



Water and Waste Department • Service des eaux et des déchets

Environmental Standards Division • Division des Normes Environnementales

September 7, 2017

Derek Clarke
Office of Drinking Water
Manitoba Sustainable Development
Box 6000
Gimli, Manitoba R0C 1B0

Our File: 040-18-18-55-00

Dear Mr. Clarke:

**RE: AUGUST 2017 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 August 2017. There are no corrective action reports to be submitted for August 2017.

The August on-line and grab sampling turbidity reports include results obtained for the Water Treatment Plant raw water and the eight filters. The turbidity results for the effluent from the filters met the licence requirements.

The August 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 August 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 may be reached by telephone at 204-986-8359 or by e-mail at rgrosselle@winnipeg.ca.

Yours sincerely,

Original signed by:

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. S. Roberecki, Manitoba Health, Seniors and Active Living (email)
M. L. Geer, CPA, CA (email)
G. Patton, P.Eng. (email)
T. Shanks, P.Eng. (email)
M. Szmon, P.Eng. (email)
C. Diduck (email)



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

Water System Code: 252.00
 Licence Number: PWS-09-412-01

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

August 2017 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
1/08/2017	2.80	0.06	0.15	0.13	0.19	0.08	0.19	0.13	0.26	0.12	0.22	0.09	0.27	0.05	0.11	0.01	0.08
2/08/2017	2.69	0.06	0.15	0.13	0.20	0.08	0.19	0.09	0.16	0.06	0.12	0.09	0.21	0.08	0.27	0.01	0.10
3/08/2017	2.19	0.06	0.09	0.12	0.20	0.07	0.19	0.08	0.16	0.05	0.11	0.10	0.11	0.05	0.13	0.01	0.03
4/08/2017	2.92	0.06	0.15	0.10	0.18	0.07	0.10	0.08	0.15	0.06	0.11	0.08	0.16	0.05	0.15	0.01	0.06
5/08/2017	2.38	0.05	0.13	0.13	0.20	0.07	0.19	0.08	0.14	0.06	0.11	0.08	0.15	0.04	0.06	0.01	0.01
6/08/2017	3.50	0.07	0.18	0.10	0.22	0.09	0.22	0.12	0.14	0.06	0.12	0.07	0.09	0.04	0.10	0.01	0.01
7/08/2017	4.02	0.07	0.10	0.08	0.18	0.06	0.20	0.10	0.19	0.07	0.09	0.07	0.13	0.03	0.10	0.01	0.02
8/08/2017	2.88	0.07	0.16	0.09	0.12	0.09	0.13	0.10	0.22	0.07	0.12	0.07	0.10	0.03	0.10	0.01	0.01
9/08/2017	3.61	0.06	0.16	0.08	0.18	0.08	0.19	0.10	0.15	0.09	0.14	0.06	0.13	0.03	0.04	0.01	0.03
10/08/2017	2.88	0.05	0.08	0.07	0.14	0.06	0.15	0.12	0.21	0.09	0.15	0.07	0.10	0.03	0.10	0.01	0.01
11/08/2017	3.03	0.07	0.13	0.07	0.15	0.07	0.09	0.12	0.21	0.13	0.16	0.08	0.13	0.04	0.13	0.01	0.03
12/08/2017	2.75	0.07	0.18	0.10	0.16	0.08	0.18	0.12	0.24	0.13	0.20	0.08	0.18	0.04	0.06	0.01	0.01
13/08/2017	4.51	0.10	0.22	0.12	0.20	0.11	0.25	0.11	0.16	0.06	0.14	0.10	0.12	0.07	0.12	0.01	0.06
14/08/2017	3.31	0.10	0.15	0.11	0.21	0.09	0.24	0.09	0.20	0.05	0.08	0.09	0.17	0.05	0.17	0.01	0.07
15/08/2017	2.85	0.09	0.21	0.14	0.18	0.13	0.21	0.09	0.21	0.06	0.12	0.08	0.19	0.05	0.16	0.01	0.01
16/08/2017	2.71	0.09	0.22	0.14	0.24	0.11	0.26	0.11	0.14	0.06	0.15	0.07	0.16	0.05	0.09	0.01	0.05
17/08/2017	4.07	0.10	0.13	0.12	0.23	0.10	0.26	0.11	0.21	0.05	0.09	0.09	0.11	0.05	0.19	0.01	0.09
18/08/2017	3.35	0.10	0.23	0.14	0.19	0.13	0.18	0.11	0.22	0.06	0.16	0.07	0.18	0.04	0.14	0.01	0.07
19/08/2017	2.96	0.12	0.26	0.18	0.28	0.15	0.27	0.11	0.26	0.08	0.15	0.07	0.18	0.05	0.08	0.01	0.03
20/08/2017	2.73	0.12	0.15	0.15	0.27	0.13	0.26	0.15	0.22	0.05	0.15	0.08	0.10	0.04	0.18	0.01	0.09
21/08/2017	2.29	0.15	0.26	0.13	0.19	0.15	0.19	0.12	0.26	0.06	0.15	0.07	0.15	0.04	0.17	0.01	0.08
22/08/2017	3.22	0.11	0.22	0.13	0.28	0.09	0.29	0.08	0.16	0.04	0.15	0.05	0.12	0.02	0.05	0.01	0.01
23/08/2017	3.86	0.10	0.25	0.07	0.19	0.06	0.23	0.08	0.26	0.03	0.07	0.05	0.06	0.02	0.09	0.01	0.04
24/08/2017	3.42	0.08	0.18	0.08	0.12	0.06	0.09	0.05	0.13	0.04	0.08	0.05	0.09	0.02	0.10	0.01	0.01
25/08/2017	3.75	0.07	0.15	0.07	0.17	0.05	0.15	0.05	0.07	0.03	0.10	0.05	0.07	0.03	0.05	0.01	0.02
26/08/2017	3.05	0.08	0.11	0.07	0.15	0.04	0.06	0.05	0.12	0.04	0.06	0.06	0.12	0.03	0.10	0.01	0.04
27/08/2017	2.56	0.07	0.15	0.08	0.11	0.05	0.15	0.04	0.12	0.04	0.07	0.05	0.13	0.03	0.04	0.01	0.01
28/08/2017	3.54	0.07	0.09	0.07	0.14	0.04	0.14	0.06	0.08	0.03	0.08	0.07	0.13	0.04	0.12	0.01	0.04
29/08/2017	2.85	0.06	0.14	0.07	0.08	0.04	0.05	0.04	0.11	0.04	0.07	0.05	0.12	0.03	0.08	0.01	0.03
30/08/2017	3.55	0.07	0.15	0.07	0.13	0.04	0.13	0.04	0.07	0.04	0.07	0.05	0.12	0.04	0.05	0.01	0.01
31/08/2017	3.24	0.07	0.10	0.07	0.15	0.04	0.14	0.06	0.12	0.04	0.09	0.06	0.08	0.03	0.11	0.01	0.05

Total Number of Measurements Taken, A:	16475	14954	16593	15777	17073	16091	15841	16429
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:	16475	14954	16593	15777	17073	16091	15841	16429
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\2017\08-August

Submitted By (Print): D.Merredew

Signature: Original signed by D.Merredew



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-09-412-01																			
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-2017	1.94	2.73	OL	OL	0.13	0.14	0.14	0.10	0.11	0.16	0.12	0.16	0.09	0.07	0.10	0.05	0.09	0.12	
02-Aug-2017	1.97	2.66	0.10	0.04	0.14	0.15	OL	OL	0.11	0.08	0.07	0.04	0.08	0.10	0.08	0.04	0.09	0.12	
03-Aug-2017	1.49	2.04	0.11	0.05	0.11	0.12	0.11	0.07	0.12	0.08	0.07	0.04	0.11	0.11	0.11	0.06	OL	OL	
04-Aug-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
05-Aug-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
06-Aug-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
07-Aug-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
08-Aug-2017	1.71	2.24	0.17	0.10	0.14	0.10	0.16	0.10	0.12	0.12	0.07	0.07	0.09	0.09	0.07	0.02	0.09	0.10	
09-Aug-2017	1.79	2.43	0.10	0.04	0.13	0.10	0.16	0.11	0.13	0.12	OL	OL	0.09	0.08	0.07	0.03	0.07	0.10	
10-Aug-2017	2.33	2.89	0.10	0.05	0.09	0.07	0.11	0.06	0.09	0.12	0.05	0.09	0.06	0.08	0.06	0.03	0.09	0.12	
11-Aug-2017	2.34	2.45	0.11	0.06	0.10	0.08	0.11	0.07	0.16	0.19	0.08	0.15	0.10	0.10	0.08	0.04	0.08	0.10	
12-Aug-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
13-Aug-2017	1.53	NR	0.16	0.10	0.24	0.21	0.18	0.11	0.19	0.13	0.13	0.08	0.10	0.11	0.10	0.07	0.10	0.13	
14-Aug-2017	1.93	2.58	0.16	0.08	0.14	0.10	0.15	0.10	0.17	0.11	0.08	0.03	0.11	0.10	OL	OL	0.09	0.11	
15-Aug-2017	2.08	2.53	0.22	0.13	0.16	0.15	0.19	0.13	0.14	0.10	0.08	0.05	OL	OL	0.09	0.06	0.08	0.02	
16-Aug-2017	1.97	2.54	0.16	0.07	0.19	0.16	0.25	0.18	0.15	0.10	OL	OL	0.10	0.08	0.11	0.04	0.11	0.02	
17-Aug-2017	1.97	2.85	0.17	0.09	0.14	0.14	0.16	0.11	0.17	0.12	0.08	0.03	0.09	0.09	0.11	0.06	OL	OL	
18-Aug-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
19-Aug-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
20-Aug-2017	1.75	2.83	0.20	0.12	OL	OL	0.20	0.14	0.24	0.17	0.12	0.07	0.10	0.09	0.11	0.05	0.12	0.05	
21-Aug-2017	1.60	2.74	0.20	0.16	0.18	0.14	0.20	0.14	0.22	0.17	0.08	0.03	0.10	0.09	OL	OL	0.09	<0.02	
22-Aug-2017	1.91	2.72	OL	OL	0.14	0.10	0.16	0.09	0.16	0.08	0.13	0.06	0.07	0.05	0.08	<0.02	0.09	<0.02	
23-Aug-2017	1.69	2.42	0.11	0.11	OL	OL	0.12	0.09	0.16	0.09	0.07	0.02	0.06	0.05	0.06	<0.02	0.07	<0.02	
24-Aug-2017	1.71	2.65	0.12	0.08	0.10	0.08	0.11	0.05	OL	OL	0.07	0.03	0.09	0.07	0.06	<0.02	0.06	<0.02	
25-Aug-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
26-Aug-2017	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
27-Aug-2017	1.93	2.73	0.11	0.08	0.09	0.08	0.10	0.04	0.08	0.05	0.08	0.04	OL	OL	0.08	0.02	0.08	0.11	
28-Aug-2017	1.98	2.72	0.10	0.07	0.13	0.10	OL	OL	0.11	0.07	0.08	0.04	0.09	0.07	0.10	0.03	0.09	0.02	
29-Aug-2017	1.50	2.30	0.09	0.06	0.08	0.07	0.09	0.03	0.12	0.11	0.07	0.03	0.09	0.07	0.07	0.02	0.07	<0.02	
30-Aug-2017	1.81	2.66	OL	OL	0.10	0.07	0.10	0.04	0.09	0.05	0.10	0.05	0.07	0.06	0.08	0.02	0.08	<0.02	
31-Aug-2017	1.63	2.62	0.09	0.07	0.12	0.11	OL	OL	0.09	0.07	0.08	0.04	0.08	0.07	0.08	0.03	0.09	<0.02	
Total number of measurements taken, A:			19		20		19		21		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:			19		20		19		21		20		20		20		20		
Compliance with Turbidity Standard, C= B/A X 100%:			100%		100%		100%		100%		100%		100%		100%		100%		

NS: No Sample NA: Not Analyzed OL: Off-Line

Comments:

There was no result for the raw online analyzer on August 13 due to maintenance requirements.

Report Compiled By: H.Demchenko

Approved in LIMS By: C.Diduck

Date Approved: 7-Sep-17



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

Water System Code: 252.00
Licence Number: PWS-09-412-01
Report Created: 01 September 2017

Report Period: August 2017

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/08/2017	1.08	0.96	1.08	0.95
02/08/2017	1.18	1.12	1.18	1.10
03/08/2017	1.18	1.09	1.16	1.10
04/08/2017	1.13	1.05	1.17	1.10
05/08/2017	1.04	0.98	1.16	1.12
06/08/2017	1.06	0.95	1.15	1.10
07/08/2017	1.08	1.02	1.10	1.04
08/08/2017	1.17	1.06	1.09	1.01
09/08/2017	1.26	1.14	1.13	0.96
10/08/2017	1.19	1.02	1.12	0.98
11/08/2017	1.12	0.98	1.04	0.91
12/08/2017	1.19	1.12	1.11	1.03
13/08/2017	1.19	1.13	1.09	1.04
14/08/2017	1.31	1.16	1.21	1.06
15/08/2017	1.19	0.84	1.10	0.76
16/08/2017	1.34	1.25	1.24	1.14
17/08/2017	1.21	0.98	1.23	1.02
18/08/2017	1.19	1.09	1.37	1.19
19/08/2017	1.34	1.11	1.43	1.25
20/08/2017	1.31	1.18	1.37	1.25
21/08/2017	1.24	1.18	1.28	1.18
22/08/2017	1.16	1.07	1.26	1.11
23/08/2017	1.28	0.69	1.42	0.94
24/08/2017	1.36	1.17	1.45	1.11
25/08/2017	1.35	1.20	1.45	1.19
26/08/2017	1.27	1.09	1.30	1.06
27/08/2017	1.20	1.05	1.20	1.10
28/08/2017	1.23	1.10	1.21	1.06
29/08/2017	1.24	1.10	1.21	1.07
30/08/2017	1.24	1.12	1.27	1.11
31/08/2017	1.25	1.17	1.34	1.30

Total Number of Measurements, A:	21599	21596
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	21599	21596
COMPLIANCE, C = B/A X 100%:	100.00	100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2017\08-August

Submitted By (Print): D.Merredew

Signature: Original signed by D.Merredew



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENVIRONMENTAL STANDARDS DIVISION

WATER TREATMENT PLANT CHLORINE GRAB MONITORING REPORT

Water System Code: 252.00 Licence No. PWS-09-412-01	Deacon Booster Pumping Station Branch 1			Deacon Booster Pumping Station Branch 2		
	Free Chlorine (mg/L)		Total Chlorine (mg/L)	Free Chlorine (mg/L)		Total Chlorine (mg/L)
	Date	Analyser	Grab	Grab	Analyser	Grab
01-Aug-2017	0.99	1.13	1.30	0.99	1.10	1.26
02-Aug-2017	1.19	1.21	1.39	1.20	1.21	1.40
03-Aug-2017	1.24	1.21	1.49	OL	1.30	1.46
04-Aug-2017	NS	NS	NS	NS	NS	NS
05-Aug-2017	NS	NS	NS	NS	NS	NS
06-Aug-2017	NS	NS	NS	NS	NS	NS
07-Aug-2017	NS	NS	NS	NS	NS	NS
08-Aug-2017	1.10	1.06	1.28	1.08	1.08	1.32
09-Aug-2017	1.17	1.19	1.37	1.08	1.10	1.29
10-Aug-2017	1.13	1.15	1.35	1.03	1.07	1.21
11-Aug-2017	1.08	1.18	1.33	1.00	1.06	1.22
12-Aug-2017	NS	NS	NS	NS	NS	NS
13-Aug-2017	1.16	1.26	1.42	1.05	1.12	1.26
14-Aug-2017	1.39	1.28	1.48	1.28	1.17	1.36
15-Aug-2017	1.04	1.27	1.52	0.95	1.20	1.36
16-Aug-2017	1.28	1.26	1.45	1.17	1.19	1.41
17-Aug-2017	1.24	1.30	1.50	1.14	1.27	1.41
18-Aug-2017	NS	NS	NS	NS	NS	NS
19-Aug-2017	NS	NS	NS	NS	NS	NS
20-Aug-2017	1.34	1.40	1.58	1.33	1.36	1.56
21-Aug-2017	1.22	1.37	1.62	1.23	1.35	1.56
22-Aug-2017	1.15	1.27	1.41	1.21	1.23	1.46
23-Aug-2017	1.09	1.14	1.37	1.21	1.15	1.31
24-Aug-2017	1.25	1.26	1.45	1.36	1.36	1.57
25-Aug-2017	NS	NS	NS	NS	NS	NS
26-Aug-2017	NS	NS	NS	NS	NS	NS
27-Aug-2017	1.18	1.27	1.43	1.24	1.31	1.49
28-Aug-2017	1.18	1.22	1.39	1.22	1.28	1.44
29-Aug-2017	1.22	1.32	1.45	1.17	1.34	1.49
30-Aug-2017	1.27	1.33	1.56	1.31	1.36	1.54
31-Aug-2017	1.25	1.35	1.54	1.21	1.38	1.54
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%	

NS: No Sample NA: Not Analyzed NR: No Result OL: Off-Line

Comments:

August 15: WTP operators were notified that analyzers required maintenance.

Report Compiled By: H.Demchenko

Approved in LIMS By: C.Diduck

Date Approved: 7-Sep-17

