



Water and Waste Department • Service des eaux et des déchets

May 7, 2014

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

Melanie Betsill
Office of Drinking Water
Manitoba Conservation and Water Stewardship
1007 Century Street
Winnipeg, Manitoba
R3H 0W4

Dear Ms. Betsill:

**RE: APRIL 2014 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 April 2014. We have also included one corrective action report for a filtered water turbidity exceedence.

The April on-line and grab sampling turbidity reports include results obtained for the Water Treatment Plant raw water and the eight filters. Please note that on April 15, filter #8 reported a value above 1.0 NTU. The filter was taken offline for backwash and when it was restarted, the flow of water caused a brief period of high turbidity. The process was immediately stopped and the filter was placed into backwash until the results reported were acceptable. This has been corrected per the corrective action report. The on-line turbidity report also shows that there were five other turbidity exceedences above 0.3 NTU in April. These results were for a short period of time and did not exceed the normal operating turbidity for more than 12 consecutive hours.

The April 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 have met the licence requirements.

The UV submission includes the summary report for April 2014 in accordance with Section 4.13, Table 2 of the Operating Licence. The UV licence requirement has been met for April.

Further to our annual inspection meeting on March 17th, you had indicated that our laboratory must be accredited for the lead testing we conduct in support of the Lead Control Monitoring Program. We are pleased to inform you that CALA has extended our accreditation for metals testing to include testing for lead.

Please let me know of any concerns or questions respecting this submission. I may be reached by telephone at 204-986-4807 or by e-mail at kkjartanson@winnipeg.ca.

Thanks for your ongoing cooperation and understanding in this matter.

Yours sincerely,

Original signed by:

K.J.T. Kjartanson, P.Eng.
Manager of Environmental Standards

KJTK:rg
Attachments

c:(e-mail)

Dr. L. Richards, Winnipeg Regional Health Authority
Dr. S. Roberecki, Manitoba Health
D.P. Sacher, P.Eng.
G. Patton, P.Eng.
T. Shanks, P.Eng.
A. J. Weremy, P.Eng.
S. Fletcher

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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 A	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				
01-Apr-2014	1.00	1.14	1.07	1.18
02-Apr-2014	1.04	1.23	1.09	1.20
03-Apr-2014	1.02	1.15	1.04	1.21
04-Apr-2014	0.96	1.12	0.95	1.15
05-Apr-2014	NA	NA	NA	NA
06-Apr-2014	NA	NA	NA	NA
07-Apr-2014	1.02	1.21	0.98	1.22
08-Apr-2014	0.89	1.08	1.00	1.08
09-Apr-2014	1.08	1.18	0.96	1.28
10-Apr-2014	0.95	1.08	0.91	1.05
11-Apr-2014	0.80	1.00	0.94	1.13
12-Apr-2014	NA	NA	NA	NA
13-Apr-2014	NA	NA	NA	NA
14-Apr-2014	1.03	1.25	1.07	1.32
15-Apr-2014	1.14	1.28	1.09	1.30
16-Apr-2014	1.15	1.35	1.25	1.35
17-Apr-2014	1.13	1.27	1.09	1.30
18-Apr-2014	NA	NA	NA	NA
19-Apr-2014	NA	NA	NA	NA
20-Apr-2014	NA	NA	NA	NA
21-Apr-2014	1.07	1.31	1.12	1.26
22-Apr-2014	1.13	1.37	1.16	1.31
23-Apr-2014	1.10	1.25	1.13	1.27
24-Apr-2014	1.06	1.26	1.13	1.29
25-Apr-2014	1.10	1.29	1.11	1.31
26-Apr-2014	NA	NA	NA	NA
27-Apr-2014	NA	NA	NA	NA
28-Apr-2014	1.08	1.21	1.05	1.18
29-Apr-2014	1.17	1.27	1.10	1.28
30-Apr-2014	1.15	1.28	1.17	1.33
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%	

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

Comments:

Report Compiled By: K. Wazny

Approved in LIMS By: S. Fletcher/A. Vanderstel

Date Approved: 2-May-14



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

Water System Code: **252.00**
Licence Number: **PWS-09-412 A**
Report Created: **01 May 2014**

Report Period: April 2014

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
1/04/2014	1.04	0.66	1.05	0.84
2/04/2014	0.92	0.80	1.05	0.88
3/04/2014	0.94	0.84	1.00	0.86
4/04/2014	0.97	0.81	1.00	0.83
5/04/2014	1.05	0.89	1.06	0.92
6/04/2014	1.12	1.01	1.10	0.99
7/04/2014	1.04	0.86	1.05	0.87
8/04/2014	0.97	0.87	1.00	0.89
9/04/2014	1.05	0.69	1.10	0.83
10/04/2014	0.90	0.73	1.00	0.73
11/04/2014	1.03	0.90	1.24	1.06
12/04/2014	1.00	0.86	1.07	0.75
13/04/2014	0.96	0.89	1.05	0.92
14/04/2014	0.97	0.86	1.07	0.86
15/04/2014	1.11	0.94	1.12	0.90
16/04/2014	1.18	1.04	1.10	0.91
17/04/2014	1.15	1.05	1.13	1.04
18/04/2014	1.21	1.08	1.17	1.10
19/04/2014	1.13	1.02	1.13	1.04
20/04/2014	1.08	1.01	1.11	1.00
21/04/2014	1.07	0.96	1.11	0.93
22/04/2014	1.12	1.03	1.11	1.02
23/04/2014	1.10	1.02	1.07	0.98
24/04/2014	1.13	1.04	1.09	0.80
25/04/2014	1.11	1.03	1.15	1.05
26/04/2014	1.05	0.97	1.08	1.04
27/04/2014	0.93	0.83	1.00	0.90
28/04/2014	0.97	0.81	0.96	0.91
29/04/2014	1.10	1.00	1.13	0.91
30/04/2014	1.06	0.96	1.13	1.02

Total Number of Measurements, A:	20824	20817
Minimum Free Chlorine Standard:	0.50	0.50
Number of Measurements Meeting Standard, B:	20854	20817
COMPLIANCE, C = B/A X 100%:	100	100

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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 A	Turbidity (NTU)								
Date	Raw Water	Filter 1	Filter 2	Filter 3	Filter 4	Filter 5	Filter 6	Filter 7	Filter 8
01-Apr-2014	0.31	0.16	0.10	0.08	0.07	0.15	0.10	0.06	0.10
02-Apr-2014	0.43	0.06	0.07	0.13	0.15	0.10	0.11	0.13	0.23
03-Apr-2014	0.31	0.08	0.07	0.09	0.09	0.08	0.07	0.09	0.11
04-Apr-2014	0.29	0.07	0.10	0.08	0.12	0.07	0.09	0.07	0.17
05-Apr-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
06-Apr-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
07-Apr-2014	0.35	0.23	0.15	0.13	0.14	0.11	0.10	0.13	0.12
08-Apr-2014	0.25	0.07	0.10	0.09	0.07	0.13	0.12	0.08	0.14
09-Apr-2014	0.25	0.06	0.06	0.15	0.09	0.11	0.06	0.09	0.09
10-Apr-2014	0.30	0.11	0.13	0.11	0.13	0.11	0.13	0.09	0.16
11-Apr-2014	0.24	0.12	0.09	0.12	0.08	0.15	0.12	0.12	0.12
12-Apr-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Apr-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Apr-2014	0.24	0.11	0.13	0.13	0.09	0.08	0.09	0.13	0.13
15-Apr-2014	0.25	0.12	0.14	0.36	0.08	0.10	0.20	0.12	0.12
16-Apr-2014	0.30	0.21	0.08	0.14	0.18	0.12	0.09	0.13	0.19
17-Apr-2014	0.28	0.12	0.08	0.13	0.10	0.13	0.09	0.11	0.12
18-Apr-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
19-Apr-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
20-Apr-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
21-Apr-2014	0.35	0.14	0.19	0.18	0.08	0.13	0.09	0.10	0.09
22-Apr-2014	0.41	0.08	0.10	0.14	0.10	0.11	0.10	0.11	0.10
23-Apr-2014	0.47	0.17	0.09	0.10	0.19	0.09	0.11	0.16	0.18
24-Apr-2014	0.40	0.09	0.08	0.11	0.10	0.09	0.12	0.11	0.10
25-Apr-2014	0.37	0.11	0.09	0.18	0.11	0.08	0.08	0.11	0.10
26-Apr-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
27-Apr-2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
28-Apr-2014	0.50	0.15	0.10	0.14	0.10	0.18	0.09	0.17	0.11
29-Apr-2014	0.45	0.08	0.09	0.18	0.09	0.08	0.08	0.11	0.12
30-Apr-2014	0.45	0.16	0.23	0.20	0.10	0.12	0.19	0.22	0.17
Total number of measurements taken, A:	21	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	0.30
Number of measurements meeting standard, B:	21	21	20	21	21	21	21	21	21
Compliance with Turbidity Standard, C= B/A X 100%:	100%	100%	95%	100%	100%	100%	100%	100%	100%

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

Comments:

Report Compiled By: K. Wazny

Approved in LIMS By: S. Fletcher/A. Vanderstel

Date Approved: 2-May-14



CITY OF WINNIPEG
 WATER AND WASTE DEPARTMENT
 WATER SERVICES

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

WATER TREATMENT PLANT TURBIDITY ON-LINE MONITORING REPORT

April 2014 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
1/04/2014	0.36	0.04	0.12	0.00	0.04	0.01	0.01	0.02	0.03	0.01	0.06	0.02	0.07	0.01	0.06	0.02	0.18
2/04/2014	0.35	0.03	0.09	0.00	0.00	0.01	0.03	0.02	0.06	0.01	0.04	0.02	0.08	0.02	0.04	0.03	0.05
3/04/2014	0.34	0.03	0.05	0.00	0.03	0.00	0.04	0.01	0.06	0.01	0.05	0.03	0.05	0.02	0.06	0.03	0.16
4/04/2014	0.34	0.04	0.09	0.00	0.03	0.01	0.01	0.01	0.02	0.01	0.02	0.03	0.08	0.01	0.06	0.02	0.17
5/04/2014	0.33	0.03	0.09	0.00	0.05	0.01	0.04	0.02	0.05	0.01	0.05	0.02	0.10	0.02	0.03	0.02	0.05
6/04/2014	0.35	0.03	0.06	0.00	0.03	0.01	0.06	0.02	0.08	0.01	0.06	0.04	0.05	0.02	0.08	0.04	0.22
7/04/2014	0.32	0.05	0.10	0.00	0.04	0.01	0.01	0.01	0.03	0.01	0.03	0.04	0.11	0.02	0.09	0.03	0.21
8/04/2014	0.31	0.03	0.10	0.00	0.04	0.01	0.05	0.02	0.09	0.01	0.07	0.03	0.11	0.02	0.04	0.06	0.29
9/04/2014	0.31	0.03	0.05	0.00	0.01	0.01	0.02	0.01	0.06	0.01	0.04	0.02	0.05	0.02	0.09	0.04	0.21
10/04/2014	0.30	0.05	0.09	0.00	0.05	0.00	0.01	0.02	0.09	0.01	0.03	0.04	0.11	0.02	0.09	0.04	0.28
11/04/2014	0.28	0.04	0.10	0.00	0.04	0.01	0.05	0.02	0.04	0.01	0.08	0.03	0.09	0.02	0.08	0.03	0.24
12/04/2014	0.28	0.03	0.10	0.00	0.04	0.01	0.05	0.02	0.07	0.01	0.07	0.03	0.10	0.02	0.08	0.03	0.13
13/04/2014	0.29	0.04	0.11	0.00	0.03	0.01	0.06	0.02	0.08	0.01	0.07	0.03	0.06	0.02	0.08	0.05	0.41
14/04/2014	0.30	0.05	0.07	0.00	0.05	0.01	0.06	0.02	0.09	0.01	0.06	0.04	0.11	0.02	0.08	0.04	0.27
15/04/2014	0.30	0.08	0.39	0.00	0.04	0.05	0.41	0.02	0.10	0.02	0.20	0.04	0.18	0.01	0.06	0.03	1.03
16/04/2014	0.32	0.03	0.26	0.02	0.22	0.03	0.24	0.01	0.03	0.01	0.08	0.05	0.38	0.01	0.06	0.02	0.20
17/04/2014	0.32	0.04	0.09	0.00	0.05	0.01	0.05	0.02	0.05	0.02	0.07	0.03	0.11	0.02	0.03	0.03	0.75
18/04/2014	0.33	0.04	0.10	0.00	0.02	0.01	0.07	0.02	0.08	0.02	0.07	0.04	0.06	0.03	0.08	0.02	0.12
19/04/2014	0.36	0.05	0.07	0.01	0.05	0.01	0.07	0.02	0.09	0.02	0.07	0.05	0.11	0.02	0.09	0.02	0.15
20/04/2014	0.38	0.05	0.10	0.01	0.05	0.01	0.03	0.02	0.08	0.03	0.07	0.04	0.11	0.02	0.09	0.02	0.15
21/04/2014	0.40	0.04	0.10	0.00	0.04	0.01	0.07	0.03	0.07	0.02	0.08	0.04	0.11	0.02	0.04	0.01	0.02
22/04/2014	0.42	0.04	0.10	0.00	0.01	0.01	0.07	0.02	0.08	0.02	0.07	0.03	0.06	0.02	0.08	0.01	0.17
23/04/2014	0.44	0.05	0.07	0.01	0.05	0.01	0.08	0.02	0.08	0.01	0.03	0.05	0.11	0.02	0.08	0.01	0.13
24/04/2014	0.56	0.04	0.11	0.00	0.04	0.01	0.04	0.02	0.04	0.02	0.08	0.04	0.10	0.02	0.05	0.00	0.01
25/04/2014	0.47	0.04	0.12	0.02	0.03	0.02	0.09	0.03	0.09	0.02	0.08	0.04	0.06	0.03	0.07	0.01	0.29
26/04/2014	0.49	0.06	0.09	0.02	0.07	0.01	0.10	0.02	0.09	0.02	0.04	0.05	0.11	0.02	0.08	0.01	0.11
27/04/2014	0.52	0.06	0.12	0.02	0.07	0.02	0.04	0.02	0.04	0.03	0.08	0.04	0.11	0.02	0.09	0.01	0.13
28/04/2014	0.55	0.05	0.13	0.01	0.06	0.02	0.12	0.03	0.10	0.03	0.09	0.04	0.11	0.03	0.04	0.01	0.04
29/04/2014	0.58	0.05	0.07	0.00	0.02	0.01	0.08	0.02	0.09	0.03	0.09	0.04	0.06	0.02	0.09	0.01	0.23
30/04/2014	0.60	0.06	0.11	0.00	0.05	0.01	0.06	0.02	0.04	0.04	0.06	0.04	0.10	0.02	0.08	0.01	0.11

Total Number of Measurements Taken, A:	13380	10925	13435	10417	14191	13895	12361	14089
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:	13369	10925	13427	10417	14191	13890	12361	14081
Compliance with Turbidity Standard, C = B/A X 100%:	99.92%	100.00%	99.94%	100.00%	100.00%	99.96%	100.00%	99.94%

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2014\04-April

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 A**

WATER TREATMENT PLANT UV REPORT

Report Period: **April 2014**

Report Created: **Thursday, May 01, 2014**

Date	Transmittance %	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	
		1/04/2014	92.98	0.00	0.00	67.76	67.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	70.41	70.41	0.00	0.00	66.82	66.82	0.00	0.00	0.00	0.00	0.00	0.00	
2/04/2014	93.24	0.00	0.00	32.63	32.63	0.00	0.00	36.08	36.08	0.00	0.00	0.00	0.00	0.00	0.00	69.02	69.02	0.00	0.00	67.27	67.27	0.00	0.00	0.00	0.00	0.00	0.00	205.00	205.00	100.00
3/04/2014	92.98	0.00	0.00	0.00	0.00	0.00	0.00	70.82	70.82	0.00	0.05	42.53	42.58	0.00	0.00	19.62	19.62	0.00	0.00	71.97	71.97	0.00	0.00	0.00	0.00	0.00	0.05	204.93	204.98	99.98
4/04/2014	92.57	0.00	0.00	0.00	0.00	0.00	0.00	72.17	72.17	0.00	0.00	57.96	57.96	0.00	0.00	0.00	0.00	0.00	0.00	74.83	74.83	0.00	0.00	0.00	0.00	0.00	0.00	204.96	204.96	100.00
5/04/2014	91.98	0.00	0.00	0.00	0.00	0.00	0.00	77.67	77.67	0.00	0.00	42.63	42.63	0.00	0.00	9.80	9.80	0.00	0.00	78.14	78.14	0.00	0.00	0.00	0.00	0.00	0.00	208.24	208.24	100.00
6/04/2014	91.09	0.00	0.00	0.00	0.00	0.00	0.00	75.73	75.73	0.00	0.00	0.00	0.00	0.00	0.00	68.00	68.00	0.00	0.00	71.26	71.26	0.00	0.00	0.00	0.00	0.00	0.00	215.00	215.00	100.00
7/04/2014	89.81	0.00	0.00	0.00	0.00	0.00	0.00	76.40	76.40	0.00	0.00	0.00	0.00	0.00	0.00	68.68	68.68	0.00	0.00	71.90	71.90	0.00	0.00	0.00	0.00	0.00	0.00	216.97	216.97	100.00
8/04/2014	90.78	0.00	0.00	0.00	0.00	0.00	0.00	79.01	79.01	0.00	0.00	0.00	0.00	0.00	0.00	70.40	70.40	0.00	0.00	73.61	73.61	0.00	0.00	0.00	0.00	0.00	0.00	223.02	223.03	100.00
9/04/2014	93.87	0.00	0.00	0.00	0.00	0.00	0.00	61.42	61.42	0.00	0.00	0.00	0.00	0.00	0.00	62.97	62.97	0.00	0.00	68.19	68.19	0.00	0.19	7.13	7.32	0.00	0.19	199.71	199.90	99.91
10/04/2014	94.31	0.00	0.05	21.10	21.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	82.60	82.60	0.00	0.00	54.80	54.80	0.00	0.05	52.43	52.48	0.00	0.10	210.93	211.03	99.95
11/04/2014	94.44	0.00	0.00	66.93	66.93	0.00	0.00	0.75	0.75	0.29	0.29	32.78	33.35	0.00	0.00	46.20	46.20	0.00	0.00	49.92	49.92	0.00	0.00	30.55	30.55	0.29	0.29	227.13	227.70	99.75
12/04/2014	94.46	0.00	0.09	66.55	66.64	0.00	0.00	0.00	0.00	0.03	0.08	23.75	23.86	0.06	0.06	57.29	57.40	0.00	0.00	0.00	0.00	0.00	0.00	82.20	82.20	0.08	0.23	229.79	230.11	99.86
13/04/2014	94.51	0.00	0.00	66.99	66.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	82.78	82.78	0.00	0.00	0.00	0.00	0.00	0.00	82.23	82.23	0.00	0.00	232.00	232.00	100.00
14/04/2014	94.87	0.00	0.05	68.41	68.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	82.20	82.20	0.00	0.00	0.00	0.00	0.00	0.06	82.34	82.40	0.00	0.10	232.95	233.05	99.96
15/04/2014	95.33	0.00	0.00	72.95	72.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81.46	81.46	0.00	0.00	0.00	0.00	0.00	0.00	81.07	81.07	0.00	0.00	235.47	235.47	100.00
16/04/2014	94.66	0.00	0.00	42.42	42.42	0.00	0.00	35.77	35.77	0.00	0.00	0.00	0.00	0.05	0.05	39.18	39.28	0.00	0.12	27.11	27.23	0.00	0.00	81.29	81.29	0.05	0.17	225.77	225.99	99.90
17/04/2014	95.02	0.00	0.00	0.00	0.00	0.00	0.00	86.23	86.23	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	57.73	57.73	0.00	0.00	85.42	85.42	0.00	0.00	229.42	229.42	100.00
18/04/2014	93.70	0.00	0.00	0.00	0.00	0.00	0.00	84.20	84.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55.54	55.54	0.00	0.05	81.23	81.28	0.00	0.05	220.97	221.03	99.98
19/04/2014	93.76	0.00	0.00	0.00	0.00	0.00	0.00	84.75	84.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.40	54.40	0.00	0.00	78.41	78.41	0.00	0.00	217.56	217.56	100.00
20/04/2014	93.84	0.00	0.00	0.00	0.00	0.00	0.00	84.74	84.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.35	54.35	0.00	0.00	78.60	78.60	0.00	0.00	217.69	217.69	100.00
21/04/2014	93.98	0.00	0.00	0.00	0.00	0.00	0.00	82.92	82.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.84	53.84	0.00	0.00	77.92	77.92	0.00	0.00	214.68	214.68	100.00
22/04/2014	94.23	0.00	0.00	0.00	0.00	0.00	0.00	81.16	81.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.64	53.64	0.00	0.00	78.01	78.01	0.00	0.00	212.81	212.81	100.00
23/04/2014	94.99	0.00	0.00	0.00	0.00	0.00	0.00	80.72	80.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.33	53.33	0.00	0.00	77.60	77.60	0.00	0.00	211.65	211.65	100.00
24/04/2014	94.43	0.00	0.00	0.00	0.00	0.00	0.07	59.45	59.51	0.00	0.00	0.00	0.00	0.00	0.13	10.56	10.69	0.00	0.00	39.80	39.80	0.07	0.07	40.36	40.49	0.07	0.26	150.17	150.49	99.79
25/04/2014	95.19	0.00	0.00	12.28	12.28	0.28	0.28	89.70	90.27	0.00	0.00	0.00	0.00	0.00	0.13	47.02	47.15	0.00	0.05	47.60	47.65	0.11	0.11	24.06	24.28	0.39	0.57	220.66	221.62	99.57
26/04/2014	95.36	0.00	0.00	0.00	0.00	0.00	0.00	92.48	92.48	0.00	0.00	0.00	0.00	0.00	0.00	58.25	58.25	0.00	0.00	0.00	0.00	0.00	0.00	69.00	69.00	0.00	0.00	219.73	219.73	100.00
27/04/2014	95.45	0.00	0.00	0.00	0.00	0.00	0.00	92.69	92.69	0.00	0.00	0.00	0.00	0.00	0.00	58.05	58.05	0.00	0.00	0.00	0.00	0.00	0.00	71.19	71.19	0.00	0.00	221.94	221.94	100.00
28/04/2014	95.61	0.00	0.00	60.84	60.84	0.00	0.00	23.64	23.64	0.00	0.00	0.00	0.00	0.00	0.00	51.56	51.56	0.00	0.00	0.00	0.00	0.00	0.00	81.82	81.82	0.00	0.00	217.85	217.85	100.00
29/04/2014	96.34	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	51.53	51.53	0.00	0.00	42.11	42.11	0.00	0.00	40.00	40.00	0.00	0.00	215.97	215.97	100.00
30/04/2014	96.52	0.00	0.00	82.35	82.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	51.72	51.72	0.00	0.00	81.94	81.94	0.00	0.00	0.00	0.00	0.00	0.00	216.01	216.01	100.00
		0.00	0.19	743.54	743.73	0.28	0.35	1528.50	1529.13	0.32	0.42	199.65	200.39	0.11	0.36	1239.32	1239.79	0.00	0.17	1370.10	1370.27	0.17	0.53	1382.85	1383.55	0.88	2.01	6463.97	6466.85	

Water Volume [%]:
 Untreated: 0.01 %
 Below Dose: 0.03 %
 To Dose: 99.96 %

Submitted By (Print): D.Merredew

Signature: Original signed by D.Merredew

CORRECTIVE ACTION REPORT



WATER SYSTEM: WTP City of Winnipeg WATER SYSTEM CODE: 252.00

LOCATION OF NON-COMPLIANCE INCIDENT (ex. Water Plant): WTP

OPERATOR: M Logan Signature:

- TYPE OF NON-COMPLIANCE INCIDENT:
- Low disinfectant residual entering the distribution system, 21(1) MR 40/2007
 - Low disinfectant residual in the distribution system, 22 MR 40/2007
 - Filtered water turbidity exceeding the turbidity standard, 6(1) MR 41/2007
 - Low positive total coliform (< 10 CFU/100mL), 3 MR 41/2007
 - Other

INITIAL TEST RESULTS: +1.0^{DM} DATE: April 15, 2014
1.03 ntu

DESCRIPTION OF CORRECTIVE ACTIONS TAKEN (attach additional sheets if required):

Filter # 8 exceeded 1.00 ntu @ 06:17:39 until 06:18:14. The filter had been taken offline but had been restarted for further drain down. Backwash of filter 8 proceeded after the high turbidity and the drain down and returned to normal service with good results.

TEST RESULTS AFTER CORRECTIVE ACTIONS: N/A offline DATE: MAY 5, 2014
(attach laboratory results if applicable)

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

DISTRIBUTION:

FORWARD THE ORIGINAL TO YOUR DRINKING WATER OFFICER WITH YOUR MONTHLY DISINFECTION OR TURBIDITY MONITORING REPORT
RETAIN A COPY FOR YOUR RECORDS

Contact your Drinking Water Officer with any comments, questions or concerns.