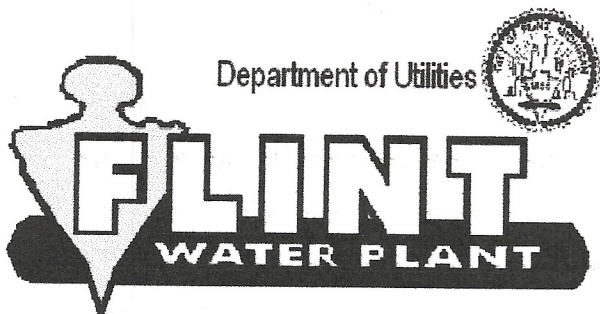




The City of Flint and F&V Operations and Resource Management are submitting the following report(s) to Michigan Department of Environment, Great Lakes and Energy:

MOR October 2020 Flint _____

"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: _____

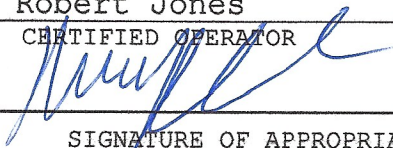
Signature: _____ Date: _____

F&V Operations Representative: Robert Jones _____

Signature: _____ Date: 11/10/20 _____

**MONTHLY OPERATION REPORT
OF
WATER TREATMENT PLANT**

For Month of October 2020

<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 10.71 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 3191 gal.: Estimated supply 48 days
8. Sodium Hypochlorite on hand at outstations gal 415: Estimated supply 53 days.
9. Phosphoric Acid on hand 1053 gal.: Estimated supply 59 days
10. Sodium Hydroxide on hand 2560 gal.: Estimated supply 27 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



Oct-20

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Fluoridation & Chlorination

WSSN 2310

Oct-20

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 OCl ⁻	Post Chlorine mg/L		Sta II	Dort	3MG Well		Tap		
		Raw	Tap	Dist									Free	Free	Free
		14	15	16	17	18	19	20	21	22	23	24	25	26	27
1		0.78	0.68		1.24				0.9					1.7	
2		0.68	0.70		1.24				0.8					1.7	
3		0.61	0.67		1.24				0.9					1.8	
4		0.71	0.72		1.19				0.9					1.7	
5		0.70	0.79		1.11				0.9					1.6	
6		0.72	0.76		1.14				0.9					1.7	
7		0.70	0.70		1.02				0.9					1.7	
8		0.68	0.74		1.07				0.9					1.7	
9		0.81	0.75		0.96				0.9					1.7	
10		0.68	0.67		0.95				1.0					1.8	
11		0.68	0.69		0.84				1.0					1.7	
12		0.79	0.80		0.95				1.0					1.7	
13		0.79	0.62		0.92				0.8					1.6	
14		0.60	0.63		0.95				0.9					1.8	
15		0.82	0.81		0.95				0.9					1.6	
16		0.65	0.62		1.05				0.9					1.7	
17		0.79	0.78		1.09				1.0					1.7	
18		0.70	0.74		1.08				0.9					1.6	
19		0.60	0.66		1.23				0.9					1.7	
20		0.78	0.89		1.26				0.9					1.7	
21		0.87	0.89		1.14				0.9					1.7	
22		0.70	0.70		1.18				0.9					1.7	
23		0.74	0.72		1.27				0.9					1.8	
24		0.75	0.78		1.26				0.9					1.8	
25		0.65	0.73		1.24				1.0					1.7	
26		0.78	0.79		1.29				0.9					1.6	
27		0.74	0.72		1.21				0.8					1.7	
28		0.80	0.99		1.19				0.9					1.8	
29		0.73	0.75		1.20				0.9					1.7	
30		0.72	0.74		1.20				1.0					1.8	
31		0.76	0.76		1.22				1.0					1.8	
AVG		0.80	0.74		1.13				0.9					1.7	
MAX		0.87	0.99		1.29				1.0					1.8	
MIN		0.60	0.62		0.84				0.8					1.6	



Chemical Analyses

WSSN 2310

Oct-20

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	7.52		100		76		28	0.01	0.01		28.9		6.8		15
2	7.39	7.46		100		82		30	0.0	0.00		28.1		7.3		15
3	7.35	7.51		98		82		30	0.01	0.02		27.3		7.3		14
4	7.28	7.54		104		84		30	0.02	0.01		29.7		7.3		15
5	7.24	7.51		102		82		26	0.01	0.01		30.5		6.3		15
6	7.30	7.56	100	100	78	80	26	28	0.01	0.01	29.7	28.9	6.8	6.3	14	13
7	7.32	7.61		100		78		28	0.01	0.02		28.9		6.8		14
8	7.31	7.61		102		80		32	0	0.00		28.1		7.8		14
9	7.41	7.72		100		82		30	0.01	0.01		28.1		7.3		15
10	7.47	7.63		102		80		40	0.01	0.01		24.9		9.7		14
11	7.53	7.67		98		82		28	0	0.01		28.1		6.8		14
12	7.35	7.70		100		82		28	0.01	0.00		28.9		6.8		14
13	7.33	7.66	102	100	78	80	30	30	0.01	0.00	28.9	28.1	7.3	7.3	15	14
14	7.29	7.66		100		80		32	0.01	0.01		28.9		7.8		14
15	7.32	7.69		100		82		28	0	0.00		28.9		6.8		16
16	7.32	7.66		100		86		28	0.01	0.01		28.9		6.8		14
17	7.35	7.67		102		78		28	0	0.00		29.7		6.8		15
18	7.35	7.80		100		82		26	0.01	0.01		29.7		6.3		15
19	7.30	7.70		102		80		30	0.01	0.00		28.9		7.3		15
20	7.30	7.71	102	100	86	82	30	30	0.01	0.02	28.9	28.1	7.3	7.3	14	14
21	7.38	7.52		102		80		30	0	0.01		28.9		7.3		14
22	7.33	7.75		100		80		28	0	0.01				6.8		15
23	7.40	7.72		100		82		30	0.01	0.01		28.1		7.3		15
24	7.39	7.58		100		84		32	0.03	0.02		27.2		7.8		16
25	7.42	7.54		102		84		38	0.03	0.02		25.7		9.2		16
26	7.32	7.65		102		80		28	0.01	0.02		29.7		6.8		14
27	7.32	7.65	100	100	78	84	28	28	0.01	0.02	28.9	28.9	6.8	6.8	15	14
28	7.33	7.66		104		82		30	0.02	0.02		29.7		7.3		14
29	7.34	7.49		102		82		28	0.01	0.02		29.7		6.8		14
30	7.45	7.67		100		82		28	0.01	0.01		28.9		6.8		15
31	7.32	7.65		102		80		34	0.02	0.01		27.3		8.3		16
AVG	7.35	7.63		101		81		30		0.01		28.5		7.2		15
MAX	7.53	7.80		104		86		40		0.02		30.5		9.7		16.0
MIN	7.24	7.46		98		76		26		0.00		24.9		6.3		13.0



WSSN 2310

Oct-20

D A T E	Total Coliform										Standard Plate Count	Conductivity (mS)	Temp deg C	Color			Odor	
	Plant Tap						Raw Tap	Raw Tap	Raw Tap	Raw Tap								
	Dort	3M/G Well	Sta II	Lab Tap	66	67								68				
															60	61	62	63
1					2/0			0.23	18.9									
2					2/0			0.23	18.5									
3					2/0			0.23	18.3									
4					2/0			0.23	17.6									
5					2/0			0.23	17.0									
6					2/0			0.23	16.7									
7					2/0			0.23	16.4									
8					2/0			0.23	16.6									
9					2/0			0.23	16.6									
10					2/0			0.23	17.1									
11					2/0			0.23	16.9									
12					2/0			0.23	16.7									
13					2/0			0.23	16.7									
14					2/0			0.23	16.6									
15					2/0			0.23	16.7									
16					2/0			0.23	16.3									
17					2/0			0.23	16.3									
18					2/0			0.23	16.6									
19					2/0			0.23	16.2									
20					2/0			0.23	16.1									
21					2/0			0.23	16.5									
22					2/0			0.23	16.3									
23					2/0			0.23	16.6									
24					2/0			0.23	17.7									
25					2/0			0.22	17.5									
26					2/0			0.22	17.5									
27					2/0			0.23	16.7									
28					2/0			0.23	16.5									
29					2/0			0.23	16.5									
30					2/0			0.23	15.8									
31					2/0			0.23	15.6									
AVG																		
MAX																		
MIN																		



Distribution System Monitoring WSSN 2310

Oct-20

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Distribution System Monitoring

WSSN 2310

Oct-20

Total Chlorine Residual at Bacteriological Monitoring Stations mg/l																									Chlorine only sites mg/l					Number of Samples	
D A T E	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	23	24		25
1	1.34			1.52	1.85						1.37									1.03		1.77			1.64						7
2													1.62			1.36	1.59		1.34												4
3																															0
4																															0
5	1.26			1.51	1.64	1.66												1.28					0.73								7
6								1.73	1.10	1.64	1.44	0.87							1.64	1.07		1.54				1.20		1.16	1.84	1.38	7
7														1.71	1.42	1.70	1.81							1.75		1.77					9
8	1.46			1.62	2.04									1.43		1.43	1.71		1.38			1.83									7
9													1.19																		4
10																															0
11																															0
12	1.23	1.82		1.63	1.95	1.61												1.38					1.10								8
13								1.80	1.18	1.65	1.33	0.96									1.56										7
14														1.76	1.57	1.53	1.37		1.37					1.71		1.19		1.20	1.89	1.36	9
15	1.43		1.61	1.88	1.86						1.46						1.70		1.38	1.07											7
16													1.47																		4
17																															0
18																															0
19	1.31			1.59	1.90	1.66												1.00					1.69								7
20								1.78	1.24	1.65	1.48	0.81									1.54			1.83							9
21														1.68	1.38	1.43	1.62		1.39					1.83		1.22		1.22	1.88	1.66	6
22	1.45			1.65	1.86						1.31									1.47											5
23																1.50	1.73		1.36	1.07											5
24																															0
25																		1.23													0
26	1.38	1.74		1.68	1.87	1.68																	1.43								8
27								1.86	1.22	1.76	1.49	0.94																			7
28														1.85	1.11	1.70	1.80		1.50		1.62			1.90		1.40		1.06	1.94	1.21	8
29	1.38			1.63	1.87						1.48									1.08		1.90				1.25					7
30													1.33			1.59	1.84		1.48												4
31																															0
Monthly Cl ₂ Avg.				1.52																											
Total Samples				129																											

