



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 February 2020

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*"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: \_\_\_\_\_

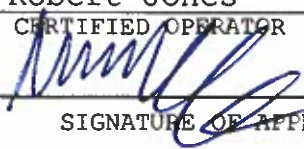
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

F&V Operations Representative: Robert Jones \_\_\_\_\_

Signature:  \_\_\_\_\_ Date: 3/5/2020

**MONTHLY OPERATION REPORT  
OF  
WATER TREATMENT PLANT**

**For Month of February 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 10.73 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 1820 gal.: Estimated supply 29 days
8. Sodium Hypochlorite on hand at outstations 198gal: Estimated supply 37 days.
9. Phosphoric Acid on hand 1064 gal.: Estimated supply 51 days
10. Sodium Hydroxide on hand 4855 gal.: Estimated supply 37 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

Feb-20

DATE	Fluoride Applied F mg/l	Fluoride Analysis mg/l			Chlorine Applied mg/l	Chlorine (prior to filtration) mg/L OCT	Post Chlorine mg/L	Chlorine Residual mg/l					
		Raw	Tap	Dist				Sta II	Dort	3MG Well	Tap		
											Free	Free	
1	0.70	0.64		1.02			1.1					1.8	
2	0.56	0.64		1.07			1.1					1.8	
3	0.55	0.55		0.97			1.1					1.6	
4	0.78	0.74		0.97			1.2					1.6	
5	0.70	0.74		1.02			1.1					1.8	
6	0.74	0.64		0.98			1.0					1.7	
7	0.65	0.65		0.95			1.0					1.6	
8	0.58	0.62		0.94			1.1					1.7	
9	0.56	0.65		0.98			1.2					1.7	
10	0.68	0.77		0.87			1.1					1.6	
11	0.44	0.58		0.90			1.2					1.6	
12	0.71	0.67		0.88			1.1					1.6	
13	0.58	0.67		0.91			1.1					1.7	
14	0.59	0.59		1.00			1.2					1.6	
15	0.61	0.67		0.98			1.0					1.6	
16	0.63	0.64		0.96			1.0					1.7	
17	0.67	0.66		0.98			1.0					1.7	
18	0.61	0.61		1.02			1.1					1.7	
19	0.59	0.64		0.91			0.9					1.7	
20	0.60	0.63		0.89			1.0					1.7	
21	0.56	0.57		1.05			1.0					1.7	
22	0.73	0.71		1.00			1.0					1.7	
23	0.57	0.65		0.93			1.0					1.6	
24	0.61	0.72		0.92			1.1					1.7	
25	0.57	0.57		0.97			1.1					1.7	
26	0.47	0.57		0.89			1.0					1.6	
27	0.59	0.67		0.89			1.1					1.7	
28	0.64	0.64		0.83			1.1					1.7	
29	0.59	0.60		0.87			1.1					1.7	
30													
31													
AVG				0.95			1.1					1.7	
MAX				1.07			1.2					1.8	
MIN				0.83			0.9					1.6	



**Chemical Analyses**

**WSSN 2310**

**Feb-20**

DATE	CSII	Tap	Total Hardness as CaCO <sub>3</sub> mg/l		Total Alkalinity as CaCO <sub>3</sub> mg/l		NonCarbonate Hardness as CaCO <sub>3</sub> mg/l		Iron mg/L		Calcium Ca <sup>2+</sup> mg/l		Magnesium as Mg <sup>2+</sup> mg/l		Chloride as Cl <sup>-</sup> mg/l	
			Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap
1	7.36	7.73	98	98	84	84	28	0	0.01	28.1	40	41	42	43	44	
2	7.41	7.54	102	102	84	84	34	0.0	0.01	27.3	27.3	8.3	8.3	14	14	
3	7.26	7.67	102	102	88	88	32	0.03	0.03	28.1	28.1	7.8	7.8	14	14	
4	7.41	7.65	102	98	74	86	38	34	0	0.04	25.7	25.7	9.2	8.8	13	12
5	7.47	7.69	98	98	84	84	28	0.01	0.02	28.1	28.1	6.8	6.8	13	13	
6	7.05	7.70	110	110	86	86	42	0.03	0.02	27.3	27.3	10.2	10.2	13	13	
7	7.22	7.32	102	102	86	86	34	0	0.01	27.3	27.3	8.3	8.3	14	14	
8	7.50	7.70	108	108	88	88	38	0	0.02	28.1	28.1	9.2	9.2	13	13	
9	7.43	7.63	106	106	80	80	28	0.02	0.01	28.1	28.1	6.8	6.8	13	13	
10	7.24	7.77	100	100	82	82	36	0.04	0.03	25.6	25.6	8.7	8.7	14	14	
11	7.25	7.50	100	100	94	80	30	32	0.02	0.00	28.1	27.3	7.3	7.8	12	13
12	7.50	7.61	100	100	84	84	28	0.02	0.02	28.9	28.9	6.8	6.8	14	14	
13	7.30	7.54	102	102	88	88	32	0.02	0.00	28.1	28.1	7.8	7.8	14	14	
14	7.34	7.56	100	100	90	90	30	0	0.02	28.1	28.1	7.3	7.3	15	15	
15	7.36	7.46	106	106	88	88	34	0.01	0.01	28.9	28.9	8.3	8.3	15	15	
16	7.30	7.64	108	108	88	88	36	0.02	0.01	28.9	28.9	8.7	8.7	16	16	
17	7.38	7.46	100	100	86	86	32	0.02	0.06	27.3	27.3	7.8	7.8	15	15	
18	7.30	7.42	102	104	82	84	30	32	0.02	0.02	28.9	28.9	7.3	7.8	14	15
19	7.34	7.41	104	104	86	86	30	0.01	0.01	29.7	29.7	7.3	7.3	15	15	
20	7.24	7.51	104	104	86	86	32	0.03	0.02	28.9	28.9	7.8	7.8	16	16	
21	7.34	7.44	102	102	86	86	32	0.03	0.01	28.1	28.1	7.8	7.8	15	15	
22	7.25	7.46	104	104	86	86	32	0.02	0.00	28.9	28.9	7.8	7.8	15	15	
23	7.29	7.44	104	104	84	84	32	0	0.01	28.9	28.9	7.8	7.8	15	15	
24	7.34	7.43	100	100	84	84	26	0.01	0.00	29.7	29.7	6.3	6.3	15	15	
25	7.29	7.53	100	100	80	84	28	30	0.03	0.02	28.9	28.1	6.8	7.3	15	15
26	7.31	7.51	104	104	84	84	32	0.01	0.02	28.9	28.9	7.8	7.8	16	16	
27	7.20	7.48	100	100	82	82	28	0.01	0.03	28.9	28.9	6.8	6.8	14	14	
28	7.18	7.55	104	104	84	84	34	0.04	0.01	28.1	28.1	8.3	8.3	16	16	
29	7.24	7.51	100	100	84	84	32	0.02	0.01	27.3	27.3	7.8	7.8	15	15	
30																
31																
AVG	7.31	7.55	102	102	85	85	32	0.02	0.02	28.1	28.1	7.8	7.8	14	14	
MAX	7.50	7.77	110	110	90	90	42	0.06	0.06	29.7	29.7	10.2	10.2	16.0	16.0	
MIN	7.05	7.32	98	98	80	80	26	0.00	0.00	25.6	25.6	6.3	6.3	12.0	12.0	



WSSN 2310

Feb-20

DATE	Total Coliform					Standard Plate Count	Conductivity (ms)	Temp deg C	Color			Odor			
	Plant Tap								Raw Tap	Raw Tap	Raw Tap	Raw Tap	Raw Tap	Raw Tap	
	60	61	Dort 62	3MG Well 63	Sta II Tap 64										Lab Tap 65
1						2/0	0.23	7.7							
2						2/0	0.24	8.3							
3						2/0	0.23	10.4							
4						2/0	0.23	10.3							
5						2/0	0.23	9.8							
6						2/0	0.23	9.3							
7						2/0	0.24	10.9							
8						2/0	0.23	8.7							
9						2/0	0.21	8.6							
10						2/0	0.23	10.3							
11						2/0	0.23	10.1							
12						2/0	0.23	9.4							
13						2/0	0.24	8.3							
14						2/0	0.25	9.3							
15						2/0	0.24	6.0							
16						2/0	0.24	7.0							
17						2/0	0.24	9.1							
18						2/0	0.24	8.5							
19						2/0	0.24	8.6							
20						2/0	0.26	8.8							
21						2/0	0.24	7.3							
22						2/0	0.24	8.2							
23						2/0	0.24	9.0							
24						2/0	0.24	9.9							
25						2/0	0.24	9.2							
26						2/0	0.25	8.6							
27						2/0	0.24	8.2							
28						2/0	0.24	7.0							
29						2/0	0.24	8.0							
30															
31															
AVG							0.24	8.8							
MAX							0.26	10.9							
MIN							0.21	6.0							





Distribution System Monitoring

WSSN 2310

Feb-20

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	26	27	28	29	30		21	22	23	24	25	
1																																0
2																															0	
3	1.62	1.87		1.74	1.88	1.80																									6	
4							1.12	1.92	1.87	1.80		1.37																			8	
5																															8	
6	1.57		1.78	1.78	1.97																										7	
7																															6	
8																															0	
9																															0	
10	1.35	1.54		1.38	1.68	1.55																									7	
11							1.58	1.91	1.84	1.84		1.48																			7	
12																															8	
13	1.65		1.91	1.78	2.02																										7	
14																															6	
15																															0	
16																															0	
17	1.53	1.90		1.80	1.98	1.87																									7	
18							1.53	1.81	1.46	1.82		1.54																			6	
19																															9	
20	1.57		1.86	1.87	2.05																										7	
21																															6	
22																															0	
23																															0	
24	1.49	1.80		1.79	1.87	1.73																									7	
25							1.83	1.93	1.80	1.82		1.46																			8	
26																															6	
27	1.71		1.78	1.84	1.94																										6	
28																															6	
29																															0	
30																															0	
31																															0	
Monthly Cl <sub>2</sub> Avg.	1.74																															
Total Samples	120																															



