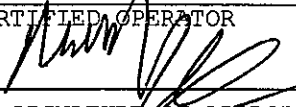


**MONTHLY OPERATION REPORT
OF
WATER TREATMENT PLANT**

For Month of December 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></u> SIGNATURE OF APPROPRIATE OFFICIAL		

TREATMENT RATE AND FILTER DATA

1. Treatment Rate, Maximum 10.48 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 3642 gal.: Estimated supply 51 days
8. Sodium Hypochlorite on hand at outstations 275 gal: Estimated supply 56 days
9. Phosphoric Acid on hand 756 gal.: Estimated supply 73 days
9. Sodium Hydroxide on hand 2106 gal.: Estimated supply 14 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



Fluoridation & Chlorination

WSSN 2310

Dec-17

D A T E	Fluoride Applied F ⁻ mg/l	Fluoride Analyses mg/l			Chlorine App. Mg/l			Chlorine Residual mg/l							
					Chlori ne 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	
		14	15	16	17	18	19	20	21	22	23	24	25	26	27
1		0.80	0.76		1.31				0.9					1.7	
2		0.81	0.79		1.25				1.0					1.6	
3		0.77	0.75		1.20				0.9					1.8	
4		0.79	0.78		1.30				0.7					1.7	
5		0.82	0.80		1.28				0.9					1.7	
6		0.81	0.80		1.25				0.8					1.6	
7		0.79	0.78		1.26				0.8					1.7	
8		0.84	0.81		1.23				0.8					1.7	
9		0.83	0.80		1.29				0.9					1.7	
10		0.82	0.81		1.29				1.0					1.8	
11		0.82	0.81		1.22				0.9					1.7	
12		0.80	0.79		1.23				1.0					1.8	
13		0.79	0.80		1.41				0.9					1.7	
14		0.82	0.81		1.34				0.9					1.7	
15		0.81	0.80		1.31				0.9					1.7	
16		0.79	0.78		1.27				1.0					1.8	
17		0.76	0.76		1.21				1.0					1.9	
18		0.76	0.76		1.34				0.9					1.7	
19		0.80	0.80		1.41				0.9					1.7	
20		0.73	0.74		1.27				0.8					1.7	
21		0.84	0.82		1.22				0.9					1.7	
22		0.84	0.83		1.36				0.8					1.7	
23		0.74	0.78		1.39				0.9					1.8	
24		0.76	0.77		1.19				0.9					1.6	
25		0.74	0.74		1.25				0.9					1.7	
26		0.74	0.75		1.27				1.0					1.8	
27		0.80	0.81		1.16				0.9					1.6	
28		0.83	0.79		1.13				0.9					1.5	
29		0.75	0.80		1.15				1.0					1.6	
30		0.66	0.61		1.39				0.9					1.9	
31		0.69	0.73		1.29				1.0					1.8	
AVG		0.75	0.78		1.27				0.9					1.7	
MAX		0.84	0.83		1.41				1.0					1.9	
MIN		0.66	0.61		1.13				0.7					1.5	



Chemical Analyses

WSSN 2310

Dec-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	7.21	7.53		98		86		22		0.00	0	30.5		5.3		16
2	7.21	7.56		96		82		26	0.0	0.00		28.1		6.3		14
3	7.34	7.60		94		80		30	0.01	0.00		25.7		7.3		13
4	7.23	7.63		110		82		38	0	0.02		28.9		9.2		14
5	7.22	7.59	96	98	80	90	26	28	0	0.00	28.1	28.1	6.3	6.8	15	15
6	7.33	7.64		96		76		30	0	0.00		26.5		7.3		16
7	7.27	7.62		96		82		28		0.00		27.3		6.8		16
8	7.20	7.59		94		86		24		0.00		28.1		5.8		16
9	7.37	7.55		94		90		16		0.00		31.0		3.9		15
10	7.33	7.41		98		84		30		0.01		27.3		7.3		15
11	7.36	7.59		96		84		28		0.00		27.3		6.8		16
12	7.32	7.62	98	98	82	84	26	28	0	0.00	28.9	28.1	6.3	6.8	15	15
13	7.35	7.55		98		84		28		0.00		28.1		6.8		15
14	7.31	7.54		96		84		28		0.00		28.1		6.8		16
15	7.15	7.50		96		84		26		0.02		28.1		6.3		15
16	7.33	7.48		94		80		30		0.00		25.7		7.3		16
17	7.53	7.78		100		78		30		0.00		28.1		7.3		15
18	7.22	7.55		98		80		28		0.00		28.1		6.8		16
19	7.26	7.56	98	98	80	84	28	28	0.01	0.01	28.1	28.1	6.8	6.8	17	16
20	7.21	7.55		96		84		26		0.01		29.7		6.3		15
21	7.27	7.67		98		82		30		0.00		27.3		7.3		14
22	7.16	7.51		98		82		30		0.01		27.3		7.3		18
23	7.48	7.83		100		74		32		0.00		27.3		7.8		15
24	7.22	7.58		100		82		36		0.00		25.7		8.7		16
25	7.35	7.71		96		86		28		0.00		27.3		6.8		15
26	7.34	7.65	100	100	78	84	30	30	0	0.00	28.1	28.1	7.3	7.3	15	15
27	7.33	7.61		96		86		26		0.02		28.1		6.3		15
28	7.25	7.59		98		80		30		0.00		27.3		7.3		13
29	7.21	7.59		98		78		28		0.00		28.1		6.8		14
30	7.44	7.80		98		84		28		0.01		28.1		6.8		15
31	7.42	7.46		100		80		30		0.01		28.1		7.3		15
AVG	7.30	7.59		98		83		28		0.00		27.9		6.9		15
MAX	7.53	7.83		110		90		38		0.02		31.0		9.2		18.0
MIN	7.15	7.41		94		74		16		0.00		25.7		3.9		13.0



WSSN 2310

Dec-17

D A T E	Total Coliform						66	Standard Plate Count		Conductivity (mS)	Temp deg.C	Color		Odor	
	Plant Tap							Raw	Tap			Raw	Tap	Raw	Tap
			Dort	3MG Well	Sta II	Lab Tap									
	60	61	62	63	64	65									
1						2/0			0.23	11.7					
2						2/0			0.28	11.6					
3						2/0			0.22	11.5					
4						2/0			0.23	11.6					
5						2/0			0.24	11.5					
6						2/0			0.23	11.2					
7						2/0			0.23	11.3					
8						2/0			0.23	10.7					
9						2/0			0.21	10.5					
10						2/0			0.22	12.8					
11						2/0			0.23	10.5					
12						2/0			0.22	11.8					
13						2/0			0.23	12.4					
14						2/0			0.23	9.8					
15						2/0			0.23	11.3					
16						2/0			0.22	10.5					
17						2/0			0.23	11.1					
18						2/0			0.23	9.6					
19						2/0			0.23	9.8					
20						2/0			0.23	9.4					
21						2/0			0.24	9.5					
22						2/0			0.23	9.9					
23						2/0			0.22	11.1					
24						2/0			0.23	9.0					
25						2/0			0.24	9.1					
26						2/0			0.23	11.3					
27						2/0			0.23	8.9					
28						2/0			0.23	9.4					
29						2/0			0.23	8.5					
30						2/0			0.22	10.0					
31						2/0			0.22	9.9					
AVG									0.23	10.6					
MAX									0.28	12.8					
MIN									0.21	8.5					



Distribution System Monitoring WSSN 2310

Dec-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												1.01	1.27	0.71	1.13											1.29	5			
2																												0		
3																												0		
4	1.30	1.32	1.50	1.48	1.74	1.35																					6			
5							1.41	1.69	1.01	1.66		0.92	1.24									1.43					7			
6													0.68	1.07	1.66	1.66	1.24	1.01					1.74				7			
7						1.31	1.32	1.52	0.94	1.63															1.62		6			
8																1.67	1.66	1.35	1.18								4			
9																											0			
10																											0			
11	1.48	1.38	1.44	1.42	1.60	1.24																1.26					7			
12							1.21	1.68	1.14	1.67		0.89	1.47										1.45				7			
13														1.08	0.83	1.63	1.55	1.32	0.87					1.66			7			
14	1.41	1.22	1.47	1.48	1.79																1.04				1.59		7			
15												1.07	1.56	0.93	1.30												4			
16																											0			
17																											0			
18	1.39	1.17	1.52	1.50	1.74	1.14																1.32				1.44	8			
19							1.24	1.70	1.18	1.65		1.14	1.50										1.34				7			
20														1.15	1.37	1.65	1.66	1.37	0.99						1.67		7			
21	1.55	1.33	1.60	1.53	1.87																1.31				1.64		7			
22																1.73	1.59	1.41								1.13	4			
23																											0			
24																											0			
25																											0			
26							1.47	1.64	0.85	1.67		1.07	1.59														6			
27														1.32	1.22	1.66	1.58	0.77									5			
28	1.40	1.29	1.56	1.54	1.83	1.50															1.33						7			
29												1.46	1.67	1.20	1.17											1.48	5			
30																											0			
31																											0			
Monthly Cl₂ Avg.				1.38																										
Total Samples				123																										



Distribution System Monitoring

WSSN 2310

Dec-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												1.23	1.44	0.87	1.24											1.49	5				
2																												0			
3																												0			
4	1.44	1.45	1.69	1.73	1.91	1.51																					6				
5							1.52	1.82	1.15	1.80		1.09	1.36									1.55					7				
6														0.81	1.28	1.87	1.85	1.42	1.21				1.93				7				
7						1.57	1.48	1.66	1.14	1.75															1.76		6				
8																1.79	1.85	1.54	1.26								4				
9																											0				
10																											0				
11	1.60	1.49	1.60	1.61	1.74	1.65																1.53					7				
12							1.43	1.83	1.32	1.80		1.11	1.65										1.59				7				
13														1.27	1.00	1.84	1.81	1.49	1.04					1.82			7				
14	1.63	1.44	1.70	1.71	2.01																1.21				1.81		7				
15												1.25	1.75	1.12	1.55												4				
16																											0				
17																											0				
18	1.62	1.35	1.72	1.70	1.99	1.42																1.59				1.64	8				
19							1.59	1.92	1.42	1.90		1.32	1.71										1.52				7				
20														1.37	1.59	1.90	1.85	1.57	1.15					1.95			7				
21	1.73	1.49	1.80	1.76	2.04																1.48				1.85		7				
22																1.90	1.84	1.61								1.21	4				
23																											0				
24																											0				
25																											0				
26							1.63	1.83	1.01	1.84		1.29	1.80														6				
27														1.46	1.41	1.85	1.81	1.54									5				
28	1.50	1.41	1.75	1.71	2.03	1.69															1.45						7				
29												1.62	1.78	1.34	1.38											1.58	5				
30																											0				
31																											0				
Monthly Cl₂ Avg.					1.57																										
Total Samples					123																										

