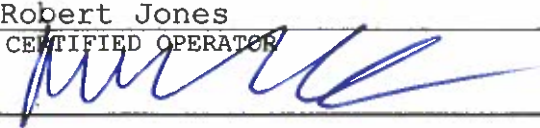


**MONTHLY OPERATION REPORT
OF
WATER TREATMENT PLANT**

For Month of November 2019

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

TREATMENT RATE AND FILTER DATA

1. Treatment Rate, Maximum 10.29 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 4000 gal.: Estimated supply 59 days
8. Sodium Hypochlorite on hand at outstations 380 gal: Estimated supply 74 days.
9. Phosphoric Acid on hand 745 gal.: Estimated supply 38 days
9. Sodium Hydroxide on hand 2597 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



Fluoridation & Chlorination

WSSN 2310

Nov-19

D A T E	Fluoride Applied F mg/l	Fluoride Analyses mg/l			Chlorine App. Mg/l			Chlorine Residual mg/l							
					Chlori no App. Mg/l	Chlorine (prior to filtration) mg/L OCI	Post Chlorine mg/L	Sta II	Dort	3MG Well	Tap				
		Free	Free	Free					Free						
		Raw	Tap	Dist	18	19	20	21	22	23	24	25	26	27	28
1		0.62	0.62		1.10				1.0					1.6	
2		0.67	0.66		1.27				1.0					1.7	
3		0.64	0.65		1.26				1.0					1.6	
4		0.65	0.69		1.31				0.9					1.7	
5		0.69	0.67		1.43				1.0					1.7	
6		0.61	0.66		1.30				1.1					1.6	
7		0.66	0.66		1.30				1.0					1.7	
8		0.71	.71		1.17				1.1					1.7	
9		0.79	0.77		1.26				1.1					1.6	
10		0.54	0.63		1.33				1.0					1.7	
11		0.61	0.61		1.41				1.0					1.6	
12		0.58	0.57		1.33				1.0					1.7	
13		0.73	0.65		1.39				1.1					1.7	
14		0.64	0.69		1.14				1.1					1.7	
15		0.66	0.64		1.09				1.0					1.7	
16		0.56	0.62		1.26				0.9					1.7	
17		0.71	0.72		1.18				1.1					1.7	
18		0.72	0.66		1.17				1.0					1.7	
19		0.61	0.60		1.26				1.0					1.7	
20		0.65	0.71		1.20				1.0					1.7	
21		0.66	0.69		1.27				1.0					1.7	
22		0.73	0.71		1.14				1.0					1.7	
23		0.62	0.60		1.21				1.2					1.7	
24		0.64	0.63		1.11				1.0					1.7	
25		0.68	0.69		1.14				1.1					1.7	
26		0.74	0.71		1.12				1.0					1.7	
27		0.67	0.64		1.02				1.1					1.7	
28		0.71	0.67		1.04				1.1					1.7	
29		0.57	0.62		1.00				1.1					1.7	
30		0.61	0.60		1.00				1.2					1.7	
31															
AVG			0.66		1.21				1.0					1.7	
MAX			0.77		1.43				1.2					1.7	
MIN			0.57		1.00				0.9					1.6	



Chemical Analyses WSSN 2310 Nov-19

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	7.44	7.54		102		84		36	0.01	0.01		27.3		8.7		16
2	7.10	7.33		102		84		32	0.1	0.02		28.1		7.8		16
3	7.13	7.44		100		84		30	0.01	0.03		28.1		7.3		15
4	7.09	7.42		102		84		34	0	0.00		27.3		8.3		15
5	7.07	7.41	100	102	78	84	30	32	0.01	0.00	28.1	28.1	7.3	7.8	13	16
6	7.42	7.65		100		82		30	0.01	0.00		28.1		7.3		16
7	7.42	7.76		102		82		30	0.02	0.01		28.9		7.3		15
8	7.23	7.29		102		84		30	0	0.00		28.9		7.3		15
9	7.24	7.58		100		82		30	0	0.00		28.1		7.3		16
10	7.29	7.72		102		84		30	0.01	0.02		28.9		7.3		16
11	7.21	7.54		100		86		30	0	0.04		28.1		7.3		16
12	7.14	7.42	102	104	80	84	32	34	0.01	0.01	28.1	28.1	7.8	8.3	15	15
13	7.21	7.67		100		82		30	0	0.01		28.1		7.3		16
14	7.34	7.64		102		84		32	0.01	0.02		28.1		7.8		16
15	7.19	7.63		102		84		32	0	0.00		28.1		7.8		14
16	7.20	7.87		100		86		28	0.03	0.02		28.9		6.8		16
17	7.11	7.53		102		86		32	0.02	0.01		28.1		7.8		16
18	7.19	7.71		104		86		34	0.01	0.00		28.1		8.3		16
19	7.38	7.43	100	102	80	80	30	32	0.01	0.03		28.1	7.3	7.8	15	15
20	7.18	7.63		102		82		32	0.02	0.01		28.1		7.8		15
21	7.17	7.57		100		84		34	0	0.00		26.5		8.3		15
22	7.23	7.43		104		84		34	0.01	0.00		28.1		8.3		14
23	7.42	7.59		100		84		30	0.01	0.01		28.1		7.3		13
24	7.22	7.69		104		84		34	0.01	0.01		28.1		8.3		14
25	7.35	7.66		104		86		36	0.01	0.01		27.3		8.7		15
26	7.46	7.69	106	100	80	82	36	30	0.01	0.01	28.1	28.1	8.7	7.3	16	15
27	7.19	7.59		106		84		36	0.03	0.02		28.1		8.7		15
28	7.18	7.65		102		84		32	0.01	0.00		28.1		7.8		16
29	7.12	7.67		104		86		34	0.02	0.02		28.1		8.3		15
30	7.67	7.76		108		80		38	0.01	0.01		28.1		9.2		14
31																
AVG	7.25	7.58		102		84		32		0.01		28.1		7.9		15
MAX	7.67	7.87		108		86		38		0.04		28.9		9.2		16.0
MIN	7.07	7.29		100		80		28		0.00		26.5		6.8		13.0



WSSN 2310

Nov-19

D A T E	Total Coliform						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	66	67	68	69	71	72	73	74
1						2/0			0.23	15.2				
2						2/0			0.23	15.0				
3						2/0			0.23	14.5				
4						2/0			0.23	14.8				
5						2/0			0.23	14.5				
6						2/0			0.24	13.2				
7						2/0			0.23	13.3				
8						2/0			0.23	13.1				
9						2/0			0.23	13.8				
10						2/0			0.23	13.1				
11						2/0			0.23	12.7				
12						2/0			0.23	13.7				
13						2/0			0.23	12.3				
14						2/0			0.23	13.3				
15						2/0			0.23	14.5				
16						2/0			0.23	12.7				
17						2/0			0.23	13.3				
18						2/0			0.23	12.8				
19						2/0			0.23	13.1				
20						2/0			0.23	12.3				
21						2/0			0.23	12.3				
22						2/0			0.23	11.7				
23						2/0			0.22	12.0				
24						2/0			0.23	11.2				
25						2/0			0.23	11.3				
26						2/0			0.23	11.6				
27						2/0			0.23	12.0				
28						2/0			0.23	11.3				
29						2/0			0.23	12.3				
30						2/0			0.21	10.7				
31														
AVG									0.23	12.9				
MAX									0.24	15.2				
MIN									0.21	10.7				



Distribution System Monitoring WSSN 2310

DATE	Free Chlorine Residual at Bacteriological Monitoring Stations mg/l																								Chlorine		
	1	2	3	4	CS	6	7	8	9	10	WR	12	13	14	15	16	17	18	19	20	26	27	28	29		30	21
1													1.08			1.52	1.58		1.39							1.62	
2																											
3																											
4				1.33	1.69	1.14		1.60	0.96															1.43			
5							1.05			1.51		1.04							1.14		1.63						1.10
6											0.91			1.41	1.03	1.53	1.40	0.69						1.35			
7																											
8													1.09			1.56	1.59		1.12							1.38	
9																											
10																											
11	1.34			1.35	1.63	1.30																					1.55
12							1.10	1.62	1.18	1.62	1.21	0.90										1.60					
13														1.61	1.12	1.60	1.67	1.06	1.15							1.44	
14	1.06		1.37	1.49	1.65																						1.44
15													1.18			1.72	1.59		0.60							1.56	
16																											
17																											
18	1.25			1.44	1.73	1.48																					1.57
19							0.95	1.64	1.65	1.63	1.24	0.96															1.28
20															1.57	1.46	1.62	1.59	1.44	0.78						1.65	
21	1.32		1.52	1.50	1.77																						1.42
22														1.22			1.66	1.65		0.53						1.64	
23																											
24																											
25	1.45			1.49	1.85	1.52									1.60												
26							1.21	1.70	1.72	1.71	1.27	1.03															1.29
27																											
28																											
29	1.10			1.50	1.81											1.66	1.70										
30																											
31																											
Monthly Cl₂ Avg.					1.40																						
Total Samples					106																						

Nov-19

only sites mg/l			
23	24	25	Number of Samples
		1.10	6
			0
			0
	1.20		7
			6
1.71			8
			0
		1.20	6
			0
			0
	1.35		6
			7
			7
			7
		1.54	6
			0
			0
	1.43		6
			8
1.71			8
			7
		1.35	6
			0
			0
	1.38		7
			8
			0
			0
			5
			0
			0



Distribution System Monitoring

WSSN 2310

DATE	Total Chlorine Residual at Bacteriological Monitoring Stations mg/l																					Chlorine						
	1	2	3	4	CS	6	7	8	9	10	WR	12	13	14	15	16	17	18	19	20	26	27	28	29	30	21	22	
1													1.16			1.65	1.83		1.52							1.79		
2																												
3																												
4				1.45	1.91	1.26		1.70	1.13															1.55				
5							1.15			1.63		1.16								1.27		1.74						1.17
6											1.10			1.62	1.23	1.63	1.74	1.08							1.64			
7																												
8													1.25			1.72	1.80		1.42							1.52		
9																												
10																												
11	1.58			1.63	1.78	1.56																			1.73			
12							1.22	1.74	1.36	1.79	1.41	1.07										1.71						
13														1.74	1.56	1.82	1.89	1.48	1.42						1.91			
14	1.37		1.71	1.67	1.85																1.07		1.90				1.56	
15														1.37			1.92	1.73		0.77							1.69	
16																												
17																												
18	1.37			1.56	1.90	1.60																				1.77		
19							1.05	1.78	1.80	1.72	1.41	1.14										1.74						1.41
20														1.70	1.54	1.77	1.73	1.58	0.88						1.79			
21	1.50		1.64	1.60	1.89																1.27		1.79				1.51	
22													1.32			1.76	1.77		0.66		1.27		1.79			1.79		
23																												
24																												
25	1.55			1.69	1.94	1.66								1.71											1.67			
26							1.29	1.85	1.86	1.80	1.38	1.13										1.74						1.40
27																												
28																												
29	1.46			1.63	2.07											1.88	1.98											
30																												
31																												
Monthly Cl₂ Avg.					1.57																							
Total Samples					106																							

Nov-19

only sites mg/l			
23	24	25	Number of Samples
		1.23	6
			0
			0
	1.36		7
			6
1.85			8
			0
		1.33	6
			0
			0
	1.53		6
			7
			7
			7
		1.76	6
			0
			0
	1.53		6
			8
1.92			8
			7
		1.44	6
			0
			0
	1.51		7
			8
			0
			0
			5
			0
			0

