Monthly Operating Report

July:2023

SSWC

9199 Buckhart Rd Rochester IL 62563

So. Sangamon Water Commission

August 21st, 2023

TABLE OF CONTENTS

SECTION **PAGE NO.**

Executive Summary **ES-1**

1. SAFETY **1-1**

1.1 Safety Training 1-1
1.2 Lost time Accidents 1-1
1.3 Safety Audit 1-1
1.4 Miscellaneous Safety 1-1

2. COMPLIANCE, FLOWS AND LOADINGS **2-2**

2.1 Compliance 2-2
2.2 Influent flows and loadings 2-2
2.3 Effluent Concentrations 2-2
2.4 Lagoon Discharge Concentrations 2-4

3. OPERATIONS **3-1**

3.1 Events impacting operations 3-1
3.2 Emergency & Service calls 3-1
3.3 Emergency Call-outs 3-1
3.4 Customer Inquiries 3-1

4. MAINTENANCE AND REPAIR **4-9**

4.1 Preventative and predictive maintenance 4-9
4.2 Corrective repairs 4-9

5. PROJECT MANAGEMENT & SUPPORT **5-1**

5.1 Staffing & Training 5-1
5.2 Corporate Support 5.2
5.3 Budget 5-3

6. CAPITAL PLANNING **6-1**

6.1 Approved CIP Projects Current status 6-1
6.2 Draft Capital Improvement Plan 6-1

LIST OF TABLES

TABLE **PAGE NO.**

Table 2.2 Influent Concentrations and Flow 2-2
Table 2.3 Finished Water Quality 2-2
Table 2.4 Weekly Grab Sample Analysis Results 2-4
Table 4.1 Budget Table 5-3

EXECUTIVE SUMMARY

Safety. Safety is the number one priority at South Sangamon. We have instituted a monthly safety meeting for operations staff at the plant. There were no lost time accidents in the month of July 2023.

Compliance. The finished water quality was within regulatory limits and all reporting and sampling requirements were met for the month. A copy of the Operations Report submitted to the Illinois Environmental Protection Agency is available at **www.sswc.us**

During the month of July 2023, the plant pumped 53.16 million gallons from the well field and 46.133 million gallons of finished water. This is 4.7 million gallons more than July 2022.

The SSWC plant has been removed from Critical Review status.

Operations. There was 4 emergency call-outs for the month. There were numerous customer inquiry for the month.

Maintenance and Repair. For the month of July 2023, there were 31 inspections, 3 preventative and multiple corrective maintenance activity completed. There was 4 repair activities performed .

Budget. Passed at April 17th 2023 meeting.

Capital Planning.

Chatham emergency interconnect

Onsite fuel storage tanks

Detention Tank

1. SAFETY

1.1 SAFETY TRAINING

At South Sangamon we strive to provide a safe working environment for all employees. This is accomplished with daily safety meetings and open communication.

1.2 LOST TIME ACCIDENTS

There were 0 lost time accidents in the month of July 2023.

1.3 SAFETY AUDIT

No safety audits to date.

1.4 MISCELLANEOUS SAFETY

No notable safety issues

2. COMPLIANCE, FLOWS AND LOADINGS

2.1 COMPLIANCE

The finished water quality was within regulatory limits and all Bacteriological testing was completed for the month of July. A copy of the Operations Report to the Illinois Environmental Protection Agency (IEPA) is available on the SSWC website.

2.2 INFLUENT FLOWS AND LOADINGS

The total gallons pumped from the well field were 53.160 MG. The influent parameters were all within the normal range.

The influent flow and loadings are summarized below in Table 2.2

Table 2.2 Influent Concentrations and Flow

	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Well Flow Gals (MGD).
Max.	7.6	15.7	3.34	.330	-	385	365	2.001
Min.	6.9	14.2	.36	.121	-	300	300	1.014
Avg.	7.18	14.8	.70	.199	-	340	323	1.715
Total	-	-	-	-	-	-	-	53.160

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 46.133 MG during the month with a daily average of 1.488 MG and a min/max .658/ 1.745 MG.

Table 2.3 Finished Water Quality

	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	.10	3.85	7.8		0.08	0.037	0.96	160	338	2.56
Min.	0.03	1.10	7.1		0.01	0.004	0.45	100	300	1.84
Avg.	0.07	3.13	7.6		0.01	0.014	0.69	121	308	2.19
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

Finished Water Flow Comparison for FY 2022-23

Time Period	22-23	21-22	20-21
Aug 2022- July-2023	417,244,575	421,872,900	418,311,204
Increase for the same period last year		-4.6 MG	3.6 MG

FINISHED WATER PUMPING HISTORY

	2022-23	2021-22	2020-21	2019-20	2018-19	2017-18
Aug	36,977,913	39,953,900	39,638,063	25,018,633	35,176,238	38,760,634
Sept	32,355,302	38,935,839	38,674,095	34,234,782	34,754,000	39,896,986
Oct	29,576,287	34,918,955	34,597,739	30,769,238	30,353,482	33,506,605
Nov	35,563,717	31,181,005	32,325,040	30,877,400	30,464,000	28,617,333
Dec	30,450,255	31,391,459	31,582,311	29,703,954	31,930,000	28,808,037
Jan	37,721,005	32,322,270	31,456,987	30,073,516	28,823,375	30,556,824
Feb	33,481,076	32,451,653	30,638,842	28,797,693	28,625,431	25,617,914
Mar	36,781,261	33,909,417	33,633,244	30,339,298	31,237,000	28,217,699
Apr	36,832,617	31,991,050	33,214,211	31,542,650	28,418,249	27,110,578
May	43,484,155	37,459,417	35,932,776	34,673,848	33,045,927	33,304,196
June	22,455,176	38,496,145	37,616,256	17,414,377	33,460,303	34,040,000
July	41,565,811	38,861,790	39,001,640	44,237,066	23,742,374	41,178,722
	---	---	---	---	---	---
Totals	417,244,575	421,872,900	418,311,204	367,682,455	370,030,379	389,615,528
Avg	1.14 MGD	1.16 MGD	1.15 MGD	1.01 MGD	1.01 MGD	1.07 MGD

2.4 LAGOON DISCHARGE CONCENTRATIONS

The results for the NPDES lagoon discharge permit are summarized below.

Table 2.4 Weekly Grab Sample Analysis Results

Lagoon Effluent Results						
Date	**Fe (mg/l)**	**Mn (mg/l)**	**Chloride (mg/l)**	**Cl^2 (mg/l)**	**pH (S.U.)**	**TSS (mg/l)**
July 21st, 2023						
Minimum	.04	.232	200.8	.05	7.7	7.2
Maximum	.04	.232	200.8	.05	7.7	7.2
Average	.04	.232	200.8	.05	7.7	7.2
Monthly Avg Limit	***2.000***	***1.000***				***15***
Daily Limit	***4.000***	***2.000***	***500***	***0.05***	***6.0-9.0***	***30***

The Chloride sample for the month, performed by the Springfield Metropolitan Sanitary District, was below 30,000 mg/l for the month of July 2023. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

There were over 200 incident that impacted the operation of the plant.

Backwash low flow

Ion exchange alarm

Westech filters comm loss

Power surge

Power Sag

Power Outages

Ion Exchange Brine Pump

Well comm loss Alarm

Westech production Failure

Train #3 damage

3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- There was 1 emergency call out for the month.

3.3 EMERGENCY CALL-OUTS

There was 4 emergency call out for the month.

3.4 CUSTOMER INQUIRIE

There were numerous customer inquiries.

OTHER WORK PERFORMED

Inspected distribution mains
Inspected booster station
Customer service
Air Compressor research
SCADA programming
New Berlin Booster station trouble shooting
Cell Transmitter Installation

A leak was detected at the Neuman residence. After excavating the service line Steve Ray plumbing attempted to fix the leak but found that there were multiple leaks in the line.

A new tap was required at the Neuman residence.

A new service line was bored in under Mansion Road.

Eric from Hach was onsite to repair the Monochloramine analyzer. He was not able to repair it on location. The monochloramine analyzer has been boxed to ship back to the manufacturer for repair for the third time.

A new sump pump was installed in the New Berlin Booster station

Filter train #3 was damaged when a filter comm loss occurred causing the train over pressurizer.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of July 2023, there were 31 inspections, 3 preventative and multiple corrective maintenance activity completed.

4.2 CORRECTIVE REPAIR

Pulling and cleaning pre filters on all 3 filter trains on weekly basis

CIP train 1,2 and 3

Purged air control system

Air Compressor service

Raw water line flushing

Detention tank flush

Flushing Air Lines

Maintenance of New Berlin Booster Station

Meter Transmitter Replacement

Well Communication Repair

Train #3 Repair

Sump Replacement

Service Line Replacement

5. PROJECT MANAGEMENT & SUPPORT

5.1 STAFFING & TRAINING

- Staff member training has been continuous and ongoing.
- Operator and Asst. Operator have been studying for EPA licensing test.

5.2 OPERATIONAL SUPPORT

The following individuals, either on-site or remotely, provided assistance in operation and/or maintenance of the plant during the month of July 2023.

- Kevin Canham
- Stephen Bivin
- Katie Krall
- Dan (SCADAware)
- Joe Lee Electric
- Kevin Garmin (SCADAware)
- Petersburg Plumbing

5.3 BUDGET

Table 5.3 Operating Budget

Table 5.3 Budget Table

Budget Table was removed: see clerks report

6. CAPITAL PLANNING

6.1 APPROVED CIP PROJECTS CURRENT STATUS

Pigging project construction complete. Awaiting first pigging before completely releasing contractor.

The Chatham /South Sangamon emergency interconnect is progressing. There was a preconstruction meeting in February. Petersburg Plumbing has pushed back the construction start date.

Meter Project progressing, All meter bases and registers are on site. 13 cell meters have been installed.

6.2 DRAFT CAPITAL IMPROVEMENT PLAN

The CIP is a planning document that includes all projects anticipated to exceed $5,000 in cost over the next five years. The CIP is an ongoing process and will be refined from time to time as projects are completed and new issues are identified.

1. Second Torray filter train has been installed
2. Onsite fuel storage tanks have arrived on site and pumps have been installed
3. BOP CPU upgrade has been completed
4. Second raw water detention tank
5. SSWC/Chatham interconnect

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF PUBLIC WATER SUPPLIES

MONTHLY IRON REMOVAL AND ION EXCHANGE SOFTENING REPORT

South Sangamon Water Commission - IL 1670080

July 2023

		Pumping Totals						Chemicals Applied														UF Filters					Softeners							
								Sodium Permanganate		Sodium Bisulfite BW		Sodium Hypochlorite		Ammonium Sulfate		Fluorosilicic Acid		Phosphate		Sodium Bisulfite Pond		Hours since previous backwash				Wash	Water	Water	Each day indicate total number of				Regeneration	
	Time	Hours	Raw Well	UF	Plant	HS	Lagoon Effluent	Am't		Am't		Am't		Am't		Am't		Am't		Am't						Water	Softened	Bypassed	hours since previous regeneration.				Salt	Washed
Date	Meter	Filter	Prod.	Filtered	Water	Pumpage	Pumpage	Used	Calc	Used	Calc	Used	Calc	Used	Calc	Used	Calc	Used	Calc	Used	Calc					Gal.	Gal.	Gal	If regeneration at mid-day, indicate				Used	Water
	Read	Ran	(Mgal)	(Mgal)	(Mgal)	(Mgal)	(Mgal)	lbs.	mg/l as	lbs.	mg/l	lbs.	mg/l	lbs.	mg/l	lbs.	mg/l	lbs.	mg/l	lbs.	mg/l	Bank #				(Mgal)	(Mgal)	(Mgal)	hours previous/hours following.				lbs.	Gal.
									NaMnO4				as Cl		as NH3		as F		as PO4			1	2	3					1	2	3	4		
1	7:00	16.0	1.014	0.658	0.011	0.832	0.045	14	0.33		0.00	290	6.61	25	0.91	25	0.68	3	0.14	0	0.00	0.66	0.66	0.66		0.031	0.430	0.228	51.0	37.0		24.0	6843	32550
2	7:00	21.5	1.951	1.660	0.014	1.361	0.091	83	1.02		0.00	494	4.46	60	0.87	36	0.60	12	0.35	0	0.00	0.66	0.66	0.66		0.077	1.085	0.575	30.0	25.0	70.0		6843	32550
3	7:00	20.6	1.708	1.488	0.019	1.343	0.076	18	0.25		0.00	360	3.63	57	0.92	35	0.59	13	0.38	0	0.00	0.66	0.66	0.66		0.066	0.973	0.515	40.0	30.0			4562	21700
4	7:00	18.0	1.569	1.363	0.013	1.305	0.077	20	0.31		0.00	410	4.51	50	0.88	34	0.59	15	0.45	0	0.00	0.66	0.66	0.66		0.063	0.891	0.472		29.0	47.0	51.0	6843	32550
5	7:00	19.9	1.783	1.503	0.014	1.478	0.087	22	0.30		0.00	408	4.07	84	1.34	44	0.68	18	0.48	0	0.00	0.66	0.66	0.66		0.068	0.982	0.521	33.0	26.0	27.0	46.0	9124	43400
6	7:00	20.6	1.959	1.684	0.028	1.539	0.079	20	0.24		0.00	406	3.61	61	0.87	35	0.52	17	0.44	0	0.00	0.66	0.66	0.66		0.074	1.101	0.583	38.0				2281	10850
7	7:00	16.2	1.496	1.292	0.006	1.245	0.072	19	0.30		0.00	440	5.10	65	1.21	37	0.68	21	0.67	0	0.00	0.66	0.66	0.66		0.058	0.844	0.448		30.0	47.0	27.0	6843	32550
8	7:00	19.4	1.847	1.609	0.015	1.513	0.088	22	0.29		0.00	476	4.43	76	1.13	41	0.62	36	0.94	0	0.00	0.66	0.66	0.66		0.074	1.052	0.557	36.0	31.0		26.0	6843	32550
9	7:00	18.8	1.747	1.528	0.023	1.429	0.081	19	0.26		0.00	336	3.30	54	0.85	35	0.56	69	1.91	0	0.00	0.66	0.66	0.66		0.067	0.999	0.529	35.0	29.0		25.0	6843	32550
10	7:00	16.8	1.568	1.366	0.016	1.281	0.069	20	0.31		0.00	450	4.94	68	1.19	41	0.73	100	3.09	0	0.00	0.66	0.66	0.66		0.059	0.893	0.473		29.0		24.0	4562	21700
11	7:00	19.9	1.800	1.575	0.011	1.494	0.090	21	0.28		0.00	460	4.38	59	0.90	39	0.59	8	0.21	0	0.00	0.66	0.66	0.66		0.071	1.029	0.546	38.0	26.0	91.0	26.0	9124	43400
12	7:00	20.1	1.834	1.597	0.023	1.504	0.084	21	0.27		0.00	490	4.60	55	0.83	41	0.62	13	0.34	0	0.00	0.66	0.66	0.66		0.070	1.044	0.553	32.0		29.0	23.0	6843	32550
13	7:00	20.4	1.906	1.622	0.021	1.599	0.085	22	0.28		0.00	504	4.66	84	1.24	44	0.63	15	0.37	0	0.00	0.66	0.66	0.66		0.075	1.060	0.562		25.0		28.0	4562	21700
14	7:00	21.4	1.974	1.707	0.005	1.643	0.092	20	0.24		0.00	452	3.97	50	0.70	39	0.54	15	0.36	0	0.00	0.66	0.66	0.66		0.073	1.116	0.591	38.0	31.0	43.0	25.0	9124	43400
15	7:00	18.5	1.741	1.530	0.021	1.470	0.084	21	0.29		0.00	449	4.40	56	0.88	38	0.59	16	0.43	0	0.00	0.66	0.66	0.66		0.070	1.000	0.530	32.0	29.0		29.0	6843	32550
16	7:00	18.8	1.766	1.562	0.016	1.427	0.069	18	0.24		0.00	530	5.09	54	0.83	37	0.59	18	0.50	0	0.00	0.66	0.66	0.66		0.064	1.021	0.541		31.0			2281	10850
17	7:00	15.9	1.447	1.268	0.007	1.239	0.077	20	0.33		0.00	546	6.45	54	1.02	39	0.72	22	0.70	0	0.00	0.66	0.66	0.66		0.058	0.829	0.439	36.0	27.0	71.0	31.0	9124	43400
18	7:00	21.5	2.001	1.745	0.021	1.660	0.089	19	0.23		0.00	422	3.62	45	0.62	33	0.45	26	0.62	0	0.00	0.66	0.66	0.66		0.079	1.141	0.604	36.0			29.0	4562	21700
19	7:00	17.2	1.530	1.347	0.011	1.290	0.074	18	0.28		0.00	434	4.83	35	0.62	37	0.65	48	1.47	0	0.00	0.66	0.66	0.66		0.060	0.880	0.467		37.0	48.0	32.0	6843	32550
20	7:00	18.0	1.628	1.419	0.017	1.387	0.081	8	0.12		0.00	334	3.53	38	0.64	39	0.64	75	2.14	0	0.00	0.66	0.66	0.66		0.071	0.927	0.492	39.0	30.0			4562	21700
21	7:00	18.6	1.654	1.541	0.011	1.313	0.073	20	0.29		0.00	419	4.08	27	0.42	36	0.62	6	0.18	0	0.00	0.66	0.66	0.66		0.063	1.007	0.534			52.0	29.0	4562	21700
22	7:00	19.0	1.724	1.409	0.016	1.464	0.086	20	0.28		0.00	464	4.94	61	1.04	37	0.58	11	0.30	0	0.00	0.66	0.66	0.66		0.072	0.921	0.488	34.0	34.0		31.0	6843	32550
23	7:00	17.9	1.705	1.525	0.012	1.404	0.080	24	0.34		0.00	440	4.32	35	0.55	44	0.71	16	0.45	0	0.00	0.66	0.66	0.66		0.066	0.997	0.528	37.0	32.0		33.0	6843	32550
24	7:00	17.9	1.697	1.461	0.016	1.434	0.080	20	0.28		0.00	440	4.51	33	0.54	38	0.60	14	0.39	0	0.00	0.66	0.66	0.66		0.070	0.955	0.506		30.0	68.0		4562	21700
25	7:00	17.8	1.646	1.465	0.017	1.381	0.070	18	0.26		0.00	419	4.29	60	0.98	35	0.58	15	0.43	0	0.00	0.66	0.66	0.66		0.060	0.958	0.507	36.0			30.0	4562	21700
26	7:00	18.6	1.691	1.474	0.005	1.407	0.091	21	0.30		0.00	470	4.78	74	1.20	40	0.65	20	0.56	0	0.00	0.66	0.66	0.66		0.072	0.963	0.511	37.0	32.0	51.0	33.0	9124	43400
27	7:00	19.4	1.781	1.566	0.022	1.474	0.085	19	0.26		0.00	420	4.02	66	1.01	36	0.56	21	0.56	0	0.00	0.66	0.66	0.66		0.075	1.024	0.542		28.0		29.0	4562	21700
28	7:00	17.5	1.588	1.396	0.010	1.316	0.081	20	0.30		0.00	304	3.26	49	0.84	37	0.64	28	0.84	0	0.00	0.66	0.66	0.66		0.062	0.912	0.484	35.0	25.0	44.0	29.0	9124	43400
29	7:00	18.3	1.700	1.487	0.024	1.392	0.083	23	0.32		0.00	496	5.00	66	1.06	41	0.67	14	0.40	0	0.00	0.66	0.66	0.66		0.073	0.972	0.515	35.0	28.0			4562	21700
30	7:00	20.6	1.782	1.614	0.017	1.479	0.063	22	0.30		0.00	489	4.54	73	1.08	43	0.66	14	0.37	0	0.00	0.66	0.66	0.66		0.049	1.055	0.559		26.0	48.0	28.0	6843	32550
31	7:00	20.8	1.923	1.672	0.016	1.592	0.084	21	0.26		0.00	529	4.74	66	0.95	39	0.56	15	0.37	0	0.00	0.66	0.66	0.66		0.079	1.093	0.579	32.0				2281	10850
Total		585.9	53.160	46.133	0.478	43.695	2.467	673	9.36	0	0	13581	138.66	1740	28.13	1175	19.11	734	20.87	0	0.00					2.069	30.152	15.981	760	737	736	688	189323	900550
Ave.		18.9	1.715	1.488	0.015	1.410	0.080	21.7	0.30	#DIV/0!	0	438	4.47	56	0.91	37.9	0.62	23.7	0.67	0.0	0.00	0.66	0.66	0.66	#DIV/0!	0.067	0.973	0.516	36.2	29.5	52.6	29.9	6107.19	29050
Max		21.5	2.001	1.745	0.028	1.660	0.092	83.0	1.02	0	0	546	6.61	84	1.34025	44	0.73	100	3.09	0	0.00	0.66	0.66	0.66	0	0.079	1.141	0.604	51.0	37.0	91.0	51.0	9,124	43,400
Min		15.9	1.014	0.658	0.005	0.832	0.045	8.0	0.12	0	0	290	3.26	25	0.42	25	0.45	3	0.14	0	0.00	0.66	0.66	0.66	0	0.031	0.430	0.228	30.0	25.0	27.0	23.0	2281	10850

1	20	% Sodium Permanganate	Pre-aerator
2	40	% BisulfiteSolution	Membrane Backwash
3	12.5	% Sodium Hypochlorite Solution	Post Softener
4	20	% Ammonium Sulfate Solution	Post Softener
5	19	% Fluorosilicic Acid Solution	Post Clearwell
6	33	% Phosphate Solution	Post Clearwell
7	40	% BisulfiteSolution	Lagoon Effluent

CHLORINATION

Type of Chlorine Used: Sodium Hypochlorite 12.5 %

Chlorine Analyzers Used: Hach CL17 (2) & 5500sc

FLUORIDATION

Type of Fluoride Used: Hydrofluosilicic Acid 19% F

Fluoride Analyzer Used: Hach 2200, SPADNS method

I certify that the information in this report is complete and accurate to the best of my knowledge.

Reported by: _____ Illinois Operator Certification ID: 253419999

Date: 8/10/2023

Date Bacterials Ser: 7/21/2023

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF PUBLIC WATER SUPPLIES

South Sangamon Water Commission - IL1670080

July 2023

Physical and Chemical Tests

Date	Raw pH	Raw Temp deg. C	Raw Total Alk. mg/L as CaCO3	Raw Total Hard. mg/L as CaCO3	Raw Total Fe mg/L	Raw Total Mn mg/L	Pre UF Membrane Turbidity NTU	Pre UF Membrane Total Fe mg/L	Pre UF Membrane Total Mn mg/L	Pre UF Membrane Soluble Mn mg/L	Post UF Membrane Total Fe mg/L	Post UF Membrane Total Mn mg/L	Post UF Membrane Turbidity NTU	Post IEX Chloride 1 mg/L	Post IEX Chloride 2 mg/L	Post IEX Chloride 3 mg/L	Post IEX Chloride 4 mg/L
1	7.20	14.4	320	372	0.70	0.216			0.291	0.067	0.01	0.030	0.37				
2	7.20	14.6	310	366	0.66	0.216			0.284	0.061	0.01	0.044	0.39				
3	7.60	15.3	300	340	0.44	0.203			0.321	0.046	0.02	0.019	0.36				
4	7.30	14.5	310	352	0.56	0.198			0.287	0.041	0.01	0.010	0.33				
5	7.10	14.2	310	350	0.50	0.185			0.304	0.052	0.01	0.033	0.35				
6	7.10	14.9	310	345	1.29	0.330			0.590	0.024	0.01	0.030	0.38				
7	7.20	14.5	310	340	3.34	0.277			0.577	0.048	0.01	0.028	0.36				
8	7.10	14.4	310	340	2.30	0.219			0.298	0.052	0.01	0.032	0.32				
9	7.10	14.3	310	345	1.16	0.221			0.280	0.044	0.01	0.027	0.30				
10	7.20	15.7	360	310	0.66	0.212			0.336	0.049	0.02	0.032	0.30				
11	7.20	14.6	360	310	0.66	0.212			0.317	0.042	0.02	0.041	0.32				
12	7.20	14.8	365	310	0.62	0.210			0.350	0.044	0.02	0.024	0.40				
13	7.10	14.8	360	310	0.55	0.210			0.324	0.046	0.01	0.027	0.42				
14	7.10	15.3	360	385	0.41	0.203			0.318	0.037	0.02	0.037	0.40				
15	7.20	14.4	358	300	0.48	0.214			0.309	0.041	0.01	0.029	0.40				
16	7.20	14.6	360	310	0.54	0.217			0.322	0.048	0.01	0.024	0.40				
17	7.10	14.2	318	342	0.46	0.199			0.341	0.067	0.01	0.032	0.38				
18	7.20	15.1	310	340	0.49	0.192			0.336	0.036	0.01	0.042	0.40				
19	7.20	14.9	320	330	0.47	0.177			0.320	0.036	0.02	0.080	0.41				
20	7.20	14.9	310	355	0.42	0.184			0.320	0.039	0.01	0.061	0.44				
21	7.20	15.2	310	340	0.41	0.168			0.287	0.043	0.01	0.098	0.38				
22	7.20	14.9	310	350	0.36	0.172			0.280	0.034	0.01	0.060	0.36				
23	7.20	15.1	310	360	0.45	0.197			0.312	0.037	0.01	0.040	0.37				
24	7.10	14.7	310	345	0.36	0.183			0.286	0.047	0.02	0.068	0.02				
25	7.20	14.9	320	340	0.57	0.174			0.383	0.050	0.01	0.065	0.01				
26	7.20	15.5	310	340	0.44	0.187			0.312	0.039	0.01	0.057	0.01				
27	7.20	15.3	310	345	0.66	0.174			0.309	0.051	0.02	0.062	0.02				
28	7.20	15.5	310	330	0.39	0.179			0.287	0.046	0.01	0.063	0.01				
29	7.10	14.6	316	342	0.61	0.169			0.309	0.041	0.01	0.055	0.01				
30	7.20	14.5	320	340	0.37	0.121			0.288	0.006	0.01	0.076	0.01				
31	6.90	14.4	325	350	0.42	0.165			0.309	0.031	0.01	0.069	0.36				
Ave.	7.18	14.8	323	340	0.70	0.199	#DIV/0!	#DIV/0!	0.329	0.043	0.01	0.045	0.29	#####	#####	#####	#####
Max	7.60	15.7	365	385	3.34	0.330	0.00	0.00	0.590	0.067	0.02	0.098	0.44	0	0	0	0
Min	6.90	14.2	300	300	0.36	0.121	0.00	0.00	0.280	0.006	0.01	0.010	0.01	0	0	0	0

Date	Finished pH	Finished Turbidity NTU	Finished Total Alk. mg/L as CaCO3	Finished Total Hard. mg/L as CaCO3	Finished Total Fe mg/L	Finished Total Mn mg/L	Finished Fluoride F mg/L	Finished Ortho Phosphate mg/L	Finished Free Ammonia mg/l	Finished Mono-Chloramine mg/l	Finished Chlorine F mg/l	Finished Chlorine T mg/L	Finished Chlorine Distrbution F mg/l	Finished Chlorine Distrbution T mg/L	Membrane Integrity Post Filter Bank 1 psi	Bank 2 psi	Bank 3 psi
1	7.70	0.39	314	116	0.02	0.010	0.50	2.14	0.01	1.94	0.05	2.94					
2	7.60	0.37	310	118	0.01	0.014	0.56	2.51	0.01	1.84	0.04	2.74					
3	7.20	0.38	300	110	0.01	0.010	0.70	2.47	0.01	2.05	0.09	3.08					
4	7.60	0.38	310	110	0.01	0.012	0.81	2.36	0.01	2.15	0.04	3.11					
5	7.50	0.38	300	100	0.01	0.004	0.78	2.10	0.01	2.21	0.05	3.15					
6	7.50	0.42	300	120	0.01	0.007	0.73	2.14	0.01	3.07	0.10	3.10					
7	7.50	0.40	300	100	0.02	0.012	0.68	2.08	0.02	1.81	0.08	3.14					
8	7.50	0.34	300	100	0.01	0.020	0.70	2.56	0.01	1.64	0.08	3.08					
9	7.50	0.40	300	110	0.01	0.024	0.68	2.38	0.01	2.30	0.09	3.11					
10	7.70	0.38	300	160	0.02	0.015	0.72	2.34	0.02	2.66	0.09	3.24					
11	7.70	0.36	310	140	0.01	0.016	0.45	2.36	0.01	4.30	0.08	3.30					
12	7.60	0.42	300	100	0.02	0.010	0.61	2.52	0.01	3.00	0.08	3.50					
13	7.60	0.40	300	100	0.02	0.009	0.69	2.10	0.01	2.79	0.10	3.52					
14	7.60	0.37	300	100	0.02	0.037	0.78	2.04	0.01	2.09	0.09	2.84			pass	pass	pass
15	7.70	0.38	320	100	0.01	0.019	0.69	2.11	0.01	2.11	0.05	2.88					
16	7.70	0.41	320	104	0.01	0.011	0.64	2.10	0.01	2.80	0.03	2.96					
17	7.60	0.46	308	120	0.01	0.012	0.96	1.97	0.01	2.80	0.05	3.36					
18	7.80	0.42	310	100	0.01	0.013	0.62	2.02	0.01	2.81	0.07	3.60					
19	7.60	0.36	310	120	0.02	0.015	0.75	2.08	0.01	2.52	0.10	3.38					
20	7.60	0.40	310	110	0.01	0.010	0.71	2.13	0.01	0.75	0.07	1.10					
21	7.70	0.34	310	160	0.01	0.018	0.74	2.21	0.01	2.35	0.07	2.68					
22	7.60	0.38	300	140	0.01	0.021	0.68	2.10	0.01	2.56	0.08	2.94					
23	7.60	0.40	310	140	0.01	0.018	0.72	2.07	0.01	2.75	0.07	3.42					
24	7.60	0.43	310	160	0.01	0.007	0.68	2.07	0.01	2.70	0.08	3.64					
25	7.70	0.40	310	120	0.02	0.009	0.67	2.02	0.01	3.53	0.05	3.86					
26	7.70	0.38	310	140	0.01	0.013	0.53	1.95	0.01	3.46	0.09	3.80					
27	7.70	0.40	310	140	0.08	0.006	0.78	2.32	0.02	2.75	0.05	3.88			pass	pass	
28	7.70	0.42	310	145	0.01	0.015	0.64	2.02	0.01	1.59	0.09	1.52					pass
29	7.60	0.41	320	140	0.01	0.019	0.77	2.00	0.01	1.84	0.06	3.46					
30	7.10	0.30	338	142	0.01	0.007	0.76	1.84	0.01	1.91	0.05	3.22					
31	7.60	0.31	310	100	0.01	0.008	0.55	1.97	0.01	1.70	0.10	3.37					
Ave.	7.59	0.39	308	121	0.01	0.014	0.69	2.16	0.01	2.41	0.07	3.13	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Max	7.80	0.46	338	160	0.08	0.037	0.96	2.56	0.02	4.30	0.10	3.88	0.00	0.00	0.00	0.00	0.00
Min	7.10	0.30	300	100	0.01	0.004	0.45	1.84	0.01	0.75	0.03	1.10	0.00	0.00	0.00	0.00	0.00

Lagoon Effluent Tests Monthly	pH	Temp °C	T Chlor mg/l	Mn mg/l	Fe mg/l	Chloride mg/L	TSS mg/L
Date 7/20/2023	7.7	23.2	0.05	0.232	0.04	200.8	7.2

Distribution Stability Tests Every Two Weeks	pH	Temp °C	TDS mg/L	Alkalinity mg/L as CaCO3	Calcium mg/L as CaCO3	Chloride mg/L	Sulfate mg/L
Date 7/19/2023	7.5	19.6	430	280		49	57
Date							
Date							

Remarks: