2024	1.29	1.20	1.28	1.20
06/05/2024	1.33	1.28	1.33	1.28
07/05/2024	1.33	1.29	1.32	1.18
08/05/2024	1.35	1.25	1.33	1.24
09/05/2024	1.33	1.28	1.32	1.26
10/05/2024	1.35	1.22	1.35	1.22
11/05/2024	1.37	1.19	1.36	1.18
12/05/2024	1.31	1.23	1.32	1.22
13/05/2024	1.42	1.25	1.41	1.19
14/05/2024	1.42	1.35	1.45	1.33
15/05/2024	1.40	1.31	1.41	1.33
16/05/2024	1.70	1.31	1.62	1.30
17/05/2024	1.39	1.18	1.29	1.21
18/05/2024	1.25	1.10	1.32	0.95
19/05/2024	1.31	1.17	1.33	1.25
20/05/2024	1.37	1.20	1.35	1.22
21/05/2024	1.48	1.21	1.48	1.28
22/05/2024	1.47	1.38	1.47	1.39
23/05/2024	1.51	1.43	1.49	1.44
24/05/2024	1.54	1.24	1.57	1.52
25/05/2024	1.33	1.14	1.41	0.97
26/05/2024	1.33	1.21	1.40	1.18
27/05/2024	1.45	1.38	1.39	1.30
28/05/2024	1.47	1.29	1.41	1.30
29/05/2024	1.46	1.37	1.42	1.33
30/05/2024	1.42	1.32	1.36	1.24
31/05/2024	1.41	1.33	1.37	1.24

Total Number of Measurements, A:	21599	21599
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	21599	21599
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2024\05-May

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



Water Treatment Plant Chlorine Grab Monitoring Report May 2024

Water System Code: 252.00 Licence No. PWS-09-412-02 AA		Deacon Booster Pumping Station Branch 1		Deacon Booster Pumping Station Branch 2		
Date	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)
	Analyser	Grab	Grab	Analyser	Grab	Grab
01-May-2024	1.27	1.31	1.48	1.23	1.31	1.49
02-May-2024	1.17	1.17	1.39	1.16	1.23	1.41
03-May-2024	1.27	1.27	1.43	1.27	1.27	1.46
04-May-2024	ns	ns	ns	ns	ns	ns
05-May-2024	ns	ns	ns	ns	ns	ns
06-May-2024	1.34	1.30	1.49	1.34	1.32	1.51
07-May-2024	1.32	1.27	1.48	1.30	1.33	1.56
08-May-2024	1.30	1.30	1.49	1.28	1.33	1.49
09-May-2024	1.32	1.31	1.55	1.30	1.34	1.57
10-May-2024	1.37	1.35	1.56	1.39	1.39	1.61
11-May-2024	ns	ns	ns	ns	ns	ns
12-May-2024	ns	ns	ns	ns	ns	ns
13-May-2024	1.46	1.42	1.62	1.42	1.46	1.64
14-May-2024	1.42	1.40	1.69	1.52	1.46	1.68
15-May-2024	1.45	1.41	1.64	1.45	1.41	1.67
16-May-2024	1.42	1.42	1.57	1.42	1.41	1.58
17-May-2024	1.21	1.24	1.50	1.28	1.26	1.51
18-May-2024	ns	ns	ns	ns	ns	ns
19-May-2024	ns	ns	ns	ns	ns	ns
20-May-2024	ns	ns	ns	ns	ns	ns
21-May-2024	1.42	1.42	1.58	1.42	1.42	1.60
22-May-2024	1.50	1.49	1.67	1.50	1.42	1.68
23-May-2024	1.51	1.46	1.66	1.46	1.49	1.68
24-May-2024	1.61	1.59	1.83	1.58	1.65	1.85
25-May-2024	ns	ns	ns	ns	ns	ns
26-May-2024	ns	ns	ns	ns	ns	ns
27-May-2024	1.44	1.42	1.66	1.37	1.41	1.63
28-May-2024	1.46	1.48	1.69	1.35	1.50	1.70
29-May-2024	1.52	1.42	1.61	1.44	1.43	1.64
30-May-2024	1.49	1.45	1.67	1.40	1.47	1.67
31-May-2024	1.40	1.34	1.56	1.42	1.36	1.55
Total number of measurements taken, A:		22		22		
Chlorine Standard for Monitoring Location (mg/L):		0.50		0.50		
Number of measurements meeting standard, B:		22		22		
Compliance with Chlorine Standard, C= B/A X 100%:		100%		100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: June 6, 2024



WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT
Deacon Booster Pumping Station

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**
Report Created: **01 July 2024**

Report Period: June 2024

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/06/2024	1.51	1.45	1.47	1.41
02/06/2024	1.49	1.39	1.44	1.34
03/06/2024	1.37	1.30	1.34	1.19
04/06/2024	1.30	1.14	1.30	0.96
05/06/2024	1.25	1.20	1.27	1.20
06/06/2024	1.28	1.19	1.36	1.27
07/06/2024	1.37	1.31	1.50	1.42
08/06/2024	1.41	1.38	1.49	1.38
09/06/2024	1.41	1.34	1.42	1.31
10/06/2024	1.34	1.22	1.33	1.28
11/06/2024	1.31	1.24	1.31	1.23
12/06/2024	1.38	1.27	1.39	1.28
13/06/2024	1.31	1.26	1.34	1.29
14/06/2024	1.37	1.30	1.43	1.33
15/06/2024	1.43	1.39	1.52	1.46
16/06/2024	1.45	1.38	1.53	1.45
17/06/2024	1.47	1.41	1.51	1.27
18/06/2024	1.40	1.31	1.48	1.38
19/06/2024	1.30	1.16	1.45	1.28
20/06/2024	1.29	1.12	1.40	1.28
21/06/2024	1.42	1.32	1.50	1.39
22/06/2024	1.43	1.37	1.51	1.45
23/06/2024	1.45	1.33	1.52	1.39
24/06/2024	1.38	1.29	1.48	1.40
25/06/2024	1.37	1.16	1.50	1.40
26/06/2024	1.41	1.15	1.50	1.38
27/06/2024	1.53	1.42	1.47	1.35
28/06/2024	1.55	1.45	1.50	1.43
29/06/2024	1.50	1.32	1.52	1.42
30/06/2024	1.44	1.29	1.51	1.37

Total Number of Measurements, A:	20888	20884
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	20888	20884
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2024\06-June

Submitted By (Print): H.Buhler

Signature: Original Signed by H.Buhler



Water Treatment Plant Chlorine Grab Monitoring Report June 2024

Water System Code: 252.00		Deacon Booster Pumping Station Branch 1			Deacon Booster Pumping Station Branch 2		
Licence No. PWS-09-412-02 AA							
Date	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)	
	Analyser	Grab	Grab	Analyser	Grab	Grab	
01-Jun-2024	ns	ns	ns	ns	ns	ns	
02-Jun-2024	ns	ns	ns	ns	ns	ns	
03-Jun-2024	1.41	1.31	1.53	1.27	1.23	1.47	
04-Jun-2024	1.38	1.35	1.57	1.38	1.35	1.58	
05-Jun-2024	1.23	1.24	1.47	1.26	1.32	1.50	
06-Jun-2024	1.32	1.38	1.65	1.38	1.44	1.67	
07-Jun-2024	1.32	1.35	1.56	1.44	1.39	1.57	
08-Jun-2024	ns	ns	ns	ns	ns	ns	
09-Jun-2024	ns	ns	ns	ns	ns	ns	
10-Jun-2024	1.31	1.39	1.63	1.29	1.35	1.58	
11-Jun-2024	1.31	1.33	1.54	1.27	1.27	1.56	
12-Jun-2024	1.40	1.40	1.64	1.40	1.46	1.65	
13-Jun-2024	1.30	1.31	1.52	1.31	1.32	1.54	
14-Jun-2024	1.38	1.41	1.60	1.44	1.47	1.65	
15-Jun-2024	ns	ns	ns	ns	ns	ns	
16-Jun-2024	ns	ns	ns	ns	ns	ns	
17-Jun-2024	1.46	1.50	1.71	1.49	1.54	1.73	
18-Jun-2024	1.35	1.36	1.56	1.42	1.42	1.62	
19-Jun-2024	1.29	1.33	1.56	1.48	1.47	1.68	
20-Jun-2024	1.26	1.29	1.44	1.36	1.41	1.61	
21-Jun-2024	1.45	1.41	1.65	1.52	1.50	1.75	
22-Jun-2024	ns	ns	ns	ns	ns	ns	
23-Jun-2024	ns	ns	ns	ns	ns	ns	
24-Jun-2024	1.45	1.36	1.60	1.56	1.50	1.70	
25-Jun-2024	1.44	1.45	1.63	1.48	1.61	1.74	
26-Jun-2024	1.23	1.24	1.43	1.49	1.55	1.71	
27-Jun-2024	1.53	1.38	1.65	1.47	1.47	1.64	
28-Jun-2024	1.63	1.45	1.77	1.51	1.55	1.73	
29-Jun-2024	ns	ns	ns	ns	ns	ns	
30-Jun-2024	ns	ns	ns	ns	ns	ns	
Total number of measurements taken, A: Chlorine Standard for Monitoring Location (mg/L): Number of measurements meeting standard, B: Compliance with Chlorine Standard, C= B/A X 100%:		20			20		
		0.50			0.50		
		20			20		
		100%			100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: July 3, 2024

WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT
Deacon Booster Pumping Station

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**
Report Created: 01 August 2024

Report Period: July 2024

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/07/2024	1.45	1.35	1.49	1.37
02/07/2024	1.43	1.30	1.42	1.21
03/07/2024	1.44	1.36	1.44	1.25
04/07/2024	1.49	1.40	1.53	1.43
05/07/2024	1.52	1.37	1.59	1.47
06/07/2024	1.52	1.33	1.56	1.42
07/07/2024	1.66	1.53	1.60	1.45
08/07/2024	1.65	1.42	1.65	1.44
09/07/2024	1.70	1.58	1.64	1.47
10/07/2024	1.67	1.52	1.62	1.54
11/07/2024	1.60	1.52	1.66	1.59
12/07/2024	1.58	1.51	1.68	1.66
13/07/2024	1.59	1.48	1.64	1.49
14/07/2024	1.55	1.41	1.53	1.44
15/07/2024	1.55	1.45	1.54	1.50
16/07/2024	1.50	1.39	1.52	1.48
17/07/2024	1.47	1.35	1.42	1.38
18/07/2024	1.52	1.44	1.44	1.39
19/07/2024	1.49	0.65	1.47	0.65
20/07/2024	1.37	1.06	1.36	1.08
21/07/2024	1.37	1.28	1.48	1.38
22/07/2024	1.39	1.28	1.54	1.42
23/07/2024	1.38	1.29	1.54	1.49
24/07/2024	1.37	1.25	1.53	1.40
25/07/2024	1.36	1.22	1.47	1.37
26/07/2024	1.68	1.36	1.48	1.29
27/07/2024	1.64	1.41	1.50	1.45
28/07/2024	1.48	1.37	1.47	1.36
29/07/2024	1.48	0.88	1.39	0.78
30/07/2024	1.45	1.29	1.24	1.13
31/07/2024	1.54	1.49	1.48	1.14

Total Number of Measurements, A:	21599	21601
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	21599	21601
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2024\07-July

Submitted By (Print): D. MerredewSignature: original signed by D. Merredew



Water Treatment Plant Chlorine Grab Monitoring Report July 2024

Water System Code: 252.00 Licence No. PWS-09-412-02 AA		Deacon Booster Pumping Station Branch 1		Deacon Booster Pumping Station Branch 2		
Date	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)
	Analyser	Grab	Grab	Analyser	Grab	Grab
01-Jul-2024	ns	ns	ns	ns	ns	ns
02-Jul-2024	1.41	1.41	1.62	1.46	1.50	1.70
03-Jul-2024	1.47	1.46	1.69	1.48	1.48	1.68
04-Jul-2024	1.47	1.52	1.77	1.54	1.56	1.76
05-Jul-2024	1.64	1.65	1.89	1.66	1.70	1.90
06-Jul-2024	ns	ns	ns	ns	ns	ns
07-Jul-2024	ns	ns	ns	ns	ns	ns
08-Jul-2024	1.69	1.64	1.83	1.52	1.50	1.76
09-Jul-2024	1.64	1.60	1.85	1.70	1.60	1.88
10-Jul-2024	1.65	1.64	1.84	1.62	1.63	1.80
11-Jul-2024	1.57	1.59	1.84	1.66	1.60	1.85
12-Jul-2024	1.60	1.65	1.89	1.67	1.69	1.88
13-Jul-2024	ns	ns	ns	ns	ns	ns
14-Jul-2024	ns	ns	ns	ns	ns	ns
15-Jul-2024	1.62	1.60	1.81	1.60	1.64	1.78
16-Jul-2024	1.49	1.50	1.70	1.52	1.53	1.71
17-Jul-2024	1.51	1.41	1.62	1.42	1.44	1.63
18-Jul-2024	1.49	1.47	1.66	1.42	1.44	1.62
19-Jul-2024	1.81	1.59	1.81	1.55	1.60	1.81
20-Jul-2024	ns	ns	ns	ns	ns	ns
21-Jul-2024	ns	ns	ns	ns	ns	ns
22-Jul-2024	1.42	1.37	1.56	1.55	1.49	1.65
23-Jul-2024	1.37	1.40	1.59	1.53	1.56	1.74
24-Jul-2024	1.49	1.40	1.66	1.57	1.58	1.81
25-Jul-2024	1.36	1.31	1.54	1.48	1.49	1.68
26-Jul-2024	1.76	1.40	1.61	1.49	1.46	1.70
27-Jul-2024	ns	ns	ns	ns	ns	ns
28-Jul-2024	ns	ns	ns	ns	ns	ns
29-Jul-2024	1.53	1.54	1.74	1.48	1.51	1.65
30-Jul-2024	1.33	1.34	1.56	1.15	1.27	1.44
31-Jul-2024	1.52	1.58	1.80	im	1.76	1.88
Total number of measurements taken, A:		22		22		
Chlorine Standard for Monitoring Location (mg/L):		0.50		0.50		
Number of measurements meeting standard, B:		22		22		
Compliance with Chlorine Standard, C= B/A X 100%:		100%		100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: August 7, 2024



WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT
Deacon Booster Pumping Station

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**
Report Created: **01 September 2024**

Report Period: August 2024

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/08/2024	1.60	1.55	1.70	1.40
02/08/2024	1.59	1.51	1.63	1.53
03/08/2024	1.54	1.47	1.54	1.48
04/08/2024	1.57	1.52	1.57	1.52
05/08/2024	1.48	1.39	1.49	1.41
06/08/2024	1.41	0.83	1.32	0.85
07/08/2024	1.48	1.33	1.32	1.06
08/08/2024	1.48	1.43	1.47	0.96
09/08/2024	1.52	1.45	1.59	1.49
10/08/2024	1.59	1.48	1.62	1.52
11/08/2024	1.63	1.57	1.66	1.56
12/08/2024	1.58	1.53	1.58	1.40
13/08/2024	1.55	1.49	1.60	1.55
14/08/2024	1.52	1.46	1.57	1.52
15/08/2024	1.55	1.45	1.59	1.49
16/08/2024	1.50	1.40	1.52	1.44
17/08/2024	1.57	1.46	1.57	1.48
18/08/2024	1.58	1.52	1.57	1.53
19/08/2024	1.56	1.48	1.56	1.49
20/08/2024	1.62	1.52	1.59	1.52
21/08/2024	1.65	1.48	1.58	1.45
22/08/2024	1.65	1.53	1.59	1.50
23/08/2024	1.65	1.51	1.60	1.51
24/08/2024	1.49	1.40	1.50	1.40
25/08/2024	1.43	1.32	1.47	1.39
26/08/2024	1.59	1.25	1.58	1.24
27/08/2024	1.66	1.39	1.63	1.39
28/08/2024	1.41	1.20	1.46	1.20
29/08/2024	1.56	1.42	1.59	1.53
30/08/2024	1.62	1.53	1.56	1.48
31/08/2024	1.59	1.38	1.53	1.36

Total Number of Measurements, A:	21599	21599
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	21599	21599
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2024\08-August

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



Water Treatment Plant Chlorine Grab Monitoring Report August 2024

Water System Code: 252.00 Licence No. PWS-09-412-02 AA		Deacon Booster Pumping Station Branch 1		Deacon Booster Pumping Station Branch 2		
Date	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)
	Analyser	Grab	Grab	Analyser	Grab	Grab
01-Aug-2024	1.63	1.68	1.91	1.68	1.73	1.84
02-Aug-2024	1.63	1.72	1.93	1.69	1.74	1.89
03-Aug-2024	ns	ns	ns	ns	ns	ns
04-Aug-2024	ns	ns	ns	ns	ns	ns
05-Aug-2024	ns	ns	ns	ns	ns	ns
06-Aug-2024	1.44	1.52	1.75	1.46	1.52	1.75
07-Aug-2024	1.49	1.50	1.75	1.34	1.42	1.60
08-Aug-2024	1.51	1.56	1.74	1.41	1.51	1.67
09-Aug-2024	1.52	1.62	1.80	1.64	1.58	1.84
10-Aug-2024	ns	ns	ns	ns	ns	ns
11-Aug-2024	ns	ns	ns	ns	ns	ns
12-Aug-2024	1.59	1.61	1.81	1.43	1.47	1.68
13-Aug-2024	1.58	1.66	1.88	1.62	1.59	1.87
14-Aug-2024	1.51	1.54	1.80	1.56	1.53	1.75
15-Aug-2024	1.60	1.60	1.86	1.61	1.63	1.83
16-Aug-2024	1.53	1.56	1.76	1.57	1.52	1.69
17-Aug-2024	ns	ns	ns	ns	ns	ns
18-Aug-2024	ns	ns	ns	ns	ns	ns
19-Aug-2024	1.60	1.63	1.84	1.58	1.63	1.77
20-Aug-2024	1.61	1.65	1.85	1.61	1.67	1.91
21-Aug-2024	1.71	1.60	1.83	1.58	1.60	1.77
22-Aug-2024	1.62	1.59	1.81	1.56	1.62	1.83
23-Aug-2024	1.70	1.65	1.85	1.62	1.62	1.83
24-Aug-2024	ns	ns	ns	ns	ns	ns
25-Aug-2024	ns	ns	ns	ns	ns	ns
26-Aug-2024	1.32	1.25	1.52	1.24	1.26	1.52
27-Aug-2024	1.54	1.55	1.75	1.47	1.53	1.72
28-Aug-2024	1.30	1.30	1.51	1.42	1.43	1.60
29-Aug-2024	1.52	1.54	1.77	1.57	1.54	1.82
30-Aug-2024	1.56	1.61	1.80	1.50	1.55	1.78
31-Aug-2024	ns	ns	ns	ns	ns	ns
Total number of measurements taken, A:		21		21		
Chlorine Standard for Monitoring Location (mg/L):		0.50		0.50		
Number of measurements meeting standard, B:		21		21		
Compliance with Chlorine Standard, C= B/A X 100%:		100%		100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date:

September 5, 2024



WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT
Deacon Booster Pumping Station

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**
Report Created: 01 October 2024

Report Period: September 2024

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/09/2024	1.46	1.38	1.43	1.36
02/09/2024	1.46	1.38	1.42	1.37
03/09/2024	1.42	1.31	1.40	1.30
04/09/2024	1.40	1.20	1.40	1.25
05/09/2024	1.57	1.45	1.57	1.46
06/09/2024	1.60	1.51	1.52	1.13
07/09/2024	1.62	1.52	1.61	1.55
08/09/2024	1.64	1.52	1.64	1.55
09/09/2024	1.58	1.39	1.59	1.47
10/09/2024	1.63	1.51	1.63	1.57
11/09/2024	1.64	1.54	1.67	1.57
12/09/2024	1.73	1.60	1.73	1.65
13/09/2024	1.71	1.54	1.69	1.56
14/09/2024	1.62	1.47	1.60	1.52
15/09/2024	1.65	1.53	1.62	1.56
16/09/2024	1.61	1.49	1.65	1.60
17/09/2024	1.53	1.33	1.57	1.43
18/09/2024	1.58	1.40	1.50	1.12
19/09/2024	1.51	1.39	1.52	1.43
20/09/2024	1.49	1.39	1.48	1.22
21/09/2024	1.63	1.44	1.55	1.43
22/09/2024	1.68	1.59	1.54	1.48
23/09/2024	1.76	1.63	1.62	1.36
24/09/2024	1.74	1.59	1.60	1.37
25/09/2024	1.61	1.40	1.53	1.16
26/09/2024	1.56	1.43	1.64	1.56
27/09/2024	1.65	1.45	1.66	1.60
28/09/2024	1.67	1.51	1.70	1.58
29/09/2024	1.63	1.42	1.69	1.54
30/09/2024	1.64	1.47	1.69	1.57

Total Number of Measurements, A:	20885	20883
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	20885	20883
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2024\09-September

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



Water Treatment Plant Chlorine Grab Monitoring Report September 2024

Water System Code: 252.00		Deacon Booster Pumping Station Branch 1			Deacon Booster Pumping Station Branch 2		
Licence No. PWS-09-412-02 AA							
Date	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)	
	Analyser	Grab	Grab	Analyser	Grab	Grab	
01-Sep-2024	ns	ns	ns	ns	ns	ns	
02-Sep-2024	ns	ns	ns	ns	ns	ns	
03-Sep-2024	1.36	1.39	1.61	1.34	1.39	1.61	
04-Sep-2024	1.45	1.50	1.66	1.46	1.42	1.70	
05-Sep-2024	1.61	1.63	1.83	1.53	1.53	1.70	
06-Sep-2024	1.60	1.65	1.91	1.62	1.66	1.92	
07-Sep-2024	ns	ns	ns	ns	ns	ns	
08-Sep-2024	ns	ns	ns	ns	ns	ns	
09-Sep-2024	1.52	1.58	1.78	1.51	1.52	1.78	
10-Sep-2024	1.68	1.81	2.05	1.68	1.80	2.03	
11-Sep-2024	1.60	1.74	1.96	1.71	1.74	1.96	
12-Sep-2024	1.67	1.81	2.00	1.78	1.77	1.98	
13-Sep-2024	1.77	1.82	2.03	1.75	1.80	2.02	
14-Sep-2024	ns	ns	ns	ns	ns	ns	
15-Sep-2024	ns	ns	ns	ns	ns	ns	
16-Sep-2024	1.61	1.62	1.86	1.66	1.68	1.88	
17-Sep-2024	1.50	1.51	1.71	1.56	1.50	1.72	
18-Sep-2024	1.44	1.48	1.72	1.29	1.35	1.60	
19-Sep-2024	1.51	1.61	1.84	1.51	1.52	1.77	
20-Sep-2024	1.55	1.59	1.82	1.49	1.53	1.74	
21-Sep-2024	ns	ns	ns	ns	ns	ns	
22-Sep-2024	ns	ns	ns	ns	ns	ns	
23-Sep-2024	1.78	1.79	1.88	1.58	1.59	1.83	
24-Sep-2024	1.83	1.88	2.05	1.69	1.78	2.03	
25-Sep-2024	1.61	1.59	1.91	1.51	1.58	1.79	
26-Sep-2024	1.57	1.47	1.73	1.65	1.60	1.71	
27-Sep-2024	1.64	1.64	1.88	1.69	1.75	2.02	
28-Sep-2024	ns	ns	ns	ns	ns	ns	
29-Sep-2024	ns	ns	ns	ns	ns	ns	
30-Sep-2024	ns	ns	ns	ns	ns	ns	
Total number of measurements taken, A: Chlorine Standard for Monitoring Location (mg/L): Number of measurements meeting standard, B: Compliance with Chlorine Standard, C= B/A X 100%:		19			19		
		0.50			0.50		
		19			19		
		100%			100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: October 7, 2024

**WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT**
Deacon Booster Pumping Station

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**
Report Created: 01 November 2024

Report Period: October 2024

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/10/2024	1.58	1.48	1.70	1.64
02/10/2024	1.56	1.50	1.64	1.56
03/10/2024	1.62	1.54	1.64	1.56
04/10/2024	1.64	1.48	1.65	1.50
05/10/2024	1.54	1.46	1.55	1.47
06/10/2024	1.53	1.16	1.51	1.17
07/10/2024	1.46	1.30	1.51	1.27
08/10/2024	1.48	1.26	1.48	1.35
09/10/2024	1.57	1.42	1.48	1.23
10/10/2024	1.53	1.45	1.59	1.53
11/10/2024	1.59	1.51	1.61	1.51
12/10/2024	1.66	1.59	1.49	1.39
13/10/2024	1.58	1.49	1.47	1.34
14/10/2024	1.66	1.56	1.62	1.51
15/10/2024	1.73	1.60	1.62	1.54
16/10/2024	1.64	1.51	1.54	1.46
17/10/2024	1.56	1.47	1.50	1.38
18/10/2024	1.50	1.35	1.47	1.33
19/10/2024	1.48	1.37	1.41	1.32
20/10/2024	1.41	1.34	1.34	1.26
21/10/2024	1.44	1.36	1.40	1.26
22/10/2024	1.46	1.39	1.54	1.40
23/10/2024	1.56	1.43	1.64	1.50
24/10/2024	1.66	1.11	1.70	1.31
25/10/2024	1.73	1.65	1.78	1.69
26/10/2024	1.63	1.53	1.65	1.53
27/10/2024	1.62	1.54	1.64	1.55
28/10/2024	1.58	1.44	1.66	0.79
29/10/2024	1.48	1.42	1.57	0.78
30/10/2024	1.52	1.21	1.81	1.53
31/10/2024	1.52	1.45	1.73	1.64

Total Number of Measurements, A:	21600	21600
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	21600	21600
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2024\10-October

Submitted By (Print): D. MerredewSignature: original signed by D. Merredew



Water Treatment Plant Chlorine Grab Monitoring Report October 2024

Water System Code: 252.00 Licence No. PWS-09-412-02 AA		Deacon Booster Pumping Station Branch 1			Deacon Booster Pumping Station Branch 2		
Date							
		Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)
		Analyser	Grab	Grab	Analyser	Grab	Grab
01-Oct-2024		1.52	1.49	1.83	1.64	1.65	1.82
02-Oct-2024		1.55	1.60	1.82	1.60	1.62	1.86
03-Oct-2024		1.64	1.50	1.87	1.66	1.63	1.87
04-Oct-2024		1.77	1.72	1.95	1.73	1.80	1.93
05-Oct-2024		ns	ns	ns	ns	ns	ns
06-Oct-2024		ns	ns	ns	ns	ns	ns
07-Oct-2024		1.53	1.57	1.82	1.54	1.57	1.85
08-Oct-2024		1.38	1.46	1.68	1.53	1.60	1.84
09-Oct-2024		1.58	1.64	1.92	1.39	1.46	1.66
10-Oct-2024		1.54	1.58	1.80	1.54	1.62	1.84
11-Oct-2024		1.54	1.62	1.78	1.57	1.55	1.85
12-Oct-2024		ns	ns	ns	ns	ns	ns
13-Oct-2024		ns	ns	ns	ns	ns	ns
14-Oct-2024		ns	ns	ns	ns	ns	ns
15-Oct-2024		1.73	1.84	2.02	1.64	1.71	1.88
16-Oct-2024		1.65	1.72	1.90	1.58	1.60	1.90
17-Oct-2024		1.55	1.70	1.85	1.50	1.60	1.78
18-Oct-2024		1.46	1.60	1.77	1.40	1.50	1.68
19-Oct-2024		ns	ns	ns	ns	ns	ns
20-Oct-2024		ns	ns	ns	ns	ns	ns
21-Oct-2024		1.44	1.53	1.70	1.27	1.41	1.64
22-Oct-2024		1.43	1.58	1.78	1.55	1.66	1.91
23-Oct-2024		1.63	1.66	1.91	1.53	1.61	1.77
24-Oct-2024		1.44	1.49	1.62	1.54	1.49	1.63
25-Oct-2024		1.69	1.61	1.91	1.77	1.79	1.95
26-Oct-2024		ns	ns	ns	ns	ns	ns
27-Oct-2024		ns	ns	ns	ns	ns	ns
28-Oct-2024		1.63	1.64	1.85	1.69	1.72	1.88
29-Oct-2024		1.44	1.59	1.81	1.59	1.73	1.91
30-Oct-2024		1.61	1.57	1.79	1.64	1.71	1.92
31-Oct-2024		1.52	1.57	1.82	1.76	1.74	1.88
Total number of measurements taken, A:			22			22	
Chlorine Standard for Monitoring Location (mg/L):			0.50			0.50	
Number of measurements meeting standard, B:			22			22	
Compliance with Chlorine Standard, C= B/A X 100%:			100%			100%	

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date:

November 7, 2024

**WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT**
Deacon Booster Pumping Station

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**
Report Created: 01 December 2024

Report Period: November 2024

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/11/2024	1.63	1.44	1.77	1.61
02/11/2024	1.86	1.81	1.91	1.78
03/11/2024	1.83	1.77	1.77	1.70
04/11/2024	1.82	1.74	1.76	1.68
05/11/2024	1.73	1.61	1.70	1.58
06/11/2024	1.62	1.55	1.58	1.51
07/11/2024	1.64	1.54	1.58	1.50
08/11/2024	1.73	1.67	1.66	1.60
09/11/2024	1.65	1.46	1.64	1.58
10/11/2024	1.61	1.44	1.63	1.58
11/11/2024	1.57	1.37	1.57	1.37
12/11/2024	1.44	1.25	1.37	1.35
13/11/2024	1.54	1.51	1.42	1.38
14/11/2024	1.59	1.52	1.47	1.40
15/11/2024	1.44	1.00	1.36	1.01
16/11/2024	1.53	1.46	1.37	1.30
17/11/2024	1.44	1.40	1.27	1.22
18/11/2024	1.50	1.43	1.35	1.29
19/11/2024	1.44	1.36	1.35	1.27
20/11/2024	1.45	1.40	1.37	1.18
21/11/2024	1.49	1.39	1.45	1.34
22/11/2024	1.58	1.41	1.51	1.40
23/11/2024	1.42	1.38	1.46	1.34
24/11/2024	1.43	1.36	1.39	1.27
25/11/2024	1.54	1.41	1.50	1.28
26/11/2024	1.57	1.54	1.58	1.51
27/11/2024	1.58	1.51	1.60	1.46
28/11/2024	1.66	1.55	1.64	1.55
29/11/2024	1.66	1.53	1.62	1.51
30/11/2024	1.66	1.42	1.53	1.34

Total Number of Measurements, A:	20916	20915
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	20916	20915
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2024\11-November

Submitted By (Print): D. MerredewSignature: original signed by D. Merredew



Water Treatment Plant Chlorine Grab Monitoring Report November 2024

Water System Code: 252.00		Deacon Booster Pumping Station Branch 1			Deacon Booster Pumping Station Branch 2		
Licence No. PWS-09-412-02 AA							
Date	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)	
	Analyser	Grab	Grab	Analyser	Grab	Grab	
01-Nov-2024	1.45	1.65	1.80	1.68	1.77	1.92	
02-Nov-2024	ns	ns	ns	ns	ns	ns	
03-Nov-2024	1.83	1.77	2.01	1.76	1.79	2.02	
04-Nov-2024	ns	ns	ns	ns	ns	ns	
05-Nov-2024	1.67	1.70	1.90	1.65	1.70	1.89	
06-Nov-2024	1.66	1.77	1.95	1.61	1.72	1.94	
07-Nov-2024	1.70	1.59	1.81	1.60	1.57	1.82	
08-Nov-2024	1.77	1.70	1.92	1.67	1.69	1.94	
09-Nov-2024	ns	ns	ns	ns	ns	ns	
10-Nov-2024	ns	ns	ns	ns	ns	ns	
11-Nov-2024	ns	ns	ns	ns	ns	ns	
12-Nov-2024	1.50	1.47	1.66	1.38	1.42	1.53	
13-Nov-2024	1.55	1.50	1.77	1.43	1.48	1.65	
14-Nov-2024	1.53	1.48	1.71	1.42	1.41	1.58	
15-Nov-2024	1.50	1.56	1.73	1.40	1.39	1.58	
16-Nov-2024	ns	ns	ns	ns	ns	ns	
17-Nov-2024	ns	ns	ns	ns	ns	ns	
18-Nov-2024	1.55	1.45	1.56	1.43	1.34	1.48	
19-Nov-2024	1.48	1.54	1.77	1.40	1.42	1.60	
20-Nov-2024	1.44	1.53	1.73	1.35	1.47	1.69	
21-Nov-2024	1.47	1.48	1.70	1.44	1.54	1.72	
22-Nov-2024	1.70	1.61	1.90	1.69	1.76	1.97	
23-Nov-2024	ns	ns	ns	ns	ns	ns	
24-Nov-2024	ns	ns	ns	ns	ns	ns	
25-Nov-2024	1.48	1.56	1.77	1.42	1.60	1.75	
26-Nov-2024	1.59	1.68	1.94	1.60	1.67	1.91	
27-Nov-2024	1.63	1.65	1.85	1.66	1.65	1.85	
28-Nov-2024	1.70	1.74	1.96	1.61	1.69	1.93	
29-Nov-2024	1.61	1.67	1.90	1.65	1.69	1.86	
30-Nov-2024	ns	ns	ns	ns	ns	ns	
Total number of measurements taken, A: Chlorine Standard for Monitoring Location (mg/L): Number of measurements meeting standard, B: Compliance with Chlorine Standard, C= B/A X 100%:		20			20		
		0.50			0.50		
		20			20		
		100%			100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: December 6, 2024

**WATER TREATMENT PLANT FREE CHLORINE ON-LINE MONITORING REPORT**
Deacon Booster Pumping Station

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**
Report Created: 01 January 2025

Report Period: December 2024

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/12/2024	1.40	1.30	1.43	1.29
02/12/2024	1.37	1.27	1.31	1.15
03/12/2024	1.61	1.35	1.54	1.25
04/12/2024	1.64	1.24	1.57	1.09
05/12/2024	1.24	1.19	1.16	1.09
06/12/2024	1.26	1.13	1.24	1.04
07/12/2024	1.39	1.36	1.38	1.26
08/12/2024	1.34	1.30	1.25	1.20
09/12/2024	1.34	1.06	1.27	1.16
10/12/2024	1.39	1.36	1.37	1.27
11/12/2024	1.39	1.22	1.41	1.32
12/12/2024	1.37	1.17	1.41	1.33
13/12/2024	1.30	1.18	1.35	1.23
14/12/2024	1.33	1.22	1.35	1.22
15/12/2024	1.25	1.22	1.27	1.23
16/12/2024	1.22	1.15	1.22	1.13
17/12/2024	1.22	1.15	1.22	1.16
18/12/2024	1.22	1.17	1.23	1.19
19/12/2024	1.21	1.15	1.26	1.22
20/12/2024	1.14	1.07	1.18	1.09
21/12/2024	1.22	1.12	1.17	1.09
22/12/2024	1.26	1.15	1.23	1.15
23/12/2024	1.17	1.14	1.19	1.16
24/12/2024	1.13	1.00	1.16	1.03
25/12/2024	1.17	1.02	1.22	1.09
26/12/2024	1.22	1.14	1.28	1.22
27/12/2024	1.25	1.19	1.29	1.22
28/12/2024	1.32	1.26	1.32	1.28
29/12/2024	1.34	1.29	1.33	1.28
30/12/2024	1.29	1.22	1.34	1.27
31/12/2024	1.32	1.16	1.39	1.22

Total Number of Measurements, A:	21608	21609
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	21608	21609
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2024\12-December

Submitted By (Print): D. MerredewSignature: original signed by D. Merredew



Water and Waste
Eaux et déchets

Water Treatment Plant Chlorine Grab Monitoring Report December 2024

Water System Code: 252.00 Licence No. PWS-09-412-02 AA		Deacon Booster Pumping Station Branch 1		Deacon Booster Pumping Station Branch 2		
Date	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)
	Analyser	Grab	Grab	Analyser	Grab	Grab
01-Dec-2024	ns	ns	ns	ns	ns	ns
02-Dec-2024	1.37	1.30	1.54	1.30	1.25	1.46
03-Dec-2024	1.51	1.41	1.74	1.40	1.54	1.70
04-Dec-2024	1.56	1.54	1.77	1.61	1.59	1.73
05-Dec-2024	1.25	1.26	1.42	1.16	1.14	1.30
06-Dec-2024	1.22	1.19	1.34	1.21	1.20	1.34
07-Dec-2024	ns	ns	ns	ns	ns	ns
08-Dec-2024	ns	ns	ns	ns	ns	ns
09-Dec-2024	1.33	1.30	1.47	1.22	1.28	1.52
10-Dec-2024	1.38	1.34	1.53	1.30	1.26	1.48
11-Dec-2024	1.40	1.37	1.64	1.38	1.44	1.61
12-Dec-2024	1.41	1.37	1.50	1.41	1.44	1.57
13-Dec-2024	1.33	1.38	1.55	1.37	1.33	1.57
14-Dec-2024	ns	ns	ns	ns	ns	ns
15-Dec-2024	ns	ns	ns	ns	ns	ns
16-Dec-2024	1.23	1.25	1.34	1.22	1.21	1.34
17-Dec-2024	1.20	1.18	1.37	1.22	1.25	1.38
18-Dec-2024	1.21	1.23	1.37	1.23	1.20	1.43
19-Dec-2024	1.24	1.26	1.44	1.29	1.20	1.44
20-Dec-2024	1.12	1.11	1.25	1.21	1.22	1.38
21-Dec-2024	ns	ns	ns	ns	ns	ns
22-Dec-2024	ns	ns	ns	ns	ns	ns
23-Dec-2024	1.15	1.20	1.40	1.18	1.23	1.36
24-Dec-2024	1.04	1.11	1.27	1.10	1.10	1.28
25-Dec-2024	ns	ns	ns	ns	ns	ns
26-Dec-2024	ns	ns	ns	ns	ns	ns
27-Dec-2024	1.24	1.27	1.37	1.27	1.29	1.51
28-Dec-2024	ns	ns	ns	ns	ns	ns
29-Dec-2024	ns	ns	ns	ns	ns	ns
30-Dec-2024	1.23	1.22	1.45	1.31	1.33	1.46
31-Dec-2024	1.36	1.37	1.58	1.44	1.43	1.52
Total number of measurements taken, A: Chlorine Standard for Monitoring Location (mg/L): Number of measurements meeting standard, B: Compliance with Chlorine Standard, C= B/A X 100%:		20		20		
		0.50		0.50		
		20		20		
		100%		100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: January 7, 2025

2024 MONTHLY TURBIDITY REPORTS



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-A**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

January 2024 Turbidity (NTU)

Date	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/01/2024	0.65	0.08	0.13	0.08	0.11	0.02	0.04	0.03	0.06	0.14	0.20	0.07	0.11	0.01	0.04	0.05	0.08
2/01/2024	0.67	0.08	0.11	0.08	0.12	0.02	0.05	0.04	0.05	0.16	0.22	0.11	0.13	0.01	0.04	0.05	0.10
3/01/2024	0.64	0.05	0.13	0.05	0.11	0.01	0.03	0.04	0.07	0.09	0.23	0.03	0.15	0.01	0.02	0.03	0.07
4/01/2024	0.66	0.01	0.04	0.02	0.03	0.00	0.00	0.03	0.06	0.02	0.06	0.01	0.04	0.01	0.03	0.00	0.02
5/01/2024	0.65	0.01	0.04	0.02	0.05	0.00	0.00	0.03	0.08	0.02	0.06	0.01	0.03	0.01	0.03	0.01	0.02
6/01/2024	0.64	0.01	0.03	0.02	0.06	0.00	0.02	0.05	0.07	0.02	0.05	0.01	0.04	0.01	0.03	0.01	0.03
7/01/2024	0.63	0.01	0.04	0.02	0.05	0.00	0.00	0.04	0.07	0.03	0.05	0.02	0.04	0.01	0.02	0.00	0.03
8/01/2024	0.60	0.01	0.03	0.02	0.04	0.00	0.05	0.03	0.06	0.02	0.05	0.02	0.04	0.01	0.03	0.00	0.01
9/01/2024	0.55	0.01	0.04	0.02	0.05	0.00	0.00	0.03	0.06	0.02	0.05	0.02	0.04	0.01	0.03	0.01	0.03
10/01/2024	0.54	0.01	0.02	0.02	0.04	0.00	0.00	0.04	0.05	0.02	0.05	0.03	0.05	0.01	0.03	0.00	0.02
11/01/2024	0.49	0.01	0.03	0.01	0.04	0.00	0.05	0.04	0.06	0.03	0.04	0.04	0.07	0.01	0.02	0.01	0.03
12/01/2024	0.50	0.01	0.03	0.01	0.03	0.00	0.04	0.03	0.07	0.02	0.05	0.04	0.07	0.01	0.03	0.00	0.02
13/01/2024	0.50	0.01	0.04	0.02	0.04	0.00	0.00	0.03	0.07	0.02	0.05	0.05	0.06	0.01	0.02	0.01	0.03
14/01/2024	0.48	0.01	0.02	0.01	0.04	0.00	0.00	0.04	0.06	0.02	0.05	0.06	0.09	0.01	0.04	0.01	0.03
15/01/2024	0.49	0.01	0.03	0.02	0.03	0.00	0.01	0.04	0.07	0.03	0.05	0.06	0.11	0.01	0.02	0.00	0.03
16/01/2024	0.48	0.01	0.04	0.02	0.05	0.00	0.00	0.03	0.07	0.02	0.05	0.07	0.12	0.01	0.04	0.01	0.05
17/01/2024	0.47	0.01	0.04	0.01	0.05	0.00	0.00	0.04	0.05	0.03	0.06	0.09	0.11	0.02	0.05	0.01	0.04
18/01/2024	0.48	0.02	0.03	0.02	0.05	0.00	0.00	0.04	0.07	0.03	0.05	0.08	0.13	0.02	0.05	0.01	0.04
19/01/2024	0.48	0.02	0.04	0.02	0.03	0.00	0.01	0.03	0.07	0.03	0.06	0.08	0.13	0.03	0.04	0.00	0.02
20/01/2024	0.46	0.02	0.04	0.02	0.04	0.00	0.00	0.03	0.07	0.03	0.07	0.08	0.11	0.03	0.05	0.01	0.03
21/01/2024	0.47	0.02	0.03	0.02	0.05	0.00	0.00	0.04	0.06	0.03	0.06	0.09	0.12	0.03	0.05	0.01	0.04
22/01/2024	0.48	0.02	0.04	0.02	0.05	0.00	0.02	0.04	0.08	0.04	0.05	0.05	0.12	0.03	0.04	0.01	0.04
23/01/2024	0.47	0.02	0.04	0.03	0.05	0.00	0.01	0.04	0.09	0.04	0.07	0.03	0.06	0.04	0.07	0.01	0.03
24/01/2024	0.45	0.02	0.05	0.03	0.06	0.00	0.00	0.04	0.09	0.04	0.07	0.03	0.05	0.04	0.06	0.01	0.04
25/01/2024	0.47	0.02	0.04	0.04	0.06	0.00	0.01	0.06	0.09	0.04	0.07	0.04	0.06	0.04	0.07	0.01	0.04
26/01/2024	0.46	0.03	0.05	0.04	0.09	0.00	0.02	0.06	0.10	0.05	0.08	0.03	0.06	0.04	0.06	0.01	0.05
27/01/2024	0.45	0.03	0.05	0.05	0.07	0.00	0.02	0.07	0.12	0.05	0.08	0.03	0.05	0.05	0.08	0.01	0.05
28/01/2024	0.46	0.03	0.05	0.07	0.10	0.00	0.00	0.08	0.14	0.06	0.09	0.03	0.06	0.04	0.07	0.02	0.04
29/01/2024	0.45	0.03	0.06	0.08	0.12	0.00	0.03	0.09	0.12	0.06	0.10	0.04	0.05	0.05	0.08	0.02	0.05
30/01/2024	0.48	0.03	0.04	0.09	0.15	0.01	0.04	0.12	0.15	0.07	0.13	0.04	0.06	0.05	0.09	0.02	0.06
31/01/2024	0.53	0.04	0.08	0.10	0.14	0.02	0.08	0.12	0.19	0.10	0.14	0.04	0.08	0.07	0.08	0.03	0.08

Total Number of Measurements Taken, A:	13725	14713	3172	16023	16956	17023	15390	17145
Turbidity Standard for Monitoring Location (NTU):	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of Measurements Meeting Standard, B:	13725	14713	3172	16023	16956	17023	15390	17145
Compliance with Turbidity Standard, C = B/A X 100%:	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2024\01-January

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



WATER TREATMENT PLANT TURBIDITY GRAB MONITORING REPORT																		
Water System Code: 252.00			Turbidity (NTU)															
Licence No. PWS-09-412-02 A																		
Date	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8	
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser
01-Jan-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
02-Jan-2024	0.55	0.62	0.09	0.10	0.10	0.12	0.12	0.03	0.09	0.04	0.09	0.18	0.11	0.11	0.10	<0.02	0.12	0.07
03-Jan-2024	0.53	0.63	0.09	0.11	0.08	0.10	0.09	0.02	0.09	0.05	0.08	0.21	0.09	<0.02	0.08	0.02	0.08	0.06
04-Jan-2024	0.55	0.66	0.09	0.02	0.09	0.03	0.10	<0.02	0.08	0.04	0.10	0.04	0.09	<0.02	0.10	<0.02	0.10	<0.02
05-Jan-2024	0.53	0.62	0.08	<0.02	0.10	0.02	0.09	<0.02	0.08	0.04	0.08	0.03	0.09	<0.02	0.10	<0.02	0.09	<0.02
06-Jan-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
07-Jan-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
08-Jan-2024	0.58	0.62	0.09	0.03	0.08	0.02	0.08	<0.02	0.09	0.03	0.08	0.04	0.07	0.02	0.08	<0.02	0.08	<0.02
09-Jan-2024	0.54	0.53	0.08	0.02	0.09	0.03	0.09	<0.02	0.08	0.05	0.08	0.03	0.08	0.03	0.10	<0.02	0.09	<0.02
10-Jan-2024	0.53	0.56	0.08	<0.02	0.07	0.02	0.10	<0.02	0.09	0.04	0.08	0.03	0.09	0.03	0.08	<0.02	0.10	<0.02
11-Jan-2024	0.50	0.46	0.08	0.02	0.07	0.02	0.09	<0.02	0.09	0.04	0.08	0.03	0.10	0.06	0.08	0.03	0.08	<0.02
12-Jan-2024	0.47	0.48	0.08	0.03	0.08	0.02	0.10	<0.02	0.07	0.04	0.09	0.04	0.08	0.05	0.09	<0.02	0.08	<0.02
13-Jan-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
14-Jan-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
15-Jan-2024	0.50	0.47	0.10	0.03	0.09	0.02	0.09	<0.02	0.09	0.06	0.09	0.04	0.09	0.07	0.09	<0.02	0.09	<0.02
16-Jan-2024	0.49	0.48	0.08	0.02	0.09	0.02	0.09	<0.02	0.09	0.04	0.10	0.05	0.09	0.07	0.11	0.02	0.09	<0.02
17-Jan-2024	0.46	0.48	0.09	<0.02	0.10	0.03	0.10	<0.02	0.09	0.04	0.09	0.03	0.10	0.09	0.08	<0.02	0.10	<0.02
18-Jan-2024	0.46	0.46	0.09	0.02	0.08	0.02	0.09	<0.02	0.10	0.04	0.08	0.03	0.10	0.11	0.09	<0.02	0.09	<0.02
19-Jan-2024	0.45	0.48	0.10	0.04	0.10	0.03	0.10	<0.02	0.10	0.06	0.10	0.05	0.09	0.10	0.09	0.02	0.09	<0.02
20-Jan-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
21-Jan-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
22-Jan-2024	0.49	0.45	0.09	0.03	0.08	0.03	0.09	<0.02	0.10	0.06	0.08	0.05	0.09	0.07	0.09	0.03	0.09	<0.02
23-Jan-2024	0.46	0.52	0.10	0.04	0.09	0.03	0.09	<0.02	0.11	0.06	0.09	0.06	0.08	0.04	0.11	0.03	0.09	<0.02
24-Jan-2024	0.44	0.40	0.09	0.02	0.11	0.05	0.10	<0.02	0.10	0.06	0.09	0.05	0.10	0.04	0.10	0.04	0.10	<0.02
25-Jan-2024	0.47	0.44	0.09	0.03	0.09	0.04	0.10	<0.02	0.11	0.07	0.10	0.05	0.11	0.04	0.11	0.03	0.12	0.03
26-Jan-2024	0.46	0.45	0.09	0.03	0.09	0.05	0.10	<0.02	0.10	0.06	0.08	0.06	0.11	0.06	0.09	0.04	0.09	<0.02
27-Jan-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
28-Jan-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
29-Jan-2024	0.47	0.46	0.08	0.04	0.10	0.11	0.09	<0.02	0.09	0.11	0.08	0.08	0.09	0.05	0.08	0.04	0.10	0.02
30-Jan-2024	0.46	0.43	0.09	0.04	0.08	0.10	0.13	0.04	0.09	0.12	0.08	0.09	0.09	0.05	0.08	0.05	0.10	0.03
31-Jan-2024	0.51	0.62	0.10	0.06	0.09	0.12	0.10	<0.02	0.12	0.16	0.10	0.10	0.09	0.04	0.09	0.06	0.09	0.02
Total number of measurements taken, A:			22		22		22		22		22		22		22		22	
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30	
Number of measurements meeting standard, B:			22		22		22		22		22		22		22		22	
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%	

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: February 7, 2024



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**

Licence Number: **PWS-09-412-02-A**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

February 2024 Turbidity (NTU)

Date	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/02/2024	0.49	0.06	0.13	0.08	0.18	0.02	0.09	0.08	0.16	0.05	0.14	0.03	0.05	0.03	0.10	0.02	0.06
2/02/2024	0.50	0.08	0.13	0.03	0.06	0.04	0.10	0.03	0.06	0.03	0.07	0.03	0.04	0.01	0.04	0.01	0.04
3/02/2024	0.48	0.09	0.11	0.02	0.08	0.03	0.09	0.03	0.06	0.02	0.07	0.03	0.06	0.01	0.03	0.01	0.03
4/02/2024	0.48	0.07	0.13	0.02	0.06	0.03	0.09	0.02	0.07	0.03	0.05	0.02	0.05	0.01	0.01	0.01	0.03
5/02/2024	0.48	0.07	0.12	0.02	0.05	0.02	0.07	0.02	0.05	0.02	0.05	0.02	0.05	0.01	0.03	0.00	0.01
6/02/2024	0.48	0.07	0.12	0.02	0.07	0.03	0.05	0.02	0.06	0.02	0.06	0.02	0.04	0.01	0.02	0.01	0.03
7/02/2024	0.48	0.07	0.10	0.02	0.06	0.03	0.07	0.02	0.04	0.02	0.06	0.03	0.06	0.01	0.03	0.02	0.05
8/02/2024	0.46	0.08	0.12	0.02	0.06	0.03	0.08	0.02	0.06	0.02	0.04	0.02	0.05	0.01	0.03	0.03	0.08
9/02/2024	0.47	0.07	0.12	0.02	0.04	0.02	0.07	0.02	0.05	0.02	0.06	0.02	0.06	0.01	0.02	0.03	0.07
10/02/2024	0.45	0.07	0.12	0.02	0.06	0.02	0.05	0.02	0.05	0.02	0.05	0.02	0.05	0.01	0.03	0.03	0.07
11/02/2024	0.45	0.07	0.09	0.02	0.06	0.02	0.06	0.01	0.03	0.02	0.05	0.02	0.05	0.01	0.03	0.03	0.07
12/02/2024	0.45	0.09	0.12	0.02	0.07	0.02	0.06	0.01	0.06	0.02	0.04	0.02	0.05	0.01	0.01	0.02	0.07
13/02/2024	0.46	0.08	0.12	0.03	0.05	0.02	0.08	0.02	0.16	0.02	0.04	0.02	0.04	0.01	0.02	0.02	0.04
14/02/2024	0.46	0.08	0.14	0.05	0.10	0.06	0.08	0.02	0.07	0.02	0.06	0.01	0.03	0.01	0.02	0.00	0.02
15/02/2024	0.64	0.05	0.08	0.06	0.14	0.06	0.12	0.04	0.06	0.03	0.05	0.02	0.06	0.01	0.04	0.00	0.03
16/02/2024	0.53	0.05	0.10	0.06	0.08	0.06	0.12	0.04	0.08	0.04	0.06	0.02	0.04	0.01	0.02	0.00	0.02
17/02/2024	0.49	0.05	0.09	0.07	0.11	0.06	0.10	0.04	0.08	0.03	0.07	0.02	0.04	0.01	0.03	0.01	0.01
18/02/2024	0.50	0.05	0.07	0.06	0.11	0.08	0.12	0.04	0.09	0.03	0.06	0.02	0.03	0.01	0.03	0.00	0.02
19/02/2024	0.51	0.06	0.10	0.06	0.11	0.06	0.11	0.04	0.06	0.03	0.05	0.02	0.05	0.01	0.04	0.00	0.02
20/02/2024	0.49	0.05	0.10	0.06	0.08	0.06	0.17	0.04	0.08	0.04	0.06	0.02	0.04	0.01	0.02	0.00	0.02
21/02/2024	0.48	0.05	0.11	0.07	0.11	0.07	0.12	0.04	0.07	0.03	0.06	0.02	0.04	0.01	0.03	0.01	0.01
22/02/2024	0.51	0.05	0.08	0.06	0.12	0.08	0.13	0.04	0.08	0.03	0.06	0.02	0.04	0.01	0.04	0.00	0.02
23/02/2024	0.52	0.06	0.11	0.06	0.12	0.07	0.13	0.04	0.07	0.03	0.05	0.02	0.04	0.01	0.03	0.00	0.03
24/02/2024	0.52	0.05	0.11	0.07	0.09	0.07	0.13	0.04	0.09	0.03	0.10	0.02	0.05	0.01	0.02	0.00	0.02
25/02/2024	0.54	0.05	0.10	0.07	0.13	0.07	0.10	0.04	0.09	0.03	0.06	0.02	0.05	0.01	0.03	0.01	0.01
26/02/2024	0.53	0.06	0.07	0.07	0.12	0.08	0.13	0.04	0.10	0.03	0.07	0.03	0.04	0.01	0.04	0.01	0.03
27/02/2024	0.50	0.07	0.11	0.08	0.16	0.09	0.15	0.06	0.09	0.04	0.05	0.03	0.06	0.01	0.02	0.01	0.03
28/02/2024	0.51	0.10	0.19	0.10	0.11	0.08	0.14	0.07	0.12	0.04	0.07	0.02	0.04	0.01	0.04	0.01	5.00
29/02/2024	0.55	0.11	0.20	0.10	0.18	0.07	0.10	0.08	0.14	0.05	0.08	0.01	0.04	0.01	0.01	0.01	0.02

Total Number of Measurements Taken, A:	12514	13775	14807	14580	15392	15518	13880	15627
Turbidity Standard for Monitoring Location (NTU):	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of Measurements Meeting Standard, B:	12514	13775	14807	14580	15392	15518	13880	15626
Compliance with Turbidity Standard, C = B/A X 100%:	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	99.994%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2024\02-February

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



Water and Waste
Eaux et déchets

CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENVIRONMENTAL STANDARDS DIVISION

WATER TREATMENT PLANT TURBIDITY GRAB MONITORING REPORT																		
Water System Code: 252.00		Turbidity (NTU)																
Licence No. PWS-09-412-02 A																		
Date	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8	
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser
01-Feb-2024	0.47	0.46	0.09	0.04	0.10	0.15	0.11	0.03	0.09	0.14	0.11	0.14	0.09	0.04	0.10	0.07	0.10	0.03
02-Feb-2024	0.46	0.45	0.09	0.09	0.12	0.05	0.12	0.04	0.09	0.04	0.08	0.03	0.09	0.04	0.08	<0.02	0.10	<0.02
03-Feb-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
04-Feb-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
05-Feb-2024	0.45	0.44	0.10	0.10	0.09	0.03	0.10	0.03	0.09	0.02	0.11	0.05	0.09	0.03	0.09	<0.02	0.09	<0.02
06-Feb-2024	0.48	0.47	0.09	0.08	0.10	0.03	0.11	0.03	0.09	0.02	0.08	0.04	0.09	0.03	0.09	<0.02	0.09	<0.02
07-Feb-2024	0.42	0.46	0.09	0.09	0.13	0.04	0.12	0.04	0.10	0.02	0.09	0.04	0.10	0.03	0.09	<0.02	0.14	<0.02
08-Feb-2024	0.46	0.43	0.10	0.09	0.09	0.03	0.10	0.02	0.10	0.03	0.08	0.03	0.11	0.05	0.08	<0.02	0.08	0.02
09-Feb-2024	0.45	0.46	0.11	0.11	0.10	0.03	0.10	0.03	0.08	0.02	0.09	0.04	0.08	0.03	0.09	<0.02	0.09	0.03
10-Feb-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
11-Feb-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
12-Feb-2024	0.43	0.42	0.10	0.10	0.09	0.03	0.14	0.05	0.11	0.03	0.09	0.03	0.12	0.05	0.10	<0.02	0.10	0.02
13-Feb-2024	0.39	0.44	0.11	0.11	0.09	0.03	0.10	0.02	0.08	<0.02	0.09	0.03	0.08	0.02	0.09	<0.02	0.09	0.02
14-Feb-2024	0.43	0.43	0.09	0.09	0.11	0.05	0.12	0.04	0.09	0.02	0.07	0.02	0.08	0.02	0.09	<0.02	0.08	<0.02
15-Feb-2024	0.40	0.45	0.10	0.06	0.10	0.07	0.15	0.09	0.10	0.04	0.09	0.04	0.09	0.02	0.08	<0.02	0.10	<0.02
16-Feb-2024	0.40	0.52	0.12	0.09	0.09	0.07	0.11	0.06	0.12	0.05	0.09	0.04	0.10	0.03	0.09	<0.02	0.09	<0.02
17-Feb-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
18-Feb-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
19-Feb-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
20-Feb-2024	0.47	0.49	0.14	0.09	0.10	0.07	0.11	0.07	0.11	0.06	0.09	0.05	0.10	0.03	0.09	<0.02	0.08	<0.02
21-Feb-2024	0.42	0.46	0.09	0.07	0.13	0.09	0.12	0.08	0.09	0.04	0.11	0.05	0.08	0.02	0.08	<0.02	0.09	<0.02
22-Feb-2024	0.46	0.46	0.10	0.07	0.12	0.09	0.13	0.09	0.10	0.05	0.08	0.04	0.08	0.03	0.08	<0.02	0.09	<0.02
23-Feb-2024	0.46	0.48	0.11	0.07	0.11	0.07	0.14	0.10	0.11	0.06	0.10	0.05	0.10	0.04	0.09	<0.02	0.09	<0.02
24-Feb-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
25-Feb-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
26-Feb-2024	0.52	0.51	0.10	0.06	0.09	0.07	0.13	0.10	0.09	0.05	0.07	0.04	0.08	0.04	0.07	<0.02	0.09	<0.02
27-Feb-2024	0.51	0.48	0.13	0.09	0.11	0.09	0.19	0.15	0.13	0.07	0.09	0.05	0.09	0.05	0.07	<0.02	0.07	<0.02
28-Feb-2024	0.48	0.48	0.15	0.16	0.13	0.10	0.14	0.10	0.16	0.11	0.09	0.05	0.07	0.04	0.08	<0.02	0.07	<0.02
29-Feb-2024	0.48	0.50	0.13	0.14	0.15	0.13	0.13	0.08	0.11	0.09	0.08	0.05	0.08	0.02	0.08	<0.02	0.08	<0.02
Total number of measurements taken, A:			20		20		20		20		20		20		20		20	
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30	
Number of measurements meeting standard, B:			20		20		20		20		20		20		20		20	
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%	

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: March 7, 2024



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

March 2024 Turbidity (NTU)

Date	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/03/2024	0.58	0.10	0.13	0.07	0.14	0.04	0.08	0.06	0.12	0.04	0.08	0.01	0.03	0.00	0.01	0.00	0.01
2/03/2024	0.56	0.10	0.14	0.07	0.13	0.04	0.07	0.07	0.10	0.05	0.07	0.02	0.04	0.01	0.01	0.00	0.09
3/03/2024	0.60	0.08	0.14	0.07	0.10	0.03	0.07	0.05	0.11	0.04	0.07	0.01	0.04	0.01	0.01	0.00	0.01
4/03/2024	0.73	0.08	0.12	0.07	0.13	0.04	0.09	0.06	0.11	0.05	0.08	0.02	0.04	0.01	0.01	0.00	0.02
5/03/2024	0.75	0.11	0.15	0.08	0.13	0.04	0.09	0.07	0.09	0.05	0.08	0.02	0.05	0.01	0.04	0.01	0.03
6/03/2024	0.86	0.09	0.13	0.07	0.10	0.04	0.10	0.07	0.11	0.05	0.08	0.02	0.04	0.01	0.01	0.00	0.02
7/03/2024	0.86	0.09	0.14	0.08	0.13	0.04	0.09	0.07	0.12	0.04	0.08	0.02	0.04	0.01	0.02	0.01	0.01
8/03/2024	0.80	0.09	0.11	0.06	0.12	0.04	0.08	0.06	0.12	0.04	0.08	0.02	0.03	0.01	0.02	0.00	0.02
9/03/2024	0.76	0.11	0.14	0.06	0.11	0.04	0.08	0.07	0.09	0.04	0.07	0.02	0.04	0.01	0.01	0.00	0.02
10/03/2024	0.78	0.09	0.15	0.06	0.08	0.04	0.09	0.06	0.10	0.05	0.07	0.02	0.04	0.01	0.01	0.00	0.02
11/03/2024	0.83	0.09	0.14	0.07	0.11	0.04	0.51	0.06	0.11	0.04	0.07	0.02	0.04	0.01	0.01	0.01	0.01
12/03/2024	0.86	0.09	0.15	0.06	0.11	0.05	0.15	0.06	0.11	0.04	0.08	0.02	0.03	0.01	0.02	0.00	0.02
13/03/2024	0.88	0.11	0.13	0.06	0.12	0.05	0.09	0.07	0.09	0.05	0.06	0.02	0.04	0.01	0.02	0.01	0.02
14/03/2024	0.88	0.09	0.15	0.07	0.09	0.05	0.11	0.07	0.12	0.05	0.08	0.02	0.05	0.01	0.02	0.00	0.01
15/03/2024	0.89	0.09	0.14	0.06	0.12	0.05	0.08	0.07	0.12	0.04	0.08	0.01	0.04	0.01	0.02	0.01	0.02
16/03/2024	0.89	0.11	0.13	0.07	0.12	0.05	0.11	0.07	0.09	0.04	0.08	0.02	0.04	0.01	0.02	0.00	0.03
17/03/2024	0.95	0.10	0.16	0.06	0.13	0.06	0.13	0.08	0.13	0.05	0.07	0.01	0.04	0.01	0.01	0.00	0.01
18/03/2024	0.99	0.10	0.15	0.07	0.10	0.06	0.11	0.07	0.12	0.04	0.08	0.01	0.04	0.01	0.02	0.00	0.01
19/03/2024	1.45	0.05	0.15	0.02	0.12	0.04	0.14	0.04	0.13	0.02	0.09	0.01	0.09	0.00	0.04	0.00	0.03
20/03/2024	0.94	0.11	0.16	0.08	0.10	0.07	0.15	0.07	0.13	0.04	0.07	0.02	0.04	0.01	0.01	0.01	0.02
21/03/2024	0.98	0.12	0.18	0.08	0.14	0.09	0.13	0.08	0.14	0.04	0.08	0.02	0.04	0.01	0.02	0.01	0.01
22/03/2024	0.98	0.12	0.15	0.07	0.14	0.11	0.18	0.08	0.14	0.04	0.07	0.02	0.03	0.01	0.02	0.00	0.02
23/03/2024	1.00	0.12	0.15	0.06	0.11	0.10	0.16	0.08	0.10	0.04	0.05	0.02	0.04	0.01	0.02	0.00	0.02
24/03/2024	0.99	0.12	0.18	0.07	0.10	0.12	0.20	0.08	0.13	0.05	0.07	0.02	0.04	0.01	0.01	0.01	0.02
25/03/2024	0.96	0.12	0.18	0.09	0.14	0.13	0.19	0.08	0.13	0.04	0.07	0.01	0.04	0.01	0.02	0.01	0.01
26/03/2024	0.95	0.12	0.16	0.07	0.15	0.17	0.24	0.08	0.15	0.04	0.09	0.02	0.05	0.01	0.03	0.01	0.03
27/03/2024	0.99	0.14	0.17	0.06	0.12	0.07	0.23	0.08	0.10	0.03	0.08	0.02	0.04	0.01	0.02	0.01	0.07
28/03/2024	1.00	0.10	0.21	0.02	0.13	0.04	0.13	0.10	0.26	0.03	0.07	0.02	0.05	0.04	0.10	0.00	0.03
29/03/2024	1.02	0.08	0.13	0.07	0.12	0.05	0.15	0.09	0.14	0.01	0.04	0.01	0.04	0.08	0.11	0.00	0.01
30/03/2024	0.99	0.08	0.13	0.06	0.13	0.05	0.13	0.09	0.15	0.01	0.04	0.01	0.03	0.08	0.12	0.01	0.03
31/03/2024	0.94	0.08	0.10	0.06	0.11	0.04	0.10	0.09	0.12	0.01	0.03	0.02	0.04	0.07	0.11	0.00	0.02

Total Number of Measurements Taken, A:	13557	13658	15661	15087	15734	16081	14261	16075
Turbidity Standard for Monitoring Location (NTU):	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of Measurements Meeting Standard, B:	13557	13658	15660	15087	15734	16081	14261	16075
Compliance with Turbidity Standard, C = B/A X 100%:	100.000%	100.000%	99.994%	100.000%	100.000%	100.000%	100.000%	100.000%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2024\03-March

Submitted By (Print): H. Buhler

Signature: original signed by H. Buhler



WATER TREATMENT PLANT TURBIDITY GRAB MONITORING REPORT																		
Water System Code: 252.00	Turbidity (NTU)																	
Licence No. PWS-09-412-02 AA																		
Date	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8	
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser
01-Mar-2024	0.49	0.54	0.09	0.11	0.13	0.11	0.12	0.05	0.09	0.07	0.11	0.06	0.08	0.02	0.08	<0.02	0.09	<0.02
02-Mar-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
03-Mar-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
04-Mar-2024	0.48	0.69	0.09	0.10	0.11	0.10	0.11	0.04	0.09	0.06	0.13	0.05	0.10	0.02	0.09	<0.02	0.10	<0.02
05-Mar-2024	0.49	0.72	0.10	0.12	0.09	0.09	0.16	0.08	0.10	0.08	0.11	0.07	0.09	0.03	0.08	<0.02	0.08	<0.02
06-Mar-2024	0.68	0.71	0.14	0.14	0.09	0.09	0.11	0.04	0.11	0.09	0.12	0.06	0.08	0.02	0.08	<0.02	0.08	<0.02
07-Mar-2024	0.51	0.86	0.09	0.10	0.10	0.09	0.11	0.04	0.09	0.07	0.13	0.08	0.08	0.02	0.09	<0.02	0.08	<0.02
08-Mar-2024	0.48	0.76	0.09	0.11	0.12	0.09	0.12	0.05	0.10	0.07	0.10	0.05	0.08	0.02	0.10	<0.02	0.09	<0.02
09-Mar-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
10-Mar-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
11-Mar-2024	0.43	0.72	0.10	0.10	0.11	0.07	0.12	0.04	0.09	0.07	0.14	0.07	0.08	0.03	0.09	<0.02	0.08	<0.02
12-Mar-2024	0.49	0.81	0.10	0.11	0.14	0.11	0.12	0.05	0.10	0.07	0.12	0.05	0.08	0.03	0.07	<0.02	0.09	<0.02
13-Mar-2024	0.51	0.83	0.11	0.12	0.10	0.08	ns	ns	0.10	0.08	0.12	0.06	0.10	0.02	0.08	<0.02	0.10	<0.02
14-Mar-2024	0.47	0.84	0.12	0.13	0.11	0.08	0.11	0.06	0.14	0.12	0.12	0.06	0.08	0.02	0.09	<0.02	0.08	<0.02
15-Mar-2024	0.46	0.84	0.09	0.11	0.11	0.08	0.12	0.06	0.09	0.07	0.10	0.05	0.08	0.02	0.10	<0.02	0.09	<0.02
16-Mar-2024	ns	ns	ns	ns	ns	ns	0.14	0.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
17-Mar-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
18-Mar-2024	0.49	0.95	0.10	0.11	0.10	0.08	0.11	0.06	0.11	0.08	0.13	0.06	0.10	0.03	0.09	<0.02	0.09	<0.02
19-Mar-2024	0.46	0.99	0.11	0.12	0.15	0.11	0.14	0.08	0.11	0.09	0.12	0.05	0.09	0.02	0.08	<0.02	0.10	<0.02
20-Mar-2024	0.48	0.90	0.10	0.12	0.11	0.09	0.12	0.08	0.14	0.11	0.13	0.06	0.08	0.02	0.09	<0.02	0.08	<0.02
21-Mar-2024	0.59	0.95	0.11	0.12	0.12	0.10	0.13	0.10	0.09	0.08	0.14	0.06	0.08	0.02	0.09	<0.02	0.08	<0.02
22-Mar-2024	0.49	0.94	0.12	0.14	0.13	0.10	0.15	0.13	0.11	0.09	0.11	0.05	0.09	0.02	0.08	<0.02	0.10	<0.02
23-Mar-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
24-Mar-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
25-Mar-2024	0.52	0.93	0.10	0.13	0.11	0.09	0.12	0.15	0.09	0.08	0.13	0.06	0.07	0.02	0.08	<0.02	0.08	<0.02
26-Mar-2024	0.59	0.92	0.11	0.14	0.15	0.12	0.14	0.18	0.10	0.10	0.11	0.04	0.08	0.03	0.09	<0.02	0.09	<0.02
27-Mar-2024	0.52	0.95	0.10	0.15	0.08	0.07	0.15	0.20	0.09	0.09	0.11	0.05	0.08	0.03	0.07	<0.02	0.07	<0.02
28-Mar-2024	0.55	0.99	0.13	0.18	0.13	0.11	0.13	0.05	0.12	0.12	0.12	0.06	0.08	0.03	0.08	<0.02	0.08	<0.02
29-Mar-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
30-Mar-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
31-Mar-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Total number of measurements taken, A:			20		20		20		20		20		20		20		20	
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30	
Number of measurements meeting standard, B:			20		20		20		20		20		20		20		20	
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%	

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: April 6, 2024



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

April 2024 Turbidity (NTU)

Date	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/04/2024	0.94	0.08	0.13	0.06	0.13	0.04	0.12	0.10	0.14	0.01	0.03	0.02	0.04	0.08	0.10	0.01	0.03
2/04/2024	0.93	0.08	0.13	0.08	0.10	0.05	0.11	0.09	0.15	0.01	0.03	0.01	0.04	0.08	0.11	0.00	0.01
3/04/2024	0.94	0.08	0.13	0.07	0.13	0.06	0.08	0.09	0.16	0.00	0.03	0.01	0.03	0.08	0.11	0.01	0.03
4/04/2024	0.93	0.08	0.11	0.06	0.12	0.05	0.14	0.09	0.17	0.00	0.02	0.01	0.03	0.08	0.12	0.00	0.02
5/04/2024	0.92	0.07	0.11	0.06	0.11	0.05	0.11	0.11	0.14	0.00	0.01	0.01	0.04	0.07	0.10	0.00	0.02
6/04/2024	0.95	0.07	0.12	0.07	0.08	0.05	0.11	0.09	0.14	0.00	0.01	0.01	0.03	0.09	0.11	0.00	0.02
7/04/2024	0.96	0.07	0.11	0.06	0.11	0.06	0.10	0.09	0.15	0.00	0.01	0.01	0.02	0.08	0.11	0.01	0.04
8/04/2024	0.96	0.08	0.09	0.06	0.11	0.06	0.12	0.09	0.14	0.00	0.01	0.01	0.03	0.07	0.11	0.00	0.02
9/04/2024	0.99	0.07	0.11	0.06	0.11	0.07	0.12	0.10	0.16	0.00	0.00	0.01	0.03	0.08	0.11	0.01	0.03
10/04/2024	1.00	0.07	0.11	0.07	0.09	0.09	0.16	0.09	0.14	0.02	0.07	0.01	0.04	0.08	0.11	0.01	0.04
11/04/2024	1.02	0.06	0.12	0.05	0.10	0.12	0.19	0.04	0.10	0.04	0.18	0.01	0.04	0.06	0.11	0.03	0.07
12/04/2024	1.03	0.07	0.10	0.05	0.11	0.11	0.23	0.05	0.09	0.06	0.09	0.02	0.03	0.07	0.11	0.02	0.07
13/04/2024	1.03	0.09	0.13	0.06	0.11	0.06	0.12	0.05	0.07	0.05	0.08	0.01	0.04	0.08	0.12	0.03	0.06
14/04/2024	1.00	0.08	0.12	0.07	0.09	0.06	0.15	0.05	0.09	0.06	0.09	0.01	0.04	0.10	0.11	0.03	0.05
15/04/2024	0.95	0.09	0.13	0.07	0.11	0.07	0.14	0.05	0.09	0.06	0.08	0.01	0.03	0.08	0.12	0.04	0.06
16/04/2024	1.26	0.09	0.12	0.07	0.11	0.10	5.00	0.05	0.10	0.06	0.08	0.01	0.03	0.08	0.12	0.04	0.06
17/04/2024	1.04	0.12	0.14	0.07	0.12	0.05	0.09	0.06	0.13	0.06	0.09	0.02	0.04	0.08	0.11	0.04	0.07
18/04/2024	1.03	0.13	0.16	0.10	0.12	0.04	0.09	0.05	0.09	0.07	0.10	0.02	0.05	0.10	0.12	0.04	0.07
19/04/2024	1.08	0.14	0.18	0.09	0.14	0.05	0.12	0.06	0.09	0.07	0.10	0.02	0.05	0.09	0.12	0.05	0.07
20/04/2024	1.11	0.14	0.21	0.11	0.16	0.05	0.09	0.06	0.10	0.08	0.09	0.03	0.04	0.09	0.13	0.05	0.08
21/04/2024	1.10	0.12	0.25	0.12	0.18	0.05	0.10	0.06	0.08	0.08	0.12	0.03	0.06	0.10	0.13	0.06	0.10
22/04/2024	1.20	0.06	0.09	0.09	0.17	0.05	0.20	0.09	0.13	0.05	0.11	0.03	0.07	0.08	0.13	0.06	0.12
23/04/2024	1.10	0.06	0.09	0.03	0.06	0.06	0.14	0.10	0.15	0.02	0.04	0.03	0.06	0.02	0.04	0.05	0.07
24/04/2024	1.20	0.05	0.08	0.03	0.06	0.06	0.22	0.09	0.14	0.01	0.03	0.04	0.05	0.02	0.04	0.05	0.08
25/04/2024	1.14	0.06	0.07	0.03	0.06	0.06	0.13	0.09	0.14	0.01	0.03	0.03	0.06	0.01	0.04	0.05	0.08
26/04/2024	1.11	0.05	0.09	0.03	0.05	0.06	0.19	0.11	0.15	0.00	0.04	0.03	0.06	0.01	0.03	0.05	0.09
27/04/2024	1.06	0.05	0.08	0.03	0.07	0.04	0.14	0.10	0.15	0.00	0.02	0.03	0.08	0.01	0.03	0.06	0.08
28/04/2024	1.07	0.06	0.09	0.03	0.06	0.03	0.19	0.10	0.15	0.00	0.03	0.04	0.06	0.01	0.04	0.06	0.09
29/04/2024	1.09	0.08	0.10	0.03	0.06	0.03	0.11	0.10	0.15	0.00	0.03	0.03	0.07	0.01	0.03	0.06	0.10
30/04/2024	1.08	0.08	0.11	0.03	0.07	0.02	0.08	0.12	0.15	0.00	0.02	0.04	0.07	0.01	0.03	0.07	0.10

Total Number of Measurements Taken, A:	13563	14716	16222	15578	11723	16128	14849	16316
Turbidity Standard for Monitoring Location (NTU):	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of Measurements Meeting Standard, B:	13563	14716	16217	15578	11723	16128	14849	16316
Compliance with Turbidity Standard, C = B/A X 100%:	100.000%	100.000%	99.969%	100.000%	100.000%	100.000%	100.000%	100.000%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2024\04-April

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew

WATER TREATMENT PLANT TURBIDITY GRAB MONITORING REPORT																		
Water System Code: 252.00	Turbidity (NTU)																	
Licence No. PWS-09-412-02 AA																		
Date	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8	
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser
01-Apr-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
02-Apr-2024	0.56	0.92	0.10	0.09	0.11	0.08	0.12	0.06	0.12	0.12	0.11	0.02	0.07	0.02	0.08	0.08	0.08	<0.02
03-Apr-2024	0.70	0.91	0.10	0.09	0.11	0.09	0.13	0.06	0.09	0.09	0.13	0.03	0.07	0.02	0.10	0.10	0.08	<0.02
04-Apr-2024	0.67	0.90	0.10	0.08	0.10	0.07	0.14	0.08	0.09	0.10	0.10	<0.02	0.08	0.02	0.07	0.08	0.09	<0.02
05-Apr-2024	0.69	0.91	0.12	0.09	0.10	0.07	0.11	0.05	0.10	0.11	0.11	0.02	0.10	0.04	0.09	0.08	0.08	<0.02
06-Apr-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
07-Apr-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
08-Apr-2024	0.66	0.94	0.09	0.08	0.09	0.07	0.11	0.07	0.09	0.10	0.09	<0.02	0.08	0.02	0.08	0.07	0.09	<0.02
09-Apr-2024	0.64	0.96	0.12	0.08	0.10	0.06	0.11	0.08	0.10	0.10	0.15	<0.02	0.11	0.03	0.09	0.08	0.10	<0.02
10-Apr-2024	0.68	1.00	0.11	0.10	0.09	0.07	0.11	0.10	0.12	0.13	0.11	<0.02	0.07	0.02	0.08	0.08	0.08	<0.02
11-Apr-2024	0.64	0.98	0.09	0.09	0.12	0.09	0.11	0.12	0.10	0.05	0.12	0.06	0.09	0.02	0.12	0.10	0.10	0.03
12-Apr-2024	0.66	0.96	0.09	0.09	0.12	0.10	0.15	0.18	0.10	0.05	0.11	0.07	0.09	0.02	0.08	0.08	0.09	0.03
13-Apr-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
14-Apr-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
15-Apr-2024	0.68	0.93	0.09	0.11	0.10	0.09	0.11	0.07	0.09	0.05	0.13	0.07	0.08	0.02	0.10	0.11	0.08	0.03
16-Apr-2024	1.12	1.21	0.09	0.11	0.09	0.08	0.12	0.08	0.09	0.06	0.12	0.07	0.08	0.02	0.08	0.08	0.10	0.05
17-Apr-2024	0.72	1.00	0.09	0.13	0.08	0.08	0.10	0.05	0.09	0.07	0.12	0.08	0.08	0.03	0.08	0.09	0.08	0.03
18-Apr-2024	0.76	0.98	0.11	0.16	0.09	0.10	0.10	0.05	0.10	0.07	0.08	0.07	0.07	0.02	0.08	0.09	0.08	0.04
19-Apr-2024	0.78	1.05	0.10	0.15	0.11	0.12	0.11	0.05	0.09	0.06	0.09	0.08	0.08	0.03	0.11	0.11	0.09	0.05
20-Apr-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
21-Apr-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
22-Apr-2024	0.69	1.26	0.10	0.07	0.10	0.17	0.11	0.05	0.10	0.08	0.14	0.06	0.09	0.04	0.10	0.11	0.10	0.06
23-Apr-2024	0.65	1.11	0.08	0.06	0.09	0.03	0.10	0.06	0.10	0.13	0.09	0.02	0.08	0.04	0.09	<0.02	0.10	0.05
24-Apr-2024	0.71	1.22	0.09	0.07	0.11	0.06	0.11	0.07	0.09	0.10	0.08	0.03	0.09	0.04	0.08	<0.02	0.10	0.06
25-Apr-2024	0.69	1.21	0.09	0.07	0.09	0.03	0.11	0.07	0.09	0.11	0.08	0.02	0.09	0.05	0.08	<0.02	0.08	0.05
26-Apr-2024	0.69	1.06	0.10	0.08	0.09	0.04	0.10	0.06	0.11	0.12	0.11	0.03	0.08	0.05	0.10	<0.02	0.09	0.05
27-Apr-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
28-Apr-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
29-Apr-2024	0.68	1.06	0.09	0.08	0.08	0.05	0.12	0.08	0.09	0.12	0.08	<0.02	0.09	0.05	0.08	<0.02	0.10	0.07
30-Apr-2024	0.67	1.09	0.10	0.10	0.09	0.04	0.09	0.02	0.09	0.11	0.09	0.02	0.08	0.04	0.08	<0.02	0.08	0.07
Total number of measurements taken, A:			21		21		21		21		21		21		21		21	
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30	
Number of measurements meeting standard, B:			21		21		21		21		21		21		21		21	
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%	

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: May 7, 2024



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**

Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

May 2024 Turbidity (NTU)

Date	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/05/2024	1.15	0.08	0.13	0.05	0.08	0.02	0.05	0.10	0.15	0.00	0.05	0.04	0.09	0.02	0.03	0.08	0.12
2/05/2024	1.11	0.08	0.15	0.04	0.10	0.03	0.15	0.09	0.15	0.00	0.11	0.05	0.08	0.02	0.06	0.07	0.13
3/05/2024	1.09	0.14	0.16	0.06	0.11	0.03	0.16	0.13	0.17	0.01	0.04	0.05	0.08	0.01	0.03	0.09	0.13
4/05/2024	1.14	0.16	0.20	0.09	0.11	0.04	0.14	0.12	0.19	0.01	0.09	0.05	0.09	0.02	0.04	0.09	0.14
5/05/2024	1.19	0.17	0.25	0.10	0.14	0.04	0.13	0.12	0.21	0.01	0.06	0.06	0.10	0.02	0.05	0.12	0.17
6/05/2024	1.24	0.10	0.25	0.04	0.17	0.05	0.18	0.11	0.17	0.01	0.06	0.05	0.14	0.03	0.08	0.06	0.17
7/05/2024	1.20	0.02	0.07	0.02	0.06	0.05	0.69	0.12	0.14	0.02	0.06	0.03	0.06	0.03	0.04	0.01	0.04
8/05/2024	1.17	0.02	0.04	0.02	0.05	0.06	0.13	0.10	0.15	0.02	0.10	0.03	0.06	0.03	0.06	0.01	0.02
9/05/2024	1.19	0.01	0.04	0.02	0.05	0.07	0.14	0.10	0.15	0.01	0.04	0.03	0.05	0.03	0.05	0.01	0.05
10/05/2024	1.52	0.01	0.05	0.02	0.07	0.07	0.18	0.10	0.15	0.02	0.05	0.04	0.09	0.03	0.06	0.01	0.05
11/05/2024	1.60	0.01	0.04	0.02	0.06	0.08	0.30	0.12	0.18	0.01	0.08	0.03	0.08	0.03	0.06	0.01	0.07
12/05/2024	1.19	0.01	0.04	0.03	0.06	0.10	0.24	0.10	0.17	0.01	0.05	0.04	0.07	0.04	0.05	0.02	0.05
13/05/2024	1.18	0.01	0.04	0.03	0.12	0.10	0.21	0.12	0.17	0.01	0.10	0.04	0.11	0.03	0.05	0.03	0.07
14/05/2024	1.12	0.01	0.04	0.03	0.09	0.08	1.63	0.12	0.16	0.00	0.03	0.05	0.08	0.03	0.05	0.03	0.08
15/05/2024	1.15	0.01	0.03	0.03	0.07	0.08	0.19	0.13	0.18	0.01	0.07	0.05	0.09	0.03	0.05	0.05	0.12
16/05/2024	1.09	0.00	0.09	0.01	0.11	0.06	0.16	0.07	0.17	0.01	0.98	0.04	0.10	0.02	0.10	0.02	0.45
17/05/2024	1.13	0.01	0.04	0.02	0.05	0.09	0.15	0.08	0.12	0.02	0.05	0.02	0.04	0.02	0.06	0.04	0.08
18/05/2024	1.19	0.02	0.05	0.02	0.05	0.08	0.18	0.09	0.12	0.03	0.07	0.02	0.04	0.02	0.05	0.05	0.08
19/05/2024	1.25	0.02	0.04	0.01	0.04	0.05	0.18	0.08	0.12	0.03	0.07	0.02	0.05	0.02	0.05	0.04	0.07
20/05/2024	1.19	0.02	0.04	0.01	0.04	0.01	0.06	0.08	0.12	0.03	0.05	0.02	0.04	0.02	0.04	0.03	0.07
21/05/2024	1.24	0.01	0.03	0.01	0.04	0.01	0.06	0.09	0.15	0.02	0.06	0.02	0.04	0.02	0.04	0.03	0.06
22/05/2024	1.36	0.01	0.03	0.01	0.05	0.01	0.05	0.08	0.12	0.03	0.04	0.02	0.04	0.02	0.04	0.03	0.06
23/05/2024	1.44	0.01	0.03	0.01	0.05	0.01	0.09	0.08	0.20	0.02	0.04	0.03	0.05	0.02	0.04	0.03	0.06
24/05/2024	1.26	0.01	0.03	0.01	0.03	0.01	0.05	0.08	0.12	0.01	0.06	0.03	0.06	0.02	0.04	0.03	0.06
25/05/2024	1.12	0.01	0.02	0.01	0.03	0.01	0.07	0.06	3.11	0.01	0.04	0.04	0.06	0.02	0.03	0.03	0.06
26/05/2024	1.14	0.01	0.02	0.01	0.04	0.00	0.04	0.04	0.08	0.01	0.04	0.05	0.08	0.02	0.04	0.04	0.07
27/05/2024	1.19	0.01	0.02	0.01	0.04	0.01	0.04	0.05	0.08	0.01	0.05	0.06	0.10	0.03	0.04	0.05	0.11
28/05/2024	1.32	0.01	0.04	0.01	0.12	0.01	0.05	0.04	0.09	0.01	0.08	0.08	0.13	0.04	0.08	0.07	0.09
29/05/2024	1.63	0.01	0.04	0.02	0.11	0.01	0.07	0.04	0.07	0.01	0.04	0.10	0.15	0.04	0.09	0.07	0.11
30/05/2024	1.46	0.01	0.04	0.02	0.06	0.02	0.08	0.06	0.09	0.01	0.03	0.11	0.18	0.04	0.09	0.07	0.12
31/05/2024	2.01	0.01	0.07	0.02	0.06	0.01	0.04	0.06	0.09	0.01	0.04	0.06	0.15	0.05	0.08	0.08	0.13

Total Number of Measurements Taken, A:	13879	15580	16487	16498	15238	16504	16154	17384
Turbidity Standard for Monitoring Location (NTU):	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of Measurements Meeting Standard, B:	13879	15580	16484	16497	15237	16504	16154	17382
Compliance with Turbidity Standard, C = B/A X 100%:	100.000%	100.000%	99.982%	99.994%	99.993%	100.000%	100.000%	99.988%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2024\05-May

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



Water Treatment Plant Turbidity Grab Monitoring Report May 2024

Water System Code: 252.00		Turbidity (NTU)																
Licence No. PWS-09-412-02 AA																		
Date	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8	
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser
01-May-2024	0.71	1.17	0.09	0.10	0.09	0.05	0.10	0.03	0.11	0.14	0.10	<0.02	0.09	0.05	0.11	0.02	0.10	0.08
02-May-2024	0.69	1.11	0.08	0.11	0.10	0.06	0.10	0.05	0.09	0.11	0.09	<0.02	0.09	0.06	0.14	0.05	0.10	0.09
03-May-2024	0.69	1.06	0.09	0.15	0.09	0.07	0.15	0.07	0.09	0.13	0.09	0.02	0.11	0.07	0.09	<0.02	0.09	0.09
04-May-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
05-May-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
06-May-2024	0.78	1.07	0.09	0.24	0.10	<0.02	0.11	0.05	0.09	0.14	0.09	0.03	0.10	0.09	0.10	0.02	0.12	0.14
07-May-2024	0.80	1.15	0.10	0.02	0.09	0.02	0.17	0.10	0.10	0.12	0.10	0.04	0.11	0.05	0.09	0.03	0.08	<0.02
08-May-2024	0.74	1.16	0.10	0.04	0.09	0.02	0.10	0.08	0.10	0.12	0.09	0.02	0.09	0.04	0.10	0.03	0.09	<0.02
09-May-2024	0.78	1.09	0.09	0.02	0.10	0.03	0.11	0.08	0.09	0.11	0.08	0.03	0.09	0.04	0.11	0.04	0.09	<0.02
10-May-2024	1.07	1.45	0.09	0.03	0.09	0.03	0.13	0.11	0.10	0.12	0.09	0.03	0.09	0.05	0.09	0.03	0.09	<0.02
11-May-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
12-May-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
13-May-2024	1.02	1.11	0.11	0.02	0.10	0.04	0.12	0.10	0.10	0.13	0.09	0.02	0.09	0.05	0.11	0.03	0.10	0.02
14-May-2024	1.02	1.07	0.10	0.02	0.09	0.03	0.12	0.10	0.11	0.13	0.10	0.02	0.10	0.05	0.11	0.04	0.09	0.04
15-May-2024	1.05	1.14	0.10	<0.02	0.09	0.04	0.10	0.08	0.10	0.13	0.09	<0.02	0.09	0.07	0.08	0.02	0.09	0.05
16-May-2024	0.78	1.08	0.09	<0.02	ns	ns	0.09	0.10	ns	ns	0.08	0.02	0.10	0.09	0.08	0.02	0.10	0.07
17-May-2024	0.86	1.12	0.09	0.02	0.09	0.03	0.10	0.10	0.09	0.10	0.09	0.04	0.08	0.03	0.09	0.02	0.09	0.05
18-May-2024	ns	ns	ns	ns	0.10	0.02	ns	ns	0.09	0.10	ns	ns	ns	ns	ns	ns	ns	ns
19-May-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
20-May-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
21-May-2024	0.69	1.16	0.09	0.02	0.09	0.02	0.09	<0.02	0.09	0.10	0.09	0.03	0.09	0.02	0.09	0.02	0.09	0.03
22-May-2024	0.66	1.32	0.09	0.03	0.08	0.02	0.10	<0.02	0.09	0.10	0.08	0.03	0.09	0.04	0.09	<0.02	0.09	0.03
23-May-2024	0.62	1.41	0.08	<0.02	0.08	<0.02	0.10	0.03	0.09	0.09	0.08	0.03	0.08	0.03	0.08	0.02	0.09	0.03
24-May-2024	0.66	1.49	0.08	<0.02	0.09	0.02	0.09	<0.02	0.09	0.10	0.08	0.03	0.08	0.03	0.08	<0.02	0.09	0.03
25-May-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
26-May-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
27-May-2024	1.00	1.14	0.09	0.02	0.09	0.02	0.10	0.03	0.08	0.05	0.07	<0.02	0.08	0.06	0.08	0.03	0.08	0.04
28-May-2024	1.03	1.20	0.09	<0.02	0.09	0.02	0.10	0.02	0.08	0.05	0.08	0.03	0.08	0.09	0.08	0.02	0.08	0.06
29-May-2024	1.02	1.54	0.10	0.02	0.13	0.04	0.10	<0.02	0.09	0.06	0.09	0.02	0.13	0.14	0.10	0.03	0.11	0.08
30-May-2024	1.09	1.87	0.12	0.03	0.12	0.05	0.10	<0.02	0.10	0.06	0.09	0.02	0.09	0.12	0.10	0.04	0.14	0.11
31-May-2024	1.06	1.80	0.09	<0.02	0.09	0.02	0.12	0.03	0.12	0.08	0.10	0.02	0.10	0.04	0.11	0.04	0.11	0.07
Total number of measurements taken, A:			22		22		22		22		22		22		22		22	
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30	
Number of measurements meeting standard, B:			22		22		22		22		22		22		22		22	
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%	

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

The raw water analyzer is cleaned daily during warm water months because it is susceptible to frequent fouling

Report Date: June 6, 2024



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**

Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

June 2024 Turbidity (NTU)

Date	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/06/2024	2.63	0.02	0.06	0.03	0.08	0.03	0.09	0.06	0.11	0.01	0.05	0.03	0.07	0.05	0.09	0.07	0.13
2/06/2024	3.17	0.02	0.07	0.04	0.08	0.04	0.10	0.07	0.12	0.02	0.06	0.03	0.07	0.06	0.12	0.09	0.13
3/06/2024	3.71	0.01	0.06	0.05	0.08	0.03	0.10	0.06	0.12	0.03	0.04	0.03	0.07	0.07	0.13	0.08	0.13
4/06/2024	2.87	0.02	0.05	0.05	0.19	0.04	0.14	0.07	0.14	0.04	0.07	0.03	0.10	0.08	0.10	0.08	0.14
5/06/2024	2.12	0.01	0.06	0.06	0.12	0.05	0.12	0.09	0.13	0.05	0.09	0.03	0.05	0.09	0.15	0.08	0.12
6/06/2024	3.16	0.01	0.05	0.03	0.09	0.04	0.11	0.04	0.12	0.02	0.07	0.01	0.04	0.02	0.10	0.03	0.11
7/06/2024	2.72	0.02	0.07	0.02	0.04	0.05	0.10	0.04	0.08	0.01	0.03	0.00	0.02	0.01	0.03	0.00	0.05
8/06/2024	2.40	0.03	0.05	0.03	0.07	0.05	0.12	0.05	0.10	0.02	0.05	0.01	0.30	0.01	0.03	0.00	0.02
9/06/2024	1.83	0.03	0.06	0.03	0.07	0.06	0.14	0.05	0.10	0.02	0.05	0.01	0.05	0.01	0.02	0.01	0.04
10/06/2024	1.72	0.04	0.08	0.04	0.08	0.06	0.17	0.06	0.10	0.02	0.05	0.01	0.05	0.01	0.04	0.01	0.03
11/06/2024	1.85	0.04	0.08	0.04	0.08	0.07	0.13	0.05	0.10	0.04	0.08	0.01	0.04	0.02	0.05	0.00	0.03
12/06/2024	2.18	0.04	0.08	0.04	0.06	0.07	0.23	0.05	0.09	0.04	0.08	0.02	0.05	0.03	0.07	0.01	0.03
13/06/2024	2.06	0.04	0.09	0.05	0.08	0.08	0.20	0.05	0.11	0.05	0.08	0.01	0.04	0.04	0.08	0.02	0.06
14/06/2024	1.31	0.05	0.09	0.05	0.10	0.09	0.18	0.05	0.10	0.04	0.09	0.01	0.04	0.06	0.07	0.01	0.05
15/06/2024	1.26	0.04	0.09	0.05	0.10	0.11	0.14	0.07	0.10	0.04	0.07	0.01	0.05	0.06	0.10	0.01	0.05
16/06/2024	1.33	0.04	0.09	0.06	0.11	0.12	0.26	0.07	0.31	0.04	0.08	0.01	0.04	0.07	0.12	0.01	0.05
17/06/2024	1.36	0.05	0.09	0.07	0.09	0.07	0.12	0.06	0.11	0.05	0.11	0.01	0.04	0.08	0.13	0.01	0.04
18/06/2024	1.37	0.06	0.08	0.08	0.13	0.06	0.14	0.06	0.12	0.08	0.11	0.01	0.05	0.09	0.15	0.02	0.06
19/06/2024	1.33	0.07	0.13	0.08	0.14	0.07	0.15	0.09	0.12	0.08	0.15	0.02	0.08	0.12	0.14	0.02	0.06
20/06/2024	1.36	0.07	0.12	0.09	0.14	0.10	0.14	0.09	0.15	0.09	0.13	0.02	0.04	0.11	0.17	0.02	0.10
21/06/2024	1.25	0.07	0.58	0.10	0.12	0.09	0.16	0.11	0.18	0.09	0.15	0.02	0.06	0.12	0.19	0.03	0.08
22/06/2024	1.09	0.06	0.09	0.10	0.26	0.09	0.16	0.07	0.14	0.11	0.14	0.02	0.06	0.13	0.22	0.03	0.07
23/06/2024	1.10	0.06	0.13	0.08	0.14	0.06	0.15	0.17	0.23	0.10	0.18	0.02	0.05	0.14	0.19	0.02	0.07
24/06/2024	1.13	0.05	0.12	0.09	0.16	0.10	0.30	0.05	0.25	0.10	0.18	0.01	0.04	0.09	0.24	0.02	0.06
25/06/2024	1.08	0.04	0.10	0.08	0.16	0.05	0.17	0.04	0.09	0.07	0.18	0.02	0.10	0.03	0.08	0.02	0.05
26/06/2024	1.10	0.02	0.05	0.07	0.11	0.04	0.12	0.04	0.11	0.04	0.07	0.02	0.06	0.04	0.08	0.01	0.06
27/06/2024	1.11	0.03	0.12	0.06	0.13	0.04	0.12	0.06	0.10	0.03	0.10	0.02	0.07	0.05	0.07	0.01	0.05
28/06/2024	1.12	0.02	0.07	0.06	0.13	0.05	0.10	0.08	0.15	0.04	0.21	0.03	0.12	0.10	0.13	0.01	0.10
29/06/2024	1.15	0.02	0.07	0.06	0.14	0.05	0.33	0.10	0.17	0.05	0.09	0.06	0.10	0.11	0.18	0.01	0.03
30/06/2024	1.16	0.02	0.08	0.08	0.12	0.06	0.13	0.13	0.24	0.06	0.10	0.06	0.11	0.14	0.22	0.01	0.06

Total Number of Measurements Taken, A:	13542	13503	13710	14422	14696	14500	14080	14700
Turbidity Standard for Monitoring Location (NTU):	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of Measurements Meeting Standard, B:	13541	13503	13709	14421	14696	14500	14080	14700
Compliance with Turbidity Standard, C = B/A X 100%:	99.993%	100.000%	99.993%	99.993%	100.000%	100.000%	100.000%	100.000%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2024\06-June

Submitted By (Print): H.Buhler

Signature: Original Signed by H.Buhler

Water Treatment Plant Turbidity Grab Monitoring Report

June 2024

Water System Code: 252.00		Turbidity (NTU)																	
Licence No. PWS-09-412-02 AA																			
Date	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8		
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	
01-Jun-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
02-Jun-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
03-Jun-2024	1.26	3.53	0.11	0.02	0.12	0.06	0.12	0.08	0.10	0.07	0.10	0.03	0.15	0.06	0.13	0.06	0.12	0.10	
04-Jun-2024	1.05	4.38	0.11	0.02	0.14	0.09	0.12	0.03	0.11	0.08	0.11	0.05	0.10	0.03	0.10	0.08	0.13	0.11	
05-Jun-2024	1.18	1.93	0.13	0.04	0.09	0.07	0.13	0.06	0.11	0.10	0.11	0.07	0.10	0.04	0.11	0.10	0.10	0.08	
06-Jun-2024	1.27	1.61	0.08	0.02	0.08	0.07	0.11	0.06	0.10	0.10	0.08	0.06	0.09	0.04	0.11	<0.02	0.09	0.08	
07-Jun-2024	1.24	2.64	0.10	0.02	0.11	<0.02	0.17	0.08	0.10	0.04	0.10	<0.02	0.13	<0.02	0.10	<0.02	0.12	<0.02	
08-Jun-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
09-Jun-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
10-Jun-2024	1.17	1.96	0.15	0.06	0.10	0.03	0.15	0.07	0.13	0.06	0.12	0.04	0.10	0.02	0.10	<0.02	0.09	<0.02	
11-Jun-2024	1.05	1.92	0.15	0.07	0.11	0.05	0.14	0.08	0.12	0.07	0.09	0.05	0.10	0.02	0.13	0.04	0.10	<0.02	
12-Jun-2024	1.08	2.08	0.11	0.04	0.11	0.05	0.18	0.12	0.14	0.08	0.10	0.06	0.12	0.03	0.11	0.02	0.11	<0.02	
13-Jun-2024	1.10	2.57	0.11	0.05	0.11	0.06	0.11	0.07	0.10	0.05	0.09	0.06	0.12	0.03	0.10	0.03	0.13	0.04	
14-Jun-2024	1.02	1.26	0.12	0.06	0.14	0.08	0.12	0.09	0.11	0.06	0.11	0.08	0.09	<0.02	0.11	0.05	0.14	0.05	
15-Jun-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
16-Jun-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
17-Jun-2024	1.01	1.14	0.11	0.05	0.14	0.08	0.20	0.10	0.15	0.09	0.13	0.07	0.11	0.02	0.12	0.08	0.12	0.02	
18-Jun-2024	0.92	1.12	0.12	0.08	0.14	0.10	0.15	0.06	0.15	0.07	0.10	0.09	0.18	0.08	0.10	0.09	0.15	0.05	
19-Jun-2024	1.02	1.27	0.14	0.08	0.15	0.13	0.16	0.08	0.12	0.09	0.13	0.14	0.09	0.02	0.11	0.11	0.09	0.02	
20-Jun-2024	1.02	1.31	0.16	0.10	0.12	0.11	0.20	0.10	0.14	0.12	0.09	0.10	0.11	0.03	0.15	0.15	0.11	0.03	
21-Jun-2024	1.00	1.12	0.12	0.07	0.13	0.11	0.28	0.13	0.15	0.16	0.11	0.12	0.12	0.03	0.12	0.12	0.11	0.03	
22-Jun-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
23-Jun-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
24-Jun-2024	0.88	0.97	0.14	0.08	0.11	0.11	0.18	0.11	0.15	0.26	0.12	0.17	0.10	0.03	0.11	0.20	0.10	0.03	
25-Jun-2024	1.00	1.03	0.12	0.07	0.11	0.14	0.21	0.14	0.15	0.09	0.09	0.15	0.10	0.04	0.12	0.04	0.10	0.04	
26-Jun-2024	0.93	1.02	0.12	0.04	0.13	0.08	0.21	0.10	0.12	0.05	0.09	0.06	0.12	0.04	0.10	0.03	0.12	0.03	
27-Jun-2024	1.12	1.09	0.14	0.06	0.14	0.09	0.18	0.06	0.13	0.07	0.11	0.08	0.09	0.03	0.10	0.06	0.15	0.04	
28-Jun-2024	1.03	1.07	0.16	0.12	0.10	0.08	0.17	0.06	0.12	0.11	0.12	0.09	0.10	0.05	0.11	0.10	0.09	0.02	
29-Jun-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
30-Jun-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total number of measurements taken, A:			20		20		20		20		20		20		20		20		
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30		
Number of measurements meeting standard, B:			20		20		20		20		20		20		20		20		
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

The raw water analyzer is cleaned daily during warm water months because it is susceptible to frequent fouling

Report Date: July 3, 2024



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

July 2024 Turbidity (NTU)

Date	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/07/2024	1.13	0.03	0.06	0.09	0.14	0.07	0.36	0.10	0.23	0.06	0.08	0.07	0.14	0.09	0.21	0.01	0.06
2/07/2024	1.16	0.03	0.05	0.10	0.15	0.10	0.21	0.04	0.08	0.06	0.09	0.09	0.14	0.03	0.06	0.01	0.04
3/07/2024	1.28	0.02	0.07	0.11	0.16	0.10	0.20	0.06	0.11	0.06	0.10	0.10	0.17	0.05	0.06	0.01	0.04
4/07/2024	1.36	0.02	0.06	0.07	0.15	0.10	0.19	0.05	0.11	0.05	0.10	0.08	0.16	0.04	0.10	0.04	0.12
5/07/2024	1.32	0.03	0.05	0.02	0.04	0.05	0.10	0.05	0.09	0.04	0.07	0.01	0.04	0.03	0.07	0.06	0.15
6/07/2024	1.35	0.02	0.22	0.02	0.05	0.06	0.13	0.05	0.11	0.05	0.08	0.03	0.06	0.05	0.10	0.01	0.05
7/07/2024	1.44	0.02	0.07	0.02	0.05	0.09	0.18	0.08	0.12	0.04	0.09	0.04	0.08	0.08	0.10	0.02	0.04
8/07/2024	1.48	0.02	0.05	0.02	0.05	0.14	0.17	0.10	0.14	0.04	0.07	0.05	0.11	0.12	0.14	0.01	0.04
9/07/2024	1.67	0.02	0.05	0.02	0.03	0.09	0.25	0.14	0.21	0.04	0.08	0.09	0.11	0.08	0.19	0.01	0.03
10/07/2024	1.59	0.01	0.05	0.03	0.05	0.07	0.15	0.15	0.21	0.05	0.08	0.10	0.16	0.06	0.11	0.01	0.04
11/07/2024	1.92	0.02	0.06	0.03	0.06	0.09	0.20	0.18	0.20	0.04	0.08	0.13	0.19	0.07	0.13	0.01	0.04
12/07/2024	1.49	0.03	0.07	0.02	0.05	0.11	0.17	0.12	0.27	0.03	0.07	0.08	0.28	0.09	0.13	0.01	0.05
13/07/2024	1.55	0.04	0.07	0.01	0.05	0.09	0.16	0.07	0.12	0.02	0.05	0.03	0.33	0.07	0.11	0.01	0.03
14/07/2024	1.67	0.04	0.10	0.02	0.05	0.12	0.27	0.08	0.15	0.02	0.06	0.02	0.06	0.09	0.14	0.01	0.05
15/07/2024	1.65	0.05	0.08	0.04	0.07	0.13	0.25	0.09	0.15	0.03	0.06	0.02	0.31	0.11	0.17	0.01	0.04
16/07/2024	1.62	0.05	0.10	0.04	0.09	0.07	0.13	0.11	0.16	0.03	0.07	0.02	0.06	0.14	0.16	0.01	0.05
17/07/2024	1.58	0.04	0.09	0.05	0.10	0.08	0.10	0.08	0.16	0.03	0.07	0.02	0.05	0.07	0.20	0.02	0.05
18/07/2024	1.57	0.05	0.10	0.07	0.14	0.08	0.13	0.08	0.16	0.03	0.05	0.04	0.06	0.02	0.05	0.02	0.03
19/07/2024	1.46	0.04	0.09	0.10	0.15	0.06	0.16	0.07	0.10	0.02	0.06	0.02	0.08	0.01	0.05	0.02	0.05
20/07/2024	1.51	0.03	0.09	0.10	0.15	0.07	0.13	0.07	0.14	0.01	0.07	0.03	0.14	0.02	0.04	0.02	0.08
21/07/2024	1.66	0.03	0.07	0.10	0.16	0.07	0.12	0.06	0.11	0.01	0.05	0.03	0.05	0.01	0.04	0.01	0.02
22/07/2024	1.80	0.03	0.08	0.13	0.16	0.06	0.11	0.06	0.11	0.01	0.05	0.03	0.08	0.01	0.04	0.02	0.05
23/07/2024	1.66	0.05	0.06	0.14	0.19	0.07	0.21	0.06	0.24	0.02	0.07	0.04	0.10	0.01	0.04	0.03	0.05
24/07/2024	1.62	0.05	0.10	0.11	0.23	0.06	0.14	0.08	0.12	0.03	0.10	0.05	0.17	0.02	0.05	0.04	0.14
25/07/2024	1.55	0.06	0.10	0.05	0.13	0.10	0.12	0.09	0.32	0.03	0.08	0.05	0.12	0.02	0.04	0.04	0.10
26/07/2024	1.61	0.06	0.12	0.04	0.07	0.09	0.18	0.08	0.28	0.02	0.06	0.06	0.22	0.03	0.06	0.05	0.09
27/07/2024	1.68	0.05	0.09	0.05	0.08	0.09	0.16	0.08	0.15	0.02	0.04	0.05	0.12	0.02	0.05	0.05	0.10
28/07/2024	1.97	0.07	0.13	0.04	0.08	0.08	0.14	0.08	0.12	0.01	0.06	0.05	0.08	0.02	0.04	0.06	0.10
29/07/2024	2.43	0.06	0.11	0.02	0.08	0.07	0.12	0.06	0.41	0.02	0.06	0.05	0.09	0.02	0.06	0.07	0.20
30/07/2024	1.77	0.07	0.14	0.03	0.12	0.08	0.14	0.07	0.12	0.01	0.05	0.06	0.12	0.04	0.13	0.09	0.17
31/07/2024	1.75	0.07	0.13	0.03	0.06	0.08	0.15	0.06	0.12	0.00	0.03	0.05	0.12	0.05	0.08	0.11	0.14

Total Number of Measurements Taken, A:	15408	15441	14793	16204	16047	16080	15430	15345
Turbidity Standard for Monitoring Location (NTU):	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of Measurements Meeting Standard, B:	15408	15441	14792	16202	16047	16078	15430	15345
Compliance with Turbidity Standard, C = B/A X 100%:	100.000%	100.000%	99.993%	99.981%	100.000%	99.988%	100.000%	100.000%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2024\07-July

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



Water Treatment Plant Turbidity Grab Monitoring Report July 2024

Water System Code: 252.00		Turbidity (NTU)																
Licence No. PWS-09-412-02 AA																		
Date	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8	
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser
01-Jul-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
02-Jul-2024	1.01	1.05	0.11	0.03	0.12	0.13	0.19	0.09	0.10	0.05	0.09	0.06	0.09	0.10	0.09	0.02	0.11	0.03
03-Jul-2024	1.04	1.16	0.13	0.05	0.10	0.12	0.18	0.12	0.12	0.06	0.11	0.08	0.09	0.12	0.10	0.04	0.08	<0.02
04-Jul-2024	1.01	1.58	0.13	0.05	0.10	0.14	0.13	0.15	0.14	0.09	0.08	0.06	0.09	0.15	0.10	0.08	0.09	<0.02
05-Jul-2024	1.00	1.30	0.10	0.04	0.11	0.03	0.19	0.10	0.09	0.05	0.08	0.08	0.10	<0.02	0.12	0.05	0.10	0.13
06-Jul-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
07-Jul-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
08-Jul-2024	1.01	1.38	0.12	0.04	0.09	0.02	0.14	0.14	0.12	0.13	0.08	0.05	0.09	0.07	0.09	0.12	0.08	0.02
09-Jul-2024	1.12	1.66	0.10	0.03	0.10	0.02	0.19	0.21	0.09	0.13	0.08	0.05	0.09	0.09	0.10	0.06	0.09	0.02
10-Jul-2024	1.21	1.50	0.10	0.03	0.10	0.03	0.11	0.06	0.10	0.19	0.09	0.06	0.11	0.14	0.09	0.06	0.11	0.03
11-Jul-2024	1.26	1.37	0.12	0.03	0.14	0.05	0.13	0.09	0.10	0.18	0.09	0.07	0.08	0.14	0.09	0.07	0.10	0.03
12-Jul-2024	1.28	1.48	0.15	0.06	0.11	0.04	0.16	0.15	0.15	0.24	0.08	0.06	0.10	0.19	0.10	0.10	0.09	0.02
13-Jul-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
14-Jul-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
15-Jul-2024	1.26	1.46	0.13	0.06	0.14	0.05	0.15	0.15	0.11	0.09	0.09	0.04	0.09	0.03	0.10	0.11	0.11	0.03
16-Jul-2024	1.34	1.59	0.14	0.06	0.13	0.07	0.15	0.09	0.13	0.11	0.12	0.07	0.09	0.03	0.10	0.14	0.10	0.02
17-Jul-2024	1.30	1.47	0.14	0.06	0.11	0.05	0.18	0.08	0.13	0.13	0.09	0.05	0.10	0.04	0.11	0.18	0.10	0.03
18-Jul-2024	1.27	1.42	0.12	0.06	0.12	0.08	0.18	0.10	0.17	0.14	0.10	0.05	0.10	0.04	0.12	0.03	0.10	0.03
19-Jul-2024	1.22	1.50	0.13	0.06	0.14	0.12	0.17	0.09	0.12	0.08	0.09	0.04	0.13	0.06	0.09	<0.02	0.11	0.03
20-Jul-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
21-Jul-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
22-Jul-2024	1.47	1.78	0.10	0.04	0.11	0.14	0.19	0.11	0.09	0.05	0.10	0.03	0.10	0.05	0.11	0.02	0.09	0.03
23-Jul-2024	1.34	1.61	0.12	0.05	0.13	0.18	0.15	0.06	0.10	0.06	0.10	0.04	0.09	0.03	0.09	<0.02	0.13	0.06
24-Jul-2024	1.50	1.58	0.12	0.09	0.15	0.19	0.12	0.08	0.12	0.09	0.12	0.08	0.10	0.07	0.09	0.02	0.09	0.04
25-Jul-2024	1.37	1.54	0.17	0.09	0.12	0.04	0.15	0.09	0.14	0.10	0.09	0.04	0.12	0.06	0.11	0.02	0.10	0.05
26-Jul-2024	1.25	1.46	0.14	0.06	0.14	0.06	0.20	0.12	0.19	0.15	0.12	0.04	0.12	0.07	0.13	0.04	0.11	0.06
27-Jul-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
28-Jul-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
29-Jul-2024	1.32	2.23	0.15	0.10	0.11	0.03	0.15	0.09	0.13	0.08	0.12	0.02	0.10	0.06	0.13	<0.02	0.13	0.08
30-Jul-2024	1.19	3.10	0.11	0.09	0.11	0.04	0.20	0.10	0.15	0.10	0.09	0.02	0.10	0.04	0.12	0.02	0.10	0.10
31-Jul-2024	1.48	1.71	0.12	0.08	0.12	0.04	0.17	0.08	0.11	0.07	0.09	0.02	0.10	0.07	0.09	0.05	0.10	0.12
Total number of measurements taken, A:			22		22		22		22		22		22		22		22	
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30	
Number of measurements meeting standard, B:			22		22		22		22		22		22		22		22	
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%	

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

The raw water analyzer is cleaned daily during warm water months because it is susceptible to frequent fouling

Report Date: August 7, 2024



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**

Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

August 2024 Turbidity (NTU)																		
	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8		
Date	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	
1/08/2024	1.77	0.09	0.27	0.02	0.06	0.07	0.13	0.06	0.15	0.01	0.08	0.06	0.13	0.05	0.09	0.13	0.18	
2/08/2024	1.72	0.05	0.30	0.05	0.10	0.06	0.16	0.08	0.13	0.01	0.10	0.04	0.13	0.03	0.08	0.07	0.18	
3/08/2024	1.46	0.03	0.08	0.06	0.12	0.06	0.12	0.07	0.53	0.01	0.12	0.03	0.17	0.01	0.05	0.02	0.10	
4/08/2024	1.96	0.05	0.10	0.07	0.11	0.07	0.16	0.07	0.15	0.03	0.06	0.05	0.09	0.01	0.01	0.02	0.14	
5/08/2024	2.06	0.05	0.10	0.08	0.10	0.07	0.18	0.07	0.13	0.03	0.06	0.07	0.14	0.01	0.02	0.02	0.07	
6/08/2024	2.16	0.06	0.09	0.07	0.13	0.07	0.15	0.07	0.13	0.04	0.11	0.10	0.24	0.01	0.05	0.03	0.14	
7/08/2024	2.30	0.06	0.19	0.07	0.11	0.07	0.10	0.08	0.12	0.03	0.08	0.13	0.24	0.01	0.02	0.03	0.07	
8/08/2024	2.46	0.06	0.12	0.07	0.18	0.09	0.14	0.07	0.13	0.05	0.09	0.21	0.25	0.01	0.02	0.04	0.08	
9/08/2024	2.58	0.06	0.12	0.07	0.10	0.08	0.14	0.06	0.12	0.06	0.12	0.08	0.32	0.01	0.02	0.05	0.08	
10/08/2024	2.02	0.06	0.10	0.08	0.12	0.07	0.15	0.07	0.16	0.06	0.12	0.03	0.08	0.01	0.03	0.05	0.26	
11/08/2024	1.33	0.07	0.12	0.07	0.12	0.08	0.15	0.08	0.45	0.05	0.14	0.04	0.07	0.01	0.02	0.05	0.17	
12/08/2024	1.79	0.07	0.17	0.07	0.12	0.10	0.17	0.08	0.38	0.06	0.10	0.04	0.08	0.01	0.02	0.05	0.12	
13/08/2024	1.57	0.06	0.11	0.07	0.11	0.10	0.17	0.07	0.12	0.07	0.11	0.07	0.15	0.01	0.04	0.07	0.09	
14/08/2024	1.72	0.07	0.12	0.08	0.12	0.07	0.18	0.07	0.14	0.06	0.09	0.07	0.12	0.01	0.02	0.07	0.11	
15/08/2024	2.13	0.08	0.10	0.08	0.11	0.04	0.11	0.07	0.13	0.09	0.13	0.09	0.15	0.01	0.02	0.09	0.19	
16/08/2024	2.33	0.08	0.14	0.07	0.12	0.04	0.11	0.08	0.11	0.08	0.14	0.11	0.16	0.01	0.01	0.09	0.17	
17/08/2024	2.31	0.08	0.15	0.07	0.13	0.05	0.08	0.08	0.38	0.09	0.17	0.14	0.20	0.01	0.02	0.12	0.17	
18/08/2024	2.16	0.09	0.15	0.08	0.14	0.06	0.12	0.08	0.17	0.10	0.21	0.19	0.22	0.01	0.02	0.14	0.20	
19/08/2024	1.96	0.08	0.16	0.09	0.31	0.05	0.13	0.06	0.11	0.07	0.18	0.13	0.25	0.01	0.02	0.09	0.22	
20/08/2024	1.84	0.06	0.09	0.07	0.12	0.05	0.29	0.04	0.09	0.03	0.07	0.06	0.11	0.01	0.02	0.00	0.14	
21/08/2024	2.52	0.08	0.11	0.09	0.15	0.05	0.14	0.07	0.09	0.04	0.08	0.07	0.13	0.01	0.02	0.01	0.11	
22/08/2024	3.06	0.08	0.14	0.09	0.14	0.08	0.14	0.07	0.14	0.05	0.08	0.10	0.15	0.02	0.04	0.01	0.06	
23/08/2024	3.17	0.08	0.12	0.10	0.13	0.08	0.43	0.08	0.14	0.04	0.11	0.08	0.18	0.02	0.05	0.02	0.18	
24/08/2024	2.68	0.07	0.11	0.07	0.16	0.09	0.15	0.09	0.16	0.05	0.09	0.06	0.12	0.02	0.05	0.02	0.12	
25/08/2024	2.05	0.06	0.11	0.05	0.11	0.09	0.15	0.10	0.13	0.04	0.08	0.05	0.14	0.01	0.05	0.02	0.06	
26/08/2024	2.84	0.06	0.12	0.05	0.10	0.08	0.12	0.09	0.16	0.06	0.13	0.05	0.10	0.02	0.04	0.03	0.10	
27/08/2024	4.14	0.07	0.13	0.04	0.10	0.07	0.13	0.09	0.14	0.08	0.14	0.08	0.14	0.03	0.06	0.04	0.06	
28/08/2024	4.80	0.06	0.11	0.05	0.08	0.06	0.13	0.09	0.15	0.08	0.13	0.07	0.13	0.03	0.07	0.06	0.11	
29/08/2024	4.95	0.07	0.09	0.04	0.15	0.06	0.14	0.08	0.16	0.09	0.13	0.06	0.10	0.02	0.05	0.05	0.09	
30/08/2024	4.68	0.07	0.13	0.04	0.12	0.06	0.14	0.12	0.29	0.10	0.30	0.06	0.11	0.02	0.04	0.05	0.10	
31/08/2024	4.97	0.07	0.13	0.05	0.09	0.09	0.13	0.07	0.17	0.09	0.13	0.06	0.09	0.03	0.05	0.05	0.11	
Total Number of Measurements Taken, A:			15477		15552		15005		16390		16347		16370		15183		14960	
Turbidity Standard for Monitoring Location (NTU):			0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3	
Number of Measurements Meeting Standard, B:			15477		15551		15004		16386		16347		16369		15183		14960	
Compliance with Turbidity Standard, C = B/A X 100%:			100.000%		99.994%		99.993%		99.976%		100.000%		99.994%		100.000%		100.000%	

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2024\08-August

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



Water Treatment Plant Turbidity Grab Monitoring Report August 2024

Water System Code: 252.00		Turbidity (NTU)																
Licence No. PWS-09-412-02 AA																		
Date	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8	
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser
01-Aug-2024	1.54	1.86	0.12	0.10	0.13	0.03	0.13	0.08	0.11	0.07	0.09	0.02	0.09	0.06	0.09	0.05	0.13	0.17
02-Aug-2024	1.43	1.92	0.14	0.05	0.15	0.09	0.16	0.09	0.12	0.08	0.11	0.06	0.09	0.08	0.10	0.06	0.10	0.18
03-Aug-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
04-Aug-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
05-Aug-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
06-Aug-2024	1.33	2.02	0.14	0.07	0.15	0.10	0.14	0.07	0.12	0.07	0.10	0.04	0.09	0.11	0.10	<0.02	0.13	0.06
07-Aug-2024	1.33	2.19	0.15	0.08	0.16	0.10	0.15	0.08	0.13	0.07	0.11	0.05	0.10	0.15	0.11	<0.02	0.09	0.02
08-Aug-2024	1.50	2.48	0.17	0.11	0.12	0.08	0.15	0.09	0.17	0.12	0.12	0.08	0.11	0.21	0.12	<0.02	0.11	0.05
09-Aug-2024	1.64	2.42	0.12	0.08	0.12	0.08	0.17	0.10	0.11	0.07	0.09	0.07	0.10	0.06	0.11	<0.02	0.10	0.06
10-Aug-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
11-Aug-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
12-Aug-2024	1.35	1.92	0.14	0.10	0.10	0.07	0.13	0.10	0.12	0.08	0.13	0.10	0.08	0.05	0.09	<0.02	0.10	0.06
13-Aug-2024	1.43	2.03	0.11	0.08	0.12	0.08	0.16	0.13	0.16	0.11	0.11	0.10	0.12	0.08	0.12	0.02	0.11	0.09
14-Aug-2024	1.21	2.32	0.12	0.08	0.14	0.08	0.19	0.16	0.12	0.07	0.10	0.09	0.10	0.09	0.09	<0.02	0.10	0.09
15-Aug-2024	1.60	2.14	0.13	0.09	0.14	0.10	0.14	0.04	0.12	0.08	0.10	0.09	0.13	0.13	0.10	<0.02	0.12	0.13
16-Aug-2024	1.88	2.20	0.14	0.10	0.14	0.09	0.13	0.04	0.13	0.09	0.11	0.12	0.10	0.12	0.10	<0.02	0.10	0.11
17-Aug-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
18-Aug-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
19-Aug-2024	1.43	1.80	0.14	0.11	0.14	0.11	0.20	0.11	0.12	0.09	0.10	0.14	0.11	0.25	0.10	<0.02	0.11	0.21
20-Aug-2024	1.77	1.80	0.13	0.08	0.14	0.09	0.13	0.04	0.12	0.05	0.09	0.04	0.13	0.08	0.09	<0.02	0.10	<0.02
21-Aug-2024	1.43	1.89	0.15	0.09	0.18	0.12	0.14	0.05	0.14	0.07	0.14	0.09	0.11	0.08	0.12	<0.02	0.10	<0.02
22-Aug-2024	2.21	3.48	0.19	0.12	0.13	0.11	0.17	0.08	0.18	0.12	0.12	0.07	0.13	0.11	0.10	<0.02	0.10	<0.02
23-Aug-2024	2.10	2.93	0.14	0.09	0.14	0.11	0.21	0.12	0.13	0.08	0.13	0.06	0.16	0.14	0.18	0.03	0.15	0.04
24-Aug-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
25-Aug-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
26-Aug-2024	2.12	2.77	0.17	0.09	0.13	0.05	0.16	0.09	0.15	0.12	0.16	0.08	0.13	0.07	0.12	0.02	0.13	0.03
27-Aug-2024	2.77	4.16	0.18	0.10	0.14	0.06	0.18	0.09	0.18	0.13	0.13	0.10	0.15	0.08	0.13	0.03	0.14	0.05
28-Aug-2024	3.43	4.89	0.14	0.09	0.14	0.06	0.21	0.11	0.14	0.09	0.15	0.12	0.17	0.10	0.18	0.04	0.18	0.08
29-Aug-2024	3.33	5.38	0.13	0.07	0.13	0.06	0.14	0.06	0.12	0.10	0.14	0.10	0.15	0.08	0.13	<0.02	0.16	0.06
30-Aug-2024	3.00	4.73	0.14	0.09	0.15	0.06	0.15	0.07	0.13	0.12	0.15	0.12	0.14	0.07	0.16	0.02	0.14	0.06
31-Aug-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Total number of measurements taken, A:			21		21		21		21		21		21		21		21	
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30	
Number of measurements meeting standard, B:			21		21		21		21		21		21		21		21	
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%	

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

The raw water analyzer is cleaned daily during warm water months because it is susceptible to frequent fouling

Report Date: September 5, 2024



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**

Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

September 2024 Turbidity (NTU)

Date	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/09/2024	4.98	0.08	0.12	0.05	0.08	0.09	0.16	0.05	0.10	0.09	0.14	0.07	0.12	0.02	0.06	0.07	0.10
2/09/2024	5.00	0.09	0.11	0.06	0.10	0.11	0.19	0.05	0.10	0.10	0.14	0.06	0.16	0.02	0.05	0.07	0.11
3/09/2024	4.93	0.09	0.13	0.05	0.11	0.12	0.24	0.07	0.10	0.08	0.15	0.06	0.14	0.02	0.03	0.07	0.13
4/09/2024	4.04	0.06	0.13	0.05	0.10	0.08	0.19	0.07	0.11	0.06	0.10	0.04	0.09	0.03	0.05	0.05	0.15
5/09/2024	4.78	0.07	0.11	0.05	0.12	0.06	0.15	0.07	0.12	0.07	0.11	0.05	0.36	0.04	0.08	0.03	0.07
6/09/2024	3.69	0.07	0.13	0.06	0.10	0.06	0.14	0.06	0.12	0.08	0.11	0.04	0.09	0.03	0.07	0.03	0.08
7/09/2024	4.73	0.09	0.26	0.06	0.12	0.06	0.14	0.07	0.09	0.08	0.13	0.04	0.09	0.04	0.08	0.04	0.09
8/09/2024	4.94	0.07	0.12	0.05	0.11	0.06	0.09	0.07	0.11	0.06	0.11	0.04	0.08	0.04	0.08	0.04	0.08
9/09/2024	3.60	0.06	0.10	0.04	0.10	0.06	0.12	0.06	0.10	0.05	0.08	0.04	0.07	0.03	0.08	0.03	0.07
10/09/2024	3.92	0.07	0.12	0.06	0.11	0.07	0.12	0.07	0.17	0.04	0.08	0.03	0.07	0.03	0.06	0.04	0.07
11/09/2024	4.55	0.08	0.11	0.06	0.11	0.07	0.16	0.07	0.12	0.07	0.10	0.04	0.09	0.03	0.07	0.05	0.10
12/09/2024	4.97	0.07	0.11	0.05	0.11	0.06	0.14	0.07	0.25	0.04	0.09	0.04	0.08	0.03	0.06	0.05	0.21
13/09/2024	5.00	0.07	0.13	0.06	0.11	0.10	0.16	0.08	0.13	0.04	0.07	0.04	0.25	0.04	0.08	0.05	0.10
14/09/2024	4.98	0.07	0.13	0.05	0.22	0.10	0.17	0.07	0.12	0.04	0.08	0.04	0.07	0.03	0.07	0.07	0.09
15/09/2024	4.53	0.06	0.13	0.07	0.12	0.11	0.17	0.06	0.11	0.03	0.06	0.04	0.08	0.03	0.06	0.07	0.12
16/09/2024	4.68	0.08	0.10	0.06	0.20	0.14	0.24	0.06	0.09	0.05	0.09	0.05	0.08	0.03	0.07	0.09	0.13
17/09/2024	4.79	0.07	0.11	0.06	0.14	0.17	0.26	0.07	0.11	0.04	0.08	0.04	0.07	0.07	0.05	0.10	0.15
18/09/2024	4.31	0.07	0.10	0.06	0.13	0.04	0.06	0.07	0.12	0.04	0.08	0.03	0.07	0.04	0.06	0.10	0.19
19/09/2024	4.13	0.06	0.10	0.06	0.10	0.03	0.09	0.06	0.11	0.03	0.06	0.03	0.08	0.02	0.05	0.13	0.15
20/09/2024	4.21	0.06	0.08	0.08	0.10	0.03	0.10	0.06	0.11	0.04	0.06	0.03	0.07	0.01	0.03	0.13	0.17
21/09/2024	4.91	0.08	0.11	0.08	0.22	0.03	0.10	0.06	0.09	0.05	0.08	0.03	0.07	0.01	0.02	0.13	0.21
22/09/2024	4.86	0.08	0.12	0.08	0.13	0.03	0.07	0.05	0.11	0.06	0.09	0.03	0.05	0.01	0.04	0.14	0.19
23/09/2024	5.00	0.08	0.12	0.09	0.11	0.03	0.10	0.05	0.12	0.05	0.08	0.04	0.07	0.01	0.04	0.14	0.21
24/09/2024	4.99	0.08	0.10	0.06	0.11	0.02	0.06	0.05	0.08	0.06	0.08	0.04	0.07	0.01	0.02	0.11	0.16
25/09/2024	4.98	0.08	0.12	0.06	0.10	0.02	0.04	0.06	0.07	0.04	0.10	0.03	0.06	0.01	0.03	0.11	0.17
26/09/2024	4.91	0.07	0.12	0.06	0.10	0.03	0.05	0.06	0.08	0.03	0.53	0.03	0.04	0.01	0.02	0.10	0.14
27/09/2024	5.00	0.08	0.12	0.07	0.11	0.03	0.06	0.06	0.09	0.05	0.08	0.04	0.06	0.01	0.03	0.12	0.14
28/09/2024	4.97	0.09	0.12	0.09	0.11	0.03	0.07	0.06	0.09	0.05	0.08	0.04	0.07	0.01	0.03	0.11	0.15
29/09/2024	4.39	0.09	0.15	0.07	0.11	0.02	0.06	0.06	0.08	0.04	0.09	0.04	0.07	0.01	0.03	0.10	0.22
30/09/2024	3.33	0.08	0.12	0.08	0.12	0.02	0.05	0.05	0.09	0.05	0.11	0.04	0.08	0.02	0.04	0.06	0.13

Total Number of Measurements Taken, A:	15155	15194	14540	15800	16200	15912	15200	15099
Turbidity Standard for Monitoring Location (NTU):	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of Measurements Meeting Standard, B:	15155	15194	14540	15800	16199	15911	15200	15099
Compliance with Turbidity Standard, C = B/A X 100%:	100.000%	100.000%	100.000%	100.000%	99.994%	99.994%	100.000%	100.000%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2024\09-September

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



Water Treatment Plant Turbidity Grab Monitoring Report September 2024

Water System Code: 252.00		Turbidity (NTU)																	
Licence No. PWS-09-412-02 AA																			
Date	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8		
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	
01-Sep-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
02-Sep-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
03-Sep-2024	3.38	6.30	0.17	0.11	0.16	0.07	0.18	0.14	0.15	0.07	0.16	0.13	0.15	0.07	0.15	0.02	0.13	0.09	
04-Sep-2024	2.53	3.54	0.18	0.09	0.15	0.07	0.17	0.08	0.16	0.08	0.11	0.09	0.13	0.07	0.14	0.02	0.13	0.09	
05-Sep-2024	3.13	5.90	0.14	0.08	0.15	0.06	0.19	0.09	0.15	0.06	0.14	0.08	0.16	0.05	0.20	0.07	0.16	0.04	
06-Sep-2024	2.34	2.75	0.14	0.09	0.15	0.07	0.21	0.12	0.13	0.07	0.14	0.10	0.18	0.09	0.13	0.03	0.16	0.06	
07-Sep-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
08-Sep-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
09-Sep-2024	2.22	2.53	0.27	0.22	0.17	0.05	0.17	0.06	0.17	0.09	0.13	0.06	0.15	0.05	0.10	0.03	0.15	0.05	
10-Sep-2024	2.11	2.72	0.13	0.09	0.14	0.07	0.20	0.11	0.13	0.07	0.12	0.05	0.13	0.05	0.13	0.04	0.13	0.05	
11-Sep-2024	3.18	6.10	0.14	0.09	0.16	0.09	0.16	0.07	0.14	0.08	0.15	0.10	0.18	0.08	0.13	0.03	0.16	0.09	
12-Sep-2024	3.24	6.20	0.14	0.10	0.17	0.10	0.14	0.07	0.13	0.07	0.15	0.09	0.14	0.05	0.14	0.04	0.13	0.07	
13-Sep-2024	3.32	7.03	0.16	<0.02	0.13	0.07	0.17	0.10	0.17	0.11	0.11	0.04	0.13	0.05	0.14	0.04	0.14	0.07	
14-Sep-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
15-Sep-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
16-Sep-2024	2.37	3.69	0.13	0.08	0.14	0.09	0.15	0.15	0.13	0.07	0.12	0.06	0.12	0.06	0.12	0.02	0.17	0.14	
17-Sep-2024	2.65	5.45	0.14	0.09	0.12	0.07	0.15	0.19	0.13	0.08	0.14	0.07	0.12	0.05	0.14	0.02	0.13	0.11	
18-Sep-2024	2.62	4.45	0.15	0.10	0.10	0.07	0.11	0.02	0.13	0.07	0.09	0.05	0.10	0.03	0.10	<0.02	0.12	0.11	
19-Sep-2024	2.23	4.19	0.11	0.07	0.11	0.07	0.16	0.05	0.11	0.06	0.11	0.04	0.13	0.05	0.13	<0.02	0.13	0.14	
20-Sep-2024	2.36	3.86	0.11	0.08	0.12	0.09	0.13	0.03	0.12	0.07	0.12	0.06	0.15	0.08	0.12	<0.02	0.14	0.16	
21-Sep-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
22-Sep-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
23-Sep-2024	2.97	6.49	0.12	0.09	0.12	0.10	0.18	0.06	0.12	0.06	0.11	0.07	0.12	0.05	0.15	0.03	0.13	0.15	
24-Sep-2024	2.45	5.93	0.12	0.10	0.12	0.07	0.11	0.02	0.12	0.06	0.12	0.08	0.11	0.07	0.12	<0.02	0.11	0.14	
25-Sep-2024	2.09	6.05	0.11	0.10	0.12	0.09	0.13	0.03	0.11	0.06	0.11	0.08	0.10	0.04	0.10	<0.02	0.11	0.14	
26-Sep-2024	2.07	14.26	0.13	0.10	0.13	0.08	0.13	0.04	0.12	0.07	0.10	0.04	0.10	0.04	0.10	<0.02	0.11	0.13	
27-Sep-2024	2.80	2.46	0.10	0.11	0.10	0.08	0.14	0.05	0.08	0.08	0.10	0.08	0.09	0.06	0.10	<0.02	0.11	0.14	
28-Sep-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
29-Sep-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
30-Sep-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total number of measurements taken, A:			19		19		19		19		19		19		19		19		
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30		
Number of measurements meeting standard, B:			19		19		19		19		19		19		19		19		
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

The raw water analyzer is cleaned daily during warm water months because it is susceptible to frequent fouling

Report Date: October 7, 2024



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

October 2024 Turbidity (NTU)

Date	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/10/2024	3.32	0.10	0.14	0.08	0.13	0.01	0.04	0.04	0.08	0.07	0.11	0.07	0.08	0.02	0.04	0.01	0.02
2/10/2024	3.39	0.10	0.14	0.11	0.12	0.01	0.05	0.04	0.07	0.08	0.11	0.06	0.13	0.02	0.05	0.01	0.03
3/10/2024	3.87	0.15	0.17	0.12	2.05	0.01	0.05	0.05	0.06	0.10	0.13	0.07	0.12	0.03	0.06	0.02	0.04
4/10/2024	3.85	0.10	0.19	0.12	0.20	0.01	0.05	0.02	0.07	0.10	0.14	0.06	0.11	0.03	0.12	0.05	0.15
5/10/2024	3.81	0.09	0.13	0.10	0.15	0.01	0.04	0.01	0.05	0.10	0.15	0.03	0.06	0.02	0.05	0.11	0.12
6/10/2024	3.86	0.11	0.13	0.10	0.14	0.00	0.03	0.01	0.05	0.13	0.15	0.03	0.07	0.02	0.04	0.10	0.15
7/10/2024	3.54	0.09	0.13	0.13	0.13	0.00	0.02	0.00	0.03	0.12	0.55	0.03	0.07	0.02	0.05	0.10	0.14
8/10/2024	3.69	0.09	0.14	OL	OL	0.02	0.07	0.01	0.05	0.11	0.18	0.04	0.06	0.03	0.05	0.09	0.14
9/10/2024	3.73	0.08	0.13	OL	OL	0.05	0.09	0.03	0.05	0.11	0.20	0.03	0.06	0.03	0.04	0.10	0.13
10/10/2024	3.41	0.09	0.13	OL	OL	0.05	0.08	0.03	0.06	0.11	0.15	0.04	0.05	0.03	0.05	0.10	0.13
11/10/2024	3.25	0.10	0.14	OL	OL	0.05	0.10	0.03	0.06	0.12	0.16	0.04	0.08	0.03	0.06	0.11	0.13
12/10/2024	3.11	0.11	0.15	OL	OL	0.04	0.09	0.03	0.06	0.14	0.17	0.04	0.08	0.04	0.06	0.11	0.13
13/10/2024	3.18	0.12	0.14	OL	OL	0.05	0.10	0.03	0.05	0.14	0.21	0.04	0.08	0.04	0.07	0.10	0.16
14/10/2024	3.10	0.12	0.15	OL	OL	0.04	0.07	0.02	0.05	0.14	0.18	0.05	0.08	0.05	0.07	0.11	0.15
15/10/2024	2.85	0.12	0.16	OL	OL	0.04	0.07	0.02	0.04	0.14	0.20	0.05	0.08	0.06	0.10	0.11	0.15
16/10/2024	2.98	0.12	0.17	OL	OL	0.05	0.07	0.03	0.05	0.13	0.18	0.06	0.08	0.06	0.11	0.11	0.14
17/10/2024	2.91	0.10	0.16	OL	OL	0.05	0.08	0.03	0.06	0.12	0.19	0.06	0.09	0.08	0.09	0.11	0.14
18/10/2024	3.03	0.13	0.28	OL	OL	0.06	0.09	0.03	0.06	0.13	0.18	0.07	0.10	0.08	0.11	0.10	0.14
19/10/2024	2.80	0.13	0.16	OL	OL	0.06	0.10	0.04	0.07	0.15	0.20	0.07	0.12	0.09	0.12	0.11	0.15
20/10/2024	2.69	0.13	0.17	OL	OL	0.07	0.13	0.05	0.09	0.16	0.20	0.07	0.11	0.10	0.13	0.11	0.14
21/10/2024	2.65	0.13	0.17	OL	OL	0.08	0.13	0.06	0.11	0.13	0.19	0.07	0.12	0.10	0.14	0.12	0.14
22/10/2024	2.74	0.14	0.18	OL	OL	0.09	0.14	0.08	0.12	0.15	0.21	0.08	0.18	0.12	0.16	0.11	0.14
23/10/2024	2.89	0.14	0.19	OL	OL	0.08	0.14	0.06	0.11	0.14	0.22	0.07	0.13	0.07	0.16	0.10	0.14
24/10/2024	2.88	0.13	0.17	OL	OL	0.05	0.10	0.04	0.10	0.14	0.17	0.06	0.09	0.02	0.04	0.09	0.12
25/10/2024	2.90	0.13	0.18	OL	OL	0.05	0.11	0.04	0.08	0.11	0.17	0.06	0.10	0.02	0.05	0.09	0.12
26/10/2024	2.96	0.14	0.19	OL	OL	0.06	0.10	0.05	0.09	0.14	0.19	0.07	0.09	0.03	0.05	0.07	0.13
27/10/2024	3.02	0.13	0.19	OL	OL	0.07	0.10	0.06	0.12	0.12	0.17	0.07	0.11	0.03	0.05	0.09	0.13
28/10/2024	2.92	0.14	0.18	OL	OL	0.06	0.11	0.07	0.45	0.12	0.19	0.07	0.11	0.04	0.05	0.09	0.12
29/10/2024	2.90	0.15	0.21	OL	OL	0.07	0.14	0.09	0.14	0.13	0.18	0.09	0.12	0.04	0.06	0.10	0.13
30/10/2024	2.97	0.13	0.20	OL	OL	0.07	0.14	0.06	0.13	0.09	0.21	0.07	0.13	0.08	0.14	0.07	0.13
31/10/2024	2.89	0.11	0.19	OL	OL	0.06	0.12	0.01	0.05	0.02	0.05	0.04	1.35	0.12	0.16	0.04	0.07

Total Number of Measurements Taken, A:	16993	3278	16335	16630	17145	17229	16333	15613
Turbidity Standard for Monitoring Location (NTU):	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of Measurements Meeting Standard, B:	16993	3277	16335	16629	17144	17226	16333	15613
Compliance with Turbidity Standard, C = B/A X 100%:	100.000%	99.969%	100.000%	99.994%	99.994%	99.983%	100.000%	100.000%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2024\10-October

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



Water Treatment Plant Turbidity Grab Monitoring Report October 2024

Water System Code: 252.00		Turbidity (NTU)																
Licence No. PWS-09-412-02 AA																		
Date	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8	
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser
01-Oct-2024	1.50	2.86	0.09	0.12	0.09	0.11	0.11	<0.02	0.10	0.07	0.09	0.10	0.09	0.07	0.09	<0.02	0.08	<0.02
02-Oct-2024	1.88	1.89	0.16	0.13	0.10	0.11	0.14	<0.02	0.09	0.06	0.10	0.10	0.14	0.08	0.10	0.02	0.12	0.03
03-Oct-2024	1.85	3.50	0.10	0.15	0.10	0.15	0.11	0.02	0.10	0.04	0.09	0.12	0.09	0.09	0.08	0.03	0.18	0.12
04-Oct-2024	1.80	4.00	0.11	0.18	0.10	0.15	0.12	0.02	0.10	0.05	0.09	0.14	0.11	0.10	0.09	0.03	0.09	0.03
05-Oct-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
06-Oct-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
07-Oct-2024	2.17	1.82	0.10	0.12	o/l	o/l	0.11	<0.02	0.13	<0.02	0.13	0.16	0.09	0.05	0.09	0.02	0.10	0.13
08-Oct-2024	2.16	3.75	0.11	0.12	o/l	o/l	0.11	<0.02	0.16	<0.02	0.10	0.20	0.11	0.05	0.09	0.02	0.14	0.12
09-Oct-2024	3.37	4.90	0.11	0.13	o/l	o/l	0.12	0.05	0.10	0.03	0.11	0.14	0.14	0.04	0.11	0.02	0.18	0.13
10-Oct-2024	2.02	1.81	0.09	0.11	o/l	o/l	0.12	0.06	0.11	0.05	0.12	0.15	0.08	0.05	0.09	0.03	0.09	0.12
11-Oct-2024	1.51	1.71	0.10	0.12	o/l	o/l	0.11	0.07	ns	ns	0.09	0.16	0.09	0.05	0.09	0.03	0.09	0.12
12-Oct-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
13-Oct-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
14-Oct-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
15-Oct-2024	1.66	1.41	0.12	0.14	o/l	o/l	0.10	0.06	0.09	0.03	0.12	0.19	0.10	0.07	0.09	0.05	0.17	0.17
16-Oct-2024	1.63	1.50	0.10	0.15	o/l	o/l	0.12	0.06	0.09	0.05	0.11	0.18	0.08	0.07	0.10	0.06	0.08	0.14
17-Oct-2024	1.47	1.45	0.12	0.13	o/l	o/l	0.11	0.05	0.10	0.04	0.09	0.17	0.10	0.08	0.09	0.08	0.09	0.13
18-Oct-2024	1.28	1.54	0.09	0.15	o/l	o/l	0.11	0.08	0.11	0.05	0.09	0.17	0.10	0.09	0.11	0.09	0.10	0.14
19-Oct-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
20-Oct-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
21-Oct-2024	1.54	1.52	0.10	0.15	o/l	o/l	0.11	0.08	0.10	0.06	0.09	0.19	0.10	0.10	0.13	0.15	0.09	0.14
22-Oct-2024	1.49	1.59	0.10	0.15	o/l	o/l	0.12	0.10	0.10	0.08	0.09	0.18	0.10	0.11	0.11	0.12	0.09	0.13
23-Oct-2024	1.41	1.47	0.09	0.17	o/l	o/l	0.10	0.11	0.09	0.09	0.10	0.21	0.09	0.12	0.10	0.14	0.10	0.14
24-Oct-2024	1.45	1.39	0.10	0.14	o/l	o/l	0.10	0.06	0.10	0.05	0.09	0.16	0.10	0.10	0.08	<0.02	0.09	0.11
25-Oct-2024	1.76	1.58	0.11	0.15	o/l	o/l	0.10	0.06	0.10	0.05	0.10	0.16	0.10	0.07	0.09	0.02	0.10	0.11
26-Oct-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
27-Oct-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
28-Oct-2024	1.51	1.51	0.10	0.16	o/l	o/l	0.12	0.08	0.11	0.10	0.09	0.17	0.15	0.10	0.11	0.04	0.10	0.12
29-Oct-2024	1.50	1.44	0.11	0.17	o/l	o/l	0.12	0.08	0.10	0.10	0.10	0.17	0.09	0.11	0.09	0.03	0.10	0.11
30-Oct-2024	1.78	1.62	0.09	0.19	o/l	o/l	0.13	0.12	0.09	0.10	0.09	0.17	0.09	0.11	0.09	0.04	0.14	0.12
31-Oct-2024	1.62	1.48	0.10	0.13	o/l	o/l	0.09	0.07	0.09	<0.02	0.09	0.03	0.09	0.06	0.09	0.13	0.10	0.08
Total number of measurements taken, A:			22		4		22		21		22		22		22		22	
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30	
Number of measurements meeting standard, B:			22		4		22		21		22		22		22		22	
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%	

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: November 7, 2024



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

November 2024 Turbidity (NTU)

Date	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/11/2024	2.46	0.11	0.16	OL	OL	0.07	0.12	0.01	0.05	0.01	0.04	0.04	0.06	0.11	0.14	0.04	0.07
2/11/2024	2.27	0.12	0.16	OL	OL	0.07	0.13	0.01	0.04	0.01	0.04	0.03	0.08	0.11	0.14	0.04	0.07
3/11/2024	2.53	0.10	0.16	OL	OL	0.07	0.13	0.01	0.05	0.02	0.18	0.03	0.07	0.11	0.14	0.04	0.06
4/11/2024	2.65	0.09	0.14	OL	OL	0.07	0.12	0.01	0.05	0.01	0.04	0.03	0.07	0.11	0.14	0.04	0.07
5/11/2024	2.70	0.10	0.18	OL	OL	0.07	0.13	0.01	0.05	0.01	0.04	0.03	0.05	0.11	0.14	0.04	0.07
6/11/2024	2.63	0.10	0.14	OL	OL	0.07	0.14	0.00	0.04	0.02	0.06	0.03	0.07	0.11	0.14	0.04	0.07
7/11/2024	2.55	0.10	0.16	OL	OL	0.07	0.13	0.01	0.04	0.03	0.13	0.03	0.07	0.11	0.13	0.04	0.08
8/11/2024	2.41	0.11	0.16	OL	OL	0.08	0.12	0.01	0.04	0.03	0.06	0.04	0.06	0.11	0.14	0.05	0.07
9/11/2024	2.40	0.08	0.16	OL	OL	0.06	0.13	0.01	0.04	0.04	0.07	0.04	0.07	0.07	0.14	0.05	0.07
10/11/2024	2.28	0.05	0.09	OL	OL	0.03	0.09	0.01	0.04	0.04	0.07	0.04	0.08	0.02	0.04	0.06	0.08
11/11/2024	2.30	0.05	0.09	OL	OL	0.03	0.07	0.01	0.04	0.05	0.08	0.04	1.04	0.03	0.04	0.05	0.08
12/11/2024	2.17	0.05	0.09	OL	OL	0.03	0.07	0.01	0.03	0.06	0.08	0.04	0.07	0.03	0.05	0.05	0.08
13/11/2024	2.12	0.05	0.09	OL	OL	0.03	0.08	0.01	0.05	0.06	0.09	0.04	0.07	0.02	0.04	0.05	0.08
14/11/2024	1.98	0.05	0.09	OL	OL	0.03	0.08	0.01	0.04	0.07	0.10	0.04	0.07	0.03	0.05	0.05	0.08
15/11/2024	1.94	0.05	0.10	OL	OL	0.03	0.14	0.01	0.06	0.08	0.11	0.04	0.08	0.03	0.05	0.05	0.09
16/11/2024	1.77	0.05	0.09	OL	OL	0.04	0.09	0.02	0.05	0.09	0.12	0.04	0.07	0.03	0.05	0.06	0.08
17/11/2024	1.73	0.05	0.09	OL	OL	0.04	0.08	0.02	0.04	0.10	0.13	0.04	0.08	0.03	0.05	0.06	0.49
18/11/2024	1.77	0.05	0.10	OL	OL	0.03	0.09	0.02	0.05	0.05	0.14	0.04	0.08	0.03	0.05	0.06	0.09
19/11/2024	1.62	0.06	0.10	OL	OL	0.05	0.13	0.04	0.07	0.03	0.05	0.05	0.08	0.03	0.05	0.06	0.09
20/11/2024	1.59	0.06	0.11	OL	OL	0.06	0.11	0.06	0.10	0.03	0.06	0.05	0.09	0.03	0.05	0.07	0.10
21/11/2024	1.57	0.05	0.15	OL	OL	0.05	0.18	0.05	0.19	0.02	0.11	0.03	0.11	0.02	0.09	0.05	0.13
22/11/2024	1.52	0.07	0.13	OL	OL	0.09	0.18	0.10	0.16	0.06	0.10	0.06	0.10	0.04	0.05	0.08	0.11
23/11/2024	1.46	0.07	0.15	OL	OL	0.09	0.19	0.11	0.17	0.07	0.10	0.06	0.08	0.04	0.06	0.08	0.12
24/11/2024	1.35	0.07	0.12	OL	OL	0.07	0.14	0.13	0.19	0.07	0.10	0.05	0.08	0.03	0.06	0.08	0.11
25/11/2024	1.29	0.08	0.15	OL	OL	0.07	0.14	0.08	0.20	0.06	0.10	0.04	0.09	0.04	0.06	0.03	0.10
26/11/2024	1.26	0.10	0.15	OL	OL	0.07	0.14	0.01	0.04	0.06	0.09	0.02	0.04	0.04	0.06	0.00	0.03
27/11/2024	1.25	0.08	0.16	0.02	0.50	0.07	0.19	0.02	0.04	0.06	0.09	0.02	0.05	0.04	0.06	0.00	0.02
28/11/2024	1.20	0.10	0.18	0.03	0.11	0.03	0.13	0.00	0.03	0.06	0.11	0.02	0.05	0.03	0.06	0.01	0.03
29/11/2024	1.16	0.09	0.13	0.03	0.06	0.02	0.09	0.00	0.02	0.06	0.11	0.02	0.05	0.03	0.06	0.01	0.02
30/11/2024	1.11	0.08	0.13	0.02	0.21	0.03	0.11	0.00	0.02	0.07	0.11	0.02	0.05	0.03	0.06	0.01	0.04

Total Number of Measurements Taken, A:	15928	1386	16548	14349	16144	15924	15071	14135
Turbidity Standard for Monitoring Location (NTU):	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of Measurements Meeting Standard, B:	15928	1385	16548	14349	16144	15923	15071	14134
Compliance with Turbidity Standard, C = B/A X 100%:	100.000%	99.928%	100.000%	100.000%	100.000%	99.994%	100.000%	99.993%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2024\11-November

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew

Water Treatment Plant Turbidity Grab Monitoring Report

November 2024

Water System Code: 252.00	Turbidity (NTU)																	
Licence No. PWS-09-412-02 AA																		
Date	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8	
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser
01-Nov-2024	1.05	1.39	0.10	0.13	o/l	o/l	0.10	0.08	0.09	<0.02	0.10	0.03	0.11	0.05	0.11	0.13	0.08	0.06
02-Nov-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
03-Nov-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
04-Nov-2024	1.36	1.27	0.10	0.13	o/l	o/l	0.10	0.08	0.09	<0.02	0.10	0.11	0.08	0.04	0.09	0.11	0.08	0.06
05-Nov-2024	1.74	1.52	0.09	0.12	o/l	o/l	0.11	0.08	0.10	<0.02	0.08	0.02	0.07	0.03	0.09	0.11	0.08	0.06
06-Nov-2024	1.51	1.55	0.08	0.11	o/l	o/l	0.15	0.09	0.12	0.02	0.11	0.03	0.12	0.05	0.11	0.11	0.11	0.06
07-Nov-2024	1.48	1.50	0.10	0.12	o/l	o/l	0.09	0.09	0.09	0.03	0.07	0.03	0.20	0.22	0.09	0.11	0.08	0.06
08-Nov-2024	1.47	1.50	0.12	0.13	o/l	o/l	0.10	0.09	0.09	0.03	0.08	0.04	0.17	0.15	0.07	0.11	0.07	0.06
09-Nov-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
10-Nov-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
11-Nov-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
12-Nov-2024	1.40	1.43	0.09	0.07	o/l	o/l	0.10	0.08	0.08	<0.02	0.07	0.07	0.07	0.05	0.07	0.02	0.07	0.07
13-Nov-2024	1.39	1.34	0.09	0.07	o/l	o/l	0.09	0.04	0.09	0.02	0.08	0.07	0.08	0.05	0.10	0.03	0.08	0.07
14-Nov-2024	1.47	1.27	0.08	0.06	o/l	o/l	0.09	0.03	0.08	<0.02	0.08	0.09	0.07	0.05	0.08	0.03	0.09	0.08
15-Nov-2024	1.47	1.37	0.08	0.06	o/l	o/l	0.09	0.05	0.08	0.02	0.08	0.10	0.08	0.05	0.08	0.02	0.09	0.08
16-Nov-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
17-Nov-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
18-Nov-2024	1.20	1.18	0.07	0.06	o/l	o/l	0.08	0.06	0.08	0.03	0.08	0.04	0.08	0.06	0.08	0.03	0.08	0.06
19-Nov-2024	1.46	1.39	0.09	0.06	o/l	o/l	0.10	0.06	0.10	0.06	0.09	0.04	0.08	0.06	0.08	0.03	0.08	0.08
20-Nov-2024	1.17	1.07	0.09	0.07	o/l	o/l	0.11	0.07	0.11	0.07	0.10	0.04	0.10	0.07	0.09	0.02	0.08	0.08
21-Nov-2024	0.90	1.00	0.13	0.09	o/l	o/l	0.16	0.12	0.14	0.13	0.09	0.04	0.11	0.10	0.09	0.02	0.10	0.09
22-Nov-2024	1.23	1.59	0.12	0.10	o/l	o/l	0.16	0.11	0.11	0.10	0.09	0.08	0.09	0.08	0.08	0.03	0.09	0.10
23-Nov-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
24-Nov-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
25-Nov-2024	1.06	1.31	0.12	0.09	o/l	o/l	0.17	0.08	0.13	0.17	0.09	0.09	0.13	0.07	0.10	0.04	0.09	0.02
26-Nov-2024	0.87	0.87	0.11	0.11	o/l	o/l	0.15	0.09	0.11	0.02	0.08	0.08	0.09	0.03	0.09	0.05	0.09	0.02
27-Nov-2024	0.94	0.84	0.10	0.11	0.13	nr	0.14	0.08	0.10	<0.02	0.08	0.08	0.08	0.03	0.07	0.03	0.07	<0.02
28-Nov-2024	0.86	0.82	0.09	0.11	0.09	0.04	0.11	0.04	0.11	0.02	0.11	0.09	0.08	0.04	0.07	0.03	0.07	<0.02
29-Nov-2024	0.93	0.84	0.10	0.11	0.08	0.03	0.13	0.05	0.10	<0.02	0.09	0.09	0.09	0.04	0.07	0.03	0.08	<0.02
30-Nov-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Total number of measurements taken, A:			20		3		20		20		20		20		20		20	
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30	
Number of measurements meeting standard, B:			20		3		20		20		20		20		20		20	
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%	

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

Report Date: December 6, 2024



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

December 2024 Turbidity (NTU)

Date	Raw	Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/12/2024	1.09	0.09	0.13	0.03	0.05	0.03	0.09	0.00	0.04	0.08	0.10	0.02	0.05	0.04	0.06	0.01	0.03
2/12/2024	1.01	0.10	0.13	0.03	0.06	0.03	0.11	0.00	0.03	0.08	0.10	0.02	0.05	0.03	0.05	0.01	0.03
3/12/2024	0.96	0.06	0.13	0.02	0.08	0.04	0.23	0.02	0.09	0.04	0.13	0.01	0.05	0.02	0.05	0.00	0.03
4/12/2024	0.94	0.08	0.12	0.05	0.07	0.07	0.17	0.04	0.07	0.08	0.11	0.01	0.04	0.02	0.04	0.01	0.02
5/12/2024	0.92	0.10	0.13	0.05	0.07	0.09	0.39	0.05	0.09	0.09	0.12	0.01	0.04	0.02	0.04	0.01	0.03
6/12/2024	0.90	0.06	0.12	0.04	0.08	0.07	0.32	0.04	0.07	0.07	0.16	0.02	0.09	0.02	0.04	0.00	0.02
7/12/2024	0.88	0.09	0.12	0.04	0.07	0.07	1.46	0.04	0.07	0.03	0.43	0.01	0.04	0.02	0.04	0.00	0.01
8/12/2024	0.85	0.08	0.12	0.04	0.07	0.05	0.13	0.04	0.08	0.04	0.07	0.01	0.05	0.01	0.03	0.00	0.02
9/12/2024	0.86	0.08	0.12	0.05	0.06	0.06	0.14	0.04	0.07	0.05	0.07	0.01	0.04	0.02	0.04	0.00	0.02
10/12/2024	0.79	0.08	0.13	0.04	0.06	0.06	0.23	0.04	0.07	0.05	0.08	0.05	0.35	0.04	0.55	0.05	0.48
11/12/2024	0.81	0.09	0.15	0.04	1.00	0.06	0.11	0.04	0.08	0.07	0.08	0.01	0.04	0.01	0.24	0.00	0.02
12/12/2024	0.80	0.09	0.13	0.04	0.06	0.05	0.09	0.04	0.07	0.07	0.11	0.01	0.04	0.02	0.03	0.00	0.02
13/12/2024	0.81	0.10	0.13	0.05	0.08	0.06	0.11	0.06	0.08	0.06	0.10	0.02	0.05	0.02	0.05	0.01	0.03
14/12/2024	0.80	0.09	0.14	0.05	0.07	0.06	0.13	0.06	0.09	0.05	0.08	0.02	0.04	0.02	0.05	0.01	0.04
15/12/2024	0.79	0.08	0.12	0.05	0.08	0.07	0.10	0.06	0.09	0.05	0.09	0.02	0.05	0.02	0.05	0.01	0.02
16/12/2024	0.77	0.08	0.12	0.05	0.08	0.06	0.13	0.06	0.10	0.05	0.08	0.01	0.04	0.02	0.04	0.01	0.03
17/12/2024	0.76	0.09	0.14	0.05	0.09	0.06	0.11	0.06	0.09	0.05	0.08	0.01	0.05	0.02	0.04	0.01	0.03
18/12/2024	0.76	0.10	0.14	0.05	0.09	0.07	0.14	0.08	0.12	0.06	0.10	0.02	0.05	0.02	0.04	0.01	0.03
19/12/2024	0.72	0.11	0.14	0.05	0.10	0.07	0.14	0.07	0.12	0.06	0.10	0.02	0.04	0.02	0.04	0.01	0.04
20/12/2024	0.75	0.10	0.15	0.06	0.09	0.07	0.12	0.07	0.14	0.06	0.10	0.02	0.05	0.02	0.04	0.01	0.04
21/12/2024	0.73	0.09	0.14	0.05	0.09	0.07	0.14	0.07	0.12	0.06	1.22	0.02	0.05	0.02	0.05	0.01	0.03
22/12/2024	0.74	0.09	0.13	0.05	0.09	0.07	0.15	0.08	0.11	0.05	0.08	0.01	0.04	0.03	0.04	0.01	0.04
23/12/2024	0.74	0.10	0.13	0.05	0.09	0.07	0.14	0.09	0.14	0.05	0.08	0.02	0.08	0.02	0.05	0.01	0.04
24/12/2024	0.76	0.09	0.15	0.06	0.08	0.07	0.14	0.09	0.13	0.05	0.08	0.02	0.06	0.02	0.05	0.01	0.04
25/12/2024	0.76	0.08	0.13	0.05	0.09	0.07	0.12	0.09	0.14	0.05	0.08	0.02	0.08	0.02	0.05	0.02	0.04
26/12/2024	0.79	0.09	0.13	0.05	0.09	0.07	0.13	0.10	0.16	0.05	0.08	0.02	0.04	0.02	0.05	0.02	0.03
27/12/2024	0.80	0.09	0.14	0.05	0.09	0.07	0.14	0.10	0.15	0.06	0.08	0.01	0.07	0.02	0.04	0.02	0.05
28/12/2024	0.81	0.08	0.14	0.05	0.09	0.07	0.14	0.04	0.08	0.05	0.08	0.02	0.05	0.03	0.05	0.02	0.05
29/12/2024	0.82	0.10	0.13	0.05	0.09	0.07	0.14	0.05	0.08	0.05	0.08	0.01	0.05	0.03	0.05	0.02	0.05
30/12/2024	0.80	0.09	0.14	0.06	0.08	0.07	0.16	0.04	0.08	0.05	0.08	0.02	0.05	0.03	0.06	0.02	0.05
31/12/2024	0.78	0.09	0.13	0.06	0.09	0.08	0.12	0.04	0.08	0.05	0.08	0.02	0.05	0.03	0.05	0.03	0.04

Total Number of Measurements Taken, A:	15552	14068	16703	15080	16166	16437	15648	13742
Turbidity Standard for Monitoring Location (NTU):	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of Measurements Meeting Standard, B:	15552	14065	16697	15080	16165	16433	15646	13733
Compliance with Turbidity Standard, C = B/A X 100%:	100.000%	99.979%	99.964%	100.000%	99.994%	99.976%	99.987%	99.935%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2024\12-December

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



Water Treatment Plant Turbidity Grab Monitoring Report
December 2024

Water System Code: 252.00		Turbidity (NTU)																	
Licence No. PWS-09-412-02 AA																			
Date	Raw Water		Filter 1		Filter 2		Filter 3		Filter 4		Filter 5		Filter 6		Filter 7		Filter 8		
	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	Grab	Analyser	
01-Dec-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
02-Dec-2024	0.76	0.74	0.10	0.10	0.10	0.03	0.13	0.04	0.11	<0.02	0.10	0.10	0.10	0.03	0.10	0.03	0.12	0.03	
03-Dec-2024	0.81	0.83	0.10	0.11	0.10	0.03	0.11	0.03	0.10	<0.02	0.08	nr	0.09	0.03	0.10	0.02	0.09	<0.02	
04-Dec-2024	0.76	0.94	0.10	0.10	0.10	0.05	0.12	0.08	0.09	0.05	0.07	0.09	0.08	<0.02	0.07	<0.02	0.08	<0.02	
05-Dec-2024	1.12	0.82	0.09	0.10	0.10	0.08	0.14	0.09	0.09	0.06	0.09	0.11	0.09	0.02	0.09	<0.02	0.10	0.02	
06-Dec-2024	0.83	0.82	0.11	<0.02	0.10	0.07	0.18	0.13	0.11	0.05	0.11	0.10	0.10	0.02	0.11	0.02	0.09	0.02	
07-Dec-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
08-Dec-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
09-Dec-2024	0.61	0.78	0.08	0.10	0.07	0.05	0.11	0.07	0.09	0.06	0.07	0.05	0.07	<0.02	0.07	<0.02	0.08	<0.02	
10-Dec-2024	0.66	0.76	0.10	0.10	0.08	0.06	0.10	0.07	0.07	0.04	0.07	0.06	0.17	0.11	0.12	0.05	0.07	<0.02	
11-Dec-2024	0.69	0.77	0.08	0.10	0.10	0.07	0.11	0.07	0.08	0.05	0.07	0.08	0.06	0.02	0.06	<0.02	0.07	<0.02	
12-Dec-2024	0.74	0.76	0.08	0.11	0.21	0.20	0.10	0.06	0.08	0.05	0.07	0.09	0.06	0.04	0.06	<0.02	0.07	0.02	
13-Dec-2024	0.75	0.75	0.09	0.11	0.08	0.06	0.11	0.08	0.09	0.07	0.08	0.09	0.08	0.03	0.08	0.02	0.08	0.02	
14-Dec-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
15-Dec-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
16-Dec-2024	0.66	0.73	0.09	0.09	0.09	0.06	0.10	0.09	0.08	0.07	0.07	0.07	0.07	<0.02	0.08	0.02	0.09	0.02	
17-Dec-2024	0.65	0.73	0.10	0.10	0.09	0.05	0.14	0.09	0.11	0.07	0.09	0.07	0.09	0.02	0.09	0.02	0.10	0.02	
18-Dec-2024	0.68	0.72	0.10	0.11	0.10	0.06	0.11	0.07	0.10	0.10	0.09	0.10	0.07	0.03	0.08	0.02	0.10	0.04	
19-Dec-2024	0.68	0.70	0.11	0.11	0.09	0.06	0.12	0.07	0.11	0.08	0.10	0.09	0.07	0.02	0.08	0.02	0.07	0.02	
20-Dec-2024	0.69	0.78	0.12	0.13	0.10	0.07	0.13	0.07	0.12	0.10	0.08	0.08	0.08	0.03	0.07	<0.02	0.07	0.02	
21-Dec-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
22-Dec-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
23-Dec-2024	0.67	0.68	0.10	0.10	0.08	0.05	0.12	0.08	0.10	0.10	0.09	0.08	0.08	0.02	0.09	0.02	0.07	0.02	
24-Dec-2024	0.69	0.66	0.09	0.11	0.12	0.07	0.15	0.08	0.07	0.14	0.08	0.06	0.09	0.03	0.07	0.02	0.07	0.02	
25-Dec-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
26-Dec-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
27-Dec-2024	0.75	0.69	0.09	0.11	0.11	0.08	0.14	0.09	0.10	0.12	0.08	0.06	0.07	0.02	0.09	0.02	0.09	0.03	
28-Dec-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
29-Dec-2024	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
30-Dec-2024	0.68	0.68	0.10	0.11	0.09	0.06	0.12	0.08	0.11	0.07	0.08	0.06	0.08	0.03	0.07	0.02	0.07	0.03	
31-Dec-2024	0.73	0.66	0.15	0.02	0.10	0.08	0.13	0.07	0.09	0.06	0.08	0.06	0.09	0.04	0.08	0.02	0.08	0.04	
Total number of measurements taken, A:			20		20		20		20		20		20		20		20		
Turbidity Standard for Monitoring Location (NTU):			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30		
Number of measurements meeting standard, B:			20		20		20		20		20		20		20		20		
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%		

na: not analyzed nr: no result ns: no sample o/l: offline im: instrument maintenance

Comments:

December 3: Filter 5 analyzer reading was not recorded at the time of grab sample collection.

Report Date: January 7, 2025

2024 MONTHLY UV SUMMARY REPORTS



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-A**

WATER TREATMENT PLANT UV REPORT

Report Period: **January 2024**

Report Created: **Thursday, February 01, 2024**

Date	UVR-D100A				UVR-D200A				UVR-D300A				UVR-D400A				UVR-D500A				UVR-D600A				Total				% Volume Treated To Dose
	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	
01/01/2024	0.00	0.00	47.66	47.66	0.00	0.00	67.33	67.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02	69.00	70.03	0.00	1.02	183.99	185.02	99.45
02/01/2024	0.00	0.00	48.83	48.83	0.00	0.00	66.16	66.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17	68.88	70.05	0.00	1.17	183.87	185.04	99.37
03/01/2024	0.00	0.00	49.68	49.68	0.00	0.00	65.77	65.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17	68.83	69.99	0.00	1.17	184.28	185.45	99.37
04/01/2024	0.00	0.00	51.40	51.40	0.00	0.00	68.25	68.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	69.48	70.36	0.00	0.88	189.13	190.01	99.54
05/01/2024	0.00	0.05	52.24	52.29	0.00	0.06	69.47	69.54	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.56	0.00	0.00	0.00	0.00	0.00	0.96	65.68	66.64	0.00	1.07	187.96	189.03	99.43
06/01/2024	0.00	0.00	51.45	51.45	0.00	0.00	68.56	68.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07	68.94	70.01	0.00	1.07	188.95	190.02	99.44
07/01/2024	0.00	0.00	46.01	46.01	0.00	0.00	62.69	62.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	79.21	81.31	0.00	2.10	187.92	190.01	98.90
08/01/2024	0.00	0.00	46.02	46.02	0.00	0.00	62.91	62.91	0.00	0.22	8.12	8.35	0.00	0.00	0.00	0.00	0.00	0.04	45.41	45.46	0.00	0.85	26.39	27.24	0.00	1.12	188.85	189.97	99.41
09/01/2024	0.10	0.14	45.84	46.07	0.00	0.09	58.67	58.76	0.00	0.00	0.00	0.00	0.14	0.14	4.05	4.34	0.00	0.21	50.57	50.78	0.00	0.79	29.35	30.14	0.24	1.37	188.48	190.09	99.15
10/01/2024	0.00	0.12	61.21	61.33	0.00	0.20	76.10	76.30	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.80	49.79	50.59	0.00	1.11	187.13	188.24	99.41
11/01/2024	0.00	0.05	64.34	64.39	0.00	0.26	79.96	80.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	40.46	40.82	0.00	0.67	184.76	185.43	99.64
12/01/2024	0.00	0.00	60.99	60.99	0.00	0.00	83.08	83.08	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.00	0.00	0.00	0.00	0.00	0.31	39.68	39.99	0.00	0.31	184.63	184.94	99.83
13/01/2024	0.00	0.00	61.79	61.79	0.00	0.00	83.22	83.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	39.65	39.98	0.00	0.34	184.65	184.99	99.82
14/01/2024	0.00	0.00	61.81	61.81	0.00	0.00	83.17	83.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	39.67	40.01	0.00	0.33	184.65	184.99	99.82
15/01/2024	0.00	0.00	48.88	48.88	0.00	0.00	67.32	67.32	0.00	0.00	0.00	0.00	0.00	0.06	57.09	57.15	0.00	0.00	0.00	0.00	0.00	0.08	12.79	12.88	0.00	0.15	186.08	186.22	99.92
16/01/2024	0.00	0.00	43.73	43.73	0.00	0.00	60.81	60.81	0.00	0.00	0.00	0.00	0.00	0.00	84.90	84.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	189.44	189.44	100.00
17/01/2024	0.00	0.00	41.80	41.80	0.00	0.00	58.38	58.38	0.00	0.00	0.00	0.00	0.00	0.00	82.24	82.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	182.41	182.41	100.00
18/01/2024	0.02	0.02	41.94	41.98	0.05	0.68	56.89	57.61	0.00	0.00	0.00	0.00	0.00	0.07	82.56	82.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.76	181.38	182.21	99.55
19/01/2024	0.00	0.00	42.86	42.86	0.00	0.33	59.83	60.16	0.00	0.00	0.00	0.00	0.00	0.00	84.96	84.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	187.65	187.98	99.82
20/01/2024	0.00	0.00	42.85	42.85	0.00	0.63	59.54	60.16	0.00	0.00	0.00	0.00	0.00	0.00	84.96	84.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63	187.35	187.97	99.67
21/01/2024	0.00	0.00	42.91	42.91	0.00	0.33	59.86	60.19	0.00	0.00	0.00	0.00	0.00	0.00	84.94	84.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	187.71	188.04	99.82
22/01/2024	0.00	0.00	43.79	43.79	0.00	0.77	60.45	61.22	0.00	0.00	0.00	0.00	0.00	0.00	84.97	84.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	189.21	189.98	99.59
23/01/2024	0.00	1.38	55.78	57.16	0.00	0.13	25.07	25.20	0.00	0.18	38.10	38.28	0.00	0.71	77.17	77.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.40	196.12	198.51	98.79
24/01/2024	0.00	0.05	47.05	47.10	0.00	0.07	64.95	65.02	0.00	0.00	0.00	0.00	0.00	0.00	78.90	78.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	190.90	191.01	99.95
25/01/2024	0.00	0.00	50.02	50.02	0.00	0.00	68.63	68.63	0.00	0.00	0.00	0.00	0.00	0.00	74.66	74.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	193.32	193.32	100.00
26/01/2024	0.00	0.15	37.98	38.14	0.00	0.00	64.61	64.61	0.00	0.00	0.00	0.00	0.00	0.00	33.21	33.21	0.00	0.00	20.47	20.47	0.00	0.00	31.45	31.45	0.00	0.15	187.72	187.88	99.92
27/01/2024	0.00	0.00	0.00	0.00	0.00	0.00	85.00	85.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.39	40.39	0.00	0.00	68.85	68.85	0.00	0.00	194.24	194.24	100.00
28/01/2024	0.00	0.00	0.00	0.00	0.00	0.00	82.76	82.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.76	38.76	0.00	0.00	64.39	64.39	0.00	0.00	185.92	185.92	100.00
29/01/2024	0.00	0.00	0.00	0.00	0.00	0.00	84.61	84.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.08	40.08	0.00	0.00	67.49	67.49	0.00	0.00	192.18	192.18	100.00
30/01/2024	0.00	0.00	0.00	0.00	0.00	0.00	84.30	84.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.42	39.42	0.00	0.00	65.94	65.94	0.00	0.00	189.65	189.65	100.00
31/01/2024	0.00	0.00	0.00	0.00	0.00	0.00	84.16	84.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.39	39.39	0.00	0.00	65.47	65.47	0.00	0.00	189.02	189.02	100.00
Total [ML]:	0.12	1.96	1288.85	1290.92	0.05	3.55	2122.50	2126.09	0.00	0.40	46.23	46.63	0.14	0.98	916.07	917.20	0.00	0.25	314.50	314.75	0.00	12.24	1131.39	1143.62	0.30	19.38	5819.54	5839.22	

Water Volume [%]:

Untreated: 0.01 %
Below Dose 0.33 %
To Dose 99.66 %

Notes: 1. UV Comparative Dose: 18.1 mJ/cm²

Submitted By (Print): ___D. Merredew_____

Signature: __original signed by D. Merredew_____



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-A**

WATER TREATMENT PLANT UV REPORT

Report Period: **January 2024**

Report Created: **Thursday, February 01, 2024**

Date	Transmittance (%)				UVR_D100A			UVR_D200A			UVR_D300A			UVR_D400A			UVR_D500A			UVR_D600A		
	Branch 1		Branch 2		UV Dose [mJ/cm]²			UV Dose [mJ/cm]²			UV Dose [mJ/cm]²			UV Dose [mJ/cm]²			UV Dose [mJ/cm]²			UV Dose [mJ/cm]²		
	Avg.	Min.	Avg.	Min.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.
01/01/2024	93.6	93.1	96.3	95.1	19.8	25.3	22.0	19.7	23.2	21.9	OL	OL	OL	OL	OL	OL	OL	OL	OL	16.1	23.4	21.4
02/01/2024	93.5	92.4	97.3	95.9	19.5	24.6	22.0	19.4	23.2	21.7	OL	OL	OL	OL	OL	OL	OL	OL	OL	15.9	22.6	21.4
03/01/2024	93.5	93.0	98.4	96.7	20.3	24.4	22.0	19.2	44.1	21.7	OL	OL	OL	OL	OL	OL	OL	OL	OL	16.2	23.9	21.4
04/01/2024	93.5	92.9	98.0	93.8	20.0	24.0	21.9	18.9	23.2	21.9	OL	OL	OL	OL	OL	OL	OL	OL	OL	16.0	22.9	21.3
05/01/2024	93.4	92.5	98.3	95.0	0.0	105.6	55.0	16.3	35.2	23.7	OL	OL	OL	0.0	92.8	29.6	OL	OL	OL	0.0	68.2	21.4
06/01/2024	93.2	92.5	98.5	85.0	64.0	81.5	72.3	19.1	24.7	22.5	OL	OL	OL	OL	OL	OL	OL	OL	OL	15.8	22.2	21.4
07/01/2024	93.4	92.7	89.5	85.0	62.8	80.7	72.0	18.7	23.9	22.1	OL	OL	OL	OL	OL	OL	OL	OL	OL	15.2	22.1	21.2
08/01/2024	93.5	92.8	92.0	91.7	19.7	100.2	42.0	10.8	42.3	21.9	0.0	86.2	21.4	OL	OL	OL	6.2	21.9	21.2	0.0	34.8	21.2
09/01/2024	93.5	92.9	91.9	91.7	0.0	103.9	24.7	0.0	82.1	22.7	OL	OL	OL	0.0	89.5	21.5	0.0	30.0	21.2	15.5	79.4	21.2
10/01/2024	93.4	92.7	91.9	91.7	0.0	105.7	28.3	15.8	60.7	22.2	OL	OL	OL	0.0	91.0	39.1	OL	OL	OL	0.0	84.6	21.4
11/01/2024	93.4	92.7	91.9	91.6	14.1	99.1	26.6	10.5	69.2	23.0	OL	OL	OL	OL	OL	OL	OL	OL	OL	0.0	77.1	21.5
12/01/2024	93.4	92.9	91.8	91.6	0.0	65.7	25.7	18.5	37.9	21.9	OL	OL	OL	0.0	88.2	22.7	OL	OL	OL	17.0	24.8	21.5
13/01/2024	93.4	92.9	91.8	91.6	19.6	23.3	21.9	19.7	23.2	21.9	OL	OL	OL	OL	OL	OL	OL	OL	OL	16.7	23.6	21.5
14/01/2024	93.4	92.8	91.8	91.6	19.3	23.4	21.7	19.1	23.1	21.9	OL	OL	OL	OL	OL	OL	OL	OL	OL	16.4	29.8	21.8
15/01/2024	93.4	92.8	91.8	91.6	19.2	28.1	21.9	18.3	25.1	21.9	OL	OL	OL	16.1	90.8	21.3	OL	OL	OL	0.0	31.4	21.9
16/01/2024	93.3	92.7	91.8	91.5	19.7	23.9	22.0	18.5	23.2	21.9	OL	OL	OL	18.2	22.0	21.2	OL	OL	OL	OL	OL	OL
17/01/2024	93.3	92.7	91.9	91.7	19.3	23.6	21.9	18.8	23.2	21.9	OL	OL	OL	18.1	22.0	21.2	OL	OL	OL	OL	OL	OL
18/01/2024	93.2	92.6	92.3	91.8	0.0	82.8	23.9	0.0	22.9	21.7	OL	OL	OL	17.9	33.9	21.3	OL	OL	OL	OL	OL	OL
19/01/2024	93.1	92.6	93.5	92.1	20.6	22.7	22.0	17.2	22.9	21.8	OL	OL	OL	18.3	22.0	21.2	OL	OL	OL	OL	OL	OL
20/01/2024	93.0	92.2	96.0	93.8	19.6	22.8	22.0	17.2	22.9	21.8	OL	OL	OL	18.3	22.0	21.2	OL	OL	OL	OL	OL	OL
21/01/2024	92.5	91.6	97.1	37.3	19.3	22.6	21.9	17.5	22.9	21.7	OL	OL	OL	18.2	22.1	21.2	OL	OL	OL	OL	OL	OL
22/01/2024	91.7	90.3	96.2	93.5	19.7	22.6	21.9	16.3	22.7	20.4	OL	OL	OL	18.2	21.9	21.2	OL	OL	OL	OL	OL	OL
23/01/2024	92.3	89.6	97.5	93.4	0.0	82.2	24.8	0.0	84.2	46.7	0.0	41.7	22.4	16.8	28.5	21.6	OL	OL	OL	OL	OL	OL
24/01/2024	93.4	92.8	94.4	35.2	17.0	25.1	21.9	17.9	45.7	23.3	OL	OL	OL	18.2	29.4	21.3	OL	OL	OL	OL	OL	OL
25/01/2024	93.4	92.5	92.6	80.0	19.4	28.6	21.9	0.0	25.6	21.9	OL	OL	OL	18.1	22.0	21.3	OL	OL	OL	OL	OL	OL
26/01/2024	93.3	89.9	92.4	90.8	0.0	105.6	22.9	0.0	82.4	25.2	OL	OL	OL	0.0	59.1	21.3	0.0	106.0	63.6	0.0	106.0	38.2
27/01/2024	93.3	92.6	92.4	92.1	OL	OL	OL	19.8	23.2	21.8	OL	OL	OL	OL	OL	OL	61.1	75.6	68.0	20.3	24.2	22.5
28/01/2024	93.6	93.0	92.4	92.2	OL	OL	OL	20.0	28.2	21.8	OL	OL	OL	OL	OL	OL	54.8	73.4	63.7	20.2	23.8	22.0
29/01/2024	93.6	92.9	92.3	92.1	OL	OL	OL	20.0	28.1	21.8	OL	OL	OL	OL	OL	OL	27.0	91.6	45.5	20.5	22.6	21.9
30/01/2024	93.6	92.9	92.3	92.1	OL	OL	OL	19.9	23.0	21.8	OL	OL	OL	OL	OL	OL	25.3	33.7	29.0	20.2	23.2	21.9
31/01/2024	93.5	92.9	92.1	91.8	0.0	0.0	0.0	19.5	23.0	21.8	OL	OL	OL	OL	OL	OL	23.7	29.5	26.6	20.4	22.6	21.9

Notes: 1. UV Comparative Dose: 18.1 mJ/cm²
2. OL - Off Line

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: 252.00
Licence Number: PWS-09-412-02-A

WATER TREATMENT PLANT UV REPORT

Report Period: February 2024

Report Created: Friday, March 01, 2024

Date	UVR-D100A Water Volume [ML]				UVR-D200A Water Volume [ML]				UVR-D300A Water Volume [ML]				UVR-D400A Water Volume [ML]				UVR-D500A Water Volume [ML]				UVR-D600A Water Volume [ML]				Total Water Volume [ML]				% Volume Treated To Dose
	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	
01/02/2024	0.00	0.00	0.00	0.00	0.00	0.05	81.94	81.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.55	41.55	0.00	0.00	66.11	66.11	0.00	0.05	189.61	189.65	99.98
02/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	85.00	85.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	67.96	67.96	0.00	0.00	193.32	193.32	100.00
03/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	84.37	84.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.43	39.43	0.00	0.00	65.80	65.80	0.00	0.00	189.60	189.60	100.00
04/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	84.97	84.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.71	39.71	0.00	0.00	66.30	66.30	0.00	0.00	190.99	190.99	100.00
05/02/2024	0.00	0.00	0.00	0.00	0.00	0.12	84.88	85.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.73	39.73	0.00	0.00	66.33	66.33	0.00	0.12	190.94	191.05	99.94
06/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	84.99	84.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.73	39.73	0.00	0.00	66.25	66.25	0.00	0.00	190.97	190.97	100.00
07/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	84.99	84.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.73	39.73	0.00	0.00	66.28	66.28	0.00	0.00	191.00	191.00	100.00
08/02/2024	0.00	0.00	0.00	0.00	0.00	0.11	82.01	82.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	40.21	40.23	0.00	0.07	67.08	67.15	0.00	0.20	189.30	189.50	99.89
09/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	84.93	84.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.49	40.49	0.00	0.06	68.47	68.53	0.00	0.06	193.90	193.95	99.97
10/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	83.61	83.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	64.99	64.99	0.00	0.00	187.81	187.81	100.00
11/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	82.33	82.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.97	38.97	0.00	0.00	63.99	63.99	0.00	0.00	185.29	185.29	100.00
12/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	83.06	83.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.16	39.16	0.00	0.00	64.63	64.63	0.00	0.00	186.84	186.84	100.00
13/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	83.28	83.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.88	38.88	0.00	0.00	64.81	64.81	0.00	0.00	186.97	186.97	100.00
14/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	81.26	81.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.24	38.24	0.00	0.00	63.18	63.18	0.00	0.00	182.67	182.67	100.00
15/02/2024	0.00	0.00	0.00	0.00	0.00	0.06	74.36	74.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.80	33.80	0.00	0.00	56.48	56.48	0.00	0.06	164.64	164.70	99.96
16/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	84.87	84.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	36.83	36.86	0.00	0.00	64.95	64.95	0.00	0.03	186.65	186.67	99.99
17/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	84.93	84.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.39	36.39	0.00	0.00	64.00	64.00	0.00	0.00	185.32	185.32	100.00
18/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	84.98	84.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.94	35.94	0.00	0.00	63.07	63.07	0.00	0.00	183.98	183.98	100.00
19/02/2024	0.00	0.00	0.00	0.00	0.00	0.12	84.88	85.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.38	35.38	0.00	0.00	62.15	62.15	0.00	0.12	182.41	182.53	99.93
20/02/2024	0.00	0.00	0.00	0.00	0.00	0.59	84.86	85.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.11	35.11	0.00	0.00	61.41	61.41	0.00	0.59	181.38	181.98	99.67
21/02/2024	0.00	0.01	0.71	0.73	0.00	1.36	73.38	74.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.82	36.82	0.00	0.10	63.17	63.27	0.00	1.48	174.08	175.56	99.16
22/02/2024	0.00	0.00	43.82	43.82	0.00	0.37	35.10	35.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.17	37.17	0.00	0.11	63.78	63.89	0.00	0.48	179.87	180.35	99.73
23/02/2024	0.00	0.00	49.81	49.81	0.00	0.05	26.54	26.59	0.00	0.00	23.15	23.15	0.00	0.00	30.94	30.94	0.00	0.18	17.92	18.11	0.00	0.22	28.50	28.72	0.00	0.45	176.87	177.32	99.75
24/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	78.48	78.48	0.00	0.00	40.67	40.67	0.00	0.00	63.82	63.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	182.97	182.97	100.00
25/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	79.18	79.18	0.00	0.00	42.54	42.54	0.00	0.00	65.26	65.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	186.98	186.98	100.00
26/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	78.74	78.74	0.00	0.00	43.09	43.09	0.00	0.00	65.19	65.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	187.02	187.02	100.00
27/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	78.07	78.07	0.00	0.00	42.10	42.10	0.00	0.00	64.42	64.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	184.59	184.59	100.00
28/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	78.49	78.49	0.00	0.00	41.25	41.25	0.00	0.00	64.28	64.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	184.03	184.03	100.00
29/02/2024	0.00	0.00	0.00	0.00	0.00	0.00	78.94	78.94	0.00	0.00	40.79	40.79	0.00	0.00	64.25	64.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	183.99	183.99	100.00
Total [ML]:	0.00	0.01	94.34	94.36	0.00	2.83	2277.44	2280.27	0.00	0.00	273.60	273.60	0.00	0.00	418.16	418.16	0.00	0.23	860.76	860.98	0.00	0.54	1449.68	1450.23	0.00	3.62	5373.97	5377.59	

Water Volume [%]:

Untreated: 0.00 %
Below Dose 0.07 %
To Dose 99.93 %

Notes: 1. UV Comparative Dose: 18.1 mJ/cm²

Submitted By (Print): D. Merredew

Signature: __original signed by D. Merredew

Page 1 of 2



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-A**

WATER TREATMENT PLANT UV REPORT

Report Period: **February 2024**

Report Created: **Friday, March 01, 2024**

Date	Transmittance (%)				UVR_D100A			UVR_D200A			UVR_D300A			UVR_D400A			UVR_D500A			UVR_D600A		
	Branch 1		Branch 2		UV Dose [mJ/cm]²			UV Dose [mJ/cm]²			UV Dose [mJ/cm]²			UV Dose [mJ/cm]²			UV Dose [mJ/cm]²			UV Dose [mJ/cm]²		
	Avg.	Min.	Avg.	Min.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.
01/02/2024	93.5	92.8	92.1	91.8	OL	OL	OL	16.1	29.8	22.0	OL	OL	OL	OL	OL	OL	18.3	105.2	27.7	13.1	52.9	23.9
02/02/2024	93.4	92.4	92.1	91.9	OL	OL	OL	17.9	23.0	21.7	OL	OL	OL	OL	OL	OL	19.9	27.6	22.1	20.7	22.6	21.9
03/02/2024	93.4	92.8	92.1	92.0	OL	OL	OL	17.6	23.0	21.7	OL	OL	OL	OL	OL	OL	19.9	23.8	22.0	20.4	22.5	21.9
04/02/2024	93.5	92.7	92.2	91.9	OL	OL	OL	18.4	23.2	21.7	OL	OL	OL	OL	OL	OL	19.9	24.0	22.0	20.5	22.6	21.9
05/02/2024	93.5	92.6	92.2	92.0	OL	OL	OL	10.9	37.4	21.7	OL	OL	OL	OL	OL	OL	20.1	23.8	21.9	20.5	22.6	21.9
06/02/2024	93.4	92.7	92.2	91.9	OL	OL	OL	19.2	44.7	21.9	OL	OL	OL	OL	OL	OL	19.8	23.5	22.0	20.5	22.7	21.9
07/02/2024	93.5	91.8	92.2	91.8	OL	OL	OL	19.2	23.1	21.9	OL	OL	OL	OL	OL	OL	19.5	23.5	22.0	20.3	22.5	21.9
08/02/2024	93.4	92.4	92.2	91.4	OL	OL	OL	0.0	104.5	22.3	OL	OL	OL	OL	OL	OL	0.0	89.4	24.7	0.0	106.0	22.4
09/02/2024	93.4	92.2	92.2	91.9	OL	OL	OL	19.8	37.8	21.9	OL	OL	OL	OL	OL	OL	18.3	52.6	22.2	15.6	37.5	21.9
10/02/2024	93.5	92.8	92.2	92.0	OL	OL	OL	19.1	23.0	21.9	OL	OL	OL	OL	OL	OL	19.4	23.8	22.0	20.6	22.6	21.9
11/02/2024	93.5	92.7	92.3	92.1	OL	OL	OL	19.2	23.0	21.9	OL	OL	OL	OL	OL	OL	19.3	23.7	22.0	19.3	34.5	21.9
12/02/2024	93.6	92.8	92.4	91.9	OL	OL	OL	19.6	23.0	21.9	OL	OL	OL	OL	OL	OL	18.8	24.0	21.9	19.1	23.0	21.9
13/02/2024	93.8	93.0	92.6	90.7	OL	OL	OL	19.2	22.9	21.9	OL	OL	OL	OL	OL	OL	19.3	23.9	21.9	18.8	23.1	21.9
14/02/2024	93.8	92.6	92.6	91.8	OL	OL	OL	19.0	23.1	22.0	OL	OL	OL	OL	OL	OL	19.3	24.1	21.9	18.9	23.2	21.9
15/02/2024	93.7	90.2	92.6	91.9	OL	OL	OL	0.0	103.7	22.5	OL	OL	OL	OL	OL	OL	0.0	94.4	22.9	0.0	105.9	22.0
16/02/2024	93.8	92.9	92.6	92.3	OL	OL	OL	19.6	22.5	21.9	OL	OL	OL	OL	OL	OL	17.5	23.5	21.9	19.1	22.9	21.9
17/02/2024	93.8	93.2	92.6	92.4	OL	OL	OL	19.7	22.5	21.8	OL	OL	OL	OL	OL	OL	19.8	23.2	21.9	18.8	22.6	21.9
18/02/2024	93.8	93.2	92.6	92.4	OL	OL	OL	19.4	22.4	21.8	OL	OL	OL	OL	OL	OL	19.2	23.5	21.9	19.0	22.9	21.9
19/02/2024	93.6	92.9	92.7	92.4	OL	OL	OL	17.7	22.4	20.8	OL	OL	OL	OL	OL	OL	19.2	23.2	21.9	19.1	22.9	21.9
20/02/2024	93.4	92.6	93.2	92.8	OL	OL	OL	16.9	21.1	19.6	OL	OL	OL	OL	OL	OL	19.6	23.4	21.9	18.8	23.0	21.8
21/02/2024	93.2	92.4	94.3	93.6	0.0	104.4	48.0	0.0	42.2	21.1	OL	OL	OL	OL	OL	OL	18.3	24.1	21.9	17.3	24.3	21.9
22/02/2024	92.8	91.8	96.4	95.2	20.4	68.1	27.3	0.0	94.0	22.1	OL	OL	OL	OL	OL	OL	18.2	25.2	22.0	17.3	24.4	22.0
23/02/2024	92.4	91.6	95.5	76.2	0.0	104.2	24.3	0.0	93.0	42.3	0.0	106.0	55.1	0.0	106.0	42.3	0.0	101.9	22.0	0.0	90.4	22.0
24/02/2024	91.9	91.0	97.3	94.8	OL	OL	OL	20.2	22.9	21.8	35.7	86.6	61.6	21.2	40.1	30.7	OL	OL	OL	OL	OL	OL
25/02/2024	91.1	90.0	93.4	90.0	OL	OL	OL	20.0	26.4	21.9	32.1	78.2	36.9	18.7	38.2	22.0	OL	OL	OL	OL	OL	OL
26/02/2024	91.3	85.3	97.1	94.4	OL	OL	OL	19.3	35.4	21.8	33.3	71.4	48.4	19.5	35.1	25.6	OL	OL	OL	OL	OL	OL
27/02/2024	91.4	88.7	95.3	54.4	OL	OL	OL	18.5	46.7	22.0	27.1	64.5	34.1	16.2	30.4	22.0	OL	OL	OL	OL	OL	OL
28/02/2024	91.1	89.5	94.6	88.6	OL	OL	OL	17.1	50.9	22.1	27.7	62.5	38.5	17.7	31.6	22.8	OL	OL	OL	OL	OL	OL
29/02/2024	92.6	86.9	92.0	61.6	OL	OL	OL	17.5	61.6	27.9	25.6	61.7	33.3	17.8	31.6	22.0	OL	OL	OL	OL	OL	OL

- Notes:**
1. UV Comparative Dose: 18.1 mJ/cm²
 2. OL - Off Line

Submitted By (Print): ___ D. Merredew

Signature: __original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **March 2024**

Report Created: **Monday, April 01, 2024**

Date	UVR-D100A				UVR-D200A				UVR-D300A				UVR-D400A				UVR-D500A				UVR-D600A				Total				% Volume Treated To Dose	
	Water Volume [ML]				Water Volume [ML]				Water Volume [ML]				Water Volume [ML]				Water Volume [ML]				Water Volume [ML]				Water Volume [ML]					
	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total	Untreated	Below	To	Total		
01/03/2024	0.00	0.00	0.00	0.00	0.00	0.00	79.84	79.84	0.00	0.00	42.22	42.22	0.00	0.00	65.50	65.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	187.57	187.57	100.00	
02/03/2024	0.00	0.00	0.00	0.00	0.00	0.00	79.65	79.65	0.00	0.00	42.70	42.70	0.00	0.00	65.62	65.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	187.97	187.97	100.00	
03/03/2024	0.00	0.00	0.00	0.00	0.00	0.00	68.44	68.44	0.00	0.00	38.10	38.10	0.00	0.00	57.17	57.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	163.71	163.71	100.00	
04/03/2024	0.00	0.00	0.00	0.00	0.00	0.00	81.32	81.32	0.00	0.00	44.21	44.21	0.00	0.00	63.74	63.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	189.26	189.26	100.00	
05/03/2024	0.00	0.00	2.29	2.29	0.00	0.06	74.91	74.96	0.00	0.00	42.47	42.47	0.00	0.00	63.78	63.78	0.00	0.13	3.98	4.11	0.00	0.07	2.79	2.87	0.00	0.26	190.23	190.49	99.86	
06/03/2024	0.00	0.00	0.00	0.00	0.00	0.23	82.07	82.30	0.00	0.00	45.15	45.15	0.00	0.00	67.94	67.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	195.15	195.39	99.88	
07/03/2024	0.00	0.00	4.00	0.00	0.00	0.00	80.25	80.25	0.00	0.00	44.33	44.33	0.00	0.00	66.41	66.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	190.99	190.99	100.00	
08/03/2024	0.00	0.00	0.00	0.00	0.00	0.00	80.28	80.28	0.00	0.00	44.25	44.25	0.00	0.00	66.47	66.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	191.00	191.00	100.00	
09/03/2024	0.00	0.00	4.00	0.00	0.00	0.00	80.26	80.26	0.00	0.00	44.25	44.25	0.00	0.00	66.48	66.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	190.98	190.98	100.00	
10/03/2024	0.00	0.00	0.00	0.00	0.00	0.00	80.36	80.36	0.00	0.00	44.25	44.25	0.00	0.00	66.51	66.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	191.12	191.12	100.00	
11/03/2024	0.00	0.00	3.00	0.00	0.00	0.00	79.74	79.74	0.00	0.00	43.67	43.67	0.00	0.00	65.95	65.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	189.37	189.37	100.00	
12/03/2024	0.00	0.00	0.00	0.00	0.00	0.00	77.71	77.71	0.00	0.00	41.51	41.51	0.00	0.00	63.82	63.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	183.04	183.04	100.00	
13/03/2024	0.00	0.00	0.00	0.00	0.00	0.00	77.80	77.80	0.00	0.00	41.33	41.33	0.00	0.00	63.79	63.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	182.92	182.92	100.00	
14/03/2024	0.00	0.00	0.00	0.00	0.00	0.00	77.55	77.55	0.00	0.00	41.61	41.61	0.00	0.00	63.84	63.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	183.01	183.01	100.00	
15/03/2024	0.00	0.00	0.00	0.00	0.00	0.00	78.11	78.11	0.00	0.00	43.00	43.00	0.00	0.00	65.08	65.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	186.20	186.20	100.00	
16/03/2024	0.00	0.00	0.00	0.00	0.00	0.00	78.71	78.71	0.00	0.00	43.12	43.12	0.00	0.00	65.19	65.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	187.02	187.02	100.00	
17/03/2024	0.00	0.00	0.00	0.00	0.00	0.00	80.70	80.70	0.00	0.00	43.94	43.94	0.00	0.00	66.85	66.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	191.49	191.49	100.00	
18/03/2024	0.00	0.00	5.30	0.00	0.00	0.00	83.34	83.34	0.00	0.00	45.30	45.30	0.00	0.00	69.48	69.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	198.12	198.12	100.00	
19/03/2024	0.00	0.00	0.00	0.00	0.00	0.05	29.65	29.70	0.00	0.00	24.21	24.21	0.00	0.00	15.01	15.01	0.00	0.00	0.00	0.00	0.00	0.09	11.26	11.35	0.00	0.13	80.13	80.26	99.83	
20/03/2024	0.00	0.00	0.60	0.60	N/A	N/A	N/A	N/A	0.00	0.00	30.64	30.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	31.25	31.25	100.00	
21/03/2024	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	N/A	
22/03/2024	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	N/A	
23/03/2024	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	N/A	
24/03/2024	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	N/A	
25/03/2024	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	N/A	
26/03/2024	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	0.00	0.00	N/A	
27/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
31/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total [ML]:	0.00	0.00	2.90	2.90	0.00	0.34	1450.67	1451.01	0.00	0.00	830.28	830.28	0.00	0.00	1188.64	1188.64	0.00	0.13	3.98	4.11	0.00	0.16	14.06	14.22	0.00	0.63	3490.52	3491.16		

Water Volume [%]:

Untreated: 0.00 %
Below Dose 0.02 %
To Dose 99.98 %

Notes: 1. UV Comparative Dose: 18.1 mJ/cm²
2. N/A - not applicable

Submitted By (Print): H. Buhler

Signature: _original signed by H. Buhler_



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: 252.00
Licence Number: PWS-09-412-02-AA

WATER TREATMENT PLANT UV REPORT

Report Period: March 2024

Report Created: Monday, April 01, 2024

Date	Transmittance (%)				UVR_D100A			UVR_D200A			UVR_D300A			UVR_D400A			UVR_D500A			UVR_D600A		
	Branch 1		Branch 2		UV Dose [mJ/cm]²			UV Dose [mJ/cm]²			UV Dose [mJ/cm]²			UV Dose [mJ/cm]²			UV Dose [mJ/cm]²			UV Dose [mJ/cm]²		
	Avg.	Min.	Avg.	Min.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.
01/03/2024	93.6	92.7	92.6	91.9	OL	OL	OL	20.0	23.1	21.8	28.2	36.0	32.4	20.8	22.9	22.0	OL	OL	OL	OL	OL	OL
02/03/2024	93.7	93.2	92.6	92.4	OL	OL	OL	19.8	23.1	21.8	27.8	36.2	31.5	20.8	23.2	22.0	OL	OL	OL	OL	OL	OL
03/03/2024	93.7	92.1	92.7	92.0	OL	OL	OL	0.0	105.7	22.9	0.0	106.0	37.3	0.0	102.5	24.6	OL	OL	OL	OL	OL	OL
04/03/2024	93.7	93.2	92.7	92.4	OL	OL	OL	16.0	50.6	24.3	28.0	65.4	32.1	20.9	30.7	22.2	OL	OL	OL	OL	OL	OL
05/03/2024	93.6	92.9	92.7	92.4	0.0	105.8	71.2	0.0	76.2	22.6	0.0	104.7	37.5	0.0	67.1	36.8	0.0	84.6	22.5	0.0	97.7	22.3
06/03/2024	93.6	93.0	92.9	92.6	OL	OL	OL	12.2	47.0	22.3	27.9	34.9	31.2	20.9	71.3	38.2	OL	OL	OL	OL	OL	OL
07/03/2024	93.7	93.1	92.8	92.5	OL	OL	OL	21.1	23.8	22.6	26.9	33.9	29.5	20.8	22.9	22.0	OL	OL	OL	OL	OL	OL
08/03/2024	93.6	93.0	92.8	92.5	OL	OL	OL	20.3	42.0	22.0	25.7	31.2	28.1	20.5	22.8	22.0	0.0	0.0	0.0	0.0	0.0	0.0
09/03/2024	93.7	93.1	92.8	92.5	0.0	0.0	0.0	20.8	23.2	22.0	24.3	34.2	26.9	19.9	22.7	21.9	0.0	0.0	0.0	0.0	0.0	0.0
10/03/2024	93.7	93.1	93.3	92.7	0.0	0.0	0.0	20.7	23.2	22.0	23.9	29.7	26.5	20.7	23.4	21.9	0.0	0.0	0.0	0.0	0.0	0.0
11/03/2024	93.9	93.3	93.7	93.5	0.0	0.0	0.0	20.7	23.0	22.0	23.9	29.7	26.7	20.6	22.8	22.0	0.0	0.0	0.0	0.0	0.0	0.0
12/03/2024	93.7	93.1	93.8	93.6	0.0	0.0	0.0	20.8	23.2	22.0	24.1	34.3	26.6	20.7	22.9	22.0	0.0	0.0	0.0	0.0	0.0	0.0
13/03/2024	93.6	93.1	93.8	92.8	0.0	0.0	0.0	20.7	23.3	22.0	22.8	32.9	25.2	20.2	22.9	22.0	0.0	0.0	0.0	0.0	0.0	0.0
14/03/2024	93.6	93.0	93.8	93.5	OL	OL	OL	20.7	23.3	22.0	20.8	30.9	23.5	20.5	22.7	22.0	OL	OL	OL	OL	OL	OL
15/03/2024	93.6	92.7	93.8	93.5	OL	OL	OL	20.7	23.3	22.0	20.1	24.7	22.3	19.7	40.3	22.0	OL	OL	OL	OL	OL	OL
16/03/2024	93.5	93.0	93.7	93.5	OL	OL	OL	20.6	23.3	22.0	20.1	29.6	22.0	20.3	22.9	21.9	0.0	0.0	0.0	OL	OL	OL
17/03/2024	93.6	92.9	93.7	93.4	OL	OL	OL	20.6	23.2	22.0	19.6	32.2	22.0	19.3	38.0	21.9	0.0	0.0	0.0	OL	OL	OL
18/03/2024	93.6	93.0	94.0	93.5	OL	OL	OL	20.6	23.3	22.0	19.6	29.4	22.0	19.4	39.7	21.9	0.0	0.0	0.0	OL	OL	OL
19/03/2024	93.6	79.4	93.2	78.6	0.0	0.0	0.0	0.0	71.5	22.0	0.0	105.3	30.2	0.0	64.0	22.1	0.0	0.0	0.0	0.0	74.4	22.0
20/03/2024	92.1	0.0	92.4	0.0	0.0	104.8	64.5	N/A	N/A	N/A	0.0	104.7	25.7	OL	OL	OL	OL	OL	OL	N/A	N/A	N/A
21/03/2024	92.0	91.3	92.3	92.0	OL	OL	OL	N/A	N/A	N/A	OL	OL	OL	OL	OL	OL	OL	OL	OL	N/A	N/A	N/A
22/03/2024	91.9	91.3	92.2	92.0	OL	OL	OL	N/A	N/A	N/A	OL	OL	OL	OL	OL	OL	OL	OL	OL	N/A	N/A	N/A
23/03/2024	92.5	91.7	92.8	92.4	OL	OL	OL	N/A	N/A	N/A	OL	OL	OL	OL	OL	OL	OL	OL	OL	N/A	N/A	N/A
24/03/2024	92.2	91.6	92.5	92.3	OL	OL	OL	N/A	N/A	N/A	OL	OL	OL	OL	OL	OL	OL	OL	OL	N/A	N/A	N/A
25/03/2024	92.2	91.6	92.5	92.2	OL	OL	OL	N/A	N/A	N/A	OL	OL	OL	OL	OL	OL	OL	OL	OL	N/A	N/A	N/A
26/03/2024	92.2	91.6	92.5	92.3	OL	OL	OL	N/A	N/A	N/A	OL	OL	OL	OL	OL	OL	OL	OL	OL	N/A	N/A	N/A
27/03/2024	92.4	0.0	92.4	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28/03/2024	92.3	91.4	92.7	92.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29/03/2024	92.4	91.5	92.8	92.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30/03/2024	92.4	91.6	92.9	92.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
31/03/2024	92.6	91.6	93.1	92.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

- Notes:
1. UV Comparative Dose: 18.1 mJ/cm²
 2. OL - Off Line
 3. N/A - not applicable

Submitted By (Print): __H. Buhler_____

Signature: __original signed by H. Buhler_____



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: 252.00
Licence Number: PWS-09-412-02-AA

WATER TREATMENT PLANT UV REPORT

Report Period: **March 2024**

Report Created: **Tuesday, April 02, 2024**

Date	UVR-D100A		UVR-D200A		UVR-D300A		UVR-D400A		UVR-D500A		UVR-D600A		Total		% Volume Treated To Dose
	Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		
	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	
01/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
02/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
03/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
05/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
06/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
07/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
08/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
09/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19/03/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20/03/2024	N/A	N/A	87.87	88.23	N/A	N/A	N/A	N/A	N/A	N/A	78.77	78.83	166.64	167.06	99.75
21/03/2024	N/A	N/A	107.72	108.02	N/A	N/A	N/A	N/A	N/A	N/A	94.28	94.28	201.99	202.30	99.85
22/03/2024	N/A	N/A	106.90	106.9	N/A	N/A	N/A	N/A	N/A	N/A	93.81	93.81	200.71	200.71	100.00
23/03/2024	N/A	N/A	103.58	104.16	N/A	N/A	N/A	N/A	N/A	N/A	92.64	92.64	196.22	196.80	99.71
24/03/2024	N/A	N/A	103.76	103.9	N/A	N/A	N/A	N/A	N/A	N/A	93.13	93.13	196.88	197.03	99.93
25/03/2024	N/A	N/A	106.15	106.15	N/A	N/A	N/A	N/A	N/A	N/A	94.63	94.63	200.78	200.78	100.00
26/03/2024	N/A	N/A	105.56	105.56	N/A	N/A	N/A	N/A	N/A	N/A	93.46	93.46	199.02	199.02	100.00
27/03/2024	54.38	54.38	43.17	43.17	40.83	40.83	3.97	4.2	4.45	5.15	41.89	41.89	188.70	189.62	99.51
28/03/2024	95.07	95.07	0.00	0	79.16	79.16	0.00	0	0.00	0	0.00	0.00	174.24	174.23	100.00
29/03/2024	94.68	94.68	0.00	0	79.26	79.26	0.00	0	0.00	0	0.00	0.00	173.94	173.94	100.00
30/03/2024	92.79	92.79	0.00	0	79.22	79.22	0.00	0	0.00	0	0.00	0.00	172.02	172.01	100.00
31/03/2024	93.03	93.03	0.00	0	79.37	79.37	0.00	0	0.00	0	0.00	0.00	172.40	172.40	100.00

Total [ML]: 429.96 429.96 764.71 766.10 357.84 357.84 3.97 4.20 4.45 5.15 682.61 682.67 2243.54 2245.90

Water Volume [%]:

To Dose per reactor 100.00 % 99.82 % 100.00 % 94.43 % 86.36 % 99.99 %

To Dose Total 99.93 %

- Notes:**
1. Target Log value: 2.00
 2. N/A - not applicable

Submitted By (Print): __H. Buhler__

Signature: __original signed by H. Buhler__



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **March 2024**

Report Created: **Tuesday, April 02, 2024**

Date	Transmittance (%)				UVR_D100A		UVR_D200A		UVR_D300A		UVR_D400A		UVR_D500A		UVR_D600A	
	Branch 1		Branch 2		[Log]		[Log]		[Log]		[Log]		[Log]		[Log]	
	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.
01/03/2024	93.6	92.7	92.6	91.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
02/03/2024	93.7	93.2	92.6	92.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
03/03/2024	93.7	92.1	92.7	92.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/03/2024	93.7	93.2	92.7	92.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
05/03/2024	93.6	92.9	92.7	92.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
06/03/2024	93.6	93.0	92.9	92.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
07/03/2024	93.7	93.1	92.8	92.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
08/03/2024	93.6	93.0	92.8	92.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
09/03/2024	93.7	93.1	92.8	92.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/03/2024	93.7	93.1	93.3	92.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11/03/2024	93.9	93.3	93.7	93.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12/03/2024	93.7	93.1	93.8	93.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13/03/2024	93.6	93.1	93.8	92.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14/03/2024	93.6	93.0	93.8	93.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15/03/2024	93.6	92.7	93.8	93.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16/03/2024	93.5	93.0	93.7	93.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17/03/2024	93.6	92.9	93.7	93.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18/03/2024	93.6	93.0	94.0	93.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19/03/2024	93.6	79.4	93.2	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20/03/2024	92.1	0.0	92.4	0.0	N/A	N/A	2.3	1.7	N/A	N/A	N/A	N/A	N/A	N/A	2.4	0.0
21/03/2024	92.0	91.3	92.3	92.0	N/A	N/A	2.1	1.8	N/A	N/A	N/A	N/A	N/A	N/A	2.1	2.0
22/03/2024	91.9	91.3	92.2	92.0	N/A	N/A	2.1	1.9	N/A	N/A	N/A	N/A	N/A	N/A	2.1	2.0
23/03/2024	92.5	91.7	92.8	92.4	N/A	N/A	2.1	1.9	N/A	N/A	N/A	N/A	N/A	N/A	2.2	2.0
24/03/2024	92.2	91.6	92.5	92.3	N/A	N/A	2.1	1.9	N/A	N/A	N/A	N/A	N/A	N/A	2.2	2.0
25/03/2024	92.2	91.6	92.5	92.2	N/A	N/A	2.2	2.0	N/A	N/A	N/A	N/A	N/A	N/A	2.1	2.0
26/03/2024	92.2	91.6	92.5	92.3	N/A	N/A	2.1	1.9	N/A	N/A	N/A	N/A	N/A	N/A	2.1	1.9
27/03/2024	92.4	0.0	92.4	0.0	2.5	1.9	2.2	0.0	2.7	0.0	2.6	0.0	2.6	0.0	2.4	0.0
28/03/2024	92.3	91.4	92.7	92.4	2.3	2.1	OL	OL	2.5	0.0	OL	OL	OL	OL	OL	OL
29/03/2024	92.4	91.5	92.8	92.5	2.2	2.0	OL	OL	2.4	2.2	OL	OL	OL	OL	OL	OL
30/03/2024	92.4	91.6	92.9	92.7	2.2	2.0	OL	OL	2.4	2.2	OL	OL	OL	OL	OL	OL
31/03/2024	92.6	91.6	93.1	92.4	2.2	2.0	OL	OL	2.3	2.0	OL	OL	OL	OL	OL	OL

- Notes:**
1. UV target value is 2.00 [Log]
 2. OL - Off Line
 3. N/A - not applicable

Submitted By (Print): H. Buhler

Signature: original signed by H. Buhler



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: 252.00
Licence Number: PWS-09-412-02-AA

WATER TREATMENT PLANT UV REPORT

Report Period: April 2024

Report Created: Wednesday, May 01, 2024

Date	UVR-D100A		UVR-D200A		UVR-D300A		UVR-D400A		UVR-D500A		UVR-D600A		Total		% Volume Treated To Dose
	Water Volume		Water Volume [ML]		Water Volume		Water Volume [ML]		Water Volume		Water Volume		Water Volume [ML]		
	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	
01/04/2024	101.34	101.34	0.00	0.00	83.54	83.54	0.00	0.00	0.00	0.00	0.00	0.00	184.88	184.88	100.00
02/04/2024	103.82	103.82	0.00	0.00	85.82	85.82	0.00	0.00	0.00	0.00	0.00	0.00	189.64	189.64	100.00
03/04/2024	47.49	47.49	10.52	10.52	38.54	38.60	39.90	39.90	54.46	54.46	0.00	0.00	190.91	190.97	99.97
04/04/2024	0.00	0.00	0.00	0.00	0.00	0.00	92.20	92.20	99.59	99.59	0.00	0.00	191.79	191.79	100.00
05/04/2024	0.00	0.00	0.00	0.00	0.00	0.00	93.09	93.09	100.53	100.53	0.00	0.00	193.62	193.62	100.00
06/04/2024	0.00	0.00	0.00	0.00	0.00	0.00	89.50	89.50	96.94	96.94	0.00	0.00	186.44	186.44	100.00
07/04/2024	0.00	0.00	0.00	0.00	0.00	0.00	89.67	89.67	97.26	97.26	0.00	0.00	186.93	186.93	100.00
08/04/2024	0.00	0.00	0.00	0.00	0.00	0.00	91.97	91.97	99.76	99.76	0.00	0.00	191.72	191.73	100.00
09/04/2024	0.00	0.00	0.00	0.00	0.00	0.00	93.11	93.11	98.90	98.90	0.00	0.00	192.01	192.01	100.00
10/04/2024	0.00	0.00	0.00	0.00	0.00	0.00	92.33	92.33	96.94	96.94	0.00	0.00	189.26	189.27	100.00
11/04/2024	43.10	43.10	0.00	0.00	0.16	0.19	53.69	53.75	96.96	96.96	0.00	0.00	193.91	194.00	99.95
12/04/2024	97.05	97.05	0.00	0.00	0.00	0.00	0.00	0.00	95.35	95.35	0.00	0.00	192.40	192.40	100.00
13/04/2024	94.11	94.11	0.00	0.00	0.00	0.00	0.00	0.00	92.90	92.90	0.00	0.00	187.01	187.01	100.00
14/04/2024	94.06	94.06	0.00	0.00	0.00	0.00	0.00	0.00	92.98	92.98	0.00	0.00	187.04	187.04	100.00
15/04/2024	94.07	94.07	0.00	0.00	0.00	0.00	0.00	0.00	92.91	92.91	0.00	0.00	186.98	186.98	100.00
16/04/2024	93.94	93.94	0.00	0.00	0.00	0.00	0.24	0.27	92.68	92.68	0.09	0.12	186.95	187.01	99.97
17/04/2024	94.16	94.16	0.00	0.00	0.00	0.00	0.00	0.00	92.85	92.85	0.00	0.00	187.01	187.01	100.00
18/04/2024	94.13	94.13	0.00	0.00	0.00	0.00	0.00	0.00	92.87	92.87	0.00	0.00	187.00	187.00	100.00
19/04/2024	92.30	92.30	0.00	0.00	0.00	0.00	0.00	0.00	94.60	94.60	0.00	0.00	186.90	186.90	100.00
20/04/2024	90.31	90.31	0.00	0.00	0.00	0.00	0.00	0.00	96.04	96.04	0.00	0.00	186.35	186.35	100.00
21/04/2024	89.05	89.05	0.00	0.00	0.00	0.00	0.00	0.00	94.93	94.93	0.00	0.00	183.98	183.98	100.00
22/04/2024	89.10	89.10	0.00	0.00	0.00	0.00	0.00	0.00	94.90	94.90	0.00	0.00	184.00	184.00	100.00
23/04/2024	91.58	91.66	0.00	0.00	0.00	0.00	0.00	0.00	93.83	93.83	0.00	0.00	185.41	185.49	99.96
24/04/2024	90.15	90.15	0.00	0.00	0.00	0.00	0.00	0.00	95.85	95.85	0.00	0.00	186.00	186.00	100.00
25/04/2024	90.11	90.11	0.00	0.00	0.00	0.00	0.00	0.00	95.90	95.90	0.00	0.00	186.01	186.01	100.00
26/04/2024	89.86	89.86	0.00	0.00	0.00	0.00	0.00	0.00	95.76	95.76	0.00	0.00	185.62	185.62	100.00
27/04/2024	91.26	91.26	0.00	0.00	0.00	0.00	0.00	0.00	97.03	97.03	0.00	0.00	188.29	188.29	100.00
28/04/2024	93.13	93.13	0.00	0.00	0.00	0.00	0.00	0.00	98.69	98.69	0.00	0.00	191.82	191.82	100.00
29/04/2024	93.11	93.11	0.00	0.00	0.00	0.00	0.00	0.00	98.79	98.79	0.00	0.00	191.90	191.90	100.00
30/04/2024	93.19	93.19	0.00	0.00	0.00	0.00	0.00	0.00	98.69	98.69	0.00	0.00	191.88	191.88	100.00
Total [ML]:	2050.42	2050.50	10.52	10.52	208.07	208.15	735.70	735.79	2648.89	2648.89	0.09	0.12	5653.68	5653.98	

Water Volume [%]:															
To Dose per reactor	100.00	%	100.00	%	99.96	%	99.99	%	100.00	%	76.93	%			
To Dose Total	99.99	%													

Notes: 1. Target Log value: 2.00

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **April 2024**

Report Created: **Wednesday, May 01, 2024**

Date	Transmittance (%)				UVR_D100A		UVR_D200A		UVR_D300A		UVR_D400A		UVR_D500A		UVR_D600A	
	Branch 1		Branch 2		[Log]		[Log]		[Log]		[Log]		[Log]		[Log]	
	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.
01/04/2024	92.5	91.7	93.1	92.8	2.3	1.9	OL	OL	2.3	2.1	OL	OL	OL	OL	OL	OL
02/04/2024	92.5	91.5	93.1	92.9	2.4	2.2	OL	OL	2.4	2.2	OL	OL	OL	OL	OL	OL
03/04/2024	92.5	91.6	93.1	92.7	2.5	0.0	3.9	0.0	2.5	0.0	2.6	2.3	2.5	2.2	OL	OL
04/04/2024	92.5	91.6	93.1	92.9	OL	OL	OL	OL	OL	OL	2.4	2.3	2.4	2.3	OL	OL
05/04/2024	92.5	91.7	93.1	92.8	OL	OL	OL	OL	OL	OL	2.4	2.3	2.4	2.3	OL	OL
06/04/2024	92.6	91.8	93.2	93.0	OL	OL	OL	OL	OL	OL	2.4	2.3	2.4	2.3	OL	OL
07/04/2024	92.7	92.0	93.3	92.2	OL	OL	OL	OL	OL	OL	2.4	2.3	2.4	2.3	OL	OL
08/04/2024	92.8	92.2	93.5	93.1	OL	OL	OL	OL	OL	OL	2.4	2.2	2.5	2.2	OL	OL
09/04/2024	92.9	91.9	93.5	92.7	OL	OL	OL	OL	OL	OL	2.5	2.2	2.5	2.2	OL	OL
10/04/2024	92.9	91.6	93.6	93.4	OL	OL	OL	OL	OL	OL	2.4	2.2	2.4	2.1	OL	OL
11/04/2024	92.8	92.1	93.5	93.3	2.5	0.0	OL	OL	2.2	0.0	2.5	0.0	2.5	2.2	OL	OL
12/04/2024	92.8	92.0	93.5	93.0	2.4	2.2	OL	OL	OL	OL	OL	OL	2.5	2.2	OL	OL
13/04/2024	92.9	92.1	93.7	93.4	2.4	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
14/04/2024	93.1	92.4	93.9	93.7	2.5	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
15/04/2024	93.3	92.6	94.1	93.8	2.4	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
16/04/2024	93.6	92.8	94.5	94.1	2.4	2.2	OL	OL	OL	OL	2.5	0.0	2.4	2.2	2.6	0.0
17/04/2024	93.9	93.1	94.9	94.4	2.4	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
18/04/2024	94.0	93.3	95.1	94.7	2.5	2.3	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
19/04/2024	94.0	93.1	94.9	94.4	2.5	2.0	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
20/04/2024	94.0	93.1	95.0	94.8	2.5	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
21/04/2024	94.0	93.2	95.1	94.8	2.5	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
22/04/2024	93.9	93.3	94.9	94.6	2.4	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
23/04/2024	93.8	93.2	94.7	94.1	2.4	1.8	OL	OL	OL	OL	OL	OL	2.4	2.1	OL	OL
24/04/2024	93.8	93.1	94.6	94.3	2.4	2.2	OL	OL	OL	OL	OL	OL	2.5	2.2	OL	OL
25/04/2024	93.8	93.2	94.6	94.2	2.4	2.2	OL	OL	OL	OL	OL	OL	2.5	2.2	OL	OL
26/04/2024	93.7	93.1	94.4	94.1	2.4	2.2	OL	OL	OL	OL	OL	OL	2.5	2.2	OL	OL
27/04/2024	93.7	93.1	94.4	94.1	2.4	2.2	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL
28/04/2024	93.6	92.9	94.3	94.1	2.4	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
29/04/2024	93.6	93.0	94.3	94.0	2.4	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
30/04/2024	93.6	93.0	94.3	94.0	2.4	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL

- Notes:**
1. UV target value is 2.00 [Log]
 2. OL - Off Line

Submitted By (Print): D. Merredew

Signature: __original signed by D. Merredew__



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **May 2024**

Report Created: **Monday, June 03, 2024**

Date	UVR-D100A Water Volume		UVR-D200A Water Volume [ML]		UVR-D300A Water Volume		UVR-D400A Water Volume [ML]		UVR-D500A Water Volume		UVR-D600A Water Volume		Total Water Volume [ML]		% Volume Treated To Dose
	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	
01/05/2024	93.25	93.25	0.00	0.00	0.00	0.00	0.00	0.00	98.74	98.74	0.00	0.00	191.99	191.99	100.00
02/05/2024	34.10	34.10	0.00	0.00	5.80	5.80	40.18	40.18	34.53	34.53	56.89	56.89	171.50	171.50	100.00
03/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	86.17	86.17	0.00	0.00	103.83	103.83	190.00	190.00	100.00
04/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	85.73	85.79	1.24	1.24	107.47	107.55	194.44	194.58	99.93
05/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	85.64	85.64	0.00	0.00	109.35	109.35	194.98	194.98	100.00
06/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	85.51	85.51	0.00	0.00	109.48	109.48	194.99	194.99	100.00
07/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	85.28	85.28	0.30	0.33	109.37	109.37	194.95	194.98	99.99
08/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	86.25	86.25	0.00	0.00	110.87	110.87	197.12	197.12	100.00
09/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	87.50	87.50	0.00	0.00	112.47	112.47	199.97	199.97	100.00
10/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	88.40	88.40	0.00	0.00	113.75	113.75	202.15	202.15	100.00
11/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	89.48	89.48	0.00	0.00	115.53	115.53	205.01	205.01	100.00
12/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	90.90	90.90	0.00	0.00	117.57	117.57	208.47	208.47	100.00
13/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	91.49	91.49	0.00	0.00	118.34	118.34	209.82	209.82	100.00
14/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	93.38	93.38	0.00	0.00	112.52	112.52	205.90	205.90	100.00
15/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	99.10	99.10	0.00	0.00	108.65	108.65	207.75	207.75	100.00
16/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	70.16	70.16	0.00	0.00	73.74	73.74	143.90	143.90	100.00
17/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	86.54	86.54	0.00	0.00	103.55	103.55	190.09	190.09	100.00
18/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	83.13	83.15	0.00	0.00	98.56	98.68	181.69	181.84	99.92
19/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	91.01	91.01	0.00	0.00	94.59	94.59	185.59	185.59	100.00
20/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	89.56	89.56	0.00	0.00	95.46	95.46	185.01	185.01	100.00
21/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	87.13	87.13	0.00	0.00	97.89	97.89	185.01	185.01	100.00
22/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	89.69	89.69	0.00	0.00	100.66	100.66	190.34	190.34	100.00
23/05/2024	0.00	0.00	0.00	0.00	0.00	0.00	91.93	91.93	0.00	0.00	103.09	103.09	195.02	195.02	100.00
24/05/2024	0.00	0.00	0.00	0.00	0.05	0.05	91.68	91.68	0.00	0.00	103.01	103.01	194.74	194.74	100.00
25/05/2024	9.72	9.72	0.00	0.00	41.83	41.83	49.46	49.46	0.00	0.00	93.39	93.39	194.40	194.40	100.00
26/05/2024	92.93	92.93	0.00	0.00	34.00	34.00	65.75	65.75	2.69	2.69	0.00	0.00	195.36	195.36	100.00
27/05/2024	94.57	94.57	0.00	0.00	0.00	0.00	100.30	100.30	0.00	0.00	0.00	0.00	194.87	194.87	100.00
28/05/2024	94.71	94.71	0.00	0.00	0.00	0.00	100.28	100.28	0.00	0.00	0.00	0.00	194.99	194.99	100.00
29/05/2024	94.72	94.72	0.00	0.00	0.00	0.00	100.28	100.28	0.00	0.00	0.00	0.00	194.99	194.99	100.00
30/05/2024	96.71	96.71	0.00	0.00	0.00	0.00	102.56	102.56	0.00	0.00	0.00	0.00	199.27	199.27	100.00
31/05/2024	100.37	100.37	0.00	0.00	0.00	0.00	106.44	106.44	0.00	0.00	0.00	0.00	206.80	206.80	100.00
Total [ML]:	711.07	711.07	0.00	0.00	81.68	81.68	2600.88	2600.96	137.49	137.52	2470.02	2470.23	6001.14	6001.46	

Water Volume [%]:
To Dose per reactor 100.00 % OL % 100.00 % 100.00 % 99.98 % 99.99 %
To Dose Total 99.99 %

Notes: 1. Target Log value: 2.00

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **May 2024**

Report Created: **Monday, June 03, 2024**

Date	Transmittance (%)				UVR_D100A		UVR_D200A		UVR_D300A		UVR_D400A		UVR_D500A		UVR_D600A	
	Branch 1		Branch 2		[Log]		[Log]		[Log]		[Log]		[Log]		[Log]	
	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.
01/05/2024	93.6	92.9	94.4	94.1	2.4	2.2	OL	OL	OL	OL	OL	OL	2.5	2.2	OL	OL
02/05/2024	93.7	92.7	94.5	93.7	2.4	0.0	OL	OL	3.6	0.0	3.0	2.6	2.5	0.0	3.4	0.0
03/05/2024	93.2	92.5	93.9	93.8	0.0	0.0	OL	OL	OL	OL	2.6	2.4	0.0	0.0	3.1	2.8
04/05/2024	93.2	92.3	93.8	93.5	0.0	0.0	OL	OL	OL	OL	2.5	0.0	0.0	0.0	2.8	0.0
05/05/2024	93.1	92.4	93.7	93.4	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.7	2.4
06/05/2024	93.1	92.5	93.7	93.1	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.6	2.3
07/05/2024	93.1	92.4	93.6	92.7	OL	OL	OL	OL	OL	OL	2.5	2.3	1.8	0.0	2.5	2.3
08/05/2024	93.1	91.8	93.6	93.4	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.4	2.2
09/05/2024	93.2	92.0	93.6	93.3	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.2
10/05/2024	93.1	92.4	93.5	93.2	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.2
11/05/2024	93.0	92.2	93.3	92.3	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL	2.4	2.3
12/05/2024	93.0	92.2	93.3	92.9	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL	2.5	2.2
13/05/2024	92.9	92.4	93.3	93.1	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL	2.4	2.3
14/05/2024	93.0	92.4	93.4	92.9	OL	OL	OL	OL	OL	OL	2.5	2.2	OL	OL	2.5	2.2
15/05/2024	93.1	92.4	93.5	93.1	OL	OL	OL	OL	OL	OL	2.5	2.2	OL	OL	2.5	2.2
16/05/2024	93.5	2.6	93.4	0.0	OL	OL	OL	OL	OL	OL	2.5	0.0	OL	OL	2.5	0.0
17/05/2024	93.8	93.2	92.7	92.4	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL	2.4	2.2
18/05/2024	93.9	93.0	92.7	92.4	OL	OL	OL	OL	OL	OL	2.5	0.0	OL	OL	2.5	0.0
19/05/2024	93.9	93.1	92.7	92.2	OL	OL	OL	OL	OL	OL	2.5	1.9	OL	OL	2.5	1.9
20/05/2024	94.0	93.4	92.8	92.6	OL	OL	OL	OL	OL	OL	2.4	2.1	OL	OL	2.4	2.3
21/05/2024	94.1	93.5	92.9	92.7	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL	2.4	2.3
22/05/2024	94.1	93.6	92.9	92.7	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL	2.4	2.3
23/05/2024	94.1	93.4	92.9	92.7	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL	2.4	2.3
24/05/2024	94.2	93.6	92.9	92.7	OL	OL	OL	OL	3.0	0.0	2.5	1.8	OL	OL	2.4	2.3
25/05/2024	94.3	93.3	93.0	92.5	2.3	1.8	OL	OL	2.5	2.0	2.5	0.0	OL	OL	2.4	0.0
26/05/2024	94.3	92.2	93.0	92.7	2.4	0.0	OL	OL	2.5	0.0	2.5	2.3	3.0	0.0	OL	OL
27/05/2024	94.1	93.5	92.9	92.3	2.5	1.9	OL	OL	OL	OL	2.5	2.0	OL	OL	OL	OL
28/05/2024	95.3	93.6	94.3	92.9	2.5	2.2	OL	OL	OL	OL	2.5	2.3	OL	OL	OL	OL
29/05/2024	96.7	96.0	95.7	95.5	2.6	2.3	OL	OL	OL	OL	2.8	2.4	OL	OL	OL	OL
30/05/2024	96.6	95.9	95.7	95.5	2.5	2.3	OL	OL	OL	OL	2.9	2.7	OL	OL	OL	OL
31/05/2024	96.6	96.0	95.7	95.3	2.5	2.3	OL	OL	OL	OL	2.8	2.5	OL	OL	OL	OL

Notes:
1. UV target value is 2.00 [Log]
2. OL - Off Line

Submitted By (Print): D. Merredew

Signature: _original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: 252.00
Licence Number: PWS-09-412-02-AA

WATER TREATMENT PLANT UV REPORT

Report Period: June 2024

Report Created: Tuesday, July 02, 2024

Date	UVR-D100A		UVR-D200A		UVR-D300A		UVR-D400A		UVR-D500A		UVR-D600A Water Volume [ML]		Total		% Volume Treated To Dose
	Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		
	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	
01/06/2024	98.28	98.28	0.00	0.00	0.00	0.00	103.75	103.75	0.00	0.00	0.00	0.00	202.02	202.02	100.00
02/06/2024	98.14	98.14	0.00	0.00	0.00	0.00	103.62	103.62	0.00	0.00	0.00	0.00	201.75	201.75	100.00
03/06/2024	97.19	97.19	0.00	0.00	71.28	71.28	33.99	33.99	0.00	0.00	0.00	0.00	202.45	202.45	100.00
04/06/2024	100.77	100.77	0.00	0.00	104.49	104.49	0.00	0.00	0.47	0.47	0.00	0.00	205.73	205.73	100.00
05/06/2024	105.31	105.31	0.00	0.00	107.47	107.47	0.00	0.00	0.00	0.00	0.00	0.00	212.78	212.78	100.00
06/06/2024	33.70	33.70	0.00	0.00	72.36	72.36	0.00	0.00	47.88	47.88	0.00	0.00	153.94	153.94	100.00
07/06/2024	0.00	0.00	0.00	0.00	91.91	91.91	0.00	0.00	120.10	120.10	0.00	0.00	212.01	212.01	100.00
08/06/2024	0.00	0.00	0.00	0.00	89.67	89.67	0.00	0.00	117.47	117.47	0.00	0.00	207.14	207.14	100.00
09/06/2024	0.00	0.00	0.00	0.00	85.44	85.44	0.00	0.00	111.54	111.54	0.00	0.00	196.98	196.98	100.00
10/06/2024	0.00	0.00	0.00	0.00	85.11	85.11	0.31	0.36	111.51	111.51	0.00	0.00	196.93	196.99	99.97
11/06/2024	0.00	0.00	0.00	0.00	87.44	87.44	0.00	0.00	114.54	114.54	0.00	0.00	201.98	201.98	100.00
12/06/2024	0.00	0.00	0.00	0.00	87.18	87.18	0.00	0.00	114.72	114.72	0.00	0.00	201.90	201.90	100.00
13/06/2024	0.00	0.00	0.00	0.00	87.92	87.92	0.00	0.00	116.81	116.81	0.00	0.00	204.72	204.72	100.00
14/06/2024	0.00	0.00	0.00	0.00	89.75	89.75	0.00	0.00	118.67	118.67	0.00	0.00	208.43	208.43	100.00
15/06/2024	0.00	0.00	0.00	0.00	90.46	90.46	0.00	0.00	119.53	119.53	0.00	0.00	209.99	209.99	100.00
16/06/2024	0.00	0.00	0.00	0.00	90.39	90.39	0.00	0.00	119.61	119.61	0.00	0.00	210.00	210.00	100.00
17/06/2024	0.00	0.00	0.00	0.00	90.00	90.00	0.00	0.00	62.81	62.81	57.21	57.21	210.03	210.03	100.00
18/06/2024	0.00	0.00	0.00	0.00	87.77	87.77	0.00	0.00	0.00	0.00	118.65	118.65	206.41	206.41	100.00
19/06/2024	0.00	0.00	0.00	0.00	85.30	85.30	0.00	0.00	0.00	0.00	115.26	115.26	200.56	200.56	100.00
20/06/2024	0.00	0.00	0.00	0.00	90.86	90.86	0.00	0.00	0.00	0.00	108.95	108.95	199.81	199.81	100.00
21/06/2024	0.00	0.00	0.00	0.00	103.10	103.10	0.00	0.00	0.00	0.00	96.91	96.91	200.00	200.00	100.00
22/06/2024	0.00	0.00	0.00	0.00	103.10	103.10	0.00	0.00	0.00	0.00	96.90	96.90	200.00	200.00	100.00
23/06/2024	0.00	0.00	0.00	0.00	102.96	102.96	0.00	0.00	0.00	0.00	97.09	97.09	200.05	200.05	100.00
24/06/2024	0.00	0.00	0.00	0.00	102.89	102.89	0.00	0.00	0.00	0.00	97.08	97.08	199.97	199.97	100.00
25/06/2024	0.00	0.00	0.00	0.00	65.51	65.51	40.26	40.26	0.00	0.00	96.99	96.99	202.76	202.76	100.00
26/06/2024	0.00	0.00	63.55	63.55	0.99	0.99	43.88	43.88	0.00	0.00	91.82	91.82	200.24	200.24	100.00
27/06/2024	0.00	0.00	107.85	107.85	0.00	0.00	0.00	0.00	0.00	0.00	91.97	91.97	199.82	199.82	100.00
28/06/2024	0.00	0.00	110.77	110.77	0.00	0.00	0.00	0.00	0.00	0.00	94.72	94.72	205.50	205.50	100.00
29/06/2024	0.00	0.00	109.93	109.93	0.00	0.00	0.00	0.00	0.00	0.00	95.06	95.06	205.00	205.00	100.00
30/06/2024	0.00	0.00	109.71	109.71	0.00	0.00	0.00	0.00	0.00	0.00	95.29	95.29	205.00	205.00	100.00

Total [ML]:	533.39	533.39	501.82	501.82	2073.34	2073.34	325.81	325.86	1275.67	1275.67	1353.92	1353.92	6063.94	6063.99	
Water Volume [%]:															
I o Dose per reactor	100.00	%	100.00	%	100.00	%	99.98	%	100.00	%	100.00	%			
To Dose Total	100.00	%													

Notes: 1. Target Log value: 2.00

Submitted By (Print): H.Buhler

Signature: Original Signed by H.Buhler



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **June 2024**

Report Created: **Tuesday, July 02, 2024**

Date	Transmittance (%)				UVR_D100A		UVR_D200A		UVR_D300A		UVR_D400A		UVR_D500A		UVR_D600A	
	Branch 1		Branch 2		[Log]		[Log]		[Log]		[Log]		[Log]		[Log]	
	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.
01/06/2024	96.5	94.6	95.6	95.4	2.5	2.2	OL	OL	OL	OL	2.7	2.3	OL	OL	OL	OL
02/06/2024	96.4	95.6	95.5	95.2	2.5	2.2	OL	OL	OL	OL	2.5	2.3	OL	OL	OL	OL
03/06/2024	96.5	95.3	95.5	95.2	2.5	2.2	OL	OL	2.7	2.3	2.6	0.0	OL	OL	OL	OL
04/06/2024	96.5	95.7	95.5	95.1	2.5	2.0	OL	OL	3.1	2.4	OL	OL	3.5	0.0	OL	OL
05/06/2024	96.0	94.4	95.0	93.7	2.5	2.2	OL	OL	2.9	2.3	OL	OL	OL	OL	OL	OL
06/06/2024	95.0	94.2	93.9	93.4	2.5	0.0	OL	OL	2.6	0.0	OL	OL	2.7	0.0	OL	OL
07/06/2024	96.6	96.0	95.5	95.1	OL	OL	OL	OL	3.4	2.8	OL	OL	2.7	2.3	OL	OL
08/06/2024	96.5	95.9	95.4	95.3	OL	OL	OL	OL	3.0	2.6	OL	OL	2.5	2.3	OL	OL
09/06/2024	96.4	95.9	95.4	95.1	OL	OL	OL	OL	3.0	2.6	OL	OL	2.5	2.4	OL	OL
10/06/2024	96.4	95.7	95.4	95.0	OL	OL	OL	OL	2.9	2.6	2.5	0.0	2.5	2.3	OL	OL
11/06/2024	96.4	95.4	95.4	94.7	OL	OL	OL	OL	2.7	2.4	OL	OL	2.5	2.3	OL	OL
12/06/2024	96.5	95.9	95.5	95.2	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.1	OL	OL
13/06/2024	96.6	96.0	95.6	95.3	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.3	OL	OL
14/06/2024	96.5	96.0	95.5	95.0	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.2	OL	OL
15/06/2024	96.5	95.9	95.5	95.2	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.2	OL	OL
16/06/2024	96.4	95.8	95.4	95.2	OL	OL	OL	OL	2.4	2.3	OL	OL	2.5	2.3	OL	OL
17/06/2024	96.5	95.9	95.5	95.3	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	0.0	3.3	3.2
18/06/2024	96.5	95.9	95.4	95.0	OL	OL	OL	OL	2.5	2.3	OL	OL	OL	OL	3.3	2.9
19/06/2024	96.6	96.0	95.4	95.2	OL	OL	OL	OL	2.5	2.2	OL	OL	OL	OL	3.1	2.6
20/06/2024	96.5	95.9	95.4	94.9	OL	OL	OL	OL	2.5	1.8	OL	OL	OL	OL	2.9	2.6
21/06/2024	96.5	95.9	95.3	95.0	OL	OL	OL	OL	2.5	1.8	OL	OL	OL	OL	3.2	2.8
22/06/2024	96.5	95.9	95.4	95.2	OL	OL	OL	OL	2.5	2.2	OL	OL	OL	OL	3.1	2.7
23/06/2024	96.6	96.0	95.5	95.3	OL	OL	OL	OL	2.5	2.3	OL	OL	OL	OL	2.8	2.5
24/06/2024	96.6	96.0	95.5	95.2	OL	OL	OL	OL	2.5	2.3	OL	OL	OL	OL	2.6	2.3
25/06/2024	96.5	95.9	95.3	95.0	OL	OL	OL	OL	2.4	0.0	4.1	4.1	OL	OL	2.5	2.3
26/06/2024	96.5	95.5	95.4	94.9	OL	OL	2.5	2.1	2.9	0.0	3.6	0.0	OL	OL	2.5	2.1
27/06/2024	96.3	95.8	95.3	95.0	OL	OL	2.5	2.1	OL	OL	OL	OL	OL	OL	2.5	2.1
28/06/2024	96.3	95.5	95.3	94.6	OL	OL	2.5	2.3	OL	OL	OL	OL	OL	OL	2.4	2.3
29/06/2024	96.5	95.0	95.5	95.0	OL	OL	2.5	2.3	OL	OL	OL	OL	OL	OL	2.5	2.3
30/06/2024	96.6	95.8	95.5	95.0	OL	OL	2.5	1.9	OL	OL	OL	OL	OL	OL	2.5	2.3

Notes:
1. UV target value is 2.00 [Log]
2. OL - Off Line

Submitted By (Print): H.Buhler

Signature: Original Signed by H.Buhler



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **July 2024**

Report Created: **Thursday, August 01, 2024**

Date	UVR-D100A		UVR-D200A		UVR-D300A		UVR-D400A		UVR-D500A		UVR-D600A		Total		% Volume Treated To Dose
	Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		Water Volume [ML]		
	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	
01/07/2024	0.00	0.00	109.67	109.67	0.00	0.00	0.00	0.00	0.00	0.00	94.96	94.96	204.63	204.63	100.00
02/07/2024	46.98	46.98	57.40	57.40	0.00	0.00	0.00	0.00	0.14	0.16	94.01	94.01	198.52	198.54	99.99
03/07/2024	97.79	97.79	0.00	0.00	0.00	0.00	44.83	44.83	0.19	0.21	52.13	52.15	194.94	194.98	99.98
04/07/2024	95.61	95.61	0.00	0.00	0.00	0.00	99.40	99.40	0.00	0.00	0.00	0.00	195.01	195.01	100.00
05/07/2024	95.64	95.64	0.00	0.00	0.00	0.00	99.36	99.36	0.00	0.00	0.00	0.00	195.00	195.00	100.00
06/07/2024	95.68	95.68	0.00	0.00	0.00	0.00	99.30	99.30	0.00	0.00	0.00	0.00	194.98	194.98	100.00
07/07/2024	95.66	95.66	0.00	0.00	0.00	0.00	99.36	99.36	0.00	0.00	0.00	0.00	195.02	195.02	100.00
08/07/2024	102.39	102.39	0.18	0.18	0.00	0.00	36.66	36.66	64.48	64.48	0.00	0.00	203.70	203.70	100.00
09/07/2024	97.27	97.27	0.00	0.00	30.26	30.26	0.00	0.00	96.95	96.95	0.00	0.00	224.48	224.48	100.00
10/07/2024	106.21	106.21	0.00	0.00	21.39	21.39	0.00	0.00	104.08	104.08	0.00	0.00	231.69	231.69	100.00
11/07/2024	116.45	116.45	0.00	0.00	0.00	0.00	0.00	0.00	111.62	111.62	0.00	0.00	228.07	228.07	100.00
12/07/2024	115.55	115.55	0.00	0.00	0.00	0.00	0.00	0.00	111.31	111.31	0.00	0.00	226.86	226.86	100.00
13/07/2024	115.55	115.55	0.00	0.00	0.00	0.00	0.00	0.00	111.22	111.22	0.00	0.00	226.77	226.77	100.00
14/07/2024	112.45	112.45	0.00	0.00	0.00	0.00	0.00	0.00	108.15	108.15	0.00	0.00	220.60	220.60	100.00
15/07/2024	107.76	107.76	0.00	0.00	0.00	0.00	0.00	0.00	103.69	103.69	0.00	0.00	211.44	211.44	100.00
16/07/2024	107.08	107.08	0.00	0.00	0.00	0.00	0.00	0.00	102.92	102.92	0.00	0.00	210.00	210.00	100.00
17/07/2024	107.04	107.04	0.00	0.00	0.00	0.00	0.00	0.00	102.95	102.95	0.00	0.00	210.00	210.00	100.00
18/07/2024	106.63	106.63	0.00	0.00	0.00	0.00	0.00	0.00	102.49	102.49	0.00	0.00	209.13	209.13	100.00
19/07/2024	77.57	77.57	0.00	0.00	0.39	0.39	0.00	0.00	70.35	70.35	0.00	0.00	148.31	148.31	100.00
20/07/2024	0.00	0.00	0.00	0.00	93.30	93.30	0.00	0.00	120.82	120.82	0.00	0.00	214.12	214.12	100.00
21/07/2024	0.00	0.00	0.00	0.00	94.66	94.66	0.00	0.00	121.99	121.99	0.00	0.00	216.65	216.65	100.00
22/07/2024	0.00	0.00	0.00	0.00	93.47	93.47	0.00	0.00	121.37	121.37	0.00	0.00	214.84	214.84	100.00
23/07/2024	0.00	0.00	0.00	0.00	91.02	91.02	0.00	0.00	119.01	119.01	0.00	0.00	210.03	210.03	100.00
24/07/2024	0.00	0.00	0.00	0.00	90.51	90.51	0.00	0.00	118.52	118.52	0.00	0.00	209.03	209.03	100.00
25/07/2024	0.00	0.00	0.00	0.00	91.68	91.68	0.00	0.00	119.74	119.74	0.00	0.00	211.41	211.41	100.00
26/07/2024	0.00	0.00	75.28	75.28	31.03	31.06	0.00	0.00	105.51	105.51	0.00	0.00	211.83	211.85	99.99
27/07/2024	0.00	0.00	113.64	113.64	0.00	0.00	0.00	0.00	98.34	98.34	0.00	0.00	211.98	211.98	100.00
28/07/2024	0.00	0.00	113.69	113.69	0.00	0.00	0.00	0.00	98.30	98.30	0.00	0.00	211.99	211.99	100.00
29/07/2024	0.00	0.00	105.68	105.68	0.00	0.00	0.00	0.00	91.11	91.12	0.00	0.00	196.79	196.80	100.00
30/07/2024	0.00	0.00	117.21	117.21	0.00	0.00	0.00	0.00	67.81	67.81	32.43	32.43	217.45	217.45	100.00
31/07/2024	0.00	0.00	118.33	118.33	0.00	0.00	0.00	0.00	0.00	0.00	104.11	104.11	222.45	222.45	100.00
Total [ML]:	1799.30	1799.30	811.08	811.08	637.71	637.74	478.91	478.91	2373.07	2373.13	377.65	377.66	6477.72	6477.82	

Water Volume [%]:

To Dose per reactor 100.00 % 100.00 % 100.00 % 100.00 % 100.00 % 100.00 %

To Dose Total 100.00 %

Notes: 1. Target Log value: 2.00

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **July 2024**

Report Created: **Thursday, August 01, 2024**

Date	Transmittance (%)				UVR_D100A		UVR_D200A		UVR_D300A		UVR_D400A		UVR_D500A		UVR_D600A	
	Branch 1		Branch 2		[Log]		[Log]		[Log]		[Log]		[Log]		[Log]	
	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.
01/07/2024	96.4	95.2	95.5	95.0	OL	OL	2.3	1.9	OL	OL	OL	OL	OL	OL	2.5	2.3
02/07/2024	96.1	94.1	95.6	95.0	2.5	2.2	2.3	0.0	OL	OL	OL	OL	2.1	0.0	2.5	1.8
03/07/2024	96.6	96.0	95.6	95.3	2.5	2.3	OL	OL	OL	OL	2.8	2.3	2.7	0.0	2.5	0.0
04/07/2024	96.6	95.8	95.6	95.2	2.5	2.3	OL	OL	OL	OL	2.7	2.4	OL	OL	OL	OL
05/07/2024	96.6	95.9	95.6	95.2	2.5	2.3	OL	OL	OL	OL	2.6	2.3	OL	OL	OL	OL
06/07/2024	96.6	95.4	95.6	95.4	2.5	2.2	OL	OL	OL	OL	2.6	2.3	OL	OL	OL	OL
07/07/2024	96.6	96.0	95.5	95.1	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL	OL	OL
08/07/2024	96.6	95.8	95.5	95.1	2.5	2.2	2.6	0.0	OL	OL	2.5	0.0	3.4	2.9	OL	OL
09/07/2024	96.6	95.9	95.5	94.9	2.5	2.3	OL	OL	2.6	2.3	OL	OL	3.0	2.5	OL	OL
10/07/2024	96.5	95.8	95.5	94.5	2.5	2.1	OL	OL	2.5	0.0	OL	OL	2.7	2.2	OL	OL
11/07/2024	96.4	95.7	95.4	94.9	2.5	2.3	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
12/07/2024	96.2	95.4	95.2	94.7	2.5	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
13/07/2024	96.2	95.5	95.2	94.8	2.5	2.3	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
14/07/2024	96.2	95.5	95.2	94.6	2.5	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
15/07/2024	96.1	95.4	95.1	94.8	2.5	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
16/07/2024	96.2	95.5	95.2	94.2	2.5	2.3	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
17/07/2024	96.3	94.6	95.2	94.8	2.5	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
18/07/2024	96.2	95.4	95.1	94.7	2.5	2.2	OL	OL	OL	OL	OL	OL	2.4	2.3	OL	OL
19/07/2024	96.1	95.3	94.9	94.5	2.5	0.0	OL	OL	2.3	0.0	OL	OL	2.5	0.0	OL	OL
20/07/2024	96.2	95.0	95.1	93.9	OL	OL	OL	OL	2.4	2.0	OL	OL	2.4	2.2	OL	OL
21/07/2024	96.4	95.6	95.3	94.9	OL	OL	OL	OL	2.4	2.2	OL	OL	2.4	2.3	OL	OL
22/07/2024	96.3	95.6	95.1	94.9	OL	OL	OL	OL	2.4	2.3	OL	OL	2.4	2.3	OL	OL
23/07/2024	96.2	95.6	95.0	94.7	OL	OL	OL	OL	2.4	2.3	OL	OL	2.4	2.3	OL	OL
24/07/2024	95.8	94.3	94.6	93.3	OL	OL	OL	OL	2.4	2.2	OL	OL	2.4	2.2	OL	OL
25/07/2024	95.9	88.1	94.7	93.9	OL	OL	OL	OL	2.4	2.3	OL	OL	2.4	2.2	OL	OL
26/07/2024	95.7	69.7	94.6	94.2	OL	OL	3.3	0.0	2.5	0.0	OL	OL	2.4	0.0	OL	OL
27/07/2024	95.8	95.0	94.7	94.2	OL	OL	3.0	2.6	OL	OL	OL	OL	2.4	2.3	OL	OL
28/07/2024	95.9	91.2	94.8	93.5	OL	OL	2.8	2.0	OL	OL	OL	OL	2.4	2.3	OL	OL
29/07/2024	95.8	91.0	94.8	93.7	OL	OL	2.8	0.0	OL	OL	OL	OL	2.4	0.0	2.1	0.0
30/07/2024	95.6	92.1	94.6	93.6	OL	OL	2.8	2.3	OL	OL	OL	OL	2.4	0.0	4.1	4.1
31/07/2024	95.9	84.5	94.7	63.8	OL	OL	2.6	1.8	OL	OL	OL	OL	OL	OL	3.3	2.9

Notes:
1. UV target value is 2.00 [Log]
2. OL - Off Line

Submitted By (Print): _D. Merredew

Signature: _original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **August 2024**

Report Created: **Tuesday, September 03, 2024**

Date	UVR-D100A		UVR-D200A		UVR-D300A		UVR-D400A		UVR-D500A		UVR-D600A		Total		% Volume Treated To Dose
	Water Volume		Water Volume [ML]		Water Volume		Water Volume [ML]		Water Volume		Water Volume		Water Volume [ML]		
	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	
01/08/2024	0.00	0.00	121.77	121.77	0.00	0.00	0.63	0.63	0.00	0.00	106.74	106.74	229.14	229.14	100.00
02/08/2024	0.00	0.00	124.92	124.92	0.00	0.00	0.00	0.00	0.00	0.00	110.15	110.15	235.07	235.07	100.00
03/08/2024	0.00	0.00	125.02	125.02	0.00	0.00	0.00	0.00	0.00	0.00	110.99	110.99	236.01	236.01	100.00
04/08/2024	0.00	0.00	123.79	123.79	0.00	0.00	0.00	0.00	0.00	0.00	109.96	109.96	233.75	233.75	100.00
05/08/2024	0.00	0.00	111.24	111.24	0.00	0.00	0.00	0.00	0.00	0.00	96.90	96.90	208.14	208.14	100.00
06/08/2024	51.63	51.63	51.43	51.43	0.00	0.00	0.00	0.00	48.58	48.58	44.71	44.73	196.34	196.37	99.99
07/08/2024	102.73	102.73	0.00	0.00	0.00	0.00	68.24	68.24	35.90	35.90	0.00	0.00	206.87	206.87	100.00
08/08/2024	103.57	103.57	0.00	0.00	79.73	79.73	26.54	26.54	0.00	0.00	3.00	3.07	212.84	212.91	99.97
09/08/2024	104.99	104.99	0.00	0.00	109.84	109.84	0.00	0.00	0.00	0.00	0.00	0.00	214.83	214.83	100.00
10/08/2024	103.05	103.05	0.00	0.00	106.91	106.91	0.00	0.00	0.00	0.00	0.00	0.00	209.96	209.96	100.00
11/08/2024	103.31	103.31	0.00	0.00	107.14	107.14	0.00	0.00	0.00	0.00	0.00	0.00	210.46	210.46	100.00
12/08/2024	107.46	107.46	0.00	0.00	38.88	38.88	0.00	0.00	67.17	67.17	0.00	0.00	213.51	213.51	100.00
13/08/2024	110.46	110.46	0.00	0.00	0.00	0.00	0.00	0.00	105.90	105.90	0.00	0.00	216.36	216.36	100.00
14/08/2024	116.62	116.62	0.00	0.00	0.00	0.00	0.00	0.00	112.22	112.22	0.00	0.00	228.84	228.84	100.00
15/08/2024	117.53	117.53	0.00	0.00	0.00	0.00	0.00	0.00	112.12	112.12	0.00	0.00	229.64	229.64	100.00
16/08/2024	115.41	115.41	0.00	0.00	0.00	0.00	0.00	0.00	110.61	110.61	0.00	0.00	226.02	226.02	100.00
17/08/2024	112.24	112.24	0.00	0.00	0.00	0.00	0.00	0.00	107.76	107.76	0.00	0.00	220.00	220.00	100.00
18/08/2024	106.00	106.00	0.00	0.00	0.00	0.00	0.00	0.00	101.58	101.58	0.00	0.00	207.59	207.59	100.00
19/08/2024	104.48	104.48	0.00	0.00	0.00	0.00	0.00	0.00	100.18	100.18	0.00	0.00	204.66	204.66	100.00
20/08/2024	107.91	107.91	0.00	0.00	0.00	0.00	0.00	0.00	103.32	103.32	0.00	0.00	211.23	211.23	100.00
21/08/2024	111.29	111.29	0.00	0.00	0.00	0.00	0.00	0.00	105.59	105.59	0.00	0.00	216.88	216.88	100.00
22/08/2024	112.83	112.83	0.00	0.00	0.00	0.00	0.00	0.00	106.85	106.85	0.00	0.00	219.68	219.68	100.00
23/08/2024	110.81	110.81	0.00	0.00	0.00	0.00	0.00	0.00	105.22	105.22	0.00	0.00	216.03	216.03	100.00
24/08/2024	109.80	109.80	0.00	0.00	0.00	0.00	0.00	0.00	104.62	104.62	0.00	0.00	214.42	214.42	100.00
25/08/2024	110.47	110.47	0.00	0.00	0.00	0.00	0.00	0.00	105.18	105.18	0.00	0.00	215.65	215.65	100.00
26/08/2024	109.86	109.86	0.00	0.00	0.00	0.00	0.00	0.00	103.98	103.98	0.00	0.00	213.83	213.83	100.00
27/08/2024	109.00	109.00	0.00	0.00	0.00	0.00	0.00	0.00	103.01	103.01	0.00	0.00	212.01	212.01	100.00
28/08/2024	31.19	31.26	79.42	79.42	0.00	0.00	0.00	0.00	96.98	96.98	0.00	0.00	207.59	207.66	99.97
29/08/2024	0.00	0.00	111.70	111.70	0.00	0.00	0.00	0.00	94.61	94.61	0.00	0.00	206.31	206.31	100.00
30/08/2024	0.00	0.00	111.61	111.61	0.00	0.00	0.00	0.00	94.45	94.45	0.00	0.00	206.06	206.06	100.00
31/08/2024	0.00	0.00	108.91	108.91	0.00	0.00	0.00	0.00	91.85	91.85	0.00	0.00	200.76	200.76	100.00
Total [ML]:	2372.63	2372.70	1069.79	1069.79	442.50	442.50	95.41	95.41	2117.67	2117.67	582.45	582.54	6680.45	6680.62	

Water Volume [%]:
To Dose per reactor 100.00 % 100.00 % 100.00 % 100.00 % 100.00 % 99.98 %
To Dose Total 100.00 %

Notes: 1. Target Log value: 2.00

Submitted By (Print): _D. Merredew_

Signature: __original signed by D. Merredew_



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **August 2024**

Report Created: **Tuesday, September 03, 2024**

Date	Transmittance (%)				UVR_D100A		UVR_D200A		UVR_D300A		UVR_D400A		UVR_D500A		UVR_D600A	
	Branch 1		Branch 2		[Log]		[Log]		[Log]		[Log]		[Log]		[Log]	
	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.
01/08/2024	95.8	85.4	94.7	94.3	OL	OL	2.5	1.7	OL	OL	4.1	4.1	OL	OL	3.2	2.6
02/08/2024	95.7	0.0	94.7	93.7	OL	OL	2.5	1.9	OL	OL	OL	OL	OL	OL	2.7	2.3
03/08/2024	95.5	94.0	94.4	93.3	OL	OL	2.5	2.0	OL	OL	OL	OL	OL	OL	2.7	2.3
04/08/2024	95.5	94.6	94.3	93.8	OL	OL	2.5	1.9	OL	OL	OL	OL	OL	OL	2.6	2.3
05/08/2024	95.6	94.1	94.6	94.3	OL	OL	2.5	2.2	OL	OL	OL	OL	OL	OL	3.0	2.5
06/08/2024	95.8	88.8	95.2	93.9	3.7	3.2	2.5	2.3	OL	OL	OL	OL	2.5	1.4	2.9	0.0
07/08/2024	96.7	96.2	96.2	96.0	3.7	3.5	OL	OL	OL	OL	2.8	2.3	2.4	2.0	OL	OL
08/08/2024	96.8	96.2	96.2	95.9	3.6	3.3	OL	OL	3.7	3.5	2.6	2.5	OL	OL	3.8	0.0
09/08/2024	96.9	96.1	96.2	96.0	3.5	3.2	OL	OL	3.4	3.2	OL	OL	OL	OL	OL	OL
10/08/2024	97.2	96.4	96.5	96.1	3.5	3.2	OL	OL	3.4	3.2	OL	OL	OL	OL	OL	OL
11/08/2024	97.3	96.8	96.7	96.5	3.5	3.3	OL	OL	3.3	3.2	OL	OL	OL	OL	OL	OL
12/08/2024	97.2	96.5	96.5	19.8	3.4	2.9	OL	OL	3.3	1.9	OL	OL	3.6	3.2	OL	OL
13/08/2024	97.1	96.5	96.3	96.1	3.2	2.8	OL	OL	OL	OL	OL	OL	2.8	2.3	OL	OL
14/08/2024	97.1	96.4	96.3	21.1	3.2	2.6	OL	OL	OL	OL	OL	OL	2.5	1.8	OL	OL
15/08/2024	96.8	95.6	96.1	94.7	2.9	2.3	0.0	0.0	OL	OL	OL	OL	2.5	2.3	OL	OL
16/08/2024	97.1	96.5	96.3	95.3	3.1	2.7	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL
17/08/2024	96.9	96.1	96.2	95.9	3.2	2.6	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL
18/08/2024	96.9	96.4	96.2	95.9	3.1	2.5	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL
19/08/2024	96.9	96.4	96.2	96.0	3.1	2.6	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL
20/08/2024	96.5	94.9	95.7	94.4	2.7	2.3	OL	OL	OL	OL	OL	OL	2.5	2.2	OL	OL
21/08/2024	96.6	95.9	95.8	95.4	2.6	2.3	OL	OL	OL	OL	OL	OL	2.5	2.1	OL	OL
22/08/2024	96.4	95.9	95.6	95.5	2.6	2.3	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL
23/08/2024	96.5	95.8	95.7	95.5	2.5	2.3	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL
24/08/2024	96.4	95.8	95.6	95.4	2.6	2.3	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL
25/08/2024	96.4	95.7	95.6	95.2	2.7	2.4	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL
26/08/2024	96.3	95.7	95.5	95.3	2.6	2.4	OL	OL	OL	OL	OL	OL	2.5	2.2	OL	OL
27/08/2024	96.3	95.7	95.5	95.1	2.6	2.3	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL
28/08/2024	96.4	95.8	95.6	95.1	2.7	0.0	2.6	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
29/08/2024	96.6	95.7	95.8	95.3	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
30/08/2024	96.4	95.7	95.7	95.4	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
31/08/2024	96.5	95.8	95.7	95.2	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL

Notes:
1. UV target value is 2.00 [Log]
2. OL - Off Line

Submitted By (Print): _D. Merredew

Signature: __original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **September 2024**

Report Created: **Tuesday, October 01, 2024**

Date	UVR-D100A		UVR-D200A		UVR-D300A		UVR-D400A		UVR-D500A		UVR-D600A		Total		% Volume Treated To Dose
	Water Volume		Water Volume [ML]		Water Volume		Water Volume [ML]		Water Volume		Water Volume		Water Volume [ML]		
	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	
01/09/2024	0.00	0.00	102.21	102.21	0.00	0.00	0.00	0.00	85.79	85.79	0.00	0.00	188.00	188.00	100.00
02/09/2024	0.00	0.00	103.33	103.33	0.00	0.00	0.00	0.00	86.67	86.67	0.00	0.00	190.00	190.00	100.00
03/09/2024	0.00	0.00	106.09	106.09	0.00	0.00	0.00	0.00	91.03	91.03	0.00	0.00	197.12	197.12	100.00
04/09/2024	0.00	0.00	111.35	111.35	0.00	0.00	0.00	0.00	96.90	96.90	0.00	0.00	208.26	208.26	100.00
05/09/2024	0.00	0.00	112.31	112.31	0.00	0.00	0.00	0.00	97.85	97.85	0.00	0.00	210.16	210.16	100.00
06/09/2024	0.00	0.00	111.48	111.48	0.00	0.00	0.00	0.00	97.07	97.07	0.00	0.00	208.55	208.55	100.00
07/09/2024	0.00	0.00	109.98	109.98	0.00	0.00	0.00	0.00	95.81	95.81	0.00	0.00	205.79	205.79	100.00
08/09/2024	0.00	0.00	109.48	109.48	0.00	0.00	0.00	0.00	95.38	95.38	0.00	0.00	204.87	204.87	100.00
09/09/2024	0.00	0.00	110.40	110.40	0.00	0.00	0.00	0.00	96.73	96.73	0.00	0.00	207.13	207.13	100.00
10/09/2024	0.00	0.00	116.83	116.83	0.00	0.00	0.00	0.00	105.44	105.44	0.00	0.00	222.27	222.27	100.00
11/09/2024	0.00	0.00	118.10	118.10	0.00	0.00	0.00	0.00	106.92	106.92	0.00	0.00	225.02	225.02	100.00
12/09/2024	0.00	0.00	115.56	115.56	0.00	0.00	0.00	0.00	100.50	100.50	0.00	0.00	216.06	216.06	100.00
13/09/2024	0.00	0.00	117.33	117.33	0.00	0.00	0.00	0.00	99.71	99.71	0.00	0.00	217.04	217.04	100.00
14/09/2024	0.00	0.00	117.20	117.20	0.00	0.00	0.00	0.00	99.81	99.81	0.00	0.00	217.00	217.00	100.00
15/09/2024	0.00	0.00	117.06	117.06	0.00	0.00	0.00	0.00	99.96	99.96	0.00	0.00	217.03	217.03	100.00
16/09/2024	0.00	0.00	114.33	114.33	0.00	0.00	0.00	0.00	102.68	102.68	0.00	0.00	217.01	217.01	100.00
17/09/2024	0.00	0.01	60.52	60.52	4.89	4.89	0.00	0.00	104.86	104.86	0.00	0.00	170.27	170.27	100.00
18/09/2024	93.27	93.27	0.19	0.22	67.78	67.78	0.00	0.00	36.04	36.04	0.00	0.00	197.28	197.31	99.98
19/09/2024	100.76	100.76	0.00	0.00	104.29	104.29	0.00	0.00	0.00	0.00	0.00	0.00	205.05	205.05	100.00
20/09/2024	97.05	97.05	0.00	0.00	99.86	99.86	0.00	0.00	0.19	0.20	0.00	0.00	197.09	197.11	99.99
21/09/2024	95.24	95.24	0.00	0.00	97.75	97.75	0.00	0.00	0.00	0.00	0.00	0.00	192.99	192.99	100.00
22/09/2024	95.17	95.17	0.00	0.00	97.87	97.87	0.00	0.00	0.00	0.00	0.00	0.00	193.05	193.05	100.00
23/09/2024	91.98	91.98	0.00	0.00	38.38	43.12	57.63	57.63	0.00	0.00	0.00	0.00	188.00	192.74	97.54
24/09/2024	93.30	93.30	0.00	0.00	0.00	0.00	99.67	99.67	0.00	0.00	0.00	0.00	192.97	192.97	100.00
25/09/2024	53.07	53.07	0.00	0.00	0.00	0.00	89.41	89.41	0.10	0.10	40.95	50.44	183.53	193.02	95.08
26/09/2024	0.00	0.00	0.00	0.00	0.00	0.00	88.41	88.41	0.00	0.00	104.25	104.25	192.65	192.65	100.00
27/09/2024	0.11	0.12	0.00	0.00	0.00	0.00	91.95	91.95	0.00	0.00	108.70	108.70	200.76	200.77	99.99
28/09/2024	0.00	0.00	0.00	0.00	0.00	0.00	94.15	94.15	0.00	0.00	110.85	110.85	205.00	205.00	100.00
29/09/2024	0.00	0.00	0.00	0.00	0.00	0.00	90.18	90.18	0.00	0.00	107.00	107.00	197.17	197.17	100.00
30/09/2024	0.00	0.00	0.00	0.00	0.00	0.00	88.92	88.92	0.00	0.00	106.08	106.08	195.00	195.00	100.00
Total [ML]:															
	719.94	719.96	1853.76	1853.79	510.83	515.57	700.31	700.31	1699.44	1699.46	577.82	587.31	6062.11	6076.41	

Water Volume [%]:
1o Dose per reactor

100.00 % 100.00 % 99.08 % 100.00 % 100.00 % 98.38 %

To Dose Total

99.76 %

Notes:

1. Target Log value: 2.00

Submitted By (Print): _D. Merredew_

Signature: _original signed by D. Merredew_



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **September 2024**

Report Created: **Tuesday, October 01, 2024**

Date	Transmittance (%)				UVR_D100A		UVR_D200A		UVR_D300A		UVR_D400A		UVR_D500A		UVR_D600A	
	Branch 1		Branch 2		[Log]		[Log]		[Log]		[Log]		[Log]		[Log]	
	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.
01/09/2024	96.6	95.9	95.8	95.5	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
02/09/2024	96.7	95.9	95.9	95.6	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
03/09/2024	96.6	95.9	95.8	95.4	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
04/09/2024	96.5	95.7	95.7	95.1	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
05/09/2024	96.4	95.5	95.6	95.3	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
06/09/2024	96.5	95.6	95.6	46.8	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	1.7	OL	OL
07/09/2024	96.5	95.6	95.6	95.2	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
08/09/2024	96.6	95.7	95.7	95.3	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
09/09/2024	96.7	95.0	95.9	94.8	OL	OL	2.5	1.9	OL	OL	OL	OL	2.5	2.1	OL	OL
10/09/2024	96.6	96.0	95.8	95.4	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
11/09/2024	96.6	96.0	95.8	95.4	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
12/09/2024	96.8	95.8	96.0	94.8	OL	OL	2.5	2.0	OL	OL	OL	OL	2.5	2.3	OL	OL
13/09/2024	96.7	96.0	95.9	95.6	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
14/09/2024	96.9	96.1	96.1	95.6	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
15/09/2024	96.9	96.0	96.2	95.8	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
16/09/2024	96.9	96.3	96.1	95.9	OL	OL	2.5	2.3	OL	OL	OL	OL	2.5	2.3	OL	OL
17/09/2024	96.9	96.1	96.1	95.7	1.3	0.0	2.5	2.3	3.8	3.6	OL	OL	2.5	2.2	OL	OL
18/09/2024	96.1	94.8	95.4	94.2	4.1	0.0	3.9	0.0	2.9	0.0	OL	OL	2.5	2.3	OL	OL
19/09/2024	97.0	95.2	96.2	95.8	4.1	4.1	OL	OL	2.5	2.3	OL	OL	OL	OL	OL	OL
20/09/2024	97.0	95.5	96.3	96.0	4.1	4.1	OL	OL	2.5	2.2	OL	OL	4.0	0.0	OL	OL
21/09/2024	97.0	95.4	96.2	0.0	4.1	4.1	OL	OL	2.5	1.7	OL	OL	OL	OL	OL	OL
22/09/2024	97.1	95.7	96.4	96.0	4.1	4.1	OL	OL	2.5	2.3	OL	OL	OL	OL	OL	OL
23/09/2024	96.7	95.0	95.2	0.0	4.1	4.1	OL	OL	2.0	0.0	2.8	2.1	OL	OL	OL	OL
24/09/2024	95.5	94.9	94.7	94.3	4.1	4.1	OL	OL	OL	OL	2.5	2.3	OL	OL	OL	OL
25/09/2024	95.5	94.9	94.6	93.6	4.1	4.1	OL	OL	OL	OL	2.6	2.2	2.5	2.5	2.7	0.0
26/09/2024	95.5	94.8	90.0	0.0	OL	OL	OL	OL	OL	OL	2.5	2.0	OL	OL	2.7	2.2
27/09/2024	95.4	94.8	94.3	0.1	3.7	0.0	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.0
28/09/2024	95.3	94.5	94.3	89.4	OL	OL	OL	OL	OL	OL	2.5	2.2	OL	OL	2.5	2.2
29/09/2024	95.4	94.7	94.3	93.0	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.2
30/09/2024	95.5	94.9	94.5	91.6	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.3

- Notes:**
1. UV target value is 2.00 [Log]
 2. OL - Off Line



Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: 252.00
Licence Number: PWS-09-412-02-AA

WATER TREATMENT PLANT UV REPORT

Report Period: October 2024

Report Created: Friday, November 01, 2024

Date	UVR-D100A		UVR-D200A		UVR-D300A		UVR-D400A		UVR-D500A		UVR-D600A		Total		% Volume Treated To Dose
	Water Volume		Water Volume [ML]		Water Volume		Water Volume [ML]		Water Volume		Water Volume		Water Volume [ML]		
	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	
01/10/2024	0.00	0.00	0.00	0.00	0.00	0.00	87.94	87.94	34.60	34.61	70.67	70.67	193.21	193.22	99.99
02/10/2024	0.00	0.00	0.00	0.00	0.00	0.00	86.13	86.13	101.69	101.69	0.00	0.00	187.82	187.82	100.00
03/10/2024	0.00	0.00	0.00	0.00	0.00	0.00	88.63	88.63	102.67	102.67	0.00	0.00	191.31	191.31	100.00
04/10/2024	0.00	0.00	0.00	0.00	0.00	0.00	89.56	89.56	103.46	103.46	0.00	0.00	193.02	193.02	100.00
05/10/2024	0.00	0.00	0.00	0.00	0.00	0.00	89.59	89.59	103.41	103.41	0.00	0.00	193.00	193.00	100.00
06/10/2024	0.00	0.00	0.00	0.00	1.32	1.36	88.09	88.09	100.46	100.46	1.35	1.35	191.22	191.26	99.98
07/10/2024	0.00	0.00	0.00	0.00	49.59	49.59	48.31	48.31	44.63	44.63	50.22	50.22	192.76	192.76	100.00
08/10/2024	45.26	45.26	0.00	0.00	0.00	0.00	98.32	98.32	49.39	49.39	0.00	0.00	192.97	192.97	100.00
09/10/2024	56.45	56.45	0.00	0.00	41.46	41.46	51.23	51.55	43.09	43.09	0.19	0.20	192.41	192.75	99.83
10/10/2024	0.00	0.00	0.00	0.00	99.09	99.09	0.00	0.00	93.92	93.92	0.00	0.00	193.02	193.02	100.00
11/10/2024	0.00	0.00	0.00	0.00	99.29	99.29	0.00	0.00	93.75	93.75	0.00	0.00	193.04	193.04	100.00
12/10/2024	0.00	0.00	0.00	0.00	100.78	100.78	0.00	0.00	95.88	95.88	0.00	0.00	196.66	196.66	100.00
13/10/2024	21.14	21.14	0.00	0.00	102.11	102.11	0.00	0.00	76.71	76.71	0.00	0.00	199.96	199.96	100.00
14/10/2024	95.35	95.35	0.00	0.00	96.58	96.58	0.00	0.00	0.00	0.00	0.00	0.00	191.93	191.93	100.00
15/10/2024	94.34	94.34	0.00	0.00	95.60	95.60	0.00	0.00	0.00	0.00	0.00	0.00	189.94	189.94	100.00
16/10/2024	93.47	93.47	0.00	0.00	96.49	96.49	0.00	0.00	0.00	0.00	0.00	0.00	189.96	189.96	100.00
17/10/2024	90.54	90.54	0.00	0.00	99.44	99.44	0.00	0.00	0.00	0.00	0.00	0.00	189.98	189.98	100.00
18/10/2024	80.81	80.81	0.00	0.00	69.05	69.05	40.18	40.18	0.00	0.00	0.00	0.00	190.04	190.04	100.00
19/10/2024	86.02	86.02	0.00	0.00	82.93	82.93	20.79	20.79	0.00	0.00	0.00	0.00	189.74	189.74	100.00
20/10/2024	92.17	92.17	0.00	0.00	99.02	99.02	0.00	0.00	0.00	0.00	0.00	0.00	191.19	191.19	100.00
21/10/2024	95.46	95.46	0.00	0.00	50.00	50.00	49.55	49.55	0.00	0.00	0.00	0.00	195.02	195.02	100.00
22/10/2024	95.36	95.36	0.00	0.00	0.14	0.17	99.49	99.49	0.00	0.00	0.00	0.00	194.99	195.02	99.99
23/10/2024	30.76	30.76	0.00	0.00	0.00	0.00	99.76	99.76	60.55	60.55	0.00	0.00	191.07	191.07	100.00
24/10/2024	0.00	0.00	7.74	7.74	0.00	0.00	98.53	98.53	34.91	34.92	46.91	46.91	188.09	188.10	99.99
25/10/2024	0.00	0.00	0.00	0.00	0.00	0.00	98.05	98.05	0.00	0.00	88.85	88.85	186.90	186.90	100.00
26/10/2024	0.00	0.00	0.00	0.00	0.00	0.00	100.29	100.29	0.00	0.00	91.09	91.09	191.37	191.37	100.00
27/10/2024	0.00	0.00	0.00	0.00	0.00	0.00	104.69	104.69	0.00	0.00	94.70	94.70	199.39	199.39	100.00
28/10/2024	0.00	0.00	0.00	0.00	0.00	0.00	105.73	105.73	0.00	0.00	95.24	95.24	200.97	200.97	100.00
29/10/2024	0.00	0.04	0.00	0.00	0.00	0.00	104.60	104.60	0.00	0.00	94.08	94.08	198.68	198.72	99.98
30/10/2024	0.00	0.00	9.33	9.33	0.07	0.07	91.08	91.08	33.03	33.03	60.49	60.49	194.00	194.00	100.00
31/10/2024	0.00	0.00	0.00	0.00	0.00	0.00	98.30	98.30	89.26	89.26	0.00	0.00	187.55	187.55	100.00
Total [ML]:	977.14	977.18	17.07	17.07	1182.98	1183.05	1838.83	1839.14	1261.41	1261.44	693.78	693.79	5971.20	5971.67	

Water Volume [%]:
To Dose per reactor 100.00 % 100.00 % 99.99 % 99.98 % 100.00 % 100.00 %
To Dose Total 99.99 %

Notes: 1. Target Log value: 2.00

Submitted By (Print): _D. Merredew_____ Signature: _original signed by D. Merredew_____



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **October 2024**

Report Created: **Friday, November 01, 2024**

Date	Transmittance (%)				UVR_D100A		UVR_D200A		UVR_D300A		UVR_D400A		UVR_D500A		UVR_D600A	
	Branch 1		Branch 2		[Log]		[Log]		[Log]		[Log]		[Log]		[Log]	
	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.
01/10/2024	95.5	94.8	94.5	93.7	OL	OL	OL	OL	OL	OL	2.5	2.3	3.3	0.0	2.5	2.3
02/10/2024	95.5	95.0	94.5	93.2	OL	OL	OL	OL	OL	OL	2.5	2.2	2.5	2.2	OL	OL
03/10/2024	95.4	94.9	94.5	93.5	OL	OL	OL	OL	OL	OL	2.5	2.2	2.5	2.2	OL	OL
04/10/2024	95.5	94.9	94.6	90.8	OL	OL	OL	OL	OL	OL	2.5	2.2	2.5	2.0	OL	OL
05/10/2024	95.5	94.9	94.7	90.5	OL	OL	OL	OL	OL	OL	2.5	2.1	2.5	2.0	OL	OL
06/10/2024	95.6	94.7	94.8	93.1	OL	OL	OL	OL	2.7	0.0	2.5	1.3	2.5	1.6	3.7	2.8
07/10/2024	95.7	94.9	94.8	88.1	OL	OL	OL	OL	2.5	2.2	2.4	1.5	3.2	2.2	2.7	2.1
08/10/2024	95.7	95.0	94.9	92.6	3.1	2.3	OL	OL	OL	OL	2.4	2.0	2.5	2.3	OL	OL
09/10/2024	95.5	95.0	94.9	82.5	2.5	0.0	OL	OL	2.5	2.0	2.4	0.0	3.0	2.1	3.8	0.0
10/10/2024	95.6	95.0	94.8	87.9	OL	OL	OL	OL	2.5	1.8	OL	OL	2.5	1.8	OL	OL
11/10/2024	95.6	95.0	95.0	90.6	OL	OL	OL	OL	2.5	2.1	OL	OL	2.5	2.0	OL	OL
12/10/2024	95.5	95.0	95.5	92.8	OL	OL	OL	OL	2.5	2.1	OL	OL	3.6	0.0	OL	OL
13/10/2024	95.5	94.8	95.6	93.9	3.5	2.3	OL	OL	2.5	1.8	OL	OL	3.7	3.4	OL	OL
14/10/2024	95.6	95.0	95.9	93.5	2.5	2.3	OL	OL	2.5	2.2	OL	OL	OL	OL	OL	OL
15/10/2024	95.5	94.7	95.5	0.0	2.5	2.1	OL	OL	2.4	1.9	OL	OL	1.9	1.8	OL	OL
16/10/2024	95.5	94.8	95.0	93.2	2.4	2.2	OL	OL	2.4	2.1	OL	OL	OL	OL	OL	OL
17/10/2024	95.6	95.0	95.0	92.9	2.5	2.2	OL	OL	2.5	2.2	OL	OL	OL	OL	OL	OL
18/10/2024	95.5	95.0	94.8	91.3	2.5	2.2	OL	OL	2.5	2.1	3.4	0.0	OL	OL	OL	OL
19/10/2024	95.5	94.9	94.8	85.0	2.4	2.2	OL	OL	2.4	1.6	2.8	2.5	OL	OL	OL	OL
20/10/2024	94.8	93.2	94.8	92.2	2.5	2.2	OL	OL	2.3	2.1	OL	OL	OL	OL	OL	OL
21/10/2024	92.0	89.5	94.7	91.5	2.4	2.0	OL	OL	2.4	2.1	3.0	2.2	OL	OL	OL	OL
22/10/2024	95.1	89.3	94.5	90.3	2.4	2.0	OL	OL	3.6	0.0	2.5	2.0	OL	OL	OL	OL
23/10/2024	95.4	94.8	94.6	91.6	2.5	2.2	OL	OL	OL	OL	2.5	2.3	2.5	2.2	OL	OL
24/10/2024	95.1	94.5	94.3	93.0	0.0	0.0	2.4	1.3	OL	OL	2.5	1.9	2.5	0.0	3.6	3.2
25/10/2024	95.4	94.8	94.5	91.4	OL	OL	OL	OL	OL	OL	2.5	2.2	OL	OL	2.9	2.3
26/10/2024	95.4	94.7	94.5	90.7	OL	OL	OL	OL	OL	OL	2.5	1.9	OL	OL	2.5	2.2
27/10/2024	95.4	94.6	94.5	91.4	OL	OL	OL	OL	OL	OL	2.5	2.2	OL	OL	2.5	2.3
28/10/2024	95.4	94.6	94.5	92.3	OL	OL	OL	OL	OL	OL	2.5	2.0	OL	OL	2.5	2.2
29/10/2024	95.4	94.6	94.4	89.2	0.0	0.0	OL	OL	4.2	0.0	2.5	2.1	OL	OL	2.5	2.0
30/10/2024	95.4	94.6	94.5	87.6	OL	OL	2.4	1.3	4.1	0.0	2.5	2.1	3.3	1.7	2.5	2.3
31/10/2024	95.4	94.6	94.5	90.4	OL	OL	OL	OL	OL	OL	2.5	2.3	2.5	2.0	OL	OL

Notes:

1. UV target value is 2.00 [Log]
2. OL - Off Line

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **November 2024**

Report Created: **Sunday, December 01, 2024**

Date	UVR-D100A		UVR-D200A		UVR-D300A		UVR-D400A		UVR-D500A		UVR-D600A		Total		% Volume Treated To Dose
	Water Volume		Water Volume [ML]		Water Volume		Water Volume [ML]		Water Volume		Water Volume		Water Volume [ML]		
	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	
01/11/2024	0.00	0.00	10.77	10.77	0.00	0.00	86.08	86.08	87.69	87.69	0.00	0.00	184.53	184.54	100.00
02/11/2024	0.00	0.00	0.00	0.00	0.00	0.00	96.49	96.49	87.54	87.54	0.00	0.00	184.03	184.03	100.00
03/11/2024	0.00	0.00	0.00	0.00	0.00	0.00	96.53	96.53	87.61	87.61	0.00	0.00	184.14	184.14	100.00
04/11/2024	0.00	0.00	0.00	0.00	0.00	0.00	96.51	96.51	87.50	87.50	0.00	0.00	184.01	184.01	100.00
05/11/2024	0.00	0.00	0.00	0.00	0.00	0.00	96.67	96.67	87.33	87.33	0.00	0.00	183.99	183.99	100.00
06/11/2024	0.00	0.00	0.00	0.00	0.00	0.00	96.67	96.67	87.32	87.32	0.00	0.00	183.99	183.99	100.00
07/11/2024	0.00	0.00	0.00	0.00	0.00	0.00	96.56	96.56	87.44	87.44	0.00	0.00	184.00	184.00	100.00
08/11/2024	0.00	0.00	0.00	0.00	0.00	0.00	95.06	95.06	85.94	85.94	0.00	0.00	181.00	181.00	100.00
09/11/2024	0.00	0.00	0.00	0.00	0.00	0.00	94.96	94.96	85.44	85.44	0.00	0.00	180.40	180.40	100.00
10/11/2024	0.00	0.00	0.00	0.00	0.00	0.00	95.23	95.23	85.78	85.78	0.00	0.00	181.01	181.01	100.00
11/11/2024	0.00	0.00	0.00	0.00	0.00	0.00	95.24	95.24	85.75	85.75	0.00	0.00	180.99	180.99	100.00
12/11/2024	54.78	54.78	0.00	0.00	0.00	0.00	94.13	94.13	32.12	32.12	0.00	0.00	181.03	181.03	100.00
13/11/2024	91.90	91.90	0.00	0.00	0.00	0.00	96.03	96.03	0.00	0.00	0.00	0.00	187.93	187.93	100.00
14/11/2024	92.51	92.51	0.00	0.00	0.00	0.00	94.42	94.42	0.00	0.00	0.00	0.00	186.93	186.93	100.00
15/11/2024	84.17	84.17	0.00	0.00	0.00	0.00	88.98	88.98	0.00	0.00	0.00	0.00	173.15	173.15	100.00
16/11/2024	89.00	89.00	0.00	0.00	0.00	0.00	91.01	91.01	0.00	0.00	0.00	0.00	180.00	180.00	100.00
17/11/2024	89.26	89.26	0.00	0.00	0.00	0.00	91.33	91.33	0.00	0.00	0.00	0.00	180.59	180.59	100.00
18/11/2024	92.75	92.75	0.00	0.00	0.00	0.00	94.61	94.61	0.00	0.00	0.00	0.00	187.35	187.35	100.00
19/11/2024	94.11	94.11	0.00	0.00	0.00	0.00	95.90	95.90	0.00	0.00	0.00	0.00	190.01	190.01	100.00
20/11/2024	94.60	94.60	0.00	0.00	59.60	59.60	35.77	35.79	0.00	0.00	0.00	0.00	189.97	189.98	99.99
21/11/2024	55.73	55.73	0.00	0.00	59.19	59.19	0.07	0.07	0.00	0.00	0.00	0.00	114.98	114.98	100.00
22/11/2024	95.12	95.32	0.00	0.00	40.14	40.22	61.70	61.70	0.00	0.00	0.00	0.00	196.97	197.24	99.86
23/11/2024	96.32	96.32	0.00	0.00	0.00	0.00	101.71	101.71	0.00	0.00	0.00	0.00	198.03	198.03	100.00
24/11/2024	96.71	96.71	0.00	0.00	0.00	0.00	102.55	102.55	0.00	0.00	0.00	0.00	199.26	199.26	100.00
25/11/2024	97.20	97.20	0.00	0.00	0.00	0.00	102.80	102.80	0.00	0.00	0.00	0.00	200.00	200.00	100.00
26/11/2024	96.58	96.58	0.00	0.00	0.00	0.00	101.44	101.44	0.00	0.00	0.00	0.00	198.02	198.02	100.00
27/11/2024	93.92	93.92	0.00	0.00	0.00	0.00	99.34	99.34	0.00	0.00	0.00	0.00	193.25	193.25	100.00
28/11/2024	93.89	93.89	0.00	0.00	0.00	0.00	97.48	97.48	0.00	0.00	0.00	0.00	191.37	191.37	100.00
29/11/2024	96.14	96.14	0.00	0.00	0.00	0.00	98.20	98.20	0.00	0.00	0.00	0.00	194.33	194.33	100.00
30/11/2024	94.98	94.98	0.00	0.00	10.47	10.47	87.56	87.56	0.00	0.00	0.00	0.00	193.02	193.02	100.00
Total [ML]: 1699.63 1699.83 10.77 10.77 169.41 169.48 2681.02 2681.04 987.45 987.45 0.00 0.00 5548.28 5548.57															

Water Volume [%]:
To Dose per reactor 99.99 % 100.00 % 99.96 % 100.00 % 100.00 % OL %
To Dose Total 99.99 %

Notes: 1. Target Log value: 2.00

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **November 2024**

Report Created: **Sunday, December 01, 2024**

Date	Transmittance (%)				UVR_D100A		UVR_D200A		UVR_D300A		UVR_D400A		UVR_D500A		UVR_D600A	
	Branch 1		Branch 2		[Log]		[Log]		[Log]		[Log]		[Log]		[Log]	
	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.
01/11/2024	95.2	94.1	94.3	0.1	OL	OL	4.1	4.0	OL	OL	2.8	0.0	2.5	2.1	OL	OL
02/11/2024	95.1	94.4	94.3	89.0	OL	OL	OL	OL	OL	OL	2.5	2.2	2.5	1.9	OL	OL
03/11/2024	95.1	94.5	94.3	91.8	OL	OL	OL	OL	OL	OL	2.5	2.3	2.5	2.3	OL	OL
04/11/2024	95.2	94.5	94.4	91.2	OL	OL	OL	OL	OL	OL	2.5	2.3	2.5	2.2	OL	OL
05/11/2024	95.2	94.4	94.5	92.3	OL	OL	OL	OL	OL	OL	2.5	2.3	2.5	2.2	OL	OL
06/11/2024	95.1	94.5	94.4	92.4	OL	OL	OL	OL	OL	OL	2.5	2.2	2.5	1.9	OL	OL
07/11/2024	95.1	94.6	94.4	89.3	OL	OL	OL	OL	OL	OL	2.5	2.1	2.5	2.0	OL	OL
08/11/2024	95.1	94.3	94.4	92.7	OL	OL	OL	OL	OL	OL	2.5	2.2	2.5	2.3	OL	OL
09/11/2024	95.2	94.6	94.4	91.9	OL	OL	OL	OL	OL	OL	2.5	2.2	2.5	2.1	OL	OL
10/11/2024	95.1	94.5	94.3	89.4	OL	OL	OL	OL	OL	OL	2.5	2.0	2.5	1.9	OL	OL
11/11/2024	95.1	94.1	94.3	91.3	OL	OL	OL	OL	OL	OL	2.5	2.2	2.4	2.2	OL	OL
12/11/2024	95.0	94.4	94.5	88.8	3.4	2.6	OL	OL	OL	OL	2.5	2.2	2.5	2.3	OL	OL
13/11/2024	94.8	94.0	94.4	91.8	2.6	2.2	OL	OL	OL	OL	2.5	2.0	OL	OL	OL	OL
14/11/2024	94.8	93.7	94.3	91.9	2.5	2.2	OL	OL	OL	OL	2.5	2.3	OL	OL	OL	OL
15/11/2024	94.8	93.9	94.5	92.7	2.8	2.2	OL	OL	OL	OL	2.5	1.7	OL	OL	OL	OL
16/11/2024	94.8	94.0	94.7	79.5	2.5	2.2	OL	OL	OL	OL	2.5	2.2	OL	OL	OL	OL
17/11/2024	94.8	94.1	95.0	61.4	2.5	2.3	OL	OL	OL	OL	2.5	2.1	OL	OL	OL	OL
18/11/2024	94.8	93.6	95.2	93.2	2.5	2.2	OL	OL	OL	OL	2.5	2.3	OL	OL	OL	OL
19/11/2024	94.5	93.8	95.0	67.3	2.5	2.2	OL	OL	OL	OL	2.5	2.2	OL	OL	OL	OL
20/11/2024	94.5	93.8	95.3	91.5	2.5	2.2	OL	OL	2.9	0.0	2.5	0.0	OL	OL	OL	OL
21/11/2024	94.1	93.2	95.8	93.9	2.8	2.2	OL	OL	3.0	2.2	2.5	2.5	OL	OL	OL	OL
22/11/2024	94.1	93.5	96.0	91.0	2.5	0.0	OL	OL	2.5	0.0	2.5	2.2	OL	OL	OL	OL
23/11/2024	94.1	93.2	96.4	90.5	2.5	2.3	OL	OL	OL	OL	2.5	2.1	OL	OL	OL	OL
24/11/2024	94.2	93.1	95.7	87.2	2.5	2.2	OL	OL	OL	OL	2.5	1.9	OL	OL	OL	OL
25/11/2024	94.2	93.2	94.9	90.2	2.5	2.3	OL	OL	OL	OL	2.5	2.0	OL	OL	OL	OL
26/11/2024	94.3	93.4	94.5	90.0	2.5	2.3	OL	OL	OL	OL	2.5	2.0	OL	OL	OL	OL
27/11/2024	94.3	93.7	95.6	89.3	2.5	2.1	OL	OL	OL	OL	2.5	1.9	OL	OL	OL	OL
28/11/2024	95.1	94.3	97.5	94.1	2.5	2.2	OL	OL	OL	OL	2.5	1.7	OL	OL	OL	OL
29/11/2024	95.1	94.3	98.6	0.6	2.5	2.2	OL	OL	OL	OL	2.5	1.4	OL	OL	OL	OL
30/11/2024	94.8	94.0	99.3	0.0	2.5	2.0	OL	OL	4.1	4.0	2.4	1.6	OL	OL	OL	OL

- Notes:**
1. UV target value is 2.00 [Log]
 2. OL - Off Line

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **December 2024**

Report Created: **Wednesday, January 01, 2025**

Date	UVR-D100A		UVR-D200A		UVR-D300A		UVR-D400A		UVR-D500A		UVR-D600A		Total		% Volume Treated To Dose
	Water Volume		Water Volume [ML]		Water Volume		Water Volume [ML]		Water Volume		Water Volume		Water Volume [ML]		
	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	To	Total	
01/12/2024	74.94	74.94	0.00	0.00	42.78	42.78	76.85	77.28	0.00	0.00	0.00	0.00	194.58	195.01	99.78
02/12/2024	88.29	88.36	0.00	0.00	13.94	13.94	87.00	87.68	0.00	0.00	0.00	0.00	189.22	189.97	99.60
03/12/2024	66.17	66.17	0.00	0.00	0.00	0.00	66.21	66.25	0.00	0.00	0.00	0.00	132.38	132.42	99.97
04/12/2024	39.22	39.36	70.77	70.77	0.00	0.00	82.60	82.60	0.00	0.00	16.40	16.55	209.00	209.29	99.86
05/12/2024	0.14	0.19	109.67	109.67	0.00	0.00	95.65	95.72	0.00	0.00	0.00	0.00	205.46	205.57	99.95
06/12/2024	1.46	1.46	103.05	103.05	9.51	9.51	31.20	31.33	0.00	0.00	55.26	55.26	200.49	200.62	99.94
07/12/2024	0.00	0.00	106.78	106.78	0.00	0.00	0.00	0.00	0.00	0.00	89.23	89.23	196.01	196.01	100.00
08/12/2024	0.00	0.00	103.21	103.21	0.00	0.00	0.00	0.00	0.00	0.00	86.48	86.48	189.69	189.69	100.00
09/12/2024	0.14	0.14	47.55	47.57	47.94	47.94	0.00	0.00	0.00	0.00	93.56	93.56	189.19	189.21	99.99
10/12/2024	0.00	0.00	0.00	0.00	85.14	85.14	0.00	0.00	0.00	0.00	95.94	95.94	181.08	181.08	100.00
11/12/2024	0.39	0.42	0.00	0.00	84.57	84.57	0.14	0.15	0.00	0.00	95.30	95.30	180.41	180.45	99.98
12/12/2024	0.00	0.00	0.00	0.15	38.13	38.13	51.76	51.76	0.00	0.00	97.95	97.95	187.84	187.99	99.92
13/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	89.95	89.95	0.00	0.00	97.03	97.03	186.97	186.97	100.00
14/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	90.32	90.32	0.00	0.00	97.37	97.37	187.69	187.69	100.00
15/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	90.50	90.50	0.00	0.00	97.49	97.49	187.98	187.98	100.00
16/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	90.53	90.53	0.00	0.00	97.53	97.53	188.05	188.05	100.00
17/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	90.52	90.52	0.00	0.00	97.49	97.49	188.01	188.01	100.00
18/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	90.50	90.50	0.00	0.00	97.52	97.52	188.02	188.02	100.00
19/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	86.93	86.93	0.00	0.00	93.67	93.67	180.60	180.60	100.00
20/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	85.36	85.60	0.00	0.00	92.35	92.35	177.71	177.95	99.87
21/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	87.06	87.06	0.00	0.00	93.64	93.64	180.70	180.70	100.00
22/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	87.60	87.60	0.00	0.00	94.74	94.74	182.34	182.34	100.00
23/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	88.42	88.42	0.00	0.00	95.12	95.12	183.54	183.54	100.00
24/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	86.75	86.75	0.00	0.00	93.74	93.74	180.50	180.50	100.00
25/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	85.98	85.98	0.00	0.00	92.87	92.87	178.85	178.85	100.00
26/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	86.14	86.14	0.00	0.00	92.86	92.86	179.00	179.00	100.00
27/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	86.15	86.15	0.00	0.00	92.86	92.86	179.01	179.01	100.00
28/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	86.16	86.16	0.00	0.00	92.81	92.81	178.97	178.97	100.00
29/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	87.70	87.70	0.00	0.00	94.56	94.56	182.25	182.25	100.00
30/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	88.03	88.03	0.00	0.00	94.82	94.82	182.85	182.85	100.00
31/12/2024	0.00	0.00	0.00	0.00	0.00	0.00	87.99	87.99	0.00	0.00	94.94	94.94	182.93	182.93	100.00
Total [ML]:	270.76	271.04	541.02	541.19	322.01	322.01	2164.01	2165.61	0.00	0.00	2433.52	2433.67	5731.53	5733.58	

Water Volume [%]:
1o Dose per reactor 99.90 % 99.97 % 100.00 % 99.93 % OL % 99.99 %
To Dose Total 99.96 %

Notes: 1. Target Log value: 2.00

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: **252.00**
Licence Number: **PWS-09-412-02-AA**

WATER TREATMENT PLANT UV REPORT

Report Period: **December 2024**

Report Created: **Wednesday, January 01, 2025**

Date	Transmittance (%)				UVR_D100A		UVR_D200A		UVR_D300A		UVR_D400A		UVR_D500A		UVR_D600A	
	Branch 1		Branch 2		[Log]		[Log]		[Log]		[Log]		[Log]		[Log]	
	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.	Min.
01/12/2024	94.8	93.9	98.4	17.1	2.5	2.2	OL	OL	3.4	2.3	2.5	1.6	OL	OL	OL	OL
02/12/2024	94.8	94.0	94.5	0.0	2.5	1.9	OL	OL	3.6	2.3	2.6	0.7	OL	OL	0.0	0.0
03/12/2024	94.4	0.0	90.9	0.0	2.6	0.0	OL	OL	OL	OL	2.5	0.0	OL	OL	OL	OL
04/12/2024	95.3	94.3	93.3	0.0	2.5	0.0	3.0	0.0	OL	OL	2.9	0.0	OL	OL	2.5	0.0
05/12/2024	93.7	91.8	90.6	48.0	2.6	0.0	2.6	2.2	2.5	0.0	2.4	1.9	OL	OL	OL	OL
06/12/2024	93.7	2.3	94.0	93.6	2.8	0.0	2.9	0.0	3.8	0.0	2.3	0.0	OL	OL	3.1	0.0
07/12/2024	95.3	0.1	94.1	93.6	OL	OL	3.1	2.1	OL	OL	OL	OL	OL	OL	2.5	2.4
08/12/2024	93.9	2.8	94.2	94.0	OL	OL	2.7	2.0	OL	OL	OL	OL	OL	OL	2.5	2.4
09/12/2024	93.9	2.5	94.2	93.8	4.0	0.0	2.6	0.0	3.5	0.0	OL	OL	OL	OL	2.5	2.3
10/12/2024	93.5	2.9	93.9	93.3	OL	OL	OL	OL	3.4	2.9	0.0	0.0	OL	OL	2.5	2.2
11/12/2024	93.9	3.0	94.3	93.9	3.1	0.0	OL	OL	3.4	3.3	2.4	0.0	OL	OL	2.5	2.2
12/12/2024	94.0	2.8	94.5	93.8	OL	OL	0.6	0.0	3.4	0.0	2.9	0.0	OL	OL	2.5	2.3
13/12/2024	93.7	2.6	94.1	93.8	OL	OL	OL	OL	OL	OL	2.5	2.4	OL	OL	2.5	2.3
14/12/2024	93.6	2.6	94.0	93.8	OL	OL	OL	OL	OL	OL	2.5	2.4	OL	OL	2.5	2.3
15/12/2024	93.6	2.4	94.0	93.8	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.3
16/12/2024	93.5	2.5	94.0	93.7	OL	OL	OL	OL	OL	OL	2.5	2.4	OL	OL	2.5	2.3
17/12/2024	93.6	2.6	94.0	93.6	OL	OL	OL	OL	OL	OL	2.5	2.4	OL	OL	2.5	2.3
18/12/2024	93.4	2.8	93.9	93.6	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.3
19/12/2024	93.4	3.5	93.9	93.3	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.3
20/12/2024	93.4	2.6	93.9	93.6	OL	OL	OL	OL	OL	OL	2.5	0.0	OL	OL	2.5	2.3
21/12/2024	93.4	2.4	93.9	93.7	OL	OL	OL	OL	OL	OL	2.5	2.4	OL	OL	2.5	2.3
22/12/2024	93.3	2.9	93.8	93.5	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.3
23/12/2024	93.4	91.0	93.8	93.2	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.3
24/12/2024	93.3	90.6	93.8	93.5	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.4
25/12/2024	93.3	91.3	93.8	93.3	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.3
26/12/2024	93.4	47.2	93.8	93.3	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.3
27/12/2024	93.3	85.6	93.7	93.3	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.2
28/12/2024	93.3	90.4	93.7	93.4	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.2
29/12/2024	93.3	89.5	93.7	93.4	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.2
30/12/2024	93.2	85.5	93.6	93.3	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.3
31/12/2024	93.2	90.1	93.6	93.4	OL	OL	OL	OL	OL	OL	2.5	2.3	OL	OL	2.5	2.2

Notes:
1. UV target value is 2.00 [Log]
2. OL - Off Line

Submitted By (Print): _D. Merredew

Signature: __original signed by D. Merredew

2024 CORRECTIVE ACTION REPORTS

Kale Black, Sr. Drinking Water Officer
Office of Drinking Water, Manitoba Sustainable Development
309 – 25 Tupper Street North
Portage La Prairie, MB R1N 3K1

March 7, 2024

RE: CORRECTIVE ACTION REPORT FOR WINNIPEG PUBLIC WATER SYSTEM, 252.00

Incident No: CAR-01-2024-WTP

Reported to ODW: February 29, 2024 @ 09:05

Reported by: Dan Merredew. Water Treatment Operations Supervisor

Approved by: Dan Merredew

Incident Date: February 28, 2024

Incident Location: Winnipeg 2-Treated (WTP)

Incident Type: Water Entering Distribution System Exceeds Turbidity Standard, 6(1) MR 41/2007

Description of Event and Corrective Actions:

On February 28th, our instrument group performed maintenance on the Filter 8 analyzer. The instrument was placed into calibration mode while the sample line was flushed. When the instrument was returned to reading mode, it spiked to a maximum of 5.0 NTU at 13:32:07. Turbidity readings were above 0.30 ntu for 50 seconds.

Neither water quality nor safety were impacted by this event. The recorded value was not a true turbidity going through the filter, it was a false value because of the sample line being flushed. All other treatment barriers including UV and chlorination remained online without issue during this event. No corrective action was required for this spike.

Test Results:

Filter 8 Pre Test @ 13:30: Grab 0.07 NTU; Analyzer 0.00 NTU

Filter 8 Post Test @ 13:40: Grab 0.00 NTU; Analyzer 0.06 NTU

Other analyzer readings during spike: Filter 1 0.01 NTU; Filter 2 0.13 NTU; Filter 3 0.08 NTU; Filter 4 0.08 NTU; Filter 5 0.05 NTU; Filter 6 0.02 NTU; Filter 7 0.05 NTU

Reference No: n/a

EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER IN SITUATIONS REQUIRING IMMEDIATE REPORTING

N:\Environmental Standards\Analytical Services\Government Agencies\Office of Drinking Water\Corrective Action Reports



Kale Black, Sr. Drinking Water Officer
Office of Drinking Water, Manitoba Sustainable Development
309 – 25 Tupper Street North
Portage La Prairie, MB R1N 3K1

May 7, 2024

RE: CORRECTIVE ACTION REPORT FOR WINNIPEG PUBLIC WATER SYSTEM, 252.00

Incident No: CAR-02-2024-WTP

Reported to ODW: April 16, 2024 @ 11:20

Reported by: Dan Merredew. Water Treatment Operations Supervisor

Approved by: Dan Merredew

Incident Date: April 16, 2024

Incident Location: Winnipeg 2-Treated (WTP)

Incident Type: Water Entering Distribution System Exceeds Turbidity Standard, 6(1) MR 41/2007

Description of Event and Corrective Actions:

On April 16, 2024, our instrument group were performing a chemical cleaning of the sample line for Filter 3 analyzer. The instrument was placed into calibration mode while the sample line was flushed with chemical, then flushed with process water. All flushing was put to waste. When the instrument timed out from calibration mode returning to reading mode, it spiked to a maximum of 5.0 NTU at 10:54:14. Turbidity readings were above 0.30 NTU for 15 minutes and 43 seconds.

Neither water quality nor safety were impacted by this event. The recorded value was not a true turbidity going through the filter, it was a false value because of the sample line being flushed. All other treatment barriers including UV and chlorination remained online without issue during this event. No corrective action was required for this spike.

Test Results:

Filter 3 Pre Test @ 10:41: Grab 0.16 NTU; Analyzer 0.06 NTU

Filter 3 Post Test @ 11:00: Grab 0.16 NTU; Analyzer 0.08 NTU

Other analyzer readings during spike: Filter 1 0.10 NTU; Filter 2 0.10 NTU; Filter 4 0.05 NTU; Filter 5 0.06 NTU; Filter 6 0.02 NTU; Filter 7 0.09 NTU; Filter 8 0.04 NTU

Reference No: n/a

EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER IN SITUATIONS REQUIRING IMMEDIATE REPORTING

N:\Environmental Standards\Analytical Services\Government Agencies\Office of Drinking Water\Corrective Action Reports

Kale Black, Sr. Drinking Water Officer
Office of Drinking Water, Manitoba Sustainable Development
309 – 25 Tupper Street North
Portage La Prairie, MB R1N 3K1

June 6, 2024

RE: CORRECTIVE ACTION REPORT FOR WINNIPEG PUBLIC WATER SYSTEM, 252.00

Incident No: CAR-03-2024-WTP

Reported to ODW: June 3, 2024

Reported by: Dan Merredew, Operations Supervisor

Approved by: Dan Merredew, Operations Supervisor

Incident Date: May 14, 2024

Incident Location: Winnipeg 2-Treated (WTP)

Incident Type: Water Entering Distribution System Exceeds Turbidity Standard, 6(1) MR 41/2007

Description of Event and Corrective Actions:

On May 14, 2024 Filter 3 experienced a turbidity spike above 1.0 NTU, on 2 separate occasions. The first spike reached a maximum of 1.63 NTU at 06:21:08 and lasted 19 seconds. The second spike reached a maximum of 1.14 NTU at 07:03:14 and lasted 6 seconds. The brief duration of the spikes is indicative of material sloughing from the sample line and not a true indication of process turbidity.

Neither water quality nor safety were impacted by this event. All other treatment barriers including UV and chlorination remained online without issue during this event. All other filter performance was normal during this time frame.

Test Results:

Filter 3 post 1st spike: 0.23 NTU

Filter 3 post 2nd spike: 0.11 NTU

Other analyzer readings: Post DAF 0.52 NTU; Filter 1 0.01 NTU; Filter 2 0.02 NTU; Filter 4 0.12 NTU; Filter 5 0.01 NTU; Filter 6 0.06 NTU; Filter 7 0.05 NTU; Filter 8 0.04 NTU

Reference No: n/a

EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER IN SITUATIONS REQUIRING IMMEDIATE REPORTING

N:\Environmental Standards\Analytical Services\Government Agencies\Office of Drinking Water\Corrective Action Reports



Kale Black, Sr. Drinking Water Officer
Office of Drinking Water, Manitoba Sustainable Development
309 – 25 Tupper Street North
Portage La Prairie, MB R1N 3K1

June 6, 2024

RE: CORRECTIVE ACTION REPORT FOR WINNIPEG PUBLIC WATER SYSTEM, 252.00

Incident No: CAR-04-2024-WTP

Reported to ODW: May 25, 2024 @ 12:01

Reported by: Heather Buhler, Acting Water Treatment Systems Engineer

Approved by: Heather Buhler, Acting Water Treatment Systems Engineer

Incident Date: May 25, 2024

Incident Location: Winnipeg 2-Treated (WTP)

Incident Type: Water Entering Distribution System Exceeds Turbidity Standard, 6(1) MR 41/2007

Description of Event and Corrective Actions:

On May 25, 2024 Filter 4 experienced a turbidity spike above 1.0 NTU. The turbidity reached a maximum of 3.11 NTU at 8:58:47 and was above 1.0 NTU for 26 seconds. Another brief turbidity spike occurred at 9:23:15, reaching a maximum of 0.82 NTU, and was above 0.3 NTU for 25 seconds. At this point the filter was immediately put into backwash and a grab sample was collected. The sample line was cleaned and a clog was discovered in the sample line. The spike was due to material sloughing from the clogged sample line and not a true indication of process turbidity.

Neither water quality nor safety were impacted by this event. All other treatment barriers including UV and chlorination remained online without issue during this event. All other filter performance was normal during this time frame.

Test Results:

Filter 4 pre 1st spike @ 8:58 - analyzer 0.10 NTU

Filter 4 post 1st spike @ 8:59 - analyzer 0.14 NTU

Filter 4 post 2nd spike @ 9:23 - grab 0.09 NTU

Other analyzer readings during spike: Filter 1 - 0.005 NTU; Filter 2 - 0.006 NTU; Filter 3 - 0.005 NTU;
Post DAF Train 1 – 0.61 NTU; Post DAF Train 2 – 0.40 NTU



**Water and Waste
Eaux et déchets**

Reference No: n/a

EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER IN SITUATIONS REQUIRING IMMEDIATE REPORTING

N:\Environmental Standards\Analytical Services\Government Agencies\Office of Drinking Water\Corrective Action Reports



**Water and Waste
Eaux et déchets**

Kale Black, Sr. Drinking Water Officer
Office of Drinking Water, Manitoba Sustainable Development
309 – 25 Tupper Street North
Portage La Prairie, MB R1N 3K1

November 5, 2024

RE: CORRECTIVE ACTION REPORT FOR WINNIPEG PUBLIC WATER SYSTEM, 252.00

Incident No: CAR-05-2024-ESD

Reported to ODW: October 30, 2024

Reported by: Courtney Diduck, Analytical Services Branch Head

Approved by: Courtney Diduck, Analytical Services Branch Head

Incident Date: October 29, 2024

Incident Location: Winnipeg 3-Dist (SE08)

Incident Type: Low Positive Total Coliform (<10 per100mL), 3 MR 41/2007

Description and Corrective Actions:

Environmental Standards:

IMMEDIATELY: Contacted the ODW and re-sampled original location for bacteria, turbidity, free/total chlorine, and temperature. Monitoring was terminated after two consecutive sets of re-samples taken 24 hours apart tested negative for bacteria.

Test Results: See attached

Reference No: Job_2129

EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER IN SITUATIONS REQUIRING IMMEDIATE REPORTING

N:\Environmental Standards\Analytical Services\Government Agencies\Office of Drinking Water\Corrective Action Reports



Sample Name	Sample Number	Date Sampled	E Coli (MPNU/100mL)	Total Coliform (MPNU/100mL)	Heterotrophic Plate Count (CFU/mL)	Free Chlorine (mg/L)	Total Chlorine (mg/L)	Turbidity-field (ntu)	Temperature (°C)	Time Sampled (hrs)
SE08	703288	29-Oct-24	0	1	<1	0.93	1.25	0.18	12.6	13:13
SE08_Resample 1	704094	30-Oct-24	0	0	<1	0.88	1.19	NA	12.9	14:15
WC04_Resample 2	704095	31-Oct-24	0	0	<1	1.05	1.29	0.14	13.2	14:20
WC04_Resample 2 (Duplicate)	704096	31-Oct-24	0	0	<1	1.09	1.29	0.15	13.1	14:21

NOTES/COMMENTS:

1. All microbiological tests performed by contract laboratory.
2. OL - Autosampler or Process Offline
3. NA - Not Applicable or Not Analyzed



Kale Black, Sr. Drinking Water Officer
Office of Drinking Water, Manitoba Sustainable Development
309 – 25 Tupper Street North
Portage La Prairie, MB R1N 3K1

October 4, 2024

RE: CORRECTIVE ACTION REPORT FOR WINNIPEG PUBLIC WATER SYSTEM, 252.00

Incident No: CAR-06-2024-WTP

Reported to ODW: October 4, 2024 @ 08:30

Reported by: Dan Merredew, Water Treatment Operations Supervisor

Approved by: Dan Merredew, Water Treatment Operations Supervisor

Incident Date: October 3, 2024

Incident Location: Winnipeg 2-Treated (WTP)

Incident Type: Water Entering Distribution System Exceeds Turbidity Standard, 6(1) MR 41/2007

Description of Corrective Actions:

On October 3, 2024 Filter 2 experienced a turbidity spike above 1.0 NTU. The turbidity reached a maximum of 2.05 NTU at 22:36:58 and was above 1.0 NTU for 20 seconds. The sample line was cleaned and a clog was discovered in the sample line. The spike was due to material sloughing from the clogged sample line and not a true indication of process turbidity.

Neither water quality nor safety were impacted by this event. All other treatment barriers including UV and chlorination remained online without issue during this event. All other filter performance was normal during this time frame.

Test Results:

Filter 2 pre spike @ 22:36 - analyzer 0.14 NTU

Filter 2 post spike @ 22:45 - analyzer 0.15 NTU; grab 0.23 NTU

Filter 2 post spike @ 23:21 - analyzer 0.15 NTU; grab 0.15 NTU

Other analyzer readings during spike: Filter 1 - 0.16 NTU; Filter 3 – in backwash; Filter 4 - 0.04 NTU; Filter 5 - 0.12 NTU; Filter 6 - 0.09 NTU; Filter 7 - 0.04 NTU; Filter 8 - 0.02 NTU

Post DAF Train 1 - 0.44 NTU; Post DAF Train 2 - 0.58 NTU

Reference No: n/a



**Water and Waste
Eaux et déchets**

EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER IN SITUATIONS REQUIRING IMMEDIATE REPORTING

N:\Environmental Standards\Analytical Services\Government Agencies\Office of Drinking Water\Corrective Action Reports

Kale Black, Sr. Drinking Water Officer
Office of Drinking Water, Manitoba Sustainable Development
309 – 25 Tupper Street North
Portage La Prairie, MB R1N 3K1

November 4, 2024

RE: CORRECTIVE ACTION REPORT FOR WINNIPEG PUBLIC WATER SYSTEM, 252.00

Incident No: CAR-07-2024-WTP

Reported to ODW: November 1, 2024 @ 10:30

Reported by: Dan Merredew, Water Treatment Operations Supervisor

Approved by: Dan Merredew, Water Treatment Operations Supervisor

Incident Date: October 31, 2024

Incident Location: Winnipeg 2-Treated (WTP)

Incident Type: Water Entering Distribution System Exceeds Turbidity Standard, 6(1) MR 41/2007

Description of Corrective Actions:

On October 31, 2024 Filter 6 experienced a turbidity spike above 1.0 NTU. The turbidity reached 1.35 NTU at 02:27:38 and was above 1.0 NTU for 21 seconds. From 02:06:52 to 02:34:51 turbidity exceeded 0.30 NTU on several occasions. Technical staff were immediately called to investigate. Once onsite they found a piece of material in the cuvette of the analyzer. This event is due to material being trapped in the instrument cuvette and is not indicative of water quality.

Neither water quality nor safety were impacted by this event. All other treatment barriers including UV and chlorination remained online without issue during this event. All other filter performance was normal during this time frame.

Test Results:

Filter 2 Post spike @ 02:30 - grab 0.14 NTU

Other analyzer readings during spike: Filter 1 - 0.14 NTU; Filter 3 - 0.07; Filter 4 - 0.01 NTU; Filter 5 - 0.02 NTU; Filter 7 - 0.13 NTU; Filter 8 - 0.05 NTU

Post DAF Train 2 readings ranged from 0.60- 0.64 NTU from 02:00 – 02:45

Reference No: n/a



**Water and Waste
Eaux et déchets**

EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER IN SITUATIONS REQUIRING IMMEDIATE REPORTING

N:\Environmental Standards\Analytical Services\Government Agencies\Office of Drinking Water\Corrective Action Reports



Kale Black, Sr. Drinking Water Officer
Office of Drinking Water, Manitoba Sustainable Development
309 – 25 Tupper Street North
Portage La Prairie, MB R1N 3K1

December 6, 2024

RE: CORRECTIVE ACTION REPORT FOR WINNIPEG PUBLIC WATER SYSTEM, 252.00

Incident No: CAR-08-2024-WTP

Reported to ODW: December 3, 2024 @ 10:00

Reported by: Dan Merredew, Water Treatment Operations Supervisor

Approved by: Dan Merredew, Water Treatment Operations Supervisor

Incident Date: November 11, 2024

Incident Location: Winnipeg 2-Treated (WTP)

Incident Type: Water Entering Distribution System Exceeds Turbidity Standard, 6(1) MR 41/2007

Description of Corrective Actions:

On November 11, 2024 Filter 6 experienced a turbidity spike above 1.0 NTU. The turbidity reached 1.04 NTU at 20:09:45 and was above 1.0 NTU for 4 seconds. The spike was due to material sloughing from the clogged sample line and not a true indication of process turbidity.

Neither water quality nor safety were impacted by this event. All other treatment barriers including UV and chlorination remained online without issue during this event. All other filter performance was normal during this time frame.

Test Results:

Filter 6 analyzer reading Pre-Spike –0.05 NTU and Post-Spike – 0.05 NTU

Other analyzer readings during spike: Filter 1 - 0.06 NTU; Filter 2 – offline; Filter 3 - 0.03; Filter 4 - 0.01 NTU; Filter 5 - 0.06 NTU; Filter 7 - 0.03 NTU; Filter 8 - 0.06 NTU

Post DAF reading averaged 0.60 NTU prior to this event

Reference No: n/a

EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER IN SITUATIONS REQUIRING IMMEDIATE REPORTING

N:\Environmental Standards\Analytical Services\Government Agencies\Office of Drinking Water\Corrective Action Reports

Kale Black, Sr. Drinking Water Officer
Office of Drinking Water, Manitoba Sustainable Development
309 – 25 Tupper Street North
Portage La Prairie, MB R1N 3K1

January 7, 2025

RE: CORRECTIVE ACTION REPORT FOR WINNIPEG PUBLIC WATER SYSTEM, 252.00

Incident No: CAR-09-2024-WTP

Reported to ODW: December 7, 2024 @ 16:54

Reported by: Matthew Harrison, Water Treatment Operations Support Engineer

Approved by: Matthew Harrison, Water Treatment Operations Support Engineer

Incident Date: December 7, 2024

Incident Location: Winnipeg 2-Treated (WTP)

Incident Type: Water Entering Distribution System Exceeds Turbidity Standard, 6(1) MR 41/2007

Description of Event and Corrective Actions:

On Saturday, December 7 Filter 3 experienced a turbidity spike above 1.0 NTU. Prior to the event at 16:32:32, Filter 3 turbidity began to gradually rise. Filter 3 was taken offline at 16:34:23 when the turbidity reached 0.34 NTU. At 16:40:25 Filter 3 turbidity had returned to normal levels and the filter was brought back online. While the filter was being brought back online, the flow control valve opened more than what was required resulting in a surge of flow through the filter. The turbidity spiked, reaching a maximum of 1.46 NTU at 16:42:35 and was above 1.0 NTU for 26 seconds. The filter was taken offline at 16:42:35. All other treatment barriers including UV and chlorination remained online without issue during this event. The filter was set to backwash and the Instrumentation Technicians were called in to flush and clean the sample lines as corrective actions. Filter returned to normal operation after backwash.

Test Results:

Filter 3 analyzer readings: Pre-spike – 0.34 NTU and Post-Spike – 0.20 NTU

Post DAF readings: Train 1 – 0.56 NTU, Train 2 – 0.57 NTU

Other Filter analyzer readings during spike: Filter 1 - 0.09 NTU, Filter 2 - backwash, Filter 4 – 0.09 NTU, Filter 5 – 0.05 NTU, Filter 6 - 0.01 NTU, Filter 7 – 0.02 NTU, Filter 8 – 0.01 NTU

Chlorine analyzer readings during spike: Branch 1 – 1.37 mg/L, Branch 2 – 1.27 mg/L

Reference No: n/a



**Water and Waste
Eaux et déchets**

EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER IN SITUATIONS REQUIRING IMMEDIATE REPORTING

N:\Environmental Standards\Analytical Services\Government Agencies\Office of Drinking Water\Corrective Action Reports



Kale Black, Sr. Drinking Water Officer
Office of Drinking Water, Manitoba Sustainable Development
309 – 25 Tupper Street North
Portage La Prairie, MB R1N 3K1

January 7, 2025

RE: CORRECTIVE ACTION REPORT FOR WINNIPEG PUBLIC WATER SYSTEM, 252.00

Incident No: CAR-10-2024-WMR

Reported to ODW: December 17, 2024

Reported by: Clayton Olson, Superintendent of Water Distribution

Approved by: Zeljko Bodioga, Field Services Engineer

Incident Date: December 16, 2024

Incident Location: Winnipeg 3-Dist (WM Repair)

Incident Type: Low Positive Total Coliform (<10 per100mL), 3 MR 41/2007

Description Corrective Actions:

Water Services:

Contacted the ODW and flushed the isolated area. Re-sampled original location and tested for bacteria, turbidity, and free chlorine until two negative bacteria results were obtained.

Test Results: See attached

LIMS Reference No: N/A

EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER IN SITUATIONS REQUIRING IMMEDIATE REPORTING

N:\Environmental Standards\Analytical Services\Government Agencies\Office of Drinking Water\Corrective Action Reports



Sample Name	Work Order Number	Date Sampled	E Coli (MPNU/100mL)	Total Coliform (MPNU/100mL)	Free Chlorine (mg/L)	Turbidity-field (ntu)	Time Sampled (hrs)
Hydrant - Pacific Ave W	2413667	16-Dec-24	<1	1	0.92	1.43	15:00
Hydrant - Pacific Ave W_Resample	2413667	17-Dec-24	<1	<1	0.99	3.20	14:30
Hydrant - Pacific Ave W_Resample 2	2413667	18-Dec-24	<1	<1	1.00	0.42	13:09

NOTES/COMMENTS:

1. All microbiological tests performed by contract laboratory.
2. OL - Autosampler or Process Offline
3. NA - Not Applicable

Kale Black, Sr. Drinking Water Officer
Office of Drinking Water, Manitoba Sustainable Development
309 – 25 Tupper Street North
Portage La Prairie, MB R1N 3K1

January 7, 2025

RE: CORRECTIVE ACTION REPORT FOR WINNIPEG PUBLIC WATER SYSTEM, 252.00

Incident No: CAR-11-2024-WTP

Reported to ODW: December 21, 2024 @ 23:21

Reported by: Heather Buhler, Water Treatment Systems Engineer

Approved by: Heather Buhler, Water Treatment Systems Engineer

Incident Date: December 21, 2024

Incident Location: Winnipeg 2-Treated (WTP)

Incident Type: Water Entering Distribution System Exceeds Turbidity Standard, 6(1) MR 41/2007

Description of Event and Corrective Actions:

On Saturday, December 21 Filter 5 experienced a turbidity spike above 1.0 NTU. The turbidity reached a maximum of 1.22 NTU at 21:51:12 and was above 1.0 NTU for 22 seconds. Filter 5 turbidity averaged 0.129 NTU over the 5-minute measurement interval. In accordance with ODW-OG-04 this measurement did not exceed the do-not-exceed level specific to the filtration process. The spike was a result of material sloughing from sample line and not a true indication of process turbidity. Neither water quality nor safety were impacted by this event. All other treatment barriers including UV and chlorination remained online without issue during this event.

Test Results:

Filter 5 analyzer readings: Pre-spike – 0.05 NTU, Post-Spike – 0.17 NTU

Post DAF readings: Train 1 – 0.57 NTU, Train 2 – 0.53 NTU

Other Filter analyzer readings during spike: Filter 1 - 0.10 NTU, Filter 2 - 0.06 NTU, Filter 3 - 0.06 NTU, Filter 4 - 0.10 NTU, Filter 6 - 0.02 NTU, Filter 7 – 0.04 NTU, Filter 8 – 0.01 NTU

Reference No: n/a

EMERGENCY REPORTING IS REQUIRED WHERE A POTENTIAL HEALTH RISK IS INVOLVED. FOLLOW THE INSTRUCTIONS OF YOUR DRINKING WATER OFFICER IN SITUATIONS REQUIRING IMMEDIATE REPORTING

N:\Environmental Standards\Analytical Services\Government Agencies\Office of Drinking Water\Corrective Action Reports

2024 QUARTERLY FLUORIDE MONITORING REPORTS



Fluoride Monitoring Report Q1-2024

Location	Sample Number	Date	Fluoride (mg/L)
Distribution System Composite (39 Locations)	628469	2-Jan-24	0.61
	629931	8-Jan-24	0.62
	631532	15-Jan-24	0.65
	633238	22-Jan-24	0.68
	634898	29-Jan-24	0.67
	636588	5-Feb-24	0.66
	638238	12-Feb-24	0.62
	639735	20-Feb-24	0.61
	641200	26-Feb-24	0.61
	642838	4-Mar-24	0.60
	644572	11-Mar-24	0.65
	646149	18-Mar-24	0.63
	647736	25-Mar-24	0.64

Comments:

Report Date : May 30, 2024



**Water and Waste
Eaux et déchets**

Fluoride Monitoring Report Q2-2024

Location	Sample Number	Date	Fluoride (mg/L)
Distribution System Composite (39 Locations)	649374	2-Apr-24	0.66
	650835	8-Apr-24	0.67
	652474	15-Apr-24	0.66
	654047	22-Apr-24	0.63
	655971	29-Apr-24	0.65
	657832	6-May-24	0.69
	659553	13-May-24	0.69
	661375	21-May-24	0.68
	663141	27-May-24	0.68
	665216	3-Jun-24	0.66
	666973	10-Jun-24	0.67
	668783	17-Jun-24	0.68
	670459	24-Jun-24	0.66

Comments:

Report Date : July 03, 2024



Fluoride Monitoring Report Q3-2024

Location	Sample Number	Date	Fluoride (mg/L)
Distribution System Composite (39 Locations)	672410	2-Jul-24	0.66
	674055	8-Jul-24	0.66
	675688	15-Jul-24	0.64
	677482	22-Jul-24	0.67
	679212	29-Jul-24	0.64
	681190	6-Aug-24	0.61
	682786	12-Aug-24	0.66
	684654	19-Aug-24	0.65
	686470	26-Aug-24	0.64
	688311	3-Sep-24	0.65
	690050	9-Sep-24	0.64
	691756	16-Sep-24	0.65
	693515	23-Sep-24	0.64

Comments:

Report Date :

October 04, 2024



Fluoride Monitoring Report Q4-2024

Location	Sample Number	Date	Fluoride (mg/L)
Distribution System Composite (39 Locations)	695265	1-Oct-24	0.65
	696862	7-Oct-24	0.66
	698572	15-Oct-24	0.64
	700310	21-Oct-24	0.65
	702208	28-Oct-24	0.64
	704167	4-Nov-24	0.66
	705970	12-Nov-24	0.65
	707578	18-Nov-24	0.67
	709258	25-Nov-24	0.66
	710982	2-Dec-24	0.66
	712636	9-Dec-24	0.67
	714365	16-Dec-24	0.65
	715625	23-Dec-24	0.61
	717578	30-Dec-24	0.64

Comments:

Report Date : January 27, 2025

2024 MONTHLY ALGAE MONITORING REPORTS



Algae Monitoring Report

Year: 2024
Month: May

Instructions:

Complete this form monthly from June to September
If a bloom is present, take photos and report the bloom to your regional Drinking Water Officer
Submit completed forms to your regional Drinking Water Officer in the first week of October

Visual Inspection

Date	23-May-24									
Name (Print)	J Charbonneau/M Dyck									
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Shoal Lake Intake	X									

Visual Inspection

Date	16-May-24									
Name (Print)	J Charbonneau/M Dyck									
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Deacon Cell 1	X									
Deacon Cell 2	X									
Deacon Cell 3	X									
Deacon Cell 4	X									

Submitted by (Print): Courtney Diduck
Signature: C. Diduck

Report Date: October 7, 2024

Year: 2024
 Month: June

Instructions:

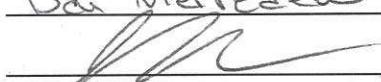
Complete this form monthly from June to September
 If a bloom is present, take photos and report the bloom to your regional Drinking Water Officer
 Submit completed forms to your regional Drinking Water Officer in the first week of October

Visual Inspection

Date	3-Jun		12-Jun		17-Jun		24-Jun			
Name (Print)	Godfrey Victor		Godfrey Victor		Godfrey Victor		Godfrey Victor			
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Shoal Lake Intake	✓		✓		✓		✓			

Visual Inspection

Date	5-Jun		12-Jun		19-Jun		26-Jun			
Name (Print)	Dan Merredew		Dan Merredew		Dan Merredew		Dan Merredew			
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Deacon Cell 1	✓		✓		✓		✓			
Deacon Cell 2	✓		✓		✓		✓			
Deacon Cell 3	✓		✓		✓		✓			
Deacon Cell 4	✓		✓		✓		✓			

Submitted by (Print): Dan Merredew
 Signature: 



Water and Waste
Eaux et déchets

Algae Monitoring Report

Year: 2024

Month: June

Instructions:

Complete this form monthly from June to September

If a bloom is present, take photos and report the bloom to your regional Drinking Water Officer

Submit completed forms to your regional Drinking Water Officer in the first week of October

Visual Inspection

Date	13-Jun-24									
Name (Print)	M Dyck/D Dorge									
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Shoal Lake Intake	X									

Visual Inspection

Date	21-Jun-24									
Name (Print)	J Charbonneau/A Nelson									
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Deacon Cell 1	X									
Deacon Cell 2	X									
Deacon Cell 3	X									
Deacon Cell 4	X									

Submitted by (Print): Courtney Diduck

Report Date: October 7, 2024

Signature:

Year: 2024
 Month: July

Instructions:

Complete this form monthly from June to September
 If a bloom is present, take photos and report the bloom to your regional Drinking Water Officer
 Submit completed forms to your regional Drinking Water Officer in the first week of October

Visual Inspection

Date	2-Jul		8-Jul		15-Jul		22-Jul		28-Jul	
Name (Print)	Godfrey Victor		Godfrey Victor		Godfrey Victor		Godfrey Victor		Godfrey Victor	
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Shoal Lake Intake	✓		✓		✓		✓		✓	

Visual Inspection

Date	3-Jul		10-Jul		17-Jul		24-Jul		31-Jul	
Name (Print)	Dan Merredew		Dan Merredew		Dan Merredew		Dan Merredew		Dan Merredew	
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Deacon Cell 1	✓		✓			✓	✓		✓	
Deacon Cell 2	✓		✓			✓	✓		✓	
Deacon Cell 3	✓		✓			✓	✓		✓	
Deacon Cell 4	✓		✓			✓	✓		✓	

Submitted by (Print): Dan Merredew

Signature: 



Algae Monitoring Report

Year: 2024
Month: July

Instructions:

Complete this form monthly from June to September
If a bloom is present, take photos and report the bloom to your regional Drinking Water Officer
Submit completed forms to your regional Drinking Water Officer in the first week of October

Visual Inspection

Date	17-Jul-24									
Name (Print)	J Charbonneau/A Nelson									
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Shoal Lake Intake	X									

Visual Inspection

Date	23-Jul-24									
Name (Print)	J Charbonneau/A Nelson									
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Deacon Cell 1	X									
Deacon Cell 2	X									
Deacon Cell 3	X									
Deacon Cell 4	X									

Submitted by (Print): Courtney Diduck
Signature: C. Diduck

Report Date: October 7, 2024

Year: 2024
 Month: August

Instructions:

Complete this form monthly from June to September

If a bloom is present, take photos and report the bloom to your regional Drinking Water Officer

Submit completed forms to your regional Drinking Water Officer in the first week of October

Visual Inspection

Date	5-Aug		12-Aug		19-Aug		26-Aug			
Name (Print)	Godfrey Victor		Godfrey Victor		Godfrey Victor		Godfrey Victor			
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Shoal Lake Intake	✓		✓		✓		✓			

Visual Inspection

Date	7-Aug		14-Aug		21-Aug		28-Aug			
Name (Print)	Dan Merredew		Dan Merredew		Dan Merredew		Dan Merredew		Dan Merredew	
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Deacon Cell 1	✓		✓		✓		✓			
Deacon Cell 2	✓		✓		✓		✓			
Deacon Cell 3	✓		✓		✓		✓			
Deacon Cell 4	✓		✓		✓		✓			

Submitted by (Print): Dan Merredew

Signature: [Signature]



Water and Waste
Eaux et déchets

Algae Monitoring Report

Year: 2024

Month: August

Instructions:

Complete this form monthly from June to September

If a bloom is present, take photos and report the bloom to your regional Drinking Water Officer

Submit completed forms to your regional Drinking Water Officer in the first week of October

Visual Inspection

Date	14-Aug-24									
Name (Print)	M Dyck/D Dorge									
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Shoal Lake Intake	X									

Visual Inspection

Date	23-Aug-24									
Name (Print)	A Nelson/D Dorge									
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Deacon Cell 1	X									
Deacon Cell 2	X									
Deacon Cell 3	X									
Deacon Cell 4	X									

Submitted by (Print): Courtney Diduck

Report Date: October 7, 2024

Signature:

Year: 2024

Month: September

Instructions:

Complete this form monthly from June to September

If a bloom is present, take photos and report the bloom to your regional Drinking Water Officer

Submit completed forms to your regional Drinking Water Officer in the first week of October

Visual Inspection

Date	3-Sep		9-Sep		16-Sep		23-Sep			
Name (Print)	Godfrey Victor		Godfrey Victor		Godfrey Victor		Godfrey Victor			
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Shoal Lake Intake	✓		✓		✓		✓			

Visual Inspection

Date	4-Sep		11-Sep		18-Sep		25-Sep			
Name (Print)	Dan Merredew		Dan Merredew		Dan Merredew		Dan Merredew			
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Deacon Cell 1	✓		✓		✓		✓			
Deacon Cell 2	✓		✓		✓		✓			
Deacon Cell 3	✓		✓		✓		✓			
Deacon Cell 4	✓		✓		✓		✓			

Submitted by (Print):

Dan Merredew

Signature:





Water and Waste
Eaux et déchets

Algae Monitoring Report

Year: 2024

Month: September

Instructions:

Complete this form monthly from June to September

If a bloom is present, take photos and report the bloom to your regional Drinking Water Officer

Submit completed forms to your regional Drinking Water Officer in the first week of October

Visual Inspection

Date	11-Sep-24									
Name (Print)	D Dorge/A Nelson									
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Shoal Lake Intake	X									

Visual Inspection

Date	24-Sep-24									
Name (Print)	M Dyck/K Mrochuk									
	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)	Absent (X)	Present (X)
Deacon Cell 1		X								
Deacon Cell 2	X									
Deacon Cell 3	X									
Deacon Cell 4	X									

Submitted by (Print): Courtney Diduck

Report Date: October 7, 2024

Signature:

C. Diduck

APPENDIX C
2024 ZEBRA MUSSEL (*DREISSENA*
POLYMORPHA) MONITORING REPORT



2024 Zebra Mussel (*Dreissena Polymorpha*) Monitoring Report

Objective:

To detect/monitor the presence of Zebra Mussels (adult and veliger) in the City of Winnipeg's source water, Shoal Lake

Methods:

Supporting Work Instructions - SWI 111-06: Zebra Mussel Sampling Program

Wildco Plankton net using vertical or horizontal sweeps compiled into a composite sample, for the capture of veliger stage zebra mussels

Soap-free green kitchen scrubbers tied to plexiglass acrylic sheets, suspended several feet below an inflatable buoy, anchored to the lake bottom with a concrete block, for the capture of adult stage zebra mussels

Supporting Work Instructions - SWI 017-34: Decontamination for Aquatic Invasive Species

Permits/Licences:

Manitoba Agriculture and Resource Development Scientific Collection Permit: 71902676 (SCP 20-2024)

Manitoba Agriculture and Resource Development Aquatic Invasive Species Permit: 27-2024

Ontario Ministry of Natural Resources Licence to Collect Fish for Scientific Purposes: KENO-2024-FWCA-00065

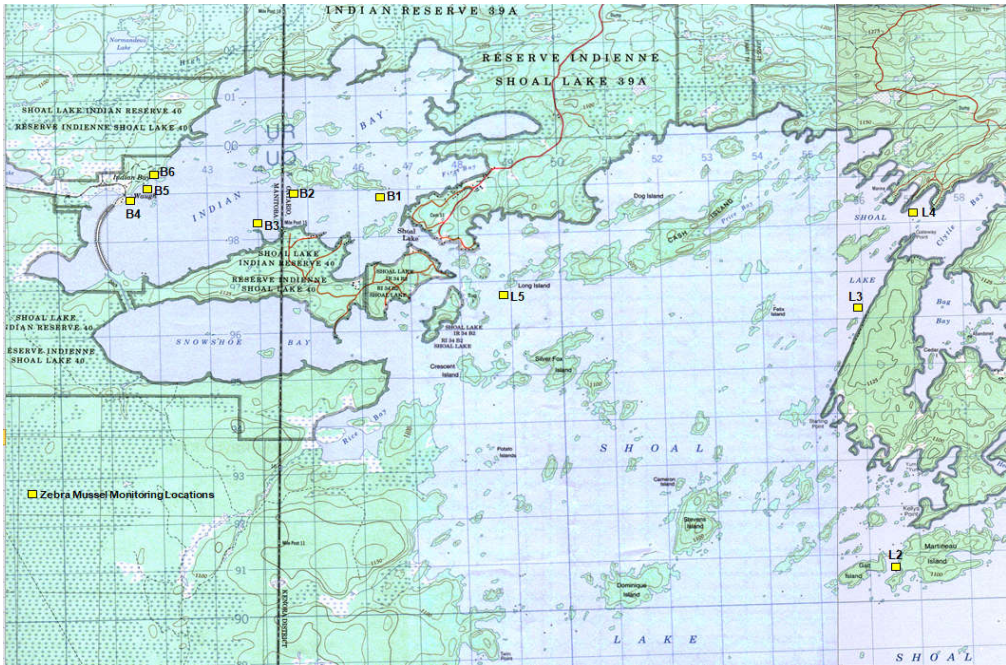
Sampling Locations:

Code	Location	Coordinates	
Deacon Cell 1	Deacon Cell 1 at WTP	N 49°51'02.9"	W 96°56'32.2"
Deacon Cell 2	Deacon Cell 2 at WTP	N 49°51'02.9"	W 96°56'32.2"
Deacon Cell 3	Deacon Cell 3 at WTP	N 49°51'02.9"	W 96°56'32.2"
Deacon Cell 4	Deacon Cell 4 at WTP	N 49°51'02.9"	W 96°56'32.2"
B1	Indian Bay	N 49° 37' 21.3"	W 95° 07' 36.6"
B2	Indian Bay at MB-ON Boundary	N 49° 37' 23.9"	W 95° 08' 56.8"
B3	Indian Bay	N 49° 37' 06.4"	W 95° 09' 23.5"
B4	Indian Bay	N 49° 37' 13.4"	W 95° 11' 42.9"
B5	Indian Bay between Island & Intake	N 49° 37' 13.5"	W 95° 11' 30.6"
B6	Indian Bay	N 49° 37' 27.6"	W 95° 11' 20.3"
L1	Shoal lake	N 49° 36' 33.1"	W 94° 47' 40.7"
L2	Shoal lake	N 49° 32' 56.5"	W 94° 59' 14.9"
L3	Shoal lake	N 49° 35' 59.3"	W 94° 59' 38.7"
L4	Clytie Bay	N 49° 37' 04.4"	W 94° 58' 49.6"
L5	Shoal lake	N 49° 36' 18.4"	W 95° 05' 23.7"

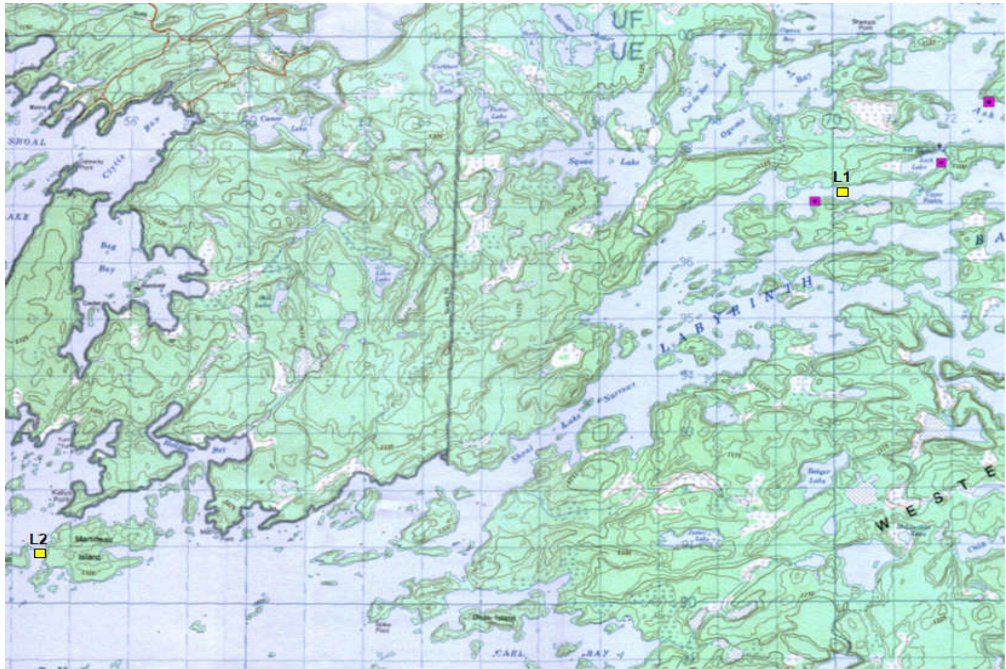
Deacon Cells Map



Shoal Lake Map (B1-B6, L2-L5)



Shoal Lake Map (L1 and L2)



Zebra Mussel (*Dreissena Polymorpha*) Monitoring Report May 2024

Sample Location	Sample Date	Sample Number	Temperature (° C)	Transparency (m)	Veliger (Net)	Adult (Trap)
Deacon Cell 1 - Middle	16-May-24	655800	12.3	3.6	Absent	na
Deacon Cell 1-100m from NE corner	16-May-24	655801	12.3	3.9	Absent	
Deacon Cell 2 - Middle	16-May-24	655804	12.0	3.1	Absent	na
Deacon Cell 2-100m from NE corner	16-May-24	655805	12.1	3.1	Absent	
Deacon Cell 3 - Middle	16-May-24	655808	12.2	4.8	Absent	na
Deacon Cell 3-100m from NE corner	16-May-24	655809	12.2	4.1	Absent	
Deacon Cell 4 - Middle	16-May-24	655812	11.9	4.2	Absent	na
Deacon Cell 4-100m from NE corner	16-May-24	655813	11.8	3.9	Absent	
Indian Bay - B1	23-May-24	655850	14.3	3.3	Absent	na
Indian Bay - B2	23-May-24	655851	14.4	3.1	Absent	na
Indian Bay - B3	23-May-24	655852	15.1	3.3	Absent	na
Indian Bay - B4	23-May-24	655853	15.0	3.2	Absent	na
Indian Bay - B5	23-May-24	655854	14.9	3.3	Absent	na
Indian Bay - B6	23-May-24	655855	14.8	2.9	Absent	na
Shoal Lake - L1	23-May-24	655857	12.3	3.8	Absent	na
Shoal Lake - L2	23-May-24	655858	10.4	3.6	Absent	na
Shoal Lake - L3	23-May-24	655859	10.5	4.2	Absent	na
Shoal Lake - L4	23-May-24	655860	10.7	3.9	Absent	na
Shoal Lake - L5	23-May-24	655861	11.8	4.3	Absent	na

All samples are discarded and equipment decontaminated according to SWI 017-34: Decontamination for Aquatic Invasive Species

Notes :

na: no aliquot, traps were set for the season on May 16 and 23, 2024

Weather Conditions During Monitoring

Survey Location	Sample Date	Wind Direction	Wind Speed (km/h)	Cloud Coverage (%)	Precipitation (mm)	Air Temperature (° C)
Deacon Reservoirs	16-May-2024	South (S)	11	100	<0.1	14.0
Shoal Lake	23-May-2024	East (E)	8	5	<0.1	9.6

Report Date: January 27, 2025

Zebra Mussel (*Dreissena Polymorpha*) Monitoring Report June 2024

Sample Location	Sample Date	Sample Number	Temperature (° C)	Transparency (m)	Veliger (Net)	Adult (Trap)
Deacon Cell 1 - Middle	21-Jun-24	665015	19.1	3.6	na	na
Deacon Cell 1-100m from NE corner	21-Jun-24	665016	19.4	3.5	na	
Deacon Cell 2 - Middle	21-Jun-24	665019	19.0	2.5	na	Absent
Deacon Cell 2-100m from NE corner	21-Jun-24	665020	18.9	2.8	na	
Deacon Cell 3 - Middle	21-Jun-24	665023	19.0	3.8	na	Absent
Deacon Cell 3-100m from NE corner	21-Jun-24	665024	19.4	3.6	na	
Deacon Cell 4 - Middle	21-Jun-24	665027	18.8	2.6	na	Absent
Deacon Cell 4-100m from NE corner	21-Jun-24	665028	19.1	2.6	na	
Indian Bay - B1	13-Jun-24	665041	17.9	4.0	na	Absent
Indian Bay - B2	13-Jun-24	665042	17.1	3.7	na	Absent
Indian Bay - B3	13-Jun-24	665043	17.9	3.5	na	Absent
Indian Bay - B4	13-Jun-24	665044	17.5	3.3	na	Absent
Indian Bay - B5	13-Jun-24	665045	17.5	3.2	na	Absent
Indian Bay - B6	13-Jun-24	665046	17.7	3.1	na	Absent
Shoal Lake - L1	13-Jun-24	665048	16.6	3.1	na	Absent
Shoal Lake - L2	13-Jun-24	665049	17.2	3.9	na	Absent
Shoal Lake - L3	13-Jun-24	665050	17.1	4.5	na	Absent
Shoal Lake - L4	13-Jun-24	665051	16.5	1.8	na	Absent
Shoal Lake - L5	13-Jun-24	665052	14.7	5.0	na	Absent

All samples are discarded and equipment decontaminated according to SWI 017-34: Decontamination for Aquatic Invasive Species

Notes :

na: no aliquot, sampler malfunction or trap missing

Weather Conditions During Monitoring

Survey Location	Sample Date	Wind Direction	Wind Speed (km/h)	Cloud Coverage (%)	Precipitation (mm)	Air Temperature (° C)
Shoal Lake	13-Jun-2024	West (W)	14	95	<0.1	16.6
Deacon Reservoirs	21-Jun-2024	North (N)	3	25	<0.1	20.8

Report Date: January 29, 2025

Zebra Mussel (*Dreissena Polymorpha*) Monitoring Report July 2024

Sample Location	Sample Date	Sample Number	Temperature (° C)	Transparency (m)	Veliger (Net)	Adult (Trap)
Deacon Cell 1 - Middle	23-Jul-24	672244	23.9	2.7	Absent	Absent
Deacon Cell 1-100m from NE corner	23-Jul-24	672245	23.8	2.8	Absent	
Deacon Cell 2 - Middle	23-Jul-24	672248	23.4	2.5	Absent	Absent
Deacon Cell 2-100m from NE corner	23-Jul-24	672249	23.2	2.3	Absent	
Deacon Cell 3 - Middle	23-Jul-24	672252	23.7	2.1	Absent	Absent
Deacon Cell 3-100m from NE corner	23-Jul-24	672253	23.6	2.2	Absent	
Deacon Cell 4 - Middle	23-Jul-24	672256	23.3	2.1	Absent	Absent
Deacon Cell 4-100m from NE corner	23-Jul-24	672257	23.4	2.3	Absent	
Indian Bay - B1	17-Jul-24	672270	22.8	2.9	na	Absent
Indian Bay - B2	17-Jul-24	672271	23.0	3.3	na	Absent
Indian Bay - B3	17-Jul-24	672272	22.9	3.3	na	na
Indian Bay - B4	17-Jul-24	672273	22.7	3.0	na	Absent
Indian Bay - B5	17-Jul-24	672274	22.9	2.5	na	Absent
Indian Bay - B6	17-Jul-24	672275	22.8	3.1	na	Absent
Shoal Lake - L1	17-Jul-24	672277	21.9	3.3	na	Absent
Shoal Lake - L2	17-Jul-24	672278	21.8	3.8	na	Absent
Shoal Lake - L3	17-Jul-24	672279	20.2	3.8	na	Absent
Shoal Lake - L4	17-Jul-24	672280	22.2	3.9	na	Absent
Shoal Lake - L5	17-Jul-24	672281	20.8	3.4	na	Absent

All samples are discarded and equipment decontaminated according to SWI 017-34: Decontamination for Aquatic Invasive Species

Notes :

na: no aliquot, sampler malfunction or trap missing

Weather Conditions During Monitoring

Survey Location	Sample Date	Wind Direction	Wind Speed (km/h)	Cloud Coverage (%)	Precipitation (mm)	Air Temperature (° C)
Shoal Lake	17-Jul-2024	West (W)	9	70	<0.1	17.0
Deacon Reservoirs	23-Jul-2024	East-South East (ESE)	5	100	3.0	19.3

Report Date: January 29, 2025

Zebra Mussel (*Dreissena Polymorpha*) Monitoring Report August 2024

Sample Location	Sample Date	Sample Number	Temperature (° C)	Transparency (m)	Veliger (Net)	Adult (Trap)
Deacon Cell 1 - Middle	23-Aug-24	680424	22.8	1.8	Absent	Absent
Deacon Cell 1-100m from NE corner	23-Aug-24	680425	22.6	1.8	Absent	
Deacon Cell 2 - Middle	23-Aug-24	680428	22.4	2.3	Absent	Absent
Deacon Cell 2-100m from NE corner	23-Aug-24	680429	22.3	1.8	Absent	
Deacon Cell 3 - Middle	23-Aug-24	680432	23.5	1.5	Absent	Absent
Deacon Cell 3-100m from NE corner	23-Aug-24	680433	23.5	2.0	Absent	
Deacon Cell 4 - Middle	23-Aug-24	680436	22.4	2.0	Absent	na
Deacon Cell 4-100m from NE corner	23-Aug-24	680437	22.2	1.8	Absent	
Indian Bay - B1	14-Aug-24	680476	22.6	2.5	Absent	Absent
Indian Bay - B2	14-Aug-24	680477	22.4	2.8	Absent	Absent
Indian Bay - B3	14-Aug-24	680478	21.3	2.3	Absent	na
Indian Bay - B4	14-Aug-24	680479	22.5	2.5	Absent	Absent
Indian Bay - B5	14-Aug-24	680480	22.4	2.8	Absent	Absent
Indian Bay - B6	14-Aug-24	680481	22.3	2.3	Absent	Absent
Shoal Lake - L1	14-Aug-24	680483	23.4	2.5	Absent	Absent
Shoal Lake - L2	14-Aug-24	680484	22.7	2.5	Absent	Absent
Shoal Lake - L3	14-Aug-24	680485	22.6	2.8	Absent	Absent
Shoal Lake - L4	14-Aug-24	680486	22.9	2.5	Absent	Absent
Shoal Lake - L5	14-Aug-24	680487	22.4	2.3	Absent	Absent

All samples are discarded and equipment decontaminated according to SWI 017-34: Decontamination for Aquatic Invasive Species

Notes :

na: no aliquot, trap missing

Weather Conditions During Monitoring

Survey Location	Sample Date	Wind Direction	Wind Speed (km/h)	Cloud Coverage (%)	Precipitation (mm)	Air Temperature (° C)
Shoal Lake	14-Aug-2024	South-South West (SSW)	17	80	<0.1	24.9
Deacon Reservoirs	23-Aug-2024	South (S)	20	40	3.0	23.4

Report Date: January 29, 2025

Zebra Mussel (*Dreissena Polymorpha*) Monitoring Report September 2024

Sample Location	Sample Date	Sample Number	Temperature (° C)	Transparency (m)	Veliger (Net)	Adult (Trap)
Deacon Cell 1 - Middle	24-Sep-24	687892	18.3	1.5	Absent	Absent
Deacon Cell 1-100m from NE corner	24-Sep-24	687893	18.4	1.8	Absent	
Deacon Cell 2 - Middle	24-Sep-24	687898	18.1	2.3	Absent	na
Deacon Cell 2-100m from NE corner	24-Sep-24	687899	18.2	2.3	Absent	
Deacon Cell 3 - Middle	24-Sep-24	687902	18.4	1.5	Absent	Absent
Deacon Cell 3-100m from NE corner	24-Sep-24	687903	18.4	1.8	Absent	
Deacon Cell 4 - Middle	24-Sep-24	687906	18.1	2.0	Absent	Absent
Deacon Cell 4-100m from NE corner	24-Sep-24	687907	17.9	1.8	Absent	
Indian Bay - B1	11-Sep-24	687927	20.0	2.5	Absent	Absent
Indian Bay - B2	11-Sep-24	687928	19.9	2.3	Absent	Absent
Indian Bay - B3	11-Sep-24	687929	20.1	2.3	Absent	na
Indian Bay - B4	11-Sep-24	687930	20.5	2.0	Absent	Absent
Indian Bay - B5	11-Sep-24	687931	20.4	2.5	Absent	na
Indian Bay - B6	11-Sep-24	687932	20.4	2.3	Absent	na
Shoal Lake - L1	11-Sep-24	687934	20.9	2.3	Absent	na
Shoal Lake - L2	11-Sep-24	687935	20.1	3.3	Absent	Absent
Shoal Lake - L3	11-Sep-24	687936	20.5	3.0	Absent	Absent
Shoal Lake - L4	11-Sep-24	687937	21.0	2.8	Absent	Absent
Shoal Lake - L5	11-Sep-24	687938	20.4	2.8	Absent	Absent

All samples are discarded and equipment decontaminated according to SWI 017-34: Decontamination for Aquatic Invasive Species

Notes :

na: no aliquot, trap missing

Weather Conditions During Monitoring

Survey Location	Sample Date	Wind Direction	Wind Speed (km/h)	Cloud Coverage (%)	Precipitation (mm)	Air Temperature (° C)
Shoal Lake	11-Sep-2024	North-North East (NNE)	7	20	<0.1	21.1
Deacon Reservoirs	24-Sep-2024	North-North East (NNE)	5	10	<0.1	21.5

Report Date: January 29, 2025

Zebra Mussel (*Dreissena Polymorpha*) Monitoring Report October 2024

Sample Location	Sample Date	Sample Number	Temperature (° C)	Transparency (m)	Veliger (Net)	Adult (Trap)
Deacon Cell 1 - Middle	11-Oct-24	694830	12.8	2.3	Absent	Absent
Deacon Cell 1-100m from NE corner	11-Oct-24	694831	12.2	2.0	Absent	
Deacon Cell 2 - Middle	11-Oct-24	694834	12.9	3.5	na	na
Deacon Cell 2-100m from NE corner	11-Oct-24	694835	12.9	3.5	na	
Deacon Cell 3 - Middle	11-Oct-24	694838	12.9	2.0	Absent	Absent
Deacon Cell 3-100m from NE corner	11-Oct-24	694839	12.9	2.3	Absent	
Deacon Cell 4 - Middle	11-Oct-24	694842	12.8	1.8	Absent	Absent
Deacon Cell 4-100m from NE corner	11-Oct-24	694843	12.8	1.8	Absent	
Indian Bay - B1	10-Oct-24	694854	13.1	2.3	Absent	Absent
Indian Bay - B2	10-Oct-24	694855	13.0	3.0	Absent	Absent
Indian Bay - B3	10-Oct-24	694856	12.8	2.5	Absent	Absent
Indian Bay - B4	10-Oct-24	694857	13.2	3.3	Absent	na
Indian Bay - B5	10-Oct-24	694858	13.3	3.3	Absent	na
Indian Bay - B6	10-Oct-24	694859	13.1	3.0	Absent	Absent
Shoal Lake - L1	10-Oct-24	694861	14.6	3.0	Absent	Absent
Shoal Lake - L2	10-Oct-24	694862	15.0	2.8	Absent	Absent
Shoal Lake - L3	10-Oct-24	694863	15.3	2.5	Absent	Absent
Shoal Lake - L4	10-Oct-24	694864	15.2	2.3	Absent	Absent
Shoal Lake - L5	10-Oct-24	694865	14.9	2.8	Absent	na

All samples are discarded and equipment decontaminated according to SWI 017-34: Decontamination for Aquatic Invasive Species

Notes :

na: no aliquot, sampler malfunction or trap missing

Weather Conditions During Monitoring

Survey Location	Sample Date	Wind Direction	Wind Speed (km/h)	Cloud Coverage (%)	Precipitation (mm)	Air Temperature (° C)
Shoal Lake	10-Oct-2024	North-North East (NNE)	14	80	<0.1	14.5
Deacon Reservoirs	11-Oct-2024	North East (NE)	9	20	<0.1	12.4

Report Date: January 29, 2025

APPENDIX D
2024 RESIDENTIAL LEAD MONITORING
PROGRAM RESULTS

City of Winnipeg
Environmental Standards Division
2024 Lead Testing Program Summary

DATE	JOB	WARD	CITY SERVICE LINE MATERIAL	PRIVATE SERVICE LINE MATERIAL	SAMPLED BY	RDT	1 MIN	2 MIN	5 MIN
22-Feb-24	1784	St. James	Lead	Unknown	Participant	0.004725	0.007045	0.000576	0.000488
5-Apr-24	1819	St. Vital	Unknown	Copper	Participant	0.005186	0.001633	0.001504	0.001439
29-Apr-24	1816	River Heights - Fort Garry	Copper	Lead	Participant	0.000155	0.000221	0.000125	0.000115
13-May-24	1826	Daniel McIntyre	Copper	Lead	City Staff	0.011624	0.000447	0.000418	0.000416
13-May-24	1827	Daniel McIntyre	Copper	Lead	City Staff	0.000651	0.000642	0.000640	0.000633
13-May-24	1828	River Heights - Fort Garry	Copper	Lead	City Staff	0.000407	0.000513	0.000376	0.000390
13-May-24	1829	Daniel McIntyre	Copper	Lead	City Staff	0.000220	<0.000065	<0.000065	<0.000065
13-May-24	1830	Daniel McIntyre	Copper	Lead	City Staff	0.000459	0.000211	0.000231	0.000251
13-May-24	1831	Daniel McIntyre	Lead	Lead	City Staff	0.005065	0.002343	0.000991	0.001068
13-May-24	1832	Daniel McIntyre	Copper	Lead	City Staff	0.000527	0.000347	0.000200	0.000181
13-May-24	1833	Daniel McIntyre	Copper	Lead	City Staff	0.000521	<0.000065	<0.000065	<0.000065
13-May-24	1834	Daniel McIntyre	Copper	Lead	City Staff	0.001001	0.000483	0.000266	0.000272
14-May-24	1835	Daniel McIntyre	Copper	Lead	City Staff	0.001946	0.000152	0.000122	0.000104
14-May-24	1836	Daniel McIntyre	Copper	Lead	City Staff	0.000317	0.000096	<0.000065	<0.000065
14-May-24	1837	Daniel McIntyre	Copper	Lead	City Staff	0.000751	0.000592	0.000552	0.000600
14-May-24	1838	River Heights - Fort Garry	Copper	Lead	City Staff	0.006416	0.005206	0.002737	0.000702
14-May-24	1839	Daniel McIntyre	Copper	Lead	City Staff	0.002051	0.000785	0.000384	0.000398
14-May-24	1845	Daniel McIntyre	Copper	Lead	Participant	0.000413	0.000249	0.000261	0.000262
15-May-24	1843	River Heights - Fort Garry	Copper	Lead	City Staff	0.000637	0.001640	0.000426	0.000471
15-May-24	1844	River Heights - Fort Garry	Copper	Lead	City Staff	0.056774	0.005802	0.002498	0.001711
15-May-24	1846	River Heights - Fort Garry	Lead	Lead	City Staff	0.000591	0.000206	0.000143	0.000113
15-May-24	1847	River Heights - Fort Garry	Copper	Lead	City Staff	0.000222	<0.000065	<0.000065	<0.000065
15-May-24	1848	River Heights - Fort Garry	Copper	Lead	City Staff	0.000495	0.000203	0.000123	0.000112
15-May-24	1849	Daniel McIntyre	Copper	Lead	City Staff	0.000084	<0.000065	<0.000065	<0.000065
15-May-24	1850	River Heights - Fort Garry	Copper	Lead	Participant	0.003787	0.006860	0.001694	0.000298
15-May-24	1851	Daniel McIntyre	Lead	Lead	City Staff	0.004832	0.002927	0.000444	0.000372
15-May-24	1852	River Heights - Fort Garry	Copper	Lead	City Staff	0.002136	0.000323	0.000370	0.000350
15-May-24	1853	River Heights - Fort Garry	Lead	Copper	City Staff	0.000774	0.002452	0.000383	0.000255
15-May-24	1854	River Heights - Fort Garry	Unknown	Lead	City Staff	0.000742	0.000369	0.000272	0.000281
21-May-24	1868	St. Vital	Copper	Lead	City Staff	0.000412	0.000383	0.000318	0.000254
21-May-24	1870	St. Vital	Copper	Lead	City Staff	0.000124	<0.000065	<0.000065	<0.000065
21-May-24	1871	St. Vital	Copper	Lead	City Staff	0.000196	0.000150	0.000421	0.000417
21-May-24	1872	St. Boniface	Copper	Lead	City Staff	0.000952	0.000460	0.000467	0.000462

City of Winnipeg
Environmental Standards Division
2024 Lead Testing Program Summary

DATE	JOB	WARD	CITY SERVICE LINE MATERIAL	PRIVATE SERVICE LINE MATERIAL	SAMPLED BY	RDT	1 MIN	2 MIN	5 MIN
21-May-24	1873	Transcona	Unknown	Lead	City Staff	0.000066	<0.000065	<0.000065	<0.000065
21-May-24	1874	St. Boniface	Copper	Lead	City Staff	0.004192	0.000310	0.000269	0.000187
21-May-24	1875	Transcona	Unknown	Lead	City Staff	0.000239	<0.000065	<0.000065	<0.000065
21-May-24	1876	Transcona	Unknown	Lead	City Staff	0.000141	0.000089	<0.000065	<0.000065
21-May-24	1877	St. Vital	Unknown	Lead	City Staff	0.000096	<0.000065	<0.000065	<0.000065
21-May-24	1878	St. Boniface	Copper	Lead	City Staff	0.000300	0.000340	0.000232	0.000209
21-May-24	1879	St. Vital	Copper	Lead	City Staff	0.002759	0.000760	0.000796	0.000567
23-May-24	1880	Elmwood - East Kildonan	Copper	Lead	City Staff	0.000611	0.000295	0.000178	0.000186
23-May-24	1881	Elmwood - East Kildonan	Unknown	Lead	City Staff	0.000961	0.000652	0.000615	0.000600
23-May-24	1882	Elmwood - East Kildonan	Copper	Lead	City Staff	0.004202	0.000242	0.000229	0.000223
23-May-24	1883	Elmwood - East Kildonan	Copper	Lead	City Staff	0.000239	0.000121	0.000094	0.000071
23-May-24	1884	Elmwood - East Kildonan	Lead	Lead	City Staff	0.007536	0.000429	0.000350	0.000280
23-May-24	1885	North Kildonan	Copper	Lead	City Staff	0.000186	<0.000065	0.000099	<0.000065
23-May-24	1886	Elmwood - East Kildonan	Copper	Lead	City Staff	0.006479	0.001485	0.001339	0.001104
23-May-24	1887	North Kildonan	Lead	Lead	Participant	0.003846	0.018699	0.001379	0.001081
29-May-24	1896	Daniel McIntyre	Copper	Lead	City Staff	0.000420	0.000445	0.000353	0.000369
29-May-24	1897	River Heights - Fort Garry	Lead	Lead	City Staff	0.004570	0.000618	0.000299	0.000279
29-May-24	1898	Daniel McIntyre	Unknown	Lead	City Staff	0.000109	<0.000065	0.000073	0.000070
29-May-24	1899	Daniel McIntyre	Unknown	Lead	City Staff	0.003998	0.000685	0.000647	0.000656
29-May-24	1900	Daniel McIntyre	Unknown	Lead	City Staff	0.000066	<0.000065	<0.000065	<0.000065
29-May-24	1901	Daniel McIntyre	Lead	Lead	City Staff	0.001293	0.000706	0.000567	0.000462
29-May-24	1902	Daniel McIntyre	Lead	Lead	City Staff	0.001097	0.000288	0.000252	0.000243
29-May-24	1903	Daniel McIntyre	Copper	Lead	City Staff	<0.000065	<0.000065	<0.000065	<0.000065
29-May-24	1904	River Heights - Fort Garry	Copper	Lead	City Staff	0.001641	0.000420	0.000411	0.000402
30-May-24	1906	Daniel McIntyre	Copper	Lead	City Staff	0.004920	0.001139	0.001851	0.002076
30-May-24	1907	Daniel McIntyre	Copper	Lead	City Staff	0.000405	0.000185	0.000166	0.000120
30-May-24	1908	Daniel McIntyre	Copper	Lead	City Staff	0.000583	0.000412	0.000361	0.000344
30-May-24	1909	Daniel McIntyre	Lead	Lead	City Staff	0.002133	0.001503	0.001063	0.001133
30-May-24	1910	Daniel McIntyre	Copper	Lead	City Staff	0.000538	0.000551	0.000271	0.000272
30-May-24	1911	Daniel McIntyre	Copper	Lead	City Staff	0.000819	0.000509	0.000258	0.000238
30-May-24	1912	Daniel McIntyre	Copper	Lead	City Staff	0.000516	0.000358	0.000390	0.000367
30-May-24	1913	Daniel McIntyre	Copper	Lead	City Staff	0.001472	0.000404	0.000393	0.000364
30-May-24	1914	Daniel McIntyre	Unknown	Lead	City Staff	0.000980	0.000564	0.000550	0.000591

City of Winnipeg
Environmental Standards Division
2024 Lead Testing Program Summary

DATE	JOB	WARD	CITY SERVICE LINE MATERIAL	PRIVATE SERVICE LINE MATERIAL	SAMPLED BY	RDT	1 MIN	2 MIN	5 MIN
30-May-24	1915	Daniel McIntyre	Copper	Lead	City Staff	0.000516	0.000246	0.000339	0.000306
30-May-24	1916	Daniel McIntyre	Copper	Lead	City Staff	0.001459	0.000460	0.000285	0.000282
29-May-24	1917	Daniel McIntyre	Lead	Lead	Participant	0.000378	0.000344	0.000334	0.000343
31-May-24	1918	Daniel McIntyre	Lead	Lead	City Staff	0.001568	0.000314	0.000288	0.000297
31-May-24	1919	Daniel McIntyre	Copper	Lead	City Staff	0.000586	0.000255	0.000277	0.000244
31-May-24	1920	Daniel McIntyre	Copper	Lead	City Staff	0.000636	0.000624	0.000627	0.000618
30-May-24	1921	Daniel McIntyre	Copper	Lead	Participant	0.001662	0.000645	0.004210	0.000621
31-May-24	1922	Elmwood - East Kildonan	Lead	Lead	City Staff	0.000991	0.000663	0.000541	0.000515
7-Jun-24	1927	Daniel McIntyre	Lead	Lead	City Staff	<0.000065	0.000130	<0.000065	<0.000065
7-Jun-24	1928	Daniel McIntyre	Copper	Lead	City Staff	0.003647	0.000480	0.000510	0.000533
7-Jun-24	1929	Point Douglas	Copper	Lead	City Staff	0.000268	0.000137	0.000141	0.000142
7-Jun-24	1931	Point Douglas	Copper	Lead	City Staff	0.004878	0.000353	0.000339	0.000475
7-Jun-24	1932	Daniel McIntyre	Copper	Lead	City Staff	<0.000065	<0.000065	<0.000065	<0.000065
7-Jun-24	1933	Daniel McIntyre	Lead	Lead	Participant	0.003117	0.008241	0.000812	0.000827
7-Jun-24	1934	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.002311	0.007502	0.000680	0.000553
7-Jun-24	1935	Daniel McIntyre	Copper	Lead	City Staff	0.000599	0.000265	0.000248	0.000245
5-Jun-24	1937	Point Douglas	Copper	Lead	City Staff	0.006575	0.006491	0.005406	0.002488
5-Jun-24	1938	Point Douglas	Lead	Lead	City Staff	0.000338	0.000273	0.000268	0.000259
5-Jun-24	1939	Point Douglas	Copper	Lead	City Staff	0.000458	0.000276	0.000342	0.000295
5-Jun-24	1940	Point Douglas	Lead	Lead	City Staff	0.002627	0.000400	0.000286	0.000307
5-Jun-24	1941	Point Douglas	Copper	Lead	City Staff	0.001413	0.001040	0.000616	0.000577
5-Jun-24	1942	Point Douglas	Copper	Lead	City Staff	0.001261	0.000150	0.000141	0.000142
5-Jun-24	1943	Point Douglas	Copper	Lead	City Staff	0.000552	0.000522	0.000523	0.000509
5-Jun-24	1944	Point Douglas	Copper	Lead	City Staff	0.157030	0.003172	0.001636	0.000664
5-Jun-24	1946	Point Douglas	Copper	Lead	City Staff	0.001179	0.001039	0.001089	0.001079
5-Jun-24	1947	Daniel McIntyre	Copper	Lead	City Staff	0.001121	0.000361	0.000206	0.000181
6-Jun-24	1948	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.004202	0.003192	0.003276	0.003651
6-Jun-24	1949	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.000066	<0.000065	<0.000065	<0.000065
6-Jun-24	1950	Daniel McIntyre	Copper	Lead	City Staff	0.000462	0.000403	0.000327	0.000321
6-Jun-24	1951	Fort Rouge - East Fort Garry	Lead	Lead	City Staff	<0.000065	<0.000065	<0.000065	0.000100
6-Jun-24	1952	Fort Rouge - East Fort Garry	Lead	Lead	City Staff	0.001092	0.002617	0.000362	0.000387
11-Jun-24	1954	River Heights - Fort Garry	Copper	Lead	City Staff	0.004610	0.000615	0.000488	0.000448
11-Jun-24	1955	River Heights - Fort Garry	Copper	Lead	City Staff	0.000291	0.000198	0.000134	0.000507

City of Winnipeg
Environmental Standards Division
2024 Lead Testing Program Summary

DATE	JOB	WARD	CITY SERVICE LINE MATERIAL	PRIVATE SERVICE LINE MATERIAL	SAMPLED BY	RDT	1 MIN	2 MIN	5 MIN
11-Jun-24	1956	River Heights - Fort Garry	Copper	Lead	City Staff	0.002060	0.000641	0.000648	0.001236
13-Jun-24	1957	Point Douglas	Lead	Lead	City Staff	0.006278	0.000472	0.000302	0.000290
13-Jun-24	1958	Point Douglas	Copper	Lead	City Staff	0.000633	0.000203	0.000205	0.000208
13-Jun-24	1959	Daniel McIntyre	Copper	Lead	City Staff	0.000408	0.000282	0.000275	0.000277
13-Jun-24	1960	Point Douglas	Copper	Lead	City Staff	0.000914	0.000341	0.000278	0.000306
13-Jun-24	1961	Point Douglas	Lead	Lead	City Staff	0.002762	0.000739	0.000419	0.000407
13-Jun-24	1962	Point Douglas	Lead	Lead	Participant	0.003008	0.011146	0.017951	0.002704
13-Jun-24	1963	Daniel McIntyre	Lead	Copper	City Staff	0.000073	<0.000065	<0.000065	<0.000065
13-Jun-24	1964	Point Douglas	Copper	Lead	City Staff	0.000801	0.000269	0.000267	0.000248
14-Jun-24	1965	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.000568	0.000259	0.000214	0.000228
14-Jun-24	1966	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.000327	0.000294	0.000507	0.000330
14-Jun-24	1967	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.000820	0.000611	0.000537	0.000523
14-Jun-24	1968	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.001130	0.000595	0.000541	0.000589
14-Jun-24	1969	Point Douglas	Copper	Lead	City Staff	0.001629	0.000467	0.000478	0.000450
14-Jun-24	1970	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.001025	0.001068	0.000234	0.000230
14-Jun-24	1971	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.003604	0.001270	0.000499	0.000499
14-Jun-24	1972	Daniel McIntyre	Copper	Lead	City Staff	0.000343	0.000243	0.000248	0.000238
14-Jun-24	1973	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.000775	0.000631	0.000456	0.000482
19-Jun-24	1975	Fort Rouge - East Fort Garry	Lead	Lead	City Staff	0.002964	0.000154	0.000145	0.000144
19-Jun-24	1976	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.001384	0.000738	0.000350	0.000319
19-Jun-24	1977	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.001084	0.000480	0.000465	0.000463
19-Jun-24	1978	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.000973	0.000360	0.000375	0.000381
19-Jun-24	1979	St. Boniface	Copper	Lead	City Staff	0.000123	<0.000065	<0.000065	<0.000065
19-Jun-24	1980	Fort Rouge - East Fort Garry	Lead	Lead	City Staff	0.004359	0.008309	0.001659	0.001412
19-Jun-24	1981	Fort Rouge - East Fort Garry	Lead	Lead	City Staff	0.001704	0.002423	0.001337	0.001098
19-Jun-24	1982	Fort Rouge - East Fort Garry	Copper	Copper	City Staff	0.000802	0.000148	0.000143	<0.000065
19-Jun-24	1983	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.001757	0.000793	0.000625	0.000679
20-Jun-24	1990	Point Douglas	Lead	Lead	City Staff	0.005750	0.000394	0.000378	0.000393
20-Jun-24	1991	Point Douglas	Copper	Lead	City Staff	0.000085	0.000899	0.000068	0.000070
20-Jun-24	1992	St. James	Copper	Lead	City Staff	0.003597	0.000920	0.001008	0.000840
20-Jun-24	1993	Point Douglas	Copper	Lead	City Staff	0.000287	<0.000065	0.000089	<0.000065
20-Jun-24	1994	Point Douglas	Copper	Lead	City Staff	0.001336	0.000417	0.000387	0.000410
19-Jun-24	1995	Point Douglas	Copper	Lead	Participant	0.000679	0.000999	0.000531	0.000335

City of Winnipeg
Environmental Standards Division
2024 Lead Testing Program Summary

DATE	JOB	WARD	CITY SERVICE LINE MATERIAL	PRIVATE SERVICE LINE MATERIAL	SAMPLED BY	RDT	1 MIN	2 MIN	5 MIN
21-Jun-24	1997	Daniel McIntyre	Copper	Lead	City Staff	0.000937	0.001809	0.000716	0.000727
21-Jun-24	1998	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.000538	0.000224	0.000162	0.000159
21-Jun-24	1999	River Heights - Fort Garry	Copper	Lead	City Staff	0.007165	0.013094	0.001635	0.001600
21-Jun-24	2000	Transcona	Unknown	Lead	City Staff	0.000377	0.000123	0.000090	0.000285
21-Jun-24	2001	Daniel McIntyre	Copper	Copper	City Staff	0.000654	<0.000065	<0.000065	<0.000065
21-Jun-24	2002	Daniel McIntyre	Copper	Copper	City Staff	<0.000065	<0.000065	<0.000065	<0.000065
25-Jun-24	2005	Point Douglas	Copper	Lead	City Staff	0.004372	0.000684	0.000976	0.000625
27-Jun-24	2009	Mynarski	Copper	Lead	City Staff	0.000895	0.000587	0.000515	0.000477
27-Jun-24	2010	Mynarski	Copper	Lead	City Staff	0.000525	0.000496	0.000511	0.000484
27-Jun-24	2011	Mynarski	Copper	Lead	City Staff	0.006264	0.000546	0.000547	0.000538
27-Jun-24	2012	Mynarski	Lead	Lead	City Staff	0.001592	0.000739	0.000693	0.000713
27-Jun-24	2013	Mynarski	Copper	Lead	City Staff	0.002193	0.000714	0.000729	0.013790
27-Jun-24	2014	Mynarski	Copper	Lead	City Staff	0.001568	0.000305	0.000466	0.000317
27-Jun-24	2015	Mynarski	Copper	Lead	City Staff	<0.000065	<0.000065	<0.000065	<0.000065
27-Jun-24	2016	Mynarski	Lead	Lead	City Staff	0.001986	0.000752	0.000753	0.000733
28-Jun-24	2018	Mynarski	Copper	Lead	City Staff	0.002356	0.001095	0.001037	0.001099
28-Jun-24	2019	Mynarski	Copper	Lead	City Staff	0.000614	0.000523	0.000502	0.001352
28-Jun-24	2020	Point Douglas	Lead	Lead	City Staff	0.002056	0.003159	0.000617	0.000575
28-Jun-24	2021	Mynarski	Lead	Lead	City Staff	<0.000065	<0.000065	<0.000065	0.000073
28-Jun-24	2022	Mynarski	Copper	Lead	City Staff	0.001096	0.004176	0.000585	0.000180
28-Jun-24	2023	Mynarski	Lead	Lead	City Staff	0.002233	0.001107	0.000226	0.000218
28-Jun-24	2024	Mynarski	Copper	Lead	City Staff	0.000290	0.000189	0.000065	0.000100
28-Jun-24	2025	Mynarski	Lead	Lead	City Staff	0.000600	0.000254	0.000247	0.000244
3-Jul-24	2028	Mynarski	Lead	Lead	City Staff	0.000651	0.000291	0.000297	0.000182
3-Jul-24	2029	Charleswood - Tuxedo - Westwood	Copper	Lead	City Staff	0.001379	0.000346	0.000183	0.000089
3-Jul-24	2030	St. James	Copper	Lead	City Staff	0.005469	0.002536	0.002087	0.001920
4-Jul-24	2031	Fort Rouge - East Fort Garry	Copper	Lead	City Staff	0.001400	0.000738	0.000485	0.000438
4-Jul-24	2032	Mynarski	Copper	Lead	City Staff	0.000249	0.000240	0.000225	0.000215
4-Jul-24	2033	Mynarski	Copper	Lead	City Staff	<0.000065	<0.000065	<0.000065	<0.000065
4-Jul-24	2034	Mynarski	Lead	Lead	City Staff	0.000209	0.000165	0.000106	0.000094
5-Jul-24	2035	Mynarski	Copper	Lead	City Staff	0.004419	0.000288	0.000195	0.000196
10-Jul-24	2038	Mynarski	Lead	Lead	City Staff	<0.000065	<0.000065	<0.000065	<0.000065
10-Jul-24	2039	Mynarski	Copper	Lead	City Staff	0.000355	0.000546	0.000357	0.000367

City of Winnipeg
Environmental Standards Division
2024 Lead Testing Program Summary

DATE	JOB	WARD	CITY SERVICE LINE MATERIAL	PRIVATE SERVICE LINE MATERIAL	SAMPLED BY	RDT	1 MIN	2 MIN	5 MIN
10-Jul-24	2040	Mynarski	Lead	Lead	City Staff	0.000091	<0.000065	<0.000065	0.000065
10-Jul-24	2041	Mynarski	Copper	Lead	City Staff	0.000119	<0.000065	<0.000065	<0.000065
10-Jul-24	2042	Fort Rouge - East Fort Garry	Lead	Lead	City Staff	0.000279	0.000109	0.000245	0.000088
10-Jul-24	2043	Mynarski	Copper	Lead	City Staff	<0.000065	<0.000065	<0.000065	<0.000065
10-Jul-24	2044	Mynarski	Lead	Lead	City Staff	0.004813	0.002125	0.000812	0.001089
10-Jul-24	2045	Mynarski	Copper	Lead	City Staff	0.001687	0.000627	0.000620	0.000611
11-Jul-24	2046	Mynarski	Copper	Lead	City Staff	0.000482	0.000557	0.000171	0.000244
11-Jul-24	2047	Mynarski	Copper	Lead	City Staff	0.000584	0.000347	0.000325	0.000304
11-Jul-24	2048	Mynarski	Lead	Lead	City Staff	0.001431	0.000969	0.000191	0.000174
11-Jul-24	2049	Mynarski	Copper	Lead	City Staff	0.000580	0.000546	0.000431	0.000410
11-Jul-24	2050	Mynarski	Copper	Lead	City Staff	0.003534	0.002041	0.001621	0.001071
11-Jul-24	2051	Mynarski	Copper	Lead	City Staff	0.000086	<0.000065	0.000069	<0.000065
11-Jul-24	2052	Mynarski	Lead	Lead	City Staff	0.000403	0.000166	0.000141	0.000147
18-Jul-24	2053	Point Douglas	Copper	Lead	City Staff	0.001899	0.000804	0.000655	0.000625
18-Jul-24	2054	Mynarski	Lead	Lead	City Staff	0.000453	0.000343	0.000343	0.000343
18-Jul-24	2055	Mynarski	Copper	Lead	City Staff	0.001601	0.002083	0.000659	0.000620
18-Jul-24	2056	Mynarski	Copper	Lead	City Staff	0.000763	0.001863	0.000477	0.000436
19-Jul-24	2057	Mynarski	Lead	Lead	City Staff	0.001780	0.000697	0.000644	0.000631
19-Jul-24	2058	Mynarski	Copper	Lead	City Staff	0.001633	0.000739	0.000695	0.000681
19-Jul-24	2059	Mynarski	Copper	Lead	City Staff	0.001872	0.000423	0.000407	0.000385
19-Jul-24	2060	Mynarski	Copper	Lead	City Staff	0.000670	0.001401	0.000443	0.000393
19-Jul-24	2061	St. James	Copper	Lead	Participant	0.002571	0.000738	0.000755	0.000771
23-Jul-24	2062	Transcona	Copper	Lead	City Staff	0.000176	<0.000065	<0.000065	<0.000065
23-Jul-24	2063	Point Douglas	Lead	Lead	City Staff	0.052667	0.005828	0.003691	0.003628
24-Jul-24	2064	Elmwood - East Kildonan	Copper	Lead	City Staff	0.000562	0.000265	0.000260	0.000251
24-Jul-24	2065	Elmwood - East Kildonan	Copper	Lead	City Staff	0.000722	0.000498	0.000480	0.000335
24-Jul-24	2066	Elmwood - East Kildonan	Lead	Lead	Participant	0.001360	0.000699	0.000533	0.000500
25-Jul-24	2068	Mynarski	Copper	Lead	City Staff	0.000234	0.000778	0.000237	0.000237
25-Jul-24	2069	Elmwood - East Kildonan	Lead	Lead	City Staff	0.003151	0.004541	0.001256	0.001222
25-Jul-24	2070	Elmwood - East Kildonan	Unknown	Lead	City Staff	0.004039	0.000963	0.000950	0.000921
25-Jul-24	2071	Elmwood - East Kildonan	Copper	Lead	City Staff	0.000432	0.000223	0.000090	<0.000065
25-Jul-24	2072	Elmwood - East Kildonan	Lead	Lead	City Staff	0.002755	0.004395	0.000428	0.000426
25-Jul-24	2073	Elmwood - East Kildonan	Copper	Lead	City Staff	0.000794	0.000717	0.000673	0.000667

City of Winnipeg
Environmental Standards Division
2024 Lead Testing Program Summary

DATE	JOB	WARD	CITY SERVICE LINE MATERIAL	PRIVATE SERVICE LINE MATERIAL	SAMPLED BY	RDT	1 MIN	2 MIN	5 MIN
25-Jul-24	2074	Elmwood - East Kildonan	Lead	Lead	City Staff	0.000686	0.000619	0.000546	0.000415
25-Jul-24	2075	Elmwood - East Kildonan	Copper	Copper	City Staff	0.000575	0.000153	0.000137	0.000127
26-Jul-24	2076	North Kildonan	Lead	Lead	Participant	0.003822	0.000859	0.000818	0.000849
26-Jul-24	2077	Elmwood - East Kildonan	Copper	Lead	City Staff	0.001007	0.000697	0.000449	0.000493
26-Jul-24	2078	Elmwood - East Kildonan	Copper	Lead	City Staff	0.001252	0.000418	0.000351	0.000319
26-Jul-24	2079	Elmwood - East Kildonan	Lead	Lead	City Staff	0.001235	0.000910	0.000510	0.000513
26-Jul-24	2080	North Kildonan	Lead	Lead	City Staff	0.001042	0.001737	0.000407	0.000458
29-Jul-24	2081	Mynarski	Copper	Lead	City Staff	0.001961	0.000238	0.000183	0.000178
30-Jul-24	2084	St. James	Copper	Lead	City Staff	0.000475	0.000353	0.000350	0.000351
30-Jul-24	2085	Elmwood - East Kildonan	Lead	Lead	City Staff	0.000874	0.000205	0.000205	0.000217
30-Jul-24	2086	Point Douglas	Copper	Lead	City Staff	0.001043	0.000410	0.000294	0.000295
30-Jul-24	2087	Elmwood - East Kildonan	Copper	Lead	City Staff	0.002599	0.000974	0.000895	0.000909
31-Jul-24	2088	Mynarski	Copper	Lead	City Staff	0.002577	0.000817	0.000286	0.000266
31-Jul-24	2089	Elmwood - East Kildonan	Copper	Lead	City Staff	0.000651	0.000536	0.000521	0.000491
31-Jul-24	2090	St. Boniface	Unknown	Lead	City Staff	0.005143	0.000893	0.000893	0.000861
2-Aug-24	2091	Elmwood - East Kildonan	Copper	Lead	City Staff	0.001620	0.001497	0.002089	0.001483
7-Aug-24	2092	Charleswood - Tuxedo - Westwood	Copper	Lead	City Staff	0.000269	0.000101	0.000090	<0.000065
7-Aug-24	2093	Elmwood - East Kildonan	Lead	Lead	City Staff	0.001658	0.001404	0.001076	0.001075