



The City of Flint and F&V Operations and Resource Management are submitting the following report(s) to Michigan Department of Environment, Great Lakes and Energy:

monthly MOR

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons or persons who manage the system or those persons directly responsible for gathering such information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

City of Flint Representative: _____

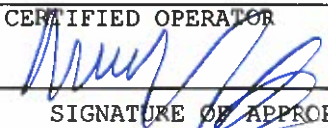
Signature: _____ Date: _____

F&V Operations Representative: Robert Jones _____

Signature: _____ Date: 1/8/2020

**MONTHLY OPERATION REPORT
OF
WATER TREATMENT PLANT**

For Month of December 2019

<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
 SIGNATURE OF APPROPRIATE OFFICIAL		

TREATMENT RATE AND FILTER DATA

1. Treatment Rate, Maximum 10.64 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 2070 gal.: Estimated supply 37 days
8. Sodium Hypochlorite on hand at outstations 31 gal: Estimated supply 69 days.
9. Phosphoric Acid on hand 226 gal.: Estimated supply 12 days
9. Sodium Hydroxide on hand 2589 gal.: Estimated supply 16 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-19**

DATE	Fluoride Applied F mg/l		Fluoride Analyses mg/l			Chlorine App. Mg/l		Chlorine (prior to filtration) mg/L OCI'		Post Chlorine mg/L		Sta II		Dort		3MG Well		Tap	
	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Chlorine Residual mg/l		Tap	
																Raw	Tap	Dist	Free
1		0.59	0.58		0.94							1.1							1.7
2		0.63	0.63		0.97							1.0							1.7
3		0.68	0.71		1.01							1.0							1.7
4		0.07	0.75		1.16							1.0							1.7
5		0.70	0.74		1.04							1.1							1.7
6		0.70	0.72		1.02							1.1							1.7
7		0.75	0.72		0.95							1.1							1.8
8		0.72	0.75		1.06							1.1							1.7
9		0.66	0.66		1.01							1.1							1.7
10		0.74	0.77		1.06							1.1							1.7
11		0.73	0.74		1.08							1.2							1.8
12		0.69	0.69		1.04							1.1							1.7
13		0.73	0.76		1.01							1.1							1.7
14		0.72	0.77		1.07							1.1							1.7
15		0.64	0.66		1.03							1.1							1.8
16		0.64	0.64		1.02							1.1							1.7
17		0.73	0.75		1.09							1.1							1.7
18		0.76	0.75		1.08							1.1							1.7
19		0.72	0.73		1.05							1.1							1.7
20		0.71	0.67		1.13							1.1							1.7
21		0.55	0.56		1.08							1.0							1.6
22		0.73	0.69		0.97							1.2							1.8
23		0.66	0.66		1.16							1.0							1.7
24		0.70	0.71		1.12							0.8							1.6
25		0.63	0.66		1.14							1.1							1.8
26		0.70	0.68		1.02							1.0							1.8
27		0.78	0.75		0.89							1.1							1.7
28		0.71	0.69		0.98							1.1							1.7
29		0.73	0.61		0.89							1.1							1.8
30		0.68	0.72		1.00							1.1							1.7
31		0.64	0.64		1.06							1.2							1.7
AVG			0.70		1.04							1.1							1.7
MAX			0.77		1.16							1.2							1.8
MIN			0.56		0.89							0.8							1.6



Chemical Analyses WSSN 2310 **Dec-19**

	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
D	29	30	31	32	33	34	35	36	37	38.00	39	40	41	42	43	44
A	7.61	7.72		102		86		32	0	0.00		28.6		7.8		13
T	7.13	7.66		102		86		32	0.0	0.01		28.1		7.8		16
E	7.24	7.64	100	102	80	84	30	32	0	0.01	28.1	28.1	7.3	7.8	15	15
	7.26	7.46		102		84		32	0.02	0.01		28.1		7.8		15
	7.30	7.58		102		84		32	0.01	0.02		28.1		7.8		15
	7.16	7.39		104		84		34	0.02	0.02		28.1		8.3		15
	7.17	7.60		92		82		26	0.01	0.01		26.5		6.3		14
	7.48	7.58		98		84		26	0.01	0.03		28.9		6.3		14
	7.18	7.57		104		84		34	0.03	0.02		28.1		8.3		15
	7.13	7.56	104	102	80	84	32	30	0	0.00	28.4	28.4	7.8	7.3	14	15
	7.31	7.69		104		86		32	0.01	0.01		28.9		7.8		15
	7.55	7.61		104		88		34	0.02	0.01		28.1		8.3		15
	7.28	7.60		102		86		32	0.01	0.02		28.1		7.8		15
	7.40	7.62		102		82		32	0.02	0.01		28.1		7.8		15
	7.33	7.50		100		86		32	0.02	0.02		27.3		7.8		14
	7.44	7.73		104		82		34	0.03	0.02		28.1		8.3		15
	7.59	7.66	104	104	70	70	34	34	0	0.01	28.1	28.1	8.3	8.3	14	15
	7.34	7.76		102		82		32	0	0.01		28.1		7.8		15
	7.69	7.83		104		82		34	0	0.02		28.1		8.3		15
	7.84	7.88		102		84		34	0.03	0.02		27.3		8.3		14
	7.69	7.78		100		78		38	0.02	0.02		24.8		9.2		15
	7.50	7.78		100		86		32	0.01	0.01		27.3		7.8		13
	7.50	7.84		104		84		34	0	0.00		28.1		8.3		15
	7.48	7.83	102	104	78	82	30	32	0.01	0.02	28.9	28.9	7.3	7.3	14	15
	7.33	7.70		104		86		34	0	0.00		28.1		8.3		14
	7.33	7.70		102		86		32	0.03	0.02		28.1		7.8		15
	7.32	7.66		104		86		34	0.01	0.01		28.1		8.3		15
	7.44	7.78		104		86		36	0.01	0.01		27.3		8.7		14
	7.21	7.59		104		84		28	0.03	0.03		30.5		6.8		13
	7.37	7.73		104		86		34	0.02	0.04		28.1		8.3		15
	7.39	7.60	102	100	80	86	32	30	0.03	0.02	70	70.0	7.8	7.3	15	14
AVG	7.39	7.67		102		84		32		0.01		29.4		7.9		15
MAX	7.84	7.88		104		88		38		0.04		70.0		9.2		16.0
MIN	7.13	7.39		92		70		26		0.00		24.8		6.3		13.0



DATE		WSSN 2310										Dec-19				
		Total Coliform					Standard Plate Count		Conductivity (mS)		Temp deg.C		Color		Odor	
		Plant Tap					Raw Tap		Raw Tap		Raw Tap		Raw Tap		Raw Tap	
60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	
1					2/0				0.23	11.2						
2					2/0				0.23	11.1						
3					2/0				0.23	10.9						
4					2/0				0.23	11.7						
5					2/0				0.23	11.2						
6					2/0				0.23	11.6						
7					2/0				0.23	11.3						
8					2/0				0.23	12.5						
9					2/0				0.23	11.2						
10					2/0				0.22	11.0						
11					2/0				0.23	10.4						
12					2/0				0.23	10.4						
13					2/0				0.23	10.5						
14					2/0				0.23	9.9						
15					2/0				0.23	9.8						
16					2/0				0.23	9.8						
17					2/0				0.23	9.9						
18					2/0				0.22	9.8						
19					2/0				0.23	9.9						
20					2/0				0.23	10.5						
21					2/0				0.22	12.2						
22					2/0				0.23	10.7						
23					2/0				0.23	9.6						
24					2/0				0.23	10.2						
25					2/0				0.22	9.9						
26					2/0				0.23	9.5						
27					2/0				0.23	10.0						
28					2/0				0.23	9.1						
29					2/0				0.22	9.6						
30					2/0				0.23	9.5						
31					2/0				0.23	9.2						
AVG									0.23	10.5						
MAX									0.23	12.5						
MIN									0.22	9.1						

