



Water and Waste Department • Service des eaux et des déchets

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October 7, 2016

Melanie Betsill  
Office of Drinking Water  
Manitoba Sustainable Development  
1007 Century Street  
Winnipeg, Manitoba R3H 0W4

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

Dear Ms. Betsill:

**RE: SEPTEMBER 2016 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 September 2016. We have included one corrective action report for a positive total coliform in the distribution system.

The September 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 September 9<sup>th</sup>, there was no average turbidity reported for the raw analyzer due to an instrument error and no result for the raw analyzer on September 21<sup>st</sup> and 22<sup>nd</sup> due to the equipment requiring maintenance. The turbidity results for the effluent from the filters met the licence requirements.

The September 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.

On September 28<sup>th</sup>, a positive total coliform result was reported for a routine sample at the NE05 location. On September 29<sup>th</sup> and 30<sup>th</sup>, the location was resampled and results were reported to be negative. Our resampling also indicated that the chlorine levels at the location were normal and provided adequate disinfection. Please see the attached corrective action report for additional details.

The September 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](mailto:rgrosselle@winnipeg.ca).

Yours sincerely,

*Original signed by:*

R. Grosselle  
Manager of Environmental Standards  
Attachments

c:(e-mail)

Dr. L. Richards, Winnipeg Regional Health Authority  
Dr. H. Chang, Winnipeg Regional Health Authority  
Dr. S. Roberecki, Manitoba Health, Healthy Living and Seniors  
M. L. Geer, CPA, CA  
G. Patton, P.Eng.  
T. Shanks, P.Eng.  
M. Szmon, P.Eng.  
C. Diduck

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**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**

September 2016 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
1/09/2016	3.66	0.07	0.14	0.09	0.17	0.09	0.20	0.09	0.11	0.06	0.08	0.04	0.05	0.03	0.08	0.01	0.08
2/09/2016	2.90	0.06	0.15	0.08	0.11	0.12	0.15	0.08	0.18	0.05	0.13	0.04	0.10	0.02	0.08	0.01	0.01
3/09/2016	2.99	0.07	0.11	0.10	0.17	0.10	0.20	0.07	0.16	0.05	0.09	0.04	0.11	0.02	0.03	0.01	0.07
4/09/2016	3.15	0.06	0.13	0.07	0.16	0.10	0.11	0.08	0.10	0.05	0.09	0.05	0.06	0.02	0.09	0.01	0.06
5/09/2016	3.20	0.06	0.08	0.09	0.10	0.09	0.18	0.06	0.16	0.04	0.09	0.05	0.11	0.02	0.03	0.01	0.02
6/09/2016	2.99	0.06	0.13	0.08	0.16	0.08	0.18	0.08	0.10	0.06	0.09	0.05	0.06	0.03	0.09	0.01	0.07
7/09/2016	3.64	0.04	0.09	0.07	0.09	0.09	0.12	0.05	0.14	0.04	0.09	0.05	0.11	0.02	0.08	0.01	0.01
8/09/2016	3.47	0.04	0.11	0.05	0.12	0.06	0.14	0.04	0.05	0.05	0.07	0.05	0.11	0.02	0.03	0.01	0.06
9/09/2016	2.36	0.03	0.09	0.04	0.11	0.06	0.08	0.04	0.09	0.04	0.08	0.06	0.07	0.02	0.07	0.01	0.01
10/09/2016	2.34	0.03	0.05	0.06	0.07	0.05	0.13	0.04	0.09	0.04	0.08	0.05	0.11	0.02	0.03	0.01	0.05
11/09/2016	2.56	0.03	0.14	0.05	0.12	0.05	0.10	0.04	0.07	0.05	0.10	0.06	0.12	0.02	0.08	0.01	0.04
12/09/2016	NR	0.04	0.07	0.07	0.10	0.09	0.16	0.05	0.11	0.04	0.08	0.06	0.11	0.02	0.07	0.01	0.01
13/09/2016	1.97	0.05	0.15	0.06	0.14	0.07	0.16	0.04	0.06	0.05	0.07	0.06	0.11	0.03	0.04	0.01	0.05
14/09/2016	1.68	0.04	0.11	0.06	0.16	0.09	0.11	0.06	0.10	0.05	0.08	0.07	0.08	0.02	0.07	0.01	0.01
15/09/2016	1.67	0.07	0.09	0.11	0.13	0.10	0.20	0.06	0.16	0.04	0.09	0.06	0.11	0.03	0.03	0.01	0.05
16/09/2016	1.31	0.04	0.14	0.07	0.22	0.07	0.11	0.07	0.08	0.06	0.09	0.06	0.08	0.03	0.08	0.01	0.09
17/09/2016	1.64	0.04	0.07	0.08	0.11	0.11	0.27	0.05	0.21	0.04	0.10	0.05	0.15	0.02	0.14	0.01	0.02
18/09/2016	1.48	0.06	0.13	0.08	0.21	0.08	0.24	0.04	0.16	0.04	0.09	0.05	0.16	0.04	0.05	0.01	0.11
19/09/2016	1.73	0.05	0.12	0.07	0.20	0.08	0.15	0.07	0.10	0.06	0.13	0.07	0.09	0.03	0.14	0.01	0.11
20/09/2016	1.81	0.02	0.08	0.06	0.10	0.11	0.26	0.04	0.15	0.04	0.11	0.07	0.17	0.03	0.13	0.01	0.02
21/09/2016	NR	0.04	0.12	0.08	0.15	0.09	0.22	0.04	0.12	0.05	0.12	0.06	0.15	0.04	0.11	0.02	0.11
22/09/2016	NR	0.02	0.11	0.06	0.20	0.09	0.14	0.06	0.08	0.12	0.16	0.06	0.09	0.04	0.12	0.02	0.11
23/09/2016	1.30	0.02	0.09	0.07	0.10	0.07	0.23	0.03	0.13	0.07	0.16	0.04	0.14	0.03	0.12	0.03	0.04
24/09/2016	1.39	0.03	0.05	0.09	0.19	0.02	0.13	0.04	0.12	0.07	0.12	0.02	0.11	0.04	0.05	0.02	0.12
25/09/2016	1.18	0.03	0.09	0.06	0.18	0.02	0.11	0.05	0.07	0.10	0.16	0.02	0.05	0.03	0.12	0.02	0.11
26/09/2016	1.13	0.02	0.07	0.06	0.09	0.02	0.05	0.04	0.11	0.06	0.15	0.03	0.10	0.03	0.12	0.02	0.03
27/09/2016	1.09	0.01	0.03	0.07	0.14	0.00	0.08	0.02	0.09	0.06	0.12	0.02	0.08	0.03	0.05	0.02	0.11
28/09/2016	1.00	0.01	0.04	0.05	0.11	0.00	0.05	0.03	0.04	0.09	0.11	0.01	0.06	0.03	0.09	0.02	0.06
29/09/2016	1.02	0.01	0.03	0.04	0.10	0.00	0.01	0.03	0.17	0.06	0.11	0.04	0.30	0.02	0.08	0.02	0.26
30/09/2016	1.19	0.01	0.02	0.07	0.11	0.01	0.04	0.03	0.08	0.06	0.11	0.02	0.07	0.03	0.06	0.01	0.06

Total Number of Measurements Taken, A:	14828	12618	14459	12381	15422	15194	14109	14919
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:	14828	12618	14459	12381	15422	15194	14109	14919
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%

NR - No Result

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2016\09-September

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-Sep-2016	3.16	3.43	0.21	0.09	0.19	0.12	0.15	0.10	0.16	0.07	0.09	0.04	0.09	0.03	0.09	0.02	0.09	<0.02	
02-Sep-2016	2.92	3.42	0.15	0.05	0.17	0.09	0.17	0.11	0.19	0.08	0.10	0.05	0.16	0.04	0.09	0.02	0.08	<0.02	
03-Sep-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
04-Sep-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
05-Sep-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
06-Sep-2016	2.47	2.78	0.17	0.07	0.17	0.11	0.15	0.09	0.14	0.06	0.09	0.06	0.07	0.05	0.07	0.02	0.06	<0.02	
07-Sep-2016	2.48	2.59	0.12	0.04	0.13	0.08	0.14	0.10	0.13	0.09	0.10	0.06	0.10	0.05	0.08	<0.02	0.09	<0.02	
08-Sep-2016	2.35	NA	0.11	0.03	0.12	0.07	0.10	0.06	0.09	0.02	0.09	0.04	0.07	0.05	0.07	<0.02	0.08	0.02	
09-Sep-2016	2.35	NA	0.09	0.02	0.09	0.05	0.10	0.06	0.09	0.02	0.07	0.04	0.07	0.05	0.08	0.02	0.06	<0.02	
10-Sep-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
11-Sep-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
12-Sep-2016	1.70	1.81	0.12	0.04	0.12	0.08	0.13	0.10	0.16	0.05	0.07	0.04	0.09	0.08	0.07	0.02	0.08	0.02	
13-Sep-2016	1.45	1.75	0.12	0.04	0.13	0.09	0.10	0.07	0.09	0.02	0.06	0.04	0.07	0.06	0.07	0.02	0.09	0.02	
14-Sep-2016	1.23	1.97	0.16	0.03	0.12	0.07	0.11	0.08	0.12	0.08	0.08	0.05	0.09	0.06	0.12	0.03	0.08	<0.02	
15-Sep-2016	1.18	1.46	0.14	0.06	0.16	0.11	0.20	0.16	0.13	0.07	0.11	0.06	0.07	<0.02	0.08	0.02	0.11	0.02	
16-Sep-2016	1.27	1.98	0.18	0.08	0.12	0.09	0.14	0.10	0.15	0.06	0.10	0.07	0.07	0.06	0.08	0.03	0.10	<0.02	
17-Sep-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
18-Sep-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
19-Sep-2016	1.10	1.77	0.18	0.08	OL	OL	0.17	0.12	0.16	0.05	0.14	0.08	0.12	0.07	0.12	0.05	0.08	0.02	
20-Sep-2016	1.48	1.51	0.10	0.02	0.10	0.08	0.14	0.11	0.11	0.03	0.11	0.06	0.16	0.09	0.08	0.04	0.12	0.02	
21-Sep-2016	1.18	NR	0.12	0.03	0.13	0.09	0.16	0.14	0.13	0.03	0.13	0.05	OL	OL	0.09	0.04	0.13	0.03	
22-Sep-2016	1.07	NR	0.17	0.03	0.17	0.15	0.13	0.14	0.14	0.05	0.15	0.14	0.12	0.07	0.13	0.05	0.09	0.04	
23-Sep-2016	1.01	1.25	0.10	0.02	0.11	0.08	0.11	0.03	0.11	0.04	0.14	0.11	0.10	0.03	0.07	0.03	0.13	0.04	
24-Sep-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
25-Sep-2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
26-Sep-2016	0.87	1.05	0.09	<0.02	0.09	0.08	0.10	0.02	0.13	0.03	0.09	0.10	0.09	0.02	0.12	0.11	0.07	0.04	
27-Sep-2016	0.86	1.08	0.06	<0.02	0.06	0.07	0.08	<0.02	0.07	<0.02	0.06	0.09	0.11	0.03	0.07	0.03	0.08	0.03	
28-Sep-2016	0.79	1.01	0.10	<0.02	0.11	0.08	0.07	<0.02	0.07	0.02	0.09	0.09	0.08	<0.02	0.07	0.03	OL	OL	
29-Sep-2016	0.72	0.83	0.09	<0.02	0.10	0.07	0.10	<0.02	0.10	0.02	0.08	0.09	0.10	0.02	OL	OL	0.07	0.03	
30-Sep-2016	0.77	1.09	0.08	<0.02	0.08	0.07	0.10	<0.02	OL	OL	0.19	0.08	0.10	0.03	0.07	0.03	0.14	0.04	
<b>Total number of measurements taken, A:</b>			21		20		21		20		21		20		20		20		
<b>Turbidity Standard for Monitoring Location (NTU):</b>			0.30		0.30		0.30		0.30		0.30		0.30		0.30		0.30		
<b>Number of measurements meeting standard, B:</b>			21		20		21		20		21		20		20		20		
<b>Compliance with Turbidity Standard, C= B/A X 100%:</b>			100%		100%		100%		100%		100%		100%		100%		100%		

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

**Comments:**

Analysers reading was unstable at time of sample collection for the raw water on September 8 and 9. There was no result for the raw water analyser on September 21 and 22 due to maintenance.

Report Compiled By: H.Demchenko

Approved in LIMS By: C.Diduck

Date Approved: 6-Oct-16



**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 October 2016

Report Period: September 2016

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
1/09/2016	0.97	0.87	0.99	0.93
2/09/2016	1.07	0.97	1.10	1.00
3/09/2016	1.07	1.00	1.14	1.08
4/09/2016	1.17	1.04	1.22	1.10
5/09/2016	1.01	0.91	1.03	0.94
6/09/2016	1.17	0.97	1.16	1.01
7/09/2016	1.39	1.29	1.30	1.23
8/09/2016	1.38	1.26	1.28	1.14
9/09/2016	1.35	1.24	1.23	1.14
10/09/2016	1.33	1.22	1.21	1.17
11/09/2016	1.25	0.81	1.17	0.81
12/09/2016	1.29	1.18	1.22	1.16
13/09/2016	1.37	1.27	1.28	1.14
14/09/2016	1.41	1.31	1.34	1.23
15/09/2016	1.44	1.21	1.42	1.35
16/09/2016	1.23	1.10	1.39	1.28
17/09/2016	1.38	1.32	1.35	1.29
18/09/2016	1.36	1.25	1.33	1.26
19/09/2016	1.41	1.24	1.30	1.23
20/09/2016	1.37	1.30	1.33	1.25
21/09/2016	1.35	1.25	1.32	1.25
22/09/2016	1.35	1.24	1.28	1.21
23/09/2016	1.35	1.26	1.26	1.16
24/09/2016	1.32	1.25	1.21	1.13
25/09/2016	1.24	1.17	1.20	1.13
26/09/2016	1.24	1.13	1.23	1.11
27/09/2016	1.37	1.23	1.32	1.26
28/09/2016	1.37	1.31	1.24	1.19
29/09/2016	1.37	1.29	1.24	1.17
30/09/2016	1.42	1.33	1.33	1.25

Total Number of Measurements, A:	20879	20879
Minimum Free Chlorine Standard:	0.5	0.5
Number of Measurements Meeting Standard, B:	20879	20879
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 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	Grab
01-Sep-2016	0.92	1.02	1.15	0.94	1.01	1.16
02-Sep-2016	1.12	1.14	1.30	1.12	1.12	1.31
03-Sep-2016	NS	NS	NS	NS	NS	NS
04-Sep-2016	NS	NS	NS	NS	NS	NS
05-Sep-2016	NS	NS	NS	NS	NS	NS
06-Sep-2016	1.07	1.10	1.25	1.01	1.08	1.22
07-Sep-2016	1.40	1.46	1.65	1.32	1.35	1.48
08-Sep-2016	1.42	1.43	1.66	1.33	1.29	1.53
09-Sep-2016	1.35	1.35	1.54	1.24	1.24	1.37
10-Sep-2016	NS	NS	NS	NS	NS	NS
11-Sep-2016	NS	NS	NS	NS	NS	NS
12-Sep-2016	1.36	1.34	1.49	1.30	1.30	1.47
13-Sep-2016	1.41	1.39	1.58	1.29	1.24	1.43
14-Sep-2016	1.36	1.40	1.59	1.28	1.30	1.53
15-Sep-2016	1.50	1.48	1.64	1.42	1.39	1.54
16-Sep-2016	1.15	1.21	1.40	1.43	1.40	1.57
17-Sep-2016	NS	NS	NS	NS	NS	NS
18-Sep-2016	NS	NS	NS	NS	NS	NS
19-Sep-2016	1.27	1.38	1.62	1.25	1.34	1.52
20-Sep-2016	1.41	1.46	1.66	1.36	1.40	1.57
21-Sep-2016	1.35	1.47	1.63	1.31	1.36	1.60
22-Sep-2016	1.32	1.39	1.62	1.25	1.27	1.49
23-Sep-2016	1.38	1.42	1.56	1.35	1.30	1.46
24-Sep-2016	NS	NS	NS	NS	NS	NS
25-Sep-2016	NS	NS	NS	NS	NS	NS
26-Sep-2016	1.16	1.31	1.48	1.13	1.18	1.36
27-Sep-2016	1.42	1.45	1.63	1.32	1.34	1.53
28-Sep-2016	1.38	1.35	1.53	1.22	1.28	1.46
29-Sep-2016	1.42	1.44	1.57	1.29	1.32	1.45
30-Sep-2016	1.41	1.52	1.76	1.33	1.42	1.63
<b>Total number of measurements taken, A:</b>		21			21	
<b>Chlorine Standard for Monitoring Location (mg/L):</b>		0.50			0.50	
<b>Number of measurements meeting standard, B:</b>		21			21	
<b>Compliance with Chlorine Standard, C= B/A X 100%:</b>		100%			100%	

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

Comments:

Report Compiled By: H.Demchenko

Approved in LIMS By: C.Diduck

Date Approved: 6-Oct-16



**CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT  
WATER SERVICES

Water System Code: 252.00  
Licence Number: PWS-09-412.01

Report Period: **September 2016**

Report Created: **Saturday, October 01, 2016**

Date	Transmittance %	UVR-D100A			UVR-D200A			UVR-D300A			UVR-D400A			UVR-D500A			UVR-D600A			Total			% Volume Treated To Dose
		Untreated	Below	Total	Untreated	Below	Total	Untreated	Below	Total	Untreated	Below	Total	Untreated	Below	Total	Untreated	Below	Total	Untreated	Below	Total	
01/09/2016	93.60	0.00	0.00	0.00	0.00	0.00	79.13	0.00	0.00	0.00	0.00	43.34	0.00	0.00	0.00	0.00	0.00	72.73	0.00	0.00	195.20	195.20	100.00
02/09/2016	93.61	0.00	0.00	0.00	0.00	0.00	77.00	0.00	15.23	15.23	0.00	27.66	0.00	0.00	0.00	0.00	0.00	70.23	0.00	0.00	190.12	190.12	100.00
03/09/2016	93.60	0.00	0.00	0.00	0.00	0.00	76.48	0.00	43.15	43.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.36	0.00	0.00	190.99	190.99	100.00
04/09/2016	93.69	0.00	0.00	0.00	0.00	0.00	76.26	0.00	42.92	42.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.83	0.00	0.00	191.01	191.01	100.00
05/09/2016	93.70	0.00	0.00	0.00	0.00	0.00	76.11	0.00	42.68	42.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.20	0.00	0.00	190.99	190.99	100.00
06/09/2016	93.65	0.00	0.06	27.66	0.00	0.00	47.57	0.00	44.21	44.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.40	0.00	0.06	193.84	193.89	99.97
07/09/2016	93.66	0.00	0.00	72.77	0.00	0.00	0.00	0.00	45.94	45.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76.32	0.00	0.00	195.03	195.03	100.00
08/09/2016	93.97	0.00	0.00	72.86	0.00	0.00	0.00	0.00	46.01	46.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76.35	0.00	0.00	195.03	195.03	100.00
09/09/2016	94.12	0.00	0.00	72.59	0.00	0.00	0.00	0.00	46.02	46.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76.38	0.00	0.00	194.98	194.98	100.00
10/09/2016	94.17	0.00	0.00	72.70	0.00	0.00	0.00	0.00	45.90	45.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76.39	0.00	0.00	194.99	194.99	100.00
11/09/2016	93.95	0.00	0.00	64.88	0.00	0.00	0.00	0.00	40.90	40.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	66.33	0.00	0.00	172.11	172.11	100.00
12/09/2016	93.29	0.00	0.00	72.46	0.00	0.00	0.00	0.00	46.55	46.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.96	0.00	0.03	194.96	195.00	99.98
13/09/2016	94.14	0.00	0.00	72.53	0.00	0.00	0.00	0.00	46.62	46.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.97	0.00	0.00	195.00	195.00	100.00
14/09/2016	93.94	0.00	0.00	72.67	0.00	0.00	0.00	0.00	46.59	46.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	195.01	195.01	100.00
15/09/2016	93.34	0.00	0.00	70.45	0.00	0.00	10.86	0.00	51.58	51.58	0.00	0.00	0.00	0.20	0.20	61.05	61.45	0.00	0.00	0.00	193.95	194.35	99.79
16/09/2016	93.97	0.00	0.00	55.86	0.00	0.00	40.40	0.00	69.85	69.85	0.00	0.00	0.00	0.00	0.00	28.90	28.90	0.00	0.00	0.00	195.00	195.00	100.00
17/09/2016	93.91	0.00	0.00	58.88	0.00	0.00	0.00	0.00	68.43	68.43	0.00	0.00	0.00	0.00	0.00	67.67	67.67	0.00	0.00	0.00	194.98	194.98	100.00
18/09/2016	94.00	0.00	0.00	58.98	0.00	0.00	0.00	0.00	68.37	68.37	0.00	0.00	0.00	0.00	0.00	67.06	67.06	0.00	0.00	0.00	194.41	194.41	100.00
19/09/2016	93.21	0.00	0.00	57.97	0.00	0.00	0.00	0.00	67.37	67.37	0.00	0.00	0.00	0.00	0.00	66.65	66.65	0.00	0.00	0.00	192.00	192.00	100.00
20/09/2016	93.47	0.00	0.00	59.24	0.00	0.00	0.00	0.00	68.74	68.74	0.00	0.00	0.00	0.00	0.00	67.68	67.68	0.00	0.00	0.00	195.66	195.66	100.00
21/09/2016	93.55	0.00	0.00	71.79	0.00	0.00	0.00	0.00	59.95	59.95	0.00	0.00	0.00	0.00	0.00	68.13	68.13	0.00	0.00	0.00	199.86	199.86	100.00
22/09/2016	94.22	0.00	0.00	79.21	0.00	0.00	0.00	0.00	53.13	53.13	0.00	0.00	0.00	0.00	0.00	67.68	67.68	0.00	0.00	0.00	200.02	200.02	100.00
23/09/2016	94.37	0.00	0.00	69.59	0.00	0.00	0.00	0.00	62.21	62.21	0.00	0.00	0.00	0.00	0.00	68.24	68.24	0.00	0.00	0.00	200.03	200.03	100.00
24/09/2016	94.32	0.00	0.00	60.57	0.00	0.00	0.00	0.00	70.49	70.49	0.00	0.00	0.00	0.00	0.00	68.90	68.90	0.00	0.00	0.00	199.96	199.96	100.00
25/09/2016	94.23	0.00	0.00	57.51	0.00	0.00	0.00	0.00	66.63	66.63	0.00	0.00	0.00	0.00	0.00	65.45	65.45	0.00	0.00	0.00	189.58	189.58	100.00
26/09/2016	93.87	0.00	0.00	57.70	0.00	0.00	0.00	0.00	66.50	66.50	0.00	0.00	0.00	0.00	0.00	64.78	64.78	0.00	0.00	0.00	188.99	188.99	100.00
27/09/2016	93.66	0.00	0.00	58.01	0.00	0.00	0.00	0.00	66.48	66.48	0.00	0.00	0.00	0.00	0.00	64.52	64.52	0.00	0.00	0.00	189.01	189.01	100.00
28/09/2016	93.73	0.00	0.00	58.28	0.00	0.00	0.00	0.00	66.95	66.95	0.00	0.00	0.00	0.00	0.00	64.96	64.96	0.00	0.00	0.00	190.19	190.19	100.00
29/09/2016	93.60	0.00	0.00	58.34	0.00	0.00	0.00	0.00	67.35	67.35	0.00	0.00	0.00	0.00	0.00	65.78	65.78	0.00	0.00	0.00	191.46	191.46	100.00
30/09/2016	93.88	0.00	0.00	58.12	0.00	0.00	0.00	0.00	66.75	66.75	0.00	0.00	0.00	0.00	0.00	64.96	64.96	0.00	0.00	0.00	189.83	189.83	100.00
<b>Total [ML]:</b>		0.00	0.06	1591.39	0.00	0.00	483.79	0.00	1593.49	1593.52	0.00	0.00	0.00	0.00	0.00	1128.05	1128.45	0.00	0.00	0.00	5794.19	5794.68	

Water Volume [%]:  
Untreated: 0.00 %  
Below Dose: 0.01 %  
To Dose: 99.99 %

Submitted By (Print): D. Merrestew      Signature: Original Signed by D. Merrestew



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Wednesday, October 5, 2016

**Our Incident/Report No: 03-2016**  
LIMS Reference No: **47529**  
Incident Date: **September 28, 2016**

Ms. Melanie Betsill  
Drinking Water Officer  
Manitoba Sustainable Development, Office of Drinking Water  
1007 Century Street  
Winnipeg MB R3H 0W4

## **RE: CORRECTIVE ACTION REPORT**

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<b>WATER SYSTEM, CODE</b>	Winnipeg Public Water System, 252.00
<b>LOCATION OF NON-COMPLIANT INCIDENT</b>	<b>Winnipeg 3-Dist NE05</b>
<b>INCIDENT REPORTED BY</b>	Courtney Diduck, Analytical Services Branch Head
<b>TYPE OF NON-COMPLIANT INCIDENT</b>	Low positive Total Coliform (<10 per100mL), 3 MR 41/2007
<b>DESCRIPTION OF CORRECTIVE ACTIONS</b>	<u>Environmental Standards:</u> AS SOON AS POSSIBLE: Re-sampled original location until two consecutive negative results were reported. Also tested for turbidity, free/total chlorine, temperature and contacted the ODW.
<b>TEST RESULTS</b>	See Attached

### NOTES/COMMENTS:

1. UP/DOWN STREAM testing performed when EC is >0 /100mL, TC is >10 /100mL or when resample/consecutive sample is positive for EC or TC or as directed by the Manager of Environmental Standards Division and/or the Office of Drinking Water

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

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



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Sample Name	Sample Number	Date Sampled	bacColiEsch-QT (MPNU/100mL)	bacColiTotal-QT (MPNU/100mL)	bacHPC (cfu/mL)	Chlorine, Free (mg/L)	Chlorine, Total (mg/L)	Temperature (°C)	Turbidity-field (ntu)	Time Sampled (hrs)
NE05	486482	28-Sep-16	<1	1	<1	0.71	0.95	17.2	0.29	10:10
NE05_Resample 1	487232	29-Sep-16	<1	<1	<1	0.76	1.05	17.0	0.44	15:03
NE05_Resample 1 Duplicate	487233	29-Sep-16	<1	<1	<1	NA	NA	NA	NA	NA
NE05_Resample 2	487236	30-Sep-16	<1	<1	<1	0.83	1.05	17.3	0.26	15:15
NE05_Resample 2 Duplicate	487237	30-Sep-16	<1	<1	<1	NA	NA	NA	NA	NA

NOTES/COMMENTS:

1. All microbiological tests performed by contract laboratory.
2. N/R-No Result due to laboratory/analyst error.
3. N/A-Not Analyzed.