Bay Area WTP

Monthly Operations Report

October, 2025

Water Systems Serial Number: 0465

Name	Title	Classification
Carl J. Overly	Water Plant Superintendent	F-1, S-3, D-3
Mike Wagar	Operations Supervisor	F-1, S-4

Bay Area Water Treatment Plant

Monthly Operations Report

Supply Name: Bay Area Water System
WSSN: 0465

Carl J. Overly	October, 2025
Operator-in-charge	Month, Year
F-1, S-3, D-3	F-1
Certification of Operator-in-charge	Water Plant Classification
20001	Bay
Operator Identification Number for Operator-in-charge	County

Treatment Rate and Membrane Data

Treatment Rate, Approved Rated Plant Capacity	17.4	Millions of Gallons per Day
Treatment Rate, Maximum	8.3	Millions of Gallons per Day
Maximum Approved Transmembrane Pressure	22	PSI
Maximum Operating Transmembrane Pressure	14.60	PSI
Maximum Approved Flux Rate	36.25	gpd/sq.ft.
Maximum Operating Flux Rate	31.97	gpd/sq.ft.

Chemical Data

Sodium Hypochlorite on hand:	3,581	Gallons	Estimated Supply:	52.1	days
Caustic Soda on hand:	3,305	Gallons	Estimated Supply:	226.4	days
Corrosion Inhibitor on hand:	644	Gallons	Estimated Supply:	30.8	days
Hydrofluosilicic Acid on hand:	1,382	Gallons	Estimated Supply:	86.4	days
Aluminum Chlorohydrate on hand:	765	Gallons	Estimated Supply:	142.6	days
Sulfuric Acid on hand:	495	Gallons	Estimated Supply:	247.6	days
Sodium Bisulfite on hand:	535	Gallons	Estimated Supply:	184.4	days
Citric Acid on hand:	3,098	Gallons	Estimated Supply:	247.8	days
Cost of All Chemicals per Million Gallons:	144.41	Dollars			

Utility Data

Estimated Electrical Kilo Watts per Million Gallons:	984.22	KW
Estimated Natural Gas Million Cubic Feet per Million Gallons:	3.46	Mcf

Remarks

Number of periods of filter confluence turbidity samples > 0.3 NTU	0
Percent of membrane period confluence samples > 0.3 NTU:	0.00%
Was continuous (every 15 minutes) filter monitoring equipment off-line during the month? If yes, indicate date(s), duration, and individual filter grab sampling frequency on a separate sheet.	No
Did POE disinfectant residual fall below 0.2 ppm during the month? If yes, indicate date(s) and duration on a separate sheet.	No
Was minimum C*T credit achieved for the entire month? If no, indicate on a separate sheet the date(s) not achieved.	Yes
Was continuous POE chlorine residual monitoring equipment off-line during the month? If yes, date(s) and duration will be indicated on the rule page.	Yes

Comment: POE Chlorine analyzer experience a failure on 10/27, further details can be found on FW Analysis Page.

Notes

Air Hold Test on Skid #1 on 10/10 intitially failed. A pressure reliefe valve was initiated which casued the skid to rapidly depressurize during the test.
The test recorded a value of 6.016, well above the UCL. The issue was corrected and the skid was air hold tested again. Passed with a 0.045 psi/min.

Skid 8 had a low LRV value on 10/30 due to the FCV not opening correctly. The low value was manual corrected and is reflective of actual conditions.

Finished Water Tank #1 was drained, cleaned, inspected, and modified.
Tank went down on 10/20. Was cleaned and had hatch modifications on 10/21. Tank was inspected on 10/22 and then started its disinfection process.
This Tank being down impacted CT Calcs and they were manually adjusted. Tank went back into service 10/27 after two rounds of negative BacT samples.

Bay City's Bacteriological Sampling
Bacteriological sampling for Bay City had two noteworthy samples that required action. Further details can be found on the Dist Bacti Page

ACH dosing on SCADA was adjusted to reflect just the Aluminum component of the DELPAC XG that we are currently using.
This can be seen within this report as it looks like we greatly reduced the dosing rate, that is not the caes. Were still using roughly the same amount.

Bay Area WTP Monthly Operating Report

Flows									
	Raw Water (MG)			Clarified (MG)	Sludge (MG)	Treated (MG)	Finished Water Pumped (MG)		
	N. Euclid	Lauria Road	Total	Total	Total	Total	N. Euclid	Lauria Road	Total
Date	FIT-1000-1	FIT-1000-2	Calculated	FIT-5520-1	FIT-5180	FIT-4000-1	FIT-4040-1	FIT-4040-2	Calculated
10/1/2025	3.67	3.82	7.49	0.15	0.10	7.66	3.83	3.18	7.01
10/2/2025	3.67	3.76	7.43	0.13	0.16	7.17	3.66	2.92	6.58
10/3/2025	3.77	3.83	7.60	0.14	0.12	7.82	3.90	3.16	7.06
10/4/2025	4.27	3.51	7.79	0.15	0.12	7.24	3.74	3.01	6.74
10/5/2025	4.01	3.92	7.93	0.05	0.26	8.29	4.13	3.36	7.49
10/6/2025	3.74	4.03	7.77	0.09	0.20	7.83	4.06	3.28	7.35
10/7/2025	3.55	4.16	7.71	0.15	0.14	7.19	3.60	2.87	6.48
10/8/2025	3.50	3.80	7.29	0.16	0.08	7.07	3.43	2.91	6.34
10/9/2025	2.82	4.38	7.20	0.16	0.08	7.08	3.57	3.11	6.68
10/10/2025	1.84	4.84	6.67	0.18	0.09	6.72	3.26	2.83	6.10
10/11/2025	1.68	4.68	6.36	0.17	0.08	6.76	3.23	2.81	6.04
10/12/2025	0.63	5.68	6.31	0.14	0.09	6.59	3.20	2.78	5.97
10/13/2025	0.00	6.60	6.60	0.16	0.12	7.10	3.51	3.05	6.55
10/14/2025	0.00	6.91	6.91	0.14	0.10	6.87	3.41	2.94	6.35
10/15/2025	0.00	7.28	7.28	0.16	0.10	7.00	3.43	2.96	6.39
10/16/2025	0.00	7.59	7.59	0.06	0.21	6.56	3.14	2.67	5.81
10/17/2025	0.00	7.04	7.04	0.06	0.19	6.30	3.21	2.71	5.92
10/18/2025	0.00	5.83	5.83	0.16	0.08	6.65	3.20	2.73	5.94
10/19/2025	0.00	5.58	5.58	0.13	0.09	5.67	3.13	2.69	5.82
10/20/2025	0.00	5.10	5.10	0.10	0.17	6.75	3.51	3.10	6.60
10/21/2025	0.00	7.86	7.86	0.12	0.11	6.23	3.09	2.62	5.71
10/22/2025	0.00	7.83	7.83	0.18	0.08	6.77	3.21	2.74	5.94
10/23/2025	0.00	6.19	6.19	0.20	0.08	7.68	3.27	2.81	6.08
10/24/2025	0.00	6.58	6.58	0.15	0.08	6.32	3.07	2.59	5.66
10/25/2025	0.00	6.35	6.35	0.15	0.08	6.04	2.97	2.51	5.48
10/26/2025	0.00	6.37	6.37	0.16	0.08	6.96	3.38	2.90	6.28
10/27/2025	0.00	6.83	6.83	0.17	0.09	6.35	3.12	2.66	5.78
10/28/2025	0.00	6.40	6.40	0.14	0.08	6.36	3.15	2.64	5.79
10/29/2025	0.00	6.04	6.04	0.16	0.08	6.12	3.03	2.56	5.59
10/30/2025	0.00	6.47	6.47	0.13	0.10	6.19	3.00	2.46	5.46
10/31/2025	0.00	6.77	6.77	0.14	0.12	6.79	3.32	2.80	6.12
Total	37.15	176.04	213.19	4.35	3.55	212.16	104.76	88.36	193.11
Avg	1.20	5.68	6.88	0.14	0.11	6.84	3.38	2.85	6.23
Min	0.00	3.51	5.10	0.05	0.08	5.67	2.97	2.46	5.46
Max	4.27	7.86	7.93	0.20	0.26	8.29	4.13	3.36	7.49

Recovery Process Efficiency
Sludge Flow / Recovery Flow
45.0%

Facility Water Efficiency		
Waste (MG)	Treated (MG)	T/W (G)
8.50	212.16	25.0

Raw Water Analysis								
	Temp	pH	Turbidity		F⁻	Free Cl	Bacti	
	Average	Average	Average	Maximum	Grab	Average	Positive/Negative	
	°C		NTU		mg/L	mg/L	Total Coliform	E. coli
Date	TIT-1000	AIT-1000-2	AIT-1000-1		Lab - Mem Feed	AIT-1035-2	Lab	
10/1/2025	19.6	8.04	0.64	0.77	0.10	0.14	Negative	Negative
10/2/2025	19.4	8.03	1.89	2.67	0.09	0.09	Negative	Negative
10/3/2025	19.7	8.03	1.67	2.30	0.09	0.06	Negative	Negative
10/4/2025	19.3	8.02	1.36	1.89	0.09	0.10	Negative	Negative
10/5/2025	19.0	7.99	1.19	1.36	0.09	0.12	Negative	Negative
10/6/2025	19.0	7.92	0.89	1.14	0.09	0.15	Negative	Negative
10/7/2025	17.5	7.73	0.77	1.04	0.09	0.39	Negative	Negative
10/8/2025	14.6	7.71	0.79	4.91	0.08	0.55	Negative	Negative
10/9/2025	15.1	7.94	0.87	1.10	0.09	0.29	Negative	Negative
10/10/2025	15.9	8.03	1.01	1.18	0.09	0.25	Negative	Negative
10/11/2025	16.1	8.04	1.23	1.72	0.09	0.25	Negative	Negative
10/12/2025	16.5	8.05	1.25	2.89	0.10	0.26	Negative	Negative
10/13/2025	17.1	8.03	1.42	1.63	0.09	0.28	Negative	Negative
10/14/2025	16.7	7.99	1.09	1.22	0.08	0.32	Negative	Negative
10/15/2025	16.0	8.02	1.13	1.36	0.09	0.20	Negative	Negative
10/16/2025	15.9	8.05	1.14	1.37	0.09	0.18	Negative	Negative
10/17/2025	15.9	8.06	1.23	1.44	0.09	0.19	Negative	Negative
10/18/2025	16.2	8.06	1.25	1.93	0.09	0.25	Negative	Negative
10/19/2025	16.6	8.03	1.27	1.79	0.09	0.24	Negative	Negative
10/20/2025	15.5	7.96	0.99	1.31	0.09	0.35	Negative	Negative
10/21/2025	15.4	7.95	0.90	1.10	0.08	0.35	Negative	Negative
10/22/2025	15.3	7.91	0.69	1.03	0.08	0.54	Negative	Negative
10/23/2025	15.1	7.88	0.43	0.97	0.09	0.72	Negative	Negative
10/24/2025	14.8	7.87	0.32	0.57	0.09	0.70	Negative	Negative
10/25/2025	14.6	7.88	0.41	0.59	0.09	0.81	Negative	Negative
10/26/2025	14.3	7.90	0.41	0.94	0.08	0.81	Negative	Negative
10/27/2025	14.8	7.90	0.37	0.54	0.08	0.76	Negative	Negative
10/28/2025	14.9	7.94	0.41	0.60	0.09	0.52	Negative	Negative
10/29/2025	14.8	7.97	0.71	1.37	0.09	0.30	Negative	Negative
10/30/2025	14.5	7.94	1.17	1.97	0.09	0.46	n/a	
10/31/2025	14.3	7.94	1.81	3.86	0.10	0.40	Negative	Negative
Avg	16.3	7.96	0.99	1.57	0.09	0.36	NA	NA
Min	14.3	7.71	0.32	0.54	0.08	0.06	NA	NA
Max	19.7	8.06	1.89	4.91	0.10	0.81	NA	NA

F Ratio, Raw/Tap:
12.9

*Due to a Training error, Raw & Tap bacteriological sample results from 10/30 are unavailable samples were read early and disposed of.

Finished Water Analysis

	Temp	pH	Phosphate	Fluoride		Free Cl_2	Hardness	Alkalinity (as $CaCO_3$)		Chloride	Sulfate	Calcium (as CaCO3)	Dissolved Oxygen	Conductivity	Langelier Saturation Index	Chloride: Sulfate Mass Ratio	Larson-Skold Index	Bacti	
	Average	Average	Average	Tap	Dist	Average	Grab	Carbonate	Bicarbonate	Grab	Grab	Grab	Grab	Grab				Positive/Negative	
	°C		mg/L	mg/L		mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	uS/cm				Total Coliform	E. coli
Date	AIT-4040-1	AIT-4050-2	AIT-4040-5	Lab		AIT-4050-1	Lab	Lab		Lab	Lab	Lab	Lab	Lab	Calculated			Lab	
10/1/2025	19.3	7.51	3.32	0.71		1.29	106.00	0	77	12	10	72	10.8	237	-0.72	1.18	0.43	Negative	Negative
10/2/2025	19.3	7.50	3.32	0.70		1.32	104.00	0	80	13	10	74	10.8	237	-0.70	1.27	0.44	Negative	Negative
10/3/2025	19.3	7.49	3.31	0.70		1.30	106.00	0	82	14	10	74	10.6	241	-0.71	1.36	0.44	Negative	Negative
10/4/2025	19.4	7.49	3.37	0.71		1.29	106.00	0	82	14	11	76	10.7	245	-0.69	1.24	0.46	Negative	Negative
10/5/2025	19.4	7.48	3.38	0.71		1.33	106.00	0	82	13	9	78	10.7	235	-0.68	1.42	0.41	Negative	Negative
10/6/2025	19.4	7.47	3.38	0.69	0.70	1.33	106.00	0	82	13	9	78	10.6	236	-0.69	1.46	0.42	Negative	Negative
10/7/2025	18.9	7.44	3.36	0.70		1.33	104.00	0	79	12	10	78	10.8	224	-0.75	1.16	0.42	Negative	Negative
10/8/2025	17.3	7.40	3.34	0.69		1.34	110.00	0	85	11	10	80	10.5	223	-0.79	1.14	0.38	Negative	Negative
10/9/2025	15.9	7.38	3.33	0.70		1.31	104.00	0	80	12	10	78	10.8	222	-0.88	1.22	0.42	Negative	Negative
10/10/2025	16.0	7.42	3.33	0.72		1.28	106.00	0	82	12	10	82	10.5	227	-0.81	1.20	0.41	Negative	Negative
10/11/2025	16.6	7.45	3.33	0.71		1.28	106.00	0	83	12	10	84	10.4	233	-0.74	1.20	0.41	Negative	Negative
10/12/2025	16.9	7.47	3.33	0.71		1.29	106.00	0	80	15	11	82	10.8	237	-0.75	1.34	0.49	Negative	Negative
10/13/2025	17.1	7.51	3.32	0.72	0.73	1.29	106.00	0	82	15	11	80	10.7	239	-0.70	1.37	0.49	Negative	Negative
10/14/2025	17.1	7.61	3.32	0.70		1.31	108.00	0	82	16	10	74	10.8	238	-0.64	1.62	0.50	Negative	Negative
10/15/2025	17.0	7.61	3.32	0.68		1.31	102.00	0	81	14	11	73	11.1	237	-0.65	1.27	0.47	Negative	Negative
10/16/2025	16.8	7.60	3.31	0.68		1.29	102.00	0	82	13	10	76	11.0	239	-0.64	1.32	0.44	Negative	Negative
10/17/2025	16.8	7.61	3.31	0.66		1.29	102.00	0	84	13	12	78	11.0	240	-0.61	1.08	0.45	Negative	Negative
10/18/2025	16.7	7.62	3.31	0.67		1.30	108.00	0	82	13	9	78	10.9	239	-0.61	1.47	0.42	Negative	Negative
10/19/2025	16.7	7.63	3.30	0.67		1.29	109.00	0	83	13	10	76	10.7	242	-0.60	1.33	0.43	Negative	Negative
10/20/2025	16.5	7.61	3.29	0.67	0.67	1.32	104.00	0	82	13	10	82	11.1	240	-0.60	1.32	0.44	Negative	Negative
10/21/2025	16.3	7.57	3.30	0.68		1.29	102.00	0	81	13	11	72	10.8	235	-0.71	1.15	0.45	Negative	Negative
10/22/2025	16.2	7.56	3.29	0.69		1.34	102.00	0	80	12	14	74	10.7	230	-0.71	0.86	0.49	Negative	Negative
10/23/2025	16.0	7.54	3.29	0.69		1.33	102.00	0	78	15	11	76	11.1	236	-0.74	1.39	0.52	Negative	Negative
10/24/2025	15.8	7.53	3.29	0.68		1.32	102.00	0	75	12	12	72	11.1	222	-0.79	1.01	0.48	Negative	Negative
10/25/2025	15.6	7.51	3.30	0.70		1.32	102.00	0	77	13	9	76	11.4	219	-0.78	1.46	0.45	Negative	Negative
10/26/2025	15.3	7.50	3.29	0.65		1.29	104.00	0	78	13	11	74	11.2	216	-0.80	1.15	0.46	Negative	Negative
10/27/2025	15.1	7.54	3.29	0.64	0.65	1.34	104.00	0	79	13	10	76	11.4	219	-0.75	1.32	0.45	Negative	Negative
10/28/2025	14.9	7.53	3.29	0.69		1.29	104.00	0	79	12	10	76	11.5	214	-0.77	1.24	0.43	Negative	Negative
10/29/2025	14.8	7.54	3.28	0.70		1.28	100.00	0	78	11	11	74	11.4	213	-0.78	1.02	0.43	Negative	Negative
10/30/2025	14.6	7.55	3.29	0.70		1.29	104.00	0	84	13	10	70	11.4	232	-0.76	1.33	0.43	n/a	
10/31/2025	14.2	7.57	3.28	0.72		1.30	104.00	0	80	14	12	72	11.1	238	-0.76	1.13	0.48	Negative	Negative
Avg	16.8	7.52	3.31	0.69	0.69	1.31	104.55	0	81	13	10	76	10.9	232	-0.72	1.26	0.45	NA	NA
Min	14.2	7.38	3.28	0.64	0.65	1.28	100.00	0	75	11	9	70	10.4	213	-0.88	0.86	0.38	NA	NA
Max	19.4	7.63	3.38	0.72	0.73	1.34	110.00	0	85	16	14	84	11.5	245	-0.60	1.62	0.52	NA	NA

Comments: On 10/27 the CL17 used to monitor the Free Chlorine residual on the Tap experienced a failure.
In early 2026 we plan to discontinue using the CL17s we have on site and plan to switch to analyzer from Chemtrac.
Due to the CL17s being phased out next year, we opted to replace the failed unit, instead of repairing it.
Within 4 hours of the CL17s failure, the Chemtrac unit was analyzing our Tap Free Chlorine Residual.

Plant Tap Disinfection Byproduct Monitoring - Results In ppb			
Date	Total Trihalomethanes - TTHM		
	Result	LRAA	OEL
10/6/25	48	43	47

Turbidity										
	Raw Water		Clarified Water	Membrane Feed Water	Combined Membrane Filtrate					Finished Water
	Avg	Max	Avg	Avg	Avg	Max	# Samples	# > 0.3	% Exceeded	Avg
	NTU									
Date	AIT-1000-1		AIT-5030-1	AIT-1035-3	AIT-4000-1					Calculated
10/1/2025	0.64	0.77	35.20	0.66	0.033	0.033	96	0	0.0	0.026
10/2/2025	1.89	2.67	20.08	0.86	0.033	0.033	96	0	0.0	0.026
10/3/2025	1.67	2.30	15.00	1.34	0.033	0.035	96	0	0.0	0.026
10/4/2025	1.36	1.89	17.87	1.27	0.033	0.035	96	0	0.0	0.027
10/5/2025	1.19	1.36	10.73	1.16	0.033	0.035	96	0	0.0	0.027
10/6/2025	0.89	1.14	14.91	1.02	0.033	0.034	96	0	0.0	0.027
10/7/2025	0.77	1.04	15.09	0.84	0.032	0.034	96	0	0.0	0.026
10/8/2025	0.79	4.91	5.71	0.68	0.030	0.032	96	0	0.0	0.025
10/9/2025	0.87	1.10	12.99	0.69	0.029	0.030	96	0	0.0	0.025
10/10/2025	1.01	1.18	41.22	0.84	0.030	0.031	96	0	0.0	0.025
10/11/2025	1.23	1.72	36.83	0.86	0.031	0.031	96	0	0.0	0.026
10/12/2025	1.25	2.89	33.68	1.03	0.031	0.032	96	0	0.0	0.026
10/13/2025	1.42	1.63	46.59	1.09	0.031	0.033	96	0	0.0	0.026
10/14/2025	1.09	1.22	30.75	1.07	0.031	0.033	96	0	0.0	0.026
10/15/2025	1.13	1.36	18.74	1.00	0.031	0.032	96	0	0.0	0.026
10/16/2025	1.14	1.37	14.16	0.99	0.031	0.032	96	0	0.0	0.026
10/17/2025	1.23	1.44	8.41	1.02	0.031	0.033	96	0	0.0	0.026
10/18/2025	1.25	1.93	26.84	1.05	0.031	0.033	96	0	0.0	0.026
10/19/2025	1.27	1.79	43.00	1.13	0.032	0.032	96	0	0.0	0.027
10/20/2025	0.99	1.31	26.51	1.00	0.031	0.032	96	0	0.0	0.035
10/21/2025	0.90	1.10	3.09	0.85	0.030	0.032	96	0	0.0	0.026
10/22/2025	0.69	1.03	14.03	0.68	0.030	0.031	96	0	0.0	0.026
10/23/2025	0.43	0.97	21.84	0.55	0.028	0.031	96	0	0.0	0.024
10/24/2025	0.32	0.57	6.88	0.38	0.027	0.027	96	0	0.0	0.024
10/25/2025	0.41	0.59	12.20	0.35	0.026	0.027	96	0	0.0	0.023
10/26/2025	0.41	0.94	4.73	0.37	0.025	0.027	96	0	0.0	0.023
10/27/2025	0.37	0.54	5.92	0.35	0.025	0.026	96	0	0.0	0.027
10/28/2025	0.41	0.60	6.38	0.35	0.025	0.027	96	0	0.0	0.024
10/29/2025	0.71	1.37	11.38	0.40	0.025	0.027	96	0	0.0	0.024
10/30/2025	1.17	1.97	11.92	0.70	0.026	0.028	96	0	0.0	0.025
10/31/2025	1.81	3.86	10.41	1.06	0.026	0.028	96	0	0.0	0.025
Avg	0.99	1.57	18.81	0.83	0.030	0.031	96	0	0.0	0.026
Min	0.32	0.54	3.09	0.35	0.025	0.026	96	0	0.0	0.023
Max	1.89	4.91	46.59	1.34	0.033	0.035	96	0	0.0	0.035

Note: % Exceeded are 4 hr compliance periods where the average of samples are greater than 0.3 NTU

Membrane LRV/Integrity/Max Turbidity

	Membrane 1			Membrane 2			Membrane 3			Membrane 4			Membrane 5			Membrane 6			Membrane 7			Membrane 8		
	LRV	Integrity	Turbidity	LRV	Integrity	Turbidity	LRV	Integrity	Turbidity	LRV	Integrity	Turbidity	LRV	Integrity	Turbidity	LRV	Integrity	Turbidity	LRV	Integrity	Turbidity	LRV	Integrity	Turbidity
	Minimum		Max	Minimum		Max	Minimum		Max	Minimum		Max	Minimum		Max	Minimum		Max	Minimum		Max	Minimum		Max
Date	Daily Value	Pass/Fail	NTU	Daily Value	Pass/Fail	NTU	Daily Value	Pass/Fail	NTU	Daily Value	Pass/Fail	NTU	Daily Value	Pass/Fail	NTU	Daily Value	Pass/Fail	NTU	Daily Value	Pass/Fail	NTU	Daily Value	Pass/Fail	NTU
10/1/2025	5.24	PASS	0.027	4.76	PASS	0.029	5.05	PASS	0.030	4.60	PASS	0.028	5.21	PASS	0.028	5.24	PASS	0.027	5.35	PASS	0.027	5.07	PASS	0.028
10/2/2025	5.28	PASS	0.027	4.82	PASS	0.029	5.07	PASS	0.031	4.67	PASS	0.029	4.87	PASS	0.027	5.25	PASS	0.028	5.33	PASS	0.027	5.04	PASS	0.028
10/3/2025	5.32	PASS	0.028	4.78	PASS	0.029	5.07	PASS	0.031	4.73	PASS	0.030	5.04	PASS	0.027	5.19	PASS	0.028	5.34	PASS	0.028	5.02	PASS	0.028
10/4/2025	5.29	PASS	0.028	4.75	PASS	0.031	5.02	PASS	0.032	4.68	PASS	0.030	5.02	PASS	0.028	4.80	PASS	0.028	5.38	PASS	0.028	5.03	PASS	0.029
10/5/2025	5.38	PASS	0.028	4.78	PASS	0.030	5.06	PASS	0.032	4.70	PASS	0.029	5.27	PASS	0.028	4.87	PASS	0.028	5.41	PASS	0.028	5.21	PASS	0.029
10/6/2025	5.31	PASS	0.028	4.74	PASS	0.029	5.06	PASS	0.032	4.71	PASS	0.029	5.26	PASS	0.028	4.86	PASS	0.028	5.35	PASS	0.027	5.17	PASS	0.029
10/7/2025	5.36	PASS	0.027	4.78	PASS	0.030	5.06	PASS	0.034	4.70	PASS	0.029	5.27	PASS	0.028	4.88	PASS	0.027	5.39	PASS	0.027	5.16	PASS	0.028
10/8/2025	5.40	PASS	0.026	4.87	PASS	0.028	5.10	PASS	0.031	4.70	PASS	0.028	5.19	PASS	0.026	4.90	PASS	0.026	5.45	PASS	0.026	5.13	PASS	0.027
10/9/2025	5.39	PASS	0.027	4.85	PASS	0.028	5.17	PASS	0.029	4.66	PASS	0.029	5.18	PASS	0.025	5.06	PASS	0.025	5.40	PASS	0.026	5.13	PASS	0.026
10/10/2025	5.36	PASS	0.026	4.81	PASS	0.029	5.08	PASS	0.028	4.54	PASS	0.029	5.19	PASS	0.026	5.29	PASS	0.026	5.30	PASS	0.026	4.98	PASS	0.027
10/11/2025	5.31	PASS	0.027	4.77	PASS	0.029	5.01	PASS	0.030	4.61	PASS	0.030	5.12	PASS	0.027	4.94	PASS	0.027	5.27	PASS	0.026	4.98	PASS	0.027
10/12/2025	5.28	PASS	0.027	4.75	PASS	0.029	4.99	PASS	0.031	4.61	PASS	0.031	5.10	PASS	0.027	4.92	PASS	0.027	5.26	PASS	0.027	4.88	PASS	0.028
10/13/2025	5.28	PASS	0.027	4.72	PASS	0.029	5.01	PASS	0.031	4.59	PASS	0.032	5.12	PASS	0.028	5.18	PASS	0.027	5.27	PASS	0.027	4.83	PASS	0.028
10/14/2025	5.31	PASS	0.028	4.69	PASS	0.029	5.01	PASS	0.032	4.59	PASS	0.031	5.08	PASS	0.027	5.19	PASS	0.027	5.36	PASS	0.027	5.24	PASS	0.029
10/15/2025	5.34	PASS	0.028	4.72	PASS	0.030	5.03	PASS	0.032	4.64	PASS	0.031	5.07	PASS	0.027	5.18	PASS	0.027	5.39	PASS	0.027	5.22	PASS	0.029
10/16/2025	5.33	PASS	0.028	4.73	PASS	0.033	5.02	PASS	0.037	4.62	PASS	0.031	5.23	PASS	0.028	5.23	PASS	0.028	5.37	PASS	0.027	5.10	PASS	0.028
10/17/2025	5.34	PASS	0.028	4.76	PASS	0.030	5.10	PASS	0.037	4.67	PASS	0.031	5.12	PASS	0.028	5.24	PASS	0.028	5.37	PASS	0.028	5.08	PASS	0.029
10/18/2025	5.32	PASS	0.028	4.74	PASS	0.030	5.18	PASS	0.047	4.55	PASS	0.031	5.00	PASS	0.028	5.18	PASS	0.028	5.31	PASS	0.028	5.10	PASS	0.028
10/19/2025	5.27	PASS	0.028	4.74	PASS	0.030	5.12	PASS	0.058	4.56	PASS	0.031	5.04	PASS	0.028	4.83	PASS	0.028	5.32	PASS	0.028	4.92	PASS	0.029
10/20/2025	5.30	PASS	0.028	4.79	PASS	0.031	5.13	PASS	0.027	4.58	PASS	0.032	5.06	PASS	0.029	4.88	PASS	0.028	5.29	PASS	0.028	4.95	PASS	0.030
10/21/2025	5.41	PASS	0.027	4.81	PASS	0.029	5.18	PASS	0.027	4.75	PASS	0.030	5.09	PASS	0.028	5.24	PASS	0.027	5.33	PASS	0.027	5.07	PASS	0.028
10/22/2025	5.54	PASS	0.027	4.80	PASS	0.029	5.19	PASS	0.026	4.75	PASS	0.030	5.10	PASS	0.027	5.21	PASS	0.027	5.46	PASS	0.026	5.04	PASS	0.028
10/23/2025	5.51	PASS	0.026	4.77	PASS	0.028	5.20	PASS	0.025	4.78	PASS	0.029	5.18	PASS	0.026	4.88	PASS	0.026	5.52	PASS	0.026	5.04	PASS	0.027
10/24/2025	5.56	PASS	0.025	4.84	PASS	0.027	5.22	PASS	0.024	5.49	PASS	0.024	5.27	PASS	0.025	4.92	PASS	0.025	5.55	PASS	0.025	5.14	PASS	0.026
10/25/2025	5.55	PASS	0.025	4.86	PASS	0.035	5.28	PASS	0.024	5.52	PASS	0.024	5.27	PASS	0.025	5.30	PASS	0.025	5.55	PASS	0.024	5.24	PASS	0.026
10/26/2025	5.56	PASS	0.024	4.88	PASS	0.027	5.26	PASS	0.024	5.53	PASS	0.024	5.36	PASS	0.024	5.27	PASS	0.025	5.55	PASS	0.024	5.26	PASS	0.025
10/27/2025	5.53	PASS	0.024	4.91	PASS	0.026	5.32	PASS	0.024	5.48	PASS	0.024	5.39	PASS	0.023	5.35	PASS	0.024	5.55	PASS	0.023	5.26	PASS	0.024
10/28/2025	5.53	PASS	0.024	4.90	PASS	0.026	5.32	PASS	0.024	5.49	PASS	0.024	5.35	PASS	0.023	4.98	PASS	0.025	5.57	PASS	0.023	5.26	PASS	0.024
10/29/2025	5.53	PASS	0.025	4.92	PASS	0.027	5.26	PASS	0.025	5.49	PASS	0.024	5.35	PASS	0.023	4.97	PASS	0.027	5.56	PASS	0.024	5.30	PASS	0.024
10/30/2025	5.48	PASS	0.025	4.89	PASS	0.027	5.24	PASS	0.026	5.43	PASS	0.026	5.41	PASS	0.024	4.92	PASS	0.026	5.51	PASS	0.025	5.27	PASS	0.025
10/31/2025	5.45	PASS	0.025	4.85	PASS	0.027	5.19	PASS	0.026	5.39	PASS	0.025	5.48	PASS	0.024	4.90	PASS	0.026	5.44	PASS	0.025	5.12	PASS	0.025
Avg	5.39		0.027	4.80		0.029	5.13		0.031	4.86		0.029	5.18		0.026	5.07		0.027	5.40		0.026	5.10		0.027
Min	5.24		0.024	4.69		0.026	4.99		0.024	4.54		0.024	4.87		0.023	4.80		0.024	5.26		0.023	4.83		0.024
Max	5.56		0.028	4.92		0.035	5.32		0.058	5.53		0.032	5.48		0.029	5.35		0.028	5.57		0.028	5.30		0.030

Note: As calculated by the manufacturer, the Upper Control Limit (UCL) for the installed membrane filtration system is 3.32 psi/min.
Per the manufacturer's UCL calculation: Q = 1,848 gpm, ALCR = 44.6, P atm = 14.4 psi, LRC = 3, V sys = 356.9 gallons, and VCF = 1.

Operational Guidelines: We have established the following parameter values as control limits to trigger skids to be taken out of service and evaluated.

Min LRV: A value of 3.3.

Max NTU: A turbidity reading of 0.15 NTU or greater.

Flow or Q: While not shown here, a skid will be evaluated if it cannot sustain a flow above 1,000 GPM

Max Air Hold Test Result: While not shown on this page, an AHT result of 0.84 PSI/Min or greater.

In Service Dates For Modules			
Train 1		Train 2	
Skid 1	8/2024	12/2023	Skid 2
Skid 3	11/2023	7/2025	Skid 4
Skid 5	2/2023	10/2024	Skid 6
Skid 7	8/2025	1/2023	Skid 8

Treatment Chemical Dosages											
	Treated Water	Sodium Hypochlorite					Phosphoric Acid		Hydroflourosilicic Acid		
		Raw Water	Membrane Feed Water	Dose pre-FW Tanks	Treated Water	Post FW Tanks	Dose pre-FW Tanks	Post FW Tanks	Raw Water	Dose pre-FW Tanks	Post FW Tanks
	Volume	Free Cl_2					PO4		F^-		
	MG	mg/L					mg/L		mg/L		
Date	FIT-4000-1	AIT-1035-2	AIT-1035-4	Added	AIT-4030-1	AIT-4050-1	Added	AIT-4040-5	Lab - Mem Feed	Added	Lab
10/1/2025	7.7	0.14	0.05	1.86	1.50	1.29	3.05	3.32	0.10	0.52	0.71
10/2/2025	7.2	0.09	0.05	1.86	1.51	1.32	3.05	3.32	0.09	0.52	0.70
10/3/2025	7.8	0.06	0.04	1.93	1.50	1.30	3.08	3.31	0.09	0.52	0.70
10/4/2025	7.2	0.10	0.04	1.95	1.53	1.29	3.15	3.37	0.09	0.52	0.71
10/5/2025	8.3	0.12	0.05	1.70	1.54	1.33	3.15	3.38	0.09	0.52	0.71
10/6/2025	7.8	0.15	0.06	1.22	1.56	1.33	3.15	3.38	0.09	0.52	0.69
10/7/2025	7.2	0.39	0.11	1.10	1.52	1.33	3.15	3.36	0.09	0.52	0.70
10/8/2025	7.1	0.55	0.24	1.00	1.48	1.34	3.15	3.34	0.08	0.52	0.69
10/9/2025	7.1	0.29	0.21	1.06	1.44	1.31	3.15	3.33	0.09	0.52	0.70
10/10/2025	6.7	0.25	0.15	1.08	1.41	1.28	3.15	3.33	0.09	0.52	0.72
10/11/2025	6.8	0.25	0.11	1.18	1.48	1.28	3.15	3.33	0.09	0.52	0.71
10/12/2025	6.6	0.26	0.09	1.18	1.47	1.29	3.15	3.33	0.10	0.52	0.71
10/13/2025	7.1	0.28	0.10	1.18	1.48	1.29	3.15	3.32	0.09	0.52	0.72
10/14/2025	6.9	0.32	0.11	1.20	1.51	1.31	3.15	3.32	0.08	0.52	0.70
10/15/2025	7.0	0.20	0.09	1.20	1.48	1.31	3.15	3.32	0.09	0.52	0.68
10/16/2025	6.6	0.18	0.07	1.20	1.44	1.29	3.15	3.31	0.09	0.52	0.68
10/17/2025	6.3	0.19	0.06	1.37	1.43	1.29	3.15	3.31	0.09	0.52	0.66
10/18/2025	6.7	0.25	0.07	1.37	1.45	1.30	3.15	3.31	0.09	0.52	0.67
10/19/2025	5.7	0.24	0.07	1.37	1.43	1.29	3.15	3.30	0.09	0.52	0.67
10/20/2025	6.8	0.35	0.08	1.22	1.40	1.32	3.15	3.29	0.09	0.55	0.67
10/21/2025	6.2	0.35	0.12	1.25	1.37	1.29	3.15	3.30	0.08	0.55	0.68
10/22/2025	6.8	0.54	0.18	1.12	1.39	1.34	3.15	3.29	0.08	0.55	0.69
10/23/2025	7.7	0.72	0.27	1.00	1.37	1.33	3.15	3.29	0.09	0.55	0.69
10/24/2025	6.3	0.70	0.37	0.94	1.36	1.32	3.15	3.29	0.09	0.55	0.68
10/25/2025	6.0	0.81	0.44	0.80	1.36	1.32	3.15	3.30	0.09	0.55	0.70
10/26/2025	7.0	0.81	0.50	0.80	1.37	1.29	3.15	3.29	0.08	0.55	0.65
10/27/2025	6.4	0.76	0.56	0.74	1.37	1.34	3.15	3.29	0.08	0.55	0.64
10/28/2025	6.4	0.52	0.52	0.86	1.38	1.29	3.15	3.29	0.09	0.55	0.69
10/29/2025	6.1	0.30	0.37	1.09	1.40	1.28	3.15	3.28	0.09	0.55	0.70
10/30/2025	6.2	0.46	0.30	1.11	1.46	1.29	3.15	3.29	0.09	0.55	0.70
10/31/2025	6.8	0.40	0.29	1.13	1.47	1.30	3.15	3.28	0.10	0.55	0.72
Avg	6.8	0.36	0.19	1.23	1.45	1.31	3.14	3.31	0.09	0.53	0.69
Min	5.7	0.06	0.04	0.74	1.36	1.28	3.05	3.28	0.08	0.52	0.64
Max	8.3	0.81	0.56	1.95	1.56	1.34	3.15	3.38	0.10	0.55	0.72

Disinfection CT														
	Pipeline CT				FW Tank CT						Compliance			
	Whitestone	Travel Time	Residual	CT	FW Tank 1	FW Tank 2	Plant	Contact Time	Free Cl_2	CT	Total CT	Temp	CT	CT
	Flow	Min	RW	Achieved	Min Level	Min Level	Flow	Min	Min	Achieved	Achieved	Avg	Required	Met
	MGD	Minutes	mg/L	mg-min/L	ft	ft	MGD	Minutes	mg/L	mg-min/L	mg-min/L	°C	mg-min/L	Y/N
Date	Entry	Calculated	AIT-1035-2	Calculated	LIT-4005-1	LIT-4005-2	Calculated	Calculated	Calculated	Calculated	Calculated	AIT-4040-1	Calculated	Calculated
10/1/2025	53.7	2,327	0.14	317	28.6	22.7	7.0	502	1.23	308	625	19.3	4.00	Y
10/2/2025	52.5	2,383	0.09	208	28.6	22.3	6.6	531	1.30	344	551	19.3	4.00	Y
10/3/2025	55.2	2,267	0.06	139	28.8	24.1	7.1	514	1.25	321	460	19.3	4.00	Y
10/4/2025	64.8	1,931	0.10	192	28.6	22.6	6.7	520	1.26	328	520	19.4	4.00	Y
10/5/2025	65.9	1,898	0.12	234	28.8	21.1	7.5	456	1.28	293	526	19.4	4.00	Y
10/6/2025	60.2	2,079	0.15	321	28.8	23.1	7.3	484	1.27	307	628	19.4	4.00	Y
10/7/2025	56.9	2,198	0.39	863	28.6	23.4	6.5	550	1.28	351	1213	18.9	4.00	Y
10/8/2025	49.6	2,522	0.55	1392	28.6	23.1	6.3	559	1.30	364	1756	17.3	4.00	Y
10/9/2025	46.0	2,720	0.29	787	28.6	22.7	6.7	526	1.26	332	1119	15.9	4.00	Y
10/10/2025	48.2	2,597	0.25	651	28.5	21.9	6.1	566	1.23	347	998	16.0	4.00	Y
10/11/2025	58.5	2,139	0.25	543	28.6	21.9	6.0	573	1.22	349	893	16.6	4.00	Y
10/12/2025	59.4	2,107	0.26	549	28.6	22.9	6.0	591	1.25	369	918	16.9	4.00	Y
10/13/2025	55.4	2,258	0.28	622	28.6	22.0	6.6	529	1.25	330	952	17.1	4.00	Y
10/14/2025	48.4	2,586	0.32	818	28.6	21.8	6.3	545	1.25	340	1157	17.1	4.00	Y
10/15/2025	45.7	2,740	0.20	535	28.6	21.8	6.4	540	1.28	345	879	17.0	4.00	Y
10/16/2025	44.6	2,803	0.18	514	28.6	21.8	5.8	595	1.24	369	882	16.8	4.00	Y
10/17/2025	100.6	1,244	0.19	238	28.6	21.9	5.9	585	1.25	367	605	16.8	4.00	Y
10/18/2025	101.5	1,232	0.25	304	28.6	21.9	5.9	583	1.21	351	655	16.7	4.00	Y
10/19/2025	58.7	2,132	0.24	521	28.6	10.1	5.8	456	1.22	278	799	16.7	4.00	Y
10/20/2025	59.4	2,105	0.35	737	0.3	9.3	6.6	97	1.26	37	773	16.5	4.00	Y
10/21/2025	46.7	2,679	0.35	951	0.2	25.8	5.7	310	1.21	113	1063	16.3	4.00	Y
10/22/2025	46.4	2,699	0.54	1464	0.3	24.2	5.9	279	1.25	104	1568	16.2	4.00	Y
10/23/2025	45.7	2,734	0.72	1964	5.3	24.0	6.1	271	1.29	105	2069	16.0	4.00	Y
10/24/2025	44.7	2,800	0.70	1952	27.7	24.6	5.7	298	1.24	111	2063	15.8	4.00	Y
10/25/2025	55.2	2,267	0.81	1845	27.7	24.9	5.5	311	1.21	113	1958	15.6	4.00	Y
10/26/2025	56.1	2,231	0.81	1814	27.6	24.4	6.3	266	1.17	93	1908	15.3	4.00	Y
10/27/2025	56.4	2,218	0.76	1691	27.7	22.0	5.8	588	0.53	157	1848	15.1	4.00	Y
10/28/2025	47.4	2,637	0.52	1381	28.4	22.4	5.8	602	1.26	379	1760	14.9	6.00	Y
10/29/2025	40.2	3,113	0.30	936	29.0	21.9	5.6	625	1.22	382	1318	14.8	6.00	Y
10/30/2025	40.8	3,065	0.46	1408	28.2	22.2	5.5	632	1.26	398	1806	14.6	6.00	Y
10/31/2025	42.8	2,926	0.40	1169	28.2	19.9	6.1	538	1.22	329	1498	14.2	6.00	Y
Avg	55.1	2,375	0.36	873	25.0	21.9	6.2	484	1.22	281	1154	16.8	4.26	NA
Min	40.2	1,232	0.06	139	0.2	9.3	5.5	97	0.53	37	460	14.2	4.00	NA
Max	101.5	3,113	0.81	1964	29.0	25.8	7.5	632	1.30	398	2069	19.4	6.00	NA

Notes:

Pipeline volume factor in SMMWSC to RW tank: 125,090 MG-min/day

Finished Water tank #1 was taken down for maintenance from 10/20 to 10/27.

The days highlighted in gray show when FWT #1 was out of service and not providing contact time.

Distribution System Monitoring

Chlorine Residual at Bacteriological Monitoring Stations (mg/L Free Cl_2)

WSSN:	0072	0390				0400			0470							0485					0517	0518		2180
	Akron	Bangor Twp.				Bangor Monitor Dist.			Bay City							Bay County					Beaver Rd	Beaver Twp		Essexville
Date	1	3	4	5	6	7	9	10	11	12	13	14	15	16	17	18	19	20	23	24	26	29	30	32
10/1/2025																								
10/2/2025						0.76	0.79		0.49	0.27	0.46	0.65	0.22	0.84	0.43									
10/3/2025																								
10/4/2025																								
10/5/2025																								
10/6/2025																								1.04
10/7/2025	0.09	0.80	0.29	0.39	0.96											0.70	0.61	0.66	0.53	0.31		0.29		
10/8/2025																								
10/9/2025								1.16	0.61		0.43	0.60	0.39	0.89	0.46						0.98			
10/10/2025										0.31														
10/11/2025																								
10/12/2025																								
10/13/2025																								0.97
10/14/2025		0.85	0.19	0.32	0.96				0.63	0.24	0.40	0.67	0.41	0.76	0.44	0.79	0.67	0.69	0.76	0.59			0.25	
10/15/2025																								
10/16/2025									0.38	0.21	0.44	0.57	0.31	0.88	0.44									
10/17/2025													0.34											
10/18/2025																								
10/19/2025				0.21	0.91																			
10/20/2025																								1.03
10/21/2025																								
10/22/2025									0.53		0.43	0.59		0.85	0.42									
10/23/2025																								
10/24/2025																								
10/25/2025																								
10/26/2025																								
10/27/2025																								1.05
10/28/2025									0.67	0.49	0.49	0.82	0.53	0.79	0.50									
10/29/2025																								
10/30/2025									0.52	0.24	0.58	0.63	0.49	0.72	0.55									
10/31/2025																								
Average	0.09	0.59				0.90			0.52							0.63					0.98	0.27		1.02
Min	0.09	0.19				0.76			0.21							0.31					0.98	0.25		0.97
Max	0.09	0.96				1.16			0.89							0.79					0.98	0.29		1.05

MONITORING STATION ADDRESSES

1. Sample station at corner of 5758 M-25 & R
3. Bangor Fire Station, 3921 Wheeler
4. BCDWS Admin. Bldg. 3933 Patterson Rd.
5. 7-11, 3543 S. Old Kawkawlin Rd.
6. Admiral Petroleum, 314 S Euclid Ave.
7. Sequin Lumber, 3881 Euclid Ave
9. Top Gun Liquor, 2981 Midland Rd
10. Little Caesars, 3475 E North Union Rd
11. Number 1 Fire Station, 1401 Center Ave
12. Number 2 Fire Station, 1000 Fremont Ave
13. Jack's Fruit Market, 1000 Salzburg Ave
14. Number 4 Fire Station, 212 S. Dean St
15. Number 5 Fire Station, 1209 Smith St
16. Bay City Hall, 301 Washington Ave
17. Skipper Buds Marina, 1809 S Water St
18. Bay Valley Animal Hospital 6015 WS Saginaw Rd
19. Dore's M-84 Party Store, 6183 WS Saginaw Rd
20. Pump Station #13, 6000 WS Saginaw Rd
23. Rail Trail Pump Station, 366 N. Tuscola Rd.
24. Little Learners Daycare, 1694 Cass Ave.
26. Wieland Contracting, 2443 S Mackinaw Rd
29. Sample Station, 2515 S. 11 Mile Rd
30. Sample Station, 340 W. Beaver Rd
32. Essexville City Hall, 1107 Woodside Ave

Shading Designation Legend	
TC- / EC-	TC+
	EC+

Distribution System Monitoring

Chlorine Residual at Bacteriological Monitoring Stations (mg/L Free Cl_2)

WSSN:	2465		2960				3565			3570		3910		4280		4440			5330		5335		5540	7125			7134
	Fraser Twp.		Hampton Twp.				Kawkawlin Twp.			Kawkawlin Met.		Linwood, LMWD		Merritt Twp.		Monitor Twp.			City Pinconning		Pinconning Twp.		Portsmouth	Williams Twp.			Wisner
Date	34	35	36	37	38	39	40	41	42	43	45	73	74	46	48	49	52	55	58	59	61	63	65	68	69	70	72
10/1/2025																											
10/2/2025		0.70	0.71	0.36	0.12	0.38	0.89	0.57		0.65			0.60			1.06	0.54	0.67	0.33		0.32						
10/3/2025																											
10/4/2025																											
10/5/2025																											
10/6/2025																											
10/7/2025														0.25									0.45	0.34	0.59	0.32	0.55
10/8/2025																											
10/9/2025	0.30			0.29	0.39	0.26			0.49	0.64						1.03	0.69	0.26	0.31			0.47					
10/10/2025																											
10/11/2025																											
10/12/2025																											
10/13/2025																											
10/14/2025				0.37	0.57	0.32								0.33										0.47	0.61	0.22	
10/15/2025																											
10/16/2025																											
10/17/2025																											
10/18/2025																											
10/19/2025																											
10/20/2025																											
10/21/2025																											
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10/23/2025																											
10/24/2025																											
10/25/2025																											
10/26/2025																											
10/27/2025																											
10/28/2025																											
10/29/2025																											
10/30/2025																											
10/31/2025																											
Average	0.50		0.38				0.65			0.65		0.60		0.29		0.71			0.32		0.40		0.45	0.43			0.55
Min	0.30		0.12				0.49			0.64		0.60		0.25		0.26			0.31		0.32		0.45	0.22			0.55
Max	0.70		0.71				0.89			0.65		0.60		0.33		1.06			0.33		0.47		0.45	0.61			0.55

MONITORING STATION ADDRESSES

34. Fraser Elevated Tank, 2949 1/2 N. Huron Rd
35. Lloyd's Cabinet, 1947 N Huron Rd
36. Shirts Mugs & More, 2728 Center Ave
37. Hampton DPW, 950 Wagner Rd.
38. Bay County Golf Course, 584 W Hampton Rd.
39. Sewer Lift Station, 902 Nebobish Rd.
40. Bay Co. Road Commisison, 2600 E Beaver Rd
41. Parish Rd. Elevated Tank, 1770 E. Parish Rd
42. Linwood Tile, 205 S Huron Rd
43. Speedway, 106 S. Huron Rd.
45. Kawkawlin Restaurant, 103 S Huron Rd
46. John's Bar, 1476 S Tuscola Rd
48. Tool Shed Bar, 12 W Munger Rd
49. Wilder Rd Party Store, 2951 E Wilder Rd
52. Monitor Twp. Elevated Tank, 1611 E. Midland Rd
55. Auburn Fertilizer, 4640 S 7 Mile Rd
58. Pinconning City Hall, 208 S Manitou St
59. Marathon Gas Station, 511 S Mabel St
61. Pinconning Meter Pit, 3005 N Huron Rd
63. Master Meter Pit, 2865 Pinconning Rd
65. Ike's Welding, 50 N Finn Rd
68. Williams Township Hall, 1080 W Midland Rd
69. Pump Station, 490 W. Salzburg & 9 Mile Rd
70. 11 Mile Elevated Tank, 5003 S. 11 Mile Rd
72. Lindy's Sales, 9051 M-25
73. Larry Chambers, 407 W. Clara Street
74. Linwood Party and Sporting Goods, 211 W. Center St.

Shading Designation Legend	
TC- / EC-	TC+
	EC+

Distribution System Bacteriological

Water Supplier Bacteriological Analysis Report

Name of Water Supply:
Bay Area Water System - WSSN 0465

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
Bureau of Environmental Health
Water Supplier Bacteriological Analysis Report October, 2025

DISTRIBUTION SYSTEM SAMPLES

			CHLORINE MONITORING						BACTERILOGICAL MONITORING					
COUNTY	COMMUNITY	WSSN	AVERAGE FREE Cl_2 RESIDUAL	SAMPLES WITH DECTECTABLE* FREE Cl_2 RESIDUAL	SAMPLES WITH NO DECTECTABLE* FREE Cl_2 RESIDUAL: COUNT	HPC < 500	HPC > 500	PERCENT OF SAMPLES WITH NO DECTECTABLE FREE Cl_2 RESIDUAL	NUMBER OF ROUTINE SAMPLES REQUIRED	NUMBER OF SAMPLES COLLECTED	NUMBER OF POSITIVE SAMPLES	REPEAT SAMPLES REQUIRED	NUMBER OF REPEAT SAMPLES GATHERED	REPEAT SAMPLING COMPLETE
Tuscola	Akron	0072	0.09	1		0	0	0	1	1	0			
BAY	Bangor Township	0390	0.59	10				0	10	10	0			
BAY	Bangor-Monitor Dist.	0400	0.90	3				0	3	3	0			
BAY	Bay City	0470	0.52	48				0	30	48	1	3	3	YES
BAY	Bay County (Frankl./Monitor/Portsm.)	0485	0.63	10				0	9	10	0			
BAY	Beaver Road Area	0517	0.98	1				0	1	1	0			
BAY	Beaver Township	0518	0.27	2				0	2	2	0			
BAY	Essexville	2180	1.02	4				0	4	4	0			
BAY	Fraser Township	2465	0.50	2				0	2	2	0			
BAY	Hampton Township	2960	0.38	10				0	10	10	0			
BAY	Kawkawlin Township	3565	0.65	3				0	3	3	0			
BAY	Kawkawlin Metro Dist.	3570	0.65	2				0	2	2	0			
BAY	Linwood Metro Water District	3910	0.60	1				0	1	1	0			
BAY	Merritt Township	4280	0.29	2				0	2	2	0			
BAY	Monitor Township	4440	0.71	6				0	6	6	0			
BAY	City of Pinconning	5330	0.32	2				0	2	2	0			
BAY	Pinconning Township	5335	0.40	2				0	2	2	0			
BAY	Portsmouth Township	5540	0.45	1				0	1	1	0			
BAY	Williams Township	7125	0.43	6				0	6	6	0			
Tuscola	Wisner	7134	0.55	1				0	1	1	0			

Total Distribution - Free Chlorine Samples

Required Number of Routine Samples:	98	
Total Number of Routine Samples Gathered:	117	
Free Chlorine Analysis:		
Minimum Free Chlorine Residual:	0.09	mg/L
Average Free Chlorine Residual:	0.55	mg/L
Median Free Chlorine Residual:	0.53	mg/L
Maximum Free Chlorine Residual:	1.16	mg/L
Range of Free Chlorine Residual:	1.07	mg/L
Water Plant's Free Chlorine Residual at POE to Distribution:		
Minimum Free Chlorine Residual:	1.28	mg/L
Average Free Chlorine Residual:	1.31	mg/L
Maximum Free Chlorine Residual:	1.34	mg/L

DETECTABLE*: The detectable level of free chlorine is dictated by the sensitivity of the field device used to analyze the sample. The Plant's practice is to run HPC on any sample 0.1 mg/L or lower.

Repeat Bacteriological Sampling Details

-On 10/17/2025, Sample #15: #5 First Station, at 1209 E. Smith St. was Total Coliform Positive and E.coli Negative.
-On 10/18/2025, repeat samples for Sample Site #15: #5 Fire Station were gathered.
Upstream Sample #15A gathered at 1200 Smith St.
Downstream Sample #15B gathered at 1300 Smith St.
Repeat Sampling Results: #15 Free Cl_2: 0.34 mg/L, Total Coliform Negative and E.coli Negative.
#15A Free Cl_2: 0.30 mg/L, Total Coliform Negative and E.coli Negative.
#15B Free Cl_2: 0.21 mg/L, Total Coliform Negative and E.coli Negative.

Comments:

Due to an error while training a new operator, Bay City samples from 10/08 were over incubated.
Site #12's sample exhibited a false positive and was invalidated. Once the error was discovered, Site #12 was resampled.
The resample from site #12 was done within 24 hours, had a good chlorine residual and was TC- and EC-.
The following week, Bay City had a TC+ result from sample site #15. Resampling is fully documented above.
These two sampling events highlighted areas where our MOR could be improved.
Changes have been implemented to Distribution pages to provide more details to the reader.