

Monthly Operating Report

June:2021



So. Sangamon
Water Commission
July 19th, 2021

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 June 2021.

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 June 2021, the plant pumped 51.143 million gallons from the well field and 45.486 million gallons of finished water. This is 20 million gallons more than June of 2020.

The SSWC plant has been removed from Critical Review status.

Operations. There was 1 emergency call-outs for the month. There were numerous customer inquiry for the month.

Maintenance and Repair. For the month of June 2021, there were 30 inspections, 3 preventative and 3 corrective maintenance activity completed.

Budget. Passed at April 19th 2021 meeting.

Capital Planning.

BOP CPU replacement

Chloramines Project

New Berlin Meter relocation.

Chatham emergency interconnect

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 June 2021.

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 June. 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 51.143 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.	7.5	15.6	2.90	.291	-	386	310	1.995
Min.	7.2	13.9	.02	.161	-	320	280	1.169
Avg.	7.4	14.9	.96	.211	-	359	297	1.705
Total	-	-	-	-	-	-	-	51.143

2.3 EFFLUENT CONCENTRATIONS

The facility filtered 45.486 MG during the month with a daily average of 1.516 MG and a min/max .921/ 1.822 MG.

Table 2.3 Finished Water Quality

	Free CL2	Total CL2	pH	Temp	Iron	Manganese	Fluoride	Hardness	Alkalinity	Phosphate
Max.	2.04	2.11	7.9		0.05	0.161	1.0	200	300	2.50
Min.	1.19	1.49	7.4		0.01	0.002	0.37	80	270	1.57
Avg.	1.64	1.81	7.8		0.02	0.025	0.72	136	284	1.93
MCL	-	-	-	-	1.00	-	4.00	-	-	-
SMCL	-	-	-	-	0.30	0.050	2.00	-	-	-

Finished Water Flow Comparison for FY 2020 -21

Time Period	2020-2021	2019-2020	2018-2019
June 2020- May 2021	423,546,630	347,187,763	3387,466,727
Increase for the same period last year	76.3 MG	- 40.2 MG	

FINISHED WATER PUMPING HISTORY						
	20-21	19-20	18-19	17-18	16-17	15-16
July	44,237,066	23,742,374	41,178,722	42,164,927	35,378,396	33,123,375
Aug	39,638,063	25,018,633	35,176,238	38,760,634	35,401,490	38,109,133
Sept	38,674,095	34,234,782	34,754,000	39,896,986	36,325,215	36,546,171
Oct	34,597,739	30,769,238	30,353,482	33,506,605	34,374,820	34,783,455
Nov	32,325,040	30,877,400	30,464,000	28,617,333	30,478,309	27,217,293
Dec	31,582,311	29,703,954	31,930,000	28,808,037	32,525,530	27,788,637
Jan	31,456,987	30,073,516	28,823,375	30,556,824	30,449,215	28,510,121
Feb	30,638,842	28,797,693	28,625,431	25,617,914	27,373,232	26,095,228
Mar	33,633,244	30,339,298	31,237,000	28,217,699	30,068,363	27,851,811
Apr	33,214,211	31,542,650	28,418,249	27,110,578	29,625,797	29,292,618
May	35,932,776	34,673,848	33,045,927	33,304,196	32,120,873	33,349,391
June	37,616,256	17,414,377	33,460,303	34,040,000	39,931,402	41,541,321
	-----	-----	-----	-----	-----	-----
Totals	423,546,630	347,187,763	387,466,727	390,601,733	394,052,642	384,208,554
Avg	1.15 MGD	.951 MGD	1.06 MGD	1.07 MGD	1.08 MGD	1.05 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)
June 8th, 2021						
Minimum	.03	.122	348	.04	7.8	<4
Maximum	.03	.122	348	.04	7.8	< 4
Average	.03	.122	348			<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 June 2021. 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 1 emergency call out for the month.

3.3 EMERGENCY CALL-OUTS

There was 1 emergency call out for the month of June

3.4 CUSTOMER INQUIRIES

There were numerous customer inquiries.

OTHER WORK PERFORMED

Trouble shooting all trains

Trouble shooting of CIP skid and CIP procedure

Inspected distribution mains

Added to customer info database

Inspected booster station

Flushed air system

Trouble shooting of Ion exchange system

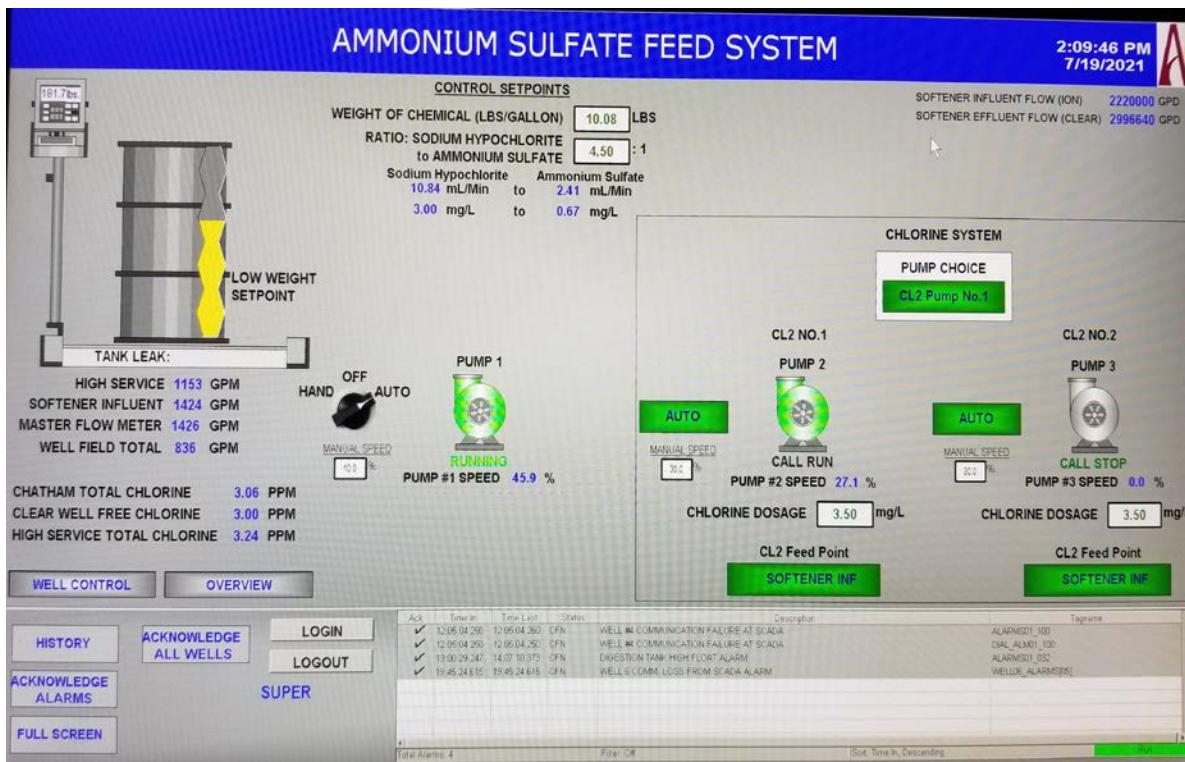
Replaced ion exchange valve actuator

Setup VPN

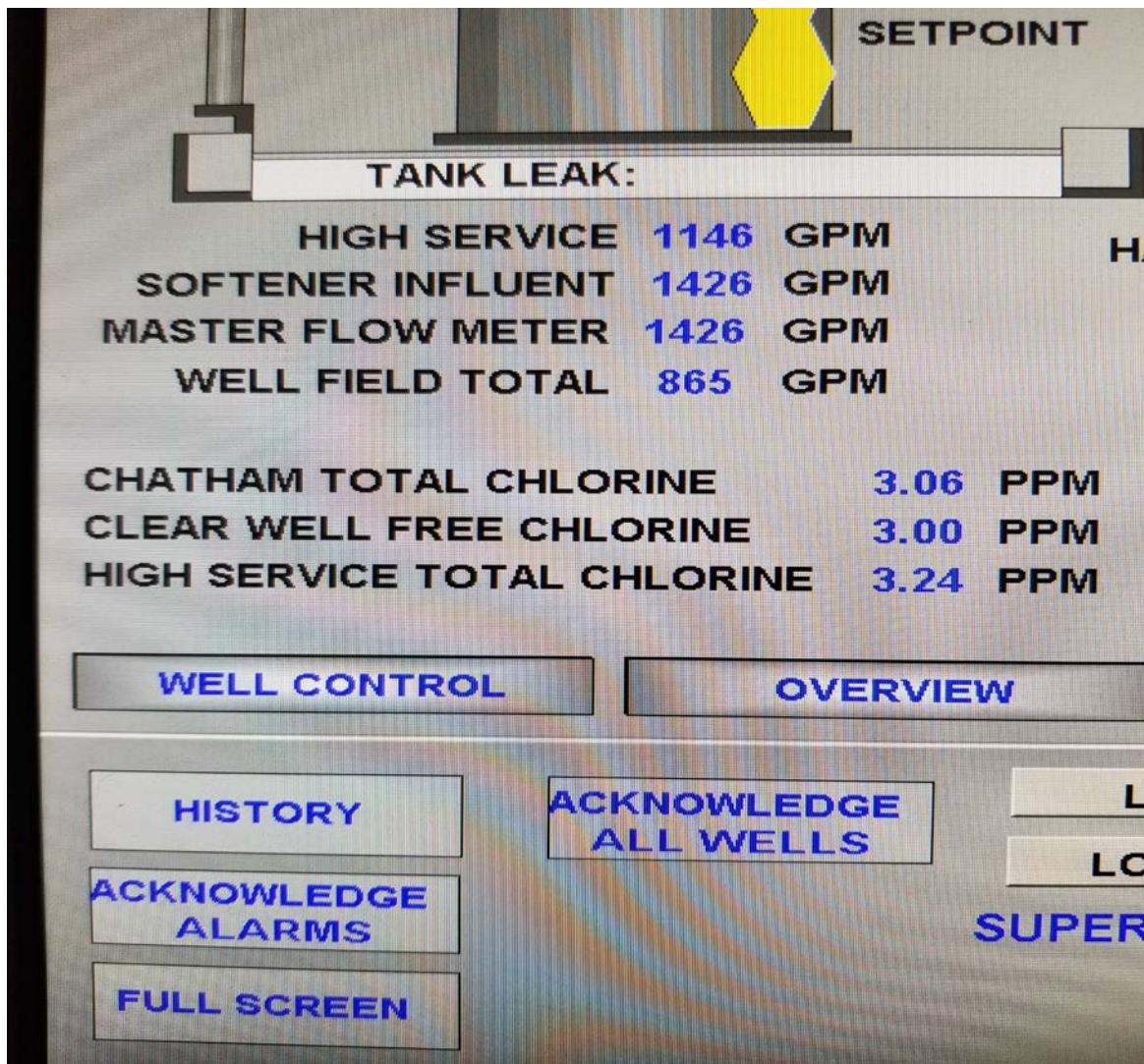
Replaced comm card in westech HMI



Brotke in the well field pulling a well to begin a clean. Well # 8 was cleaned in June and when completed was brought back to capacity



Ammonium Sulfate feed screen. On this screen staff can see the feed feed rates of both the ammonium sulfate and the chlorine.



The free chlorine that is used to calculate the ammonium sulfate feed rate and the total chlorine after creating Chloramines.

4. MAINTENANCE AND REPAIR

4.1 PREVENTATIVE AND PREDICTIVE MAINTENANCE

For the month of June 2021, there were 30 inspections, 3 preventative and 3 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

Worked with SCADAware to setup VPN and remote logins

Purged air control system

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 June 2021.

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

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

New Berlin Meter master meter relocation project is commencing. Engineering and relocation plans have been finalized. Awaiting ground breaking.

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

BOP CPU replace is in the planning phase

Benton and Assoc has initiated the planning phase of the Chatham Emergency interconnect. Construction permit has been approved and received. Construction has been postponed.

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. Investigating 2nd Toray filter train feasibility
2. Pricing onsite fuel storage tanks to alleviate tax costs and sustainability during emergencies.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF PUBLIC WATER SUPPLIES

South Sangamon Water Commission - IL1670080

June 2021

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF PUBLIC WATER SUPPLIES

MONTHLY IRON REMOVAL AND ION EXCHANGE SOFTENING REPORT

South Sangamon Water Commission - IL 1670080
June 2021

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Pumping Totals										Chemicals Applied										UF Filters										Softeners									
Time	Hours	Raw	Well	UF	Plant	HS	Lagoon	Sodium Permanganate	Amt	Sodium Bisulfite BW	Hypochlorite	Sodium Ammonium Sulfate	Fluorosilicic Acid	Phosphate	Sodium Bisulfite Pond	Hours since previous backwash	Wash Water	Water	Water	Each day indicate total number of hours since previous regeneration.	Regeneration																		
Date Meter Read	Filter Prod. (Mgal)	Filterd (Mgal)	Filtered (Mgal)	Pumpage (Mgal)	Water Pumpage (Mgal)	Used Calc mg/l as NaMnO4	Used Calc mg/l as Cl	Used Calc mg/l as NH3	Used Calc lbs.	Used Calc lbs.	Used Calc lbs.	Used Calc lbs.	Used Calc lbs.	Used Calc lbs.	Used Calc lbs.	Bank #	Gal.	Gal.	Gal.	Salt Washed																			
1	7:00	18.0	1591	1409	0.010	1,266	0.071	22	0.33	0.00	167	178	0.00	24	0.43	9	0.28	17	1152	0.66	0.066	0.921	0.488	1	2	3	4	2281	10859										
2	7:00	20.6	1702	1481	0.004	1,343	0.075	27	0.38	0.00	220	223	0.00	31	0.53	12	0.35	16	1018	0.66	0.066	0.961	0.968	42.0	109.0	45.0	45.0	45.0	6843	32550									
3	7:00	18.6	1685	1489	0.014	1,344	0.083	28	0.40	0.00	224	225	0.00	32	0.55	14	0.42	31	1800	0.66	0.066	0.973	0.556	47.0	147.0	32.0	45.0	45.0	45.0	21700									
4	7:00	16.9	1532	1322	0.011	1,253	0.083	32	0.50	0.00	260	295	0.00	36	0.65	24	0.76	23	1336	0.66	0.066	0.973	0.864	50.0	270.0	45.0	45.0	45.0	45.0	21700									
5	7:00	20.4	1835	1600	0.011	1,414	0.098	32	0.42	0.00	266	249	0.00	36	0.58	11	0.31	14	688	0.66	0.066	0.988	1.046	354.0	74.0	29.0	45.0	45.0	45.0	21700									
6	7:00	19.4	1884	1475	0.011	1,289	0.088	29	0.41	0.00	244	248	0.00	34	0.60	22	0.88	18	986	0.66	0.066	0.978	0.964	44.0	67.0	45.0	45.0	45.0	45.0	21700									
7	7:00	19.9	1783	1570	0.017	1,389	0.092	31	0.42	0.00	268	256	0.00	38	0.62	30	0.85	16	838	0.66	0.066	0.082	1.026	54.0	49.0	27.0	45.0	45.0	45.0	21700									
8	7:00	21.0	1739	1617	0.005	1,512	0.069	30	0.39	0.00	242	240	0.00	31	0.47	19	0.47	0.66	0.66	0.066	0.066	1.057	0.565	54.0	29.0	45.0	45.0	45.0	45.0	21700									
9	7:00	19.0	1644	1466	0.009	1,232	0.078	31	0.45	0.00	258	264	0.00	36	0.64	67	2.07	18	1110	0.66	0.066	0.073	0.958	50.0	74.0	47.0	47.0	47.0	47.0	21700									
10	7:00	20.5	1771	1548	0.005	1,405	0.099	16	0.22	0.00	216	209	0.00	31	0.50	70	1.97	18	869	0.66	0.066	0.085	1.012	3536	47.0	72.0	47.0	47.0	47.0	47.0	21700								
11	7:00	18.9	1664	1484	0.016	1,269	0.090	43	0.62	0.00	274	277	0.00	39	0.70	11	0.34	18	964	0.66	0.066	0.080	0.970	514.0	25.0	25.0	45.0	45.0	45.0	45.0	21700								
12	7:00	21.0	1819	1625	0.010	1,490	0.093	24	0.32	0.00	258	238	0.00	37	0.57	15	0.40	14	724	0.66	0.066	0.088	1.062	563.0	28.0	28.0	28.0	28.0	28.0	28.0	2281	10850							
13	7:00	21.2	1989	1692	0.006	1,455	0.094	39	0.50	0.00	268	288	0.00	42	0.68	18	0.49	18	929	0.66	0.066	0.089	1.047	555.0	28.0	28.0	28.0	28.0	28.0	28.0	2281	10850							
14	7:00	21.1	1867	1660	0.005	1,513	0.097	30	0.39	0.00	236	213	0.00	31	0.47	17	0.44	14	692	0.66	0.066	0.097	1.085	575.0	0.0	0.0	0.0	0.0	0.0	0.0	2281	10850							
15	7:00	20.5	1732	1624	0.005	1,414	0.092	36	0.46	0.00	280	256	0.00	40	0.64	23	0.64	23	1202	0.66	0.066	0.087	1.061	563.0	32.0	32.0	2281	2281	2281	2281	2281	2281	10850						
16	7:00	21.2	1952	1856	0.000	1,546	0.100	35	0.43	0.00	280	253	0.00	38	0.56	25	0.64	34	1631	0.66	0.066	0.100	1.082	574.0	0.0	0.0	0.0	0.0	0.0	0.0	2281	10850							
17	7:00	21.2	1938	1639	0.000	1,431	0.100	35	0.43	0.00	270	247	0.00	36	0.57	27	0.75	27	1300	0.66	0.066	0.090	1.071	568.0	186.0	186.0	186.0	186.0	186.0	186.0	2281	10850							
18	7:00	21.2	1983	1730	0.013	1,486	0.102	32	0.39	0.00	260	225	0.00	34	0.52	37	0.98	32	1508	0.66	0.066	0.097	1.131	589.0	78.0	2281	10850	2281	2281	2281	2281	2281	2281	10850					
19	7:00	17.7	1659	1449	0.005	1,352	0.090	29	0.42	0.00	236	244	0.00	31	0.52	53	1.55	25	1335	0.66	0.066	0.085	1.047	502.0	33.0	2281	10850	2281	2281	2281	2281	2281	2281	10850					
20	7:00	12.4	1169	1151	0.005	1,858	0.068	18	0.37	0.00	152	198	0.00	20	0.53	44	2.03	35	2476	0.66	0.066	0.083	0.752	389.0	69.0	2281	10850	2281	2281	2281	2281	2281	2281	10850					
21	7:00	12.6	178	1782	0.004	1,919	0.059	26	0.53	0.00	198	222	0.00	28	0.69	69	2.97	18	1474	0.66	0.066	0.087	1.062	319.0	233.0	42.0	45.0	45.0	45.0	21700									
22	7:00	18.5	1651	1433	0.011	1,394	0.082	37	0.53	0.00	420	399	0.00	48	0.80	38	0.63	11	0.31	35	2047	0.66	0.066	0.082	0.937	486.0	0.0	0.0	0.0	0.0	0.0	0.0	2281	10850					
23	7:00	20.0	1841	1825	0.004	1,486	0.094	30	0.39	0.00	366	338	90	1.33	35	0.54	12	0.32	27	1381	0.66	0.066	0.089	1.062	563.0	76.0	2281	10850	2281	2281	2281	2281	2281	2281	10850				
24	7:00	20.5	1722	1822	0.005	1,420	0.103	34	0.47	0.00	472	339	119	1.57	38	0.61	16	0.45	25	1169	0.66	0.066	0.083	1.031	589.0	31.0	31.0	45.0	45.0	45.0	45.0	21700							
25	7:00	21.1	1995	1741	0.009	1,440	0.100	28	0.34	0.00	350	301	86	1.18	30	0.47	13	0.36	22	1057	0.66	0.066	0.095	1.138	803.0	31.0	2281	10850	2281	2281	2281	2281	2281	2281	10850				
26	7:00	17.2	1518	1350	0.005	1,215	0.081	34	0.54	0.00	418	464	119	2.11	38	0.71	19	0.62	27	1603	0.66	0.066	0.076	0.882	446.0	32.0	2281	10850	2281	2281	2281	2281	2281	2281	10850				
27	7:00	15.8	1518	1302	0.005	1,230	0.073	20	0.32	0.00	450	386	84	1.55	23	0.43	13	0.42	14	920	0.66	0.066	0.073	0.851	451.0	0.0	0.0	0.0	0.0	0.0	0.0	2281	10850						
28	7:00	17.0	1636	1443	0.000	1,306	0.092	36	0.53	0.00	456	474	149	2.48	42	0.73	27	0.82	17	883	0.66	0.066	0.078	0.943	500.0	114.0	95.0	31.0	31.0	31.0	31.0	2281	10850						
29	7:00	21.0	1960	1702	0.013	1,550	0.144	34	0.42	0.00	432	380	144	2.03	39	0.57	32	0.82	27	1132	0.66	0.066	0.086	1.112	590.0	31.0	21.0	25.0	25.0	25.0	25.0	2281	10850						
30	7:00	14.0	1344	1550	0.013	1,031	0.086	15	0.27	0.00	168	162	53	0.82	15	0.33	18	0.69	16	803	0.66	0.066	0.086	1.013	537.0	21.0	36.0	45.0	45.0	45.0	45.0	21700							
31	7:00	14.0	1344	1550	0.013	1,031	0.086	0	0	0	#D/W@0	#D/W@0	#D/W@0	#D/W@0	#D/W@0	#D/W@0	#D/W@0	#D/W@0	638	#D/W@0	#D/W@0	#D/W@0	#D/W@0	#D/W@0	#D/W@0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	21700						
Total		565.4	51,143	45,486	0.231	40,244	2690	893	0	0	#D/W@0	#D/W@0	#D/W@0	#D/W@0	#D/W@0	#D/W@0	#D/W@0	0	103	#D/W@0	334	#D/W@0	35	#D/W@0	2474	29,729	15,757	712	562	714	722	10850							
Ave.		18.9	1705	1516	0.008	1,341	0.090	28.0	#D/W@0	#D/W@0	149	#D/W@0	42	#D/W@0	70	#D/W@0	0	0	0	0	0	0	0	0	64.7	93.7	89.3	36.0	3421.5	1825	10850								
Max		21.2	1985	1822	0.017	1,550	0.14	43.0	#D/W@0	0	0																												