



Water and Waste Eaux et déchets

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

October 7, 2019

RE: SEPTEMBER 2019 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 2019.

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 6, the maximum turbidity for Filter 6 was greater than 0.30 ntu, but the elevated turbidity did not exceed 12 consecutive hours; the turbidity results for the filter effluent 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.

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 can 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

September 2019 Turbidity (NTU)

Date	Raw		Filter #1		Filter #2		Filter #3		Filter #4		Filter #5		Filter #6		Filter #7		Filter #8	
	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1/09/2019	1.82	0.04	0.06		0.04	0.06	0.06	0.10	0.09	0.17	0.06	0.12	0.08	0.11	0.06	0.14	0.07	0.15
2/09/2019	1.71	0.05	0.10		0.04	0.09	0.09	0.15	0.12	0.14	0.06	0.13	0.07	0.14	0.06	0.08	0.08	0.23
3/09/2019	1.72	0.03	0.10		0.04	0.06	0.07	0.16	0.11	0.18	0.08	0.10	0.08	0.09	0.07	0.12	0.07	0.16
4/09/2019	1.68	0.06	0.14		0.06	0.15	0.10	0.18	0.12	0.21	0.06	0.18	0.06	0.15	0.06	0.11	0.07	0.14
5/09/2019	2.04	0.07	0.12		0.07	0.11	0.11	0.23	0.15	0.24	0.09	0.12	0.07	0.13	0.07	0.08	0.09	0.11
6/09/2019	1.56	0.04	0.11		0.06	0.08	0.09	0.15	0.12	0.19	0.10	0.14	0.09	0.31	0.09	0.23	0.07	0.15
7/09/2019	1.90	0.06	0.14		0.07	0.17	0.09	0.16	0.11	0.18	0.07	0.13	0.07	0.13	0.08	0.15	0.07	0.14
8/09/2019	1.42	0.05	0.12		0.06	0.12	0.09	0.17	0.12	0.19	0.07	0.10	0.08	0.17	0.11	0.13	0.09	0.11
9/09/2019	1.07	0.04	0.11		0.06	0.07	0.08	0.17	0.11	0.19	0.11	0.15	0.11	0.13	0.11	0.18	0.10	0.17
10/09/2019	1.47	0.06	0.08		0.07	0.11	0.10	0.13	0.09	0.13	0.07	0.18	0.08	0.17	0.09	0.20	0.08	0.19
11/09/2019	1.55	0.04	0.12		0.05	0.15	0.10	0.22	0.11	0.21	0.06	0.11	0.05	0.15	0.07	0.11	0.07	0.10
12/09/2019	1.56	0.04	0.12		0.05	0.14	0.09	0.23	0.08	0.18	0.06	0.10	0.05	0.13	0.09	0.15	0.06	0.15
13/09/2019	1.57	0.03	0.10		0.06	0.10	0.09	0.23	0.06	0.18	0.06	0.11	0.07	0.13	0.06	0.14	0.04	0.14
14/09/2019	1.43	0.05	0.08		0.07	0.12	0.12	0.16	0.06	0.16	0.05	0.11	0.05	0.13	0.06	0.14	0.05	0.13
15/09/2019	1.57	0.04	0.11		0.06	0.13	0.14	0.23	0.09	0.14	0.05	0.11	0.05	0.13	0.06	0.15	0.06	0.08
16/09/2019	1.46	0.04	0.09		0.07	0.13	0.02	0.15	0.07	0.17	0.06	0.09	0.07	0.12	0.10	0.12	0.07	0.15
17/09/2019	1.14	0.03	0.09		0.07	0.12	OL	OL	0.08	0.15	0.07	0.10	0.07	0.10	0.08	0.13	0.06	0.12
18/09/2019	1.24	0.03	0.08		0.08	0.11	OL	OL	0.09	0.14	0.06	0.11	0.07	0.12	0.08	0.14	0.07	0.12
19/09/2019	1.32	0.04	0.06		0.10	0.14	OL	OL	0.09	0.16	0.08	0.12	0.09	0.13	0.10	0.16	0.08	0.15
20/09/2019	1.50	0.05	0.09		0.10	0.14	OL	OL	0.09	0.16	0.08	0.14	0.09	0.27	0.10	0.15	0.08	0.15
21/09/2019	1.54	0.04	0.09		0.10	0.16	OL	OL	0.11	0.15	0.07	0.13	0.08	0.14	0.09	0.15	0.08	0.11
22/09/2019	1.01	0.03	0.08		0.11	0.16	OL	OL	0.09	0.16	0.07	0.11	0.07	0.13	0.09	0.11	0.08	0.13
23/09/2019	1.28	0.04	0.09		0.11	0.18	OL	OL	0.08	0.16	0.07	0.09	0.07	0.17	0.09	0.14	0.08	0.13
24/09/2019	1.04	0.05	0.14		0.10	0.15	OL	OL	0.08	0.13	0.06	0.12	0.08	0.14	0.07	0.14	0.07	0.11
25/09/2019	1.01	0.07	0.11		0.09	0.13	OL	OL	0.07	0.14	0.06	0.10	0.07	0.12	0.06	0.11	0.06	0.12
26/09/2019	0.99	0.08	0.14		0.07	0.13	OL	OL	0.06	0.10	0.05	0.10	0.06	0.13	0.06	0.11	0.05	0.11
27/09/2019	1.01	0.07	0.12		0.07	0.11	OL	OL	0.07	0.12	0.05	0.10	0.06	0.18	0.05	0.10	0.05	0.08
28/09/2019	0.97	0.07	0.19		0.06	0.11	OL	OL	0.06	0.12	0.04	0.09	0.06	0.11	0.06	0.08	0.06	0.11
29/09/2019	0.98	0.07	0.12		0.06	0.11	OL	OL	0.05	0.12	0.05	0.07	0.06	0.11	0.06	0.10	0.05	0.10
30/09/2019	0.94	0.06	0.12		0.06	0.08	OL	OL	0.05	0.10	0.04	0.09	0.07	0.09	0.05	0.10	0.05	0.10

Total Number of Measurements Taken, A: 11955 12836 6478 13187 14240 14537 14383 15632

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: 11955 12836 6478 13187 14240 14536 14383 15632

Compliance with Turbidity Standard, C = B/A X 100%: 100.000% 100.000% 100.000% 100.000% 100.000% 99.993% 100.000% 100.000%

Off Line - OL

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Turbidity\2019\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	Grab	Analyser
	01-Sep-2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	02-Sep-2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	03-Sep-2019	1.78	1.62	0.17	0.05	0.21	0.05	0.15	0.11	OL	OL	0.12	0.08	0.15	0.08	0.15	0.07	0.19	0.10		
	04-Sep-2019	1.89	1.66	0.20	0.08	0.18	0.06	0.17	0.12	0.16	0.13	OL	OL	0.19	0.11	0.14	0.06	0.17	0.08		
	05-Sep-2019	1.86	1.55	OL	OL	0.19	0.07	0.24	0.17	0.22	0.17	0.13	0.11	0.17	0.09	0.14	0.07	0.15	0.09		
	06-Sep-2019	1.60	1.51	0.16	0.05	0.16	0.06	0.17	0.10	0.24	0.16	0.17	0.11	0.15	0.09	0.15	0.10	0.18	0.11		
	07-Sep-2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	08-Sep-2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	09-Sep-2019	1.56	1.39	0.16	0.05	0.16	0.06	0.17	0.11	OL	OL	0.17	0.12	0.21	0.11	0.20	0.13	0.21	0.13		
	10-Sep-2019	1.46	1.42	0.16	0.06	0.17	0.08	0.17	0.13	0.16	0.11	OL	OL	OL	OL	0.18	0.10	0.16	0.09		
	11-Sep-2019	1.49	1.47	0.21	0.09	OL	OL	0.22	0.16	0.20	0.13	0.20	0.07	OL	OL	0.12	0.08	0.12	0.06		
	12-Sep-2019	1.58	1.52	OL	OL	0.15	0.06	OL	OL	0.19	0.13	0.12	0.07	0.11	0.07	0.12	0.08	0.12	0.07		
	13-Sep-2019	1.41	1.51	0.14	0.05	0.13	0.07	0.14	0.15	OL	OL	0.10	0.06	0.12	0.08	0.14	0.09	OL	OL		
	14-Sep-2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	15-Sep-2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	16-Sep-2019	1.08	1.14	0.17	0.09	OL	OL	OL	OL	0.16	0.11	0.13	0.08	0.14	0.08	0.12	0.09	0.13	0.07		
	17-Sep-2019	1.11	1.13	0.14	0.03	0.14	0.08	OL	OL	OL	OL	0.14	0.08	0.13	0.08	0.13	0.09	0.15	0.08		
	18-Sep-2019	1.21	1.27	0.12	0.04	0.13	0.10	OL	OL	0.13	0.09	0.16	0.08	0.15	0.09	OL	OL	0.13	0.07		
	19-Sep-2019	1.21	1.29	0.15	0.05	0.15	0.12	OL	OL	0.16	0.11	0.20	0.12	0.19	0.12	OL	OL	0.15	0.09		
	20-Sep-2019	1.29	1.38	0.16	0.05	0.17	0.13	OL	OL	0.18	0.11	OL	OL	0.26	0.12	0.22	0.09	0.17	0.09		
	21-Sep-2019	NA	NA	NA	NA	NA	NA	OL	OL	NA											
	22-Sep-2019	NA	NA	NA	NA	NA	NA	OL	OL	NA											
	23-Sep-2019	1.05	0.96	0.23	0.13	0.17	0.13	OL	OL	0.23	0.12	0.13	0.08	0.13	0.09	0.16	0.09	0.14	0.08		
	24-Sep-2019	1.10	0.99	0.20	0.03	0.13	0.14	OL	OL	0.13	0.09	0.18	0.08	0.15	0.09	0.19	0.10	OL	OL		
	25-Sep-2019	1.06	0.97	0.15	0.09	0.17	0.10	OL	OL	0.14	0.07	0.17	0.07	0.15	0.09	OL	OL	0.14	0.05		
	26-Sep-2019	1.12	0.94	0.14	0.08	0.13	0.09	OL	OL	0.18	0.08	OL	OL	0.19	0.10	0.15	0.05	0.13	0.05		
	27-Sep-2019	1.06	1.01	0.16	0.09	OL	OL	OL	OL	0.15	0.07	0.13	0.06	0.13	0.07	0.13	0.05	0.13	0.06		
	28-Sep-2019	NA	NA	NA	NA	NA	NA	OL	OL	NA											
	29-Sep-2019	NA	NA	NA	NA	NA	NA	OL	OL	NA											
	30-Sep-2019	1.25	0.94	0.16	0.07	0.16	0.07	OL	OL	OL	OL	0.17	0.05	0.13	0.07	0.15	0.06	0.15	0.07		
Total number of measurements taken, A:				18				17		8		15				16		18			
Turbidity Standard for Monitoring Location (NTU):				0.30				0.30		0.30				0.30		0.30				0.30	
Number of measurements meeting standard, B:				18				17		8		15				16		18			
Compliance with Turbidity Standard, C= B/A X 100%:				100%				100%		100%				100%		100%		100%			

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

Comments:
September 17, 2019: filter 3 taken offline for media replacement

Report Compiled By: N. Crawford

Authorized By: C.Diduck

Date Authorized: 7-Oct-19



City Of Winnipeg

Water and Waste Department

Water Services

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 2019

Report Period: September 2019

Date	BRANCH 1 [mg/L]		BRANCH 2 [mg/L]	
	Average	Minimum	Average	Minimum
01/09/2019	1.41	1.34	1.32	1.23
02/09/2019	1.42	1.35	1.30	1.23
03/09/2019	1.49	1.41	1.35	1.19
04/09/2019	1.60	1.35	1.54	1.34
05/09/2019	1.44	1.35	1.46	1.35
06/09/2019	1.49	1.35	1.42	1.31
07/09/2019	1.54	1.37	1.47	1.30
08/09/2019	1.34	1.19	1.28	1.10
09/09/2019	1.24	1.18	1.25	1.10
10/09/2019	1.20	1.16	1.24	1.13
11/09/2019	1.17	1.13	1.17	1.11
12/09/2019	1.21	1.10	1.22	1.11
13/09/2019	1.39	1.27	1.35	1.23
14/09/2019	1.54	1.45	1.49	1.41
15/09/2019	1.60	1.55	1.47	1.36
16/09/2019	1.59	1.53	1.42	1.36
17/09/2019	1.52	1.23	1.37	1.12
18/09/2019	1.46	1.35	1.49	1.30
19/09/2019	1.43	1.10	1.51	1.22
20/09/2019	1.50	1.36	1.44	1.32
21/09/2019	1.44	1.23	1.39	1.14
22/09/2019	1.43	1.36	1.36	1.29
23/09/2019	1.48	1.37	1.43	1.34
24/09/2019	1.47	1.39	1.43	1.35
25/09/2019	1.43	1.32	1.42	1.35
26/09/2019	1.47	1.32	1.45	1.34
27/09/2019	1.50	1.41	1.54	1.48
28/09/2019	1.47	1.39	1.49	1.44
29/09/2019	1.44	1.34	1.44	1.32
30/09/2019	1.54	1.47	1.52	1.45

Total Number of Measurements, A: **20882** 20882

Minimum Free Chlorine Standard: **0.5** 0.5

Number of Measurements Meeting Standard, B: **20882** 20882

COMPLIANCE, C = B/A X 100%: **100.00** 100.00

File Path: N:\Water Treatment Branch\Administration\Reports\Regulatory Submissions\Chlorine\2019\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 CHLORINE GRAB MONITORING REPORT

Water System Code: 252.00	Deacon Booster Pumping Station Branch 1			Deacon Booster Pumping Station Branch 2		
Licence No. PWS-09-412-01	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-2019	NA	NA	NA	NA	NA	NA
02-Sep-2019	NA	NA	NA	NA	NA	NA
03-Sep-2019	1.50	1.39	1.57	1.29	1.42	1.51
04-Sep-2019	1.59	1.47	1.63	1.46	1.46	1.60
05-Sep-2019	1.46	1.47	1.64	1.48	1.49	1.65
06-Sep-2019	1.43	1.48	1.61	1.41	1.45	1.62
07-Sep-2019	NA	NA	NA	NA	NA	NA
08-Sep-2019	NA	NA	NA	NA	NA	NA
09-Sep-2019	1.30	1.31	1.49	1.20	1.26	1.41
10-Sep-2019	1.17	1.25	1.41	1.26	1.18	1.36
11-Sep-2019	1.18	1.21	1.39	1.19	1.19	1.33
12-Sep-2019	1.14	1.21	1.38	1.15	1.15	1.34
13-Sep-2019	1.34	1.45	1.53	1.30	1.35	1.49
14-Sep-2019	NA	NA	NA	NA	NA	NA
15-Sep-2019	NA	NA	NA	NA	NA	NA
16-Sep-2019	1.56	1.56	1.78	1.41	1.44	1.60
17-Sep-2019	1.68	1.58	1.81	1.47	1.47	1.59
18-Sep-2019	1.53	1.45	1.61	1.49	1.50	1.66
19-Sep-2019	1.51	1.59	1.79	1.58	1.57	1.73
20-Sep-2019	1.51	1.46	1.62	1.44	1.46	1.66
21-Sep-2019	NA	NA	NA	NA	NA	NA
22-Sep-2019	NA	NA	NA	NA	NA	NA
23-Sep-2019	1.49	1.49	1.62	1.48	1.40	1.53
24-Sep-2019	1.47	1.49	1.70	1.41	1.45	1.62
25-Sep-2019	1.44	1.49	1.66	1.38	1.48	1.61
26-Sep-2019	1.49	1.50	1.65	1.41	1.48	1.58
27-Sep-2019	1.51	1.53	1.71	1.58	1.50	1.72
28-Sep-2019	NA	NA	NA	NA	NA	NA
29-Sep-2019	NA	NA	NA	NA	NA	NA
30-Sep-2019	1.55	1.45	1.63	1.49	1.55	1.68

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%:

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

Comments:

Report Compiled By: _____ N. Crawford

Authorized By: _____ C. Diduck

Date Authorized: _____ 7-Oct-19



CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
WATER SERVICES

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

WATER TREATMENT PLANT UV REPORT

Report Period: September 2019

Report Created: Tuesday, October 01, 2019

Date	Transmittance %	UVR-D100A				UVR-D200A				UVR-D300A				UVR-D400A				UVR-D500A				UVR-D600A				Total Water Volume [ML]				% 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]					
	UVTavg	Untreated	Below	To	Total	Untreated	Below	To	Total																						
01/09/2019	98.28	0.00	0.00	16.57	16.57	0.00	0.00	47.01	47.01	0.00	0.00	38.51	38.51	0.00	0.00	0.00	0.00	0.00	0.00	69.72	69.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	171.82	171.82	100.00
02/09/2019	98.32	0.00	0.00	0.00	0.00	0.00	0.00	65.21	65.21	0.00	0.00	37.27	37.27	0.00	0.00	0.00	0.00	0.00	0.00	68.52	68.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	171.00	171.00	100.00
03/09/2019	98.51	0.00	0.00	2.92	2.92	0.00	0.00	66.78	66.78	0.00	0.00	25.28	25.28	0.00	0.00	15.01	15.01	0.00	0.04	65.10	65.13	0.00	0.13	0.23	0.36	0.00	0.00	0.16	175.32	175.48	99.91
04/09/2019	97.74	0.00	0.00	0.95	0.95	0.00	0.00	72.61	72.61	0.00	0.00	0.00	0.00	0.00	0.00	41.23	41.23	0.00	0.00	71.16	71.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	185.95	185.95	100.00
05/09/2019	97.21	0.00	0.00	0.00	0.00	0.00	0.00	77.63	77.63	0.00	0.00	0.00	0.00	0.00	0.00	44.27	44.27	0.00	0.00	73.63	73.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	195.53	195.53	100.00
06/09/2019	98.45	0.00	0.00	0.00	0.00	0.00	0.00	81.03	81.03	0.00	0.00	0.00	0.00	0.00	0.00	46.10	46.10	0.00	0.00	75.57	75.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	202.70	202.70	100.00
07/09/2019	98.77	0.00	0.00	0.00	0.00	0.00	0.00	82.43	82.43	0.00	0.00	0.00	0.00	0.00	0.00	46.04	46.04	0.00	0.00	75.42	75.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	203.89	203.89	100.00
08/09/2019	98.56	0.00	0.07	4.13	4.20	0.00	0.00	81.00	81.00	0.00	0.00	0.00	0.00	0.00	0.00	48.92	48.92	0.20	0.20	69.55	69.95	0.00	0.00	0.00	0.00	0.20	0.27	0.00	203.59	204.07	99.77
09/09/2019	98.06	0.00	0.04	55.45	55.48	0.00	0.00	68.99	68.99	0.00	0.00	0.00	0.00	0.00	0.00	79.53	79.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	203.97	204.01	99.98		
10/09/2019	98.59	0.00	0.00	55.14	55.14	0.00	0.00	69.04	69.04	0.00	0.00	0.00	0.00	0.00	0.00	79.83	79.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	204.00	204.00	100.00		
11/09/2019	99.69	0.00	0.00	55.11	55.11	0.00	0.00	69.08	69.08	0.00	0.00	0.00	0.00	0.00	0.00	79.83	79.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	204.02	204.02	100.00		
12/09/2019	99.53	0.00	0.00	54.79	54.79	0.00	0.00	69.17	69.17	0.00	0.00	0.00	0.00	0.00	0.00	80.08	80.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	204.04	204.04	100.00		
13/09/2019	99.52	0.00	0.00	54.57	54.57	0.00	0.00	69.10	69.10	0.00	0.00	0.00	0.00	0.00	0.00	80.32	80.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	203.99	203.99	100.00		
14/09/2019	97.82	0.00	0.30	32.85	33.14	0.00	0.04	75.31	75.35	0.00	0.00	14.98	14.98	0.00	0.00	80.31	80.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	203.44	203.77	99.84		
15/09/2019	98.59	0.00	0.00	0.00	0.00	0.00	0.00	84.97	84.97	0.00	0.00	28.35	28.35	0.00	0.00	75.98	75.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	189.30	189.30	100.00		
16/09/2019	96.78	0.00	0.00	0.00	0.00	0.00	0.00	85.00	85.00	0.00	0.00	25.19	25.19	0.00	0.00	74.75	74.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	184.94	184.94	100.00		
17/09/2019	97.14	0.00	0.00	0.00	0.00	0.00	0.00	84.99	84.99	0.00	0.00	25.20	25.20	0.00	0.00	74.80	74.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	184.99	184.99	100.00		
18/09/2019	97.31	0.00	0.00	0.00	0.00	0.00	0.00	69.24	69.24	0.00	0.04	53.55	53.59	0.22	0.22	13.92	14.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	195.65	196.14	99.75		
19/09/2019	97.37	0.00	0.00	0.00	0.00	0.00	0.29	51.38	51.67	0.00	0.05	51.13	51.17	0.00	0.00	0.00	0.00	0.00	0.00	25.03	25.03	0.00	0.18	75.57	75.74	0.00	0.51	203.10	203.61	99.75	
20/09/2019	97.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.64	60.64	0.00	0.00	0.00	0.00	0.00	0.00	54.48	54.48	0.00	0.17	84.58	84.75	0.00	0.17	199.69	199.87	99.91	
21/09/2019	97.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.50	67.50	0.00	0.00	0.00	0.00	0.00	0.00	43.52	43.52	0.00	0.00	79.24	79.24	0.00	0.00	190.26	190.26	100.00	
22/09/2019	97.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.25	68.25	0.00	0.00	0.00	0.00	0.00	0.00	44.09	44.09	0.00	0.11	80.09	80.20	0.00	0.11	192.42	192.53	99.94	
23/09/2019	97.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.39	68.39	0.00	0.00	0.00	0.00	0.00	0.00	44.17	44.17	0.00	0.22	80.18	80.41	0.00	0.22	192.74	192.96	99.88	
24/09/2019	97.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.45	68.45	0.00	0.00	0.00	0.00	0.00	0.00	44.17	44.17	0.00	0.11	80.25	80.36	0.00	0.11	192.87	192.98	99.94	
25/09/2019	98.30	0.00	0.00	14.24	14.24	0.00	0.00	0.00	0.00	0.00	0.09	63.89	63.98	0.00	0.00	0.00	0.00	0.00	0.00	52.67	52.67	0.00	0.13	59.63	59.76	0.00	0.22	190.43	190.66	99.88	
26/09/2019	98.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.80	50.80	0.00	0.00	31.52	31.52	0.00	0.00	63.36	63.36	0.00	0.05	43.36	43.41	0.00	0.05	189.03	189.09	99.97	
27/09/2019	99.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.78	49.78	0.00	0.00	53.16	53.16	0.00	0.00	84.98	84.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	187.92	187.92	100.00
28/09/2019	99.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.63	48.63	0.00	0.00	50.93	50.93	0.00	0.00	84.99	84.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	184.55	184.55	100.00
29/09/2019	95.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.12	48.12	0.00	0.00	49.88	49.88	0.00	0.00	85.02	85.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	183.02	183.02	100.00
30/09/2019	94.70	0.00	0.00	42.75	42.75	0.00	0.00	0.00	0.00	0.00	0.00	17.83	17.83	0.00	0.00	44.96	44.96	0.00	0.00	77.46	77.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	183.01	183.01	100.00

Total [ML]:

0.00 0.41 389.46 389.87 0.00 0.33 1369.99 1370.32 0.00 0.18 911.72 911.90 0.22 0.22 1191.35 1191.80 0.20 0.24 1272.61 1273.05 0.00 1.10 642.06 643.16 0.43 2.48 5777.19 5780.10

Submitted By (Print): D.Merredew

Signature: Original signed by D. Merredew