

**MONTHLY OPERATION REPORT
OF
WATER TREATMENT PLANT**

For Month of October 2017

<u>Flint Water Plant</u> NAME OF WATER SYSTEM	<u>2310</u> WSSN	<u>Genesee</u> COUNTY
<u>Robert Jones</u> CERTIFIED OPERATOR		<u>D-1</u> CLASSIFICATION
<u><i>[Signature]</i></u> SIGNATURE OF APPROPRIATE OFFICIAL		

11/17/17

TREATMENT RATE AND FILTER DATA

1. Treatment Rate, Maximum 13.24 Million Gallons Per Day
2. Treatment Rate, Approved Rated Plant Capacity 36 Million Gallons per Day
3. Average Filter Run N/A Hours, Average Head Loss N/A Feet
4. Average Filtration Rate N/A Gallons per Square Ft. per Minute
5. Maximum Filtration Rate N/A Gallons per Square Ft. per Minute
6. Average Wash Water Use N/A percent of Treated Water

CHEMICAL DATA

7. Sodium Hypochlorite on hand at CS2 4092 gal.: Estimated supply 42 days
8. Sodium Hypochlorite on hand at outstations 495 gal: Estimated supply 24 days
9. Phosphoric Acid on hand 1154 gal.: Estimated supply 41 days
9. Sodium Hydroxide on hand 3653 gal.: Estimated supply 17 days

Remarks:

Submit to: MDEQ - Office of Drinking Water & Municipal Assistance
 LANSING DISTRICT OFFICE
 525 West Allegan Street, 1st Floor South
 (Constitution Hall)
 PO Box 30242
 Lansing, MI 48909-7742



Distribution System Monitoring

WSSN 2310

Oct-17

DATE	Total Chlorine Residual at Bacteriological Monitoring Stations mg/l																									Number of Samples					
	1	2	3	4	CS	6	7	8	9	10	WR**	12	13	14	15	16	17	18	19	20	21	22	23	24	25						
1																										0					
2	1.15	1.59	1.45	1.46	1.58	1.28															1.16					7					
3							1.37	1.71	1.59	1.64		1.33	0.96									1.19				7					
4														1.06	1.30	0.78	1.64	0.82	0.57					1.87		7					
5	1.26	1.64	1.44	1.35	1.79																1.21				1.31	7					
6												0.60	1.01	0.81	0.88											5					
7																										0					
8																										0					
9	1.12	1.40	1.54	1.46	1.54	1.54																				6					
10							1.27	1.63	1.00	1.51		0.54	1.14													6					
11														0.82	0.89	0.92	1.54	0.61	0.37							6					
12						1.30	1.26	1.73	1.03	1.68											0.85	1.17	1.33	1.48	1.24	10					
13																0.84	1.73	1.09	0.74							5					
14																										0					
15																										0					
16	1.24	1.58	1.39	1.39	1.74	1.03																1.17				7					
17							1.28	1.61	0.92	1.38		0.64	1.00										1.50			7					
18														1.12	1.38	0.77	1.61	1.01	0.69					1.64		7					
19	1.06	1.86	1.45	1.54	1.41																				1.36	6					
20												0.66	1.13	1.24	1.42											5					
21																										0					
22																										0					
23	1.37	1.38	1.32	1.26	1.34	0.92																1.09				7					
24							1.22	1.67	1.60	1.63		1.65	0.96										1.20			7					
25															1.50	0.95	1.70	1.19	0.62					1.61		6					
26						1.42	1.16	1.75	1.06	1.71				1.31											1.50	7					
27																0.90	1.54	1.05	0.63	1.14						6					
28																										0					
29																										0					
30	1.17	1.41	1.59	1.57	1.56	1.61																1.29				7					
31							1.31	1.73	1.71	1.56		1.01	1.31										1.65			7					
Monthly Cl₂ Avg.					1.28																										
Total Samples					145																										



Distribution System Monitoring WSSN 2310

Oct-17

DATE	Free Chlorine Residual at Bacteriological Monitoring Stations mg/l																									Number of Samples						
	1	2	3	4	CS	6	7	8	9	10	WR**	12	13	14	15	16	17	18	19	20	21	22	23	24	25							
1																										0						
2	0.90	1.40	1.26	1.20	1.43	1.10															1.02					7						
3							1.19	1.55	1.38	1.43		1.19	0.77									0.98				7						
4														0.86	1.12	0.57	1.47	0.64	0.40				1.64			7						
5	1.02	1.49	1.15	1.21	1.32															1.11				1.19		7						
6												0.44	0.80	0.67	0.73										1.08	5						
7																										0						
8																										0						
9	0.96	1.16	1.42	1.30	1.33	1.38																				10						
10							1.13	1.50	0.85	1.39		0.42	1.02													6						
11														0.70	0.72	0.78	1.42	0.41	0.16							6						
12						1.12	1.13	1.63	0.90	1.48											0.70	1.00	1.21	1.32	1.24	10						
13																0.64	1.55	0.94	0.60							1.27	5					
14																										0						
15																										0						
16	0.98	1.24	1.21	1.19	1.56	0.85															1.00					7						
17							1.14	1.44	0.82	1.22		0.49	0.86										1.35			7						
18														0.99	1.17	0.62	1.45	0.87	0.60					1.48		7						
19	0.91	1.67	1.24	1.36	1.24																				1.24	6						
20												0.50	0.95	1.04	1.23											1.33	5					
21																										0						
22																										0						
23	1.18	1.09	1.16	1.16	1.21	0.81																0.76				7						
24							1.05	1.47	1.43	1.41		1.33	0.87										1.06			7						
25															1.30	0.73	1.40	1.00	0.52					1.38		6						
26						1.19	1.03	1.57	0.86	1.51				1.14											1.31	7						
27																0.77	1.27	0.87	0.50	1.01						1.05	6					
28																										0						
29																										0						
30	0.98	1.21	1.40	1.38	1.29	1.36																1.12				7						
31							1.15	1.54	1.58	1.43		0.91	1.26										1.49			7						
Monthly Cl₂ Avg.					1.11																											
Total Samples					145																											



WSSN 2310

Oct-17

D A T E	Total Coliform						66	Standard Plate Count		Conductivity (mS)	Temp deg.C	Color		Odor	
	Plant Tap							Raw	Tap			71	72	Raw	Tap
			Dort	3MG Well	Sta II	Lab Tap									
	60	61	62	63	64	65									
1					2/0	2/0			0.24	18.4					
2					2/0	2/0			0.23	19.1					
3					2/0	2/0			0.24	19.4					
4					2/0	2/0			0.23	20.3					
5					2/0	2/0			0.24	19.1					
6					2/0	2/0			0.23	19.0					
7					2/0	2/0			0.23	20.1					
8					2/0	2/0			0.23	19.0					
9					2/0	2/0			0.23	19.0					
10					2/0	2/0			0.23	19.2					
11					2/0	2/0			0.22	19.2					
12					2/0	2/0			0.23	18.3					
13					2/0	2/0			0.24	18.2					
14					1/0	2/0			0.23	18.8					
15					2/0	2/0			0.23	18.1					
16					2/0	2/0			0.24	17.7					
17					1/0	2/0			0.24	17.6					
18					2/0	2/0			0.23	17.7					
19					2/0	2/0			0.24	17.6					
20					2/0	2/0			0.23	17.2					
21					2/0	2/0			0.24	18.6					
22					2/0	2/0			0.23	17.1					
23					2/0	2/0			0.24	16.7					
24					2/0	2/0			0.24	15.9					
25					2/0	2/0			0.24	14.9					
26					2/0	2/0			0.24	13.9					
27					2/0	2/0			0.24	15.1					
28					2/0	2/0			0.22	15.4					
29					2/0	2/0			0.23	15.5					
30					2/0	2/0			0.23	15.4					
31					2/0	2/0			0.23	15.1					
AVG									0.23	17.6					
MAX									0.24	20.3					
MIN									0.22	13.9					



Chemical Analyses

WSSN 2310

Oct-17

DATE	pH		Total Hardness as CaCO ₃ mg/l		Total Alkalinity as CaCO ₃ mg/l		NonCarbonate Hardness as CaCO ₃ mg/l		Iron mg/L		Calcium Ca ²⁺ mg/l		Magnesium as Mg ²⁺ mg/l		Chloride as Cl ⁻ mg/l	
	CSII	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap
	29	30	31	32	33	34	35	36	37	38.00	39	40	41	42	43	44
1	7.30	7.53		96		80		30	0.00	0.01		26.5		7.3		17
2	7.34	7.60		96		80		42	0.01	0.00		22.0		10.2		17
3	7.15	7.55	92	94	78	72	30	24	0.00	0.01	25.7	28.1	7.3	6.0	18	16
4	7.17	7.55		94		82		30	0.00	0.00		25.7		7.3		16
5	7.37	7.58		96		78		26	0.01	0.01		28.1		6.3		17
6	7.24	7.62		100		68		32	0.00	0.01		27.0		7.8		20
7	7.27	7.50		94		78		32	0.00	0.00		24.8		7.8		17
8	7.33	7.75		94		82		28	0.00	0.01		26.5		6.8		17
9	7.36	7.66		90		78		20	0.00	0.00		28.0		4.9		18
10	7.38	7.55	96	96	78	80	26	26	0.00	0.01	28.1	28.1	6.3	6.3	18	18
11	7.23	7.47		94		78		30	0.00	0.00		25.7		7.3		17
12	7.21	7.32		96		84		28	0.01	0.00		27.2		6.8		18
13	7.28	7.56		100		86		34	0.01	0.01		26.5		8.3		13
14	7.21	7.69		98		84		28	0.01	0.01		28.0		6.8		19
15	7.27	7.64		94		80		24	0.00	0.01		28.0		5.8		16
16	7.37	7.64		98		88		28	0.03	0.04		28.1		6.8		19
17	7.22	7.66	98	98	80	78	26	28	0.00	0.01	28.9	28.1	6.3	6.8	15	14
18	7.20	7.55		96		88		30	0.00	0.01		26.5		7.3		17
19	7.14	7.44		104		84		34	0.00	0.00		28.1		8.3		15
20	7.15	7.46		96		90		28	0.01	0.00		27.3		6.8		15
21	7.28	7.77		96		86		26	0.01	0.00		28.1		6.3		19
22	7.27	7.51		88		80		22	0.00	0.01		26.5		5.3		15
23	7.28	7.50		106		84		38	0.00	0.00		27.3		9.2		12
24	7.20	7.53	102	102	84	78	30	32	0.03	0.01	28.9	28.1	7.3	7.8	19	18
25	7.31	7.65		100		88		28	0.00	0.00		28.9		6.8		15
26	7.26	7.42		96		84		24	0.00	0.00		28.9		5.8		14
27	7.26	7.68		98		88		28	0.00	0.01		28.1		6.8		15
28	7.28	7.50		96		80		30	0.00	0.00		26.5		7.29		11
29	7.29	7.54		94		74		32	0.00	0.00		24.9		7.78		17
30	7.39	7.76		106		90		40	0.00	0.00		26.5		9.7		15
31	7.34	7.68		98		90		28	0.01	0.00		28.1		6.8		16
AVG	7.27	7.58		97		82		29		0.01		27.1		7.1		16
MAX	7.39	7.77		106		90		42		0.04		28.9		10.2		20.0
MIN	7.14	7.32		88		68		20		0.00		22.0		4.9		11.0



Fluoridation & Chlorination

WSSN 2310

Oct-17

DATE	Fluoride Applied F ⁻ mg/l	Fluoride Analyses mg/l			Chlorine App. Mg/l			Chlorine Residual mg/l							
					Chlorine App. Mg/l	Chlorine (prior to filtration) mg/L OCI	Post Chlorine mg/L	Sta II	Dort	3MG Well	Tap				
		Raw	Tap	Dist							Free	Free	Free	Free	Free
		14	15	16	17	18	19	20	21	22	23	24	25	26	27
1			0.77		1.40				0.8						1.8
2			0.75		1.38				0.7						1.8
3			0.79		1.41				0.7						1.9
4			0.77		1.45				0.7						1.9
5			0.78		1.41				0.6						1.8
6			0.82		1.41				0.6						1.7
7			0.80		1.29				0.7						1.9
8			0.80		1.28				0.7						1.9
9			0.77		1.52				0.8						1.7
10			0.76		1.60				0.7						1.6
11			0.79		1.67				0.6						1.8
12			0.77		1.42				0.8						1.8
13			0.76		1.36				0.7						1.8
14			0.79		1.38				0.8						1.7
15			0.77		1.53				0.7						1.7
16			0.72		1.51				0.7						1.7
17			0.83		1.41				0.8						1.8
18			0.73		1.23				0.7						1.8
19			0.74		1.37				0.8						1.8
20			0.75		1.63				0.9						1.8
21			0.78		1.69				0.8						1.8
22			0.76		1.73				0.9						1.8
23			0.76		1.69				0.8						1.8
24			0.78		1.56				0.9						1.8
25			0.73		1.39				0.4						1.7
26			0.75		1.26				0.9						1.7
27			0.75		1.29				0.8						1.7
28			0.78		1.48				0.8						1.7
29			0.78		1.45				0.8						1.8
30			0.75		1.36				0.9						1.8
31			0.78		1.50				0.8						1.7
AVG			0.77		1.45				0.7						1.8
MAX			0.83		1.73				0.9						1.9
MIN			0.72		1.23				0.4						1.6

