

**MONTHLY OPERATION REPORT
OF
WATER TREATMENT PLANT**

For Month of September 2016

Flint Water Plant
NAME OF WATER SYSTEM

2310
WSSN

Genesee
COUNTY

JoLisa McDay
CERTIFIED OPERATOR

F-1
CLASSIFICATION


SIGNATURE OF APPROPRIATE OFFICIAL

TREATMENT RATE AND FILTER DATA

1. Treatment Rate, Maximum 15.81 Million Gallons Per Day
2. Treatment Rate, Approved Rated Plant Capacity Million Gallons per Day
3. Average Filter Run Hours, Average Head Loss Feet
4. Average Filtration Rate Gallons per Square Ft. per Minute
5. Maximum Filtration Rate Gallons per Square Ft. per Minute
6. Average Wash Water Use percent of Treated Water

CHEMICAL DATA

7. Sodium Hypochlorite on hand 3216 gal.: Estimated supply 25.7 days
8. Phosphoric Acid on hand 515 gal.: Estimated supply 17 days
9. Sodium Hydroxide on hand 1365 gal.: Estimated supply (not being used) days
10. Cost of All Chemicals per Million Gallons
11. Total Power Cost per Million Gallons

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

Sep-16

D A T E	Fluoride Applied F ⁻ mg/L	Fluoride Analyses mg/L			Chlorine App. mg/L			Chlorine Residual mg/L								
					Chlorine Applied mg/L	Chlorine (prior to filtration) mg/L OCl ⁻	Post Chlorine mg/L	CSII	Dort	3MG Well	Tap					
		Free	Free	Free									Free			
		Raw	Tap	Dist	18	19	20	21	22	23	24	25	26	27	28	
1			0.81		0.86					0.9					1.5	
2			0.76		0.77					0.6					1.5	
3			0.79		0.77					0.8					1.5	
4			0.82		0.78					0.8					1.3	
5			0.87		0.77					0.8					1.4	
6			0.86		0.79					0.7					1.4	
7			0.85		0.80					0.7					1.3	
8			0.83		0.82					0.8					1.4	
9			0.78		1.04					0.7					1.6	
10			0.81		1.05					0.8					1.6	
11			0.81		1.12					0.7					1.5	
12			0.82		1.12					0.7					1.5	
13			0.87		1.08					0.8					1.6	
14			0.87		1.10					0.8					1.5	
15			0.87		1.20					0.6					1.6	
16			0.83		1.27					0.7					1.7	
17			0.83		1.32					0.7					1.8	
18			0.80		1.37					0.6					1.6	
19			0.83		1.28					0.6					1.7	
20			0.84		1.29					0.7					1.7	
21			0.80		1.33					0.7					1.8	
22			0.83		1.32					0.7					1.8	
23			0.79		1.33					0.6					1.8	
24			0.81		1.30					0.8					1.9	
25			0.83		1.23					0.8					1.8	
26			0.86		1.14					0.6					1.8	
27			0.88		1.16					0.8					1.7	
28			0.89		1.13					0.7					1.8	
29			0.87		1.17					0.7					1.6	
30			0.77		1.15					0.8					1.7	
AVG			0.83		1.10					0.7					1.6	
MAX			0.89		1.37					0.9					1.9	
MIN			0.76		0.77					0.6					1.3	



Chemical Analyses

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Sep-16

D A T E	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	39	40	41	42	43	44
1	7.49	7.33		104		72		32		0.02		34.5		4.4		12
2	7.45	7.30		100		68		32		0.01		35.3		2.9		13
3	7.44	7.36		102		72		30		0.01		35.3		3.4		13
4	7.33	7.25		100		70		30		0.01		33.7		3.9		13
5	7.43	7.31		100		68		32		0.01		32.9		4.4		13
6	7.39	7.27		102		70		32		0.01		35.3		3.4		13
7	7.40	7.35		102		70		32		0.01		34.5		3.9		13
8	7.38	7.32		98		70		28		0.01		34.5		2.9		12
9	7.35	7.27		98		68		30		0.01		35.3		2.4		13
10	7.51	7.31		98		68		30		0.01		30.5		5.3		13
11	7.42	7.35		98		70		28		0.01		33.7		3.4		13
12	7.47	7.34		98		70		28		0.01		34.5		2.9		13
13	7.34	7.34		98		72		26		0.01		34.5		2.9		13
14	7.34	7.33		100		70		30		0.01		35.3		2.9		13
15	7.40	7.31		98		72		26		0.01		34.5		2.9		13
16	7.44	7.32		98		72		26		0.01		34.5		2.9		13
17	7.38	7.34		100		68		32		0.01		33.7		3.9		13
18	7.44	7.31		100		72		28		0.01		34.5		3.4		13
19	7.48	7.34		100		70		30		0.01		32.9		4.4		13
20	7.41	7.31		100		70		30		0.02		33.7		3.9		13
21	7.35	7.31		98		72		26		0.01		35.3		2.4		13
22	7.41	7.30		98		70		28		0.02		33.7		3.4		13
23	7.40	7.31		98		72		26		0.01		34.5		2.9		13
24	7.49	7.31		100		72		28		0.01		33.7		3.9		12
25	7.51	7.30		102		72		30		0.01		34.5		3.9		13
26	7.47	7.27		98		74		24		0.01		34.5		2.9		13
27	7.39	7.27		100		72		28		0.01		35.3		2.9		12
28	7.51	7.26		98		72		26		0.01		35.3		2.4		13
29	7.53	7.28		100		72		28		0.01		35.3		2.9		13
30	7.39	7.32		100		70		30		0.01		35.3		2.9		13
AVG	7.42	7.31		100		71		29		0.01		34.4		3.4		13
MAX	7.53	7.36		104		74		32		0.02		35.3		5.3		13.0
MIN	7.33	7.25		98		68		24		0.01		30.5		2.4		12.0



WSSN 2310

Sep-16

DATE	Total Coliform (P/A) Colilert				Standard Plate Count IDEXX Simplate		Conductivity (mS)	Temp deg.C	Color		Odor	
	# Samples	CSII	# Samples	Lab Tap	Raw	Tap			Raw	Tap	Raw	Tap
	62	63	64	65	67	68	69	70	71	72	73	74
1	2	A	2	A			0.21	16.0				
2	2	A	2	A			0.21	15.4				
3	2	A	2	A			0.21	15.3				
4	2	A	2	A			0.21	18.0				
5	2	A	2	A			0.21	20.1				
6	2	A	2	A			0.21	20.7				
7	2	A	2	A			0.21	20.9				
8	2	A	2	A			0.21	21.2				
9	2	A	2	A			0.21	21.4				
10	2	A	2	A			0.21	21.5				
11	2	A	2	A			0.21	21.2				
12	2	A	2	A			0.21	20.5				
13	2	A	2	A		<2	0.21	20.6				
14	2	A	2	A			0.21	19.7				
15	2	A	2	A			0.21	19.7				
16	2	A	2	A			0.21	18.7				
17	2	A	2	A			0.21	19.4				
18	2	A	2	A			0.21	20.2				
19	2	A	2	A			0.21	20.2				
20	2	A	2	A		<2	0.21	20.6				
21	2	A	2	A			0.21	20.1				
22	2	A	2	A			0.21	20.0				
23	2	A	2	A			0.21	19.1				
24	2	A	2	A			0.21	17.5				
25	2	A	2	A			0.21	16.5				
26	2	A	2	A			0.21	16.5				
27	2	A	2	A		<2	0.21	16.7				
28	2	A	2	A			0.21	18.8				
29	2	A	2	A			0.21	19.3				
30	2	A	2	A			0.21	17.1				
AVG	2		2				0.21	19.1				
MAX	2		2				0.21	21.5				
MIN	2		2				0.21	15.3				



Distribution System Monitoring WSSN 2310 Sep-16

D A T E	Free Chlorine Residual at Bacteriological Monitoring Stations mg/L										
	1	2	3	4	5	6	7	8	CS	WR	Number of Samples
1	1.34	1.15	1.21	1.11	0.83	0.41	1.15	1.11	1.16	1.23	10
2											0
3											0
4											0
5											0
6	1.19	0.97	1.10	1.11	0.73	0.34	1.15	1.03	1.62	1.28	10
7	1.20	1.01	1.01	0.97	1.08	0.34	1.15	1.14	1.15	1.24	10
8	1.20	0.99	1.08	0.83	0.84	0.44	1.15	1.10	1.36	1.38	10
9											0
10											0
11											0
12											0
13	1.37	1.17	1.09	0.97	0.81	0.64	1.20	1.33	1.08	2.01	10
14	1.24	0.91	1.18	0.84	0.82	0.60	0.96	1.24	1.10	1.12	10
15	1.42	1.18	1.20	1.04	1.02	0.53	1.09	1.22	0.90	1.11	10
16											0
17											0
18											0
19											0
20	1.55	1.43	1.37	1.19	0.91		0.89	1.50	1.18	3.45	9
21	1.40	1.45	1.39	1.22	0.99	0.76	1.47	1.43	1.23	1.51	10
22	1.36	1.31	1.37	1.17	1.25	0.73	1.40	1.32	1.03	1.71	10
23						0.59					1
24											0
25											0
26											0
27	1.39	1.36	1.36	1.09	1.05	0.61	1.20	1.43	1.67	1.44	10
28	1.51	1.41	1.43	1.17	1.18	0.64	1.35	1.27	1.57	1.49	10
29	1.32	1.29	1.25	1.14	1.04	0.62	1.19	1.53	1.64	1.52	10
30											0
Monthly Cl₂ Avg.				1.17		Comments:					
Total Samples				130		September 20, 2016: Site #6 was out of service for maintenance. Sample was collected on September 23rd.					



Distribution System Monitoring WSSN 2310 Sep-16

DATE	Total Chlorine Residual at Bacteriological Monitoring Stations mg/L										
	1	2	3	4	5	6	7	8	CS	WR	Number of Samples
1	1.52	1.35	1.44	1.39	1.09	0.64	1.45	1.45	1.33	1.48	10
2											0
3											0
4											0
5											0
6	1.39	1.15	1.22	1.34	0.97	0.48	1.30	1.36	1.80	1.46	10
7	1.39	1.14	1.26	1.09	1.23	0.46	1.28	1.46	1.32	1.43	10
8	1.34	1.16	1.26	1.10	1.00	0.61	0.28	1.25	1.47	1.54	10
9											0
10											0
11											0
12											0
13	1.56	1.37	1.38	1.18	1.00	0.88	1.50	1.51	1.22	2.20	10
14	1.54	1.18	1.40	1.15	1.02	0.74	1.24	1.47	1.26	1.32	10
15	1.52	1.37	1.38	1.20	1.17	0.68	1.47	1.43	1.80	1.32	10
16											0
17											0
18											0
19											0
20	1.75	1.55	1.59	1.39	1.19		1.09	1.69	1.36	3.73	9
21	1.74	1.57	1.64	1.33	1.20	0.88	1.59	1.70	1.38	1.67	10
22	1.70	1.51	1.55	1.30	1.39	0.91	1.49	0.48	1.26	1.91	10
23						0.72					1
24											0
25											0
26											0
27	1.62	1.52	1.52	1.32	1.16	0.78	1.51	1.57	1.81	1.62	10
28	1.69	1.53	1.53	1.33	1.32	0.81	1.54	1.48	1.86	1.63	10
29	1.59	1.42	1.50	1.35	1.21	0.86	1.38	1.65	1.75	1.63	10
30											0
Monthly Cl₂ Avg.				1.35		Comments:					
Total Samples				130		September 20, 2016: Site #6 was out of service for maintenance. Sample was collected on September 23rd.					



ROUTINE POSITIVE DISTRIBUTION SAMPLES

Sep-16

Total number of positive routine samples:				Total Coliform: <u>0</u>			E.coli Bacteria: <u>0</u>		Chlorine Residual (mg/L)	
Date	Monitoring Station	Total Coliform	E.coli Bacteria	Date	Time	Retest of Station, Upstream & Downstream	Total Coliform	E.coli Bacteria	Free	Total
Total number of routine distribution samples analyzed:				130						
Total number of routine distribution samples required:				100						