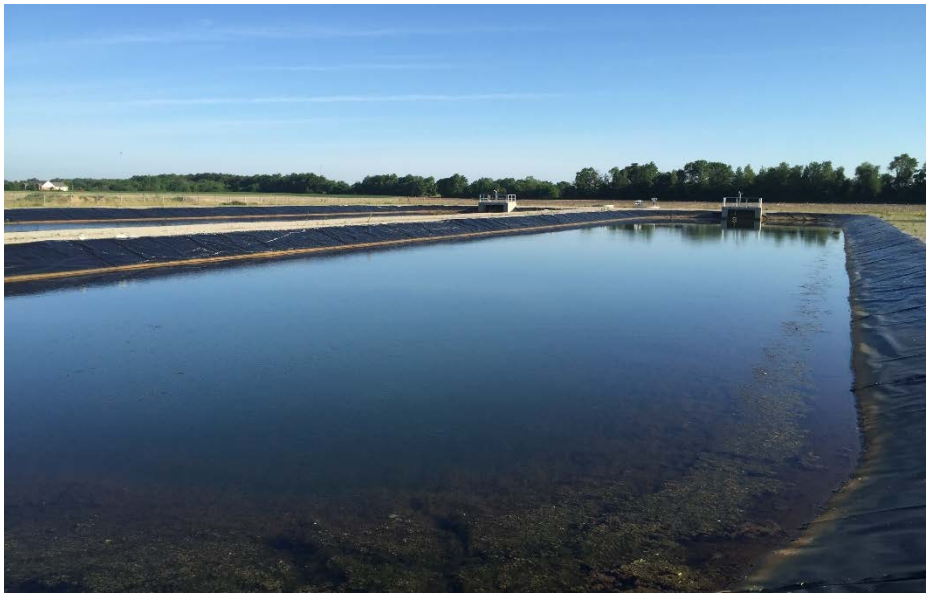
Monthly Operating Report

December:2022



So. Sangamon

Water Commission

January 17th, 2023

SSWC

9199 Buckhart Rd Rochester IL 62563

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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 December 2022.

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 December 2022, the plant pumped 44.246 million gallons from the well field and 36.245 million gallons of finished water. This is .3 million gallons less than December of 2021.

The SSWC plant has been removed from Critical Review status.

Operations. There was 0 emergency call-outs for the month. There were numerous customer inquiry for the month.

Maintenance and Repair. For the month of December 2022, there were 31 inspections, 3 preventative and multiple corrective maintenance activity completed. There was 1 repair activities performed .

Budget. Passed at April 18th 2022 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 December 2022.

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 December. 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 44.246 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.	7.2	15.7	3.43	.335	-	365	340	1.708
Min.	6.9	11.8	.37	.168	-	280	300	.573
Avg.	7.1	13.7	.93	.257	-	340	310	1.427
Total	-	-	-	-	-	-	-	44.246

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 39.058 MG during the month with a daily average of 1.260 MG and a min/max .526/ 1.517 MG.

Table 2.3 Finished Water Quality

	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	.09	3.90	7.8		0.02	0.064	.88	360	320	4.03
Min.	0.04	2.56	7.4		0.01	0.004	0.43	90	280	2.01
Avg.	0.06	3.23	7.6		0.01	0.021	0.72	138	302	2.46
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

Finished Water Flow Comparison for FY 2022

Time Period	21-22	20-21	19-20
Jan 2022- Dec 2022	410,415,216	417,875,114	393,895,696
Increase for the same period last year		-7.5 MG	24 MG

FINISHED WATER PUMPING HISTORY						
	2022	2021	2020	2019	2018	2017
Jan	32,322,270	31,456,987	30,073,516	28,823,375	30,556,824	30,449,215
Feb	32,451,653	30,638,842	28,797,693	28,625,431	25,617,914	27,373,232
Mar	33,909,417	33,633,244	30,339,298	31,237,000	28,217,699	30,068,363
Apr	31,991,050	33,214,211	31,542,650	28,418,249	27,110,578	29,625,797
May	37,459,417	35,932,776	34,673,848	33,045,927	33,304,196	32,120,873
June	38,496,145	37,616,256	17,414,377	33,460,303	34,040,000	39,931,402
July	38,861,790	39,001,640	44,237,066	23,742,374	41,178,722	42,164,927
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
	---	---	---	---	---	---
Totals	410,415,216	417,875,114	393,895,696	357,956,666	382,703,653	401,323,404
Avg	1.12 MGD	1.15 MGD	1.08 MGD	.981 MGD	1.05 MGD	1.10 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)**
Dec 5th 2022	.27	.197	369	.01	7.5	<4
Minimum	.27	.197	369	.01	7.5	<4
Maximum	.27	.197	369	.01	7.5	<4
Average	.27	.197	369	.01	7.5	<4
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 December 2022. The limit for chloride discharge to the sanitary district is 30,000 mg/L.

3. OPERATIONS

3.1 EVENTS IMPACTING OPERATIONS

There was 0 incident that impacted the operation of the plant.

3.2 EMERGENCY & SERVICE CALLS

Service Calls:

- There was 0 emergency call out for the month.

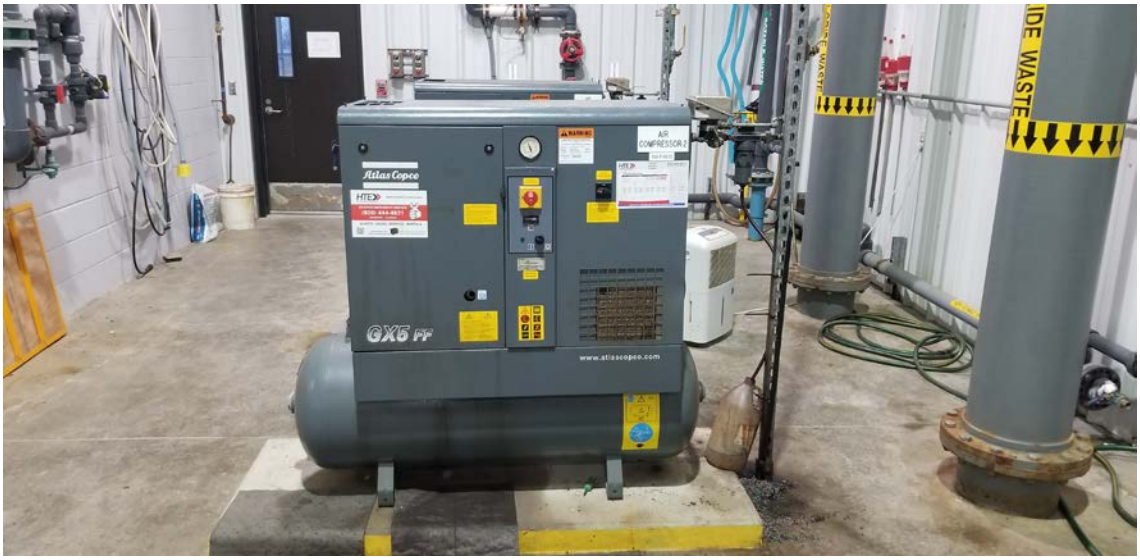
3.3 EMERGENCY CALL-OUTS

There was 0 emergency call out for the month.

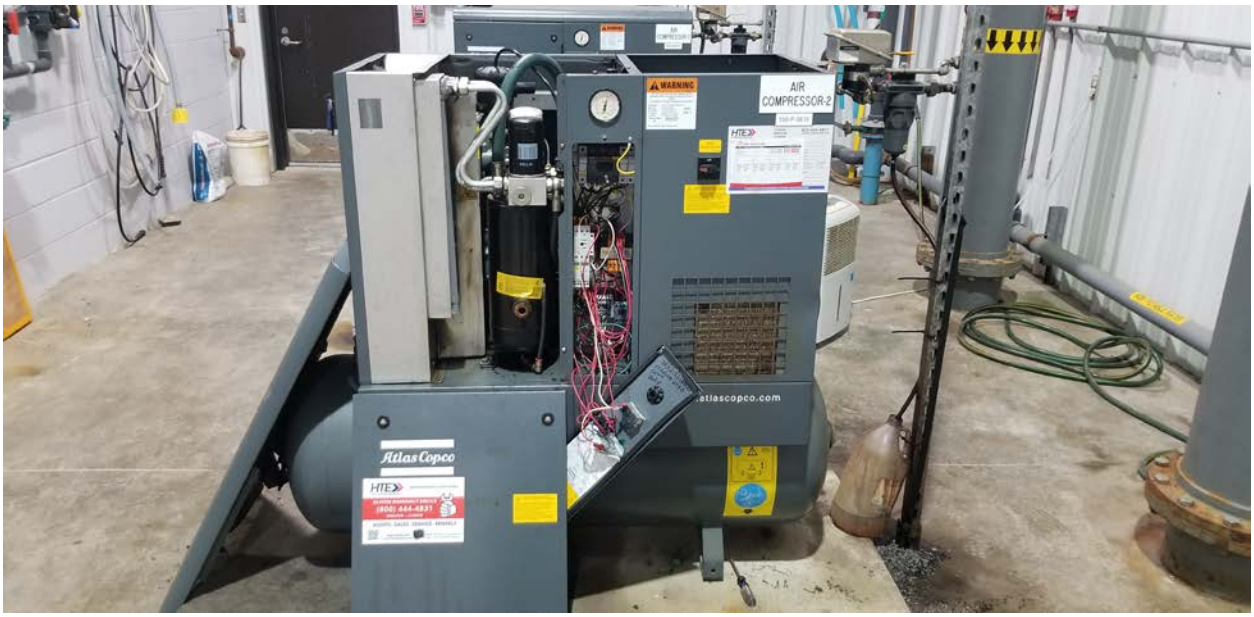
3.4 CUSTOMER INQUIRIE

There were numerous customer inquiries.

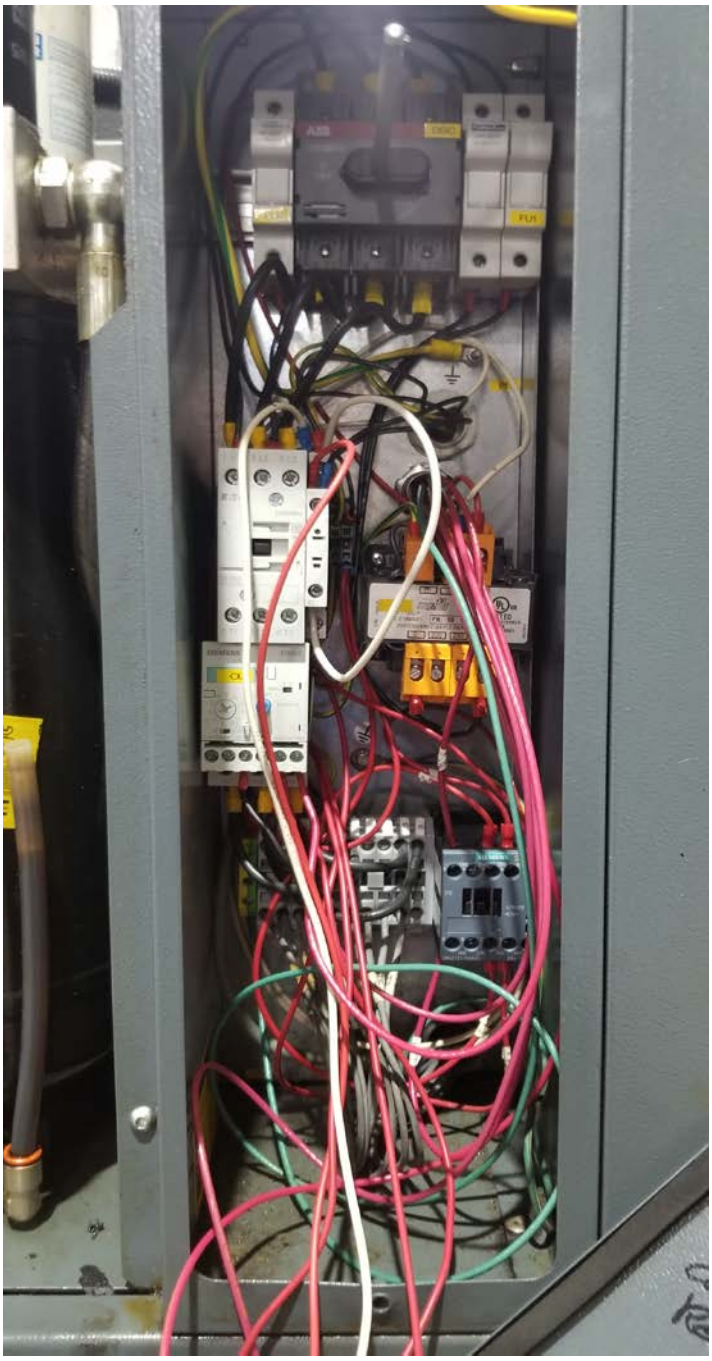
OTHER WORK PERFORMED
Trouble shooting all trains
Trouble shooting of CIP skid and CIP procedure
Inspected distribution mains
Inspected booster station
Flushed air system
Trouble shooting of Ion exchange system
Repair of air compressors
Customer service



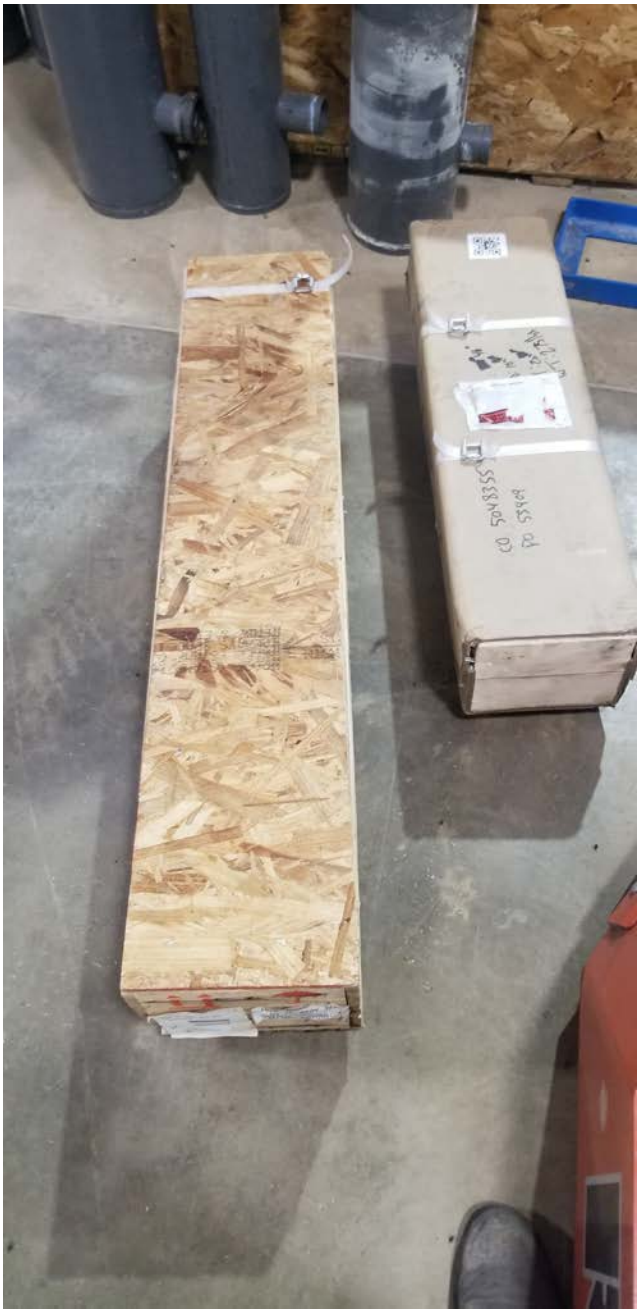
Plant compressor #2 went down during the month of December. Plant staff piped in portable compressors to help with air pressure.



After inspection it was found that the motor starter and the compressor control module had both went bad. Parts were ordered. The compressor is also blowing oil and has been for sometime. Option are being explored.



New motor start and control module have arrived and have been installed.



Replacement pump and motor have arrived

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of December 2022, 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

Repair of train #3

Repair of train #2

Air Compressor repair

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 December 2022.

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

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.

Benton and Assoc put the Chatham Interconnect out for bid. There were 2 bids; The bid was awarded to Petersburg Plumbing.

Train #2 upgrade repair has been completed and train #2 online.

Meter Project progressing, All meter bases and registers are on site. 5 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 — **MONTHLY IRON REMOVAL AND ION EXCHANGE SOFTENING REPORT**

DIVISION OF PUBLIC WATER SUPPLIES

South Sangamon Water Commission - IL 1670080

December 2022

		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 NaMnO4	lbs.	mg/l	lbs.	mg/l as Cl	lbs.	mg/l as NH3	lbs.	mg/l as F	lbs.	mg/l as PO4	lbs.	mg/l	Bank # 1	Bank # 2	Bank # 3		(Mgal)	(Mgal)	(Mgal)	hours previous/hours following. 1	2	3	4		lbs.	Gal.
1	7:00	18.5	1.448	1.264	0.001	1.180	0.070	18	0.30		0.00	358	4.25	60	1.14	35	0.68	11	0.37	15	10.25	0.66	0.66	0.66		0.051	0.826	0.438	36.0	34.0	75.0	33.0		9124	43400
2	7:00	18.6	1.512	1.322	0.017	1.194	0.078	17	0.27		0.00	366	4.15	64	1.16	37	0.71	13	0.43	19	11.63	0.66	0.66	0.66		0.064	0.864	0.458	40.0	31.0		31.0		6843	32550
3	7:00	19.9	1.529	1.338	0.015	1.294	0.075	16	0.25		0.00	338	3.79	59	1.06	32	0.56	18	0.55	12	7.72	0.66	0.66	0.66		0.065	0.875	0.463			43.0	28.0		4562	21700
4	7:00	16.7	1.336	1.184	0.010	1.065	0.054	18	0.32		0.00	384	4.86	65	1.32	34	0.73	63	2.34	14	12.48	0.66	0.66	0.66		0.049	0.774	0.410	36.0					2281	10850
5	7:00	20.0	1.595	1.387	0.010	1.270	0.092	17	0.26		0.00	374	4.04	62	1.07	35	0.63	93	2.90	21	10.93	0.66	0.66	0.66		0.073	0.907	0.480	35.0	62.0	47.0	26.0		9124	43400
6	7:00	21.5	1.698	1.511	0.017	1.423	0.088	18	0.25		0.00	364	3.61	62	0.98	33	0.53	4	0.11	15	8.21	0.66	0.66	0.66		0.078	0.988	0.523	16.0			26.0		4562	21700
7	7:00	18.8	1.480	1.284	0.008	1.200	0.072	15	0.24		0.00	338	3.95	55	1.03	31	0.59	7	0.23	11	7.37	0.66	0.66	0.66		0.062	0.839	0.445		61.0		36.0		4562	21700
8	7:00	18.7	1.434	1.270	0.008	1.209	0.072	18	0.30		0.00	372	4.39	90	1.70	33	0.62	9	0.29	14	9.38	0.66	0.66	0.66		0.062	0.830	0.440	45.0		73.0			4562	21700
9	7:00	18.5	1.257	1.304	0.012	1.070	0.081	15	0.29		0.00	338	3.88	59	1.09	33	0.70	10	0.37	19	11.20	0.66	0.66	0.66		0.067	0.852	0.452	37.0	34.0		36.0		6843	32550
10	7:00	21.6	1.691	1.517	0.012	1.314	0.083	18	0.26		0.00	368	3.64	59	0.93	31	0.54	10	0.30	14	8.13	0.66	0.66	0.66		0.073	0.992	0.525		29.0		32.0		4562	21700
11	7:00	19.0	1.553	1.360	0.010	1.258	0.080	19	0.29		0.00	416	4.58	65	1.15	39	0.71	15	0.47	15	8.95	0.66	0.66	0.66		0.066	0.889	0.471	38.0	29.0		33.0		6843	32550
12	7:00	18.9	1.490	1.317	0.013	1.228	0.075	17	0.27		0.00	358	4.07	59	1.07	33	0.61	14	0.45	14	9.00	0.66	0.66	0.66		0.065	0.861	0.456		26.0	93.0			4562	21700
13	7:00	21.5	1.697	1.494	0.010	1.415	0.083	18	0.25		0.00	392	3.93	62	1.00	35	0.56	24	0.67	19	10.93	0.66	0.66	0.66		0.069	0.976	0.518	36.0	27.0		32.0		6843	32550
14	7:00	20.5	1.626	1.417	0.014	1.299	0.085	15	0.22		0.00	338	3.58	51	0.86	31	0.54	72	2.19	20	11.24	0.66	0.66	0.66		0.071	0.926	0.491	40.0		48.0	34.0		6843	32550
15	7:00	18.0	1.405	1.243	0.016	1.173	0.063	18	0.31		0.00	384	4.63	53	1.02	33	0.64	6	0.20	14	10.69	0.66	0.66	0.66		0.058	0.812	0.431		33.0				2281	10850
16	7:00	20.0	1.577	1.373	0.005	1.264	0.086	11	0.17		0.00	362	3.95	45	0.79	33	0.59	9	0.28	20	11.13	0.66	0.66	0.66		0.067	0.897	0.476	35.0	31.0	50.0	32.0		9124	43400
17	7:00	19.4	1.529	1.333	0.016	1.248	0.077	18	0.28		0.00	370	4.16	50	0.90	33	0.60	10	0.32	13	8.06	0.66	0.66	0.66		0.063	0.871	0.462	37.0	30.0		34.0		6843	32550
18	7:00	19.6	1.557	1.362	0.012	1.303	0.072	17	0.26		0.00	372	4.09	51	0.90	31	0.54	13	0.39	12	8.02	0.66	0.66	0.66		0.067	0.890	0.472				34.0		2281	10850
19	7:00	20.0	1.595	1.387	0.010	1.270	0.071	19	0.29		0.00	398	4.30	58	1.00	36	0.65	17	0.53	21	14.11	0.66	0.66	0.66		0.057	0.907	0.480	34.0	30.0	67.0			6843	32550
20	7:00	21.5	1.698	1.511	0.017	1.423	0.090	19	0.27		0.00	396	3.93	58	0.92	34	0.54	46	1.28	19	10.11	0.66	0.66	0.66		0.071	0.988	0.523	38.0	28.0	30.0	31.0		9124	43400
21	7:00	18.8	1.480	1.284	0.008	1.200	0.077	17	0.28		0.00	378	4.41	59	1.10	34	0.65	97	3.20	11	6.89	0.66	0.66	0.66		0.067	0.839	0.445		29.0		33.0		4582	21700
22	7:00	18.7	1.434	1.270	0.008	1.209	0.069	18	0.30		0.00	372	4.39	54	1.02	33	0.62	39	1.28	18	12.44	0.66	0.66	0.66		0.055	0.830	0.440	40.0	29.0	44.0			6843	32550
23	7:00	18.5	1.257	1.304	0.012	1.070	0.071	12	0.23		0.00	372	4.28	61	1.12	34	0.72	6	0.22	14	9.49	0.66	0.66	0.66		0.066	0.852	0.452				36.0		2281	10850
24	7:00	21.6	1.691	1.517	0.012	1.314	0.074	4	0.06		0.00	298	2.94	45	0.71	28	0.49	10	0.30	14	9.03	0.66	0.66	0.66		0.060	0.992	0.525	34.0	43.0		42.0		6843	32550
25	7:00	19.0	1.553	1.360	0.010	1.258	0.058	8	0.12		0.00	348	3.84	19	0.34	15	0.27	6	0.19	15	12.40	0.66	0.66	0.66		0.058	0.889	0.471						0	0
26	7:00	8.2	0.573	0.538	0.000	0.482	0.031	8	0.33		0.00	160	4.46	22	0.98	17	0.80	7	0.57	6	9.35	0.66	0.66	0.66		0.026	0.352	0.186	66.0					2281	10850
27	7:00	10.0	0.690	0.526	0.008	0.565	0.021	6	0.21		0.00	126	3.59	17	0.78	13	0.52	6	0.42	11	25.38	0.66	0.66	0.66		0.016	0.344	0.182			122.0			2281	10850
28	7:00	9.3	0.611	0.576	0.005	0.515	0.040	7	0.27		0.00	144	3.75	22	0.92	15	0.66	10	0.77	9	10.69	0.66	0.66	0.66		0.026	0.376	0.200	51.0	91.0		90.0		6843	32550
29	7:00	14.5	0.978	0.655	0.012	0.867	0.042	15	0.37		0.00	334	7.64	48	1.76	31	0.81	14	0.64	14	16.15	0.66	0.66	0.66		0.032	0.428	0.227		33.0	47.0			4562	21700
30	7:00	20.3	1.564	1.349	0.009	1.240	0.069	19	0.29		0.00	406	4.51	67	1.19	36	0.66	22	0.70	16	11.19	0.66	0.66	0.66		0.059	0.882	0.467	33.0			35.0		4562	21700
31	7:00	21.4	1.708	1.501	0.012	1.425	0.081	19	0.27		0.00	414	4.13	50	0.80	37	0.59	89	2.47	23	13.56	0.66	0.66	0.66		0.067	0.981	0.520	36.0		45.0	32.0		6843	12550
Total		571.5	44.246	39.058	0.329	36.245	2.180	474	8.08	0	0	10738	129.72	1651	31.79	965	19.08	770	25.45	472	336.11					1.830	25.528	13.530	763	710	784	746		166533	772050
Ave.		18.4	1.427	1.260	0.011	1.169	0.070	15.3	0.26	#DIV/0!	0	346	4.18	53	1.03	31.1	0.62	24.8	0.82	15.2	10.84	0.66	0.66	0.66	#DIV/0!	0.059	0.823	0.436	38.2	37.4	60.3	35.5		5372.03	24904.8
Max		21.6	1.708	1.517	0.017	1.425	0.092	19.0	0.37	0	0	416	7.64	90	1.75737	39	0.81	97	3.20	23	25.38	0.66	0.66	0.66	0	0.078	0.992	0.525	66.0	91.0	122.0	90.0		9,124	43,400
Min		8.2	0.573	0.526	0.000	0.482	0.021	4.0	0.06	0	0	126	2.94	17	0.34	13	0.27	4	0.11	6	6.89	0.66	0.66	0.66	0	0.016	0.344	0.182	16.0	26.0	30.0	26.0		0	0

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 II 253419999

Date: 1/5/2023

Date Bacterials Sen 12/20/2022

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF PUBLIC WATER SUPPLIES

South Sangamon Water Commission - IL1670080

December 2022

Physical and Chemical Tests

	Raw						Pre UF Membrane				Post UF Membrane			Post IEX				Finished														Membrane Integrity		
																											Chlorine				Post Filter		
Date	pH	Temp	Total Alk.	Total Hard.	Total Fe	Total Mn	Turbidity	Total Fe	Total Mn	Soluble Mn	Total Fe	Total Mn	Turbidity	1	2	3	4	pH	Turbidity	Total Alk.	Total Hard.	Total Fe	Total Mn	Fluoride F	Ortho Phosphate	Free Ammonia	Mono-Chloramine	F	T	Distrbution				
		deg. C	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	NTU	Chloride mg/L	Chloride mg/L	Chloride mg/L	Chloride mg/L		NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/l	mg/l	mg/L	F mg/l	T mg/L	Bank 1 psi	Bank 2 psi	Bank 3 psi
			as CaCO3																	as CaCO3													
1	7.00	13.9	310	280	0.72	0.335			0.381	0.102	0.01	0.030	0.36					7.60	0.34	300	160	0.01	0.024	0.80	2.39	0.10	7.16	0.06	3.40					
2	7.00	14.0	300	315	0.45	0.213			0.327	0.091	0.01	0.057	0.33					7.70	0.30	300	100	0.01	0.041	0.71	2.36	0.07	7.86	0.05	3.58					
3	7.10	13.6	306	330	1.46	0.241			0.311	0.088	0.01	0.041	0.38					7.50	0.44	294	110	0.01	0.022	0.80	2.28	0.53	7.58	0.05	3.09					
4	7.10	13.9	320	342	0.68	0.240			0.364	0.153	0.01	0.109	0.32					7.80	0.25	292	100	0.01	0.020	0.83	2.35	0.22	7.69	0.04	3.28					
5	7.10	14.2	320	340	0.43	0.288			0.336	0.082	0.02	0.041	0.34					7.70	0.30	320	120	0.01	0.012	0.57	2.15	0.08	7.38	0.06	3.14					
6	7.00	14.2	310	310	1.70	0.282			0.425	0.166	0.01	0.104	0.36					7.60	0.29	310	140	0.01	0.011	0.64	2.53	0.19	7.90	0.06	3.90			pass		
7	6.90	15.7	320	342	1.70	0.294			0.416	0.266	0.01	0.103	0.38					7.40	0.31	312	130	0.01	0.018	0.78	2.58	0.14	8.11	0.05	3.20				pass	pass
8	7.10	14.1	320	345	1.09	0.188			0.337	0.070	0.01	0.045	0.29					7.60	0.27	320	140	0.01	0.032	0.59	2.09	0.12	7.64	0.06	3.54					
9	7.00	14.3	300	320	0.40	0.190			0.279	0.051	0.01	0.030	0.32					7.70	0.29	300	110	0.01	0.011	0.59	2.55	0.12	7.82	0.06	3.62					
10	7.00	14.1	300	330	0.45	0.198			0.312	0.072	0.01	0.034	0.36					7.70	0.32	300	100	0.01	0.021	0.56	2.15	0.11	7.60	0.05	3.40					
11	7.00	14.1	300	340	0.58	0.213			0.289	0.068	0.01	0.030	0.36					7.70	0.34	300	100	0.01	0.018	0.70	2.34	0.12	7.42	0.05	3.22					
12	7.00	13.9	310	330	0.41	0.220			0.297	0.088	0.01	0.046	0.38					7.70	0.32	300	120	0.01	0.009	0.72	2.19	0.06	7.38	0.05	2.94					
13	7.10	13.2	320	310	0.51	0.205			0.346	0.123	0.01	0.075	0.34					7.70	0.33	300	110	0.01	0.014	0.81	2.57	0.07	7.12	0.07	3.02					
14	7.10	14.4	300	340	1.08	0.301			0.397	0.161	0.01	0.030	0.32					7.60	0.30	300	130	0.01	0.006	0.55	2.43	0.05	6.50	0.09	3.22					
15	7.00	13.8	310	352	1.08	0.250			0.274	0.144	0.01	0.020	0.31					7.50	0.38	300	90	0.01	0.008	0.80	2.49	0.01	7.95	0.05	3.14					
16	7.00	13.6	320	352	2.15	0.271			0.315	0.072	0.01	0.022	0.29					7.50	0.32	292	100	0.01	0.004	0.83	2.51	0.03	7.62	0.05	3.11				pass	pass
17	7.10	13.5	320	346	1.71	0.264			0.320	0.088	0.01	0.024	0.28					7.50	0.32	296	100	0.01	0.008	0.81	2.44	0.05	7.82	0.06	3.08					
18	7.10	13.6	340	352	0.98	0.270			0.366	0.094	0.01	0.041	0.31					7.50	0.29	304	110	0.01	0.011	0.84	2.33	0.05	7.81	0.05	3.12					
19	7.10	13.5	300	320	0.37	0.297			0.279	0.152	0.01	0.043	0.36					7.70	0.33	300	140	0.01	0.014	0.43	2.22	0.01	6.15	0.05	3.70			pass		
20	7.10	13.9	310	340	0.65	0.299			0.439	0.161	0.01	0.076	0.38					7.60	0.34	300	120	0.01	0.026	0.72	2.60	0.01	7.53	0.09	2.92					
21	7.10	13.7	300	360	0.73	0.277			0.361	0.091	0.01	0.071	0.40					7.60	0.36	300	100	0.01	0.020	0.58	2.43	0.01	7.52	0.06	3.52					
22	7.20	13.6	320	365	3.43	0.308			0.304	0.072	0.01	0.020	0.38					7.60	0.32	300	130	0.01	0.008	0.78	2.38	0.01	6.97	0.06	3.24					pass
23	7.10	13.1	300	340	0.93	0.281			0.326	0.084	0.01	0.030	0.36					7.60	0.32	300	110	0.01	0.018	0.76	2.36	0.01	6.58	0.06	3.30				pass	
24	7.10	13.2	300	345	0.77	0.273			0.306	0.078	0.01	0.036	0.40					7.60	0.34	300	100	0.01	0.021	0.70	2.44	0.01	6.88	0.08	3.12					
25	7.00	13.2	300	360	0.54	0.245			0.320	0.109	0.01	0.040	0.38					7.70	0.36	300	100	0.01	0.036	0.78	2.39	0.01	6.43	0.06	3.06					
26	7.10	12.4	310	345	0.73	0.221			0.280	0.087	0.01	0.500	0.38					7.60	0.32	310	220	0.01	0.038	0.78	2.01	0.01	6.18	0.06	2.94					
27	7.20	11.8	310	360	0.54	0.322			0.496	0.140	0.01	0.182	0.46					7.70	0.35	300	310	0.01	0.031	0.68	4.03	0.01	6.62	0.09	2.56					
28	7.10	13.0	320	365	1.20	0.302			0.368	0.086	0.01	0.074	0.52					7.60	0.42	310	360	0.02	0.064	0.88	3.64	0.01	5.62	0.08	3.16					
29	7.20	14.4	310	360	0.53	0.227			0.337	0.107	0.01	0.078	0.48					7.60	0.40	310	200	0.01	0.033	0.70	2.43	0.01	7.19	0.05	3.24					
30	7.10	14.5	310	352	0.37	0.272			0.401	0.104	0.01	0.076	0.48					7.60	0.36	280	170	0.01	0.034	0.79	2.33	0.01	8.23	0.06	3.25					
31	7.10	13.6	302	360	0.39	0.168			0.270	0.060	0.02	0.051	0.40					7.60	0.31	310	160	0.01	0.026	0.88	2.21	0.02	8.11	0.05	3.06					
Ave.	7.07	13.7	310	340	0.93	0.257	#DIV/0!	#DIV/0!	0.341	0.107	0.01	0.070	0.37	#####	#####	#####	#####	7.62	0.33	302	138	0.01	0.021	0.72	2.46	0.07	7.30	0.06	3.23	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Max	7.20	15.7	340	365	3.43	0.335	0.00	0.00	0.496	0.266	0.02	0.500	0.52	0	0	0	0	7.80	0.44	320	360	0.02	0.064	0.88	4.03	0.53	8.23	0.09	3.90	0.00	0.00	0.00	0.00	0.00
Min	6.90	11.8	300	280	0.37	0.168	0.00	0.00	0.270	0.051	0.01	0.020	0.28	0	0	0	0	7.40	0.25	280	90	0.01	0.004	0.43	2.01	0.01	5.62	0.04	2.56	0.00	0.00	0.00	0.00	0.00

Lagoon Effluent Tests		pH	Temp	T Chlor	Mn	Fe	Chloiride	TSS
Monthly			°C	mg/l	mg/l	mg/l	mg/L	mg/L
Date	12/5/2022	7.5	10.4	0.01	0.197	0.27	369	<4

Distribution Stability Tests		pH	Temp	TDS	Alkalinity	Calcium	Chloiride	Sulfate
Every Two Weeks			°C	mg/L	mg/L as CaCO3		mg/L	mg/L
Date	12/19/2022	7.4	15.8	460	280		58	49
Date								
Date								

Remarks: