



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

March 7, 2024

RE: FEBRUARY 2024 WATER QUALITY COMPLIANCE SUBMISSION FOR THE CITY OF WINNIPEG WATER SUPPLY SYSTEM

Please find attached on-line and grab turbidity summary reports, on-line and grab chlorine summary reports and the UV summary report for the Water Treatment Plant for February 2024.

The on-line and grab sampling turbidity reports include results obtained for the Water Treatment Plant raw water and the eight filters. On February 28, the turbidity on Filter 8 exceeded 1.00 NTU, the elevated turbidity reading was caused by analyzer maintenance; additional information is provided in CAR-01-2024. The turbidity results for the filter effluent met the licence requirements.

The on-line and grab sampling chlorine reports include results obtained for the Deacon Booster Pumping Station at the Water Treatment Plant. The free chlorine results at the Water Treatment Plant met the licence requirements.

The UV summary report includes results obtained for the six UV reactors at the Water Treatment Plant. The UV disinfection results met the licence requirements.

Please let me know of any concerns or questions respecting this submission. I can be reached by telephone at 204-986-8359 or by e-mail at rgrosselle@winnipeg.ca.

Yours sincerely,

R. Grosselle

Manager of Environmental Standards

Enclosures

cc: Dr. L. Richards, Winnipeg Regional Health Authority (email)
Dr. H. Chang, Winnipeg Regional Health Authority (email)
Dr. T. Hilderman, Manitoba Health and Seniors Care (email)
T. Shanks, M. Eng., P. Eng. (email)
M. Szmon, P. Eng. (email)
H. Buhler, P. Eng. (email)
L. McCusker, P. Eng. (email)
C. Diduck (email)



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%

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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-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



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 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. Merredew

Signature: 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



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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.10	63.17	63.27	0.00	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	0.00	0.00	0.00	0.00	0.11	63.78	63.89	0.00	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



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:**
- UV Comparative Dose: 18.1 mJ/cm²
 - OL - Off Line

Submitted By (Print): D. Merredew

Signature: original signed by D. Merredew